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BOEING

Volume 7-5B
Final Report

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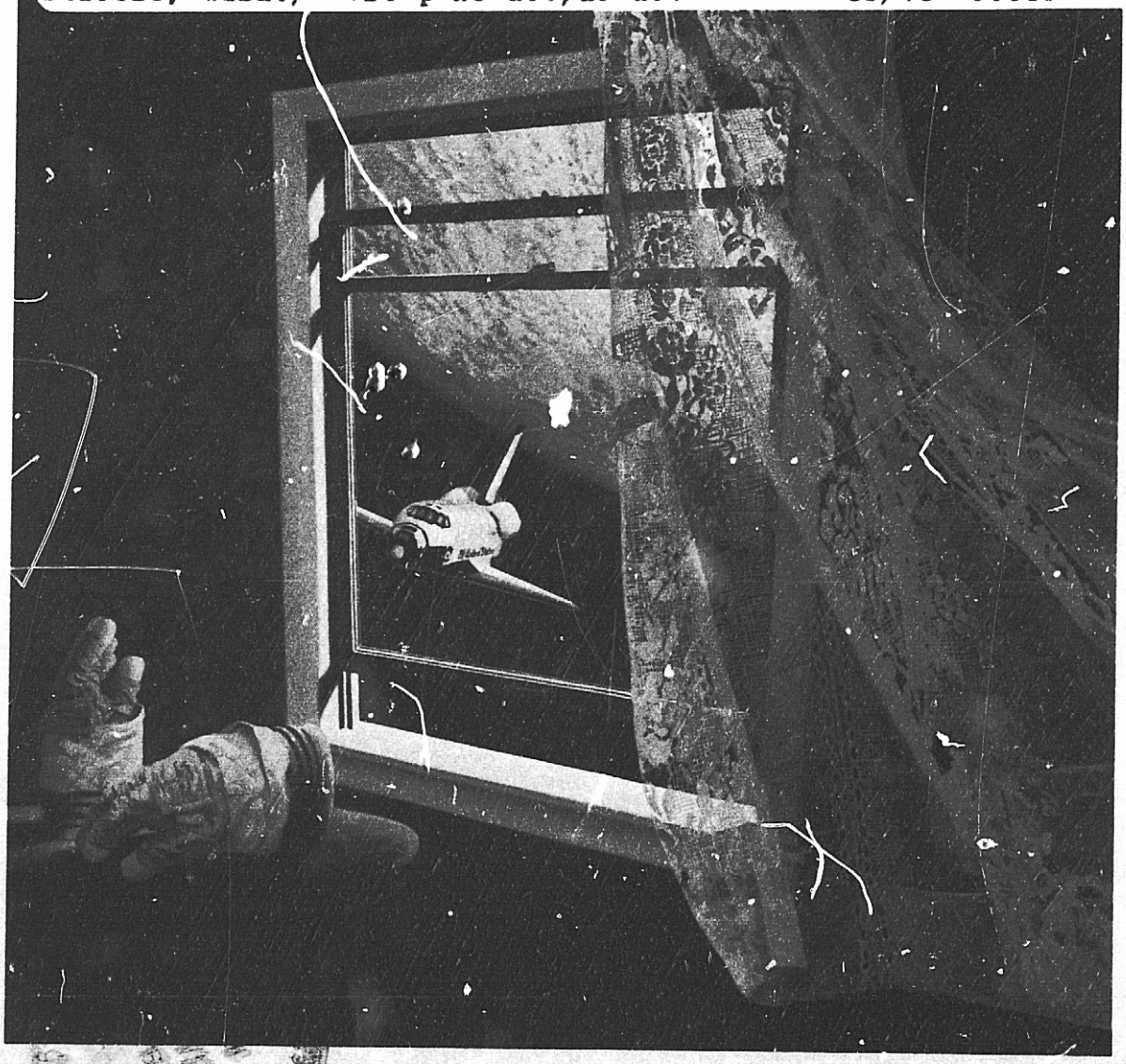
Data Book
D180-27477-7

Space Station Needs, Attributes, and Architectural Options Study

(NASA-CR-173711) SPACE STATION NEEDS, ATTRIBUTES AND ARCHITECTURAL OPTIONS STUDY. VOLUME 7-5B: DATA BOOK. MISSION ANALYSIS PART B Final Report (Boeing Aerospace Co., Seattle, Wash.) 720 p HC A99/MF A01 G3/18 00809

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Space Station
Needs, Attributes and Architectural Options Study

Contract NASW-3680

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Final Report

Volume 7 - 5B

Data Book

Mission Analysis Part B

April 21, 1983

for

National Aeronautics and Space Administration

Headquarters

Washington, D. C.

Approved by Gordon Woodcock

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Boeing Aerospace Company

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VOLUME 7-5B
DATA BOOK

Mission Analysis

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* PAYLOADS DATA SHEET ONE *
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NO.	CODE	NAME	ORBIT ALT	ORBIT INCL	DELTA V'S UP	DELTA V'S DOWN	DELTA V'S A/B	MASSES PAYLD	MASSES SUPT	MASSES RET	LENGTHS PAYLD	LENGTHS SUPT.	PAYLD DIA	POWER KW	INTER VOLUME	MANIF RESTR
1	S001	EARTH OBSERV PALLET	400.	98.0	0.	0.	0.	3.50	2.00	3.50	7.00	2.00	4.00	3.50	2.50	0
2	S002	SYNTH APERTURE RADAR	400.	98.0	0.	0.	0.	2.50	1.00	2.50	6.00	2.00	4.00	10.00	1.00	0
3	S003	HETERODYNING CO2 LIDAR	400.	98.0	0.	0.	0.	1.20	1.00	2.50	4.00	1.00	4.00	1.00	1.00	0
4	S004	UPPER ATMOS RESEARCH PKG	400.	98.0	0.	0.	0.	4.00	2.00	4.00	7.00	2.00	4.20	2.15	0.90	0
5	OT03	SPACE STATION MODULES	400.	98.0	0.	0.	0.	11.00	0.00	11.00	7.00	0.00	4.00	15.00	0.00	0
6	OT04	HI-INCL STATION RESUPPLY	400.	98.0	0.	0.	0.	8.00	0.00	8.00	6.00	0.00	4.40	1.00	0.00	0
7	SP01	SPACE SCIENCE SUBSATELLITE	400,	98.0	0.	0.	0.	2.40	1.00	2.40	4.00	1.00	4.00	0.00	0.00	0
8	SP02	SPACE PHYSICS PALLET	400.	98.0	0.	0.	0.	10.00	4.00	10.00	5.00	2.00	4.00	10.00	2.00	0
9	SA01	VLBI/COSMIC RAY PKG	400.	98.0	0.	0.	0.	10.00	2.00	10.00	9.00	3.00	4.00	2.00	1.00	0
10	SL08	RAD BIOLOGY IN SM MAMMALS	400.	98.0	0.	0.	0.	0.30	0.00	0.00	0.00	0.00	0.00	0.60	0.40	0
11	SL01	HUMAN LIFE SI CARRY-ONS	500.	29.0	0.	0.	0.	0.41	0.00	0.41	0.00	0.00	0.00	1.70	3.40	0
12	SL02	SMALL MAMMALS CARRY-ONS	500.	29.0	0.	0.	0.	1.58	0.00	0.00	0.00	0.00	0.00	4.00	3.40	0
13	SL03	PLANT DEVEL CARRY-ONS	500.	29.0	0.	0.	0.	0.14	0.00	0.00	0.00	0.00	0.00	0.50	1.00	0

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14	SL04	LIFESCIENCES RES FAC	500.	29.0	0.	0.	0.	5.56	3.00	5.56	7.00	2.00	4.40	12.20	0.00	3
15	SL05	CENTRIFUGE (ADD TO LSRF)	500.	29.0	0.	0.	0.	0.50	5.20	0.50	3.00	7.00	4.20	4.00	0.00	3
16	SL06	CLOSED ENV LSS EXPT MOD	500.	29.0	0.	0.	0.	3.30	2.00	3.30	5.00	2.00	4.20	9.70	0.00	3
17	CM01	MATLS SCIENCE LAB	500.	29.0	0.	0.	0.	12.00	4.00	12.00	7.00	2.00	4.00	25.00	0.00	0
18	CM02	CRYSTAL GROWTH FACTORY/PLAT	500.	29.0	0.	0.	0.	10.00	2.00	10.00	7.00	2.00	4.20	0.00	0.00	0
19	CM03	CRYSTAL GROWTH RESUP-1	500.	29.0	0.	0.	0.	4.00	1.00	4.00	2.00	4.00	2.00	0.00	0.00	0
20	CM04	CRYSTAL GROWTH RESUP-2	500.	29.0	0.	0.	0.	12.50	7.00	12.50	4.00	4.00	4.00	0.00	0.00	0
21	SA02	ASTRO TELESCOPE CLUSTER	500.	29.0	0.	0.	0.	20.00	5.00	20.00	12.00	3.00	4.00	4.00	2.00	0
22	SA03	ASTROPHYSICS FREE-FLYER	500.	29.0	0.	0.	0.	17.00	2.00	17.00	12.00	2.00	0.00	0.00	0.00	0
23	SA04	ASTROPHYSICS OBSERVATORIES	500.	29.0	0.	0.	0.	15.00	4.00	15.00	4.00	4.00	4.20	1.00	0.00	0
24	CC01	SUSS-CLASS COMSAT	500.	29.0	0.	0.	0.	7.00	0.00	0.00	4.50	0.00	4.20	0.00	0.00	0
25	CC02	INTELSAT-6A CLASS COMSAT	35786.	0.0	4300.	4300.	0.	1.80	0.00	0.00	4.00	0.00	4.20	0.00	0.00	0
26	CC03	INTELSAT-7,7A CLASS COMSAT	35786.	0.0	4300.	4300.	0.	5.00	0.00	0.00	6.00	0.00	4.20	0.00	0.00	0
27	CC04	MULTIBEAM COMM. SATELLITE	35786.	0.0	4300.	4300.	0.	5.00	2.00	0.00	8.00	3.00	4.40	0.00	0.00	0
28	CC05	RECONFIGURABLE COMM. SATELLITE	35786.	0.0	4300.	4300.	0.	1.80	0.20	0.00	4.40	2.00	4.00	0.00	0.00	0

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29	CM05	CONT FLOW ELEC-TROPH PLATFORM	500.	29.0	0.	0.	0.	7.00	2.00	7.00	6.00	2.00	4.20	0.00	0.00	0
30	CM06	CONTINUOUS FLOW ELECTRO RESUPP	500.	29.0	0.	0.	0.	25.00	2.00	25.00	12.00	2.00	4.20	2.00	0.00	0
31	CM07	GLASS PROC PLANT	500.	29.0	0.	0.	0.	15.00	5.00	15.00	10.00	2.00	4.20	10.60	0.00	0
32	CM08	GLASSPROC OPTICA LFIBERS RESUPP	500.	29.0	0.	0.	0.	25.00	2.00	25.00	12.00	2.00	4.20	0.00	0.00	0
33	OT01	LOW INCL STA MODULE DEL	500.	29.0	0.	0.	0.	22.00	0.00	22.00	14.00	0.00	4.20	20.00	0.00	3
34	OT02	LOW INCL STA RESUPPLY	500.	29.0	0.	0.	0.	15.00	0.00	15.00	8.00	0.00	4.20	0.00	0.00	3
35	OT05	HI-ALT STA RESUPPLY	500.	29.0	4546.	4546.	761.	6.00	0.00	5.00	4.00	0.00	4.20	0.00	0.00	0
36	TM01	CONSTR,STORAGE, & HANGAR	500.	29.0	0.	0.	0.	2.00	2.00	0.00	2.50	2.00	4.20	1.00	0.00	0
37	TP01	PROP TRANSFER & STORAGE	500.	29.0	0.	0.	0.	10.00	0.50	3.00	7.00	0.50	4.20	1.00	0.00	3
38	TP02	OTV MAINT TECH DEMOS	500.	29.0	0.	0.	0.	3.60	2.00	3.60	10.90	2.50	4.20	1.00	0.00	0
39	TS01	SATELLITE ASSY & SERVICE	500.	29.0	0.	0.	0.	2.60	2.00	2.60	7.90	2.50	4.20	1.00	0.00	0
40	TE01	LARGE POWER SYS TECHNOLOGY	500.	29.0	0.	0.	0.	1.20	0.10	1.20	2.00	2.00	4.20	0.00	0.00	0
41	TC01	ROBOTICS TECH DEMO	500.	29.0	0.	0.	0.	3.60	0.50	3.60	1.80	0.10	1.00	3.00	0.00	0
42	TM02	PRECISION OPT CONSTR & TEST	500.	29.0	0.	0.	0.	5.00	2.00	5.00	5.00	2.00	4.20	4.00	0.00	0
43	TM03	PASSIVE MICW RADIOMETER	500.	29.0	0.	0.	0.	3.00	3.00	3.00	13.50	2.50	4.20	4.00	0.00	0

44	TE02	LIQ DROPLET RADIATOR	500.	29.0	0.	0.	0.	3.60	0.50	3.60	10.00	1.00	2.00	2.00	0.00	0
45	TS02	TECH DEVEL CARRY-ONS	500.	29.0	0.	0.	0.	0.50	0.00	0.50	0.10	0.10	0.00	0.50	2.00	0
46	SA05	LARGE RADIO TELESCOPE	500.	29.0	0.	0.	0.	5.00	5.00	5.00	7.00	3.00	4.20	0.00	0.00	0

PAYLOADS DATA SHEET TWO

NO.	CODE	NAME	OPS CODE	POINT'G DIR	UP/DN	ON ORB	USED DAYS	TIMES SERV IVA	SERV EVA	EXPT OPS	SERV FREQ	LENGTH BEAM FAB	NO OF APP	NO OF MODULES
1	S001	EARTH OBSERV PALLET	SPCL	EARTH	2.0	0.0	300.0	16.0	16.0	150.0	1.0	0.0	5	1
2	S002	SYNTH APERTURE RADAR	SPCL	EARTH	2.0	0.0	10.0	2.0	2.0	5.0	1.0	0.0	2	1
3	S003	HETERODYNING CO2 LIDAR	SPXX	EARTH	2.0	0.0	50.0	2.0	5.0	5.0	2.0	0.0	0	0
4	S004	UPPER ATMOS RESEARCH PKG	SPCL	EARTH	2.0	0.0	200.0	35.0	19.0	145.0	2.0	0.0	2	1
5	OT03	SPACE STATION MODULES	SSSS	NONE	2.0	0.0	365.0	150.0	10.0	0.0	0.0	0.0	0	0
6	OT04	HI-INCL STATION RESUPPLY	SORS	NONE	2.0	0.0	365.0	0.0	0.0	0.0	0.0	0.0	0	0
7	SP01	SPACE SCIENCE SUBSATELLITE	FSXX	NONE	2.0	0.0	365.0	0.0	5.0	10.0	1.0	0.0	0	0
8	SP02	SPACE PHYSICS PALLET	SPCM	EARTH	2.0	0.0	36.0	17.0	14.0	54.0	2.0	0.0	20	3
9	SA01	VLBI/COSMIC RAY PKG	SPCL	INERT	2.0	0.0	365.0	8.0	9.0	67.0	2.0	0.0	2	0
10	SL08	RAD BIOLOGY IN SM MAMMALS	SSSA	NONE	2.0	0.0	365.0	16.0	0.0	30.0	4.0	0.0	0	0
11	SL01	HUMAN LIFE SI CARRY-ONS	SSSA	NONE	2.0	0.0	365.0	16.0	0.0	73.0	12.0	0.0	0	0
12	SL02	SMALL MAMMALS CARRY-ONS	SSSA	NONE	2.0	0.0	365.0	133.0	0.0	41.0	12.0	0.0	0	0
13	SL03	PLANT DEVEL	SSSA	NONE	2.0	0.0	365.0	27.5	0.0	14.0	12.0	0.0	0	0

CARRY-ONS

14	SL04	LIFESCIENCES RES FAC	SPXX	NONE	2.0	0.0	365.0	145.0	0.0	191.0	12.0	0.0	0	0
15	SL05	CENTRIFUGE (ADD TO LSRF)	SSCL	NONE	2.0	0.0	365.0	240.0	0.0	91.0	12.0	0.0	0	1
16	SL06	CLOSED ENV LSS EXPT MOD	SPCL	NONE	2.0	0.0	365.0	24.0	0.0	547.5	12.0	0.0	0	1
17	CM01	MATLS SCIENCE LAB	SPXX	NONE	2.0	0.0	130.0	60.0	0.0	300.0	4.0	0.0	0	0
18	CM02	CRYSTAL GROWTH FACTORY/PLAT	PMCL	NONE	2.0	0.0	365.0	5.0	4.0	0.0	4.0	0.0	0	1
19	CM03	CRYSTAL GROWTH RESUP-1	PMXX	NONE	2.0	0.0	2.0	2.0	2.0	0.0	3.0	0.0	0	1
20	CM04	CRYSTAL GROWTH RESUP-2	PMCL	NONE	2.0	0.0	2.0	2.0	2.0	0.0	4.0	0.0	0	1
21	SA02	ASTRO TELESCOPE CLUSTER	SPXX	INERT	2.0	0.0	365.0	17.0	6.0	65.0	4.0	0.0	0	0
22	SA03	ASTROPHYSICS FREE-FLYER	FMXM	NONE	2.0	0.0	365.0	0.0	2.0	72.0	1.0	0.0	0	0
23	SA04	ASTROPHYSICS OBSERVATORIES	FMXM	NONE	2.0	0.0	365.0	0.0	6.0	0.0	1.0	0.0	0	0
24	CC01	SUSS-CLASS COMSAT	FXXX	NONE	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0
25	CC02	INTELSAT-6A CLASS COMSAT	FXXX	NONE	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0
26	CC03	INTELSAT-7,7A CLASS COMSAT	FXCL	NONE	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	4	0
27	CC04	MULTIBEAM COMM. SATELLITE	SSCM	NONE	2.0	2.0	0.0	0.0	0.0	0.0	0.0	4.4	10	2
28	CC05	RECONFIGURABLE	FXCM	NONE	12.0	7.0	7.0	3.0	9.0	0.0	1.0	0.0	2	2

COMM. SATELLITE

29	CM05	CONT FLOW ELEC-TROPH PLATFORM	PMCL	NONE	2.0	0.0	365.0	0.0	4.0	300.0	0.0	0.0	0	1
30	CM06	CONTINUOUS FLOW ELECTRO RESUPP	PMXL	NONE	2.0	0.0	0.0	0.0	12.0	12.0	4.0	0.0	0	0
31	CM07	GLASS PROC PLANT	SPCL	NONE	2.0	0.0	365.0	90.0	10.0	50.0	4.0	0.0	0	0
32	CM08	GLASSPROC OPTICA LFIBERS RESUPP	SPCL	NONE	2.0	0.0	0.0	8.0	8.0	8.0	8.0	0.0	1	2
33	OT01	LOW INCL STA MODULE DEL	SSSS	NONE	2.0	0.0	365.0	150.0	10.0	0.0	0.0	0.0	0	0
34	OT02	LOW INCL STA RESUPPLY	SORS	NONE	2.0	0.0	365.0	0.0	0.0	0.0	0.0	0.0	0	0
35	OT05	HI-ALT STA RESUPPLY	OMSB	NONE	2.0	5.0	365.0	0.0	0.0	0.0	0.0	0.0	0	0
36	TM01	CONSTR,STORAGE, & HANGAR	SPCM	NONE	2.0	0.0	20.0	0.0	0.0	10.0	1.0	0.0	120	2
37	TP01	PROP TRANSFER & STORAGE	SPCL	NONE	4.0	0.0	20.0	0.0	0.0	10.0	1.0	0.0	0	1
38	TP02	OTV MAINT TECH DEMOS	SSCL	NONE	2.0	0.0	20.0	0.0	0.0	10.0	1.0	0.0	0	1
39	TS01	SATELLITE ASSY & SERVICE	SSCL	NONE	2.0	0.0	90.0	0.0	0.0	90.0	1.0	0.0	0	1
40	TE01	LARGE POWER SYS TECHNOLOGY	SSCL	NONE	2.0	0.0	80.0	0.0	0.0	80.0	1.0	0.0	0	2
41	TC01	ROBOTICS TECH DEMO	SSCM	NONE	2.0	0.0	90.0	0.0	0.0	90.0	1.0	0.0	0	0
42	TM02	PRECISION OPT CONSTR & TEST	SPCH	INERT	2.0	0.0	50.0	0.0	0.0	50.0	1.0	0.0	7	82
43	TM03	PASSIVE MICW	SPCM	EARTH	2.0	0.0	148.0	0.0	0.0	148.0	0.0	0.0	252	3

RADIOMETER

44	TE02	LIQ DROPLET RADIATOR	SPCL	INERT.	2.0	0.0	20.0	0.0	0.0	20.0	1.0	0.0	0	0
45	TS02	TECH DEVEL CARRY-ONS	SSSA	NONE	2.0	0.0	25.0	5.0	5.0	20.0	0.0	0.0	0	0
46	SA05	LARGE RADIO TELESCOPE	FMCH	NONE	2.0	0.0	365.0	5.0	5.0	5.0	1.0	0.0	0	0

NO.	KEY	PAYLOAD DESCRIPTION	MASS UP	MASS DOWN	LENGTH	DELTA V UP	DELTA V DOWN	A/B	CONSTR-UCTION	MANIFEST RESTRICT ON	TIME ORBIT
1	S001	EARTH OBSERV PALLET	3.50	3.50	7.00	0.	0.	0.	YES	0	2.0
2	S002	SYNTH APERTURE RADAR	2.50	2.50	6.00	0.	0.	0.	YES	0	2.0
3	S003	HETERODYNING CO2 LIDAR	1.20	2.50	4.00	0.	0.	0.	NO	0	2.0
4	S004	UPPER ATMOS RESEARCH PKG	4.00	4.00	7.00	0.	0.	0.	YES	0	2.0
5	OT03	SPACE STATION MODULES	11.00	11.00	7.00	0.	0.	0.	NO	0	2.0
6	OT04	HI-INCL STATION RESUPPLY	8.00	8.00	6.00	0.	0.	0.	NO	0	2.0
7	SP01	SPACE SCIENCE SUBSATELLITE	2.40	2.40	4.00	0.	0.	0.	NO	0	2.0
8	SP02	SPACE PHYSICS PALLET	10.00	10.00	5.00	0.	0.	0.	YES	0	2.0
9	S001	VLBI/COSMIC RAY PKG	10.00	10.00	9.00	0.	0.	0.	YES	0	2.0
10	SL08	RAD BIOLOGY IN SM MAMMALS	0.30	0.00	0.00	0.	0.	0.	NO	0	2.0
11	SL01	HUMAN LIFE SI CARRY-ONS	0.41	0.41	0.00	0.	0.	0.	NO	0	2.0
12	SL02	SMALL MAMMALS CARRY-ONS	1.58	0.00	0.00	0.	0.	0.	NO	0	2.0
13	SL03	PLANT DEVEL CARRY-ONS	0.14	0.00	0.00	0.	0.	0.	NO	0	2.0
14	SL04	LIFESCIENCES RES FAC	5.56	5.56	7.00	0.	0.	0.	NO	3	2.0

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NO.	KEY	PAYLOAD DESCRIPTION	MASS UP	MASS DOWN	LENGTH	DELTA V UP	DELTA V DOWN	A/B	CONSTR-UCTION	MANIFEST RESTRICT ON	TIME ORBIT
15	SL05	CENTRIFUGE (ADD TO LSRF)	0.50	0.50	3.00	0.	0.	0.	YES	3	2.0
16	SL06	CLOSED ENV LSS EXPT MOD	3.30	3.30	5.00	0.	0.	0.	YES	3	2.0
17	CM01	MATLS SCIENCE LAB	12.00	12.00	7.00	0.	0.	0.	NO	0	2.0
18	CM02	CRYSTAL GROWTH FACTORY/PLAT	10.00	10.00	7.00	0.	0.	0.	YES	0	2.0
19	CM03	CRYSTAL GROWTH RESUP-1	4.00	4.00	2.00	0.	0.	0.	NO	0	2.0
20	CM04	CRYSTAL GROWTH RESUP-2	12.50	12.50	4.00	0.	0.	0.	YES	0	2.0
21	SA02	ASTRO TELESCOPE CLUSTER	20.00	20.00	12.00	0.	0.	0.	NO	0	2.0
22	SA03	ASTROPHYSICS FREE-FLYER	17.00	17.00	12.00	0.	0.	0.	NO	0	2.0
23	SA04	ASTROPHYSICS OBSERVATORIES	15.00	15.00	4.00	0.	0.	0.	NO	0	2.0
24	CC01	SUSS-CLASS COMSAT	7.00	0.00	4.50	0.	0.	0.	NO	0	2.0
25	CC02	INTELSAT-6A CLASS COMSAT	1.80	0.00	4.00	4300.	4300.	0.	NO	0	2.0
26	CC03	INTELSAT-7,7A CLASS COMSAT	5.00	0.00	6.00	4300.	4300.	0.	YES	0	2.0
27	CC04	MULTIBEAM COMM. SATELLITE	5.00	0.00	8.00	4300.	4300.	0.	YES	0	2.0
28	CC05	RECONFIGURABLE COMM. SATELLITE	1.80	0.00	4.40	4300.	4300.	0.	YES	0	2.0

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NO.	KEY	PAYLOAD DESCRIPTION	MASS UP	MASS DOWN	LENGTH	DELTA V UP	DELTA V DOWN	DELTA V A/B	CONSTR-UCTION	MANIFEST RESTRICT ON	TIME ORBIT
29	CM05	CONT FLOW ELEC-TROPH PLATFORM	7.00	7.00	6.00	0.	0.	0.	YES	0	2.0
30	CM06	CONTINUOUS FLOW ELECTRO RESUPP	25.00	25.00	12.00	0.	0.	0.	NO	0	2.0
31	CM07	GLASS PROC PLANT	15.00	15.00	10.00	0.	0.	0.	YES	0	2.0
32	CM08	GLASSPROC OPTICA LFIBERS RESUPP	25.00	25.00	12.00	0.	0.	0.	YES	0	2.0
33	OT01	LOW INCL STA MODULE DEL	22.00	22.00	14.00	0.	0.	0.	NO	3	2.0
34	OT02	LOW INCL STA RESUPPLY	15.00	15.00	8.00	0.	0.	0.	NO	3	2.0
35	OT05	HI-ALT STA RESUPPLY	6.00	5.00	4.00	4546.	4546.	761.	NO	0	2.0
36	TM01	CONSTR,STORAGE, & HANGAR	2.00	0.00	2.50	0.	0.	0.	YES	0	2.0
37	TP01	PROP TRANSFER & STORAGE	10.00	3.00	7.00	0.	0.	0.	YES	3	2.0
38	TP02	OTV MAINT TECH DEMOS	3.60	3.60	10.90	0.	0.	0.	YES	0	2.0
39	TS01	SATELLITE ASSY & SERVICE	2.60	2.60	7.90	0.	0.	0.	YES	0	2.0
40	TE01	LARGE POWER SYS TECHNOLOGY	1.20	1.20	2.00	0.	0.	0.	YES	0	2.0
41	TC01	ROBOTICS TECH DEMO	3.60	3.60	1.80	0.	0.	0.	YES	0	2.0
42	TM02	PRECISION OPT CONSTR & TEST	5.00	5.00	5.00	0.	0.	0.	YES	0	2.0

43	TM03	PASSIVE MICW RADIOMETER	3.00	3.00	13.50	0.	0.	0.	YES	0	2.0
44	TE02	LIQ DROPLET RADIATOR	3.60	3.60	10.00	0.	0.	0.	YES	0	2.0
45	TS02	TECH DEVEL CARRY-ONS	0.50	0.50	0.10	0.	0.	0.	NO	0	2.0
46	SA05	LARGE RADIO TELESCOPE	5.00	5.00	7.00	0.	0.	0.	YES	0	2.0

FLIGHT SUPPORT TRAFFIC MODEL

NO.	KEY	PAYLOAD DESCRIPTION	TRAFFIC MODEL YEAR 90	91	92	93	94	95	96	97	98	99	0	1	2	3	4	5
1	SO01	EARTH OBSERV PALLET	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
2	SO02	SYNTH APERTURE RADAR	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3	SO03	HETERODYNING CO2 LIDAR	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
4	SO04	UPPER ATMOS RESEARCH PKG	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
5	OT03	SPACE STATION MODULES	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0
6	OT04	HI-INCL STATION RESUPPLY	0	0	0	0	0	1	2	2	2	2	2	2	2	2	2	2
7	SP01	SPACE SCIENCE SUBSATELLITE	0	0	0	0	0	0	0	0	0	0	1	0	-1	0	1	0
8	SP02	SPACE PHYSICS PALLET	0	0	0	0	0	0	0	1	0	0	0	-1	0	0	0	0
9	SA01	VLBI/COSMIC RAY PKG	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
10	SL08	RAD BIOLOGY IN SM MAMMALS	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	-1
11	SL01	HUMAN LIFE SI CARRY-ONS	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
12	SL02	SMALL MAMMALS CARRY-ONS	0	0	0	0	0	0	1	0	0	0	0	-1	0	0	0	0
13	SL03	PLANT DEVEL CARRY-ONS	0	0	1	0	0	0	0	0	0	0	-1	0	0	0	0	0
14	SL04	LIFESCIENCES RES FAC	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0

NO.	KEY	PAYLOAD DESCRIPTION	TRAFFIC MODEL YEAR 90	91	92	93	94	95	96	97	98	99	0	1	2	3	4	5
15	SL05	CENTRIFUGE (ADD TO LSRF)	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
16	SL06	CLOSED ENV LSS EXPT MOD	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
17	CM01	MATLS SCIENCE LAB	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
18	CM02	CRYSTAL GROWTH FACTORY/PLAT	0	0	0	1	0	1	0	1	0	1	0	1	0	1	0	0
19	CM03	CRYSTAL GROWTH RESUP-1	0	0	0	0	3	3	3	0	0	0	0	0	0	0	0	0
20	CM04	CRYSTAL GROWTH RESUP-2	0	0	0	0	0	0	0	3	4	5	5	6	6	6	6	6
21	SA02	ASTRO TELESCOPE CLUSTER	0	0	0	0	0	1	0	0	0	0	-1	0	0	1	0	0
22	SA03	ASTROPHYSICS FREE-FLYER	0	0	0	1	0	0	0	0	-1	0	0	1	0	0	0	0
23	SA04	ASTROPHYSICS OBSERVATORIES	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
26	CC03	INTELSAT-7,7A CLASS COMSAT	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2
27	CC04	MULTIBEAM COMM. SATELLITE	0	0	0	0	0	0	0	1	1	1	1	1	1	0	1	1
28	CC05	RECONFIGURABLE COMM. SATELLITE	0	0	0	0	0	0	1	1	1	1	2	3	4	4	4	4
29	CM05	CONT FLOW ELEC-TROPH PLATFORM	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0
30	CM06	CONTINUOUS FLOW ELECTRO RESUPP	0	0	0	1	4	4	5	7	9	11	12	14	16	17	20	20

NO.	KEY	PAYLOAD DESCRIPTION	TRAFFIC MODEL YEAR 90	91	92	93	94	95	96	97	98	99	0	1	2	3	4	5
33	OT01	LOW INCL STA MODULE DEL	1	1	1	1	1	0	0	1	1	1	0	0	0	0	0	0
34	OT02	LOW INCL STA RESUPPLY	0	2	4	4	4	4	4	4	8	8	8	8	8	8	8	8
35	OT05	HI-ALT STA RESUPPLY	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2
36	TM01	CONSTR,STORAGE, & HANGAR	0	1	-1	0	0	0	0	0	0	0	0	0	0	0	0	0
37	TP01	PROP TRANSFER & STORAGE	0	0	1	-1	0	0	0	0	0	0	0	0	0	0	0	0
38	TP02	OTV MAINT TECH DEMOS	0	0	0	1	-1	0	0	0	0	0	0	0	0	0	0	0
39	TS01	SATELLITE ASSY & SERVICE	0	0	0	0	1	-1	0	0	0	0	0	0	0	0	0	0
40	TE01	LARGE POWER SYS TECHNOLOGY	0	0	0	0	0	1	-1	0	0	0	0	0	0	0	0	0
41	TC01	ROBOTICS TECH DEMO	0	0	0	0	0	0	0	1	-1	0	0	0	0	0	0	0
42	TM02	PRECISION OPT CONSTR & TEST	0	0	0	0	0	0	0	0	0	0	1	-1	0	0	0	0
43	TM03	PASSIVE MICW RADIOMETER	0	0	0	0	0	0	0	0	0	0	0	0	1	-1	0	0
44	TE02	LIQ DROPLET RADIATOR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
45	TS02	TECH DEVEL CARRY-ONS	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	SA05	LARGE RADIO TELESCOPE	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

```
MODE =    2
SHUTTLE PLD =       29.480
PLD BAY LENGTH =       18.290
SHUTTLE CPF =       71.000
 STS TURNAROUND =          35.000 DAYS
OTV: INERT =        4.340    ISP =      475.000    LENGTH =       14.000    PROP =       33.000    ASE MASS =        2.500
OTV COST =       45.000
OTV IS AEROBRAKED

 TMS:  INERT=      1.500 CAB MASS=      3.000 ISP=    300.000 LENGTH=      1.100
SCAVENGING SIMULATED ON S/C LAUNCHES
TANKER & ASE INERT MASS =          3.500
TANKING EFFICIENCY =         0.950
MINI-TANKER MASS =        1.800            LENGTH =        6.051
CAPACITY=       16.000             CG =          2.048
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YEAR 1990

TMS MISSION SUMMARY

KEY	TITLE	CODE	TMS MISSION TYPE			NO.	PROP
			AUTO MAN	RET/DEPLOY	SELF-PROP	USES	RQD
OT01	LOW INCL STA	SSSS					
PAYLOAD	33 LOW INCL STA	MODULE DEL					

NO OTV REQD
SORTED H ARRAY

INDEX	#FLTS	MASS	LENGTH	INCLIN
33	1	22.00	14.00	29.00

MANIFESTING RECORD

NP	WT AV	LEN AV	*****MAIN P/L********* #	KEY	#FL	MASS	LEN	*****SEC P/L********* #	KEY	#FL	MASS	LEN	MC RQ	MF OK	SF MAN	DM	FLTS	CG	FRE LEN	FRE MASS

PROPELLANT NEEDED THIS YEAR = 0.
PROPELLANT LEFT FROM PRIOR YEAR = 0.
PROPELLANT DELIVERED BY MINITANKER = 0.
PROPELLANT DELIVERED BY ET SCAVENGING = 0.

MANIFEST #	KEY REF	DESCRIPTION	MATCHED WITH	NO. FLTS	OTV USED	OTV EXP	P/L BAY LENGTH	LAUNCH MASS	TIME ON ORBIT	SP STA OPERATION
1			CANT MANIF PLD	0	0	0	0.0	0.0	0.0	

** - MANIFESTED WITH MINITANKER

NO. OF SHUTTLE FLIGHTS 0
NO. OF TMS OPS 0
NO. OF MANNED TMS OPS 0
NO. OF SELF:PROP SAT SERV OPS 0
TMS & SATELLITE PROPELLANT USED 0.00
NO. OF OTV REUSE FLIGHTS 0
NO. OF OTVS EXPENDED 0
SPACE STATION FLT SERVICE OPS 0
SPACE STATION CONSTR OPS 0
SPACE STATION PROP XFER OPS 0
HLLV FLIGHTS 0
FLEET TIME ON ORBIT = 0.0 DAYS
TOTAL FLEET TIME = 0.0 DAYS
IDEAL MIN FLEET SIZE = 0.00 VEHICLES

YEAR 1991

TMS MISSION SUMMARY

KEY	TITLE	CODE	TMS MISSION TYPE AUTO MAN	RET/DEPLOY	SELF-PROP	NO. USES	PROP RQD
OT01	LOW INCL STA	SSSS					
OT02	LOW INCL STA	SORS					
TM01	CONSTR,STORAGE,	SPCM					
TS02	TECH DEVEL	SSSA					

THIS IS A SPACE STATION SPACE-AVAILABLE MISSION
NOT MANIFESTED ON TRANSPORTATION

PAYLOAD	33	LOW INCL STA	MODULE DEL
NO OTV REQD			
PAYLOAD	34	LOW INCL STA	RESUPPLY
NO OTV REQD			
PAYLOAD	36	CONSTR,STORAGE,	& HANGAR
NO OTV REQD			
PAYLOAD	45	TECH DEVEL	CARRY-ONS

THIS IS A SPACE STATION SPACE-AVAILABLE MISSION
NOT MANIFESTED ON TRANSPORTATION
SORTED H ARRAY

INDEX	#FLTS	MASS	LENGTH	INCLIN
33	1	22.00	14.00	29.00
34	2	15.00	8.00	29.00
36	1	2.00	2.50	29.00

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MANIFESTING RECORD

NP	WT AV	LEN AV	*****MAIN P/L***** #	KEY	#FL	MASS	LEN	*****SEC P/L***** #	KEY	#FL	MASS	LEN	MC	MF	SF	DM RQ	OK	FLTS MAN	CG	FRE LEN	FRE MASS
1	27.6	10.1	33	OT01	1	22.0	14.0	34	OT02	2	15.0	8.0	5	1	1	*		--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	36	TM01	1	2.0	2.5	5	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	2	15.0	8.0	36	TM01	1	2.0	2.5	5	1	1	*		--	--	--	--
PROPELLANT DELIVERED USING MINITANKER IS NOW											15.200										
1	27.6	16.2	36	TM01	0	2.0	2.5	--	--	--	--	--	8	1	1	*		1	27.4	13.7	7.8
2	27.6	16.2	33	OT01	1	22.0	14.0	34	OT02	2	15.0	8.0	5	0	0	*		--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	36	TM01	0	2.0	2.5	1	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	2	15.0	8.0	36	TM01	0	2.0	2.5	1	0	0	*		--	--	--	--
2	29.5	18.3	34	OT02	0	15.0	8.0	--	--	--	--	--	8	0	0	*		2	26.3	10.3	12.6

PROPELLANT NEEDED THIS YEAR = 0.
PROPELLANT LEFT FROM PRIOR YEAR = 0.
PROPELLANT DELIVERED BY MINITANKER = 15.
PROPELLANT DELIVERED BY ET SCAVENGING = 0.

MANIFEST #	KEY REF	DESCRIPTION	MATCHED WITH	NO. FLTS	OTV USED	OTV EXP	P/L BAY LENGTH	LAUNCH MASS	TIME ON ORBIT	SP STA OPERATION
1	TM01	**CONSTR,STORAGE & HANGAR		1	0	0	10.7	29.5	2.0	C
2			CANT MANIF PLD	0	0	0	0.0	0.0	0.0	
3	OT02	LOW INCL STA RESUPPLY		2	0	0	8.0	16.9	2.0	

** - MANIFESTED WITH MINITANKER

NO. OF SHUTTLE FLIGHTS 3
NO. OF TMS OPS 0
NO. OF MANNED TMS OPS 0
NO. OF SELF:PROP SAT SERV OPS 0
TMS & SATELLITE PROPELLANT USED 0.00
NO. OF OTV REUSE FLIGHTS 0
NO. OF OTVS EXPENDED 0
SPACE STATION FLT SERVICE OPS 0
SPACE STATION CONSTR OPS 1
SPACE STATION PROP XFER OPS 1
HLLV FLIGHTS 0
FLEET TIME ON ORBIT = 6.0 DAYS
TOTAL FLEET TIME = 111.0 DAYS
IDEAL MIN FLEET SIZE = 0.36 VEHICLES

YEAR 1992

TMS MISSION SUMMARY

KEY	TITLE	CODE	TMS MISSION TYPE AUTO	TMS MISSION TYPE MAN	TMS MISSION TYPE RET/DEPLOY	TMS MISSION TYPE SELF-PROP	NO. USES	PROP RQD
SL03	PLANT DEVEL	SSSA						
CM01	MATLS SCIENCE	SPXX						
SA04	ASTROPHYSICS	FMXM		X			1.0	0.4
OT01	LOW INCL STA	SSSS						
OT02	LOW INCL STA	SORS						
TP01	PROP TRANSFER	SPCL						
TS02	TECH DEVEL	SSSA						

THIS IS A SPACE STATION SPACE-AVAILABLE MISSION
NOT MANIFESTED ON TRANSPORTATION
PAYLOAD 13 PLANT DEVEL CARRY-ONS

THIS IS A SPACE STATION SPACE-AVAILABLE MISSION
NOT MANIFESTED ON TRANSPORTATION
PAYLOAD 17 MATLS SCIENCE LAB
NO OTV REQD
PAYLOAD 23 ASTROPHYSICS OBSERVATORIES
NO OTV REQD
PAYLOAD 33 LOW INCL STA MODULE DEL
NO OTV REQD
PAYLOAD 34 LOW INCL STA RESUPPLY
NO OTV REQD
PAYLOAD 36 CONSTR,STORAGE, & HANGAR
NO OTV REQD
PAYLOAD 37 PROP TRANSFER & STORAGE
NO OTV REQD
SORTED H ARRAY

INDEX	#FLTS	MASS	LENGTH	INCLIN
33	1	22.00	14.00	29.00
34	4	15.00	8.00	29.00
17	1	12.00	7.00	29.00
37	1	10.00	7.00	29.00
23	1	15.00	4.00	29.00
36	-1	2.00	2.50	29.00

MANIFESTING RECORD

NP	WT AV	LEN AV	*****MAIN P/L******** #	KEY	#FL	MASS	LEN	*****SEC P/L******** #	KEY	#FL	MASS	LEN	MC	MF	SF	DM RQ	DM OK	FLTS MAN	CG	FRE LEN	FRE MASS
2	27.6	16.2	33	OT01	1	22.0	14.0	34	OT02	4	15.0	8.0	5	0	0	*		--	---	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	17	CM01	1	12.0	7.0	5	0	0	*		--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	37	TP01	1	10.0	7.0	5	0	0	*		--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	23	SA04	1	15.0	4.0	5	0	0	*		--	--	--	--

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2	27.6	16.2	33	OT01	1	22.0	14.0	36	TM01	-1	2.0	2.5	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	17	GM01	1	12.0	7.0	7	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	37	TP01	1	10.0	7.0	7	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	23	SA04	1	15.0	4.0	6	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	36	TM01	-1	2.0	2.5	1	0	0	*	--	--	--	--
2	29.5	18.3	17	CM01	0	12.0	7.0	37	TP01	0	10.0	7.0	8	0	0		1	26.1	4.3	7.5
2	29.5	18.3	17	CM01	0	12.0	7.0	23	SA04	1	15.0	4.0	1	0	0		--	--	--	--
2	29.5	18.3	17	CM01	0	12.0	7.0	36	TM01	-1	2.0	2.5	1	0	0		--	--	--	--
2	29.5	18.3	23	SA04	1	15.0	4.0	36	TM01	-1	2.0	2.5	1	0	0		--	--	--	--

DOCKING MODULE ADDED

2	29.5	18.3	33	OT01	0	22.0	14.0	--	--	--	--	--	8	0	0	*	1	26.9	2.2	5.6

DOCKING MODULE ADDED

2	29.5	18.3	34	OT02	0	15.0	8.0	--	--	--	--	--	8	0	0	*	4	26.0	8.2	12.6

DOCKING MODULE ADDED

2	29.5	18.3	23	SA04	0	15.0	4.0	--	--	--	--	--	8	0	0	*	1	26.0	12.2	12.6

PROPELLANT NEEDED THIS YEAR = 0.
PROPELLANT LEFT FROM PRIOR YEAR = 15.
PROPELLANT DELIVERED BY MINITANKER = 0.
PROPELLANT DELIVERED BY ET SCAVENGING = 0.

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OF POOR QUALITY

MANIFEST #	KEY REF	DESCRIPTION	MATCHED WITH	NO. FLTS	OTV USED	OTV EXP	P/L BAY LENGTH	LAUNCH MASS	TIME ON ORBIT	SP STA OPERATION
1	CM01	MATLS SCIENCE LAB	PROP TRANSFER & STORAGE	1	0	0	14.0	22.0	4.0	FS
2	OT01	LOW INCL STA MODULE DEL		1	0	0	16.1	23.9	2.0	
3	OT02	LOW INCL STA RESUPPLY		4	0	0	10.1	16.9	2.0	
4	SA04	ASTROPHYSICS OBSERVATORIES		1	0	0	6.1	16.9	2.0	

** - MANIFESTED WITH MINITANKER

NO. OF SHUTTLE FLIGHTS 7
NO. OF TMS OPS 1
NO. OF MANNED TMS OPS 1
NO. OF SELF-PROP SAT SERV OPS 0
TMS & SATELLITE PROPELLANT USED 0.36
NO. OF OTV REUSE FLIGHTS 0
NO. OF OTVS EXPENDED 0
SPACE STATION FLT SERVICE OPS 1
SPACE STATION CONSTR OPS 1
SPACE STATION PROP XFER OPS 0
HLLV FLIGHTS 0
FLEET TIME ON ORBIT = 16.0 DAYS
TOTAL FLEET TIME = 261.0 DAYS
IDEAL MIN FLEET SIZE = 0.84 VEHICLES

ORIGINAL PAGE IS
OF POOR QUALITY

YEAR 1993

TMS MISSION SUMMARY

KEY	TITLE	CODE	TMS MISSION TYPE AUTO	MAN	RET/DEPLOY	SELF-PROP	NO. USES	PROP RQD
SL03	PLANT DEVEL	SSSA						
CM01	MATLS SCIENCE	SPXX						
CM02	CRYSTAL GROWTH	PMCL		X			4.0	0.4
SA03	ASTROPHYSICS	FMXM		X			1.0	0.4
SA04	ASTROPHYSICS	FMXM		X			1.0	0.4
CM05	CONT FLOW ELEC-	PMCL		X			0.0	0.4
CM06	CONTINUOUS FLOW	PMXL		X			4.0	0.4
OT01	LOW INCL STA	SSSS						
OT02	LOW INCL STA	SORS						
TP02	OTV MAINT TECH	SSCL						
TS02	TECH DEVEL	SSSA						

PAYLOAD 18 CRYSTAL GROWTH FACTORY/PLAT
NO OTV REQD
PAYLOAD 22 ASTROPHYSICS FREE-FLYER
NO OTV REQD
PAYLOAD 29 CONT FLOW ELEC- TROPH PLATFORM
NO OTV REQD
PAYLOAD 30 CONTINUOUS FLOW ELECTRO RESUPP
NO OTV REQD
PAYLOAD 33 LOW INCL STA MODULE DEL
NO OTV REQD
PAYLOAD 34 LOW INCL STA RESUPPLY
NO OTV REQD
PAYLOAD 37 PROP TRANSFER & STORAGE
NO OTV REQD
PAYLOAD 38 OTV MAINT TECH DEMOS
NO OTV REQD
SORTED H ARRAY

INDEX	#FLTS	MASS	LENGTH	INCLIN
33	1	22.00	14.00	29.00
22	1	17.00	12.00	29.00
30	1	25.00	12.00	29.00
38	1	3.60	10.90	29.00
34	4	15.00	8.00	29.00
18	1	10.00	7.00	29.00
37	-1	10.00	7.00	29.00
29	1	7.00	6.00	29.00
301	1	3.00	3.00	29.00
302	1	4.00	1.50	29.00

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MANIFESTING RECORD

NP	WT AV	LEN AV	******MAIN P/L******** #	KEY	#FL	MASS	LEN	******SEC P/L******** #	KEY	#FL	MASS	LEN	MC	MF	SF	DM RQ	DM OK	FLTS MAN	CG	FRE LEN	FRE MASS
2	27.6	16.2	33	OT01	1	22.0	14.0	22	SA03	1	17.0	12.0	5	0	0	*		--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	30	CM06	1	25.0	12.0	5	0	0	*		--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	38	TP02	1	3.6	10.9	5	0	0	*		--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	34	OT02	4	15.0	8.0	5	0	0	*		--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	18	CM02	1	10.0	7.0	5	0	0	*		--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	37	TP01	-1	10.0	7.0	1	0	0	*		--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	29	CM05	1	7.0	6.0	5	0	0	*		--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	301	TMS	1	3.0	3.0	5	0	0	*		--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	302	TMS	1	4.0	1.5	7	0	0	*		--	--	--	--
2	29.5	18.3	22	SA03	1	17.0	12.0	30	CM06	1	25.0	12.0	5	0	0			--	--	--	--
2	29.5	18.3	22	SA03	1	17.0	12.0	38	TP02	1	3.6	10.9	5	0	0			--	--	--	--
2	29.5	18.3	22	SA03	1	17.0	12.0	34	OT02	4	15.0	8.0	5	0	0			--	--	--	--
2	29.5	18.3	22	SA03	1	17.0	12.0	18	CM02	1	10.0	7.0	5	0	0			--	--	--	--
2	29.5	18.3	22	SA03	1	17.0	12.0	37	TP01	-1	10.0	7.0	1	0	0			--	--	--	--
2	29.5	18.3	22	SA03	1	17.0	12.0	29	CM05	1	7.0	6.0	7	0	0			--	--	--	--
2	29.5	18.3	22	SA03	0	17.0	12.0	301	TMS	0	3.0	3.0	8	0	0			1	25.7	3.3	9.5
2	29.5	18.3	22	SA03	0	17.0	12.0	302	TMS	1	4.0	1.5	1	0	0			--	--	--	--
2	29.5	18.3	30	CM06	1	25.0	12.0	38	TP02	1	3.6	10.9	5	0	0			--	--	--	--
2	29.5	18.3	30	CM06	1	25.0	12.0	34	OT02	4	15.0	8.0	5	0	0			--	--	--	--
2	29.5	18.3	30	CM06	1	25.0	12.0	18	CM02	1	10.0	7.0	5	0	0			--	--	--	--
2	29.5	18.3	30	CM06	1	25.0	12.0	37	TP01	-1	10.0	7.0	1	0	0			--	--	--	--
2	29.5	18.3	30	CM06	1	25.0	12.0	29	CM05	1	7.0	6.0	6	0	0			--	--	--	--
2	29.5	18.3	30	CM06	1	25.0	12.0	301	TMS	0	3.0	3.0	1	0	0			--	--	--	--
2	29.5	18.3	30	CM06	0	25.0	12.0	302	TMS	0	4.0	1.5	8	0	0			1	26.1	4.8	0.5
2	29.5	18.3	38	TP02	1	3.6	10.9	34	OT02	4	15.0	8.0	5	0	0			--	--	--	--
2	29.5	18.3	38	TP02	0	3.6	10.9	18	CM02	0	10.0	7.0	8	0	0			1	26.9	0.4	15.9
2	29.5	18.3	38	TP02	0	3.6	10.9	37	TP01	-1	10.0	7.0	1	0	0			--	--	--	--
2	29.5	18.3	38	TP02	0	3.6	10.9	29	CM05	1	7.0	6.0	1	0	0			--	--	--	--
2	29.5	18.3	38	TP02	0	3.6	10.9	301	TMS	0	3.0	3.0	1	0	0			--	--	--	--
2	29.5	18.3	38	TP02	0	3.6	10.9	302	TMS	0	4.0	1.5	1	0	0			--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	18	CM02	0	10.0	7.0	1	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	37	TP01	-1	10.0	7.0	1	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	3	15.0	8.0	29	CM05	0	7.0	6.0	8	0	0	*		1	25.8	2.2	5.6
2	27.6	16.2	34	OT02	3	15.0	8.0	301	TMS	0	3.0	3.0	1	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	3	15.0	8.0	302	TMS	0	4.0	1.5	1	0	0	*		--	--	--	--
2	29.5	18.3	34	OT02	0	15.0	8.0	--	--	--	--	--	8	0	0	*		3	26.3	10.3	12.6

PROPELLANT NEEDED THIS YEAR = 0.
PROPELLANT LEFT FROM PRIOR YEAR = 15.
PROPELLANT DELIVERED BY MINITANKER = 0.
PROPELLANT DELIVERED BY ET SCAVENGING = 0.

ORIGINAL PAGE IS
OF POOR QUALITY

MANIFEST #	KEY REF	DESCRIPTION	MATCHED WITH	NO. FLTS	OTV USED	OTV EXP	P/L BAY LENGTH	LAUNCH MASS	TIME ON ORBIT	SP STA OPERATION
1	SA03	ASTROPHYSICS FREE-FLYER	TMS CAB DELIVERY	1	0	0	15.0	20.0	2.0	FS
2	CM06	CONTINUOUS FLOW ELECTRO RESUPP	TMS PROP DELIV	1	0	0	13.5	29.0	2.0	FS
3	TP02	OTV MAINT TECH DEMOS	CRYSTAL GROWTH FACTORY/PLAT	1	0	0	17.9	13.6	4.0	FS
4	OT02	LOW INCL STA RESUPPLY	CONT FLOW ELEC-TROPH PLATFORM	1	0	0	16.1	23.9	4.0	FS
5			CANT MANIF PLD	0	0	0	0.0	0.0	0.0	
6	OT02	LOW INCL STA RESUPPLY		3	0	0	8.0	16.9	2.0	

** - MANIFESTED WITH MINITANKER

NO. OF SHUTTLE FLIGHTS 7
NO. OF TMS OPS 10
NO. OF MANNED TMS OPS 10
NO. OF SELF:PROP SAT SERV OPS 0
TMS & SATELLITE PROPELLANT USED 3.56
NO. OF OTV REUSE FLIGHTS 0
NO. OF OTVS EXPENDED 0
SPACE STATION FLT SERVICE OPS 4
SPACE STATION CONSTR OPS 2
SPACE STATION PROP XFER OPS 0
HLLV FLIGHTS 0
FLEET TIME ON ORBIT = 18.0 DAYS
TOTAL FLEET TIME = 263.0 DAYS
IDEAL MIN FLEET SIZE = 0.84 VEHICLES

ORIGINAL PAGE IS
OF POOR QUALITY

YEAR 1994

TMS MISSION SUMMARY

KEY	TITLE	CODE	TMS MISSION TYPE AUTO	MAN	RET/DEPLOY	SELF-PROP	NO. USES	PROP RQD
SL03	PLANT DEVEL	SSSA						
CM01	MATLS SCIENCE	SPXX						
CM02	CRYSTAL GROWTH	PMCL		X			4.0	0.4
CM03	CRYSTAL GROWTH	PMXX		X			3.0	0.4
SA03	ASTROPHYSICS	FMXM		X			1.0	0.4
SA04	ASTROPHYSICS	FMXM		X			1.0	0.4
CM05	CONT FLOW ELEC-	PMCL		X			0.0	0.4
CM06	CONTINUOUS FLOW	PMXL		X			4.0	0.4
OT01	LOW INCL STA	SSSS						
OT02	LOW INCL STA	SORS						
TS01	SATELLITE ASSY	SSCL						
TS02	TECH DEVEL	SSSA						

PAYLOAD 19 CRYSTAL GROWTH RESUP-1
NO OTV REQD
PAYLOAD 30 CONTINUOUS FLOW ELECTRO RESUPP
NO OTV REQD
PAYLOAD 33 LOW INCL STA MODULE DEL
NO OTV REQD
PAYLOAD 34 LOW INCL STA RESUPPLY
NO OTV REQD
PAYLOAD 38 OTV MAINT TECH DEMOS
NO OTV REQD
PAYLOAD 39 SATELLITE ASSY & SERVICE
NO OTV REQD
SORTED H ARRAY

INDEX	#FLTS	MASS	LENGTH	INCLIN
33	1	22.00	14.00	29.00
30	4	25.00	12.00	29.00
38	-1	3.60	10.90	29.00
34	4	15.00	8.00	29.00
39	1	2.60	7.90	29.00
301	1	3.00	3.00	29.00
19	3	4.00	2.00	29.00
302	2	4.00	1.50	29.00
300	1	1.50	1.10	29.00

MANIFESTING RECORD

ORIGINAL PAGE IS
OF POOR QUALITY

NP	WT AV	LEN AV	*****MAIN P/L********* #	KEY	#FL	MASS	LEN	*****SEC P/L********* #	KEY	#FL	MASS	LEN	MC	MF	SF	DM RQ	DM OK	FLTS MAN	CG	FRE LEN	FRE MASS
2	27.6	16.2	33	OT01	1	22.0	14.0	30	CM06	4	25.0	12.0	5	0	0	*		--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	38	TP02	-1	3.6	10.9	1	0	0	*		--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	34	OT02	4	15.0	8.0	5	0	0	*		--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	39	TS01	1	2.6	7.9	5	0	0	*		--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	301	TMS	1	3.0	3.0	5	0	0	*		--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	19	CM03	3	4.0	2.0	7	0	0	*		--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	302	TMS	2	4.0	1.5	7	0	0	*		--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	300	TMS	1	1.5	1.1	7	0	0	*		--	--	--	--
2	29.5	18.3	30	CM06	4	25.0	12.0	38	TP02	-1	3.6	10.9	1	0	0			--	--	--	--
2	29.5	18.3	30	CM06	4	25.0	12.0	34	OT02	4	15.0	8.0	5	0	0			--	--	--	--
2	29.5	18.3	30	CM06	4	25.0	12.0	39	TS01	1	2.6	7.9	5	0	0			--	--	--	--
2	29.5	18.3	30	CM06	3	25.0	12.0	301	TMS	0	3.0	3.0	8	0	0			1	26.1	3.3	1.5
2	29.5	18.3	30	CM06	0	25.0	12.0	19	CM03	0	4.0	2.0	8	0	0			3	25.9	4.3	0.5
2	29.5	18.3	30	CM06	0	25.0	12.0	302	TMS	2	4.0	1.5	1	0	0			--	--	--	--
2	29.5	18.3	30	CM06	0	25.0	12.0	300	TMS	1	1.5	1.1	1	0	0			--	--	--	--
2	27.6	16.2	34	OT02	3	15.0	8.0	39	TS01	0	2.6	7.9	8	0	0	*		1	26.6	0.3	10.0
2	27.6	16.2	34	OT02	3	15.0	8.0	301	TMS	0	3.0	3.0	1	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	3	15.0	8.0	19	CM03	0	4.0	2.0	1	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	1	15.0	8.0	302	TMS	0	4.0	1.5	8	0	0	*		2	27.1	6.7	8.6
2	27.6	16.2	34	OT02	0	15.0	8.0	300	TMS	0	1.5	1.1	8	0	0	*		1	27.2	7.1	11.1

PROPELLANT NEEDED THIS YEAR = 0.
PROPELLANT LEFT FROM PRIOR YEAR = 15.
PROPELLANT DELIVERED BY MINITANKER = 0.
PROPELLANT DELIVERED BY ET SCAVENGING = 0.

ORIGINAL PAGE IS
OF POOR QUALITY

MANIFEST #	KEY REF	DESCRIPTION	MATCHED WITH	NO. FLTS	OTV USED	OTV EXP	P/L BAY LENGTH	LAUNCH MASS	TIME ON ORBIT	SP STA OPERATION
1	CM06	CONTINUOUS FLOW ELECTRO RESUPP	TMS CAB DELIVERY	1	0	0	15.0	28.0	2.0	FS
2	CM06	CONTINUOUS FLOW ELECTRO RESUPP	CRYSTAL GROWTH RESUP-1	3	0	0	14.0	29.0	4.0	FS
3	OT02	LOW INCL STA RESUPPLY	SATELLITE ASSY & SERVICE	1	0	0	18.0	19.5	4.0	FS
4	OT02	LOW INCL STA RESUPPLY	TMS PROP DELIV	2	0	0	11.6	20.9	2.0	FS
5	OT02	LOW INCL STA RESUPPLY	TMS DELIVERY	1	0	0	11.2	18.4	2.0	FS
6			CANT MANIF PLD	0	0	0	0.0	0.0	2.0	

** - MANIFESTED WITH MINITANKER

NO. OF SHUTTLE FLIGHTS 8
NO. OF TMS OPS 13
NO. OF MANNED TMS OPS 13
NO. OF SELF:PROP SAT SERV OPS 0
TMS & SATELLITE PROPELLANT USED 4.63
NO. OF OTV REUSE FLIGHTS 0
NO. OF OTVS EXPENDED 0
SPACE STATION FLT SERVICE OPS 8
SPACE STATION CONSTR OPS 1
SPACE STATION PROP XFER OPS 0
HLLV FLIGHTS 0
FLEET TIME ON ORBIT = 24.0 DAYS
TOTAL FLEET TIME = 304.0 DAYS
IDEAL MIN FLEET SIZE = 0.97 VEHICLES

ORIGINAL PAGE IS
OF POOR QUALITY

YEAR 1995

TMS MISSION SUMMARY

KEY	TITLE	CODE	TMS MISSION TYPE AUTO	MAN	RET/DEPLOY	SELF-PROP	NO. USES	PROP RQD
OT03	SPACE STATION	SSSS						
OT04	HI-INCL STATION	SORS						
SL03	PLANT DEVEL	SSSA						
CM01	MATLS SCIENCE	SPXX						
CM02	CRYSTAL GROWTH	PMCL		X			4.0	0.4
CM03	CRYSTAL GROWTH	PMXX		X			3.0	0.4
SA02	ASTRO TELESCOPE	SPXX						
SA03	ASTROPHYSICS	FMXM		X			1.0	0.4
SA04	ASTROPHYSICS	FMXM		X			1.0	0.4
CM05	CONT FLOW ELEC-	PMCL		X			0.0	0.4
CM06	CONTINUOUS FLOW	PMXL		X			4.0	0.4
OT01	LOW INCL STA	SSSS						
OT02	LOW INCL STA	SORS						
TE01	LARGE POWER SYS	SSCL						
TS02	TECH DEVEL	SSSA						

PAYLOAD 5 SPACE STATION MODULES
NO OTV REQD
PAYLOAD 6 HI-INCL STATION RESUPPLY
NO OTV REQD
PAYLOAD 18 CRYSTAL GROWTH FACTORY/PLAT
NO OTV REQD
PAYLOAD 19 CRYSTAL GROWTH RESUP-1
NO OTV REQD
PAYLOAD 21 ASTRO TELESCOPE CLUSTER
NO OTV REQD
PAYLOAD 30 CONTINUOUS FLOW ELECTRO RESUPP
NO OTV REQD
PAYLOAD 34 LOW INCL STA RESUPPLY
NO OTV REQD
PAYLOAD 39 SATELLITE ASSY & SERVICE
NO OTV REQD
PAYLOAD 40 LARGE POWER SYS TECHNOLOGY
NO OTV REQD

SORTED H ARRAY

INDEX	#FLTS	MASS	LENGTH	INCLIN
21	1	20.00	12.00	29.00
30	4	25.00	12.00	29.00
34	4	15.00	8.00	29.00
39	-1	2.60	7.90	29.00

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OF POOR QUALITY

5	1	11.00	7.00	98.00
18	1	10.00	7.00	29.00
6	1	8.00	6.00	98.00
301	1	3.00	3.00	29.00
19	3	4.00	2.00	29.00
40	1	1.20	2.00	29.00
302	2	4.00	1.50	29.00

MANIFESTING RECORD

NP	WT AV	LEN AV	MAIN #	MAIN KEY	MAIN #FL	MAIN P/L MASS	MAIN P/L LEN	SEC #	SEC KEY	SEC #FL	SEC P/L MASS	SEC P/L LEN	MC	MF	SF	DM RQ	DM OK	FLTS MAN	CG	FRE LEN	FRE MASS
2	29.5	18.3	21	SA02	1	20.0	12.0	30	CM06	4	25.0	12.0	5	0	0			--	--	--	--
2	29.5	18.3	21	SA02	1	20.0	12.0	34	OT02	4	15.0	8.0	5	0	0			--	--	--	--
2	29.5	18.3	21	SA02	1	20.0	12.0	39	TS01	-1	2.6	7.9	1	0	0			--	--	--	--
2	29.5	18.3	21	SA02	1	20.0	12.0	5	OT03	1	11.0	7.0	4	0	0			--	--	--	--
2	29.5	18.3	21	SA02	1	20.0	12.0	18	CM02	1	10.0	7.0	5	0	0			--	--	--	--
2	29.5	18.3	21	SA02	1	20.0	12.0	6	OT04	1	8.0	6.0	4	0	0			--	--	--	--
2	29.5	18.3	21	SA02	0	20.0	12.0	301	TMS	0	3.0	3.0	8	0	0			1	25.9	3.3	6.5
2	29.5	18.3	21	SA02	0	20.0	12.0	19	CM03	3	4.0	2.0	1	0	0			--	--	--	--
2	29.5	18.3	21	SA02	0	20.0	12.0	40	TE01	1	1.2	2.0	1	0	0			--	--	--	--
2	29.5	18.3	21	SA02	0	20.0	12.0	302	TMS	2	4.0	1.5	1	0	0			--	--	--	--
2	29.5	18.3	30	CM06	4	25.0	12.0	34	OT02	4	15.0	8.0	5	0	0			--	--	--	--
2	29.5	18.3	30	CM06	4	25.0	12.0	39	TS01	-1	2.6	7.9	1	0	0			--	--	--	--
2	29.5	18.3	30	CM06	4	25.0	12.0	5	OT03	1	11.0	7.0	4	0	0			--	--	--	--
2	29.5	18.3	30	CM06	4	25.0	12.0	18	CM02	1	10.0	7.0	5	0	0			--	--	--	--
2	29.5	18.3	30	CM06	4	25.0	12.0	6	OT04	1	8.0	6.0	4	0	0			--	--	--	--
2	29.5	18.3	30	CM06	4	25.0	12.0	301	TMS	0	3.0	3.0	1	0	0			--	--	--	--
2	29.5	18.3	30	CM06	1	25.0	12.0	19	CM03	0	4.0	2.0	8	0	0			3	25.9	4.3	0.5
DOCKING MODULE ADDED																					
2	29.5	18.3	30	CM06	0	25.0	12.0	40	TE01	0	1.2	2.0	8	0	0		*	1	26.6	2.2	1.4
2	29.5	18.3	30	CM06	0	25.0	12.0	302	TMS	2	4.0	1.5	1	0	0			--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	39	TS01	-1	2.6	7.9	1	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	5	OT03	1	11.0	7.0	4	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	18	CM02	1	10.0	7.0	7	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	6	OT04	1	8.0	6.0	4	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	301	TMS	0	3.0	3.0	1	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	19	CM03	0	4.0	2.0	1	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	40	TE01	0	1.2	2.0	1	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	2	15.0	8.0	302	TMS	0	4.0	1.5	8	0	0	*		2	27.1	6.7	8.6
2	15.5	18.3	5	OT03	1	11.0	7.0	18	CM02	1	10.0	7.0	4	0	0			--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	6	OT04	1	8.0	6.0	6	0	0			--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	301	TMS	0	3.0	3.0	1	0	0			--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	19	CM03	0	4.0	2.0	1	0	0			--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	40	TE01	0	1.2	2.0	1	0	0			--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	302	TMS	0	4.0	1.5	1	0	0			--	--	--	--
2	29.5	18.3	18	CM02	1	10.0	7.0	6	OT04	1	8.0	6.0	4	0	0			--	--	--	--
2	29.5	18.3	18	CM02	1	10.0	7.0	301	TMS	0	3.0	3.0	1	0	0			--	--	--	--
2	29.5	18.3	18	CM02	1	10.0	7.0	19	CM03	0	4.0	2.0	1	0	0			--	--	--	--
2	29.5	18.3	18	CM02	1	10.0	7.0	40	TE01	0	1.2	2.0	1	0	0			--	--	--	--
2	29.5	18.3	18	CM02	1	10.0	7.0	302	TMS	0	4.0	1.5	1	0	0			--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	301	TMS	0	3.0	3.0	1	0	0			--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	19	CM03	0	4.0	2.0	1	0	0			--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	40	TE01	0	1.2	2.0	1	0	0			--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	302	TMS	0	4.0	1.5	1	0	0			--	--	--	--

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2	29.5	18.3	34	OT02	0	15.0	8.0	--	--	--	--	--	8	0	0	2	26.0	10.3	0.5
2	15.5	18.3	5	OT03	0	11.0	7.0	--	--	--	--	--	8	0	0	1	25.0	11.3	4.5
2	29.5	18.3	18	CM02	0	10.0	7.0	--	--	--	--	--	8	0	0	1	24.6	11.3	5.5
2	15.5	18.3	6	OT04	0	8.0	6.0	--	--	--	--	--	8	0	0	1	23.5	12.3	7.5

PROPELLANT NEEDED THIS YEAR = 0.
PROPELLANT LEFT FROM PRIOR YEAR = 15.
PROPELLANT DELIVERED BY MINITANKER = 0.
PROPELLANT DELIVERED BY ET SCAVENGING = 0.

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MANI-FEST #	KEY REF	DESCRIPTION	MATCHED WITH	NO. FLTS	OTV USED	OTV EXP	P/L BAY LENGTH	LAUNCH MASS	TIME ON ORBIT	SP STA OPERATION
1	SA02	ASTRO TELESCOPE CLUSTER	TMS CAB DELIVERY	1	0	0	15.0	23.0	2.0	FS
2	CM06	CONTINUOUS FLOW ELECTRO RESUPP	CRYSTAL GROWTH RESUP-1	3	0	0	14.0	29.0	4.0	FS
3	CM06	CONTINUOUS FLOW ELECTRO RESUPP	LARGE POWER SYS TECHNOLOGY	1	0	0	16.1	28.1	4.0	FS
4	OT02	LOW INCL STA RESUPPLY	TMS PROP DELIV	2	0	0	11.6	20.9	2.0	FS
5	OT02	LOW INCL STA RESUPPLY		2	0	0	8.0	15.0	2.0	FS
6	OT03	SPACE STATION MODULES		1	0	0	7.0	11.0	2.0	
7	CM02	CRYSTAL GROWTH FACTORY/PLAT		1	0	0	7.0	10.0	2.0	C
8	OT04	HI-INCL STATION RESUPPLY		1	0	0	6.0	8.0	2.0	

** - MANIFESTED WITH MINITANKER

NO. OF SHUTTLE FLIGHTS 12
NO. OF TMS OPS 13
NO. OF MANNED TMS OPS 13
NO. OF SELF-PROP SAT SERV OPS 0
TMS & SATELLITE PROPELLANT USED 4.63
NO. OF OTV REUSE FLIGHTS 0
NO. OF OTVS EXPENDED 0
SPACE STATION FLT SERVICE OPS 7
SPACE STATION CONSTR OPS 2
SPACE STATION PROP XFER OPS 0
HLLV FLIGHTS 0
FLEET TIME ON ORBIT = 32.0 DAYS
TOTAL FLEET TIME = 452.0 DAYS
IDEAL MIN FLEET SIZE = 1.45 VEHICLES

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YEAR 1996

TMS MISSION SUMMARY

KEY	TITLE	CODE	TMS MISSION TYPE AUTO	MAN	RET/DEPLOY	SELF-PROP	NO. USES	PROP RQD
OT03	SPACE STATION	SSSS						
OT04	HI-INCL STATION	SORS						
SA01	VLBI/COSMIC	SPCL						
SL01	HUMAN LIFE SI	SSSA						
SL02	SMALL MAMMALS	SSSA						
SL03	PLANT DEVEL	SSSA						
CM01	MATLS SCIENCE	SPXX						
CM02	CRYSTAL GROWTH	PMCL		X			4.0	0.4
CM03	CRYSTAL GROWTH	PMXX		X			3.0	0.4
SA02	ASTRO TELESCOPE	SPXX						
SA03	ASTROPHYSICS	FMXM		X			1.0	0.4
SA04	ASTROPHYSICS	FMXM		X			1.0	0.4
CC03	INTELSAT-7,7A	FXCL						
CC05	RECONFIGURABLE	FXCM						
CM05	CONT FLOW ELEC-	PMCL		X			0.0	0.4
CM06	CONTINUOUS FLOW	PMXL		X			4.0	0.4
OT01	LOW INCL STA	SSSS						
OT02	LOW INCL STA	SORS						
TS02	TECH DEVEL	SSSA						

THIS IS A SPACE STATION SPACE-AVAILABLE MISSION
NOT MANIFESTED ON TRANSPORTATION

THIS IS A SPACE STATION SPACE-AVAILABLE MISSION
NOT MANIFESTED ON TRANSPORTATION
PAYLOAD 5 SPACE STATION MODULES
NO OTV REQD
PAYLOAD 6 HI-INCL STATION RESUPPLY
NO OTV REQD
PAYLOAD 9 VLBI/COSMIC RAY PKG
NO OTV REQD
PAYLOAD 11 HUMAN LIFE SI CARRY-ONS

THIS IS A SPACE STATION SPACE-AVAILABLE MISSION
NOT MANIFESTED ON TRANSPORTATION

PAYLOAD 12 SMALL MAMMALS CARRY-ONS

THIS IS A SPACE STATION SPACE-AVAILABLE MISSION
NOT MANIFESTED ON TRANSPORTATION
PAYLOAD 19 CRYSTAL GROWTH RESUP-1
NO OTV REQD
PAYLOAD 26 INTELSAT-7,7A CLASS COMSAT
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 14.170
PAYLOAD 28 RECONFIGURABLE COMM. SATELLITE
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 9.315
PAYLOAD 29 CONT FLOW ELEC- TROPH PLATFORM
NO OTV REQD
PAYLOAD 30 CONTINUOUS FLOW ELECTRO RESUPP
NO OTV REQD
PAYLOAD 34 LOW INCL STA RESUPPLY
NO OTV REQD
PAYLOAD 40 LARGE POWER SYS TECHNOLOGY
NO OTV REQD
SORTED H ARRAY

INDEX	#FLTS	MASS	LENGTH	INCLIN
30	5	25.00	12.00	29.00
9	1	10.00	9.00	98.00
34	4	15.00	8.00	29.00
5	1	11.00	7.00	98.00
6	2	8.00	6.00	98.00
26	1	5.00	6.00	0.00
29	1	7.00	6.00	29.00
28	1	1.80	4.40	0.00
301	2	3.00	3.00	29.00
19	3	4.00	2.00	29.00
40	-1	1.20	2.00	29.00
302	2	4.00	1.50	29.00
300	1	1.50	1.10	29.00

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MANIFESTING RECORD

NP	WT AV	LEN AV	*****MAIN P/L******** #	KEY	#FL	MASS	LEN	*****SEC P/L******** #	KEY	#FL	MASS	LEN	MC	MF	SF	DM RQ	DM OK	FLTS MAN	CG	FRE LEN	FRE MASS
1	27.6	10.1	30	CM06	5	25.0	12.0	9	SA01	1	10.0	9.0	4	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	5	25.0	12.0	34	OT02	4	15.0	8.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	5	25.0	12.0	5	OT03	1	11.0	7.0	4	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	5	25.0	12.0	6	OT04	2	8.0	6.0	4	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	5	25.0	12.0	26	CC03	1	5.0	6.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	5	25.0	12.0	29	CM05	1	7.0	6.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	5	25.0	12.0	28	CC05	1	1.8	4.4	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	5	25.0	12.0	301	TMS	2	3.0	3.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	5	25.0	12.0	19	CM03	3	4.0	2.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	5	25.0	12.0	40	TE01	-1	1.2	2.0	1	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	5	25.0	12.0	302	TMS	2	4.0	1.5	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	5	25.0	12.0	300	TMS	1	1.5	1.1	5	1	1	*		--	--	--	--
1	15.5	18.3	9	SA01	1	10.0	9.0	34	OT02	4	15.0	8.0	4	0	0			--	--	--	--
1	15.5	18.3	9	SA01	1	10.0	9.0	5	OT03	1	11.0	7.0	6	0	0			--	--	--	--
1	15.5	18.3	9	SA01	1	10.0	9.0	6	OT04	2	8.0	6.0	6	0	0			--	--	--	--
1	15.5	18.3	9	SA01	1	10.0	9.0	26	CC03	1	5.0	6.0	4	0	0			--	--	--	--

1	15.5	18.3	9	SA01	1	10.0	9.0	29	CM05	1	7.0	6.0	4	0	0		--	--	--	--
1	15.5	18.3	9	SA01	1	10.0	9.0	28	CC05	1	1.8	4.4	4	0	0		--	--	--	--
1	15.5	18.3	9	SA01	1	10.0	9.0	301	TMS	2	3.0	3.0	4	0	0		--	--	--	--
1	15.5	18.3	9	SA01	1	10.0	9.0	19	CM03	3	4.0	2.0	4	0	0		--	--	--	--
1	15.5	18.3	9	SA01	1	10.0	9.0	40	TE01	-1	1.2	2.0	1	0	0		--	--	--	--
1	15.5	18.3	9	SA01	1	10.0	9.0	302	TMS	2	4.0	1.5	4	0	0		--	--	--	--
1	15.5	18.3	9	SA01	1	10.0	9.0	300	TMS	1	1.5	1.1	4	0	0		--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	5	OT03	1	11.0	7.0	4	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	26	CC03	1	5.0	6.0	5	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	29	CM05	1	7.0	6.0	5	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	28	CC05	1	1.8	4.4	5	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	301	TMS	2	3.0	3.0	5	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	19	CM03	3	4.0	2.0	7	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	40	TE01	-1	1.2	2.0	1	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	302	TMS	2	4.0	1.5	7	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	300	TMS	1	1.5	1.1	7	1	1	*	--	--	--	--
1	15.5	18.3	5	OT03	1	11.0	7.0	6	OT04	2	8.0	6.0	6	0	0		--	--	--	--
1	15.5	18.3	5	OT03	1	11.0	7.0	26	CC03	1	5.0	6.0	4	0	0		--	--	--	--
1	15.5	18.3	5	OT03	1	11.0	7.0	29	CM05	1	7.0	6.0	4	0	0		--	--	--	--
1	15.5	18.3	5	OT03	1	11.0	7.0	28	CC05	1	1.8	4.4	4	0	0		--	--	--	--
1	15.5	18.3	5	OT03	1	11.0	7.0	301	TMS	2	3.0	3.0	4	0	0		--	--	--	--
1	15.5	18.3	5	OT03	1	11.0	7.0	19	CM03	3	4.0	2.0	4	0	0		--	--	--	--
1	15.5	18.3	5	OT03	1	11.0	7.0	40	TE01	-1	1.2	2.0	1	0	0		--	--	--	--
1	15.5	18.3	5	OT03	1	11.0	7.0	302	TMS	2	4.0	1.5	4	0	0		--	--	--	--
1	15.5	18.3	5	OT03	1	11.0	7.0	300	TMS	1	1.5	1.1	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	26	CC03	1	5.0	6.0	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	29	CM05	1	7.0	6.0	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	28	CC05	1	1.8	4.4	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	301	TMS	2	3.0	3.0	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	19	CM03	3	4.0	2.0	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	40	TE01	-1	1.2	2.0	1	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	302	TMS	2	4.0	1.5	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	300	TMS	1	1.5	1.1	4	0	0		--	--	--	--
1	27.6	10.1	26	CC03	1	5.0	6.0	29	CM05	1	7.0	6.0	5	1	1	*	--	--	--	--
1	27.6	10.1	26	CC03	1	5.0	6.0	28	CC05	1	1.8	4.4	5	1	1	*	--	--	--	--
PROPELLANT DELIVERED USING MINITANKER IS NOW											15.200												
1	27.6	10.1	26	CC03	0	5.0	6.0	301	TMS	1	3.0	3.0	8	1	1	*	1	27.1	1.1	1.8
2	29.5	18.3	30	CM06	5	25.0	12.0	9	SA01	1	10.0	9.0	4	0	0		--	--	--	--
2	29.5	18.3	30	CM06	5	25.0	12.0	34	OT02	4	15.0	8.0	5	0	0		--	--	--	--
2	29.5	18.3	30	CM06	5	25.0	12.0	5	OT03	1	11.0	7.0	4	0	0		--	--	--	--
2	29.5	18.3	30	CM06	5	25.0	12.0	6	OT04	2	8.0	6.0	4	0	0		--	--	--	--
2	29.5	18.3	30	CM06	5	25.0	12.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	5	25.0	12.0	29	CM05	1	7.0	6.0	6	0	0		--	--	--	--
2	29.5	18.3	30	CM06	4	25.0	12.0	28	CC05	0	1.8	4.4	8	0	0		1	26.3	1.9	2.7
2	29.5	18.3	30	CM06	3	25.0	12.0	301	TMS	0	3.0	3.0	8	0	0		1	26.1	3.3	1.5
2	29.5	18.3	30	CM06	0	25.0	12.0	19	CM03	0	4.0	2.0	8	0	0		3	25.9	4.3	0.5
2	29.5	18.3	30	CM06	0	25.0	12.0	40	TE01	-1	1.2	2.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	0	25.0	12.0	302	TMS	2	4.0	1.5	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	0	25.0	12.0	300	TMS	1	1.5	1.1	1	0	0		--	--	--	--
2	15.5	18.3	9	SA01	1	10.0	9.0	34	OT02	4	15.0	8.0	4	0	0		--	--	--	--
2	15.5	18.3	9	SA01	1	10.0	9.0	5	OT03	1	11.0	7.0	6	0	0		--	--	--	--
2	15.5	18.3	9	SA01	1	10.0	9.0	6	OT04	2	8.0	6.0	6	0	0		--	--	--	--
2	15.5	18.3	9	SA01	1	10.0	9.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	15.5	18.3	9	SA01	1	10.0	9.0	29	CM05	1	7.0	6.0	4	0	0		--	--	--	--
2	15.5	18.3	9	SA01	1	10.0	9.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--
2	15.5	18.3	9	SA01	1	10.0	9.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	15.5	18.3	9	SA01	1	10.0	9.0	19	CM03	0	4.0	2.0	1	0	0		--	--	--	--
2	15.5	18.3	9	SA01	1	10.0	9.0	40	TE01	-1	1.2	2.0	1	0	0		--	--	--	--
2	15.5	18.3	9	SA01	1	10.0	9.0	302	TMS	2	4.0	1.5	4	0	0		--	--	--	--

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2	15.5	18.3	9	SA01	1	10.0	9.0	300	TMS	1	1.5	1.1	4	0	0		--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	5	OT03	1	11.0	7.0	4	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	6	OT04	2	8.0	6.0	4	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	26	CC03	0	5.0	6.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	3	15.0	8.0	29	CM05	0	7.0	6.0	8	0	0	*	1	25.8	2.2	5.6
2	27.6	16.2	34	OT02	3	15.0	8.0	28	CC05	0	1.8	4.4	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	3	15.0	8.0	301	TMS	0	3.0	3.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	3	15.0	8.0	19	CM03	0	4.0	2.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	3	15.0	8.0	40	TE01	-1	1.2	2.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	1	15.0	8.0	302	TMS	0	4.0	1.5	8	0	0	*	2	27.1	6.7	8.6
2	27.6	16.2	34	OT02	0	15.0	8.0	300	TMS	0	1.5	1.1	3	0	0	*	1	27.2	7.1	11.1
2	15.5	18.3	5	OT03	1	11.0	7.0	6	OT04	2	8.0	6.0	8	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	29	CM05	0	7.0	6.0	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	19	CM03	0	4.0	2.0	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	40	TE01	-1	1.2	2.0	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	302	TMS	0	4.0	1.5	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	300	TMS	0	1.5	1.1	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	29	CM05	0	7.0	6.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	19	CM03	0	4.0	2.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	40	TE01	-1	1.2	2.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	302	TMS	0	4.0	1.5	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	300	TMS	0	1.5	1.1	1	0	0		--	--	--	--
2	15.5	18.3	9	SA01	0	10.0	9.0	--	--	--	--	--	8	0	0		1	24.6	9.3	5.5
2	15.5	18.3	5	OT03	0	11.0	7.0	--	--	--	--	--	8	0	0		1	25.0	11.3	4.5
2	15.5	18.3	6	OT04	0	8.0	6.0	--	--	--	--	--	8	0	0		2	23.5	12.3	7.5

PROPELLANT NEEDED THIS YEAR = 23.
PROPELLANT LEFT FROM PRIOR YEAR = 15.
PROPELLANT DELIVERED BY MINITANKER = 15.
PROPELLANT DELIVERED BY ET SCAVENGING = 0.

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MANIFEST #	KEY REF	DESCRIPTION	MATCHED WITH	NO. FLTS	OTV USED	OTV EXP	P/L BAY LENGTH	LAUNCH MASS	TIME ON ORBIT	SP STA OPERATION
1	CC03	**INTELSAT-7,7A CLASS COMSAT	TMS CAB DELIVERY	1	1	0	17.2	27.7	2.0	FS
2	CM06	CONTINUOUS FLOW ELECTRO RESUPP	RECONFIGURABLE COMM. SATELLITE	1	1	0	16.4	26.8	4.0	FS
3	CM06	CONTINUOUS FLOW ELECTRO RESUPP	TMS CAB DELIVERY	1	0	0	15.0	28.0	2.0	FS
4	CM06	CONTINUOUS FLOW ELECTRO RESUPP	CRYSTAL GROWTH RESUP-1	3	0	0	14.0	29.0	4.0	FS
5	OT02	LOW INCL STA RESUPPLY	CONT FLOW ELEC-TROPH PLATFORM	1	0	0	16.1	23.9	4.0	FS
6	OT02	LOW INCL STA RESUPPLY	TMS PROP DELIV	2	0	0	11.6	20.9	2.0	FS
7	OT02	LOW INCL STA RESUPPLY	TMS DELIVERY	1	0	0	11.2	18.4	2.0	FS
8	SA01	VLBI/COSMIC RAY PKG		1	0	0	9.0	10.0	2.0	C
9	OT03	SPACE STATION MODULES		1	0	0	7.0	11.0	2.0	
10	OT04	HI-INCL STATION RESUPPLY		2	0	0	6.0	8.0	2.0	

** - MANIFESTED WITH MINITANKER

NO. OF SHUTTLE FLIGHTS 14
NO. OF TMS OPS 13
NO. OF MANNED TMS OPS 13
NO. OF SELF:PROP SAT SERV OPS 0
TMS & SATELLITE PROPELLANT USED 4.63
NO. OF OTV REUSE FLIGHTS 2
NO. OF OTVS EXPENDED 0

```
SPACE STATION FLT SERVICE OPS     10
SPACE STATION CONSTR OPS      4
SPACE STATION PROP XFER OPS      1
HLLV FLIGHTS      0
 FLEET TIME ON ORBIT =      38.0 DAYS
 TOTAL FLEET TIME =     528.0 DAYS
 IDEAL MIN FLEET SIZE =      1.69 VEHICLES
```

YEAR 1997

TMS MISSION SUMMARY

KEY	TITLE	CODE	TMS MISSION TYPE AUTO	MAN	RET/DEPLOY	SELF-PROP	NO. USES	PROP RQD
S001	EARTH OBSERV	SPCL						
S004	UPPER ATMOS	SPCL						
OT03	SPACE STATION	SSSS						
OT04	HI-INCL STATION	SORS						
SP02	SPACE PHYSICS	SPCM						
SA01	VLBI/COSMIC	SPCL						
SL01	HUMAN LIFE SI	SSSA						
SL02	SMALL MAMMALS	SSSA						
SL03	PLANT DEVEL	SSSA						
SL04	LIFESCIENCES	SPXX						
CM01	MATLS SCIENCE	SPXX						
CM02	CRYSTAL GROWTH	PMCL		X			4.0	0.4
CM03	CRYSTAL GROWTH	PMXX		X			3.0	0.4
CM04	CRYSTAL GROWTH	PMCL		X			4.0	0.4
SA02	ASTRO TELESCOPE	SPXX						
SA03	ASTROPHYSICS	FMXM		X			1.0	0.4
SA04	ASTROPHYSICS	FMXM		X			1.0	0.4
CC03	INTELSAT-7,7A	FXCL						
CC04	MULTIBEAM COMM.	SSCM						
CC05	RECONFIGURABLE	FXCM						
CM05	CONT FLOW ELEC-	PMCL		X			0.0	0.4
CM06	CONTINUOUS FLOW	PMXL		X			4.0	0.4
OT01	LOW INCL STA	SSSS						
OT02	LOW INCL STA	SORS						
TC01	ROBOTICS	SSCM						
TS02	TECH DEVEL	SSSA						

PAYLOAD 1 EARTH OBSERV PALLET
NO OTV REQD

PAYLOAD 4 UPPER ATMOS RESEARCH PKG
NO OTV REQD
PAYLOAD 5 SPACE STATION MODULES
NO OTV REQD
PAYLOAD 6 HI-INCL STATION RESUPPLY
NO OTV REQD
PAYLOAD 8 SPACE PHYSICS PALLET
NO OTV REQD
PAYLOAD 14 LIFESCIENCES RES FAC
NO OTV REQD
PAYLOAD 18 CRYSTAL GROWTH FACTORY/PLAT
NO OTV REQD
PAYLOAD 20 CRYSTAL GROWTH RESUP-2
NO OTV REQD
PAYLOAD 26 INTELSAT-7,7A CLASS COMSAT
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 14.170
PAYLOAD 27 MULTIBEAM COMM. SATELLITE
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 14.170
PAYLOAD 28 RECONFIGURABLE COMM. SATELLITE
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 9.315
PAYLOAD 30 CONTINUOUS FLOW ELECTRO RESUPP
NO OTV REQD
PAYLOAD 33 LOW INCL STA MODULE DEL
NO OTV REQD
PAYLOAD 34 LOW INCL STA RESUPPLY
NO OTV REQD
PAYLOAD 41 ROBOTICS TECH DEMO
NO OTV REQD
SORTED H ARRAY

INDEX	#FLTS	MASS	LENGTH	INCLIN
33	1	22.00	14.00	29.00
30	7	25.00	12.00	29.00
27	1	5.00	8.00	0.00
34	4	15.00	8.00	29.00
1	1	3.50	7.00	98.00
4	1	4.00	7.00	98.00
5	1	11.00	7.00	98.00
14	1	5.56	7.00	29.00
18	1	10.00	7.00	29.00
6	2	8.00	6.00	98.00
26	1	5.00	6.00	0.00
8	1	10.00	5.00	98.00
28	1	1.80	4.40	0.00
20	3	12.50	4.00	29.00
301	1	3.00	3.00	29.00
41	1	3.60	1.80	29.00
302	2	4.00	1.50	29.00
300	1	1.50	1.10	29.00

MANIFESTING RECORD

NP	WT AV	LEN AV	*****MAIN P/L********* #	KEY	#FL	MASS	LEN	*****SEC P/L********* #	KEY	#FL	MASS	LEN	MC	MF	SF	DM RQ	FLTS OK	CG MAN	FRE LEN	FRE MASS

1	27.6	10.1	33	OT01	1	22.0	14.0	30	CM06	7	25.0	12.0	5	1	1	*	--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	27	CC04	1	5.0	8.0	5	1	1	*	--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	34	OT02	4	15.0	8.0	5	1	1	*	--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	1	SO01	1	3.5	7.0	4	1	1	*	--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	4	SO04	1	4.0	7.0	4	1	1	*	--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	5	OT03	1	11.0	7.0	4	1	1	*	--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	14	SL04	1	5.6	7.0	5	1	1	*	--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	18	CM02	1	10.0	7.0	5	1	1	*	--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	26	CC03	1	5.0	6.0	5	1	1	*	--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	8	SP02	1	10.0	5.0	4	1	1	*	--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	28	CC05	1	1.8	4.4	5	1	1	*	--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	20	CM04	3	12.5	4.0	5	1	1	*	--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	301	TMS	1	3.0	3.0	5	1	1	*	--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	41	TC01	1	3.6	1.8	5	1	1	*	--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	302	TMS	2	4.0	1.5	5	1	1	*	--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	300	TMS	1	1.5	1.1	5	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	7	25.0	12.0	27	CC04	1	5.0	8.0	5	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	7	25.0	12.0	34	OT02	4	15.0	8.0	5	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	7	25.0	12.0	1	SO01	1	3.5	7.0	4	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	7	25.0	12.0	4	SO04	1	4.0	7.0	4	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	7	25.0	12.0	5	OT03	1	11.0	7.0	4	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	7	25.0	12.0	14	SL04	1	5.6	7.0	5	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	7	25.0	12.0	18	CM02	1	10.0	7.0	5	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	7	25.0	12.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	7	25.0	12.0	26	CC03	1	5.0	6.0	5	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	7	25.0	12.0	8	SP02	1	10.0	5.0	4	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	7	25.0	12.0	28	CC05	1	1.8	4.4	5	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	7	25.0	12.0	20	CM04	3	12.5	4.0	5	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	7	25.0	12.0	301	TMS	1	3.0	3.0	5	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	7	25.0	12.0	41	TC01	1	3.6	1.8	5	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	7	25.0	12.0	302	TMS	2	4.0	1.5	5	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	7	25.0	12.0	300	TMS	1	1.5	1.1	5	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	34	OT02	4	15.0	8.0	5	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	1	SO01	1	3.5	7.0	4	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	4	SO04	1	4.0	7.0	4	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	5	OT03	1	11.0	7.0	4	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	14	SL04	1	5.6	7.0	5	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	18	CM02	1	10.0	7.0	5	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	26	CC03	1	5.0	6.0	5	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	8	SP02	1	10.0	5.0	4	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	28	CC05	1	1.8	4.4	5	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	20	CM04	3	12.5	4.0	5	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	301	TMS	1	3.0	3.0	5	1	1	*	--	--	--	--

PROPELLANT DELIVERED USING MINITANKER IS NOW 15.200

1	27.6	10.1	27	CC04	0	5.0	8.0	41	TC01	0	3.6	1.8	8	1	1	*	1	27.1	0.3	1.2
1	27.6	10.1	27	CC04	0	5.0	8.0	302	TMS	2	4.0	1.5	1	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	0	5.0	8.0	300	TMS	1	1.5	1.1	1	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	1	SO01	1	3.5	7.0	4	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	4	SO04	1	4.0	7.0	4	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	5	OT03	1	11.0	7.0	4	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	14	SL04	1	5.6	7.0	5	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	18	CM02	1	10.0	7.0	5	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	26	CC03	1	5.0	6.0	5	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	8	SP02	1	10.0	5.0	4	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	28	CC05	1	1.8	4.4	5	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	20	CM04	3	12.5	4.0	5	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	4	15.0	8.0	301	TMS	1	3.0	3.0	5	1	1	*	--	--	--	--

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OF POOR QUALITY

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 1 27.6 10.1  34 OT02  4  15.0  8.0  41 TC01  0   3.6  1.8  1  1  1  *      --   --   --   --
 1 27.6 10.1  34 OT02  4  15.0  8.0 302 TMS   2   4.0  1.5  7  1  1  *      --   --   --   --
 1 27.6 10.1  34 OT02  4  15.0  8.0 300 TMS   1   1.5  1.1  7  1  1  *      --   --   --   --

DOCKING MODULE ADDED
 1 15.5 18.3   1 SO01  0   3.5  7.0   4 SO04  0   4.0  7.0  8  0  0      *   1  26.0   2.2   6.1
 1 15.5 18.3   1 SO01  0   3.5  7.0   5 OT03  1  11.0  7.0  1  0  0          --   --   --   --
 1 15.5 18.3   1 SO01  0   3.5  7.0  14 SL04  1   5.6  7.0  1  0  0          --   --   --   --
 1 15.5 18.3   1 SO01  0   3.5  7.0  18 CM02  1  10.0  7.0  1  0  0          --   --   --   --
 1 15.5 18.3   1 SO01  0   3.5  7.0   6 OT04  2   8.0  6.0  1  0  0          --   --   --   --
 1 15.5 18.3   1 SO01  0   3.5  7.0  26 CC03  1   5.0  6.0  1  0  0          --   --   --   --
 1 15.5 18.3   1 SO01  0   3.5  7.0   8 SP02  1  10.0  5.0  1  0  0          --   --   --   --
 1 15.5 18.3   1 SO01  0   3.5  7.0  28 CC05  1   1.8  4.4  1  0  0          --   --   --   --
 1 15.5 18.3   1 SO01  0   3.5  7.0  20 CM04  3  12.5  4.0  1  0  0          --   --   --   --
 1 15.5 18.3   1 SO01  0   3.5  7.0 301 TMS   1   3.0  3.0  1  0  0          --   --   --   --
 1 15.5 18.3   1 SO01  0   3.5  7.0  41 TC01  0   3.6  1.8  1  0  0          --   --   --   --
 1 15.5 18.3   1 SO01  0   3.5  7.0 302 TMS   2   4.0  1.5  1  0  0          --   --   --   --
 1 15.5 18.3   1 SO01  0   3.5  7.0 300 TMS   1   1.5  1.1  1  0  0          --   --   --   --
 1 15.5 18.3   5 OT03  1  11.0  7.0  14 SL04  1   5.6  7.0  4  0  0          --   --   --   --
 1 15.5 18.3   5 OT03  1  11.0  7.0  18 CM02  1  10.0  7.0  4  0  0          --   --   --   --
 1 15.5 18.3   5 OT03  1  11.0  7.0   6 OT04  2   8.0  6.0  6  0  0          --   --   --   --
 1 15.5 18.3   5 OT03  1  11.0  7.0  26 CC03  1   5.0  6.0  4  0  0          --   --   --   --
 1 15.5 18.3   5 OT03  1  11.0  7.0   8 SP02  1  10.0  5.0  6  0  0          --   --   --   --
 1 15.5 18.3   5 OT03  1  11.0  7.0  28 CC05  1   1.8  4.4  4  0  0          --   --   --   --
 1 15.5 18.3   5 OT03  1  11.0  7.0  20 CM04  3  12.5  4.0  4  0  0          --   --   --   --
 1 15.5 18.3   5 OT03  1  11.0  7.0 301 TMS   1   3.0  3.0  4  0  0          --   --   --   --
 1 15.5 18.3   5 OT03  1  11.0  7.0  41 TC01  0   3.6  1.8  1  0  0          --   --   --   --
 1 15.5 18.3   5 OT03  1  11.0  7.0 302 TMS   2   4.0  1.5  4  0  0          --   --   --   --
 1 15.5 18.3   5 OT03  1  11.0  7.0 300 TMS   1   1.5  1.1  4  0  0          --   --   --   --
 1 27.6 10.1  14 SL04  1   5.6  7.0  18 CM02  1  10.0  7.0  5  1  1  *       --   --   --   --
 1 27.6 10.1  14 SL04  1   5.6  7.0   6 OT04  2   8.0  6.0  4  1  1  *       --   --   --   --
 1 27.6 10.1  14 SL04  1   5.6  7.0  26 CC03  1   5.0  6.0  5  1  1  *       --   --   --   --
 1 27.6 10.1  14 SL04  1   5.6  7.0   8 SP02  1  10.0  5.0  4  1  1  *       --   --   --   --
 1 27.6 10.1  14 SL04  1   5.6  7.0  28 CC05  1   1.8  4.4  5  1  1  *       --   --   --   --
 1 27.6 10.1  14 SL04  1   5.6  7.0  20 CM04  3  12.5  4.0  5  1  1  *       --   --   --   --
PROPELLANT DELIVERED USING MINITANKER IS NOW      30.400
 1 27.6 10.1  14 SL04  0   5.6  7.0 301 TMS   0   3.0  3.0  8  1  1  *       1  26.8   0.1   1.3
 1 27.6 10.1  14 SL04  0   5.6  7.0  41 TC01  0   3.6  1.8  1  1  1  *       --   --   --   --
 1 27.6 10.1  14 SL04  0   5.6  7.0 302 TMS   2   4.0  1.5  1  1  1  *       --   --   --   --
 1 27.6 10.1  14 SL04  0   5.6  7.0 300 TMS   1   1.5  1.1  1  1  1  *       --   --   --   --
 1 27.6 10.1  18 CM02  1  10.0  7.0   6 OT04  2   8.0  6.0  4  1  1  *       --   --   --   --
 1 27.6 10.1  18 CM02  1  10.0  7.0  26 CC03  1   5.0  6.0  5  1  1  *       --   --   --   --
 1 27.6 10.1  18 CM02  1  10.0  7.0   8 SP02  1  10.0  5.0  4  1  1  *       --   --   --   --
 1 27.6 10.1  18 CM02  1  10.0  7.0  28 CC05  1   1.8  4.4  5  1  1  *       --   --   --   --
 1 27.6 10.1  18 CM02  1  10.0  7.0  20 CM04  3  12.5  4.0  5  1  1  *       --   --   --   --
 1 27.6 10.1  18 CM02  1  10.0  7.0 301 TMS   0   3.0  3.0  1  1  1  *       --   --   --   --
 1 27.6 10.1  18 CM02  1  10.0  7.0  41 TC01  0   3.6  1.8  1  1  1  *       --   --   --   --
PROPELLANT DELIVERED USING MINITANKER IS NOW      44.489
 1 27.6 10.1  18 CM02  0  10.0  7.0 302 TMS   1   4.0  1.5  8  1  1  *       1  26.2   1.6  -3.0
 2 27.6 16.2  33 OT01  1  22.0 14.0  30 CM06  7  25.0 12.0  5  0  0  *       --   --   --   --
 2 27.6 16.2  33 OT01  1  22.0 14.0  27 CC04  0   5.0  8.0  1  0  0  *       --   --   --   --
 2 27.6 16.2  33 OT01  1  22.0 14.0  34 OT02  4  15.0  8.0  5  0  0  *       --   --   --   --
 2 27.6 16.2  33 OT01  1  22.0 14.0   1 SO01  0   3.5  7.0  1  0  0  *       --   --   --   --
 2 27.6 16.2  33 OT01  1  22.0 14.0   4 SO04  0   4.0  7.0  1  0  0  *       --   --   --   --
 2 27.6 16.2  33 OT01  1  22.0 14.0   5 OT03  1  11.0  7.0  4  0  0  *       --   --   --   --
 2 27.6 16.2  33 OT01  1  22.0 14.0  14 SL04  0   5.6  7.0  1  0  0  *       --   --   --   --
 2 27.6 16.2  33 OT01  1  22.0 14.0  18 CM02  0  10.0  7.0  1  0  0  *       --   --   --   --
 2 27.6 16.2  33 OT01  1  22.0 14.0   6 OT04  2   8.0  6.0  4  0  0  *       --   --   --   --
 2 27.6 16.2  33 OT01  1  22.0 14.0  26 CC03  1   5.0  6.0  5  0  0  *       --   --   --   --
 2 27.6 16.2  33 OT01  1  22.0 14.0   8 SP02  1  10.0  5.0  4  0  0  *       --   --   --   --
```

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2	27.6	16.2	33	OT01	1	22.0	14.0	28	CC05	1	1.8	4.4	5	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	20	CM04	3	12.5	4.0	5	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	301	TMS	0	3.0	3.0	1	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	41	TC01	0	3.6	1.8	1	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	302	TMS	1	4.0	1.5	7	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	300	TMS	1	1.5	1.1	7	0	0	*	--	--	--	--
2	29.5	18.3	30	CM06	7	25.0	12.0	27	CC04	0	5.0	8.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	7	25.0	12.0	34	OT02	4	15.0	8.0	5	0	0		--	--	--	--
2	29.5	18.3	30	CM06	7	25.0	12.0	1	SO01	0	3.5	7.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	7	25.0	12.0	4	SO04	0	4.0	7.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	7	25.0	12.0	5	OT03	1	11.0	7.0	4	0	0		--	--	--	--
2	29.5	18.3	30	CM06	7	25.0	12.0	14	SL04	0	5.6	7.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	7	25.0	12.0	18	CM02	0	10.0	7.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	7	25.0	12.0	6	OT04	2	8.0	6.0	4	0	0		--	--	--	--
2	29.5	18.3	30	CM06	7	25.0	12.0	26	CC03	1	5.0	6.0	6	0	0		--	--	--	--
2	29.5	18.3	30	CM06	7	25.0	12.0	8	SP02	1	10.0	5.0	4	0	0		--	--	--	--
2	29.5	18.3	30	CM06	6	25.0	12.0	28	CC05	0	1.8	4.4	8	0	0		1	26.3	1.9	2.7
2	29.5	18.3	30	CM06	6	25.0	12.0	20	CM04	3	12.5	4.0	6	0	0		--	--	--	--
2	29.5	18.3	30	CM06	6	25.0	12.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	6	25.0	12.0	41	TC01	0	3.6	1.8	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	5	25.0	12.0	302	TMS	0	4.0	1.5	8	0	0		1	26.1	4.8	0.5
2	29.5	18.3	30	CM06	4	25.0	12.0	300	TMS	0	1.5	1.1	8	0	0		1	26.5	5.2	3.0
2	27.6	16.2	34	OT02	4	15.0	8.0	1	SO01	0	3.5	7.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	4	SO04	0	4.0	7.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	5	OT03	1	11.0	7.0	4	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	14	SL04	0	5.6	7.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	18	CM02	0	10.0	7.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	6	OT04	2	8.0	6.0	4	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	3	15.0	8.0	26	CC03	0	5.0	6.0	8	0	0	*	1	26.1	2.2	7.6
2	27.6	16.2	34	OT02	3	15.0	8.0	8	SP02	1	10.0	5.0	4	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	3	15.0	8.0	28	CC05	0	1.8	4.4	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	0	15.0	8.0	20	CM04	0	12.5	4.0	8	0	0	*	3	26.7	4.2	0.1
2	27.6	16.2	34	OT02	0	15.0	8.0	301	TMS	0	3.0	3.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	0	15.0	8.0	41	TC01	0	3.6	1.8	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	0	15.0	8.0	302	TMS	0	4.0	1.5	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	0	15.0	8.0	300	TMS	0	1.5	1.1	1	0	0	*	--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	14	SL04	0	5.6	7.0	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	18	CM02	0	10.0	7.0	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	6	OT04	2	8.0	6.0	6	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	8	SP02	1	10.0	5.0	6	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	20	CM04	0	12.5	4.0	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	41	TC01	0	3.6	1.8	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	302	TMS	0	4.0	1.5	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	300	TMS	0	1.5	1.1	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	8	SP02	1	10.0	5.0	6	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	20	CM04	0	12.5	4.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	41	TC01	0	3.6	1.8	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	302	TMS	0	4.0	1.5	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	300	TMS	0	1.5	1.1	1	0	0		--	--	--	--
2	15.5	18.3	8	SP02	1	10.0	5.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--
2	15.5	18.3	8	SP02	1	10.0	5.0	20	CM04	0	12.5	4.0	1	0	0		--	--	--	--
2	15.5	18.3	8	SP02	1	10.0	5.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	15.5	18.3	8	SP02	1	10.0	5.0	41	TC01	0	3.6	1.8	1	0	0		--	--	--	--
2	15.5	18.3	8	SP02	1	10.0	5.0	302	TMS	0	4.0	1.5	1	0	0		--	--	--	--

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2	15.5	18.3	8	SP02	1	10.0	5.0	300	TMS	0	1.5	1.1	1	0	0	--	--	--	--
2	29.5	18.3	33	OT01	0	22.0	14.0	--	--	--	--	--	8	0	0	1	26.9	4.3	-6.5
2	29.5	18.3	30	CM06	0	25.0	12.0	--	--	--	--	--	8	0	0	4	27.1	6.3	-9.5
2	15.5	18.3	5	OT03	0	11.0	7.0	--	--	--	--	--	8	0	0	1	25.0	11.3	4.5
2	15.5	18.3	6	OT04	0	8.0	6.0	--	--	--	--	--	8	0	0	2	23.5	12.3	7.5
2	15.5	18.3	8	SP02	0	10.0	5.0	--	--	--	--	--	8	0	0	1	24.6	13.3	5.5

PROPELLANT NEEDED THIS YEAR = 38.
PROPELLANT LEFT FROM PRIOR YEAR = 7.
PROPELLANT DELIVERED BY MINITANKER = 44.
PROPELLANT DELIVERED BY ET SCAVENGING = 0.

ORIGINAL PAGE IS
OF POOR QUALITY

MANIFEST #	KEY REF	DESCRIPTION	MATCHED WITH	NO. FLTS	OTV USED	OTV EXP	P/L BAY LENGTH	LAUNCH MASS	TIME ON ORBIT	SP STA OPERATION
1	CC04	**MULTIBEAM COMM SATELLITE	ROBOTICS TECH DEMO	1	1	0	18.0	28.3	4.0	FS
2	S001	EARTH OBSERV PALLET	UPPER ATMOS RESEARCH PKG	1	0	0	16.1	9.4	4.0	FS
3	SL04	**LIFESCIENCES RES FAC	TMS CAB DELIVERY	1	0	0	18.2	28.2	2.0	FS
4	CM02	**CRYSTAL GROWTH FACTORY/PLAT	TMS PROP DELIV	1	0	0	16.7	32.5	2.0	FS
5	CM06	CONTINUOUS FLOW ELECTRO RESUPP	RECONFIGURABLE COMM. SATELLITE	1	1	0	16.4	26.8	4.0	FS
6	CM06	CONTINUOUS FLOW ELECTRO RESUPP	TMS PROP DELIV	1	0	0	13.5	29.0	2.0	FS
7	CM06	CONTINUOUS FLOW ELECTRO RESUPP	TMS DELIVERY	1	0	0	13.1	26.5	2.0	FS
8	OT02	LOW INCL STA RESUPPLY	INTELSAT-7,7A CLASS COMSAT	1	1	0	16.1	21.9	4.0	FS
9	OT02	LOW INCL STA RESUPPLY	CRYSTAL GROWTH RESUP-2	3	0	0	14.1	29.4	4.0	FS
10	OT01	LOW INCL STA MODULE DEL		1	0	0	14.0	22.0	2.0	
11	CM06	CONTINUOUS FLOW ELECTRO RESUPP		4	0	0	12.0	25.0	2.0	
12	OT03	SPACE STATION MODULES		1	0	0	7.0	11.0	2.0	
13	OT04	HI-INCL STATION RESUPPLY		2	0	0	6.0	8.0	2.0	

14	SP02 SPACE PHYSICS PALLET	1	0	0	5.0	10.0	2.0	C

** - MANIFESTED WITH MINITANKER

NO. OF SHUTTLE FLIGHTS 20
NO. OF TMS OPS 17
NO. OF MANNED TMS OPS 17
NO. OF SELF-PROP SAT SERV OPS 0
TMS & SATELLITE PROPELLANT USED 6.05
NO. OF OTV REUSE FLIGHTS 3
NO. OF OTVS EXPENDED 0
SPACE STATION FLT SERVICE OPS 11
SPACE STATION CONSTR OPS 9
SPACE STATION PROP XFER OPS 3
HLLV FLIGHTS 0
FLEET TIME ON ORBIT = 54.0 DAYS
TOTAL FLEET TIME = 754.0 DAYS
IDEAL MIN FLEET SIZE = 2.42 VEHICLES

YEAR 1998

TMS MISSION SUMMARY

KEY	TITLE	CODE	TMS MISSION TYPE AUTO	MAN	RET/DEPLOY	SELF-PROP	NO. USES	PROP RQD
S001	EARTH OBSERV	SPCL						
S004	UPPER ATMOS	SPCL						
OT03	SPACE STATION	SSSS						
OT04	HI-INCL STATION	SORS						
SP02	SPACE PHYSICS	SPCM						
SA01	VLBI/COSMIC	SPCL						
SL01	HUMAN LIFE SI	SSSA						
SL02	SMALL MAMMALS	SSSA						
SL03	PLANT DEVEL	SSSA						
SL04	LIFESCIENCES	SPXX						
SL05	CENTRIFUGE	SSCL						
CM01	MATLS SCIENCE	SPXX						
CM02	CRYSTAL GROWTH	PMCL		X			4.0	0.4
CM03	CRYSTAL GROWTH	PMXX		X			3.0	0.4
CM04	CRYSTAL GROWTH	PMCL		X			4.0	0.4
SA02	ASTRO TELESCOPE	SPXX						
SA04	ASTROPHYSICS	FMXM		X			1.0	0.4
CC03	INTELSAT-7,7A	FXCL						
CC04	MULTIBEAM COMM.	SSCM						
CC05	RECONFIGURABLE	FXCM						
CM05	CONT FLOW ELEC-	PMCL		X			0.0	0.4
CM06	CONTINUOUS FLOW	PMXL		X			4.0	0.4
OT01	LOW INCL STA	SSSS						
OT02	LOW INCL STA	SORS						
TS02	TECH DEVEL	SSSA						

PAYLOAD 5 SPACE STATION MODULES
NO OTV REQD
PAYLOAD 6 HI-INCL STATION RESUPPLY
NO OTV REQD

PAYLOAD 15 CENTRIFUGE (ADD TO LSRF)
NO OTV REQD
PAYLOAD 20 CRYSTAL GROWTH RESUP-2
NO OTV REQD
PAYLOAD 22 ASTROPHYSICS FREE-FLYER
NO OTV REQD
PAYLOAD 26 INTELSAT-7,7A CLASS COMSAT
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 14.170
PAYLOAD 27 MULTIBEAM COMM. SATELLITE
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 14.170
PAYLOAD 28 RECONFIGURABLE COMM. SATELLITE
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 9.315
PAYLOAD 30 CONTINUOUS FLOW ELECTRO RESUPP
NO OTV REQD
PAYLOAD 33 LOW INCL STA MODULE DEL
NO OTV REQD
PAYLOAD 34 LOW INCL STA RESUPPLY
NO OTV REQD
PAYLOAD 41 ROBOTICS TECH DEMO
NO OTV REQD
SORTED H ARRAY

INDEX	#FLTS	MASS	LENGTH	INCLIN
33	1	22.00	14.00	29.00
22	-1	17.00	12.00	29.00
30	9	25.00	12.00	29.00
27	1	5.00	8.00	0.00
34	8	15.00	8.00	29.00
5	1	11.00	7.00	98.00
6	2	8.00	6.00	98.00
26	1	5.00	6.00	0.00
28	1	1.80	4.40	0.00
20	4	12.50	4.00	29.00
301	2	3.00	3.00	29.00
15	1	0.50	3.00	29.00
41	-1	3.60	1.80	29.00
302	2	4.00	1.50	29.00
300	1	1.50	1.10	29.00

MANIFESTING RECORD

NP	WT AV	LEN AV	*****MAIN P/L********* #	KEY	#FL	MASS	LEN	*****SEC P/L********* #	KEY	#FL	MASS	LEN	MC	MF	SF	DM RQ	DM OK	FLTS MAN	CG	FRE LEN	FRE MASS
1	27.6	10.1	33	OT01	1	22.0	14.0	22	SA03	-1	17.0	12.0	1	1	1	*		--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	30	CM06	9	25.0	12.0	5	1	1	*		--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	27	CC04	1	5.0	8.0	5	1	1	*		--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	34	OT02	8	15.0	8.0	5	1	1	*		--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	5	OT03	1	11.0	7.0	4	1	1	*		--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	6	OT04	2	8.0	6.0	4	1	1	*		--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	26	CC03	1	5.0	6.0	5	1	1	*		--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	28	CC05	1	1.8	4.4	5	1	1	*		--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	20	CM04	4	12.5	4.0	5	1	1	*		--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	301	TMS	2	3.0	3.0	5	1	1	*		--	--	--	--
1	27.6	10.1	33	OT01	1	22.0	14.0	15	SL05	1	0.5	3.0	5	1	1	*		--	--	--	--

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1	27.6	10.1	33	OT01	1	22.0	14.0	41	TC01	-1	3.6	1.8	1	1	1	*	--	--	--	--	
1	27.6	10.1	33	OT01	1	22.0	14.0	302	TMS	2	4.0	1.5	5	1	1	*	--	--	--	--	
1	27.6	10.1	33	OT01	1	22.0	14.0	300	TMS	1	1.5	1.1	5	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	9	25.0	12.0	27	CC04	1	5.0	8.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	9	25.0	12.0	34	OT02	8	15.0	8.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	9	25.0	12.0	5	OT03	1	11.0	7.0	4	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	9	25.0	12.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	9	25.0	12.0	26	CC03	1	5.0	6.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	9	25.0	12.0	28	CC05	1	1.8	4.4	5	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	9	25.0	12.0	20	CM04	4	12.5	4.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	9	25.0	12.0	301	TMS	2	3.0	3.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	9	25.0	12.0	15	SL05	1	0.5	3.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	9	25.0	12.0	41	TC01	-1	3.6	1.8	1	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	9	25.0	12.0	302	TMS	2	4.0	1.5	5	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	9	25.0	12.0	300	TMS	1	1.5	1.1	5	1	1	*	--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	34	OT02	8	15.0	8.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	5	OT03	1	11.0	7.0	4	1	1	*	--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	26	CC03	1	5.0	6.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	28	CC05	1	1.8	4.4	5	1	1	*	--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	20	CM04	4	12.5	4.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	301	TMS	2	3.0	3.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	15	SL05	1	0.5	3.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	41	TC01	-1	3.6	1.8	1	1	1	*	--	--	--	--	
PROPELLANT DELIVERED USING MINITANKER IS NOW											15.200										
1	27.6	10.1	27	CC04	0	5.0	8.0	302	TMS	1	4.0	1.5	8	1	1	*	1	27.2	0.6	0.8	
1	27.6	10.1	27	CC04	0	5.0	8.0	300	TMS	1	1.5	1.1	1	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	5	OT03	1	11.0	7.0	4	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	26	CC03	1	5.0	6.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	28	CC05	1	1.8	4.4	5	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	20	CM04	4	12.5	4.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	301	TMS	2	3.0	3.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	15	SL05	1	0.5	3.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	41	TC01	-1	3.6	1.8	1	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	302	TMS	1	4.0	1.5	7	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	300	TMS	1	1.5	1.1	7	1	1	*	--	--	--	--	
1	15.5	18.3	5	OT03	1	11.0	7.0	6	OT04	2	8.0	6.0	6	0	0		--	--	--	--	
1	15.5	18.3	5	OT03	1	11.0	7.0	26	CC03	1	5.0	6.0	4	0	0		--	--	--	--	
1	15.5	18.3	5	OT03	1	11.0	7.0	28	CC05	1	1.8	4.4	4	0	0		--	--	--	--	
1	15.5	18.3	5	OT03	1	11.0	7.0	20	CM04	4	12.5	4.0	4	0	0		--	--	--	--	
1	15.5	18.3	5	OT03	1	11.0	7.0	301	TMS	2	3.0	3.0	4	0	0		--	--	--	--	
1	15.5	18.3	5	OT03	1	11.0	7.0	15	SL05	1	0.5	3.0	4	0	0		--	--	--	--	
1	15.5	18.3	5	OT03	1	11.0	7.0	41	TC01	-1	3.6	1.8	1	0	0		--	--	--	--	
1	15.5	18.3	5	OT03	1	11.0	7.0	302	TMS	1	4.0	1.5	4	0	0		--	--	--	--	
1	15.5	18.3	5	OT03	1	11.0	7.0	300	TMS	1	1.5	1.1	4	0	0		--	--	--	--	
1	15.5	18.3	6	OT04	2	8.0	6.0	26	CC03	1	5.0	6.0	4	0	0		--	--	--	--	
1	15.5	18.3	6	OT04	2	8.0	6.0	28	CC05	1	1.8	4.4	4	0	0		--	--	--	--	
1	15.5	18.3	6	OT04	2	8.0	6.0	20	CM04	4	12.5	4.0	4	0	0		--	--	--	--	
1	15.5	18.3	6	OT04	2	8.0	6.0	301	TMS	2	3.0	3.0	4	0	0		--	--	--	--	
1	15.5	18.3	6	OT04	2	8.0	6.0	15	SL05	1	0.5	3.0	4	0	0		--	--	--	--	
1	15.5	18.3	6	OT04	2	8.0	6.0	41	TC01	-1	3.6	1.8	1	0	0		--	--	--	--	
1	15.5	18.3	6	OT04	2	8.0	6.0	302	TMS	1	4.0	1.5	4	0	0		--	--	--	--	
1	15.5	18.3	6	OT04	2	8.0	6.0	300	TMS	1	1.5	1.1	4	0	0		--	--	--	--	
1	27.6	10.1	26	CC03	1	5.0	6.0	28	CC05	1	1.8	4.4	5	1	1	*	--	--	--	--	
1	27.6	10.1	26	CC03	1	5.0	6.0	20	CM04	4	12.5	4.0	7	1	1	*	--	--	--	--	
PROPELLANT DELIVERED USING MINITANKER IS NOW											30.400										
1	27.6	10.1	26	CC03	0	5.0	6.0	301	TMS	1	3.0	3.0	8	1	1	*	1	27.1	1.1	1.8	
2	27.6	16.2	33	OT01	1	22.0	14.0	22	SA03	-1	17.0	12.0	1	0	0	*	--	--	--	--	
2	27.6	16.2	33	OT01	1	22.0	14.0	30	CM06	9	25.0	12.0	5	0	0	*	--	--	--	--	

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2	27.6	16.2	33	OT01	1	22.0	14.0	27	CC04	0	5.0	8.0	1	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	34	OT02	8	15.0	8.0	5	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	5	OT03	1	11.0	7.0	4	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	6	OT04	2	8.0	6.0	4	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	26	CC03	0	5.0	6.0	1	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	28	CC05	1	1.8	4.4	5	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	20	CM04	4	12.5	4.0	5	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	301	TMS	1	3.0	3.0	5	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	15	SL05	1	0.5	3.0	5	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	41	TC01	-1	3.6	1.8	1	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	302	TMS	1	4.0	1.5	7	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	300	TMS	1	1.5	1.1	7	0	0	*	--	--	--	--
2	29.5	18.3	30	CM06	9	25.0	12.0	27	CC04	0	5.0	8.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	9	25.0	12.0	34	OT02	8	15.0	8.0	5	0	0		--	--	--	--
2	29.5	18.3	30	CM06	9	25.0	12.0	5	OT03	1	11.0	7.0	4	0	0		--	--	--	--
2	29.5	18.3	30	CM06	9	25.0	12.0	6	OT04	2	8.0	6.0	4	0	0		--	--	--	--
2	29.5	18.3	30	CM06	9	25.0	12.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	8	25.0	12.0	28	CC05	0	1.8	4.4	8	0	0		1	26.3	1.9	2.7
2	29.5	18.3	30	CM06	8	25.0	12.0	20	CM04	4	12.5	4.0	6	0	0		--	--	--	--
2	29.5	18.3	30	CM06	7	25.0	12.0	301	TMS	0	3.0	3.0	8	0	0		1	26.1	3.3	1.5
DOCKING MODULE ADDED																				
2	29.5	18.3	30	CM06	6	25.0	12.0	15	SL05	0	0.5	3.0	8	0	0	*	1	26.7	1.2	2.1
2	29.5	18.3	30	CM06	6	25.0	12.0	41	TC01	-1	3.6	1.8	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	5	25.0	12.0	302	TMS	0	4.0	1.5	8	0	0		1	26.1	4.8	0.5
2	29.5	18.3	30	CM06	4	25.0	12.0	300	TMS	0	1.5	1.1	8	0	0		1	26.5	5.2	3.0
2	27.6	16.2	34	OT02	8	15.0	8.0	5	OT03	1	11.0	7.0	4	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	6	OT04	2	8.0	6.0	4	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	26	CC03	0	5.0	6.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	28	CC05	0	1.8	4.4	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	20	CM04	0	12.5	4.0	8	0	0	*	4	26.7	4.2	0.1
2	27.6	16.2	34	OT02	4	15.0	8.0	301	TMS	0	3.0	3.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	15	SL05	0	0.5	3.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	41	TC01	-1	3.6	1.8	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	302	TMS	0	4.0	1.5	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	4	15.0	8.0	300	TMS	0	1.5	1.1	1	0	0	*	--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	6	OT04	2	8.0	6.0	6	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	20	CM04	0	12.5	4.0	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	15	SL05	0	0.5	3.0	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	41	TC01	-1	3.6	1.8	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	302	TMS	0	4.0	1.5	1	0	0		--	--	--	--
2	15.5	18.3	5	OT03	1	11.0	7.0	300	TMS	0	1.5	1.1	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	20	CM04	0	12.5	4.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	15	SL05	0	0.5	3.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	41	TC01	-1	3.6	1.8	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	302	TMS	0	4.0	1.5	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	300	TMS	0	1.5	1.1	1	0	0		--	--	--	--
2	29.5	18.3	33	OT01	0	22.0	14.0	--	--	--	--	--	8	0	0		1	26.9	4.3	-6.5
2	29.5	18.3	30	CM06	0	25.0	12.0	--	--	--	--	--	8	0	0		4	27.1	6.3	-9.5
2	29.5	18.3	34	OT02	0	15.0	8.0	--	--	--	--	--	8	0	0		4	26.0	10.3	0.5
2	15.5	18.3	5	OT03	0	11.0	7.0	--	--	--	--	--	8	0	0		1	25.0	11.3	4.5
2	15.5	18.3	6	OT04	0	8.0	6.0	--	--	--	--	--	8	0	0		2	23.5	12.3	7.5

PROPELLANT NEEDED THIS YEAR = 38.

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PROPELLANT LEFT FROM PRIOR YEAR =	14.
PROPELLANT DELIVERED BY MINITANKER =	30.
PROPELLANT DELIVERED BY ET SCAVENGING =	0.

MANIFEST #	KEY REF	DESCRIPTION	MATCHED WITH	NO. FLTS	OTV USED	OTV EXP	P/L BAY LENGTH	LAUNCH MASS	TIME ON ORBIT	SP STA OPERATION
1	CC04	**MULTIBEAM COMM SATELLITE	TMS PROP DELIV	1	1	0	17.7	28.7	2.0	FS
2	CC03	**INTELSAT-7,7A CLASS COMSAT	TMS CAB DELIVERY	1	1	0	17.2	27.7	2.0	FS
3	CM06	CONTINUOUS FLOW ELECTRO RESUPP	RECONFIGURABLE COMM. SATELLITE	1	1	0	16.4	26.8	4.0	FS
4	CM06	CONTINUOUS FLOW ELECTRO RESUPP	TMS CAB DELIVERY	1	0	0	15.0	28.0	2.0	FS
5	CM06	CONTINUOUS FLOW ELECTRO RESUPP	CENTRIFUGE (ADD TO LSRF)	1	0	0	17.1	27.4	4.0	FS
6	CM06	CONTINUOUS FLOW ELECTRO RESUPP	TMS PROP DELIV	1	0	0	13.5	29.0	2.0	FS
7	CM06	CONTINUOUS FLOW ELECTRO RESUPP	TMS DELIVERY	1	0	0	13.1	26.5	2.0	FS
8	OT02	LOW INCL STA RESUPPLY	CRYSTAL GROWTH RESUP-2	4	0	0	14.1	29.4	4.0	FS
9	OT01	LOW INCL STA MODULE DEL		1	0	0	14.0	22.0	2.0	FS
10	CM06	CONTINUOUS FLOW ELECTRO RESUPP		4	0	0	12.0	25.0	2.0	
11	OT02	LOW INCL STA RESUPPLY		4	0	0	8.0	15.0	2.0	
12	OT03	SPACE STATION MODULES		1	0	0	7.0	11.0	2.0	
13	OT04	HI-INCL STATION RESUPPLY		2	0	0	6.0	8.0	2.0	

** - MANIFESTED WITH MINITANKER

NO. OF SHUTTLE FLIGHTS 23
NO. OF TMS OPS 16
NO. OF MANNED TMS OPS 16
NO. OF SELF:PROP SAT SERV OPS 0
TMS & SATELLITE PROPELLANT USED 5.70
NO. OF OTV REUSE FLIGHTS 3
NO. OF OTVS EXPENDED 0
SPACE STATION FLT SERVICE OPS 11
SPACE STATION CONSTR OPS 8
SPACE STATION PROP XFER OPS 2
HLLV FLIGHTS 0
FLEET TIME ON ORBIT = 58.0 DAYS
TOTAL FLEET TIME = 863.0 DAYS
IDEAL MIN FLEET SIZE = 2.77 VEHICLES

YEAR 1999

TMS MISSION SUMMARY

KEY	TITLE	CODE	TMS MISSION TYPE AUTO	MAN	RET/DEPLOY	SELF-PROP	NO. USES	PROP RQD
S001	EARTH OBSERV	SPCL						
S002	SYNTH APERTURE	SPCL						
S004	UPPER ATMOS	SPCL						
OT03	SPACE STATION	SSSS						
OT04	HI-INCL STATION	SORS						
SP02	SPACE PHYSICS	SPCM						
SA01	VLBI/COSMIC	SPCL						
SL01	HUMAN LIFE SI	SSSA						
SL02	SMALL MAMMALS	SSSA						
SL03	PLANT DEVEL	SSSA						
SL04	LIFESCIENCES	SPXX						
SL05	CENTRIFUGE	SSCL						
SL06	CLOSED ENV	SPCL						
CM01	MATLS SCIENCE	SPXX						
CM02	CRYSTAL GROWTH	PMCL		X			4.0	0.4
CM03	CRYSTAL GROWTH	PMXX		X			3.0	0.4
CM04	CRYSTAL GROWTH	PMCL		X			4.0	0.4
SA02	ASTRO TELESCOPE	SPXX						
SA04	ASTROPHYSICS	FMXM		X			1.0	0.4
CC03	INTELSAT-7,7A	FXCL						
CC04	MULTIBEAM COMM.	SSCM						
CC05	RECONFIGURABLE	FXCM						
CM05	CONT FLOW ELEC-	PMCL		X			0.0	0.4
CM06	CONTINUOUS FLOW	PMXL		X			4.0	0.4
OT01	LOW INCL STA	SSSS						
OT02	LOW INCL STA	SORS						
OT05	HI-ALT STA	OMSB						

TS02 TECH DEVEL SSSA

OT05 SPACE-BASED MANNED OTV
NOT MANIFESTED AS SHUTTLE PAYLOAD
PAYLOAD 2 SYNTH APERTURE RADAR
NO OTV REQD
PAYLOAD 5 SPACE STATION MODULES
NO OTV REQD
PAYLOAD 6 HI-INCL STATION RESUPPLY
NO OTV REQD
PAYLOAD 16 CLOSED ENV LSS EXPT MOD
NO OTV REQD
PAYLOAD 18 CRYSTAL GROWTH FACTORY/PLAT
NO OTV REQD
PAYLOAD 20 CRYSTAL GROWTH RESUP-2
NO OTV REQD
PAYLOAD 26 INTELSAT-7,7A CLASS COMSAT
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 14.170
PAYLOAD 27 MULTIBEAM COMM. SATELLITE
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 14.170
PAYLOAD 28 RECONFIGURABLE COMM. SATELLITE
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 9.315
PAYLOAD 30 CONTINUOUS FLOW ELECTRO RESUPP
NO OTV REQD
PAYLOAD 33 LOW INCL STA MODULE DEL
NO OTV REQD
PAYLOAD 34 LOW INCL STA RESUPPLY
NO OTV REQD
PAYLOAD 35 HI-ALT STA RESUPPLY
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 21.497
SORTED H ARRAY

INDEX	#FLTS	MASS	LENGTH	INCLIN
33	1	22.00	14.00	29.00
30	11	25.00	12.00	29.00
27	1	5.00	8.00	0.00
34	8	15.00	8.00	29.00
5	1	11.00	7.00	98.00
18	1	10.00	7.00	29.00
2	1	2.50	6.00	98.00
6	2	8.00	6.00	98.00
26	1	5.00	6.00	0.00
16	1	3.30	5.00	29.00
28	1	1.80	4.40	0.00
20	5	12.50	4.00	29.00
301	1	3.00	3.00	29.00
302	3	4.00	1.50	29.00

MANIFESTING RECORD

NP	WT AV	LEN AV	*****MAIN P/L********* #	KEY	#FL	MASS	LEN	*****SEC P/L******** #	KEY	#FL	MASS	LEN	MC	MF	SF	DM RQ	FLTS OK	FLTS MAN	CG	FRE LEN	FRE MASS
1	27.6	10.1	33	OT01	1	22.0	14.0	30	CM06	11	25.0	12.0	5	1	1	*		--	--	--	--

1	27.6	10.1	33	OT01	1	22.0	14.0	27	CC04	1	5.0	8.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	33	OT01	1	22.0	14.0	34	OT02	8	15.0	8.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	33	OT01	1	22.0	14.0	5	OT03	1	11.0	7.0	4	1	1	*		--	--	--	--	
1	27.6	10.1	33	OT01	1	22.0	14.0	18	CM02	1	10.0	7.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	33	OT01	1	22.0	14.0	2	SO02	1	2.5	6.0	4	1	1	*		--	--	--	--	
1	27.6	10.1	33	OT01	1	22.0	14.0	6	OT04	2	8.0	6.0	4	1	1	*		--	--	--	--	
1	27.6	10.1	33	OT01	1	22.0	14.0	26	CC03	1	5.0	6.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	33	OT01	1	22.0	14.0	16	SL06	1	3.3	5.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	33	OT01	1	22.0	14.0	28	CC05	1	1.8	4.4	5	1	1	*		--	--	--	--	
1	27.6	10.1	33	OT01	1	22.0	14.0	20	CM04	5	12.5	4.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	33	OT01	1	22.0	14.0	301	TMS	1	3.0	3.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	33	OT01	1	22.0	14.0	302	TMS	3	4.0	1.5	5	1	1	*		--	--	--	--	
1	27.6	10.1	30	CM06	11	25.0	12.0	27	CC04	1	5.0	8.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	30	CM06	11	25.0	12.0	34	OT02	8	15.0	8.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	30	CM06	11	25.0	12.0	5	OT03	1	11.0	7.0	4	1	1	*		--	--	--	--	
1	27.6	10.1	30	CM06	11	25.0	12.0	18	CM02	1	10.0	7.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	30	CM06	11	25.0	12.0	2	SO02	1	2.5	6.0	4	1	1	*		--	--	--	--	
1	27.6	10.1	30	CM06	11	25.0	12.0	6	OT04	2	8.0	6.0	4	1	1	*		--	--	--	--	
1	27.6	10.1	30	CM06	11	25.0	12.0	26	CC03	1	5.0	6.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	30	CM06	11	25.0	12.0	16	SL06	1	3.3	5.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	30	CM06	11	25.0	12.0	28	CC05	1	1.8	4.4	5	1	1	*		--	--	--	--	
1	27.6	10.1	30	CM06	11	25.0	12.0	20	CM04	5	12.5	4.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	30	CM06	11	25.0	12.0	301	TMS	1	3.0	3.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	30	CM06	11	25.0	12.0	302	TMS	3	4.0	1.5	5	1	1	*		--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	34	OT02	8	15.0	8.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	5	OT03	1	11.0	7.0	4	1	1	*		--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	18	CM02	1	10.0	7.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	2	SO02	1	2.5	6.0	4	1	1	*		--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	6	OT04	2	8.0	6.0	4	1	1	*		--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	26	CC03	1	5.0	6.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	16	SL06	1	3.3	5.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	28	CC05	1	1.8	4.4	5	1	1	*		--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	20	CM04	5	12.5	4.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	301	TMS	1	3.0	3.0	5	1	1	*		--	--	--	--	

PROPELLANT DELIVERED USING MINITANKER IS NOW 15.200

1	27.6	10.1	27	CC04	0	5.0	8.0	302	TMS	2	4.0	1.5	8	1	1	*		1	27.2	0.6	0.8	
1	27.6	10.1	34	OT02	8	15.0	8.0	5	OT03	1	11.0	7.0	4	1	1	*		--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	18	CM02	1	10.0	7.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	2	SO02	1	2.5	6.0	4	1	1	*		--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	6	OT04	2	8.0	6.0	4	1	1	*		--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	26	CC03	1	5.0	6.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	16	SL06	1	3.3	5.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	28	CC05	1	1.8	4.4	5	1	1	*		--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	20	CM04	5	12.5	4.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	301	TMS	1	3.0	3.0	5	1	1	*		--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	302	TMS	2	4.0	1.5	7	1	1	*		--	--	--	--	
1	15.5	18.3	5	OT03	1	11.0	7.0	18	CM02	1	10.0	7.0	4	0	0			--	--	--	--	

DOCKING MODULE ADDED

1	15.5	18.3	5	OT03	0	11.0	7.0	2	SO02	0	2.5	6.0	8	0	0		*	1	28.1	3.2	0.1	
1	15.5	18.3	5	OT03	0	11.0	7.0	6	OT04	2	8.0	6.0	1	0	0			--	--	--	--	
1	15.5	18.3	5	OT03	0	11.0	7.0	26	CC03	1	5.0	6.0	1	0	0			--	--	--	--	
1	15.5	18.3	5	OT03	0	11.0	7.0	16	SL06	1	3.3	5.0	1	0	0			--	--	--	--	
1	15.5	18.3	5	OT03	0	11.0	7.0	28	CC05	1	1.8	4.4	1	0	0			--	--	--	--	
1	15.5	18.3	5	OT03	0	11.0	7.0	20	CM04	5	12.5	4.0	1	0	0			--	--	--	--	
1	15.5	18.3	5	OT03	0	11.0	7.0	301	TMS	1	3.0	3.0	1	0	0			--	--	--	--	
1	15.5	18.3	5	OT03	0	11.0	7.0	302	TMS	2	4.0	1.5	1	0	0			--	--	--	--	
1	27.6	10.1	18	CM02	1	10.0	7.0	2	SO02	0	2.5	6.0	1	1	1	*		--	--	--	--	
1	27.6	10.1	18	CM02	1	10.0	7.0	6	OT04	2	8.0	6.0	4	1	1	*		--	--	--	--	
1	27.6	10.1	18	CM02	1	10.0	7.0	26	CC03	1	5.0	6.0	5	1	1	*		--	--	--	--	

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1	27.6	10.1	18	CM02	1	10.0	7.0	16	SL06	1	3.3	5.0	5	1	1	*	--	--	--	--
1	27.6	10.1	18	CM02	1	10.0	7.0	28	CC05	1	1.8	4.4	5	1	1	*	--	--	--	--
1	27.6	10.1	18	CM02	1	10.0	7.0	20	CM04	5	12.5	4.0	5	1	1	*	--	--	--	--
PROPELLANT DELIVERED USING MINITANKER IS NOW											30.239									
1	27.6	10.1	18	CM02	0	10.0	7.0	301	TMS	0	3.0	3.0	8	1	1	*	1	26.2	0.1	-3.0
1	27.6	10.1	18	CM02	0	10.0	7.0	302	TMS	2	4.0	1.5	1	1	1	*	--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	26	CC03	1	5.0	6.0	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	16	SL06	1	3.3	5.0	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	28	CC05	1	1.8	4.4	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	20	CM04	5	12.5	4.0	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	302	TMS	2	4.0	1.5	4	0	0		--	--	--	--
1	27.6	10.1	26	CC03	1	5.0	6.0	16	SL06	1	3.3	5.0	5	1	1	*	--	--	--	--
1	27.6	10.1	26	CC03	1	5.0	6.0	28	CC05	1	1.8	4.4	5	1	1	*	--	--	--	--
1	27.6	10.1	26	CC03	1	5.0	6.0	20	CM04	5	12.5	4.0	7	1	1	*	--	--	--	--
1	27.6	10.1	26	CC03	1	5.0	6.0	301	TMS	0	3.0	3.0	1	1	1	*	--	--	--	--
PROPELLANT DELIVERED USING MINITANKER IS NOW											45.438									
1	27.6	10.1	26	CC03	0	5.0	6.0	302	TMS	1	4.0	1.5	8	1	1	*	1	27.4	-2.6	0.8
PROPELLANT DELIVERED USING MINITANKER IS NOW											60.639									
1	27.6	10.1	16	SL06	0	3.3	5.0	28	CC05	0	1.8	4.4	8	1	1	*	1	27.7	0.7	4.7
1	27.6	10.1	16	SL06	0	3.3	5.0	20	CM04	5	12.5	4.0	1	1	1	*	--	--	--	--
1	27.6	10.1	16	SL06	0	3.3	5.0	301	TMS	0	3.0	3.0	1	1	1	*	--	--	--	--
1	27.6	10.1	16	SL06	0	3.3	5.0	302	TMS	1	4.0	1.5	1	1	1	*	--	--	--	--
1	27.6	10.1	20	CM04	5	12.5	4.0	301	TMS	0	3.0	3.0	1	1	1	*	--	--	--	--
PROPELLANT DELIVERED USING MINITANKER IS NOW											72.352									
1	27.6	10.1	20	CM04	4	12.5	4.0	302	TMS	0	4.0	1.5	8	1	1	*	1	26.2	4.6	-3.0
1	15.5	18.3	6	OT04	0	8.0	6.0	--	--	--	--	--	8	0	0	*	2	24.5	12.3	19.6
PROPELLANT DELIVERED USING MINITANKER IS NOW											133.152									
1	27.6	16.2	20	CM04	0	12.5	4.0	--	--	--	--	--	8	1	1	*	4	27.3	12.2	-2.7
2	27.6	16.2	33	OT01	1	22.0	14.0	30	CM06	11	25.0	12.0	5	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	27	CC04	0	5.0	8.0	1	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	34	OT02	8	15.0	8.0	5	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	5	OT03	0	11.0	7.0	1	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	18	CM02	0	10.0	7.0	1	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	2	SO02	0	2.5	6.0	1	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	6	OT04	0	8.0	6.0	1	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	26	CC03	0	5.0	6.0	1	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	16	SL06	0	3.3	5.0	1	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	28	CC05	0	1.8	4.4	1	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	20	CM04	0	12.5	4.0	1	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	301	TMS	0	3.0	3.0	1	0	0	*	--	--	--	--
2	27.6	16.2	33	OT01	1	22.0	14.0	302	TMS	0	4.0	1.5	1	0	0	*	--	--	--	--
2	29.5	18.3	30	CM06	11	25.0	12.0	27	CC04	0	5.0	8.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	11	25.0	12.0	34	OT02	8	15.0	8.0	5	0	0		--	--	--	--
2	29.5	18.3	30	CM06	11	25.0	12.0	5	OT03	0	11.0	7.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	11	25.0	12.0	18	CM02	0	10.0	7.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	11	25.0	12.0	2	SO02	0	2.5	6.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	11	25.0	12.0	6	OT04	0	8.0	6.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	11	25.0	12.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	11	25.0	12.0	16	SL06	0	3.3	5.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	11	25.0	12.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	11	25.0	12.0	20	CM04	0	12.5	4.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	11	25.0	12.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	11	25.0	12.0	302	TMS	0	4.0	1.5	1	0	0		--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	5	OT03	0	11.0	7.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	18	CM02	0	10.0	7.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	2	SO02	0	2.5	6.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	6	OT04	0	8.0	6.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	26	CC03	0	5.0	6.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	16	SL06	0	3.3	5.0	1	0	0	*	--	--	--	--

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2	27.6	16.2	34	OT02	8	15.0	8.0	28	CC05	0	1.8	4.4	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	20	CM04	0	12.5	4.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	301	TMS	0	3.0	3.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	302	TMS	0	4.0	1.5	1	0	0	*	--	--	--	--
2	29.5	18.3	30	CM06	0	25.0	12.0	--	--	--	--	--	8	0	0	*	11	27.3	6.3	2.6
2	29.5	18.3	34	OT02	0	15.0	8.0	--	--	--	--	--	8	0	0	*	8	26.3	10.3	12.6

PROPELLANT NEEDED THIS YEAR = 81.
PROPELLANT LEFT FROM PRIOR YEAR = 6.
PROPELLANT DELIVERED BY MINITANKER = 133.
PROPELLANT DELIVERED BY ET SCAVENGING = 0.

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MANIFEST #	KEY REF	DESCRIPTION	MATCHED WITH	NO. FLTS	OTV USED	OTV EXP	P/L BAY LENGTH	LAUNCH MASS	TIME ON ORBIT	SP STA OPERATION
1	CC04	**MULTIBEAM COMM SATELLITE	TMS PROP DELIV	1	1	0	17.7	28.7	2.0	FS
2	OT03	SPACE STATION MODULES	SYNTH APERTURE RADAR	1	0	0	15.1	15.4	4.0	FS
3	CM02	**CRYSTAL GROWTH FACTORY/PLAT	TMS CAB DELIVERY	1	0	0	18.2	32.5	2.0	FS
4	CC03	**INTELSAT-7,7A CLASS COMSAT	TMS PROP DELIV	1	1	0	15.7	28.7	2.0	FS
5	SL06	**CLOSED ENV LSS EXPT MOD	RECONFIGURABLE COMM. SATELLITE	1	1	0	17.6	24.8	4.0	FS
6	CM04	**CRYSTAL GROWTH RESUP-2	TMS PROP DELIV	1	0	0	13.7	32.5	2.0	FS
7	OT04	HI-INCL STATION RESUPPLY		2	0	0	6.0	9.9	2.0	FS
8	CM04	**CRYSTAL GROWTH RESUP-2		4	0	0	12.2	29.5	2.0	C
9			CANT MANIF PLD	0	0	0	0.0	0.0	2.0	FS
10	CM06	CONTINUOUS FLOW ELECTRO RESUPP		11	0	0	12.0	26.9	2.0	
11	OT02	LOW INCL STA RESUPPLY		8	0	0	8.0	16.9	2.0	

** - MANIFESTED WITH MINITANKER

NO. OF SHUTTLE FLIGHTS 31
NO. OF TMS OPS 16
NO. OF MANNED TMS OPS 16

```
 NO. OF SELF-PROP SAT SERV OPS       0
 TMS & SATELLITE PROPELLANT USED          5.70
NO. OF OTV REUSE FLIGHTS      3
NO. OF OTVS EXPENDED      0
SPACE STATION FLT SERVICE OPS      6
SPACE STATION CONSTR OPS     10
SPACE STATION PROP XFER OPS      9
HLLV FLIGHTS      0
 FLEET TIME ON ORBIT =      66.0 DAYS
 TOTAL FLEET TIME =    1151.0 DAYS
 IDEAL MIN FLEET SIZE =      3.69 VEHICLES
```

YEAR 2000

TMS MISSION SUMMARY

KEY	TITLE	CODE	TMS MISSION TYPE AUTO	MAN	RET/DEPLOY	SELF-PROP	NO. USES	PROP RQD
S001	EARTH OBSERV	SPCL						
S002	SYNTH APERTURE	SPCL						
S004	UPPER ATMOS	SPCL						
OT03	SPACE STATION	SSSS						
OT04	HI-INCL STATION	SORS						
SP01	SPACE SCIENCE	FSXX				X	1.0	0.0
SP02	SPACE PHYSICS	SPCM						
SA01	VLBI/COSMIC	SPCL						
SL01	HUMAN LIFE SI	SSSA						
SL02	SMALL MAMMALS	SSSA						
SL04	LIFESCIENCES	SPXX						
SL05	CENTRIFUGE	SSCL						
SL06	CLOSED ENV	SPCL						
CM01	MATLS SCIENCE	SPXX						
CM02	CRYSTAL GROWTH	PMCL		X			4.0	0.4
CM03	CRYSTAL GROWTH	PMXX		X			3.0	0.4
CM04	CRYSTAL GROWTH	PMCL		X			4.0	0.4
SA04	ASTROPHYSICS	FMXM		X			1.0	0.4
CC03	INTELSAT-7,7A	FXCL						
CC04	MULTIBEAM COMM.	SSCM						
CC05	RECONFIGURABLE	FXCM						
CM05	CONT FLOW ELEC-	PMCL		X			0.0	0.4
CM06	CONTINUOUS FLOW	PMXL		X			4.0	0.4
OT01	LOW INCL STA	SSSS						
OT02	LOW INCL STA	SORS						
OT05	HI-ALT STA	OMSB						
TM02	PRECISION OPT	SPCH						

TS02 TECH DEVEL SSSA

SA05 LARGE RADIO FMCH X 1.0 0.4

THIS IS A SPACE STATION SPACE-AVAILABLE MISSION
NOT MANIFESTED ON TRANSPORTATION

OT05 SPACE-BASED MANNED OTV
NOT MANIFESTED AS SHUTTLE PAYLOAD
PAYLOAD 6 HI-INCL STATION RESUPPLY
NO OTV REQD
PAYLOAD 7 SPACE SCIENCE SUBSATELLITE
NO OTV REQD
PAYLOAD 13 PLANT DEVEL CARRY-ONS

THIS IS A SPACE STATION SPACE-AVAILABLE MISSION
NOT MANIFESTED ON TRANSPORTATION
PAYLOAD 20 CRYSTAL GROWTH RESUP-2
NO OTV REQD
PAYLOAD 21 ASTRO TELESCOPE CLUSTER
NO OTV REQD
PAYLOAD 26 INTELSAT-7,7A CLASS COMSAT
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 14.170
PAYLOAD 27 MULTIBEAM COMM. SATELLITE
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 14.170
PAYLOAD 28 RECONFIGURABLE COMM. SATELLITE
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 9.315
PAYLOAD 29 CONT FLOW ELEC- TROPH PLATFORM
NO OTV REQD
PAYLOAD 30 CONTINUOUS FLOW ELECTRO RESUPP
NO OTV REQD
PAYLOAD 34 LOW INCL STA RESUPPLY
NO OTV REQD
PAYLOAD 35 HI-ALT STA RESUPPLY
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 21.497
PAYLOAD 42 PRECISION OPT CONSTR & TEST
NO OTV REQD
PAYLOAD 46 LARGE RADIO TELESCOPE
NO OTV REQD
SORTED H ARRAY

INDEX	#FLTS	MASS	LENGTH	INCLIN
21	-1	20.00	12.00	29.00
30	12	25.00	12.00	29.00
27	1	5.00	8.00	0.00
34	8	15.00	8.00	29.00
46	1	5.00	7.00	29.00
6	2	8.00	6.00	98.00
26	1	5.00	6.00	0.00
29	1	7.00	6.00	29.00
42	1	5.00	5.00	29.00
28	2	1.80	4.40	0.00
7	1	2.40	4.00	98.00
20	5	12.50	4.00	29.00
301	2	3.00	3.00	29.00
302	2	4.00	1.50	29.00
300	1	1.50	1.10	29.00

ORIGINAL PAGE IS
OF POOR QUALITY

MANIFESTING RECORD

NP	WT AV	LEN AV	MAIN P/L #	MAIN P/L KEY	MAIN P/L #FL	MAIN P/L MASS	MAIN P/L LEN	SEC P/L #	SEC P/L KEY	SEC P/L #FL	SEC P/L MASS	SEC P/L LEN	MC	MF	SF	DM RQ	DM OK	FLTS MAN	CG	FRE LEN	FRE MASS
1	27.6	10.1	30	CM06	12	25.0	12.0	27	CC04	1	5.0	8.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	12	25.0	12.0	34	OT02	8	15.0	8.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	12	25.0	12.0	46	SA05	1	5.0	7.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	12	25.0	12.0	6	OT04	2	8.0	6.0	4	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	12	25.0	12.0	26	CC03	1	5.0	6.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	12	25.0	12.0	29	CM05	1	7.0	6.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	12	25.0	12.0	42	TM02	1	5.0	5.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	12	25.0	12.0	28	CC05	2	1.8	4.4	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	12	25.0	12.0	7	SP01	1	2.4	4.0	4	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	12	25.0	12.0	20	CM04	5	12.5	4.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	12	25.0	12.0	301	TMS	2	3.0	3.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	12	25.0	12.0	302	TMS	2	4.0	1.5	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	12	25.0	12.0	300	TMS	1	1.5	1.1	5	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	34	OT02	8	15.0	8.0	5	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	46	SA05	1	5.0	7.0	5	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	6	OT04	2	8.0	6.0	4	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	26	CC03	1	5.0	6.0	5	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	29	CM05	1	7.0	6.0	5	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	42	TM02	1	5.0	5.0	5	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	28	CC05	2	1.8	4.4	5	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	7	SP01	1	2.4	4.0	4	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	20	CM04	5	12.5	4.0	5	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	301	TMS	2	3.0	3.0	5	1	1	*		--	--	--	--
PROPELLANT DELIVERED USING MINITANKER IS NOW											15.200										
1	27.6	10.1	27	CC04	0	5.0	8.0	302	TMS	1	4.0	1.5	8	1	1	*		1	27.2	0.6	0.8
1	27.6	10.1	27	CC04	0	5.0	8.0	300	TMS	1	1.5	1.1	1	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	46	SA05	1	5.0	7.0	5	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	6	OT04	2	8.0	6.0	4	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	26	CC03	1	5.0	6.0	5	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	29	CM05	1	7.0	6.0	5	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	42	TM02	1	5.0	5.0	5	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	28	CC05	2	1.8	4.4	5	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	7	SP01	1	2.4	4.0	4	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	20	CM04	5	12.5	4.0	5	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	301	TMS	2	3.0	3.0	5	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	302	TMS	1	4.0	1.5	7	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	300	TMS	1	1.5	1.1	7	1	1	*		--	--	--	--
1	27.6	10.1	46	SA05	1	5.0	7.0	6	OT04	2	8.0	6.0	4	1	1	*		--	--	--	--
1	27.6	10.1	46	SA05	1	5.0	7.0	26	CC03	1	5.0	6.0	5	1	1	*		--	--	--	--
1	27.6	10.1	46	SA05	1	5.0	7.0	29	CM05	1	7.0	6.0	5	1	1	*		--	--	--	--
1	27.6	10.1	46	SA05	1	5.0	7.0	42	TM02	1	5.0	5.0	5	1	1	*		--	--	--	--
1	27.6	10.1	46	SA05	1	5.0	7.0	28	CC05	2	1.8	4.4	5	1	1	*		--	--	--	--
1	27.6	10.1	46	SA05	1	5.0	7.0	7	SP01	1	2.4	4.0	4	1	1	*		--	--	--	--
1	27.6	10.1	46	SA05	1	5.0	7.0	20	CM04	5	12.5	4.0	5	1	1	*		--	--	--	--
PROPELLANT DELIVERED USING MINITANKER IS NOW											30.400										
1	27.6	10.1	46	SA05	0	5.0	7.0	301	TMS	1	3.0	3.0	8	1	1	*		1	27.0	0.1	1.8
1	27.6	10.1	46	SA05	0	5.0	7.0	302	TMS	1	4.0	1.5	1	1	1	*		--	--	--	--
1	27.6	10.1	46	SA05	0	5.0	7.0	300	TMS	1	1.5	1.1	1	1	1	*		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	26	CC03	1	5.0	6.0	4	0	0			--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	29	CM05	1	7.0	6.0	4	0	0			--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	42	TM02	1	5.0	5.0	4	0	0			--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	28	CC05	2	1.8	4.4	4	0	0			--	--	--	--

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1	15.5	18.3	6	OT04	1	8.0	6.0	7	SP01	0	2.4	4.0	8	0	0		1	24.7	8.3	5.1
1	15.5	18.3	6	OT04	1	8.0	6.0	20	CM04	5	12.5	4.0	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	1	8.0	6.0	301	TMS	1	3.0	3.0	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	1	8.0	6.0	302	TMS	1	4.0	1.5	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	1	8.0	6.0	300	TMS	1	1.5	1.1	4	0	0		--	--	--	--
1	27.6	10.1	26	CC03	1	5.0	6.0	29	CM05	1	7.0	6.0	5	1	1	*	--	--	--	--
1	27.6	10.1	26	CC03	1	5.0	6.0	42	TM02	1	5.0	5.0	5	1	1	*	--	--	--	--
1	27.6	10.1	26	CC03	1	5.0	6.0	28	CC05	2	1.8	4.4	5	1	1	*	--	--	--	--
1	27.6	10.1	26	CC03	1	5.0	6.0	7	SP01	0	2.4	4.0	1	1	1	*	--	--	--	--
1	27.6	10.1	26	CC03	1	5.0	6.0	20	CM04	5	12.5	4.0	7	1	1	*	--	--	--	--
PROPELLANT DELIVERED USING MINITANKER IS NOW											45.600									
1	27.6	10.1	26	CC03	0	5.0	6.0	301	TMS	0	3.0	3.0	8	1	1	*	1	27.1	1.1	1.8
2	29.5	18.3	30	CM06	12	25.0	12.0	27	CC04	0	5.0	8.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	12	25.0	12.0	34	OT02	8	15.0	8.0	5	0	0		--	--	--	--
2	29.5	18.3	30	CM06	12	25.0	12.0	46	SA05	0	5.0	7.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	12	25.0	12.0	6	OT04	1	8.0	6.0	4	0	0		--	--	--	--
2	29.5	18.3	30	CM06	12	25.0	12.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	12	25.0	12.0	29	CM05	1	7.0	6.0	6	0	0		--	--	--	--
2	29.5	18.3	30	CM06	12	25.0	12.0	42	TM02	1	5.0	5.0	6	0	0		--	--	--	--
2	29.5	18.3	30	CM06	10	25.0	12.0	28	CC05	0	1.8	4.4	8	0	0		2	26.3	1.9	2.7
2	29.5	18.3	30	CM06	10	25.0	12.0	7	SP01	0	2.4	4.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	10	25.0	12.0	20	CM04	5	12.5	4.0	6	0	0		--	--	--	--
2	29.5	18.3	30	CM06	10	25.0	12.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	9	25.0	12.0	302	TMS	0	4.0	1.5	8	0	0		1	26.1	4.8	0.5
2	29.5	18.3	30	CM06	8	25.0	12.0	300	TMS	0	1.5	1.1	8	0	0		1	26.5	5.2	3.0
2	27.6	16.2	34	OT02	8	15.0	8.0	46	SA05	0	5.0	7.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	6	OT04	1	8.0	6.0	4	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	26	CC03	0	5.0	6.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	7	15.0	8.0	29	CM05	0	7.0	6.0	8	0	0	*	1	25.8	2.2	5.6
2	27.6	16.2	34	OT02	6	15.0	8.0	42	TM02	0	5.0	5.0	8	0	0	*	1	26.2	3.2	7.6
2	27.6	16.2	34	OT02	6	15.0	8.0	28	CC05	0	1.8	4.4	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	6	15.0	8.0	7	SP01	0	2.4	4.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	1	15.0	8.0	20	CM04	0	12.5	4.0	8	0	0	*	5	26.7	4.2	0.1
2	27.6	16.2	34	OT02	1	15.0	8.0	301	TMS	0	3.0	3.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	1	15.0	8.0	302	TMS	0	4.0	1.5	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	1	15.0	8.0	300	TMS	0	1.5	1.1	1	0	0	*	--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	29	CM05	0	7.0	6.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	42	TM02	0	5.0	5.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	7	SP01	0	2.4	4.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	20	CM04	0	12.5	4.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	302	TMS	0	4.0	1.5	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	300	TMS	0	1.5	1.1	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	0	25.0	12.0	--	--	--	--	--	8	0	0		8	27.1	6.3	-9.5
2	29.5	18.3	34	OT02	0	15.0	8.0	--	--	--	--	--	8	0	0		1	26.0	10.3	0.5
2	15.5	18.3	6	OT04	0	8.0	6.0	--	--	--	--	--	8	0	0		1	23.5	12.3	7.5

PROPELLANT NEEDED THIS YEAR = 90.
PROPELLANT LEFT FROM PRIOR YEAR = 59.
PROPELLANT DELIVERED BY MINITANKER = 46.
PROPELLANT DELIVERED BY ET SCAVENGING = 0.

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OF POOR QUALITY

MANIFEST #	KEY REF	DESCRIPTION	MATCHED WITH	NO. FLTS	OTV USED	OTV EXP	P/L BAY LENGTH	LAUNCH MASS	TIME ON ORBIT	SP STA OPERATION
1	CC04	**MULTIBEAM COMM SATELLITE	TMS PROP DELIV	1	1	0	17.7	28.7	2.0	FS
2	SA05	**LARGE RADIO TELESCOPE	TMS CAB DELIVERY	1	0	0	18.2	27.7	2.0	FS
3	OT04	HI-INCL STATION RESUPPLY	SPACE SCIENCE SUBSATELLITE	1	0	0	10.0	10.4	4.0	FS
4	CC03	**INTELSAT-7,7A CLASS COMSAT	TMS CAB DELIVERY	1	1	0	17.2	27.7	2.0	FS
5	CM06	CONTINUOUS FLOW ELECTRO RESUPP	RECONFIGURABLE COMM. SATELLITE	2	1	0	16.4	26.8	4.0	FS
6	CM06	CONTINUOUS FLOW ELECTRO RESUPP	TMS PROP DELIV	1	0	0	13.5	29.0	2.0	FS
7	CM06	CONTINUOUS FLOW ELECTRO RESUPP	TMS DELIVERY	1	0	0	13.1	26.5	2.0	FS
8	OT02	LOW INCL STA RESUPPLY	CONT FLOW ELEC-TROPH PLATFORM	1	0	0	16.1	23.9	4.0	FS
9	OT02	LOW INCL STA RESUPPLY	PRECISION OPT CONSTR & TEST	1	0	0	15.1	21.9	4.0	FS
10	OT02	LOW INCL STA RESUPPLY	CRYSTAL GROWTH RESUP-2	5	0	0	14.1	29.4	4.0	FS
11	CM06	CONTINUOUS FLOW ELECTRO RESUPP		8	0	0	12.0	25.0	2.0	
12	OT02	LOW INCL STA RESUPPLY		1	0	0	8.0	15.0	2.0	
13	OT04	HI-INCL STATION RESUPPLY		1	0	0	6.0	8.0	2.0	

** - MANIFESTED WITH MINITANKER

NO. OF SHUTTLE FLIGHTS 25
NO. OF TMS OPS 17
NO. OF MANNED TMS OPS 17
NO. OF SELF:PROP SAT SERV OPS 1
TMS & SATELLITE PROPELLANT USED 6.10
NO. OF OTV REUSE FLIGHTS 4
NO. OF OTVS EXPENDED 0
SPACE STATION FLT SERVICE OPS 15
SPACE STATION CONSTR OPS 12
SPACE STATION PROP XFER OPS 3
HLLV FLIGHTS 0
FLEET TIME ON ORBIT = 70.0 DAYS
TOTAL FLEET TIME = 945.0 DAYS
IDEAL MIN FLEET SIZE = 3.03 VEHICLES

YEAR 2001

TMS MISSION SUMMARY

KEY	TITLE	CODE	TMS MISSION TYPE AUTO	MAN	RET/DEPLOY	SELF-PROP	NO. USES	PROP RQD
S001	EARTH OBSERV	SPCL						
S002	SYNTH APERTURE	SPCL						
S004	UPPER ATMOS	SPCL						
OT03	SPACE STATION	SSSS						
OT04	HI-INCL STATION	SORS						
SP01	SPACE SCIENCE	FSXX				X	1.0	0.0
SA01	VLBI/COSMIC	SPCL						
SL08	RAD BIOLOGY	SSSA						
SL01	HUMAN LIFE SI	SSSA						
SL04	LIFESCIENCES	SPXX						
SL05	CENTRIFUGE	SSCL						
SL06	CLOSED ENV	SPCL						
CM01	MATLS SCIENCE	SPXX						
CM02	CRYSTAL GROWTH	PMCL		X			4.0	0.4
CM03	CRYSTAL GROWTH	PMXX		X			3.0	0.4
CM04	CRYSTAL GROWTH	PMCL		X			4.0	0.4
SA03	ASTROPHYSICS	FMXM		X			1.0	0.4
SA04	ASTROPHYSICS	FMXM		X			1.0	0.4
CC03	INTELSAT-7,7A	FXCL						
CC04	MULTIBEAM COMM.	SSCM						
CC05	RECONFIGURABLE	FXCM						
CM05	CONT FLOW ELEC-	PMCL		X			0.0	0.4
CM06	CONTINUOUS FLOW	PMXL		X			4.0	0.4
OT01	LOW INCL STA	SSSS						
OT02	LOW INCL STA	SORS						
OT05	HI-ALT STA	OMSB						
TS02	TECH DEVEL	SSSA						

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 SA05 LARGE RADIO       FMCH        X                          1.0        0.4

  THIS IS A SPACE STATION SPACE-AVAILABLE MISSION
 NOT MANIFESTED ON TRANSPORTATION

  THIS IS A SPACE STATION SPACE-AVAILABLE MISSION
 NOT MANIFESTED ON TRANSPORTATION

  OT05 SPACE-BASED MANNED OTV
NOT MANIFESTED AS SHUTTLE PAYLOAD
PAYLOAD     6   HI-INCL STATION    RESUPPLY
NO OTV REQD
PAYLOAD     8   SPACE PHYSICS      PALLET
NO OTV REQD
PAYLOAD    10   RAD BIOLOGY        IN SM MAMMALS

  THIS IS A SPACE STATION SPACE-AVAILABLE MISSION
 NOT MANIFESTED ON TRANSPORTATION
PAYLOAD    12   SMALL MAMMALS      CARRY-ONS

  THIS IS A SPACE STATION SPACE-AVAILABLE MISSION
 NOT MANIFESTED ON TRANSPORTATION
PAYLOAD    18   CRYSTAL GROWTH     FACTORY/PLAT
NO OTV REQD
PAYLOAD    20   CRYSTAL GROWTH     RESUP-2
NO OTV REQD
PAYLOAD    22   ASTROPHYSICS       FREE-FLYER
NO OTV REQD
PAYLOAD    26   INTELSAT-7,7A      CLASS COMSAT
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED:       14.170
PAYLOAD    27   MULTIBEAM COMM.    SATELLITE
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED:       14.170
PAYLOAD    28   RECONFIGURABLE     COMM. SATELLITE
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED:        9.315
PAYLOAD    30   CONTINUOUS FLOW    ELECTRO RESUPP
NO OTV REQD
PAYLOAD    34   LOW INCL STA       RESUPPLY
NO OTV REQD
PAYLOAD    35   HI-ALT STA         RESUPPLY
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED:       21.497
PAYLOAD    42   PRECISION OPT      CONSTR & TEST
NO OTV REQD
SORTED H ARRAY
    INDEX      #FLTS       MASS     LENGTH     INCLIN
       22          1      17.00      12.00      29.00
       30         14      25.00      12.00      29.00
       27          1       5.00       8.00       0.00
       34          8      15.00       8.00      29.00
       18          1      10.00       7.00      29.00
        6          2       8.00       6.00      98.00
       26          1       5.00       6.00       0.00
        8         -1      10.00       5.00      98.00
       42         -1       5.00       5.00      29.00
       28          3       1.80       4.40       0.00
       20          6      12.50       4.00      29.00
      301          2       3.00       3.00      29.00
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302	3	4.00	1.50	29.00
300	1	1.50	1.10	29.00

MANIFESTING RECORD

NP	WT AV	LEN AV	*****MAIN P/L********* #	KEY	#FL	MASS	LEN	*****SEC P/L********* #	KEY	#FL	MASS	LEN	MC	MF	SF	DM RQ	DM OK	FLTS MAN	CG	FRE LEN	FRE MASS
1	27.6	10.1	22	SA03	1	17.0	12.0	30	CM06	14	25.0	12.0	5	1	1	*		--	--	--	--
1	27.6	10.1	22	SA03	1	17.0	12.0	27	CC04	1	5.0	8.0	5	1	1	*		--	--	--	--
1	27.6	10.1	22	SA03	1	17.0	12.0	34	OT02	8	15.0	8.0	5	1	1	*		--	--	--	--
1	27.6	10.1	22	SA03	1	17.0	12.0	18	CM02	1	10.0	7.0	5	1	1	*		--	--	--	--
1	27.6	10.1	22	SA03	1	17.0	12.0	6	OT04	2	8.0	6.0	4	1	1	*		--	--	--	--
1	27.6	10.1	22	SA03	1	17.0	12.0	26	CC03	1	5.0	6.0	5	1	1	*		--	--	--	--
1	27.6	10.1	22	SA03	1	17.0	12.0	8	SP02	-1	10.0	5.0	1	1	1	*		--	--	--	--
1	27.6	10.1	22	SA03	1	17.0	12.0	42	TM02	-1	5.0	5.0	1	1	1	*		--	--	--	--
1	27.6	10.1	22	SA03	1	17.0	12.0	28	CC05	3	1.8	4.4	5	1	1	*		--	--	--	--
1	27.6	10.1	22	SA03	1	17.0	12.0	20	CM04	6	12.5	4.0	5	1	1	*		--	--	--	--
1	27.6	10.1	22	SA03	1	17.0	12.0	301	TMS	2	3.0	3.0	5	1	1	*		--	--	--	--
1	27.6	10.1	22	SA03	1	17.0	12.0	302	TMS	3	4.0	1.5	5	1	1	*		--	--	--	--
1	27.6	10.1	22	SA03	1	17.0	12.0	300	TMS	1	1.5	1.1	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	14	25.0	12.0	27	CC04	1	5.0	8.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	14	25.0	12.0	34	OT02	8	15.0	8.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	14	25.0	12.0	18	CM02	1	10.0	7.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	14	25.0	12.0	6	OT04	2	8.0	6.0	4	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	14	25.0	12.0	26	CC03	1	5.0	6.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	14	25.0	12.0	8	SP02	-1	10.0	5.0	1	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	14	25.0	12.0	42	TM02	-1	5.0	5.0	1	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	14	25.0	12.0	28	CC05	3	1.8	4.4	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	14	25.0	12.0	20	CM04	6	12.5	4.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	14	25.0	12.0	301	TMS	2	3.0	3.0	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	14	25.0	12.0	302	TMS	3	4.0	1.5	5	1	1	*		--	--	--	--
1	27.6	10.1	30	CM06	14	25.0	12.0	300	TMS	1	1.5	1.1	5	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	34	OT02	8	15.0	8.0	5	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	18	CM02	1	10.0	7.0	5	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	6	OT04	2	8.0	6.0	4	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	26	CC03	1	5.0	6.0	5	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	8	SP02	-1	10.0	5.0	1	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	42	TM02	-1	5.0	5.0	1	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	28	CC05	3	1.8	4.4	5	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	20	CM04	6	12.5	4.0	5	1	1	*		--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	301	TMS	2	3.0	3.0	5	1	1	*		--	--	--	--
PROPELLANT DELIVERED USING MINITANKER IS NOW											15.200										
1	27.6	10.1	27	CC04	0	5.0	8.0	302	TMS	2	4.0	1.5	8	1	1	*		1	27.2	0.6	0.8
1	27.6	10.1	27	CC04	0	5.0	8.0	300	TMS	1	1.5	1.1	1	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	18	CM02	1	10.0	7.0	5	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	6	OT04	2	8.0	6.0	4	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	26	CC03	1	5.0	6.0	5	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	8	SP02	-1	10.0	5.0	1	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	42	TM02	-1	5.0	5.0	1	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	28	CC05	3	1.8	4.4	5	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	20	CM04	6	12.5	4.0	5	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	301	TMS	2	3.0	3.0	5	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	302	TMS	2	4.0	1.5	7	1	1	*		--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	300	TMS	1	1.5	1.1	7	1	1	*		--	--	--	--
1	27.6	10.1	18	CM02	1	10.0	7.0	6	OT04	2	8.0	6.0	4	1	1	*		--	--	--	--
1	27.6	10.1	18	CM02	1	10.0	7.0	26	CC03	1	5.0	6.0	5	1	1	*		--	--	--	--

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1	27.6	10.1	18	CM02	1	10.0	7.0	8	SP02	-1	10.0	5.0	1	1	1	*	--	--	--	--
1	27.6	10.1	18	CM02	1	10.0	7.0	42	TM02	-1	5.0	5.0	1	1	1	*	--	--	--	--
1	27.6	10.1	18	CM02	1	10.0	7.0	28	CC05	3	1.8	4.4	5	1	1	*	--	--	--	--
1	27.6	10.1	18	CM02	1	10.0	7.0	20	CM04	6	12.5	4.0	5	1	1	*	--	--	--	--
PROPELLANT DELIVERED USING MINITANKER IS NOW											30.239										
1	27.6	10.1	18	CM02	0	10.0	7.0	301	TMS	1	3.0	3.0	8	1	1	*	1	26.2	0.1	-3.0
1	27.6	10.1	18	CM02	0	10.0	7.0	302	TMS	2	4.0	1.5	1	1	1	*	--	--	--	--
1	27.6	10.1	18	CM02	0	10.0	7.0	300	TMS	1	1.5	1.1	1	1	1	*	--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	26	CC03	1	5.0	6.0	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	8	SP02	-1	10.0	5.0	1	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	42	TM02	-1	5.0	5.0	1	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	28	CC05	3	1.8	4.4	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	20	CM04	6	12.5	4.0	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	301	TMS	1	3.0	3.0	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	302	TMS	2	4.0	1.5	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	300	TMS	1	1.5	1.1	4	0	0		--	--	--	--
1	27.6	10.1	26	CC03	1	5.0	6.0	8	SP02	-1	10.0	5.0	1	1	1	*	--	--	--	--
1	27.6	10.1	26	CC03	1	5.0	6.0	42	TM02	-1	5.0	5.0	1	1	1	*	--	--	--	--
1	27.6	10.1	26	CC03	1	5.0	6.0	28	CC05	3	1.8	4.4	5	1	1	*	--	--	--	--
1	27.6	10.1	26	CC03	1	5.0	6.0	20	CM04	6	12.5	4.0	7	1	1	*	--	--	--	--
PROPELLANT DELIVERED USING MINITANKER IS NOW											45.438										
1	27.6	10.1	26	CC03	0	5.0	6.0	301	TMS	0	3.0	3.0	8	1	1	*	1	27.1	1.1	1.8
1	27.6	10.1	26	CC03	0	5.0	6.0	302	TMS	2	4.0	1.5	1	1	1	*	--	--	--	--
1	27.6	10.1	26	CC03	0	5.0	6.0	300	TMS	1	1.5	1.1	1	1	1	*	--	--	--	--
PROPELLANT DELIVERED USING MINITANKER IS NOW											86.849										
1	27.6	10.1	28	CC05	0	1.8	4.4	20	CM04	3	12.5	4.0	8	1	1	*	3	26.8	1.7	-3.0
2	29.5	18.3	22	SA03	1	17.0	12.0	30	CM06	14	25.0	12.0	5	0	0		--	--	--	--
2	29.5	18.3	22	SA03	1	17.0	12.0	27	CC04	0	5.0	8.0	1	0	0		--	--	--	--
2	29.5	18.3	22	SA03	1	17.0	12.0	34	OT02	8	15.0	8.0	5	0	0		--	--	--	--
2	29.5	18.3	22	SA03	1	17.0	12.0	18	CM02	0	10.0	7.0	1	0	0		--	--	--	--
2	29.5	18.3	22	SA03	1	17.0	12.0	6	OT04	2	8.0	6.0	4	0	0		--	--	--	--
2	29.5	18.3	22	SA03	1	17.0	12.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	29.5	18.3	22	SA03	1	17.0	12.0	8	SP02	-1	10.0	5.0	1	0	0		--	--	--	--
2	29.5	18.3	22	SA03	1	17.0	12.0	42	TM02	-1	5.0	5.0	1	0	0		--	--	--	--
2	29.5	18.3	22	SA03	1	17.0	12.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--
2	29.5	18.3	22	SA03	1	17.0	12.0	20	CM04	3	12.5	4.0	6	0	0		--	--	--	--
2	29.5	18.3	22	SA03	1	17.0	12.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
DOCKING MODULE ADDED																					
2	29.5	18.3	22	SA03	0	17.0	12.0	302	TMS	1	4.0	1.5	8	0	0		*	1	26.4	2.7	6.6
2	29.5	18.3	22	SA03	0	17.0	12.0	300	TMS	1	1.5	1.1	1	0	0			--	--	--	--
2	29.5	18.3	30	CM06	14	25.0	12.0	27	CC04	0	5.0	8.0	1	0	0			--	--	--	--
2	29.5	18.3	30	CM06	14	25.0	12.0	34	OT02	8	15.0	8.0	5	0	0			--	--	--	--
2	29.5	18.3	30	CM06	14	25.0	12.0	18	CM02	0	10.0	7.0	1	0	0			--	--	--	--
2	29.5	18.3	30	CM06	14	25.0	12.0	6	OT04	2	8.0	6.0	4	0	0			--	--	--	--
2	29.5	18.3	30	CM06	14	25.0	12.0	26	CC03	0	5.0	6.0	1	0	0			--	--	--	--
2	29.5	18.3	30	CM06	14	25.0	12.0	8	SP02	-1	10.0	5.0	1	0	0			--	--	--	--
2	29.5	18.3	30	CM06	14	25.0	12.0	42	TM02	-1	5.0	5.0	1	0	0			--	--	--	--
2	29.5	18.3	30	CM06	14	25.0	12.0	28	CC05	0	1.8	4.4	1	0	0			--	--	--	--
2	29.5	18.3	30	CM06	14	25.0	12.0	20	CM04	3	12.5	4.0	6	0	0			--	--	--	--
2	29.5	18.3	30	CM06	14	25.0	12.0	301	TMS	0	3.0	3.0	1	0	0			--	--	--	--
2	29.5	18.3	30	CM06	13	25.0	12.0	302	TMS	0	4.0	1.5	8	0	0			1	26.1	4.8	0.5
2	29.5	18.3	30	CM06	12	25.0	12.0	300	TMS	0	1.5	1.1	8	0	0			1	26.5	5.2	3.0
2	27.6	16.2	34	OT02	8	15.0	8.0	18	CM02	0	10.0	7.0	1	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	6	OT04	2	8.0	6.0	4	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	26	CC03	0	5.0	6.0	1	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	8	SP02	-1	10.0	5.0	1	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	42	TM02	-1	5.0	5.0	1	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	28	CC05	0	1.8	4.4	1	0	0	*		--	--	--	--
2	27.6	16.2	34	OT02	5	15.0	8.0	20	CM04	0	12.5	4.0	8	0	0	*		3	26.7	4.2	0.1

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2	27.6	16.2	34	OT02	5	15.0	8.0	301	TMS	0	3.0	3.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	5	15.0	8.0	302	TMS	0	4.0	1.5	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	5	15.0	8.0	300	TMS	0	1.5	1.1	1	0	0	*	--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	8	SP02	-1	10.0	5.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	42	TM02	-1	5.0	5.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	20	CM04	0	12.5	4.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	302	TMS	0	4.0	1.5	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	300	TMS	0	1.5	1.1	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	0	25.0	12.0	--	--	--	--	--	8	0	0		12	27.1	6.3	-9.5
2	29.5	18.3	34	OT02	0	15.0	8.0	--	--	--	--	--	8	0	0		5	26.0	10.3	0.5
2	15.5	18.3	6	OT04	0	8.0	6.0	--	--	--	--	--	8	0	0		2	23.5	12.3	7.5

PROPELLANT NEEDED THIS YEAR = 99.
PROPELLANT LEFT FROM PRIOR YEAR = 15.
PROPELLANT DELIVERED BY MINITANKER = 87.
PROPELLANT DELIVERED BY ET SCAVENGING = 0.

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MANIFEST #	KEY REF	DESCRIPTION	MATCHED WITH	NO. FLTS	OTV USED	OTV EXP	P/L BAY LENGTH	LAUNCH MASS	TIME ON ORBIT	SP STA OPERATION
1	CC04	**MULTIBEAM COMM SATELLITE	TMS PROP DELIV	1	1	0	17.7	28.7	2.0	FS
2	CM02	**CRYSTAL GROWTH FACTORY/PLAT	TMS CAB DELIVERY	1	0	0	18.2	32.5	2.0	FS
3	CC03	**INTELSAT-7,7A CLASS COMSAT	TMS CAB DELIVERY	1	1	0	17.2	27.7	2.0	FS
4	CC05	**RECONFIGURABLE COMM. SATELLI	CRYSTAL GROWTH RESUP-2	3	1	0	16.6	32.5	4.0	FS
5	SA03	ASTROPHYSICS FREE-FLYER	TMS PROP DELIV	1	0	0	15.6	22.9	2.0	FS
6	CM06	CONTINUOUS FLOW ELECTRO RESUPP	TMS PROP DELIV	1	0	0	13.5	29.0	2.0	FS
7	CM06	CONTINUOUS FLOW ELECTRO RESUPP	TMS DELIVERY	1	0	0	13.1	26.5	2.0	FS
8	OT02	LOW INCL STA RESUPPLY	CRYSTAL GROWTH RESUP-2	3	0	0	14.1	29.4	4.0	FS
9	CM06	CONTINUOUS FLOW ELECTRO RESUPP		12	0	0	12.0	25.0	2.0	FS
10	OT02	LOW INCL STA RESUPPLY		5	0	0	8.0	15.0	2.0	FS
11	OT04	HI-INCL STATION RESUPPLY		2	0	0	6.0	8.0	2.0	

** - MANIFESTED WITH MINITANKER

NO. OF SHUTTLE FLIGHTS 31
NO. OF TMS OPS 18
NO. OF MANNED TMS OPS 18

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 NO. OF SELF:PROP SAT SERV OPS       1
 TMS & SATELLITE PROPELLANT USED          6.46
NO. OF OTV REUSE FLIGHTS      5
NO. OF OTVS EXPENDED      0
SPACE STATION FLT SERVICE OPS     12
SPACE STATION CONSTR OPS      9
SPACE STATION PROP XFER OPS      6
HLLV FLIGHTS      0
 FLEET TIME ON ORBIT =      74.0 DAYS
 TOTAL FLEET TIME =    1159.0 DAYS
 IDEAL MIN FLEET SIZE =      3.71 VEHICLES
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YEAR 2002

TMS MISSION SUMMARY

KEY	TITLE	CODE	TMS MISSION TYPE AUTO	MAN	RET/DEPLOY	SELF-PROP	NO. USES	PROP RQD
S001	EARTH OBSERV	SPCL						
S002	SYNTH APERTURE	SPCL						
S003	HETERODYNING	SPXX						
S004	UPPER ATMOS	SPCL						
OT03	SPACE STATION	SSSS						
OT04	HI-INCL STATION	SORS						
SA01	VLBI/COSMIC	SPCL						
SL08	RAD BIOLOGY	SSSA						
SL01	HUMAN LIFE SI	SSSA						
SL04	LIFESCIENCES	SPXX						
SL05	CENTRIFUGE	SSCL						
SL06	CLOSED ENV	SPCL						
CM01	MATLS SCIENCE	SPXX						
CM02	CRYSTAL GROWTH	PMCL		X			4.0	0.4
CM03	CRYSTAL GROWTH	PMXX		X			3.0	0.4
CM04	CRYSTAL GROWTH	PMCL		X			4.0	0.4
SA03	ASTROPHYSICS	FMXM		X			1.0	0.4
SA04	ASTROPHYSICS	FMXM		X			1.0	0.4
CC03	INTELSAT-7,7A	FXCL						
CC04	MULTIBEAM COMM.	SSCM						
CC05	RECONFIGURABLE	FXCM						
CM05	CONT FLOW ELEC-	PMCL		X			0.0	0.4
CM06	CONTINUOUS FLOW	PMXL		X			4.0	0.4
OT01	LOW INCL STA	SSSS						
OT02	LOW INCL STA	SORS						
OT05	HI-ALT STA	OMSB						
TM03	PASSIVE MICW	SPCM						

TS02 TECH DEVEL SSSA

SA05 LARGE RADIO FMCH X 1.0 0.4

OT05 SPACE-BASED MANNED OTV
NOT MANIFESTED AS SHUTTLE PAYLOAD
PAYLOAD 3 HETERODYNING CO2 LIDAR
NO OTV REQD
PAYLOAD 6 HI-INCL STATION RESUPPLY
NO OTV REQD
PAYLOAD 7 SPACE SCIENCE SUBSATELLITE
NO OTV REQD
PAYLOAD 20 CRYSTAL GROWTH RESUP-2
NO OTV REQD
PAYLOAD 26 INTELSAT-7.7A CLASS COMSAT
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 14.170
PAYLOAD 27 MULTIBEAM COMM. SATELLITE
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 14.170
PAYLOAD 28 RECONFIGURABLE COMM. SATELLITE
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 9.315
PAYLOAD 30 CONTINUOUS FLOW ELECTRO RESUPP
NO OTV REQD
PAYLOAD 34 LOW INCL STA RESUPPLY
NO OTV REQD
PAYLOAD 35 HI-ALT STA RESUPPLY
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 21.497
PAYLOAD 43 PASSIVE MICW RADIOMETER
NO OTV REQD
SORTED H ARRAY

INDEX	#FLTS	MASS	LENGTH	INCLIN
43	1	3.00	13.50	29.00
30	16	25.00	12.00	29.00
27	1	5.00	8.00	0.00
34	8	15.00	8.00	29.00
6	2	8.00	6.00	98.00
26	1	5.00	6.00	0.00
28	4	1.80	4.40	0.00
3	1	1.20	4.00	98.00
7	-1	2.40	4.00	98.00
20	6	12.50	4.00	29.00
301	2	3.00	3.00	29.00
302	2	4.00	1.50	29.00
300	1	1.50	1.10	29.00

MANIFESTING RECORD

NP	WT AV	LEN AV	*****MAIN P/L********* #	KEY	#FL	MASS	LEN	*****SEC P/L********* #	KEY	#FL	MASS	LEN	MC	MF	SF	DM RQ	DM OK	FLTS MAN	CG	FRE LEN	FRE MASS
1	27.6	10.1	43	TM03	1	3.0	13.5	30	CM06	16	25.0	12.0	5	1	1	*		--	--	--	--
1	27.6	10.1	43	TM03	1	3.0	13.5	27	CC04	1	5.0	8.0	5	1	1	*		--	--	--	--
1	27.6	10.1	43	TM03	1	3.0	13.5	34	OT02	8	15.0	8.0	5	1	1	*		--	--	--	--
1	27.6	10.1	43	TM03	1	3.0	13.5	6	OT04	2	8.0	6.0	4	1	1	*		--	--	--	--

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1	27.6	10.1	43	TM03	1	3.0	13.5	26	CC03	1	5.0	6.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	43	TM03	1	3.0	13.5	28	CC05	4	1.8	4.4	5	1	1	*	--	--	--	--	
1	27.6	10.1	43	TM03	1	3.0	13.5	3	SO03	1	1.2	4.0	4	1	1	*	--	--	--	--	
1	27.6	10.1	43	TM03	1	3.0	13.5	7	SP01	-1	2.4	4.0	1	1	1	*	--	--	--	--	
1	27.6	10.1	43	TM03	1	3.0	13.5	20	CM04	6	12.5	4.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	43	TM03	1	3.0	13.5	301	TMS	2	3.0	3.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	43	TM03	1	3.0	13.5	302	TMS	2	4.0	1.5	5	1	1	*	--	--	--	--	
1	27.6	10.1	43	TM03	1	3.0	13.5	300	TMS	1	1.5	1.1	5	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	16	25.0	12.0	27	CC04	1	5.0	8.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	16	25.0	12.0	34	OT02	8	15.0	8.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	16	25.0	12.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	16	25.0	12.0	26	CC03	1	5.0	6.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	16	25.0	12.0	28	CC05	4	1.8	4.4	5	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	16	25.0	12.0	3	SO03	1	1.2	4.0	4	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	16	25.0	12.0	7	SP01	-1	2.4	4.0	1	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	16	25.0	12.0	20	CM04	6	12.5	4.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	16	25.0	12.0	301	TMS	2	3.0	3.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	16	25.0	12.0	302	TMS	2	4.0	1.5	5	1	1	*	--	--	--	--	
1	27.6	10.1	30	CM06	16	25.0	12.0	300	TMS	1	1.5	1.1	5	1	1	*	--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	34	OT02	8	15.0	8.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	26	CC03	1	5.0	6.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	28	CC05	4	1.8	4.4	5	1	1	*	--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	3	SO03	1	1.2	4.0	4	1	1	*	--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	7	SP01	-1	2.4	4.0	1	1	1	*	--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	20	CM04	6	12.5	4.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	27	CC04	1	5.0	8.0	301	TMS	2	3.0	3.0	5	1	1	*	--	--	--	--	
PROPELLANT DELIVERED USING MINITANKER IS NOW											15.200										
1	27.6	10.1	27	CC04	0	5.0	8.0	302	TMS	1	4.0	1.5	8	1	1	*	1	27.2	0.6	0.8	
1	27.6	10.1	27	CC04	0	5.0	8.0	300	TMS	1	1.5	1.1	1	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	26	CC03	1	5.0	6.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	28	CC05	4	1.8	4.4	5	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	3	SO03	1	1.2	4.0	4	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	7	SP01	-1	2.4	4.0	1	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	20	CM04	6	12.5	4.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	301	TMS	2	3.0	3.0	5	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	302	TMS	1	4.0	1.5	7	1	1	*	--	--	--	--	
1	27.6	10.1	34	OT02	8	15.0	8.0	300	TMS	1	1.5	1.1	7	1	1	*	--	--	--	--	
1	15.5	18.3	6	OT04	2	8.0	6.0	26	CC03	1	5.0	6.0	4	0	0		--	--	--	--	
1	15.5	18.3	6	OT04	2	8.0	6.0	28	CC05	4	1.8	4.4	4	0	0		--	--	--	--	
1	15.5	18.3	6	OT04	1	8.0	6.0	3	SO03	0	1.2	4.0	8	0	0		1	24.2	8.3	6.3	
1	15.5	18.3	6	OT04	1	8.0	6.0	7	SP01	-1	2.4	4.0	1	0	0		--	--	--	--	
1	15.5	18.3	6	OT04	1	8.0	6.0	20	CM04	6	12.5	4.0	4	0	0		--	--	--	--	
1	15.5	18.3	6	OT04	1	8.0	6.0	301	TMS	2	3.0	3.0	4	0	0		--	--	--	--	
1	15.5	18.3	6	OT04	1	8.0	6.0	302	TMS	1	4.0	1.5	4	0	0		--	--	--	--	
1	15.5	18.3	6	OT04	1	8.0	6.0	300	TMS	1	1.5	1.1	4	0	0		--	--	--	--	
1	27.6	10.1	26	CC03	1	5.0	6.0	28	CC05	4	1.8	4.4	5	1	1	*	--	--	--	--	
1	27.6	10.1	26	CC03	1	5.0	6.0	3	SO03	0	1.2	4.0	1	1	1	*	--	--	--	--	
1	27.6	10.1	26	CC03	1	5.0	6.0	7	SP01	-1	2.4	4.0	1	1	1	*	--	--	--	--	
1	27.6	10.1	26	CC03	1	5.0	6.0	20	CM04	6	12.5	4.0	7	1	1	*	--	--	--	--	
PROPELLANT DELIVERED USING MINITANKER IS NOW											30.400										
1	27.6	10.1	26	CC03	0	5.0	6.0	301	TMS	1	3.0	3.0	8	1	1	*	1	27.1	1.1	1.8	
1	27.6	10.1	26	CC03	0	5.0	6.0	302	TMS	1	4.0	1.5	1	1	1	*	--	--	--	--	
1	27.6	10.1	26	CC03	0	5.0	6.0	300	TMS	1	1.5	1.1	1	1	1	*	--	--	--	--	
1	27.6	10.1	28	CC05	4	1.8	4.4	3	SO03	0	1.2	4.0	1	1	1	*	--	--	--	--	
1	27.6	10.1	28	CC05	4	1.8	4.4	7	SP01	-1	2.4	4.0	1	1	1	*	--	--	--	--	
PROPELLANT DELIVERED USING MINITANKER IS NOW											85.614										
1	27.6	10.1	28	CC05	0	1.8	4.4	20	CM04	2	12.5	4.0	8	1	1	*	4	26.8	1.7	-3.0	
1	27.6	10.1	28	CC05	0	1.8	4.4	301	TMS	1	3.0	3.0	1	1	1	*	--	--	--	--	

```
 1 27.6 10.1  28 CC05  0   1.8  4.4 302 TMS   1   4.0  1.5  1  1  1  *      --   --   --   --
 1 27.6 10.1  28 CC05  0   1.8  4.4 300 TMS   1   1.5  1.1  1  1  1  *      --   --   --   --
PROPELLANT DELIVERED USING MINITANKER IS NOW      98.277
 1 27.6 10.1  20 CM04  1  12.5  4.0 301 TMS   0   3.0  3.0  8  1  1  *      1  26.4   3.1  -3.0
PROPELLANT DELIVERED USING MINITANKER IS NOW     109.991
 1 27.6 10.1  20 CM04  0  12.5  4.0 302 TMS   0   4.0  1.5  8  1  1  *      1  26.2   4.6  -3.0
 2 29.5 18.3  43 TM03  1   3.0 13.5  30 CM06 16  25.0 12.0  5  0  0         --   --   --   --
 2 29.5 18.3  43 TM03  1   3.0 13.5  27 CC04  0   5.0  8.0  1  0  0         --   --   --   --
 2 29.5 18.3  43 TM03  1   3.0 13.5  34 OT02  8  15.0  8.0  5  0  0         --   --   --   --
 2 29.5 18.3  43 TM03  1   3.0 13.5   6 OT04  1   8.0  6.0  4  0  0         --   --   --   --
 2 29.5 18.3  43 TM03  1   3.0 13.5  26 CC03  0   5.0  6.0  1  0  0         --   --   --   --
 2 29.5 18.3  43 TM03  1   3.0 13.5  28 CC05  0   1.8  4.4  1  0  0         --   --   --   --
 2 29.5 18.3  43 TM03  1   3.0 13.5   3 SO03  0   1.2  4.0  1  0  0         --   --   --   --
 2 29.5 18.3  43 TM03  1   3.0 13.5   7 SP01 -1   2.4  4.0  1  0  0         --   --   --   --
 2 29.5 18.3  43 TM03  1   3.0 13.5  20 CM04  0  12.5  4.0  1  0  0         --   --   --   --
 2 29.5 18.3  43 TM03  1   3.0 13.5 301 TMS   0   3.0  3.0  1  0  0         --   --   --   --
 2 29.5 18.3  43 TM03  1   3.0 13.5 302 TMS   0   4.0  1.5  1  0  0         --   --   --   --

DOCKING MODULE ADDED
 2 29.5 18.3  43 TM03  0   3.0 13.5 300 TMS   0   1.5  1.1  8  0  0      *  1  27.3   1.6  23.1
 2 29.5 18.3  30 CM06 16  25.0 12.0  27 CC04  0   5.0  8.0  1  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 16  25.0 12.0  34 OT02  8  15.0  8.0  5  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 16  25.0 12.0   6 OT04  1   8.0  6.0  4  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 16  25.0 12.0  26 CC03  0   5.0  6.0  1  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 16  25.0 12.0  28 CC05  0   1.8  4.4  1  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 16  25.0 12.0   3 SO03  0   1.2  4.0  1  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 16  25.0 12.0   7 SP01 -1   2.4  4.0  1  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 16  25.0 12.0  20 CM04  0  12.5  4.0  1  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 16  25.0 12.0 301 TMS   0   3.0  3.0  1  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 16  25.0 12.0 302 TMS   0   4.0  1.5  1  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 16  25.0 12.0 300 TMS   0   1.5  1.1  1  0  0         --   --   --   --
 2 27.6 16.2  34 OT02  8  15.0  8.0   6 OT04  1   8.0  6.0  4  0  0  *      --   --   --   --
 2 27.6 16.2  34 OT02  8  15.0  8.0  26 CC03  0   5.0  6.0  1  0  0  *      --   --   --   --
 2 27.6 16.2  34 OT02  8  15.0  8.0  28 CC05  0   1.8  4.4  1  0  0  *      --   --   --   --
 2 27.6 16.2  34 OT02  8  15.0  8.0   3 SO03  0   1.2  4.0  1  0  0  *      --   --   --   --
 2 27.6 16.2  34 OT02  8  15.0  8.0   7 SP01 -1   2.4  4.0  1  0  0  *      --   --   --   --
 2 27.6 16.2  34 OT02  8  15.0  8.0  20 CM04  0  12.5  4.0  1  0  0  *      --   --   --   --
 2 27.6 16.2  34 OT02  8  15.0  8.0 301 TMS   0   3.0  3.0  1  0  0  *      --   --   --   --
 2 27.6 16.2  34 OT02  8  15.0  8.0 302 TMS   0   4.0  1.5  1  0  0  *      --   --   --   --
 2 27.6 16.2  34 OT02  8  15.0  8.0 300 TMS   0   1.5  1.1  1  0  0  *      --   --   --   --
 2 15.5 18.3   6 OT04  1   8.0  6.0  26 CC03  0   5.0  6.0  1  0  0         --   --   --   --
 2 15.5 18.3   6 OT04  1   8.0  6.0  28 CC05  0   1.8  4.4  1  0  0         --   --   --   --
 2 15.5 18.3   6 OT04  1   8.0  6.0   3 SO03  0   1.2  4.0  1  0  0         --   --   --   --
 2 15.5 18.3   6 OT04  1   8.0  6.0   7 SP01 -1   2.4  4.0  1  0  0         --   --   --   --
 2 15.5 18.3   6 OT04  1   8.0  6.0  20 CM04  0  12.5  4.0  1  0  0         --   --   --   --
 2 15.5 18.3   6 OT04  1   8.0  6.0 301 TMS   0   3.0  3.0  1  0  0         --   --   --   --
 2 15.5 18.3   6 OT04  1   8.0  6.0 302 TMS   0   4.0  1.5  1  0  0         --   --   --   --
 2 15.5 18.3   6 OT04  1   8.0  6.0 300 TMS   0   1.5  1.1  1  0  0         --   --   --   --
 2 29.5 18.3  30 CM06  0  25.0 12.0  --  --  --  --   --   8  0  0        16  27.1   6.3   -9.5
 2 29.5 18.3  34 OT02  0  15.0  8.0  --  --  --  --   --   8  0  0         8  26.0  10.3    0.5
 2 15.5 18.3   6 OT04  0   8.0  6.0  --  --  --  --   --   8  0  0         1  23.5  12.3    7.5

PROPELLANT NEEDED THIS YEAR =                  109.
PROPELLANT LEFT FROM PRIOR YEAR =                2.
PROPELLANT DELIVERED BY MINITANKER =           110.
PROPELLANT DELIVERED BY ET SCAVENGING =          0.
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MANIFEST #	KEY REF	DESCRIPTION	MATCHED WITH	NO. FLTS	OTV USED	OTV EXP	P/L BAY LENGTH	LAUNCH MASS	TIME ON ORBIT	SP STA OPERATION
1	CC04	**MULTIBEAM COMM SATELLITE	TMS PROP DELIV	1	1	0	17.7	28.7	2.0	FS
2	OT04	HI-INCL STATION RESUPPLY	HETERODYNING CO2 LIDAR	1	0	0	10.0	9.2	4.0	FS
3	CC03	**INTELSAT-7,7A CLASS COMSAT	TMS CAB DELIVERY	1	1	0	17 ?	27.7	2.0	FS
4	CC05	**RECONFIGURABLE COMM. SATELLI	CRYSTAL GROWTH RESUP-2	4	1	0	16.6	32.5	4.0	FS
5	CM04	**CRYSTAL GROWTH RESUP-2	TMS CAB DELIVERY	1	0	0	15.2	32.5	2.0	FS
6	CM04	**CRYSTAL GROWTH RESUP-2	TMS PROP DELIV	1	0	0	13.7	32.5	2.0	FS
7	TM03	PASSIVE MICW RADIOMETER	TMS DELIVERY	1	0	0	16.7	6.3	2.0	FS
8	CM06	CONTINUOUS FLOW ELECTRO RESUPP		16	0	0	12.0	25.0	2.0	FS
9	OT02	LOW INCL STA RESUPPLY		8	0	0	8.0	15.0	2.0	FS
10	OT04	HI-INCL STATION RESUPPLY		1	0	0	6.0	8.0	2.0	FS

** - MANIFESTED WITH MINITANKER

NO. OF SHUTTLE FLIGHTS 35
NO. OF TMS OPS 18
NO. OF MANNED TMS OPS 18
NO. OF SELF-PROP SAT SERV OPS 0
TMS & SATELLITE PROPELLANT USED 6.41
NO. OF OTV REUSE FLIGHTS 6
NO. OF OTVS EXPENDED 0

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SPACE STATION FLT SERVICE OPS     10
SPACE STATION CONSTR OPS       9
SPACE STATION PROP XFER OPS      8
HLLV FLIGHTS       0
 FLEET TIME ON ORBIT =      80.0 DAYS
 TOTAL FLEET TIME =    1305.0 DAYS
 IDEAL MIN FLEET SIZE =      4.18 VEHICLES
```

YEAR 2003

TMS MISSION SUMMARY

KEY	TITLE	CODE	TMS MISSION TYPE AUTO	MAN	RET/DEPLOY	SELF-PROP	NO. USES	PROP RQD
S001	EARTH OBSERV	SPCL						
S002	SYNTH APERTURE	SPCL						
S003	HETERODYNING	SPXX						
S004	UPPER ATMOS	SPCL						
OT03	SPACE STATION	SSSS						
OT04	HI-INCL STATION	SORS						
SA01	VLBI/COSMIC	SPCL						
SL08	RAD BIOLOGY	SSSA						
SL01	HUMAN LIFE SI	SSSA						
SL04	LIFESCIENCES	SPXX						
SL05	CENTRIFUGE	SSCL						
SL06	CLOSED ENV	SPCL						
CM01	MATLS SCIENCE	SPXX						
CM02	CRYSTAL GROWTH	PMCL		X			4.0	0.4
CM03	CRYSTAL GROWTH	PMXX		X			3.0	0.4
CM04	CRYSTAL GROWTH	PMCL		X			4.0	0.4
SA02	ASTRO TELESCOPE	SPXX						
SA03	ASTROPHYSICS	FMXM		X			1.0	0.4
SA04	ASTROPHYSICS	FMXM		X			1.0	0.4
CC03	INTELSAT-7,7A	FXCL						
CC04	MULTIBEAM COMM.	SSCL						
CC05	RECONFIGURABLE	FXCM						
CM05	CONT FLOW ELEC-	PMCL		X			0.0	0.4
CM06	CONTINUOUS FLOW	PMXL		X			4.0	0.4
OT01	LOW INCL STA	SSSS						
OT02	LOW INCL STA	SORS						
OT05	HI-ALT STA	OMSB						

TS02 TECH DEVEL SS5A

SA05 LARGE RADIO FMCH X 1.0 0.4

OT05 SPACE-BASED MANNED OTV
NOT MANIFESTED AS SHUTTLE PAYLOAD
PAYLOAD 6 HI-INCL STATION RESUPPLY
NO OTV REQD
PAYLOAD 18 CRYSTAL GROWTH FACTORY/PLAT
NO OTV REQD
PAYLOAD 20 CRYSTAL GROWTH RESUP-2
NO OTV REQD
PAYLOAD 21 ASTRO TELESCOPE CLUSTER
NO OTV REQD
PAYLOAD 26 INTELSAT-7,7A CLASS COMSAT
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 14.170
PAYLOAD 28 RECONFIGURABLE COMM. SATELLITE
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 9.315
PAYLOAD 30 CONTINUOUS FLOW ELECTRO RESUPP
NO OTV REQD
PAYLOAD 34 LOW INCL STA RESUPPLY
NO OTV REQD
PAYLOAD 35 HI-ALT STA RESUPPLY
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 21.497
PAYLOAD 43 PASSIVE MICW RADIOMETER
NO OTV REQD
SORTED H ARRAY

INDEX	#FLTS	MASS	LENGTH	INCLIN
43	-1	3.00	13.50	29.00
21	1	20.00	12.00	29.00
30	17	25.00	12.00	29.00
34	8	15.00	8.00	29.00
18	1	10.00	7.00	29.00
6	2	8.00	6.00	98.00
26	1	5.00	6.00	0.00
28	4	1.80	4.40	0.00
20	6	12.50	4.00	29.00
301	2	3.00	3.00	29.00
302	3	4.00	1.50	29.00
300	1	1.50	1.10	29.00

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MANIFESTING RECORD

N?	WT AV	LEN AV	*****MAIN P/L******** #	KEY	#FL	MASS	LEN	*****SEC P/L******** #	KEY	#FL	MASS	LEN	MC	MF	SF	DM RQ	DM OK	FLTS MAN	CG	FRE LEN	FRE MASS
1	27.6	10.1	21	SA02	1	20.0	12.0	30	CM06	17	25.0	12.0	5	1	1	*		--	--	--	--
1	27.6	10.1	21	SA02	1	20.0	12.0	34	OT02	8	15.0	8.0	5	1	1	*		--	--	--	--
1	27.6	10.1	21	SA02	1	20.0	12.0	18	CM02	1	10.0	7.0	5	1	1	*		--	--	--	--
1	27.6	10.1	21	SA02	1	20.0	12.0	6	OT04	2	8.0	6.0	4	1	1	*		--	--	--	--
1	27.6	10.1	21	SA02	1	20.0	12.0	26	CC03	1	5.0	6.0	5	1	1	*		--	--	--	--
1	27.6	10.1	21	SA02	1	20.0	12.0	28	CC05	4	1.8	4.4	5	1	1	*		--	--	--	--
1	27.6	10.1	21	SA02	1	20.0	12.0	20	CM04	6	12.5	4.0	5	1	1	*		--	--	--	--
1	27.6	10.1	21	SA02	1	20.0	12.0	301	TMS	2	3.0	3.0	5	1	1	*		--	--	--	--

1	27.6	10.1	21	SA02	1	20.0	12.0	302	TMS	3	4.0	1.5	5	1	1	*	--	--	--	--			
1	27.6	10.1	21	SA02	1	20.0	12.0	300	TMS	1	1.5	1.1	5	1	1	*	--	--	--	--			
1	27.6	10.1	30	CM06	17	25.0	12.0	34	OT02	8	15.0	8.0	5	1	1	*	--	--	--	--			
1	27.6	10.1	30	CM06	17	25.0	12.0	18	CM02	1	10.0	7.0	5	1	1	*	--	--	--	--			
1	27.6	10.1	30	CM06	17	25.0	12.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--			
1	27.6	10.1	30	CM06	17	25.0	12.0	26	CC03	1	5.0	6.0	5	1	1	*	--	--	--	--			
1	27.6	10.1	30	CM06	17	25.0	12.0	28	CC05	4	1.8	4.4	5	1	1	*	--	--	--	--			
1	27.6	10.1	30	CM06	17	25.0	12.0	20	CM04	6	12.5	4.0	5	1	1	*	--	--	--	--			
1	27.6	10.1	30	CM06	17	25.0	12.0	301	TMS	2	3.0	3.0	5	1	1	*	--	--	--	--			
1	27.6	10.1	30	CM06	17	25.0	12.0	302	TMS	3	4.0	1.5	5	1	1	*	--	--	--	--			
1	27.6	10.1	30	CM06	17	25.0	12.0	300	TMS	1	1.5	1.1	5	1	1	*	--	--	--	--			
1	27.6	10.1	34	OT02	8	15.0	8.0	18	CM02	1	10.0	7.0	5	1	1	*	--	--	--	--			
1	27.6	10.1	34	OT02	8	15.0	8.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--			
1	27.6	10.1	34	OT02	8	15.0	8.0	26	CC03	1	5.0	6.0	5	1	1	*	--	--	--	--			
1	27.6	10.1	34	OT02	8	15.0	8.0	28	CC05	4	1.8	4.4	5	1	1	*	--	--	--	--			
1	27.6	10.1	34	OT02	8	15.0	8.0	20	CM04	6	12.5	4.0	5	1	1	*	--	--	--	--			
1	27.6	10.1	34	OT02	8	15.0	8.0	301	TMS	2	3.0	3.0	5	1	1	*	--	--	--	--			
1	27.6	10.1	34	OT02	8	15.0	8.0	302	TMS	3	4.0	1.5	7	1	1	*	--	--	--	--			
1	27.6	10.1	34	OT02	8	15.0	8.0	300	TMS	1	1.5	1.1	7	1	1	*	--	--	--	--			
1	27.6	10.1	18	CM02	1	10.0	7.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--			
1	27.6	10.1	18	CM02	1	10.0	7.0	26	CC03	1	5.0	6.0	5	1	1	*	--	--	--	--			
1	27.6	10.1	18	CM02	1	10.0	7.0	28	CC05	4	1.8	4.4	5	1	1	*	--	--	--	--			
1	27.6	10.1	18	CM02	1	10.0	7.0	20	CM04	6	12.5	4.0	5	1	1	*	--	--	--	--			
PROPELLANT DELIVERED USING MINITANKER IS NOW											15.038												
1	27.6	10.1	18	CM02	0	10.0	7.0	301	TMS	1	3.0	3.0	8	1	1	*	1	26.2	0.1	-3.0			
1	27.6	10.1	18	CM02	0	10.0	7.0	302	TMS	3	4.0	1.5	1	1	1	*	--	--	--	--			
1	27.6	10.1	18	CM02	0	10.0	7.0	300	TMS	1	1.5	1.1	1	1	1	*	--	--	--	--			
1	15.5	18.3	6	OT04	2	8.0	6.0	26	CC03	1	5.0	6.0	4	0	0		--	--	--	--			
1	15.5	18.3	6	OT04	2	8.0	6.0	28	CC05	4	1.8	4.4	4	0	0		--	--	--	--			
1	15.5	18.3	6	OT04	2	8.0	6.0	20	CM04	6	12.5	4.0	4	0	0		--	--	--	--			
1	15.5	18.3	6	OT04	2	8.0	6.0	301	TMS	1	3.0	3.0	4	0	0		--	--	--	--			
1	15.5	18.3	6	OT04	2	8.0	6.0	302	TMS	3	4.0	1.5	4	0	0		--	--	--	--			
1	15.5	18.3	6	OT04	2	8.0	6.0	300	TMS	1	1.5	1.1	4	0	0		--	--	--	--			
1	27.6	10.1	26	CC03	1	5.0	6.0	28	CC05	4	1.8	4.4	5	1	1	*	--	--	--	--			
1	27.6	10.1	26	CC03	1	5.0	6.0	20	CM04	6	12.5	4.0	7	1	1	*	--	--	--	--			
PROPELLANT DELIVERED USING MINITANKER IS NOW											30.239												
1	27.6	10.1	26	CC03	0	5.0	6.0	301	TMS	0	3.0	3.0	8	1	1	*	1	27.1	1.1	1.8			
1	27.6	10.1	26	CC03	0	5.0	6.0	302	TMS	3	4.0	1.5	1	1	1	*	--	--	--	--			
1	27.6	10.1	26	CC03	0	5.0	6.0	300	TMS	1	1.5	1.1	1	1	1	*	--	--	--	--			
PROPELLANT DELIVERED USING MINITANKER IS NOW											85.452												
1	27.6	10.1	28	CC05	0	1.8	4.4	20	CM04	2	12.5	4.0	8	1	1	*	4	26.8	1.7	-3.0			
1	27.6	10.1	28	CC05	0	1.8	4.4	301	TMS	0	3.0	3.0	1	1	1	*	--	--	--	--			
1	27.6	10.1	28	CC05	0	1.8	4.4	302	TMS	3	4.0	1.5	1	1	1	*	--	--	--	--			
1	27.6	10.1	28	CC05	0	1.8	4.4	300	TMS	1	1.5	1.1	1	1	1	*	--	--	--	--			
1	27.6	10.1	20	CM04	2	12.5	4.0	301	TMS	0	3.0	3.0	1	1	1	*	--	--	--	--			
PROPELLANT DELIVERED USING MINITANKER IS NOW											108.880												
1	27.6	10.1	20	CM04	0	12.5	4.0	302	TMS	1	4.0	1.5	8	1	1	*	2	26.2	4.6	-3.0			
2	29.5	18.3	21	SA02	1	20.0	12.0	30	CM06	17	25.0	12.0	5	0	0		--	--	--	--			
2	29.5	18.3	21	SA02	1	20.0	12.0	34	OT02	8	15.0	8.0	5	0	0		--	--	--	--			
2	29.5	18.3	21	SA02	1	20.0	12.0	18	CM02	0	10.0	7.0	1	0	0		--	--	--	--			
2	29.5	18.3	21	SA02	1	20.0	12.0	6	OT04	2	8.0	6.0	4	0	0		--	--	--	--			
2	29.5	18.3	21	SA02	1	20.0	12.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--			
2	29.5	18.3	21	SA02	1	20.0	12.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--			
2	29.5	18.3	21	SA02	1	20.0	12.0	20	CM04	0	12.5	4.0	1	0	0		--	--	--	--			
2	29.5	18.3	21	SA02	1	20.0	12.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--			
2	29.5	18.3	21	SA02	0	20.0	12.0	302	TMS	0	4.0	1.5	8	0	0		1	26.3	4.8	5.5			
2	29.5	18.3	21	SA02	0	20.0	12.0	300	TMS	1	1.5	1.1	1	0	0		--	--	--	--			
2	29.5	18.3	30	CM06	17	25.0	12.0	34	OT02	8	15.0	8.0	5	0	0		--	--	--	--			
2	29.5	18.3	30	CM06	17	25.0	12.0	18	CM02	0	10.0	7.0	1	0	0		--	--	--	--			
2	29.5	18.3	30	CM06	17	25.0	12.0	6	OT04	2	8.0	6.0	4	0	0		--	--	--	--			

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2	29.5	18.3	30	CM06	17	25.0	12.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	17	25.0	12.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	17	25.0	12.0	20	CM04	0	12.5	4.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	17	25.0	12.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	17	25.0	12.0	302	TMS	0	4.0	1.5	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	16	25.0	12.0	300	TMS	0	1.5	1.1	8	0	0		1	26.5	5.2	3.0
2	27.6	16.2	34	OT02	8	15.0	8.0	18	CM02	0	10.0	7.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	6	OT04	2	8.0	6.0	4	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	26	CC03	0	5.0	6.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	28	CC05	0	1.8	4.4	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	20	CM04	0	12.5	4.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	301	TMS	0	3.0	3.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	302	TMS	0	4.0	1.5	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	8	15.0	8.0	300	TMS	0	1.5	1.1	1	0	0	*	--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	20	CM04	0	12.5	4.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	302	TMS	0	4.0	1.5	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	300	TMS	0	1.5	1.1	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	0	25.0	12.0	--	--	--	--	--	8	0	0		16	27.1	6.3	-9.5
2	29.5	18.3	34	OT02	0	15.0	8.0	--	--	--	--	--	8	0	0		8	26.0	10.3	0.5
2	15.5	18.3	6	OT04	0	8.0	6.0	--	--	--	--	--	8	0	0		2	23.5	12.3	7.5

PROPELLANT NEEDED THIS YEAR = 94.
PROPELLANT LEFT FROM PRIOR YEAR = 4.
PROPELLANT DELIVERED BY MINITANKER = 109.
PROPELLANT DELIVERED BY ET SCAVENGING = 0.

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OF POOR QUALITY

MANIFEST #	KEY REF	DESCRIPTION	MATCHED WITH	NO. FLTS	OTV USED	OTV EXP	P/L BAY LENGTH	LAUNCH MASS	TIME ON ORBIT	SP STA OPERATION
1	CM02	**CRYSTAL GROWTH FACTORY/PLAT	TMS CAB DELIVERY	1	0	0	18.2	32.5	2.0	FS
2	CC03	**INTELSAT-7,7A CLASS COMSAT	TMS CAB DELIVERY	1	1	0	17.2	27.7	2.0	FS
3	CC05	**RECONFIGURABLE CONM. SATELLI	CRYSTAL GROWTH RESUP-2	4	1	0	16.6	32.5	4.0	FS
4	CM04	**CRYSTAL GROWTH RESUP-2	TMS PROP DELIV	2	0	0	13.7	32.5	2.0	FS
5	SA02	ASTRO TELESCOPE CLUSTER	TMS PROP DELIV	1	0	0	13.5	24.0	2.0	FS
6	CM06	CONTINUOUS FLOW ELECTRO RESUPP	TMS DELIVERY	1	0	0	13.1	26.5	2.0	FS
7	CM06	CONTINUOUS FLOW ELECTRO RESUPP		16	0	0	12.0	25.0	2.0	FS
8	OT02	LOW INCL STA RESUPPLY		8	0	0	8.0	15.0	2.0	FS
9	OT04	HI-INCL STATION RESUPPLY		2	0	0	6.0	8.0	2.0	FS

** - MANIFESTED WITH MINITANKER

NO. OF SHUTTLE FLIGHTS 36
NO. OF TMS OPS 18
NO. OF MANNED TMS OPS 18
NO. OF SELF-PROP SAT SERV OPS 0
TMS & SATELLITE PROPELLANT USED 6.41
NO. OF OTV REUSE FLIGHTS 5
NO. OF OTVS EXPENDED 0
SPACE STATION FLT SERVICE OPS 10
SPACE STATION CONSTR OPS 8
SPACE STATION PROP XFER OPS 8
HLLV FLIGHTS 0

FLEET TIME ON ORBIT = 80.0 DAYS
TOTAL FLEET TIME = 1340.0 DAYS
IDEAL MIN FLEET SIZE = 4.29 VEHICLES

YEAR 2004

TMS MISSION SUMMARY

KEY	TITLE	CODE	TMS MISSION TYPE AUTO	MAN	RET/DEPLOY	SELF-PROP	NO. USES	PROP RQD
S001	EARTH OBSERV	SPCL						
S002	SYNTH APERTURE	SPCL						
S003	HETERODYNING	SPXX						
S004	UPPER ATMOS	SPCL						
OT03	SPACE STATION	SSSS						
OT04	HI-INCL STATION	SORS						
SP01	SPACE SCIENCE	FSXX				X	1.0	0.0
SA01	VLBI/COSMIC	SPCL						
SL08	RAD BIOLOGY	SSSA						
SL01	HUMAN LIFE SI	SSSA						
SL04	LIFESCIENCES	SPXX						
SL05	CENTRIFUGE	SSCL						
SL06	CLOSED ENV	SPCL						
CM01	MATLS SCIENCE	SPXX						
CM02	CRYSTAL GROWTH	PMCL		X			4.0	0.4
CM03	CRYSTAL GROWTH	PMXX		X			3.0	0.4
CM04	CRYSTAL GROWTH	PMCL		X			4.0	0.4
SA02	ASTRO TELESCOPE	SPXX						
SA03	ASTROPHYSICS	FMXM		X			1.0	0.4
SA04	ASTROPHYSICS	FMXM		X			1.0	0.4
CC03	INTELSAT-7,7A	FXCL						
CC04	MULTIBEAM COMM.	SSCM						
CC05	RECONFIGURABLE	FXCM						
CM05	CONT FLOW ELEC-	PMCL		X			0.0	0.4
CM06	CONTINUOUS FLOW	PMXL		X			4.0	0.4
OT01	LOW INCL STA	SSSS						
OT02	LOW INCL STA	SORS						

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 OT05 HI-ALT STA        OMSB

 TS02 TECH DEVEL        SSSA

 SA05 LARGE RADIO       FMCH        X                              1.0        0.4

  OT05 SPACE-BASED MANNED OTV
NOT MANIFESTED AS SHUTTLE PAYLOAD
PAYLOAD    6    HI-INCL STATION    RESUPPLY
NO OTV REQD
PAYLOAD    7    SPACE SCIENCE      SUBSATELLITE
NO OTV REQD
PAYLOAD   20    CRYSTAL GROWTH     RESUP-2
NO OTV REQD
PAYLOAD   26    INTELSAT-7,7A      CLASS COMSAT
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED:       14.170
PAYLOAD   27    MULTIBEAM COMM.    SATELLITE
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED:       14.170
PAYLOAD   28    RECONFIGURABLE     COMM. SATELLITE
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED:        9.315
PAYLOAD   30    CONTINUOUS FLOW    ELECTRO RESUPP
NO OTV REQD
PAYLOAD   34    LOW INCL STA       RESUPPLY
NO OTV REQD
PAYLOAD   35    HI-ALT STA         RESUPPLY
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED:       21.497
SORTED H ARRAY
      INDEX      #FLTS       MASS     LENGTH     INCLIN
         30         20      25.00      12.00      29.00
         27          1       5.00       8.90       0.00
         34          8      15.00       8.00      29.00
          6          2       8.00       6.00      98.00
         26          2       5.00       6.00       0.00
         28          4       1.80       4.40       0.00
          7          1       2.40       4.00      98.00
         20          6      12.50       4.00      29.00
        301          1       3.00       3.00      29.00
        302          2       4.00       1.50      29.00
        300          1       1.50       1.10      29.00
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OF POOR QUALITY

MANIFESTING RECORD

NP	WT AV	LEN AV	MAIN #	MAIN KEY	MAIN #FL	MAIN P/L MASS	MAIN P/L LEN	SEC #	SEC KEY	SEC #FL	SEC P/L MASS	SEC P/L LEN	MC	MF	SF	DM RQ	DM OK	DM MAN	CG	FRE LEN	FRE MASS
1	27.6	10.1	30	CM06	20	25.0	12.0	27	CC04	1	5.0	8.0	5	1	1	*	--	--	--	--	--
1	27.6	10.1	30	CM06	20	25.0	12.0	34	OT02	8	15.0	8.0	5	1	1	*	--	--	--	--	--
1	27.6	10.1	30	CM06	20	25.0	12.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--	--
1	27.6	10.1	30	CM06	20	25.0	12.0	26	CC03	2	5.0	6.0	5	1	1	*	--	--	--	--	--
1	27.6	10.1	30	CM06	20	25.0	12.0	28	CC05	4	1.8	4.4	5	1	1	*	--	--	--	--	--
1	27.6	10.1	30	CM06	20	25.0	12.0	7	SP01	1	2.4	4.0	4	1	1	*	--	--	--	--	--
1	27.6	10.1	30	CM06	20	25.0	12.0	20	CM04	6	12.5	4.0	5	1	1	*	--	--	--	--	--
1	27.6	10.1	30	CM06	20	25.0	12.0	301	TMS	1	3.0	3.0	5	1	1	*	--	--	--	--	--

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 1 27.6 10.1  30 CM06 20   25.0 12.0 302 TMS    2    4.0  1.5  5  1  1  *      --   --   --   --
 1 27.6 10.1  30 CM06 20   25.0 12.0 300 TMS    1    1.5  1.1  5  1  1  *      --   --   --   --
 1 27.6 10.1  27 CC04  1    5.0  8.0  34 OT02   8   15.0  8.0  5  1  1  *      --   --   --   --
 1 27.6 10.1  27 CC04  1    5.0  8.0   6 OT04   2    8.0  6.0  4  1  1  *      --   --   --   --
 1 27.6 10.1  27 CC04  1    5.0  8.0  26 CC03   2    5.0  6.0  5  1  1  *      --   --   --   --
 1 27.6 10.1  27 CC04  1    5.0  8.0  28 CC05   4    1.8  4.4  5  1  1  *      --   --   --   --
 1 27.6 10.1  27 CC04  1    5.0  8.0   7 SP01   1    2.4  4.0  4  1  1  *      --   --   --   --
 1 27.6 10.1  27 CC04  1    5.0  8.0  20 CM04   6   12.5  4.0  5  1  1  *      --   --   --   --
 1 27.6 10.1  27 CC04  1    5.0  8.0 301 TMS    1    3.0  3.0  5  1  1  *      --   --   --   --
PROPELLANT DELIVERED USING MINITANKER IS NOW      15.200
 1 27.6 10.1  27 CC04  0    5.0  8.0 302 TMS    1    4.0  1.5  8  1  1  *       1  27.2   0.6   0.8
 1 27.6 10.1  27 CC04  0    5.0  8.0 300 TMS    1    1.5  1.1  1  1  1  *      --   --   --   --
 1 27.6 10.1  34 OT02  8   15.0  8.0   6 OT04   2    8.0  6.0  4  1  1  *      --   --   --   --
 1 27.6 10.1  34 OT02  8   15.0  8.0  26 CC03   2    5.0  6.0  5  1  1  *      --   --   --   --
 1 27.6 10.1  34 OT02  8   15.0  8.0  28 CC05   4    1.8  4.4  5  1  1  *      --   --   --   --
 1 27.6 10.1  34 OT02  8   15.0  8.0   7 SP01   1    2.4  4.0  4  1  1  *      --   --   --   --
 1 27.6 10.1  34 OT02  8   15.0  8.0  20 CM04   6   12.5  4.0  5  1  1  *      --   --   --   --
 1 27.6 10.1  34 OT02  8   15.0  8.0 301 TMS    1    3.0  3.0  5  1  1  *      --   --   --   --
 1 27.6 10.1  34 OT02  8   15.0  8.0 302 TMS    1    4.0  1.5  7  1  1  *      --   --   --   --
 1 27.6 10.1  34 OT02  8   15.0  8.0 300 TMS    1    1.5  1.1  7  1  1  *      --   --   --   --
 1 15.5 18.3   6 OT04  2    8.0  6.0  26 CC03   2    5.0  6.0  4  0  0         --   --   --   --
 1 15.5 18.3   6 OT04  2    8.0  6.0  28 CC05   4    1.8  4.4  4  0  0         --   --   --   --
 1 15.5 18.3   6 OT04  1    8.0  6.0   7 SP01   0    2.4  4.0  8  0  0         1  24.7   8.3   5.1
 1 15.5 18.3   6 OT04  1    8.0  6.0  20 CM04   6   12.5  4.0  4  0  0         --   --   --   --
 1 15.5 18.3   6 OT04  1    8.0  6.0 301 TMS    1    3.0  3.0  4  0  0         --   --   --   --
 1 15.5 18.3   6 OT04  1    8.0  6.0 302 TMS    1    4.0  1.5  4  0  0         --   --   --   --
 1 15.5 18.3   6 OT04  1    8.0  6.0 300 TMS    1    1.5  1.1  4  0  0         --   --   --   --
 1 27.6 10.1  26 CC03  2    5.0  6.0  28 CC05   4    1.8  4.4  5  1  1  *      --   --   --   --
 1 27.6 10.1  26 CC03  2    5.0  6.0   7 SP01   0    2.4  4.0  1  1  1  *      --   --   --   --
 1 27.6 10.1  26 CC03  2    5.0  6.0  20 CM04   6   12.5  4.0  7  1  1  *      --   --   --   --
PROPELLANT DELIVERED USING MINITANKER IS NOW      30.400
 1 27.6 10.1  26 CC03  1    5.0  6.0 301 TMS    0    3.0  3.0  8  1  1  *       1  27.1   1.1   1.8
PROPELLANT DELIVERED USING MINITANKER IS NOW      45.600
 1 27.6 10.1  26 CC03  0    5.0  6.0 302 TMS    0    4.0  1.5  8  1  1  *       1  27.4   2.6   0.8
 1 27.6 10.1  26 CC03  0    5.0  6.0 300 TMS    1    1.5  1.1  1  1  1  *      --   --   --   --
 1 27.6 10.1  28 CC05  4    1.8  4.4   7 SP01   0    2.4  4.0  1  1  1  *      --   --   --   --
PROPELLANT DELIVERED USING MINITANKER IS NOW     100.814
 1 27.6 10.1  28 CC05  0    1.8  4.4  20 CM04   2   12.5  4.0  8  1  1  *       4  26.8   1.7  -3.0
 1 27.6 10.1  28 CC05  0    1.8  4.4 301 TMS    0    3.0  3.0  1  1  1  *      --   --   --   --
 1 27.6 10.1  28 CC05  0    1.8  4.4 302 TMS    0    4.0  1.5  1  1  1  *      --   --   --   --
 1 27.6 10.1  28 CC05  0    1.8  4.4 300 TMS    1    1.5  1.1  1  1  1  *      --   --   --   --
 1 27.6 10.1  20 CM04  2   12.5  4.0 301 TMS    0    3.0  3.0  1  1  1  *      --   --   --   --
 1 27.6 10.1  20 CM04  2   12.5  4.0 302 TMS    0    4.0  1.5  1  1  1  *      --   --   --   --
PROPELLANT DELIVERED USING MINITANKER IS NOW     114.903
 1 27.6 10.1  20 CM04  1   12.5  4.0 300 TMS    0    1.5  1.1  8  1  1  *       1  26.9   5.0  -3.0
 2 29.5 18.3  30 CM06 20   25.0 12.0  27 CC04   0    5.0  8.0  1  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 20   25.0 12.0  34 OT02   8   15.0  8.0  5  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 20   25.0 12.0   6 OT04   1    8.0  6.0  4  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 20   25.0 12.0  26 CC03   0    5.0  6.0  1  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 20   25.0 12.0  28 CC05   0    1.8  4.4  1  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 20   25.0 12.0   7 SP01   0    2.4  4.0  1  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 20   25.0 12.0  20 CM04   1   12.5  4.0  6  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 20   25.0 12.0 301 TMS    0    3.0  3.0  1  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 20   25.0 12.0 302 TMS    0    4.0  1.5  1  0  0         --   --   --   --
 2 29.5 18.3  30 CM06 20   25.0 12.0 300 TMS    0    1.5  1.1  1  0  0         --   --   --   --
 2 27.6 16.2  34 OT02  8   15.0  8.0   6 OT04   1    8.0  6.0  4  0  0  *      --   --   --   --
 2 27.6 16.2  34 OT02  8   15.0  8.0  26 CC03   0    5.0  6.0  1  0  0  *      --   --   --   --
 2 27.6 16.2  34 OT02  8   15.0  8.0  28 CC05   0    1.8  4.4  1  0  0  *      --   --   --   --
 2 27.6 16.2  34 OT02  8   15.0  8.0   7 SP01   0    2.4  4.0  1  0  0  *      --   --   --   --
 2 27.6 16.2  34 OT02  7   15.0  8.0  20 CM04   0   12.5  4.0  8  0  0  *       1  26.7   4.2   0.1
```

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2	27.6	16.2	34	OT02	7	15.0	8.0	301	TMS	0	3.0	3.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	7	15.0	8.0	302	TMS	0	4.0	1.5	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	7	15.0	8.0	300	TMS	0	1.5	1.1	1	0	0	*	--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	7	SP01	0	2.4	4.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	20	CM04	0	12.5	4.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	302	TMS	0	4.0	1.5	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	1	8.0	6.0	300	TMS	0	1.5	1.1	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	0	25.0	12.0	--	--	--	--	--	8	0	0		20	27.1	6.3	-2.5
2	29.5	18.3	34	OT02	0	15.0	8.0	--	--	--	--	--	8	0	0		7	26.0	10.3	0.5
2	15.5	18.3	6	OT04	0	8.0	6.0	--	--	--	--	--	8	0	0		1	23.5	12.3	7.5

PROPELLANT NEEDED THIS YEAR = 123.
PROPELLANT LEFT FROM PRIOR YEAR = 18.
PROPELLANT DELIVERED BY MINITANKER = 115.
PROPELLANT DELIVERED BY ET SCAVENGING = 0.

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OF POOR QUALITY

MANIFEST #	KEY REF	DESCRIPTION	MATCHED WITH	NO. FLTS	OTV USED	OTV EXP	P/L BAY LENGTH	LAUNCH MASS	TIME ON ORBIT	SP STA OPERATION
1	CC04	**MULTIBEAM COMM SATELLITE	TMS PROP DELIV	1	1	0	17.7	28.7	2.0	FS
2	OT04	HI-INCL STATION RESUPPLY	SPACE SCIENCE SUBSATELLITE	1	0	0	10.0	10.4	4.0	FS
3	CC03	**INTELSAT-7,7A CLASS COMSAT	TMS CAB DELIVERY	1	1	0	17.2	27.7	2.0	FS
4	CC03	**INTELSAT-7,7A CLASS COMSAT	TMS PROP DELIV	1	1	0	15.7	28.7	2.0	FS
5	CC05	**RECONFIGURABLE COMM. SATELLI	CRYSTAL GROWTH RESUP-2	4	1	0	16.6	32.5	4.0	FS
6	CM04	**CRYSTAL GROWTH RESUP-2	TMS DELIVERY	1	0	0	13.3	32.5	2.0	FS
7	OT02	LOW INCL STA RESUPPLY	CRYSTAL GROWTH RESUP-2	1	0	0	14.1	29.4	4.0	FS
8	CM06	CONTINUOUS FLOW ELECTRO RESUPP		20	0	0	12.0	25.0	2.0	FS
9	OT02	LOW INCL STA RESUPPLY		7	0	0	8.0	15.0	2.0	FS
10	OT04	HI-INCL STATION RESUPPLY		1	0	0	6.0	8.0	2.0	FS

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** - MANIFESTED WITH MINITANKER

NO. OF SHUTTLE FLIGHTS 38
NO. OF TMS OPS 18
NO. OF MANNED TMS OPS 18
NO. OF SELF:PROP SAT SERV OPS 1
TMS & SATELLITE PROPELLANT USED 6.46
NO. OF OTV REUSE FLIGHTS 7
NO. OF OTVS EXPENDED 0

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SPACE STATION FLT SERVICE OPS     10
SPACE STATION CONSTR OPS       9
SPACE STATION PROP XFER OPS      8
HLLV FLIGHTS       0
 FLEET TIME ON ORBIT =      88.0 DAYS
 TOTAL FLEET TIME =    1418.0 DAYS
 IDEAL MIN FLEET SIZE =      4.54 VEHICLES
```

YEAR 2005

TMS MISSION SUMMARY

KEY	TITLE	CODE	TMS MISSION TYPE AUTO	MAN	RET/DEPLOY	SELF-PROP	NO. USES	PROP RQD
SO01	EARTH OBSERV	SPCL						
SO02	SYNTH APERTURE	SPCL						
SO03	HETERODYNING	SPXX						
SO04	UPPER ATMOS	SPCL						
OT03	SPACE STATION	SSSS						
OT04	HI-INCL STATION	SORS						
SP01	SPACE SCIENCE	FSXX				X	1.0	0.0
SA01	VLBI/COSMIC	SPCL						
SL01	HUMAN LIFE SI	SSSA						
SL04	LIFESCIENCES	SPXX						
SL05	CENTRIFUGE	SSCL						
SL06	CLOSED ENV	SPCL						
CM01	MATLS SCIENCE	SPXX						
CM02	CRYSTAL GROWTH	PMCL		X			4.0	0.4
CM03	CRYSTAL GROWTH	PMXX		X			3.0	0.4
CM04	CRYSTAL GROWTH	PMCL		X			4.0	0.4
SA02	ASTRO TELESCOPE	SPXX						
SA03	ASTROPHYSICS	FMXM		X			1.0	0.4
SA04	ASTROPHYSICS	FMXM		X			1.0	0.4
CC03	INTELSAT-7,7A	FXCL						
CC04	MULTIBEAM COMM.	SSCM						
CC05	RECONFIGURABLE	FXCM						
CM05	CONT FLOW ELEC-	PMCL		X			0.0	0.4
CM06	CONTINUOUS FLOW	PMXL		X			4.0	0.4
OT01	LOW INCL STA	SSSS						
OT02	LOW INCL STA	SORS						
OT05	HI-ALT STA	OMSB						

TE02 LIQ DROPLET SPCL

TS02 TECH DEVEL SSSA

SA05 LARGE RADIO FMCH X 1.0 0.4

THIS IS A SPACE STATION SPACE-AVAILABLE MISSION
NOT MANIFESTED ON TRANSPORTATION

OT05 SPACE-BASED MANNED OTV
NOT MANIFESTED AS SHUTTLE PAYLOAD
PAYLOAD 6 HI-INCL STATION RESUPPLY
NO OTV REQD
PAYLOAD 10 RAD BIOLOGY IN SM MAMMALS

THIS IS A SPACE STATION SPACE-AVAILABLE MISSION
NOT MANIFESTED ON TRANSPORTATION
PAYLOAD 20 CRYSTAL GROWTH RESUP-2
NO OTV REQD
PAYLOAD 26 INTELSAT-7,7A CLASS COMSAT
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 14.170
PAYLOAD 27 MULTIBEAM COMM. SATELLITE
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 14.170
PAYLOAD 28 RECONFIGURABLE COMM. SATELLITE
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 9.315
PAYLOAD 30 CONTINUOUS FLOW ELECTRO RESUPP
NO OTV REQD
PAYLOAD 34 LOW INCL STA RESUPPLY
NO OTV REQD
PAYLOAD 35 HI-ALT STA RESUPPLY
OUTCOME #1 - SPACE-BASED OTV REUSED
PROPELLANT USED: 21.497
PAYLOAD 44 LIQ DROPLET RADIATOR
NO OTV REQD
SORTED H ARRAY

INDEX	#FLTS	MASS	LENGTH	INCLIN
30	20	25.00	12.00	29.00
44	1	3.60	10.00	29.00
27	1	5.00	8.00	0.00
34	8	15.00	8.00	29.00
6	2	8.00	6.00	98.00
26	2	5.00	6.00	0.00
28	4	1.80	4.40	0.00
20	6	12.50	4.00	29.00
301	2	3.00	3.10	29.00
302	3	4.00	1.50	29.00
300	1	1.50	1.10	29.00

MANIFESTING RECORD

NP	WT AV	LEN AV	*****MAIN P/L********* #	KEY	#FL	MASS	LEN	*****SEC P/L********* #	KEY	#FL	MASS	LEN	MC	MF	SF	DM RQ	DM OK	FLTS MAN	CG	FRE LEN	FRE MASS
1	27.6	10.1	30	CM06	20	25.0	12.0	44	TE02	1	3.6	10.0	5	1	1	*		--	--	--	--

1	27.6	10.1	30	CM06	20	25.0	12.0	27	CC04	1	5.0	8.0	5	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	20	25.0	12.0	34	OT02	8	15.0	8.0	5	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	20	25.0	12.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	20	25.0	12.0	26	CC03	2	5.0	6.0	5	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	20	25.0	12.0	28	CC05	4	1.8	4.4	5	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	20	25.0	12.0	20	CM04	6	12.5	4.0	5	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	20	25.0	12.0	301	TMS	2	3.0	3.0	5	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	20	25.0	12.0	302	TMS	3	4.0	1.5	5	1	1	*	--	--	--	--
1	27.6	10.1	30	CM06	20	25.0	12.0	300	TMS	1	1.5	1.1	5	1	1	*	--	--	--	--
1	27.6	10.1	44	TE02	1	3.6	10.0	27	CC04	1	5.0	8.0	5	1	1	*	--	--	--	--
1	27.6	10.1	44	TE02	1	3.6	10.0	34	OT02	8	15.0	8.0	5	1	1	*	--	--	--	--
1	27.6	10.1	44	TE02	1	3.6	10.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--
1	27.6	10.1	44	TE02	1	3.6	10.0	26	CC03	2	5.0	6.0	5	1	1	*	--	--	--	--
1	27.6	10.1	44	TE02	1	3.6	10.0	28	CC05	4	1.8	4.4	5	1	1	*	--	--	--	--
1	27.6	10.1	44	TE02	1	3.6	10.0	20	CM04	6	12.5	4.0	5	1	1	*	--	--	--	--
1	27.6	10.1	44	TE02	1	3.6	10.0	301	TMS	2	3.0	3.0	5	1	1	*	--	--	--	--
1	27.6	10.1	44	TE02	1	3.6	10.0	302	TMS	3	4.0	1.5	5	1	1	*	--	--	--	--
1	27.6	10.1	44	TE02	1	3.6	10.0	300	TMS	1	1.5	1.1	5	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	34	OT02	8	15.0	8.0	5	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	26	CC03	2	5.0	6.0	5	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	28	CC05	4	1.8	4.4	5	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	20	CM04	6	12.5	4.0	5	1	1	*	--	--	--	--
1	27.6	10.1	27	CC04	1	5.0	8.0	301	TMS	2	3.0	3.0	5	1	1	*	--	--	--	--
PROPELLANT DELIVERED USING MINITANKER IS NOW											15.200												
1	27.6	10.1	27	CC04	0	5.0	8.0	302	TMS	2	4.0	1.5	8	1	1	*	1	27.2	0.6	0.8
1	27.6	10.1	27	CC04	0	5.0	8.0	300	TMS	1	1.5	1.1	1	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	6	OT04	2	8.0	6.0	4	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	26	CC03	2	5.0	6.0	5	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	28	CC05	4	1.8	4.4	5	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	20	CM04	6	12.5	4.0	5	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	301	TMS	2	3.0	3.0	5	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	302	TMS	2	4.0	1.5	7	1	1	*	--	--	--	--
1	27.6	10.1	34	OT02	8	15.0	8.0	300	TMS	1	1.5	1.1	7	1	1	*	--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	26	CC03	2	5.0	6.0	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	28	CC05	4	1.8	4.4	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	20	CM04	6	12.5	4.0	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	301	TMS	2	3.0	3.0	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	302	TMS	2	4.0	1.5	4	0	0		--	--	--	--
1	15.5	18.3	6	OT04	2	8.0	6.0	300	TMS	1	1.5	1.1	4	0	0		--	--	--	--
1	27.6	10.1	26	CC03	2	5.0	6.0	28	CC05	4	1.8	4.4	5	1	1	*	--	--	--	--
1	27.6	10.1	26	CC03	2	5.0	6.0	20	CM04	6	12.5	4.0	7	1	1	*	--	--	--	--
PROPELLANT DELIVERED USING MINITANKER IS NOW											45.600												
1	27.6	10.1	26	CC03	0	5.0	6.0	301	TMS	0	3.0	3.0	8	1	1	*	2	27.1	1.1	1.8
1	27.6	10.1	26	CC03	0	5.0	6.0	302	TMS	2	4.0	1.5	1	1	1	*	--	--	--	--
1	27.6	10.1	26	CC03	0	5.0	6.0	300	TMS	1	1.5	1.1	1	1	1	*	--	--	--	--
PROPELLANT DELIVERED USING MINITANKER IS NOW											100.814												
1	27.6	10.1	28	CC05	0	1.8	4.4	20	CM04	2	12.5	4.0	8	1	1	*	4	26.8	1.7	-3.0
1	27.6	10.1	28	CC05	0	1.8	4.4	301	TMS	0	3.0	3.0	1	1	1	*	--	--	--	--
1	27.6	10.1	28	CC05	0	1.8	4.4	302	TMS	2	4.0	1.5	1	1	1	*	--	--	--	--
1	27.6	10.1	28	CC05	0	1.8	4.4	300	TMS	1	1.5	1.1	1	1	1	*	--	--	--	--
1	27.6	10.1	20	CM04	2	12.5	4.0	301	TMS	0	3.0	3.0	1	1	1	*	--	--	--	--
PROPELLANT DELIVERED USING MINITANKER IS NOW											124.241												
1	27.6	10.1	20	CM04	0	12.5	4.0	302	TMS	0	4.0	1.5	8	1	1	*	2	26.2	4.6	-3.0
2	29.5	18.3	30	CM06	20	25.0	12.0	44	TE02	1	3.6	10.0	5	0	0		--	--	--	--
2	29.5	18.3	30	CM06	20	25.0	12.0	27	CC04	0	5.0	8.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	20	25.0	12.0	34	OT02	8	15.0	8.0	5	0	0		--	--	--	--
2	29.5	18.3	30	CM06	20	25.0	12.0	6	OT04	2	8.0	6.0	4	0	0		--	--	--	--
2	29.5	18.3	30	CM06	20	25.0	12.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	20	25.0	12.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--

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2	29.5	18.3	30	CM06	20	25.0	12.0	20	CM04	0	12.5	4.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	20	25.0	12.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	20	25.0	12.0	302	TMS	0	4.0	1.5	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	19	25.0	12.0	300	TMS	0	1.5	1.1	8	0	0		1	26.5	5.2	3.0
2	29.5	18.3	44	TE02	1	3.6	10.0	27	CC04	0	5.0	8.0	1	0	0		--	--	--	--
2	29.5	18.3	44	TE02	0	3.6	10.0	34	OT02	7	15.0	8.0	8	0	0		1	27.1	0.3	10.9
2	29.5	18.3	44	TE02	0	3.6	10.0	6	OT04	2	8.0	6.0	1	0	0		--	--	--	--
2	29.5	18.3	44	TE02	0	3.6	10.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	29.5	18.3	44	TE02	0	3.6	10.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--
2	29.5	18.3	44	TE02	0	3.6	10.0	20	CM04	0	12.5	4.0	1	0	0		--	--	--	--
2	29.5	18.3	44	TE02	0	3.6	10.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	29.5	18.3	44	TE02	0	3.6	10.0	302	TMS	0	4.0	1.5	1	0	0		--	--	--	--
2	29.5	18.3	44	TE02	0	3.6	10.0	300	TMS	0	1.5	1.1	1	0	0		--	--	--	--
2	27.6	16.2	34	OT02	7	15.0	8.0	6	OT04	2	8.0	6.0	4	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	7	15.0	8.0	26	CC03	0	5.0	6.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	7	15.0	8.0	28	CC05	0	1.8	4.4	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	7	15.0	8.0	20	CM04	0	12.5	4.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	7	15.0	8.0	301	TMS	0	3.0	3.0	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	7	15.0	8.0	302	TMS	0	4.0	1.5	1	0	0	*	--	--	--	--
2	27.6	16.2	34	OT02	7	15.0	8.0	300	TMS	0	1.5	1.1	1	0	0	*	--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	26	CC03	0	5.0	6.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	28	CC05	0	1.8	4.4	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	20	CM04	0	12.5	4.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	301	TMS	0	3.0	3.0	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	302	TMS	0	4.0	1.5	1	0	0		--	--	--	--
2	15.5	18.3	6	OT04	2	8.0	6.0	300	TMS	0	1.5	1.1	1	0	0		--	--	--	--
2	29.5	18.3	30	CM06	0	25.0	12.0	--	--	--	--	--	8	0	0		19	27.1	6.3	-9.5
2	29.5	18.3	34	OT02	0	15.0	8.0	--	--	--	--	--	8	0	0		7	26.0	10.3	0.5
2	15.5	18.3	6	OT04	0	8.0	6.0	--	--	--	--	--	8	0	0		2	23.5	12.3	7.5

PROPELLANT NEEDED THIS YEAR = 123.
PROPELLANT LEFT FROM PRIOR YEAR = 10.
PROPELLANT DELIVERED BY MINITANKER = 124.
PROPELLANT DELIVERED BY ET SCAVENGING = 0.

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MANIFEST #	KEY REF	DESCRIPTION	MATCHED WITH	NO. FLTS	OTV USED	OTV EXP	P/L BAY LENGTH	LAUNCH MASS	TIME ON ORBIT	SP STA OPERATION
1	CC04	**MULTIBEAM COMM SATELLITE	TMS PROP DELIV	1	1	0	17.7	28.7	2.0	FS
2	CC03	**INTELSAT-7,7A CLASS COMSAT	TMS CAB DELIVERY	2	1	0	17.2	27.7	2.0	FS
3	CC05	**RECONFIGURABLE COMM. SATELLI	CRYSTAL GROWTH RESUP-2	4	1	0	16.6	32.5	4.0	FS
4	CM04	**CRYSTAL GROWTH RESUP-2	TMS PROP DELIV	2	0	0	13.7	32.5	2.0	FS
5	CM06	CONTINUOUS FLOW ELECTRO RESUPP	TMS DELIVERY	1	0	0	13.1	26.5	2.0	FS
6	TE02	LIQ DROPLET RADIATOR	LOW INCL STA RESUPPLY	1	0	0	18.0	18.6	4.0	FS
7	CM06	CONTINUOUS FLOW ELECTRO RESUPP		19	0	0	12.0	25.0	2.0	FS
8	OT02	LOW INCL STA RESUPPLY		7	0	0	8.0	15.0	2.0	FS
9	OT04	HI-INCL STATION RESUPPLY		2	0	0	6.0	8.0	2.0	FS

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** - MANIFESTED WITH MINITANKER

NO. OF SHUTTLE FLIGHTS 39
NO. OF TMS OPS 18
NO. OF MANNED TMS OPS 18
NO. OF SELF-PROP SAT SERV OPS 1
TMS & SATELLITE PROPELLANT USED 6.46
NO. OF OTV REUSE FLIGHTS 7
NO. OF OTVS EXPENDED 0
SPACE STATION FLT SERVICE OPS 11
SPACE STATION CONSTR OPS 10
SPACE STATION PROP XFER OPS 9
HLLV FLIGHTS 0

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FLEET TIME ON ORBIT =      88.0 DAYS
TOTAL FLEET TIME =    1453.0 DAYS
IDEAL MIN FLEET SIZE =      4.66 VEHICLES
```

STS WORK MATRIX

	TIME	S/C FLUI	SPST OPS	EVA CPOP	EVA WORK
ORBITER ARRIVE	0.0416	0	150	0	0
ORBITER OFFLOAD	0.6000	0	100	100	100
ORBITER RELOAD	0.6000	0	100	100	100
ORBITER DEPART	0.0210	0	200	0	0
ORBITER PROP XFR	0.5417	100	125	0	0

OTV WORK MATRIX

	TIME	S/C DATA	S/C ELEC	S/C MECH	S/C FLUI	SPST OPS	EVA CPOP	EVA WORK	MOTV PIL
MAINTAIN STAGE	1.1500	30	75	40	25	100	0	150	0
MATE TO PAYLD	0.1310	0	0	0	0	100	67	67	0
STAGE/STAGE MATE	0.2100	0	0	0	0	100	67	67	0
OTV/PLD C/O	0.5550	50	50	50	20	5	5	5	0
LAUNCH	0.0820	50	50	50	100	100	0	0	50
CAPTURE	0.0416	0	0	0	0	100	0	0	50
CREW MOD MAINT	1.7100	30	30	30	30	100	0	150	0
CREW MOD MATE	0.1310	0	0	0	0	100	67	67	0
CREW INGRESS	0.0625	0	100	100	0	0	0	0	100
CREW EGRESS	0.0625	0	100	100	0	0	0	0	100
CREW MOD DEMATE	0.1210	0	0	0	0	100	100	100	0
AEROBRAKE EXCH	1.1460	0	0	0	0	11	22	150	0
MISSION OPS	MSN DEP	50	50	50	50	0	0	0	100

SATELLITE SERVICING WORK MATRIX

	TIME	NO SPEC	S/C DATA	S/C ELEC	S/C MECH	S/C FLUI	SPST OPS	EVA CPOP	EVA WORK	MOTV PIL	TMS PIL
SETUP/TAKEDOWN	MSN DEP	0	0	0	0	0	100	100	100	0	0
MATE TO FIXT	0.0560	0	0	0	0	0	100	100	100	0	0
SERVICE	MSN DEP	25	25	25	25	25	100	50	100	0	0
REMOTE SERVICE	MSN DEP	25	25	25	25	25	50	0	0	0	100
TEST & C/O	MSN DEP	25	100	0	10	5	100	0	0	0	0
TMS LAUNCH	0.0820	0	100	100	100	100	100	0	0	0	100
TMS OPS	MSN DEP	0	10	0	0	0	10	0	0	0	100
TMS MATE/DEMATE	0.2600	0	0	0	0	0	100	67	67	0	0
TMS CREW OPS	MSN DEP	25	100	0	100	0	10	0	0	0	100
TMS CAPTURE/BRTH	0.0420	0	50	50	0	0	100	0	0	0	100
TMS MAINT/REFUEL	1.1000	10	50	5	75	25	100	0	75	0	0
CREW MOD MAINT	1.7100	25	50	50	75	0	100	0	150	0	0
SPACE STA HOUSEK	MSN DEP	10	0	0	0	0	70	10	10	0	0

SCIENCE & APP WORK MATRIX

	TIME	NO SPEC	MED/ BIO	PHYS SCI	E&OC SCI	ENGR	ASTR SCI	S/C DATA	S/C ELEC	S/C MECH	S/C FLUI	SPST OPS	EVA CPOP	EVA WORK	MOTV PIL	TMS PIL	MAT SCI
LIFE SCIENCE	MSN DEP	10	100	0	0	0	0	0	5	0	5	5	0	0	0	0	0
MPRES & DEV	MSN DEP	10	0	0	0	0	0	0	5	0	5	5	0	0	0	0	100
PHYSICS SCIENCE	MSN DEP	10	0	100	0	0	0	0	5	0	5	5	0	0	0	0	0
EARTH & OC SCI	MSN DEP	10	0	0	100	0	0	0	5	0	5	5	0	0	0	0	0
ASTROPHYSICS	MSN DEP	10	0	0	0	0	100	0	5	0	5	5	0	0	0	0	0
DOD/TECH DEV	MSN DEP	20	0	0	0	100	0	15	5	5	20	10	5	5	15	0	0

CONSTRUCTION WORK MATRIX

	TIME	S/C DATA	S/C ELEC	S/C MECH	S/C FLUI	SPST OPS	EVA CPOP	EVA WORK
SETUP/TAKEDOWN	MSN DEP	0.	0	0	0	100	100	100
MATE TO FIXT	0.0560	0	0	0	0	100	100	100
DEPLOY/ASSEMBLE	MSN DEP	0	0	0	0	100	100	0
TEST & C/O	MSN DEP	40	25	25	25	100	0	0
MODULE MATE	MSN DEP	10	25	25	0	100	100	100
FAB STRUCT	MSN DEP	0	0	0	0	100	50	50

* * * SPACE STATION OPERATIONS ANALYSIS FOR YEAR 1990 * * *

PAYLOADS SERVICING ANALYSIS

PAYLOAD WITH KEY OT01 LOW INCL STA MODULE DEL

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 33 OT01 . 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL 'MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 33 DT01 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

SKILL MIX SUMMARIES LOW INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
0.	0.	0.	672.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	67.2
MED/BIO RESEARCH	0.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	0.0
ASTROPHSICS	0.0

S/C SYS - DATA	0.0
S/C SYS - ELEC	0.0
S/C SYS - MECH	0.0
S/C SYS - FLUIDS	0.0
SP STA SYS OPS	470.4
EVA CRANE OP	67.2
EVA SERVICE TECH	67.2
MANNED OTV PILOT	0.0
TMS PILOT	0.0
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 1.8 PEOPLE

SKILL MIX SUMMARIES HIGH INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
0.	0.	0.	0.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	0.0
MED/BIO RESEARCH	0.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	0.0
ASTROPHSICS	0.0
S/C SYS - DATA	0.0
S/C SYS - ELEC	0.0
S/C SYS - MECH	0.0
S/C SYS - FLUIDS	0.0
SP STA SYS OPS	0.0
EVA CRANE OP	0.0
EVA SERVICE TECH	0.0
MANNED OTV PILOT	0.0

TMS PILOT 0.0
MATLS SCIENCE 0.0

TOTAL SPACE STATION CREW: 0.0 PEOPLE

LOW INCLINATION

DURATION SUMMARY FOR YEAR 1990 IN MANDAYS/YR

STS OPERATIONS	0.0
CONSTRUCTION	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	336.0
SCIENCE & TECH DEMO	0.0

HIGH INCLINATION

DURATION SUMMARY FOR YEAR 1990 IN MANDAYS/YR

STS OPERATIONS	0.0
CONSTRUCTION	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

SUMMARY OF SPACE STATION PAYLOADS THIS YEAR

KEY	TITLE	PLCODE	INCL	PK POWER	DUTY CYCLE
OT01	LOW INCL STA MODULE DEL	SSSS	29.0	20.0	100.0

LOW INCLINATION

PEAK POWER	AVERAGE POWER
20.0	20.0

HIGH INCLINATION

PEAK POWER	AVERAGE POWER
0.0	0.0

RESOURCES SUMMARY FOR LOW INCLINATION SPACE STATION

INTERNAL VOLUME	0.0 CUBIC METERS
POWER	20.0 KW
NO. OF PORTS	0.

RESOURCES SUMMARY FOR HIGH INCLINATION SPACE STATION

INTERNAL VOLUME	0.0 CUBIC METERS
POWER	0.0 KW
NO. OF PORTS	0.

POINTING & DISTURBANCE SUMMARY FOR LOW INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

	25	50	75	100	125	150	175	200	225	250	275	300	325	350
0														

OT01 ----------

POINTING & DISTURBANCE SUMMARY FOR HIGH INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

	25	50	75	100	125	150	175	200	225	250	275	300	325	350
0														

* * * SPACE STATION OPERATIONS ANALYSIS FOR YEAR 1991 * * *

TYPE #1 = 3 TYPE #2 = 0

***>> FLIGHT NO. 1
NUMBER OF FLIGHTS: 1 PRIME MISSION: **CONSTR,STORAGE & HANGAR OUTCOME # IS 0 KEY IS TM01
INCLINATION IS 29.00
CODE IS SPCM

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 1.391

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - FLUIDS	1.661
SP STA SYS OPS	5.035
EVA CRANE OP	2.520
EVA SERVICE TECH	2.520

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.993
MATE TO FIXT = 0.056
DEPLOY/ASSEMBLE = 8.400
TEST & C/O = 3.400
MODULE MATE = 0.152

ORIGINAL PAGE IS
OF POOR QUALITY

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 27.302

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.6	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.3	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	5.776
S/C SYS - ELEC	3.730
S/C SYS - MECH	3.730
S/C SYS - FLUIDS	3.570
SP STA SYS OPS	54.604
EVA CRANE OP	40.324
EVA SERVICE TECH	5.044

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 1 IN MANDAYS/YR

STS OPERATIONS	1.4
CONSTRUCTION OPERATIONS	27.3
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 3
NUMBER OF FLIGHTS: 2 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000

ORIGINAL PAGE IS
OF POOR QUALITY

ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 2 FLIGHTS: 5.303

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS CREW SKILL	MANDAYS
SP STA SYS OPS	10.957
EVA CRANE OP	10.080
EVA SERVICE TECH	10.080

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	5.3
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

PAYLOADS SERVICING ANALYSIS

PAYLOAD WITH KEY OT01 LOW INCL STA MODULE DEL

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 33 OT01 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS***				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS***				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 33 OT01 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT02 LOW INCL STA RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 34 OT02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY TM01 CONSTR,STORAGE, & HANGAR

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 10.000

UPDATED WORK DURATION AT SP STA 10.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	2.000
ENGINEERING	10.000
S/C SYS - DATA	1.500
S/C SYS - ELEC	0.500
S/C SYS - MECH	0.500
S/C SYS - FLUIDS	2.000
SP STA SYS OPS	1.000
EVA CRANE OP	0.500
EVA SERVICE TECH	0.500
MANNED OTV PILOT	1.500

DURATION SUMMARY FOR PAYLOAD NO. 36 TM01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	10.0

PAYLOAD WITH KEY TS02 TECH DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

DOD/TECH DEV = 20.000

UPDATED WORK DURATION AT SP STA 20.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

ORIGINAL PAGE IS
OF POOR QUALITY

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	4.000
ENGINEERING	20.000
S/C SYS - DATA	3.000
S/C SYS - ELEC	1.000
S/C SYS - MECH	1.000
S/C SYS - FLUIDS	4.000
SP STA SYS OPS	2.000
EVA CRANE OP	1.000
EVA SERVICE TECH	1.000
MANNED OTV PILOT	3.000

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DURATION SUMMARY FOR PAYLOAD NO. 45 TS02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	20.0

SKILL MIX SUMMARIES LOW INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	5.8	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.7	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.7	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	3.6	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	3.0	54.6	13.5	470.4	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	1.5	40.3	10.1	67.2	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	1.5	5.0	10.1	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
0.	0.	184.	707.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	73.2
MED/BIO RESEARCH	0.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	30.0
ASTROPHSICS	0.0
S/C SYS - DATA	10.3
S/C SYS - ELEC	5.2
S/C SYS - MECH	5.2
S/C SYS - FLUIDS	11.2
SP STA SYS OPS	544.0
EVA CRANE OP	121.6
EVA SERVICE TECH	86.3
MANNED OTV PILOT	4.5
TMS PILOT	0.0
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 2.4 PEOPLE

SKILL MIX SUMMARIES HIGH INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
0.	0.	0.	0.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	0.0
MED/BIO RESEARCH	0.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	0.0
ASTROPHSICS	0.0
S/C SYS - DATA	0.0
S/C SYS - ELEC	0.0
S/C SYS - MECH	0.0
S/C SYS - FLUIDS	0.0
SP STA SYS OPS	0.0
EVA CRANE OP	0.0
EVA SERVICE TECH	0.0
MANNED OTV PILOT	0.0
TMS PILOT	0.0
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 0.0 PEOPLE

LOW INCLINATION

DURATION SUMMARY FOR YEAR 1991 IN MANDAYS/YR

STS OPERATIONS	6.7
CONSTRUCTION	27.3
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	336.0
SCIENCE & TECH DEMO	30.0

HIGH INCLINATION

DURATION SUMMARY FOR YEAR 1991 IN MANDAYS/YR

STS OPERATIONS	0.0
CONSTRUCTION	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

SUMMARY OF SPACE STATION PAYLOADS THIS YEAR

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OF POOR QUALITY

KEY	TITLE	PLCODE	INCL	PK POWER	DUTY CYCLE
OT01	LOW.INCL STA MODULE DEL	SSSS	29.0	20.0	100.0
OT02	LOW INCL STA RESUPPLY	SORS	29.0	0.0	100.0
TM01	CONSTR,STORAGE, & HANGAR	SPCM	29.0	1.0	5.5
TS02	TECH DEVEL CARRY-ONS	SSSA	29.0	0.5	6.8

LOW INCLINATION

PEAK POWER	AVERAGE POWER
21.5	20.1

HIGH INCLINATION

PEAK POWER	AVERAGE POWER
0.0	0.0

RESOURCES SUMMARY FOR LOW INCLINATION SPACE STATION

INTERNAL VOLUME	2.0	CUBIC METERS
POWER	20.1	KW
NO. OF PORTS	1.	

RESOURCES SUMMARY FOR HIGH INCLINATION SPACE STATION

INTERNAL VOLUME	0.0	CUBIC METERS
POWER	0.0	KW
NO. OF PORTS	0.	

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POINTING & DISTURBANCE SUMMARY FOR LOW INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

0	25	50	75	100	125	150	175	200	225	250	275	300	325	350
OT01	----------													
OT02	----------													
TM01							----							
TS02							-----							

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POINTING & DISTURBANCE SUMMARY FOR HIGH INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

				1	1	1	1	2	2	2	2	3	3	3
	2	5	7	0	2	5	7	0	2	5	7	0	2	5
0	5	0	5	0	5	0	5	0	5	0	5	0	5	0

* * * SPACE STATION OPERATIONS ANALYSIS FOR YEAR 1992 * * *

TYPE #1 = 2 TYPE #2 = 3

***>> FLIGHT NO. 1
NUMBER OF FLIGHTS: 1 PRIME MISSION: MATLS SCIENCE LAB OUTCOME # IS 0 KEY IS CM01
INCLINATION IS 29.00
CODE IS SPXX
SECOND MISSION: PROP TRANSFER & STORAGE OUTCOME # IS 0
KEY IS TP01
CODE IS SPCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 2.739

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	5.741
EVA CRANE OP	5.040
EVA SERVICE TECH	5.040

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 1 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	0.0

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OTV OPERATIONS	0.0
OTV MISSIONS	0.0

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.718

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.436
EVA CRANE OP	1.394
EVA SERVICE TECH	1.394

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 1 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	1.7
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 2

ORIGINAL PAGE IS
OF POOR QUALITY

NUMBER OF FLIGHTS: 1 PRIME MISSION: LOW INCL STA MODULE DEL OUTCOME # IS 0 KEY IS 0T01
INCLINATION IS 29.00
CODE IS SSSS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 1.391

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS	2.958
EVA CRANE OP	2.520
EVA SERVICE TECH	2.520

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	1.4
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 3
NUMBER OF FLIGHTS: 4 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS 0T02
INCLINATION IS 29.00
CODE IS SORS

ORIGINAL PAGE IS
OF POOR QUALITY

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 4 FLIGHTS: 10.606

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	21.914
EVA CRANE OP	20.160
EVA SERVICE TECH	20.160

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	10.6
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 1 TYPE #2 = 0

***>> FLIGHT NO. 4
NUMBER OF FLIGHTS: 1 PRIME MISSION: ASTROPHYSICS OBSERVATORIES OUTCOME # IS 0 KEY IS SA04
INCLINATION IS 29.00
CODE IS FMXM

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS

ORIGINAL PAGE IS
OF POOR QUALITY

ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 1.391

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	2.958
EVA CRANE OP	2.520
EVA SERVICE TECH	2.520

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 4 IN MANDAYS/YR

STS OPERATIONS	1.4
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

PAYLOADS SERVICING ANALYSIS

PAYLOAD WITH KEY SL03 PLANT DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 14.000

UPDATED WORK DURATION AT SP STA 14.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 1.400

MED/BIO RESEARCH 14.000

S/C SYS - ELEC 0.700

S/C SYS - FLUIDS 0.700

SP STA SYS OPS 0.700

DURATION SUMMARY FOR PAYLOAD NO. 13 SL03 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 14.0

PAYLOAD WITH KEY CM01 MATLS SCIENCE LAB

ORIGINAL PAGE IS
OF POOR QUALITY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 300.000

UPDATED WORK DURATION AT SP STA 300.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 17 CM01 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 300.0

PAYLOAD WITH KEY SA04 ASTROPHYSICS OBSERVATORIES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
REMOTE SERVICE = 6.000
TEST & C/O = 3.400
TMS LAUNCH = 0.082
TMS OPS = 3.000
TMS CREW OPS = 3.000
TMS CAPTURE/BRTH = 0.042
TMS MAINT/REFUEL = 1.100
CREW MOD MAINT = 1.710

ADJUSTED SERVICING TIME FOR 23 SA04 38.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

ORIGINAL PAGE IS
OF POOR QUALITY

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	40.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	41.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	50.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	15.278
S/C SYS - DATA	40.774
S/C SYS - ELEC	10.555
S/C SYS - MECH	29.524
S/C SYS - FLUIDS	8.513
SP STA SYS OPS	41.723
EVA SERVICE TECH	14.238
TMS PILOT	50.921

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 23 SA04 IN MANDAYS/YR

SERVICING OPERATIONS	38.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY OT01 LOW INCL STA MODULE DEL

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 33 OT01 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***	***COMMERC MISSIONS***	***TECH DEV MISSIONS**	****OPER SUPPORT*****

ORIGINAL PAGE IS
OF POOR QUALITY

	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS

ORIGINAL PAGE IS
OF POOR QUALITY

DURATION SUMMARY FOR PAYLOAD NO. 33 0T01 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY 0T02 LOW INCL STA RESUPPLY

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 34 0T02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY TP01 PROP TRANSFER & STORAGE

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 10.000

UPDATED WORK DURATION AT SP STA 10.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

ORIGINAL PAGE IS
OF POOR QUALITY

NO SPECIAL SKILL	2.000
ENGINEERING	10.000
S/C SYS - DATA	1.500
S/C SYS - ELEC	0.500
S/C SYS - MECH	0.500
S/C SYS - FLUIDS	2.000
SP STA SYS OPS	1.000
EVA CRANE OP	0.500
EVA SERVICE TECH	0.500
MANNED OTV PILOT	1.500

DURATION SUMMARY FOR PAYLOAD NO. 37 TP01 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 10.0

PAYLOAD WITH KEY TS02 TECH DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 20.000

UPDATED WORK DURATION AT SP STA 20.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	4.000
ENGINEERING	20.000
S/C SYS - DATA	3.000
S/C SYS - ELEC	1.000
S/C SYS - MECH	1.000
S/C SYS - FLUIDS	4.000
SP STA SYS OPS	2.000
EVA CRANE OP	1.000
EVA SERVICE TECH	1.000
MANNED OTV PILOT	3.000

DURATION SUMMARY FOR PAYLOAD NO. 45 TS02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	20.0

SKILL MIX SUMMARIES LOW INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	15.3	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	40.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	10.6	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.6	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.6	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	8.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.5	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	41.7	0.7	0.0	2.5	0.0	0.0	0.0	2.5	0.0	3.0	3.4	26.0	470.4	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	2.5	0.0	1.5	1.4	22.7	67.2	0.0	0.0
EVA SERVICE TECH	2.5	14.2	0.0	0.0	2.5	0.0	0.0	0.0	2.5	0.0	1.5	1.4	22.7	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	50.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
237.	8.	76.	743.

ORIGINAL PAGE IS
OF POOR QUALITY

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	89.9
MED/BIO RESEARCH	14.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	30.0
ASTROPHSICS	0.0
S/C SYS - DATA	46.1
S/C SYS - ELEC	13.3
S/C SYS - MECH	31.6
S/C SYS - FLUIDS	15.7
SP STA SYS OPS	552.8
EVA CRANE OP	100.3
EVA SERVICE TECH	114.6
MANNED OTV PILOT	4.5
TMS PILOT	50.9
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 2.9 PEOPLE

SKILL MIX SUMMARIES HIGH INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
0.	0.	0.	0.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	0.0
MED/BIO RESEARCH	0.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

ENGINEERING	0.0
ASTROPHSICS	0.0
S/C SYS - DATA	0.0
S/C SYS - ELEC	0.0
S/C SYS - MECH	0.0
S/C SYS - FLUIDS	0.0
SP STA SYS OPS	0.0
EVA CRANE OP	0.0
EVA SERVICE TECH	0.0
MANNED OTV PILOT	0.0
TMS PILOT	0.0
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 0.0 PEOPLE

LOW INCLINATION

DURATION SUMMARY FOR YEAR 1992 IN MANDAYS/YR

STS OPERATIONS	16.1
CONSTRUCTION	1.7
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	374.5
SCIENCE & TECH DEMO	344.0

HIGH INCLINATION

DURATION SUMMARY FOR YEAR 1992 IN MANDAYS/YR

STS OPERATIONS	0.0
CONSTRUCTION	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

SUMMARY OF SPACE STATION PAYLOADS THIS YEAR

KEY	TITLE	PLCODE	INCL	PK POWER	DUTY CYCLE
SL03	PLANT DEVEL CARRY-ONS	SSSA	29.0	0.5	100.0
CM01	MATLS SCIENCE LAB	SPXX	29.0	25.0	35.6
SA04	ASTROPHYSICS OBSERVATORIES	FMXM	29.0	1.0	100.0
OT01	LOW INCL STA MODULE DEL	SSSS	29.0	20.0	100.0
OT02	LOW INCL STA RESUPPLY	SORS	29.0	0.0	100.0

ORIGINAL PAGE IS
OF POOR QUALITY

TP01	PROP TRANSFER & STORAGE	SPCL	29.0	1.0	5.5
TS02	TECH DEVEL CARRY-ONS	SSSA	29.0	0.5	6.8

LOW INCLINATION

PEAK POWER	AVERAGE POWER
48.0	30.5

HIGH INCLINATION

PEAK POWER	AVERAGE POWER
0.0	0.0

RESOURCES SUMMARY FOR LOW INCLINATION SPACE STATION

INTERNAL VOLUME	3.0	CUBIC METERS
POWER	30.5	KW
NO. OF PORTS	2.	

RESOURCES SUMMARY FOR HIGH INCLINATION SPACE STATION

INTERNAL VOLUME	0.0	CUBIC METERS
POWER	0.0	KW
NO. OF PORTS	0.	

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OF POOR QUALITY

POINTING & DISTURBANCE SUMMARY FOR LOW INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350
CM01						----------									
SA04	----------														
OT01	----------														
OT02	----------														
TP01								----							
TS02								-----							

ORIGINAL PAGE IS
OF POOR QUALITY

POINTING & DISTURBANCE SUMMARY FOR HIGH INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

				1	1	1	1	2	2	2	2	3	3	3
	2	5	7	0	2	5	7	0	2	5	7	0	2	5
0	5	0	5	0	5	0	5	0	5	0	5	0	5	0

* * * SPACE STATION OPERATIONS ANALYSIS FOR YEAR 1993 * * *

TYPE #1 = 1 TYPE #2 = 4

***>> FLIGHT NO. 1
NUMBER OF FLIGHTS: 1 PRIME MISSION: ASTROPHYSICS FREE-FLYER OUTCOME # IS 0 KEY IS SA03
INCLINATION IS 29.00
CODE IS FMXM
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	8.261
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 1 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

OTV MISSIONS 0.0

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 2
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	8.261
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

TYPE #1 = 3 TYPE #2 = 2

***>> FLIGHT NO. 3
NUMBER OF FLIGHTS: 1 PRIME MISSION: OTV MAINT TECH DEMOS OUTCOME # IS 0 KEY IS TP02
INCLINATION IS 29.00
CODE IS SSCL
SECOND MISSION: CRYSTAL GROWTH FACTORY/PLAT OUTCOME # IS 0
KEY IS CM02
CODE IS PMCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 2.739

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	5.741
EVA CRANE OP	5.040
EVA SERVICE TECH	5.040

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.200
MATE TO FIXT = 0.056
TEST & C/O = 0.486
MODULE MATE = 0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.718

SKILL MIX DETAILS FOR CONSTRUCTION TAS

ORIGINAL PAGE IS
OF POOR QUALITY

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.8		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.6		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.6		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.5		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	3.4		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	1.4		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	1.4		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.436
EVA CRANE OP	1.394
EVA SERVICE TECH	1.394

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	1.7
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 3.436

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

ORIGINAL PAGE IS
OF POOR QUALITY

ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	1.697
S/C SYS - ELEC	1.180
S/C SYS - MECH	1.180
S/C SYS - FLUIDS	1.021
SP STA SYS OPS	6.871
EVA CRANE OP	2.789
EVA SERVICE TECH	2.789

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	3.4
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 2

***>> FLIGHT NO. 4
NUMBER OF FLIGHTS: 1 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS 0T02
INCLINATION IS 29.00
CODE IS SORS
SECOND MISSION: CONT FLOW ELEC- TROPH PLATFORM OUTCOME # IS 0
KEY IS CM05
CODE IS PMCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

ORIGINAL PAGE IS
OF POOR QUALITY

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	7.998
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 4 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.718

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.436
EVA CRANE OP	1.394
EVA SERVICE TECH	1.394

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 4 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	1.7
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 6
NUMBER OF FLIGHTS: 3 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 3 FLIGHTS: 7.954

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
IMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MISSION RESULTS

CREW SKILL MANDAYS

SP STA SYS OPS	16.435
EVA CRANE OP	15.120
EVA SERVICE TECH	15.120

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 6 IN MANDAYS/YR

STS OPERATIONS	8.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

PAYLOADS SERVICING ANALYSIS

PAYLOAD WITH KEY SL03 PLANT DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 14.000

UPDATED WORK DURATION AT SP STA 14.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS***					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	1.4	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	14.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	1.400
MED/BIO RESEARCH	14.000
S/C SYS - ELEC	0.700
S/C SYS - FLUIDS	0.700
SP STA SYS OPS	0.700

DURATION SUMMARY FOR PAYLOAD NO. 13 SL03 IN MANDAYS/YR .

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	14.0

PAYLOAD WITH KEY CM01 MATLS SCIENCE LAB

ORIGINAL PAGE IS
OF POOR QUALITY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 300.000

UPDATED WORK DURATION AT SP STA 300.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 17 CM01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	300.0

PAYLOAD WITH KEY CM02 CRYSTAL GROWTH FACTORY/PLAT

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	36.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 18 CM02 154.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

ORIGINAL PAGE IS
OF POOR QUALITY

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	126.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	125.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	44.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	143.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	254.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	61.471
S/C SYS - DATA	126.739
S/C SYS - ELEC	54.818
S/C SYS - MECH	125.800
S/C SYS - FLUIDS	44.206
SP STA SYS OPS	143.136
EVA SERVICE TECH	56.952
TMS PILOT	254.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 18 CM02 IN MANDAYS/YR

SERVICING OPERATIONS	154.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA03 ASTROPHYSICS FREE-FLYER

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	2.000
TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100

ORIGINAL PAGE IS
OF POOR QUALITY

CREW MOD MAINT = 1.710

ADJUSTED SERVICING TIME FOR 22 SA03 30.1 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	36.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	25.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	34.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	11.078
S/C SYS - DATA	36.574
S/C SYS - ELEC	6.355
S/C SYS - MECH	25.324
S/C SYS - FLUIDS	4.313
SP STA SYS OPS	33.323
EVA SERVICE TECH	14.238
TMS PILOT	34.121

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 22 SA03 IN MANDAYS/YR

SERVICING OPERATIONS	30.1
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA04 ASTROPHYSICS OBSERVATORIES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
REMOTE SERVICE = 6.000

ORIGINAL PAGE IS
OF POOR QUALITY

TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 23 SA04 38.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	46.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	41.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	50.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	15.278
S/C SYS - DATA	40.774
S/C SYS - ELEC	10.555
S/C SYS - MECH	29.524
S/C SYS - FLUIDS	8.513
SP STA SYS OPS	41.723
EVA SERVICE TECH	14.238
TMS PILOT	50.921

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 23 SA04 IN MANDAYS/YR

SERVICING OPERATIONS	38.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM05 CONT FLOW ELEC- TROPH PLATFORM

ORIGINAL PAGE IS
OF POOR QUALITY

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

ADJUSTED SERVICING TIME FOR 29 CM05 0.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAILS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 29 CM05 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM06 CONTINUOUS FLOW ELECTRO RESUPP

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	48.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 30 CM06 179.9 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***	***COMMERC MISSIONS***	***TECH DEV MISSIONS**	****OPER SUPPORT*****

ORIGINAL PAGE IS
OF POOR QUALITY

	OPS SERV	MSN OP	CONST	OPS SERV	MSN OP	CONST	OPS SERV	MSN OP	CONST	OPS SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	74.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	139.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	67.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	138.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	56.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	168.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	304.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	74.071
S/C SYS - DATA	139.339
S/C SYS - ELEC	67.418
S/C SYS - MECH	138.400
S/C SYS - FLUIDS	56.806
SP STA SYS OPS	168.336
EVA SERVICE TECH	56.952
TMS PILOT	304.483

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 30 CM06 IN MANDAYS/YR

SERVICING OPERATIONS	179.9
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY 0T01 LOW INCL STA MODULE DEL

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 33 0T01 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***			***COMMERC MISSIONS***			***TECH DEV MISSIONS**			****OPER SUPPORT*****		
	OPS SERV	MSN OP	CONST	OPS SERV	MSN OP	CONST	OPS SERV	MSN OP	CONST	OPS SERV	MSN OP	CONST

ORIGINAL PAGE IS
OF POOR QUALITY

NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000.

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS

ORIGINAL PAGE IS
OF POOR QUALITY

DURATION SUMMARY FOR PAYLOAD NO. 33 OT01 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT02 LOW INCL STA RESUPPLY

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 34 OT02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY TP02 OTV MAINT TECH DEMOS

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 10.000

UPDATED WORK DURATION AT SP STA 10.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

ORIGINAL PAGE IS
OF POOR QUALITY

NO SPECIAL SKILL	2.000
ENGINEERING	10.000
S/C SYS - DATA	1.500
S/C SYS - ELEC	0.500
S/C SYS - MECH	0.500
S/C SYS - FLUIDS	2.000
SP STA SYS OPS	1.000
EVA CRANE OP	0.500
EVA SERVICE TECH	0.500
MANNED OTV PILOT	1.500

DURATION SUMMARY FOR PAYLOAD NO. 38 TP02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 10.0

PAYLOAD WITH KEY TS02 TECH DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 20.000

UPDATED WORK DURATION AT SP STA 20.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0

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TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	4.000
ENGINEERING	20.000
S/C SYS - DATA	3.000
S/C SYS - ELEC	1.000
S/C SYS - MECH	1.000
S/C SYS - FLUIDS	4.000
SP STA SYS OPS	2.000
EVA CRANE OP	1.000
EVA SERVICE TECH	1.000
MANNED OTV PILOT	3.000

DURATION SUMMARY FOR PAYLOAD NO. 45 T502 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	20.0

SKILL MIX SUMMARIES LOW INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	26.4	1.4	0.0	0.0	135.5	0.0	0.0	0.0	0.0	6.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	77.3	0.0	0.0	0.0	266.1	0.0	1.7	0.0	0.0	4.5	1.7	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	16.9	0.7	0.0	0.0	122.2	0.0	1.2	0.0	0.0	1.5	1.2	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	54.8	0.0	0.0	0.0	264.2	0.0	1.2	0.0	0.0	1.5	1.2	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	12.8	0.7	0.0	0.0	101.0	0.0	1.0	0.0	0.0	6.0	1.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	75.0	0.7	0.0	7.6	311.5	0.0	6.9	2.5	0.0	3.0	6.9	34.1	470.4	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	7.6	0.0	0.0	2.8	2.5	0.0	1.5	2.8	30.2	67.2	0.0	0.0
EVA SERVICE TECH	2.5	28.5	0.0	0.0	7.6	113.9	0.0	2.8	2.5	0.0	1.5	2.8	30.2	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	85.0	0.0	0.0	0.0	558.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
402.	1913.	85.	767.

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MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	236.5
MED/BIO RESEARCH	14.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	30.0
ASTROPHSICS	0.0
S/C SYS - DATA	351.3
S/C SYS - ELEC	143.7
S/C SYS - MECH	322.9
S/C SYS - FLUIDS	122.6
SP STA SYS OPS	921.1
EVA CRANE OP	117.1
EVA SERVICE TECH	259.5
MANNED OTV PILOT	4.5
TMS PILOT	643.6
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 8.7 PEOPLE

SKILL MIX SUMMARIES HIGH INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
0.	0.	0.	0.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	0.0
MED/BIO RESEARCH	0.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0

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ENGINEERING	0.0
ASTROPHSICS	0.0
S/C SYS - DATA	0.0
S/C SYS - ELEC	0.0
S/C SYS - MECH	0.0
S/C SYS - FLUIDS	0.0
SP STA SYS OPS	0.0
EVA CRANE OP	0.0
EVA SERVICE TECH	0.0
MANNED OTV PILOT	0.0
TMS PILOT	0.0
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 0.0 PEOPLE

LOW INCLINATION

DURATION SUMMARY FOR YEAR 1993 IN MANDAYS/YR

STS OPERATIONS	22.6
CONSTRUCTION	6.9
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	739.3
SCIENCE & TECH DEMO	344.0

HIGH INCLINATION

DURATION SUMMARY FOR YEAR 1993 IN MANDAYS/YR

STS OPERATIONS	0.0
CONSTRUCTION	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

SUMMARY OF SPACE STATION PAYLOADS THIS YEAR

KEY	TITLE	PLCODE	INCL	PK POWER	DUTY CYCLE
SL03	PLANT DEVEL CARRY-ONS	SSSA	29.0	0.5	100.0
CM01	MATLS SCIENCE LAB	SPXX	29.0	25.0	35.6
CM02	CRYSTAL GROWTH FACTORY/PLAT	PMCL	29.0	0.0	100.0
SA03	ASTROPHYSICS FREE-FLYER	FMXM	29.0	0.0	100.0
SA04	ASTROPHYSICS OBSERVATORIES	FMXM	29.0	1.0	100.0

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CM05	CONT FLOW ELEC-TROPH PLATFORM	PMCL	29.0	0.0	100.0
CM06	CONTINUOUS FLOW ELECTRO RESUPP	PMXL	29.0	2.0	0.0
OT01	LOW INCL STA MODULE DEL	SSSS	29.0	20.0	100.0
OT02	LOW INCL STA RESUPPLY	SORS	29.0	0.0	100.0
TP02	OTV MAINT TECH DEMOS	SSCL	29.0	1.0	5.5
TS02	TECH DEVEL CARRY-ONS	SSSA	29.0	0.5	6.8

LOW INCLINATION

PEAK POWER	AVERAGE POWER
50.0	30.5

HIGH INCLINATION

PEAK POWER	AVERAGE POWER
0.0	0.0

RESOURCES SUMMARY FOR LOW INCLINATION SPACE STATION

INTERNAL VOLUME	3.0	CUBIC METERS
POWER	30.5	KW
NO. OF PORTS	1.	

RESOURCES SUMMARY FOR HIGH INCLINATION SPACE STATION

INTERNAL VOLUME	0.0	CUBIC METERS
POWER	0.0	KW
NO. OF PORTS	0.	

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POINTING & DISTURBANCE SUMMARY FOR LOW INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350
CM01						----------									
CM02	----------														
SA03	----------														
SA04	----------														
CM05	----------														
CM06								-							
OT01	----------														
OT02	----------														
TP02								----							
TS02								-----							

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POINTING & DISTURBANCE SUMMARY FOR HIGH INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: x

DAYS/YEAR

	25	50	75	100	125	150	175	200	225	250	275	300	325	350
0														

* * * SPACE STATION OPERATIONS ANALYSIS FOR YEAR 1994 * * *

TYPE #1 = 2 TYPE #2 = .4

***>> FLIGHT NO. 1
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP. OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED O"V PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	8.261
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 1 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0

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OTV MISSIONS 0.0

TYPE #1 = 2 TYPE #2 = 2

***>> FLIGHT NO. 2
NUMBER OF FLIGHTS: 3 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: CRYSTAL GROWTH RESUP-1 OUTCOME # IS 0
KEY IS CM03
CODE IS PMXX

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 3 FLIGHTS: 8.216

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS CREW SKILL	MISSION RESULTS MANDAYS
SP STA SYS OPS	17.222
EVA CRANE OP	15.120
EVA SERVICE TECH	15.120

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	8.2
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

OTV MISSIONS 0.0

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	8.2
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 3

***>> FLIGHT NO. 3
NUMBER OF FLIGHTS: 1 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS 0T02
INCLINATION IS 29.00
CODE IS SORS
SECOND MISSION: SATELLITE ASSY & SERVICE OUTCOME # IS 0
KEY IS TS01
CODE IS SSCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	5.5	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	MISSION RESULTS															

CREW SKILL	MANDAYS
SP STA SYS OPS	7.998
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

ORIGINAL PAGE IS
OF POOR QUALITY

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.718

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS***				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0
LVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.436
EVA CRANE OP	1.394
EVA SERVICE TECH	1.394

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 3 IN MANDAYS/YR

ORIGINAL PAGE IS
OF POOR QUALITY

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	1.7
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 4

***>> FLIGHT NO. 4
NUMBER OF FLIGHTS: 2 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS -2 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS

ORBITER ARRIVE	=	0.0416	
ORBITER OFFLOAD	=	0.6000	
ORBITER OFFLOAD	=	0.6000	(MISSION 2)
ORBITER RELOAD	=	0.6000	
ORBITER RELOAD	=	0.6000	(MISSION 2)
ORBITER DEPART	=	0.0210	

ADJ STS DURATION AT SP STA FOR TOTAL OF 2 FLIGHTS: 10.343

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	21.037
EVA CRANE OP	20.160
EVA SERVICE TECH	20.160

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 4 IN MANDAYS/YR

ORIGINAL PAGE IS
OF POOR QUALITY

STS OPERATIONS 10.3
CONSTRUCTION OPERATIONS 0.0
OTV OPERATIONS 0.0
OTV MISSIONS 0.0

TYPE #1 = 4 TYPE #2 = 4

***>> FLIGHT NO. 5
NUMBER OF FLIGHTS: 1 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS
SECOND MISSION: TMS DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 5.171

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	10.518
EVA CRANE OP	10.080
EVA SERVICE TECH	10.080

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 5 IN MANDAYS/YR

ORIGINAL PAGE IS
OF POOR QUALITY

ORIGINAL PAGE IS
OF POOR QUALITY

STS OPERATIONS	5.2
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

PAYLOADS SERVICING ANALYSIS

PAYLOAD WITH KEY SL03 PLANT DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 14.000

UPDATED WORK DURATION AT SP STA 14.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	1.4	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	14.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 1.400

MED/BIO RESEARCH 14.000

S/C SYS - ELEC 0.700

S/C SYS - FLUIDS 0.700

SP STA SYS OPS 0.700

DURATION SUMMARY FOR PAYLOAD NO. 13 SL03 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 14.0

PAYLOAD WITH KEY CM01 MATLS SCIENCE LAB

ORIGINAL PAGE IS
OF POOR QUALITY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 300.000

UPDATED WORK DURATION AT SP STA 300.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				*****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 17 CM01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	300.0

PAYLOAD WITH KEY CM02 CRYSTAL GROWTH FACTORY/PLAT

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	36.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 18 CM02 154.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

ORIGINAL PAGE IS
OF POOR QUALITY

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	126.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	125.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	44.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	143.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	254.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	61.471
S/C SYS - DATA	126.739
S/C SYS - ELEC	54.818
S/C SYS - MECH	125.800
S/C SYS - FLUIDS	44.206
SP STA SYS OPS	143.136
EVA SERVICE TECH	56.952
TMS PILOT	254.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 18 CM02 IN MANDAYS/YP

SERVICING OPERATIONS	154.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM03 CRYSTAL GROWTH RESUP-1

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	12.000
TEST & C/O	=	1.458
TMS LAUNCH	=	0.246
TMS OPS	=	9.000
TMS CREW OPS	=	9.000
TMS CAPTURE/BRTH	=	0.126
TMS MAINT/REFUEL	=	3.300

ORIGINAL PAGE IS
OF POOR QUALITY

CREW MOD MAINT = 5.130

ADJUSTED SERVICING TIME FOR 19 CM03 84.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	30.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	79.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	25.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	78.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	75.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	42.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	127.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	30.353
S/C SYS - DATA	79.304
S/C SYS - ELEC	25.364
S/C SYS - MECH	78.600
S/C SYS - FLUIDS	17.404
SP STA SYS OPS	75.852
EVA SERVICE TECH	42.714
TMS PILOT	127.562

ORIGINAL PAGE IS
OF POOR QUALITY

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 19 CM03 IN MANDAYS/YR

SERVICING OPERATIONS	84.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA03 ASTROPHYSICS FREE-FLYER

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
REMOTE SERVICE = 2.000

TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 22 SA03 30.1 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	36.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	25.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	34.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	11.078
S/C SYS - DATA	36.574
S/C SYS - ELEC	6.355
S/C SYS - MECH	25.324
S/C SYS - FLUIDS	4.313
SP STA SYS OPS	33.323
EVA SERVICE TECH	14.238
TMS PILOT	34.121

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 22 SA03 IN MANDAYS/YR

SERVICING OPERATIONS	30.1
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA04 ASTROPHYSICS OBSERVATORIES

ORIGINAL PAGE IS
OF POOR QUALITY

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	6.000
TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 23 SA04 38.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	40.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	41.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	50.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	15.278
S/C SYS - DATA	40.774
S/C SYS - ELEC	10.555
S/C SYS - MECH	29.524
S/C SYS - FLUIDS	8.513
SP STA SYS OPS	41.723
EVA SERVICE TECH	14.238
TMS PILOT	50.921

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 23 SA04 IN MANDAYS/YR

ORIGINAL PAGE IS
OF POOR QUALITY

SERVICING OPERATIONS 38.5
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CM05 CONT FLOW ELEC- TROPH PLATFORM

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

ADJUSTED SERVICING TIME FOR 29 CM05 0.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				**** OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 29 CM05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CM06 CONTINUOUS FLOW ELECTRO RESUPP

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	48.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ORIGINAL PAGE IS
OF POOR QUALITY

ADJUSTED SERVICING TIME FOR 30 CM06 179.9 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS***				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	74.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	139.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	67.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	138.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	56.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	168.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	304.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	74.071
S/C SYS - DATA	139.339
S/C SYS - ELEC	67.418
S/C SYS - MECH	138.400
S/C SYS - FLUIDS	56.806
SP STA SYS OPS	168.336
EVA SERVICE TECH	56.952
TMS PILOT	304.483

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 30 CM06 IN MANDAYS/YR

SERVICING OPERATIONS	179.9
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY OT01 LOW INCL STA MODULE DEL

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 33 OT01 336.0 DAYS

ORIGINAL PAGE IS
OF POOR QUALITY

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS***				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS***				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

ORIGINAL PAGE IS
OF POOR QUALITY

CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 33 OT01 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT02 LOW INCL STA RESUPPLY

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 34 OT02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY TS01 SATELLITE ASSY & SERVICE

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 90.000

UPDATED WORK DURATION AT SP STA 90.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.5	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	18.000
ENGINEERING	90.000
S/C SYS - DATA	13.500
S/C SYS - ELEC	4.500
S/C SYS - MECH	4.500
S/C SYS - FLUIDS	18.000
SP STA SYS OPS	9.000
EVA CRANE OP	4.500
EVA SERVICE TECH	4.500
MANNED OTV PILOT	13.500

DURATION SUMMARY FOR PAYLOAD NO. 39 TS01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	90.0

PAYLOAD WITH KEY TS02 TECH DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

DOD/TECH DEV = 20.000

UPDATED WORK DURATION AT SP STA 20.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS***					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	4.000
ENGINEERING	20.000
S/C SYS - DATA	3.000
S/C SYS - ELEC	1.000
S/C SYS - MECH	1.000
S/C SYS - FLUIDS	4.000
SP STA SYS OPS	2.000
EVA CRANE OP	1.000
EVA SERVICE TECH	1.000
MANNED OTV PILOT	3.000

DURATION SUMMARY FOR PAYLOAD NO. 45 TS02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	20.0

SKILL MIX SUMMARIES -LOW INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	26.4	1.4	0.0	0.0	165.9	0.0	0.0	0.0	0.0	22.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	110.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	77.3	0.0	0.0	0.0	345.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	16.9	0.7	0.0	0.0	147.6	0.0	0.0	0.0	0.0	16.5	0.6	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	54.8	0.0	0.0	0.0	342.8	0.0	0.0	0.0	0.0	5.5	0.6	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	12.8	0.7	0.0	0.0	118.4	0.0	0.0	0.0	0.0	5.5	0.6	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	75.0	0.7	0.0	17.6	387.3	0.0	0.0	0.0	0.0	22.0	0.5	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	17.6	0.0	0.0	0.0	2.5	0.0	11.0	3.4	44.9	470.4	0.0	0.0
EVA SERVICE TECH	0.0	28.5	0.0	0.0	17.6	156.6	0.0	0.0	2.5	0.0	5.5	1.4	40.3	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	5.5	1.4	40.3	67.2	0.0	0.0
TMS PILOT	0.0	85.0	0.0	0.0	0.0	686.1	0.0	0.0	0.0	0.0	16.5	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

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SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
394.	2403.	236.	798.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	282.9
MED/BIO RESEARCH	14.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	110.0
ASTROPHSICS	0.0
S/C SYS - DATA	440.1
S/C SYS - ELEC	171.3
S/C SYS - MECH	403.7
S/C SYS - FLUIDS	154.5
SP STA SYS OPS	1012.9
EVA CRANE OP	134.6
EVA SERVICE TECH	319.7
MANNED OTV PILOT	16.5
TMS PILOT	771.2
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 10.5 PEOPLE

SKILL MIX SUMMARIES HIGH INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
0.	0.	0.	0.

MANDAYS BY SKILL

SKILL	MANDAYS

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NO SPECIAL SKILL	0.0
MED/BIO RESEARCH	0.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	0.0
ASTROPHSICS	0.0
S/C SYS - DATA	0.0
S/C SYS - ELEC	0.0
S/C SYS - MECH	0.0
S/C SYS - FLUIDS	0.0
SP STA SYS OPS	0.0
EVA CRANE OP	0.0
EVA SERVICE TECH	0.0
MANNED OTV PILOT	0.0
TMS PILOT	0.0
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 0.0 PEOPLE

LOW INCLINATION

DURATION SUMMARY FOR YEAR 1994 IN MANDAYS/YR

STS OPERATIONS	31.6
CONSTRUCTION	1.7
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	823.8
SCIENCE & TECH DEMO	424.0

HIGH INCLINATION

DURATION SUMMARY FOR YEAR 1994 IN MANDAYS/YR

STS OPERATIONS	0.0
CONSTRUCTION	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

SUMMARY OF SPACE STATION PAYLOADS THIS YEAR

KEY	TITLE	PLCODE	INCL	PK POWER	DUTY CYCLE
SL03	PLANT DEVEL CARRY-ONS	SSSA	29.0	0.5	100.0
CM01	MATLS SCIENCE LAB	SPXX	29.0	25.0	35.6
CM02	CRYSTAL GROWTH FACTORY/PLAT	PMCL	29.0	0.0	100.0
CM03	CRYSTAL GROWTH	PMXX	29.0	0.0	0.5

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RESUP-1

SA03	ASTROPHYSICS FREE-FLYER	FMXM	29.0	0.0	100.0
SA04	ASTROPHYSICS OBSERVATORIES	FMXM	29.0	1.0	100.0
CM05	CONT FLOW ELEC-TROPH PLATFORM	PMCL	29.0	0.0	100.0
CM06	CONTINUOUS FLOW ELECTRO RESUPP	PMXL	29.0	2.0	0.0
OT01	LOW INCL STA MODULE DEL	SSSS	29.0	20.0	100.0
OT02	LOW INCL STA RESUPPLY	SORS	29.0	0.0	100.0
TS01	SATELLITE ASSY & SERVICE	SSCL	29.0	1.0	24.7
TS02	TECH DEVEL CARRY-ONS	SSSA	29.0	0.5	6.8

LOW INCLINATION

PEAK POWER	AVERAGE POWER
50.0	30.7

HIGH INCLINATION

PEAK POWER	AVERAGE POWER
0.0	0.0

RESOURCES SUMMARY FOR LOW INCLINATION SPACE STATION

INTERNAL VOLUME	3.0	CUBIC METERS
POWER	30.7	KW
NO. OF PORTS	1.	

RESOURCES SUMMARY FOR HIGH INCLINATION SPACE STATION

INTERNAL VOLUME	0.0	CUBIC METERS
POWER	0.0	KW
NO. OF PORTS	0.	

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POINTING & DISTURBANCE SUMMARY FOR LOW INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: x

DAYS/YEAR

	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350
CM01						----------				----------					
CM02	----------														
CM03								-							
SA03	----------														
SA04	----------														
CM05	----------														
CM06								-							
OT01	----------														
OT02	----------														
TS01							----------								
TS02								-----							

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POINTING & DISTURBANCE SUMMARY FOR HIGH INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

				1	1	1	1	2	2	2	2	3	3	3
	2	5	7	0	2	5	7	0	2	5	7	0	2	5
0	5	0	5	0	5	0	5	0	5	0	5	0	5	0

* * * SPACE STATION OPERATIONS ANALYSIS FOR YEAR 1995 * * *

TYPE #1 = 1 TYPE #2 = 4

***>> FLIGHT NO. 1
NUMBER OF FLIGHTS: 1 PRIME MISSION: ASTRO TELESCOPE CLUSTER OUTCOME # IS 0 KEY IS SA02
INCLINATION IS 29.00
CODE IS SPXX
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	8.261
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 1 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0

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OTV MISSIONS 0.0

TYPE #1 = 2 TYPE #2 = 2

***>> FLIGHT NO. 2
NUMBER OF FLIGHTS: 3 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: CRYSTAL GROWTH RESUP-1 OUTCOME # IS 0
KEY IS CM03
CODE IS PMXX

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 3 FLIGHTS: 8.216

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS 17.222

EVA CRANE OP 15.120

EVA SERVICE TECH 15.120

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS 8.2
CONSTRUCTION OPERATIONS 0.0
OTV OPERATIONS 0.0

ORIGINAL PAGE IS
OF POOR QUALITY

OTV MISSIONS 0.0

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	8.2
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 3

***>> FLIGHT NO. 3
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: LARGE POWER SYS TECHNOLOGY OUTCOME # IS 0
KEY IS TE01
CODE IS SSCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 2.651

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS***				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.4	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	MISSION RESULTS															
CREW SKILL	MANDAYS															
SP STA SYS OPS	5.478															
EVA CRANE OP	5.040															
EVA SERVICE TECH	5.040															

ORIGINAL PAGE IS
OF POOR QUALITY

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.152

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.877

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	0.880
S/C SYS - ELEC	0.670
S/C SYS - MECH	0.670
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.755
EVA CRANE OP	1.714
EVA SERVICE TECH	1.714

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 3 IN MANDAYS/YR

ORIGINAL PAGE IS
OF POOR QUALITY

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	1.9
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 4

***>> FLIGHT NO. 4
NUMBER OF FLIGHTS: 2 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS

ORBITER ARRIVE	= 0.0416	
ORBITER OFFLOAD	= 0.6000	
ORBITER OFFLOAD	= 0.6000	(MISSION 2)
ORBITER RELOAD	= 0.6000	
ORBITER RELOAD	= 0.6000	(MISSION 2)
ORBITER DEPART	= 0.0210	

ADJ STS DURATION AT SP STA FOR TOTAL OF 2 FLIGHTS: 10.343

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	21.037
EVA CRANE OP	20.160
EVA SERVICE TECH	20.160

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 4 IN MANDAYS/YR

ORIGINAL PAGE IS
OF POOR QUALITY

STS OPERATIONS	10.3
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 5
NUMBER OF FLIGHTS: 2 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS -2 KEY IS 0T02
INCLINATION IS . 29.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS

ORBITER ARRIVE	=	0.0832
ORBITER OFFLOAD	=	0.6000
ORBITER RELOAD	=	0.6000
ORBITER DEPART	=	0.0210

ADJ STS DURATION AT SP STA FOR TOTAL OF 2 FLIGHTS: 5.478

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS CREW SKILL	MISSION RESULTS MANDAYS
SP STA SYS OPS	11.481
EVA CRANE OP	10.080
EVA SERVICE TECH	10.080

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 5 IN MANDAYS/YR

STS OPERATIONS	5.5
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

OTV MISSIONS 0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 6
NUMBER OF FLIGHTS: 1 PRIME MISSION: SPACE STATION MODULES OUTCOME # IS 0 KEY IS OT03
INCLINATION IS 98.00
CODE IS SSSS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 1.479

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	3.221
EVA CRANE OP	2.520
EVA SERVICE TECH	2.520

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 6 IN MANDAYS/YR

STS OPERATIONS	1.5
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 0

ORIGINAL PAGE IS
OF POOR QUALITY

***>> FLIGHT NO. 7
NUMBER OF FLIGHTS: 1 PRIME MISSION: CRYSTAL GROWTH FACTORY/PLAT OUTCOME # IS 0 KEY IS CM02
INCLINATION IS 29.00
CODE IS PMCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 1.479

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	3.221
EVA CRANE OP	2.520
EVA SERVICE TECH	2.520

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.200
MATE TO FIXT = 0.056
TEST & C/O = 0.486
MODULE MATE = 0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.718

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.436
EVA CRANE OP	1.394
EVA SERVICE TECH	1.394

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 7 IN MANDAYS/YR

STS OPERATIONS	1.5
CONSTRUCTION OPERATIONS	1.7
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 8
NUMBER OF FLIGHTS: 1 PRIME MISSION: HI-INCL STATION RESUPPLY OUTCOME # IS 0 KEY IS OT04
INCLINATION IS 98.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 2.739

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***			***COMMERC MISSIONS***			***TECH DEV MISSIONS**			****OPER SUPPORT*****		
	OPS	SERV	MSN OP CONST	OPS	SERV	MSN OP CONST	OPS	SERV	MSN OP CONST	OPS	SERV	MSN OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0

ORIGINAL PAGE IS
OF POOR QUALITY

MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAILS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	MISSION RESULTS															
CREW SKILL	MANDAYS															

SP STA SYS OPS	5.741
EVA CRANE OP	5.040
EVA SERVICE TECH	5.040

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 8 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

PAYLOADS SERVICING ANALYSIS

PAYLOAD WITH KEY OT03 SPACE STATION MODULES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 5 OT03 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN . = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 5 OT03 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT04 HI-INCL STATION RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 6 OT04 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY SL03 PLANT DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 14.000

UPDATED WORK DURATION AT SP STA 14.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	1.400
MED/BIO RESEARCH	14.000
S/C SYS - ELEC	0.700
S/C SYS - FLUIDS	0.700
SP STA SYS OPS	0.700

DURATION SUMMARY FOR PAYLOAD NO. 13 SL03 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	14.0

PAYLOAD WITH KEY CM01 MATLS SCIENCE LAB

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 300.000

UPDATED WORK DURATION AT SP STA 300.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS***				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 17 CM01 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 300.0

PAYLOAD WITH KEY CM02 CRYSTAL GROWTH FACTORY/PLAT

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	36.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW LOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 18 CM02 154.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	126.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	125.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	44.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	143.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	254.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 61.471

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - DATA	126.739
S/C SYS - ELEC	54.818
S/C SYS - MECH	125.800
S/C SYS - FLUIDS	44.206
SP STA SYS OPS	143.136
EVA SERVICE TECH	56.952
TMS PILOT	254.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 18 CM02 IN MANDAYS/YR

SERVICING OPERATIONS	154.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM03 CRYSTAL GROWTH RESUP-1

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	12.000
TEST & C/O	=	1.458
TMS LAUNCH	=	0.246
TMS OPS	=	9.000
TMS CREW OPS	=	9.000
TMS CAPTURE/BRTH	=	0.126
TMS MAINT/REFUEL	=	3.300
CREW MOD MAINT	=	5.130

ADJUSTED SERVICING TIME FOR 19 CM03 84.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS***				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	30.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	79.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	25.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	78.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	75.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	42.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	127.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	30.353
S/C SYS - DATA	79.304
S/C SYS - ELEC	25.364
S/C SYS - MECH	78.600
S/C SYS - FLUIDS	17.404
SP STA SYS OPS	75.852
EVA SERVICE TECH	42.714
TMS PILOT	127.562

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 19 CM03 IN MANDAYS/YR

SERVICING OPERATIONS	84.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA02 ASTRO TELESCOPE CLUSTER

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

ASTROPHYSICS = 65.000

UPDATED WORK DURATION AT SP STA 65.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	6.500
ASTROPHSICS	65.000
S/C SYS - ELEC	3.250
S/C SYS - FLUIDS	3.250
SP STA SYS OPS	3.250

DURATION SUMMARY FOR PAYLOAD NO. 21 SA02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	65.0

PAYLOAD WITH KEY SA03 ASTROPHYSICS FREE-FLYER

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	2.000
TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/	=	0.042
TMS MAINT/REPAIR	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 22 SA03 30.1 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	36.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	25.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

TMS PILOT	0.0	34.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	11.078
S/C SYS - DATA	36.574
S/C SYS - ELEC	6.355
S/C SYS - MECH	25.324
S/C SYS - FLUIDS	4.313
SP STA SYS OPS	33.323
EVA SERVICE TECH	14.238
TMS PILOT	34.121

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 22 SA03 IN MANDAYS/YR

SERVICING OPERATIONS	30.1
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA04 ASTROPHYSICS OBSERVATORIES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	6.000
TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 23 SA04 38.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	40.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - MECH	0.0	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	41.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	50.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	15.278
S/C SYS - DATA	40.774
S/C SYS - ELEC	10.555
S/C SYS - MECH	29.524
S/C SYS - FLUIDS	8.513
SP STA SYS OPS	41.723
EVA SERVICE TECH	14.238
TMS PILOT	50.921

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 23 SA04 IN MANDAYS/YR

SERVICING OPERATIONS	38.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM05 CONT FLOW ELEC- TROPH PLATFORM

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

ADJUSTED SERVICING TIME FOR 29 CM05 0.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 29 CM05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CM06 CONTINUOUS FLOW ELECTRO RESUPP

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	48.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 30 CM06 179.9 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	74.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	139.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	67.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	138.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	56.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	168.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	304.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 74.071

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - DATA	139.339
S/C SYS - ELEC	67.418
S/C SYS - MECH	138.400
S/C SYS - FLUIDS	56.806
SP STA SYS OPS	168.336
EVA SERVICE TECH	56.952
TMS PILOT	304.483

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 30 CM06 IN MANDAYS/YR

SERVICING OPERATIONS	179.9
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY OT01 LOW INCL STA MODULE DEL

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 33 OT01 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400

ORIGINAL PAGE IS
OF POOR QUALITY

EVA CRANE OP 67.200

EVA SERVICE TECH 67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAILS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 33 OT01 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT02 LOW INCL STA RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 34 OT02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY TE01 LARGE POWER SYS TECHNOLOGY

ORIGINAL PAGE IS
OF POOR QUALITY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 80.000

UPDATED WORK DURATION AT SP STA 80.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	80.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	16.000
ENGINEERING	80.000
S/C SYS - DATA	12.000
S/C SYS - ELEC	4.000
S/C SYS - MECH	4.000
S/C SYS - FLUIDS	16.000
SP STA SYS OPS	8.000
EVA CRANE OP	4.000
EVA SERVICE TECH	4.000
MANNED OTV PILOT	12.000

DURATION SUMMARY FOR PAYLOAD NO. 40 TE01 IN MANDAYS/YR

ORIGINAL PAGE IS
OF POOR QUALITY

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 80.0

PAYLOAD WITH KEY TS02 TECH DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 20.000

UPDATED WORK DURATION AT SP STA 20.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	4.000
ENGINEERING	20.000
S/C SYS - DATA	3.000
S/C SYS - ELEC	1.000
S/C SYS - MECH	1.000
S/C SYS - FLUIDS	4.000
SP STA SYS OPS	2.000
EVA CRANE OP	1.000
EVA SERVICE TECH	1.000
MANNED OTV PILOT	3.000

ORIGINAL PAGE IS
OF POOR QUALITY

DURATION SUMMARY FOR PAYLOAD NO. 45 TS02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	20.0

SKILL MIX SUMMARIES LOW INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	26.4	7.9	0.0	0.0	165.9	0.0	0.0	0.0	0.0	20.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	77.3	0.0	0.0	0.0	345.4	0.0	0.8	0.0	0.0	15.0	0.9	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	16.9	4.0	0.0	0.0	147.6	0.0	0.6	0.0	0.0	5.0	0.7	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	54.8	0.0	0.0	0.0	342.8	0.0	0.6	0.0	0.0	5.0	0.7	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	12.8	4.0	0.0	0.0	118.4	0.0	0.5	0.0	0.0	20.0	0.5	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	75.0	4.0	0.0	20.2	387.3	0.0	3.4	2.5	0.0	10.0	3.8	41.5	470.4	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	20.2	0.0	0.0	1.4	2.5	0.0	5.0	1.7	35.3	67.2	0.0	0.0
EVA SERVICE TECH	2.5	28.5	0.0	0.0	20.2	156.6	0.0	1.4	2.5	0.0	5.0	1.7	35.3	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	85.0	0.0	0.0	0.0	686.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
483.	2419.	217.	784.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	287.4
MED/BIO RESEARCH	14.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	100.0
ASTROPHSICS	65.0
S/C SYS - DATA	439.5
S/C SYS - ELEC	174.7
S/C SYS - MECH	403.9
S/C SYS - FLUIDS	156.2
SP STA SYS OPS	1020.6
EVA CRANE OP	135.8
EVA SERVICE TECH	320.9
MANNED OTV PILOT	15.0
TMS PILOT	771.2
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 10.7 PEOPLE

SKILL MIX SUMMARIES HIGH INCLINATION

ORIGINAL PAGE IS
OF POOR QUALITY

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	470.4	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	67.2	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
0.	0.	0.	696.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	67.2
MED/BIO RESEARCH	0.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	0.0
ASTROPHSICS	0.0
S/C SYS - DATA	0.0
S/C SYS - ELEC	0.0
S/C SYS - MECH	0.0
S/C SYS - FLUIDS	0.0
SP STA SYS OPS	479.4
EVA CRANE OP	74.8
EVA SERVICE TECH	74.8
MANNED OTV PILOT	0.0
TMS PILOT	0.0
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 1.9 PEOPLE

LOW INCLINATION

DURATION SUMMARY FOR YEAR 1995 IN MANDAYS/YR

STS OPERATIONS	72.2
CONSTRUCTION	3.6
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

SERVICING OPERATIONS	823.8
SCIENCE & TECH DEMO	479.0

HIGH INCLINATION

DURATION SUMMARY FOR YEAR 1995 IN MANDAYS/YR

STS OPERATIONS	4.2
CONSTRUCTION	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	336.0
SCIENCE & TECH DEMO	0.0

SUMMARY OF SPACE STATION PAYLOADS THIS YEAR

KEY	TITLE	PLCODE	INCL	PK POWER	DUTY CYCLE
OT03	SPACE STATION MODULES	SSSS	98.0	15.0	100.0
OT04	HI-INCL STATION RESUPPLY	SORS	98.0	1.0	100.0
SL03	PLANT DEVEL CARRY-ONS	SSSA	29.0	0.5	100.0
CM01	MATLS SCIENCE LAB	SPXX	29.0	25.0	35.6
CM02	CRYSTAL GROWTH FACTORY/PLAT	PMCL	29.0	0.0	100.0
CM03	CRYSTAL GROWTH RESUP-1	PMXX	29.0	0.0	0.5
SA02	ASTRO TELESCOPE CLUSTER	SPXX	29.0	4.0	100.0
SA03	ASTROPHYSICS FREE-FLYER	FMXM	29.0	0.0	100.0
SA04	ASTROPHYSICS OBSERVATORIES	FMXM	29.0	1.0	100.0
CM05	CONT FLOW ELEC-TROPH PLATFORM	PMCL	29.0	0.0	100.0
CM06	CONTINUOUS FLOW ELECTRO RESUPP	PMXL	29.0	2.0	0.0
OT01	LOW INCL STA MODULE DEL	SSSS	29.0	20.0	100.0
OT02	LOW INCL STA RESUPPLY	SORS	29.0	0.0	100.0
TE01	LARGE POWER SYS	SSCL	29.0	0.0	21.9

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TECHNOLOGY

TS02	TECH DEVEL CARRY-ONS	SSSA	29.0	0.5	6.8

LOW INCLINATION

PEAK POWER	AVERAGE POWER
53.0	34.4

HIGH INCLINATION

PEAK POWER	AVERAGE POWER
16.0	16.0

RESOURCES SUMMARY FOR LOW INCLINATION SPACE STATION

INTERNAL VOLUME	5.0	CUBIC METERS
POWER	34.4	KW
NO. OF PORTS	2.	

RESOURCES SUMMARY FOR HIGH INCLINATION SPACE STATION

INTERNAL VOLUME	0.0	CUBIC METERS
POWER	16.0	KW
NO. OF PORTS	0.	

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POINTING & DISTURBANCE SUMMARY FOR LOW INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350
CM01						----------									
CM02	----------														
CM03							-								
SA02	**********														
SA03	----------														
SA04	----------														
CM05	----------														
CM06							-								
OT01	----------														
OT02	----------														
TE01							----------								
TS02							-----								

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POINTING & DISTURBANCE SUMMARY FOR HIGH INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: X

DAYS/YEAR

	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350
OT03															
OT04															

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* * * SPACE STATION OPERATIONS ANALYSIS FOR YEAR 1996 * * *

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 1
NUMBER OF FLIGHTS: 1 PRIME MISSION: **INTELSAT-7,7A CLASS COMSAT OUTCOME # IS 0 KEY IS CC03
INCLINATION IS 0.00
CODE IS FXCL
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.910

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	1.661
SP STA SYS OPS	10.075
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

OTV OPERATIONS

UNADJUSTED DURATIONS
MAINTAIN STAGE = 1.150
MATE TO PAYLD = 0.131
STAGE/STAGE MATE = 0.210

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OTV/PLD C/O = 0.555
LAUNCH = 0.082
CAPTURE = 0.042
MISSION OPS = 2.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 8.756AWAY 4.200

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	6.987
S/C SYS - ELEC	9.160
S/C SYS - MECH	7.470
S/C SYS - FLUIDS	7.879
SP STA SYS OPS	16.972
EVA CRANE OP	8.636
EVA SERVICE TECH	15.881
MANNED OTV PILOT	8.660

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.200
MATE TO FIXT = 0.056
DEPLOY/ASSEMBLE = 0.280
TEST & C/O = 0.486

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 2.146

SKILL MIX DETAILS FOR CONSTRUCTION TAS

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CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	0.816
S/C SYS - ELEC	0.510
S/C SYS - MECH	0.510
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	4.292
EVA CRANE OP	2.251
EVA SERVICE TECH	1.075

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 1 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	2.1
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

TYPE #1 = 2 TYPE #2 = 2

***>> FLIGHT NO. 2
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: RECONFIGURABLE COMM. SATELLITE OUTCOME # IS 0
KEY IS CC05
CODE IS FXCM

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)

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ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 2.739

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS CREW SKILL	MISSION RESULTS MANDAYS
SP STA SYS OPS	5.741
EVA CRANE OP	5.040
EVA SERVICE TECH	5.040

OTV OPERATIONS

UNADJUSTED DURATIONS

MAINTAIN STAGE	=	1.150
MATE TO PAYLD	=	0.131
STAGE/STAGE MATE	=	0.210
OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	7.000

ADJ OTV OP DURATION FOR SECOND MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 19.256AWAY 14.700

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	17.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	19.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	13.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	29.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SECOND	MISSION RESULTS															
CREW SKILL	MANDAYS															
S/C SYS - DATA	17.487															
S/C SYS - ELEC	19.660															
S/C SYS - MECH	17.970															
S/C SYS - FLUIDS	16.718															
SP STA SYS OPS	12.638															
EVA CRANE OP	6.116															
EVA SERVICE TECH	13.361															
MANNED OTV PILOT	29.660															

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	19.3
OTV MISSIONS	14.7

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.140
TEST & C/O	=	3.400
MODULE MATE	=	0.152

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 9.956

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	5.776
S/C SYS - ELEC	3.730
S/C SYS - MECH	3.730
S/C SYS - FLUIDS	3.570
SP STA SYS OPS	19.912
EVA CRANE OP	5.632
EVA SERVICE TECH	5.044

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	10.0
OTV OPERATIONS	19.3
OTV MISSIONS	14.7

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 3
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS	8.261
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 2

***>> FLIGHT NO. 4
NUMBER OF FLIGHTS: 3 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: CRYSTAL GROWTH RESUP-1 OUTCOME # IS 0
KEY IS CM03
CODE IS PMXX

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 3 FLIGHTS: 8.216

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS 17.222

EVA CRANE OP 15.120

EVA SERVICE TECH 15.120

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 4 IN MANDAYS/YR

STS OPERATIONS	8.2
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 4 IN MANDAYS/YR

STS OPERATIONS	8.2
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 2

***>> FLIGHT NO. 5
NUMBER OF FLIGHTS: 1 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS
SECOND MISSION: CONT FLOW ELEC- TROPH PLATFORM OUTCOME # IS 0
KEY IS CM05
CODE IS PMCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

ORIGINAL PAGE IS
OF POOR QUALITY

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
IMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL MANDAYS

SP STA SYS OPS	7.998
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 5 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.718

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.436
EVA CRANE OP	1.394
EVA SERVICE TECH	1.394

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 5 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	1.7
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 4

***>> FLIGHT NO. 6
NUMBER OF FLIGHTS: 2 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 2 FLIGHTS: 10.343

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS	21.037
EVA CRANE OP	20.160
EVA SERVICE TECH	20.160

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 6 IN MANDAYS/YR

STS OPERATIONS	10.3
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 4

***>> FLIGHT NO. 7
NUMBER OF FLIGHTS: 1 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS
SECOND MISSION: TMS DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS

ORBITER ARRIVE	=	0.0416	
ORBITER OFFLOAD	=	0.6000	
ORBITER OFFLOAD	=	0.6000	(MISSION 2)
ORBITER RELOAD	=	0.6000	
ORBITER RELOAD	=	0.6000	(MISSION 2)
ORBITER DEPART	=	0.0210	

ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 5.171

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS***					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS 10.518

EVA CRANE OP 10.080

EVA SERVICE TECH 10.080

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 7 IN MANDAYS/YR

STS OPERATIONS	5.2
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 1 TYPE #2 = 0

***>> FLIGHT NO. 8
NUMBER OF FLIGHTS: 1 PRIME MISSION: VLBI/COSMIC RAY PKG OUTCOME # IS 0 KEY IS SA01
INCLINATION IS 98.00
CODE IS SPCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 1.479

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA SERVICE TECH	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS	3.221
EVA CRANE OP	2.520
EVA SERVICE TECH	2.520

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.140
TEST & C/O	=	0.486

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.852

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	0.816
S/C SYS - ELEC	0.510
S/C SYS - MECH	0.510
S/C SYS - FLUIDS	0.510

ORIGINAL PAGE IS
OF POOR QUALITY

SP STA SYS OPS	3.709
EVA CRANE OP	1.663
EVA SERVICE TECH	1.075

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 8 IN MANDAYS/YR

STS OPERATIONS	1.5
CONSTRUCTION OPERATIONS	1.9
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 9
NUMBER OF FLIGHTS: 1 PRIME MISSION: SPACE STATION MODULES OUTCOME # IS 0 KEY IS OT03
INCLINATION IS 98.00
CODE IS SSSS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 1.479

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CREW SKILL	MISSION RESULTS MANDAYS
SP STA SYS OPS	3.221
EVA CRANE OP	2.520
EVA SERVICE TECH	2.520

ORIGINAL PAGE IS
OF POOR QUALITY

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 9 IN MANDAYS/YR

STS OPERATIONS	1.5
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 10
NUMBER OF FLIGHTS: 2 PRIME MISSION: HI-INCL STATION RESUPPLY OUTCOME # IS 0 KEY IS OT04
INCLINATION IS 98.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 2 FLIGHTS: 5.478

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	11.481
EVA CRANE OP	10.080
EVA SERVICE TECH	10.080

CONSTRUCTION OPERATIONS

ORIGINAL PAGE IS
OF POOR QUALITY

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 10 IN MANDAYS/YR

STS OPERATIONS	5.5
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

PAYLOADS SERVICING ANALYSIS

PAYLOAD WITH KEY OT03 SPACE STATION MODULES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 5 OT03 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	67.2	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	470.4	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	67.2	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	67.2	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

ORIGINAL PAGE IS
OF POOR QUALITY

ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 5 OT03 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT04 HI-INCL STATION RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 6 OT04 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY SA01 VLBI/COSMIC RAY PKG

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
ASTROPHYSICS = 67.000

UPDATED WORK DURATION AT SP STA 67.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	6.700
ASTROPHSICS	67.000
S/C SYS - ELEC	3.350
S/C SYS - FLUIDS	3.350
SP STA SYS OPS	3.350

DURATION SUMMARY FOR PAYLOAD NO. 9 SA01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	67.0

PAYLOAD WITH KEY SL01 HUMAN LIFE SI CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

LIFE SCIENCE = 73.000

UPDATED WORK DURATION AT SP STA 73.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	73.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	7.300
MED/BIO RESEARCH	73.000
S/C SYS - ELEC	3.650
S/C SYS - FLUIDS	3.650
SP STA SYS OPS	3.650

DURATION SUMMARY FOR PAYLOAD NO. 11 SL01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	73.0

PAYLOAD WITH KEY SL02 SMALL MAMMALS CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

LIFE SCIENCE = 41.000

UPDATED WORK DURATION AT SP STA 41.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS***				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	4.100
MED/BIO RESEARCH	41.000
S/C SYS - ELEC	2.050
S/C SYS - FLUIDS	2.050
SP STA SYS OPS	2.050

DURATION SUMMARY FOR PAYLOAD NO. 12 SL02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	41.0

PAYLOAD WITH KEY SL03 PLANT DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

LIFE SCIENCE = 14.000

UPDATED WORK DURATION AT SP STA 14.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS

ORIGINAL PAGE IS
OF POOR QUALITY

NO SPECIAL SKILL	1.400
MED/BIO RESEARCH	14.000
S/C SYS - ELEC	0.700
S/C SYS - FLUIDS	0.700
SP STA SYS OPS	0.700

DURATION SUMMARY FOR PAYLOAD NO. 13 SL03 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	14.0

PAYLOAD WITH KEY CM01 MATLS SCIENCE LAB

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 300.000

UPDATED WORK DURATION AT SP STA 300.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 17 CM01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

SCIENCE & TECH DEMO 300.0

PAYLOAD WITH KEY CM02 CRYSTAL GROWTH FACTORY/PLAT

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	36.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 18 CM02 154.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	126.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	125.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	44.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	143.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	254.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	61.471
S/C SYS - DATA	126.739
S/C SYS - ELEC	54.818
S/C SYS - MECH	125.800
S/C SYS - FLUIDS	44.206
SP STA SYS OPS	143.136
EVA SERVICE TECH	56.952
TMS PILOT	254.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

ORIGINAL PAGE IS
OF POOR QUALITY

DURATION SUMMARY FOR PAYLOAD NO. 18 CM02 IN MANDAYS/YR

SERVICING OPERATIONS 154.7
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CM03 CRYSTAL GROWTH , RESUP-1

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	12.000
TEST & C/O	=	1.458
TMS LAUNCH	=	0.246
TMS OPS	=	9.000
TMS CREW OPS	=	9.000
TMS CAPTURE/BRTH	=	0.126
TMS MAINT/REFUEL	=	3.300
CREW MOD MAINT	=	5.130

ADJUSTED SERVICING TIME FOR 19 CM03 84.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	30.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	79.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	25.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	78.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	75.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	42.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	127.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	30.353
S/C SYS - DATA	79.304
S/C SYS - ELEC	25.364
S/C SYS - MECH	78.600
S/C SYS - FLUIDS	17.404
SP STA SYS OPS	75.852
EVA SERVICE TECH	42.714

ORIGINAL PAGE IS
OF POOR QUALITY

TMS PILOT 127.562

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 19 CM03 IN MANDAYS/YR

SERVICING OPERATIONS 84.5
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY SA02 ASTRO TELESCOPE CLUSTER

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
ASTROPHYSICS = 65.000

UPDATED WORK DURATION AT SP STA 65.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	6.500
ASTROPHSICS	65.000
S/C SYS - ELEC	3.250
S/C SYS - FLUIDS	3.250
SP STA SYS OPS	3.250

ORIGINAL PAGE IS
OF POOR QUALITY

DURATION SUMMARY FOR PAYLOAD NO. 21 SA02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 65.0

PAYLOAD WITH KEY SA03 ASTROPHYSICS FREE-FLYER

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	2.000
TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 22 SA03 30.1 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	36.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	25.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	34.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	11.078
S/C SYS - DATA	36.574
S/C SYS - ELEC	6.355
S/C SYS - MECH	25.324
S/C SYS - FLUIDS	4.313
SP STA SYS OPS	33.323
EVA SERVICE TECH	14.238

ORIGINAL PAGE IS
OF POOR QUALITY

TMS PILOT 34.121

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 22 SA03 IN MANDAYS/YR

SERVICING OPERATIONS 30.1
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY SA04 ASTROPHYSICS OBSERVATORIES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	6.000
TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 23 SA04 38.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	40.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	41.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	50.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	15.278
S/C SYS - DATA	40.774
S/C SYS - ELEC	10.555
S/C SYS - MECH	29.524

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - FLUIDS	8.513
SP STA SYS OPS	41.723
EVA SERVICE TECH	14.238
TMS PILOT	50.921

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 23 SA04 IN MANDAYS/YR

SERVICING OPERATIONS	38.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CC03 INTELSAT-7,7A CLASS COMSAT

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 26 CC03 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CC05 RECONFIGURABLE COMM. SATELLITE

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 28 CC05 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM05 CONT FLOW ELEC- TROPH PLATFORM

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

ADJUSTED SERVICING TIME FOR 29 CM05 0.0 DAYS

ORIGINAL PAGE IS
OF POOR QUALITY

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 29 CM05 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM06 CONTINUOUS FLOW ELECTRO RESUPP

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	48.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 30 CM06 179.9 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	74.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	139.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	67.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	138.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	56.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	168.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	304.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	74.071
S/C SYS - DATA	139.339
S/C SYS - ELEC	67.418
S/C SYS - MECH	138.400
S/C SYS - FLUIDS	56.806
SP STA SYS OPS	168.336
EVA SERVICE TECH	56.952
TMS PILOT	304.483

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 30 CM06 IN MANDAYS/YR

SERVICING OPERATIONS 179.9
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT01 LOW INCL STA MODULE DEL

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 33 OT01 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT***.**			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 33 0T01 IN MANDAYS/YR

SERVICING OPERATIONS	336.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY 0T02 LOW INCL STA RESUPPLY

ORIGINAL PAGE IS
OF POOR QUALITY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 34 0T02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY TS02 TECH DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 20.000

UPDATED WORK DURATION AT SP STA 20.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	4.000
ENGINEERING	20.000
S/C SYS - DATA	3.000
S/C SYS - ELEC	1.000

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - MECH	1.000
S/C SYS - FLUIDS	4.000
SP STA SYS OPS	2.000
EVA CRANE OP	1.000
EVA SERVICE TECH	1.000
MANNED OTV PILOT	3.000

DURATION SUMMARY FOR PAYLOAD NO. 45 TS02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	20.0

SKILL MIX SUMMARIES LOW INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	26.4	19.3	0.0	0.0	165.9	0.0	0.0	0.0	0.0	4.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	128.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	77.3	0.0	0.0	24.5	345.4	0.0	7.4	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	16.9	9.7	0.0	28.8	147.6	0.0	4.8	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	54.8	0.0	0.0	25.4	342.8	0.0	4.8	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	12.8	9.7	0.0	22.9	118.4	0.0	4.6	0.0	0.0	4.0	0.0	3.3	0.0	0.0	0.0
SP STA SYS OPS	0.0	75.0	9.7	0.0	49.1	387.3	0.0	27.6	0.0	0.0	2.0	0.0	61.4	470.4	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	37.4	0.0	0.0	9.3	0.0	0.0	1.0	0.0	50.4	67.2	0.0	0.0
EVA SERVICE TECH	0.0	28.5	0.0	0.0	51.9	156.6	0.0	7.5	0.0	0.0	1.0	0.0	50.4	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	38.3	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	85.0	0.0	0.0	0.0	686.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
618.	2695.	40.	838.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	282.8
MED/BIO RESEARCH	128.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	20.0
ASTROPHSICS	65.0
S/C SYS - DATA	457.6
S/C SYS - ELEC	208.8

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - MECH	428.9
S/C SYS - FLUIDS	175.7
SP STA SYS OPS	1082.5
EVA CRANE OP	165.3
EVA SERVICE TECH	363.1
MANNED OTV PILOT	41.3
TMS PILOT	771.2
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 11.5 PEOPLE

SKILL MIX SUMMARIES HIGH INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	0.0	3.3	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.4	470.4	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6	67.2	0.0	0.0
EVA SERVICE TECH	2.5	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
100.	0.	0.	713.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	73.9
MED/BIO RESEARCH	0.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	0.0
ASTROPHSICS	67.0
S/C SYS - DATA	0.8
S/C SYS - ELEC	3.9
S/C SYS - MECH	0.5
S/C SYS - FLUIDS	3.9
SP STA SYS OPS	495.4
EVA CRANE OP	84.0
EVA SERVICE TECH	83.4
MANNED OTV PILOT	0.0
TMS PILOT	0.0
MATLS SCIENCE	0.0

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TOTAL SPACE STATION CREW: 2.2 PEOPLE

LOW INCLINATION

DURATION SUMMARY FOR YEAR 1996 IN MANDAYS/YR

STS OPERATIONS	38.3
CONSTRUCTION	13.8
OTV OPERATIONS	28.0
OTV MISSIONS	18.9
SERVICING OPERATIONS	823.8
SCIENCE & TECH DEMO	513.0

HIGH INCLINATION

DURATION SUMMARY FOR YEAR 1996 IN MANDAYS/YR

STS OPERATIONS	8.4
CONSTRUCTION	1.9
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	336.0
SCIENCE & TECH DEMO	67.0

SUMMARY OF SPACE STATION PAYLOADS THIS YEAR

KEY	TITLE	PLCODE	INCL	PK POWER	DUTY CYCLE
OT03	SPACE STATION MODULES	SSSS	98.0	15.0	100.0
OT04	HI-INCL STATION RESUPPLY	SORS	98.0	1.0	100.0
SA01	VLBI/COSMIC RAY PKG	SPCL	98.0	2.0	100.0
SL01	HUMAN LIFE SI CARRY-ONS	SSSA	29.0	1.7	100.0
SL02	SMALL MAMMALS CARRY-ONS	SSSA	29.0	4.0	100.0
SL03	PLANT DEVEL CARRY-ONS	SSSA	29.0	0.5	100.0
CM01	MATLS SCIENCE LAB	SPXX	29.0	25.0	35.6
CM02	CRYSTAL GROWTH FACTORY/PLAT	PMCL	29.0	0.0	100.0
CM03	CRYSTAL GROWTH RESUP-1	PMXX	29.0	0.0	0.5
SA02	ASTRO TELESCOPE	SPXX	29.0	4.0	100.0

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	CLUSTER				
SA03	ASTROPHYSICS FREE-FLYER	FMXM	29.0	0.0	100.0
SA04	ASTROPHYSICS OBSERVATORIES	FMXM	29.0	1.0	100.0
CC03	INTELSAT-7,7A CLASS COMSAT	FXCL	0.0	0.0	0.0
CC05	RECONFIGURABLE COMM. SATELLITE	FXCM	0.0	0.0	1.9
CM05	CONT FLOW ELEC-TROPH PLATFORM	PMCL	29.0	0.0	100.0
CM06	CONTINUOUS FLOW ELECTRO RESUPP	PMXL	29.0	2.0	0.0
OT01	LOW INCL STA MODULE DEL	SSSS	29.0	20.0	100.0
OT02	LOW INCL STA RESUPPLY	SORS	29.0	0.0	100.0
TS02	TECH DEVEL CARRY-ONS	SSSA	29.0	0.5	6.8

LOW INCLINATION

PEAK POWER	AVERAGE POWER
58.7	40.1

HIGH INCLINATION

PEAK POWER	AVERAGE POWER
18.0	18.0

RESOURCES SUMMARY FOR LOW INCLINATION SPACE STATION

INTERNAL VOLUME	11.8	CUBIC METERS
POWER	40.1	KW
NO. OF PORTS	2.	

RESOURCES SUMMARY FOR HIGH INCLINATION SPACE STATION

INTERNAL VOLUME	1.0	CUBIC METERS
POWER	18.0	KW
NO. OF PORTS	1.	

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OF POOR QUALITY

POINTING & DISTURBANCE SUMMARY FOR LOW INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350
SL01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CM01						---	---	---	---	---	---				
CM02	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CM03								-							
SA02	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
SA03	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SA04	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CC03								-							
CC05								-							
CM05	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CM06								-							
OT01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
OT02	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TS02								-----							

POINTING & DISTURBANCE SUMMARY FOR HIGH INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

				1	1	1	1	2	2	2	2	3	3	3
	2	5	7	0	2	5	7	0	2	5	7	0	2	5
0	5	0	5	0	5	0	5	0	5	0	5	0	5	0
0T03	----------													
0T04	----------													
5A01	**********													

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* * * SPACE STATION OPERATIONS ANALYSIS FOR YEAR 1997 * * *

TYPE #1 = 2 TYPE #2 = 3

***>> FLIGHT NO. 1
NUMBER OF FLIGHTS: 1 PRIME MISSION: **MULTIBEAM COMM SATELLITE OUTCOME # IS 0 KEY IS CC04
INCLINATION IS 0.00
CODE IS SSCM
SECOND MISSION: ROBOTICS TECH DEMO OUTCOME # IS 0
KEY IS TC01
CODE IS SSCM

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 2.651

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	1.661
SP STA SYS OPS	7.555
EVA CRANE OP	5.040
EVA SERVICE TECH	5.040

OTV OPERATIONS

UNADJUSTED DURATIONS
MAINTAIN STAGE = 1.150
MATE TO PAYLD = 0.131

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STAGE/STAGE MATE	=	0.210
OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	2.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 8.756AWAY 4.200

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	2.5	0.0	0.0	0.0	1.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS CREW SKILL	MANDAYS
S/C SYS - DATA	6.987
S/C SYS - ELEC	9.160
S/C SYS - MECH	7.470
S/C SYS - FLUIDS	7.879
SP STA SYS OPS	14.452
EVA CRANE OP	6.116
EVA SERVICE TECH	13.361
MANNED OTV PILOT	8.660

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.700
TEST & C/O	=	3.400
MODULE MATE	=	0.152
FAB STRUCT	=	0.246

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 11.650

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SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FIRST	MISSION RESULTS															
CREW SKILL	MANDAYS															
S/C SYS - DATA	5.776															
S/C SYS - ELEC	3.730															
S/C SYS - MECH	3.730															
S/C SYS - FLUIDS	3.570															
SP STA SYS OPS	23.299															
EVA CRANE OP	8.502															
EVA SERVICE TECH	5.562															

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 1 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	11.6
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
TEST & C/O	=	3.400

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 20.992

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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OF POOR QUALITY

EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.3	0.0	0.0	0.0	18.7	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	0.0	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS

SECOND CREW SKILL	MANDAYS
S/C SYS - DATA	11.488
S/C SYS - ELEC	7.300
S/C SYS - MECH	7.300
S/C SYS - FLUIDS	7.140
SP STA SYS OPS	41.985
EVA CRANE OP	12.907
EVA SERVICE TECH	9.967

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 1 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	21.0
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

TYPE #1 = 1 TYPE #2 = 1

***>> FLIGHT NO. 2
NUMBER OF FLIGHTS: 1 PRIME MISSION: EARTH OBSERV PALLET OUTCOME # IS 0 KEY IS S001
INCLINATION IS 98.00
CODE IS SPCL
SECOND MISSION: UPPER ATMOS RESEARCH PKG OUTCOME # IS 0
KEY IS S004
CODE IS SPCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 2.651

SKILL MIX DETAILS FOR STS TASK

ORIGINAL PAGE IS
OF POOR QUALITY

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0
EVA CRANE OP	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	5.478
EVA CRANE OP	5.040
EVA SERVICE TECH	5.040

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.350
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 2.453

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

ORIGINAL PAGE IS
OF POOR QUALITY

CREW SKILL	MANDAYS
S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	4.906
EVA CRANE OP	2.864
EVA SERVICE TECH	1.394

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	2.5
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.140
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 4.465

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPLCIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	1.697
S/C SYS - ELEC	1.180

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - MECH	1.180
S/C SYS - FLUIDS	1.021
SP STA SYS OPS	8.929
EVA CRANE OP	4.847
EVA SERVICE TECH	2.789

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	4.5
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 1 TYPE #2 = 4

***>> FLIGHT NO. 3
NUMBER OF FLIGHTS: 1 PRIME MISSION: **LIFESCIENCES RES FAC OUTCOME # IS 0 KEY IS SL04
INCLINATION IS 29.00
CODE IS SPXX
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA SERVICE TECH	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	MISSION RESULTS												0.0	0.0	0.0	0.0
CREW SKILL	MANDAYS												0.0	0.0	0.0	0.0

ORIGINAL PAGE IS OF POOR QUALITY

S/C SYS - FLUIDS	1.661
SP STA SYS OPS	10.075
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 4
NUMBER OF FLIGHTS: 1 PRIME MISSION: **CRYSTAL GROWTH FACTORY/PLAT OUTCOME # IS 0 KEY IS CM02
INCLINATION IS 29.00
CODE IS PMCL
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS

ORBITER ARRIVE	=	0.0416	
ORBITER OFFLOAD	=	0.6000	
ORBITER OFFLOAD	=	0.6000	(MISSION 2)
ORBITER RELOAD	=	0.6000	(MISSION 2)
ORBITER DEPART	=	0.0210	
ORBITER PROP XFR	=	0.3629	

ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

ORIGINAL PAGE IS
OF POOR QUALITY

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	1.524
SP STA SYS OPS	9.904
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.718

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.436
EVA CRANE OP	1.394
EVA SERVICE TECH	1.394

ORIGINAL PAGE IS
OF POOR QUALITY

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 4 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	1.7
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 2

***>> FLIGHT NO. 5
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: RECONFIGURABLE COMM. SATELLITE OUTCOME # IS 0
KEY IS CC05
CODE IS FXCM

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 2.739

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI. RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	5.741
EVA CRANE OP	5.040
EVA SERVICE TECH	5.040

OTV OPERATIONS

UNADJUSTED DURATIONS
MAINTAIN STAGE = 1.150

ORIGINAL PAGE IS
OF POOR QUALITY

MATE TO PAYLD	=	0.131
STAGE/STAGE MATE	=	0.210
OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	7.000

ADJ OTV OP DURATION FOR SECOND MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 19.256AWAY 14.700

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	17.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	19.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	13.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	29.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	17.487
S/C SYS - ELEC	19.660
S/C SYS - MECH	17.970
S/C SYS - FLUIDS	16.718
SP STA SYS OPS	12.638
EVA CRANE OP	6.116
EVA SERVICE TECH	13.361
MANNED OTV PILOT	29.660

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 5 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	19.3
OTV MISSIONS	14.7

ORIGINAL PAGE IS
OF POOR QUALITY

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.140
TEST & C/O	=	3.400
MODULE MATE	=	0.152

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 9.956

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPP RT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	? CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SECOND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	5.776
S/C SYS - ELEC	3.730
S/C SYS - MECH	3.730
S/C SYS - FLUIDS	3.570
SP STA SYS OPS	19.912
EVA CRANE OP	5.632
EVA SERVICE TECH	5.044

ORIGINAL PAGE IS
OF POOR QUALITY

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 5 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	10.0
OTV OPERATIONS	19.3
OTV MISSIONS	14.7

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 6
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00

CODE IS PMXL
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	8.261
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 6 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 7
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL

ORIGINAL PAGE IS
OF POOR QUALITY

SECOND MISSION: TMS DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS CREW SKILL	MISSION RESULTS MANDAYS
SP STA SYS OPS	8.261
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 7 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 2

***>> FLIGHT NO. 8
NUMBER OF FLIGHTS: 1 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS
SECOND MISSION: INTELSAT-7,7A CLASS COMSAT OUTCOME # IS 1

ORIGINAL PAGE IS
OF POOR QUALITY

KEY IS CC03
CODE IS FXCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	7.998
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

OTV OPERATIONS

UNADJUSTED DURATIONS
MAINTAIN STAGE = 1.150
MATE TO PAYLD = 0.131
STAGE/STAGE MATE = 0.210
OTV/PLD C/O = 0.555
LAUNCH = 0.082
CAPTURE = 0.042
MISSION OPS = 2.000

ADJ OTV OP DURATION FOR SECOND MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 8.756AWAY 4.200

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***	***COMMERC MISSIONS***	***TECH DEV MISSIONS**	****OPER SUPPORT*****

ORIGINAL PAGE IS
OF POOR QUALITY

	OPS SERV	MSN OP	CONST	OPS SERV	MSN OP	CONST	OPS SERV	MSN OP	CONST	OPS SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0
MED/BIO RESEARCH	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0
PHYS SCI RESEARC	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0
EARTH, OCEAN OBS	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0
ENGINEERING	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0
ASTROPHSICS	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0
S/C SYS - DATA	0.0 0.0	0.0	0.0	7.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0
S/C SYS - ELEC	0.0 0.0	0.0	0.0	9.2 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0
S/C SYS - MECH	0.0 0.0	0.0	0.0	7.5 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0
S/C SYS - FLUIDS	0.0 0.0	0.0	0.0	6.2 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0
SP STA SYS OPS	0.0 0.0	0.0	0.0	9.4 0.0	0.0	0.0	0.0 0.0	0.0	0.0	5.5 0.0	0.0	0.0
EVA CRANE OP	0.0 0.0	0.0	0.0	3.6 0.0	0.0	0.0	0.0 0.0	0.0	0.0	5.0 0.0	0.0	0.0
EVA SERVICE TECH	0.0 0.0	0.0	0.0	10.8 0.0	0.0	0.0	0.0 0.0	0.0	0.0	5.0 0.0	0.0	0.0
MANNED OTV PILOT	0.0 0.0	0.0	0.0	8.7 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0
TMS PILOT	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0
MATLS SCIENCE	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0

SECOND MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	6.987
S/C SYS - ELEC	9.160
S/C SYS - MECH	7.470
S/C SYS - FLUIDS	6.218
SP STA SYS OPS	14.896
EVA CRANE OP	8.636
EVA SERVICE TECH	15.881
MANNED OTV PILOT	8.660

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 8 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.280
TEST & C/O	=	0.486

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 2.146

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***			***COMMERC MISSIONS***			***TECH DEV MISSIONS**			****OPER SUPPORT*****		
	OPS SERV	MSN OP	CONST	OPS SERV	MSN OP	CONST	OPS SERV	MSN OP	CONST	OPS SERV	MSN OP	CONST

ORIGINAL PAGE IS
OF POOR QUALITY

NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	0.816
S/C SYS - ELEC	0.510
S/C SYS - MECH	0.510
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	4.292
EVA CRANE OP	2.251
EVA SERVICE TECH	1.075

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 8 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	2.1
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

TYPE #1 = 4 TYPE #2 = 2

***>> FLIGHT NO. 9
NUMBER OF FLIGHTS: 3 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS
SECOND MISSION: CRYSTAL GROWTH RESUP-2 OUTCOME # IS 0
KEY IS CM04
CODE IS PMCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210

ORIGINAL PAGE IS
OF POOR QUALITY

ADJ STS DURATION AT SP STA FOR TOTAL OF 3 FLIGHTS: 11.734

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	23.995
EVA CRANE OP	22.680
EVA SERVICE TECH	22.680

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 9 IN MANDAYS/YR

STS OPERATIONS	11.7
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 3 FLIGHTS, AT SPACE STATION 5.153

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	2.545
S/C SYS - ELEC	1.770
S/C SYS - MECH	1.770
S/C SYS - FLUIDS	1.531
SP STA SYS OPS	10.307
EVA CRANE OP	4.183
EVA SERVICE TECH	4.183

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 9 IN MANDAYS/YR

STS OPERATIONS	11.7
CONSTRUCTION OPERATIONS	5.2
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 10
NUMBER OF FLIGHTS: 1 PRIME MISSION: LOW INCL STA MODULE DEL OUTCOME # IS 10 KEY IS OT01
INCLINATION IS 29.00
CODE IS SSSS

SHUTTLE OPERATIONS

*--> THIS FLIGHT MANIFESTED WITH MINITANKER

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 1.479

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS 3.221

EVA CRANE OP 2.520

EVA SERVICE TECH 2.520

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 10 IN MANDAYS/YR

STS OPERATIONS	1.5
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 0

***>> FLIGHT NO. 1
NUMBER OF FLIGHTS: 4 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 4 FLIGHTS: 5.915

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS	12.882
EVA CRANE OP	10.080
EVA SERVICE TECH	10.080

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 11 IN MANDAYS/YR

STS OPERATIONS	5.9
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 12
NUMBER OF FLIGHTS: 1 PRIME MISSION: SPACE STATION MODULES OUTCOME # IS 0 KEY IS OT03
INCLINATION IS 98.00
CODE IS SSSS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 1.479

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS 3.221

EVA CRANE OP 2.520

EVA SERVICE TECH 2.520

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 12 IN MANDAYS/YR

STS OPERATIONS	1.5
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 13
NUMBER OF FLIGHTS: 2 PRIME MISSION: HI-INCL STATION RESUPPLY OUTCOME # IS 0 KEY IS OT04
INCLINATION IS 98.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 2 FLIGHTS: 5.478

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	MISSION RESULTS															
CREW SKILL	MANDAYS															
SP STA SYS OPS	11.481															
EVA CRANE OP	10.080															
EVA SERVICE TECH	10.080															

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 13 IN MANDAYS/YR

STS OPERATIONS	5.5
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 1 TYPE #2 = 0

***>> FLIGHT NO. 14
NUMBER OF FLIGHTS: 1 PRIME MISSION: SPACE PHYSICS PALLET OUTCOME # IS 0 KEY IS SP02
INCLINATION IS 98.00
CODE IS SPCM

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 1.479

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA SERVICE TECH	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	MISSION RESULTS															

ORIGINAL PAGE IS
OF POOR QUALITY

CREW SKILL	MANDAYS
SP STA SYS OPS	3.221
EVA CRANE OP	2.520
EVA SERVICE TECH	2.520

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	1.400
TEST & C/O	=	3.400
MODULE MATE	=	0.228

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 12.762

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	25.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	11.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	5.808
S/C SYS - ELEC	3.809
S/C SYS - MECH	3.809
S/C SYS - FLUIDS	3.570
SP STA SYS OPS	25.523
EVA CRANE OP	11.243
EVA SERVICE TECH	5.363

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 14 IN MANDAYS/YR

ORIGINAL PAGE IS
OF POOR QUALITY

ORIGINAL PAGE IS
OF POOR QUALITY

STS OPERATIONS	1.5
CONSTRUCTION OPERATIONS	12.8
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

PAYLOADS SERVICING ANALYSIS

PAYLOAD WITH KEY S001 EARTH OBSERV PALLET

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 150.000

UPDATED WORK DURATION AT SP STA 150.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 15.000

EARTH, OCEAN OBS 150.000

S/C SYS - ELEC 7.500

S/C SYS - FLUIDS 7.500

SP STA SYS OPS 7.500

DURATION SUMMARY FOR PAYLOAD NO. 1 S001 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 150.0

PAYLOAD WITH KEY S004 UPPER ATMOS RESEARCH PKG

ORIGINAL PAGE IS
OF POOR QUALITY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 145.000

UPDATED WORK DURATION AT SP STA 145.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	145.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	14.500
EARTH, OCEAN OBS	145.000
S/C SYS - ELEC	7.250
S/C SYS - FLUIDS	7.250
SP STA SYS OPS	7.250

DURATION SUMMARY FOR PAYLOAD NO. 4 5004 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	145.0

PAYLOAD WITH KEY 0T03 SPACE STATION MODULES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ORIGINAL PAGE IS
OF POOR QUALITY

ADJUSTED SERVICING TIME FOR 5 OT03 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 5 OT03 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT04 HI-INCL STATION RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 6 OT04 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY SP02 SPACE PHYSICS PALLET

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
PHYSICS SCIENCE = 54.000

UPDATED WORK DURATION AT SP STA 54.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	54.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS OF POOR QUALITY

MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	5.400
PHYS SCI RESEARC	54.000
S/C SYS - ELEC	2.700
S/C SYS - FLUIDS	2.700
SP STA SYS OPS	2.700

DURATION SUMMARY FOR PAYLOAD NO. 8 SP02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	54.0

PAYLOAD WITH KEY SA01 VLBI/COSMIC RAY PKG

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

ASTROPHYSICS = 67.000

UPDATED WORK DURATION AT SP STA 67.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	67.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	3.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	3.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	3.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS

ORIGINAL PAGE IS
OF POOR QUALITY

NO SPECIAL SKILL	6.700
ASTROPHSICS	67.000
S/C SYS - ELEC	3.350
S/C SYS - FLUIDS	3.350
SP STA SYS OPS	3.350

DURATION SUMMARY FOR PAYLOAD NO. 9 SA01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	67.0

PAYLOAD WITH KEY SL01 HUMAN LIFE SI CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

LIFE SCIENCE = 73.000

UPDATED WORK DURATION AT SP STA 73.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	73.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	7.300
MED/BIO RESEARCH	73.000
S/C SYS - ELEC	3.650

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - FLUIDS	3.650
SP STA SYS OPS	3.650

DURATION SUMMARY FOR PAYLOAD NO. 11 SL01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	73.0

PAYLOAD WITH KEY SL02 SMALL MAMMALS CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

LIFE SCIENCE = 41.000

UPDATED WORK DURATION AT SP STA 41.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	4.1	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	41.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	2.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	2.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	2.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	4.100
MED/BIO RESEARCH	41.000
S/C SYS - ELEC	2.050
S/C SYS - FLUIDS	2.050
SP STA SYS OPS	2.050

ORIGINAL PAGE IS
OF POOR QUALITY

ORIGINAL PAGE IS
OF POOR QUALITY

DURATION SUMMARY FOR PAYLOAD NO. 12 SL02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	41.0

PAYLOAD WITH KEY SL03 PLANT DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 14.000

UPDATED WORK DURATION AT SP STA 14.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN OP	CONST		OPS	SERV	MSN OP	CONST		OPS	SERV	MSN OP	CONST		OPS	SERV	MSN OP	CONST	
NO SPECIAL SKILL	0.0	0.0	1.4	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	14.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	1.400
MED/BIO RESEARCH	14.000
S/C SYS - ELEC	0.700
S/C SYS - FLUIDS	0.700
SP STA SYS OPS	0.700

DURATION SUMMARY FOR PAYLOAD NO. 13 SL03 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	14.0

PAYLOAD WITH KEY SL04 LIFESCIENCES RES FAC

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 191.000

UPDATED WORK DURATION AT SP STA 191.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	19.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	191.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 19.100

MED/BIO RESEARCH 191.000

S/C SYS - ELEC 9.550

S/C SYS - FLUIDS 9.550

SP STA SYS OPS 9.550

DURATION SUMMARY FOR PAYLOAD NO. 14 SL04 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 191.0

PAYLOAD WITH KEY CM01 MATLS SCIENCE LAB

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

ORIGINAL PAGE IS
OF POOR QUALITY

CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 300.000

UPDATED WORK DURATION AT SP STA 300.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 17 CM01 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 300.0

PAYLOAD WITH KEY CM02 CRYSTAL GROWTH FACTORY/PLAT

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
REMOTE SERVICE = 36.000
TEST & C/O = 1.944
TMS LAUNCH = 0.328
TMS OPS = 12.000
TMS CREW OPS = 12.000
TMS CAPTURE/BRTH = 0.168
TMS MAINT/REFUEL = 4.400
CREW MOD MAINT = 6.840

ADJUSTED SERVICING TIME FOR 18 CM02 154.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL ***SCIENCE MISSIONS*** ***COMMERC MISSIONS*** ***TECH DEV MISSIONS** ****OPER SUPPORT*****

ORIGINAL PAGE IS
OF POOR QUALITY

	OPS SERV		MSN OP	CONST	OPS SERV		MSN OP	CONST	OPS SERV		MSN OP	CONST	OPS SERV		MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	126.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	125.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	44.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	143.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	254.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	61.471
S/C SYS - DATA	126.739
S/C SYS - ELEC	54.818
S/C SYS - MECH	125.800
S/C SYS - FLUIDS	44.206
SP STA SYS OPS	143.136
EVA SERVICE TECH	56.952
TMS PILOT	254.083

ORIGINAL PAGE IS
OF POOR QUALITY

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 18 CM02 IN MANDAYS/YR

SERVICING OPERATIONS	154.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM03 CRYSTAL GROWTH RESUP-1

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	12.000
TEST & C/O	=	1.458
TMS LAUNCH	=	0.246
TMS OPS	=	9.000
TMS CREW OPS	=	9.000
TMS CAPTURE/BRTH	=	0.126
TMS MAINT/REFUEL	=	3.300
CREW MOD MAINT	=	5.130

ADJUSTED SERVICING TIME FOR 19 CM03 84.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	30.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	79.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	25.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	78.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	75.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	42.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	127.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	30.353
S/C SYS - DATA	79.304
S/C SYS - ELEC	25.364
S/C SYS - MECH	78.600
S/C SYS - FLUIDS	17.404
SP STA SYS OPS	75.852
EVA SERVICE TECH	42.714
TMS PILOT	127.562

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 19 CM03 IN MANDAYS/YR

SERVICING OPERATIONS	84.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM04 CRYSTAL GROWTH RESUP-2

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	16.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328

ORIGINAL PAGE IS
OF POOR QUALITY

TMS OPS = 12.000
TMS CREW OPS = 12.000
TMS CAPTURE/BRTH = 0.168
TMS MAINT/REFUEL = 4.400
CREW MOD MAINT = 6.840

ADJUSTED SERVICING TIME FOR 20 CM04 112.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	40.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	105.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	33.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	104.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	23.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	101.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	170.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	40.471
S/C SYS - DATA	105.739
S/C SYS - ELEC	33.818
S/C SYS - MECH	104.800
S/C SYS - FLUIDS	23.206
SP STA SYS OPS	101.136
EVA SERVICE TECH	56.952
TMS PILOT	170.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 20 CM04 IN MANDAYS/YR

SERVICING OPERATIONS 112.7
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY SA02 ASTRO TELESCOPE CLUSTER

ORIGINAL PAGE IS
OF POOR QUALITY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
ASTROPHYSICS = 65.000

UPDATED WORK DURATION AT SP STA 65.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	65.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	3.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	3.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	3.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	6.500
ASTROPHSICS	65.000
S/C SYS - ELEC	3.250
S/C SYS - FLUIDS	3.250
SP STA SYS OPS	3.250

DURATION SUMMARY FOR PAYLOAD NO. 21 SA02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	65.0

PAYLOAD WITH KEY SA03 ASTROPHYSICS FREE-FLYER

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
REMOTE SERVICE = 2.000
TEST & C/O = 3.400

ORIGINAL PAGE IS
OF POOR QUALITY

TMS LAUNCH = 0.082
TMS OPS = 3.000
TMS CREW OPS = 3.000
TMS CAPTURE/BRTH = 0.042
TMS MAINT/REFUEL = 1.100
CREW MOD MAINT = 1.710

ADJUSTED SERVICING TIME FOR 22 SA03 30.1 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	36.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	25.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	34.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	11.078
S/C SYS - DATA	36.574
S/C SYS - ELEC	6.355
S/C SYS - MECH	25.324
S/C SYS - FLUIDS	4.313
SP STA SYS OPS	33.323
EVA SERVICE TECH	14.238
TMS PILOT	34.121

SCIENCE & APPLICATIONS ONBOARD MISSIONS.

DURATION SUMMARY FOR PAYLOAD NO. 22 SA03 IN MANDAYS/YR

SERVICING OPERATIONS	30.1
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA04 ASTROPHYSICS OBSERVATORIES

ORIGINAL PAGE IS
OF POOR QUALITY

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	6.000
TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 23 SA04 38.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	40.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	41.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	50.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	15.278
S/C SYS - DATA	40.774
S/C SYS - ELEC	10.555
S/C SYS - MECH	29.524
S/C SYS - FLUIDS	8.513
SP STA SYS OPS	41.723
EVA SERVICE TECH	14.238
TMS PILOT	50.921

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 23 SA04 IN MANDAYS/YR

ORIGINAL PAGE IS
OF POOR QUALITY

SERVICING OPERATIONS 38.5
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CC03 INTELSAT-7,7A CLASS COMSAT

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 26 CC03 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CC04 MULTIBEAM COMM. SATELLITE

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

ORIGINAL PAGE IS
OF POOR QUALITY

DURATION SUMMARY FOR PAYLOAD NO. 27 CC04 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CC05 RECONFIGURABLE COMM. SATELLITE

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 28 CC05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CM05 CONT FLOW ELEC- TROPH PLATFORM

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

ADJUSTED SERVICING TIME FOR 29 CM05 0.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

ORIGINAL PAGE IS
OF POOR QUALITY

DURATION SUMMARY FOR PAYLOAD NO. 29 CM05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CM06 CONTINUOUS FLOW ELECTRO RESUPP

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	48.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 30 CM06 179.9 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	74.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	139.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	67.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	138.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	56.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	168.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	304.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SATELLITE SERVICING MISSION RESULTS																
CREW SKILL	MANDAYS															
NO SPECIAL SKILL	74.071															
S/C SYS - DATA	139.339															
S/C SYS - ELEC	67.418															
S/C SYS - MECH	138.400															
S/C SYS - FLUIDS	56.806															
SP STA SYS OPS	168.336															
EVA SERVICE TECH	56.952															
TMS PILOT	304.483															

ORIGINAL PAGE IS
OF POOR QUALITY

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 30 CM06 IN MANDAYS/YR

SERVICING OPERATIONS 179.9
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY 0T01 LOW INCL STA MODULE DEL

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 33 0T01 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

ORIGINAL PAGE IS
OF POOR QUALITY

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT******			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 33 OT01 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT02 LOW INCL STA RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 34 OT02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY TC01 ROBOTICS TECH DEMO

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 90.000

UPDATED WORK DURATION AT SP STA 90.0 WORK DAYS

ORIGINAL PAGE IS
OF POOR QUALITY

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS***				****OPER SUPPORT****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.5	0.0	0.0	0.0	0.0	0.0
↳ PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	18.000
ENGINEERING	90.000
S/C SYS - DATA	13.500
S/C SYS - ELEC	4.500
S/C SYS - MECH	4.500
S/C SYS - FLUIDS	18.000
SP STA SYS OPS	9.000
EVA CRANE OP	4.500
EVA SERVICE TECH	4.500
MANNED OTV PILOT	13.500

ORIGINAL PAGE IS
OF POOR QUALITY

DURATION SUMMARY FOR PAYLOAD NO. 41 TC01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	90.0

PAYLOAD WITH KEY TS02 TECH DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 20.000

UPDATED WORK DURATION AT SP STA 20.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	4.000
ENGINEERING	20.000
S/C SYS - DATA	3.000
S/C SYS - ELEC	1.000
S/C SYS - MECH	1.000
S/C SYS - FLUIDS	4.000
SP STA SYS OPS	2.000
EVA CRANE OP	1.000
EVA SERVICE TECH	1.000
MANNED OTV PILOT	3.000

DURATION SUMMARY FOR PAYLOAD NO. 45 TS02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	20.0

SKILL MIX SUMMARIES LOW INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***	***COMMERC MISSIONS***	***TECH DEV MISSIONS**	****OPER SUPPORT*****

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	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	26.4	38.4	0.0	0.0	206.4	0.0	0.0	0.0	0.0	22.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	319.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	110.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	77.3	0.0	0.0	31.5	451.1	0.0	21.5	0.0	0.0	16.5	5.7	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	16.9	19.2	0.0	38.0	181.4	0.0	14.1	0.0	0.0	5.5	3.6	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	54.8	0.0	0.0	32.9	447.6	0.0	14.1	0.0	0.0	5.5	3.6	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	12.8	19.2	0.0	29.2	141.6	0.0	13.3	0.0	0.0	22.0	3.6	6.5	0.0	0.0	0.0
SP STA SYS OPS	2.5	75.0	19.2	0.0	66.1	488.5	0.0	84.5	5.0	0.0	11.0	18.7	66.3	470.4	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	48.6	0.0	0.0	30.5	5.0	0.0	5.5	4.4	47.9	67.2	0.0	0.0
EVA SERVICE TECH	2.5	28.5	0.0	0.0	70.3	213.6	0.0	22.8	5.0	0.0	5.5	4.4	47.9	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	47.0	0.0	0.0	0.0	0.0	0.0	16.5	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	85.0	0.0	0.0	0.0	856.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP COMMERCIAL	TECH DEV	OPS SUPPORT
864.	3551.	279. 841.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	360.3
MED/BIO RESEARCH	319.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	110.0
ASTROPHSICS	65.0
S/C SYS - DATA	603.7
S/C SYS - ELEC	278.6
S/C SYS - MECH	558.5
S/C SYS - FLUIDS	248.1
SP STA SYS OPS	1307.2
EVA CRANE OP	211.6
EVA SERVICE TECH	467.7
MANNED OTV PILOT	63.5
TMS PILOT	941.3
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 15.2 PEOPLE

SKILL MIX SUMMARIES HIGH INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	41.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	54.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	295.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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OF POOR QUALITY

S/C SYS - ELEC	0.0	0.0	20.8	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	20.8	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	7.6	0.0	20.8	39.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.8	470.4	0.0	0.0
EVA CRANE OP	7.6	0.0	0.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6	67.2	0.0	0.0
EVA SERVICE TECH	7.6	0.0	0.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
635.	0.	0.	713.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	108.8
MED/BIO RESEARCH	0.0
PHYS SCI RESEARC	54.0
EARTH, OCEAN OBS	295.0
ENGINEERING	0.0
ASTROPHSICS	67.0
S/C SYS - DATA	8.4
S/C SYS - ELEC	26.4
S/C SYS - MECH	5.6
S/C SYS - FLUIDS	25.9
SP STA SYS OPS	554.0
EVA CRANE OP	106.3
EVA SERVICE TECH	96.9
MANNED OTV PILOT	0.0
TMS PILOT	0.0
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 3.7 PEOPLE

LOW INCLINATION

DURATION SUMMARY FOR YEAR 1997 IN MANDAYS/YR

STS OPERATIONS	44.3
CONSTRUCTION	51.6
OTV OPERATIONS	36.8
OTV MISSIONS	23.1
SERVICING OPERATIONS	536.5
SCIENCE & TECH DEMO	794.0

HIGH INCLINATION

DURATION SUMMARY FOR YEAR 1997 IN MANDAYS/YR

STS OPERATIONS	11.1
CONSTRUCTION	19.7

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OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	336.0
SCIENCE & TECH DEMO	416.0

SUMMARY OF SPACE STATION PAYLOADS THIS YEAR

KEY	TITLE	PLCODE	INCL	PK POWER	DUTY CYCLE
S001	EARTH OBSERV PALLET	SPCL	98.0	3.5	82.2
S004	UPPER ATMOS RESEARCH PKG	SPCL	98.0	2.2	54.8
OT03	SPACE STATION MODULES	SSSS	98.0	15.0	100.0
OT04	HI-INCL STATION RESUPPLY	SORS	98.0	1.0	100.0
SP02	SPACE PHYSICS PALLET	SPCM	98.0	10.0	9.9
SA01	VLBI/COSMIC RAY PKG	SPCL	98.0	2.0	100.0
SL01	HUMAN LIFE SI CARRY-ONS	SSSA	29.0	1.7	100.0
SL02	SMALL MAMMALS CARRY-ONS	SSSA	29.0	4.0	100.0
SL03	PLANT DEVEL CARRY-ONS	SSSA	29.0	0.5	100.0
SL04	LIFESCIENCES RES FAC	SPXX	29.0	12.2	100.0
CM01	MATLS SCIENCE LAB	SPXX	29.0	25.0	35.6
CM02	CRYSTAL GROWTH FACTORY/PLAT	PMCL	29.0	0.0	100.0
CM03	CRYSTAL GROWTH RESUP-1	PMXX	29.0	0.0	0.5
CM04	CRYSTAL GROWTH RESUP-2	PMCL	29.0	0.0	0.5
SA02	ASTRO TELESCOPE CLUSTER	SPXX	29.0	4.0	100.0
SA03	ASTROPHYSICS FREE-FLYER	FMXM	29.0	0.0	100.0
SA04	ASTROPHYSICS OBSERVATORIES	FMXM	29.0	1.0	100.0

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CC03	INTELSAT-7,7A CLASS COMSAT	FXCL	0.0	0.0	0.0
CC04	MULTIBEAM COMM. SATELLITE	SSCM	0.0	0.0	0.0
CC05	RECONFIGURABLE COMM. SATELLITE	FXCM	0.0	0.0	1.9
CM05	CONT FLOW ELEC-TROPH PLATFORM	PMCL	29.0	0.0	100.0
CM06	CONTINUOUS FLOW ELECTRO RESUPP	PMXL	29.0	2.0	0.0
OT01	LOW INCL STA MODULE DEL	SSSS	29.0	20.0	100.0
OT02	LOW INCL STA RESUPPLY	SORS	29.0	0.0	100.0
TC01	ROBOTICS TECH DEMO	SSCM	29.0	3.0	24.7
TS02	TECH DEVEL CARRY-ONS	SSSA	29.0	0.5	6.8

LOW INCLINATION

PEAK POWER	AVERAGE POWER
73.9	53.1

HIGH INCLINATION

PEAK POWER	AVERAGE POWER
33.7	23.0

RESOURCES SUMMARY FOR LOW INCLINATION SPACE STATION

INTERNAL VOLUME	11.8 CUBIC METERS
POWER	53.1 KW
NO. OF PORTS	3.

RESOURCES SUMMARY FOR HIGH INCLINATION SPACE STATION

INTERNAL VOLUME	6.4 CUBIC METERS
POWER	23.0 KW
NO. OF PORTS	4.

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POINTING & DISTURBANCE SUMMARY FOR LOW INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350
SL01	----------														
CM01						----------									
CM02	----------														
CM03								-							
CM04								-							
SA02	**********														
SA03	----------														
SA04	----------														
CC03								-							
CC04								-							
CC05								-							
CM05	----------														
CM06								-							
OT01	----------														
OT02	----------														
TC01						----------									
TS02							-----								

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POINTING & DISTURBANCE SUMMARY FOR HIGH INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

```
                                1   1   1   1   2   2   2   2   3   3   3
      2   5   7   0   2   5   7   0   2   5   7   0   2   5
  0   5   0   5   0   5   0   5   0   5   0   5   0   5   0
S001 000000000000000000000000000000000000000000000000000000000000000000000000000
S004 000000000000000000000000000000000000000000000000000000000
0T03 -------------------------------------------------------------------------
0T04 -------------------------------------------------------------------------
SP02 0000000
SA01 ***************************************************************************
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* * * SPACE STATION OPERATIONS ANALYSIS FOR YEAR 1998 * * *

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 1
NUMBER OF FLIGHTS: 1 PRIME MISSION: **MULTIBEAM COMM SATELLITE OUTCOME # IS 0 KEY IS CC04
INCLINATION IS 0.00
CODE IS SSCM
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	1.661
SP STA SYS OPS	10.075
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

OTV OPERATIONS

UNADJUSTED DURATIONS
MAINTAIN STAGE = 1.150
MATE TO PAYLD = 0.131
STAGE/STAGE MATE = 0.210

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OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	2.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 8.756AWAY 4.200

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	6.987
S/C SYS - ELEC	9.160
S/C SYS - MECH	7.470
S/C SYS - FLUIDS	7.879
SP STA SYS OPS	16.972
EVA CRANE OP	8.636
EVA SERVICE TECH	15.881
MANNED OTV PILOT	8.660

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.700
TEST & C/O	=	3.400
MODULE MATE	=	0.152
FAB STRUCT	=	0.246

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 11.650

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OF POOR QUALITY

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT******			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	5.776
S/C SYS - ELEC	3.730
S/C SYS - MECH	3.730
S/C SYS - FLUIDS	3.570
SP STA SYS OPS	23.299
EVA CRANE OP	8.502
EVA SERVICE TECH	5.562

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 1 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	11.6
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 2
NUMBER OF FLIGHTS: 1 PRIME MISSION: **INTELSAT-7,7A CLASS COMSAT OUTCOME # IS 0 KEY IS CC03
INCLINATION IS 0.00
CODE IS FXCL
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)

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ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - FLUIDS	1.661
SP STA SYS OPS	10.075
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

OTV OPERATIONS

UNADJUSTED DURATIONS

MAINTAIN STAGE	=	1.150
MATE TO PAYLD	=	0.131
STAGE/STAGE MATE	=	0.210
OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	2.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 8.756AWAY 4.200

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	6.987
S/C SYS - ELEC	9.160
S/C SYS - MECH	7.470
S/C SYS - FLUIDS	7.879
SP STA SYS OPS	16.972
EVA CRANE OP	8.636
EVA SERVICE TECH	15.881
MANNED OTV PILOT	8.660

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.280
TEST & C/O	=	0.486

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 2.146

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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MATLS SCIENCE	0.0.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	0.816
S/C SYS - ELEC	0.510
S/C SYS - MECH	0.510
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	4.292
EVA CRANE OP	2.251
EVA SERVICE TECH	1.075

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	2.1
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

TYPE #1 = 2 TYPE #2 = 2

***>> FLIGHT NO. 3
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: RECONFIGURABLE COMM. SATELLITE OUTCOME # IS 0
KEY IS CC05
CODE IS FXCM

. SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 2.739

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, [illegible]N OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

SP STA SYS OPS	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	5.741
EVA CRANE OP	5.040
EVA SERVICE TECH	5.040

OTV OPERATIONS

UNADJUSTED DURATIONS

MAINTAIN STAGE	=	1.150
MATE TO PAYLD	=	0.131
STAGE/STAGE MATE	=	0.210
OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	7.000

ADJ OTV OP DURATION FOR SECOND MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 19.256AWA, 14.700

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	17.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	19.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	13.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	29.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	17.487
S/C SYS - ELEC	19.660
S/C SYS - MECH	17.970
S/C SYS - FLUIDS	16.718

ORIGINAL PAGE IS
OF POOR QUALITY

SP STA SYS OPS	12.638
EVA CRANE OP	6.116
EVA SERVICE TECH	13.361
MANNED OTV PILOT	29.660

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	19.3
OTV MISSIONS	14.7

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.140
TEST & C/O	=	3.400
MODULE MATE	=	0.152

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 9.956

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	5.776
S/C SYS - ELEC	3.730
S/C SYS - MECH	3.730
S/C SYS - FLUIDS	3.570

ORIGINAL PAGE IS
OF POOR QUALITY

SP STA SYS OPS	19.912
EVA CRANE OP	5.632
EVA SERVICE TECH	5.044

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	10.0
OTV OPERATIONS	19.3
OTV MISSIONS	14.7

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 4
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	8.261
EVA CRANE OP	7.560

ORIGINAL PAGE IS
OF POOR QUALITY

EVA SERVICE TECH 7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 4 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 1

***>> FLIGHT NO. 5
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: CENTRIFUGE (ADD TO LSRF) OUTCOME # IS 0
KEY IS SL05
CODE IS SSCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 2.651

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	5.478
EVA CRANE OP	5.040

ORIGINAL PAGE IS
OF POOR QUALITY

EVA SERVICE TECH 5.040

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 5 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.718

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.436
EVA CRANE OP	1.394
EVA SERVICE TECH	1.394

ORIGINAL PAGE IS OF POOR QUALITY

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 5 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	1.7
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 6
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	8.261
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

ORIGINAL PAGE IS
OF POOR QUALITY

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 6 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 7
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: TMS DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	8.261
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 7 IN MANDAYS/YR

ORIGINAL PAGE IS OF POOR QUALITY

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 2

***>> FLIGHT NO. 8
NUMBER OF FLIGHTS: 4 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS
SECOND MISSION: CRYSTAL GROWTH RESUP-2 OUTCOME # IS 0
KEY IS CM04
CODE IS PMCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 4 FLIGHTS: 15.646

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	31.994
EVA CRANE OP	30.240
EVA SERVICE TECH	30.240

CONSTRUCTION OPERATIONS

ORIGINAL PAGE IS
OF POOR QUALITY

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 8 IN MANDAYS/YR

STS OPERATIONS	15.6
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 4 FLIGHTS, AT SPACE STATION 6.871

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	3.394
S/C SYS - ELEC	2.360
S/C SYS - MECH	2.360
S/C SYS - FLUIDS	2.041
SP STA SYS OPS	13.742
EVA CRANE OP	5.578
EVA SERVICE TECH	5.578

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 8 IN MANDAYS/YR

STS OPERATIONS	15.6
CONSTRUCTION OPERATIONS	6.9
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 9
NUMBER OF FLIGHTS: 1 PRIME MISSION: LOW INCL STA MODULE DEL OUTCOME # IS 0 KEY IS OT01
INCLINATION IS 29.00
CODE IS SSSS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 1.479

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CREW SKILL	MISSION RESULTS MANDAYS
SP STA SYS OPS	3.221
EVA CRANE OP	2.520
EVA SERVICE TECH	2.520

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 9 IN MANDAYS/YR

STS OPERATIONS	1.5
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 0

***>> FLIGHT NO. 10
NUMBER OF FLIGHTS: 4 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS -2 KEY IS CM06

ORIGINAL PAGE IS
OF POOR QUALITY

INCLINATION IS 29.00
CODE IS PMXL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 4 FLIGHTS: 5.915

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	12.882
EVA CRANE OP	10.080
EVA SERVICE TECH	10.080

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 10 IN MANDAYS/YR

STS OPERATIONS	5.9
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 11
NUMBER OF FLIGHTS: 4 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS 0T02
INCLINATION IS 29.00
CODE IS SORS

SHUTTLE OPERATIONS

ORIGINAL PAGE IS
OF POOR QUALITY

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 4 FLIGHTS: 10.955

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS	22.962
EVA CRANE OP	20.160
EVA SERVICE TECH	20.160

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 11 IN MANDAYS/YR

STS OPERATIONS	11.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 12
NUMBER OF FLIGHTS: 1 PRIME MISSION: SPACE STATION MODULES OUTCOME # IS 0 KEY IS 0T03
INCLINATION IS 98.00
CODE IS SSSS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000

ORIGINAL PAGE IS
OF POOR QUALITY

ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 1.479

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS	3.221
EVA CRANE OP	2.520
EVA SERVICE TECH	2.520

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 12 IN MANDAYS/YR

STS OPERATIONS	1.5
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 13
NUMBER OF FLIGHTS: 2 PRIME MISSION: HI-INCL STATION RESUPPLY OUTCOME # IS 0 KEY IS OT04
INCLINATION IS 98.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 2 FLIGHTS: 5.478

ORIGINAL PAGE IS
OF POOR QUALITY

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	11.481
EVA CRANE OP	10.080
EVA SERVICE TECH	10.080

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 13 IN MANDAYS/YR

STS OPERATIONS	5.5
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

PAYLOADS SERVICING ANALYSIS

PAYLOAD WITH KEY S001 EARTH OBSERV PALLET

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 150.000

UPDATED WORK DURATION AT SP STA 150.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 15.000

EARTH, OCEAN OBS 150.000

S/C SYS - ELEC 7.500

S/C SYS - FLUIDS 7.500

SP STA SYS OPS 7.500

DURATION SUMMARY FOR PAYLOAD NO. 1 S001 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 150.0

PAYLOAD WITH KEY S004 UPPER ATMOS RESEARCH PKG

ORIGINAL PAGE IS
OF POOR QUALITY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 145.000

UPDATED WORK DURATION AT SP STA 145.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	14.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	145.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	7.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	7.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	7.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 14.500

EARTH, OCEAN OBS 145.000

S/C SYS - ELEC 7.250

S/C SYS - FLUIDS 7.250

SP STA SYS OPS 7.250

DURATION SUMMARY FOR PAYLOAD NO. 4 S004 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 145.0

PAYLOAD WITH KEY 0T03 SPACE STATION MODULES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ORIGINAL PAGE IS
OF POOR QUALITY

ADJUSTED SERVICING TIME FOR 5 OT03 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 5 OT03 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT04 HI-INCL STATION RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 6 OT04 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY SP02 SPACE PHYSICS PALLET

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
PHYSICS SCIENCE = 54.000

UPDATED WORK DURATION AT SP STA 54.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	54.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	5.400
PHYS SCI RESEARC	54.000
S/C SYS - ELEC	2.700
S/C SYS - FLUIDS	2.700
SP STA SYS OPS	2.700

DURATION SUMMARY FOR PAYLOAD NO. 8 SP02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	54.0

PAYLOAD WITH KEY SA01 VLBI/COSMIC RAY PKG

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

ASTROPHYSICS = 67.000

UPDATED WORK DURATION AT SP STA 67.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.7	0.0		0.0		0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0	
ASTROPHSICS	0.0	0.0	67.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0	
S/C SYS - ELEC	0.0	0.0	3.3	0.0		0.0		0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	3.3	0.0		0.0		0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0	
SP STA SYS OPS	0.0	0.0	3.3	0.0		0.0		0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0		0.0		0.0	0.0	

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS

ORIGINAL PAGE IS
OF POOR QUALITY

NO SPECIAL SKILL	6.700
ASTROPHSICS	67.000
S/C SYS - ELEC	3.350
S/C SYS - FLUIDS	3.350
SP STA SYS OPS	3.350

DURATION SUMMARY FOR PAYLOAD NO. 9 SA01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	67.0

PAYLOAD WITH KEY SL01 HUMAN LIFE SI CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

LIFE SCIENCE = 73.000

UPDATED WORK DURATION AT SP STA 73.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	73.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	7.300
MED/BIO RESEARCH	73.000
S/C SYS - ELEC	3.650

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - FLUIDS	3.650
SP STA SYS OPS	3.650

DURATION SUMMARY FOR PAYLOAD NO. 11 SL01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	73.0

PAYLOAD WITH KEY SL02 SMALL MAMMALS CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

LIFE SCIENCE = 41.000

UPDATED WORK DURATION AT SP STA 41.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	4.100
MED/BIO RESEARCH	41.000
S/C SYS - ELEC	2.050
S/C SYS - FLUIDS	2.050
SP STA SYS OPS	2.050

ORIGINAL PAGE IS
OF POOR QUALITY

DURATION SUMMARY FOR PAYLOAD NO. 12 SL02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	41.0

PAYLOAD WITH KEY SL03 PLANT DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 14.000

UPDATED WORK DURATION AT SP STA 14.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	1.400
MED/BIO RESEARCH	14.000
S/C SYS - ELEC	0.700
S/C SYS - FLUIDS	0.700
SP STA SYS OPS	0.700

DURATION SUMMARY FOR PAYLOAD NO. 13 SL03 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	14.0

ORIGINAL PAGE IS
OF POOR QUALITY

PAYLOAD WITH KEY SL04 LIFESCIENCES RES FAC

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 191.000

UPDATED WORK DURATION AT SP STA 191.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	19.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	191.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 19.100

MED/BIO RESEARCH 191.000

S/C SYS - ELEC 9.550

S/C SYS - FLUIDS 9.550

SP STA SYS OPS 9.550

DURATION SUMMARY FOR PAYLOAD NO. 14 SL04 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 191.0

PAYLOAD WITH KEY SL05 CENTRIFUGE (ADD TO LSRF)

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS

ORIGINAL PAGE IS
OF POOR QUALITY

CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 91.000

UPDATED WORK DURATION AT SP STA 91.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS***				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	91.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	9.100
MED/BIO RESEARCH	91.000
S/C SYS - ELEC	4.550
S/C SYS - FLUIDS	4.550
SP STA SYS OPS	4.550

DURATION SUMMARY FOR PAYLOAD NO. 15 SL05 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	91.0

PAYLOAD WITH KEY CM01 MATLS SCIENCE LAB

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

ORIGINAL PAGE IS
OF POOR QUALITY

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 300.000

UPDATED WORK DURATION AT SP STA 300.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 17 CM01 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 300.0

PAYLOAD WITH KEY CM02 CRYSTAL GROWTH FACTORY/PLAT

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
REMOTE SERVICE = 36.000
TEST & C/O = 1.944
TMS LAUNCH = 0.328
TMS OPS = 12.000
TMS CREW OPS = 12.000
TMS CAPTURE/BRTH = 0.168
TMS MAINT/REFUEL = 4.400
CREW MOD MAINT = 6.840

ADJUSTED SERVICING TIME FOR 18 CM02 154.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	126.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC.	0.0	0.0	0.0	0.0	0.0	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	125.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	44.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	143.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	254.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	61.471
S/C SYS - DATA	126.739
S/C SYS - ELEC	54.818
S/C SYS - MECH	125.800
S/C SYS - FLUIDS	44.206
SP STA SYS OPS	143.136
EVA SERVICE TECH	56.952
TMS PILOT	254.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 18 CM02 IN MANDAYS/YR

SERVICING OPERATIONS	154.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM03 CRYSTAL GROWTH RESUP-1

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	12.000
TEST & C/O	=	1.458
TMS LAUNCH	=	0.246
TMS OPS	=	9.000
TMS CREW OPS	=	9.000
TMS CAPTURE/BRTH	=	0.126
TMS MAINT/REFUEL	=	3.300
CREW MOD MAINT	=	5.130

ADJUSTED SERVICING TIME FOR 19 CM03 84.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

ORIGINAL PAGE IS
OF POOR QUALITY

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	30.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	79.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	25.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	78.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	75.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	42.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	127.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	30.353
S/C SYS - DATA	79.304
S/C SYS - ELEC	25.364
S/C SYS - MECH	78.600
S/C SYS - FLUIDS	17.404
SP STA SYS OPS	75.852
EVA SERVICE TECH	42.714
TMS PILOT	127.562

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 19 CM03 IN MANDAYS/YR

SERVICING OPERATIONS	84.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM04 CRYSTAL GROWTH RESUP-2

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	16.000.
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400

ORIGINAL PAGE IS
OF POOR QUALITY

CREW MOD MAINT = 6.840

ADJUSTED SERVICING TIME FOR 20 CM04 112.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	40.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	105.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	33.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	104.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	23.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	101.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	170.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	40.471
S/C SYS - DATA	105.739
S/C SYS - ELEC	33.818
S/C SYS - MECH	104.800
S/C SYS - FLUIDS	23.206
SP STA SYS OPS	101.136
EVA SERVICE TECH	56.952
TMS PILOT	170.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 20 CM04 IN MANDAYS/YR

SERVICING OPERATIONS	112.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA02 ASTRO TELESCOPE CLUSTER

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

ORIGINAL PAGE IS
OF POOR QUALITY

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
ASTROPHYSICS = 65.000

UPDATED WORK DURATION AT SP STA 65.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED.BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	6.500
ASTROPHSICS	65.000
S/C SYS - ELEC	3.250
S/C SYS - FLUIDS	3.250
SP STA SYS OPS	3.250

DURATION SUMMARY FOR PAYLOAD NO. 21 SA02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	65.0

PAYLOAD WITH KEY SA04 ASTROPHYSICS OBSERVATORIES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	6.000
TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042

ORIGINAL PAGE IS
OF POOR QUALITY

TMS MAINT/REFUEL = 1.100
CREW MOD MAINT = 1.710

ADJUSTED SERVICING TIME FOR 23 SA04 38.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	40.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	41.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	50.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	15.278
S/C SYS - DATA	40.774
S/C SYS - ELEC	10.555
S/C SYS - MECH	29.524
S/C SYS - FLUIDS	8.513
SP STA SYS OPS	41.723
EVA SERVICE TECH	14.238
TMS PILOT	50.921

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 23 SA04 IN MANDAYS/YR

SERVICING OPERATIONS	38.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CC03 INTELSAT-7,7A CLASS COMSAT

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

ORIGINAL PAGE IS
OF POOR QUALITY

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 26 CC03 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CC04 MULTIBEAM COMM. SATELLITE

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS***				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 27 CC04 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CC05 RECONFIGURABLE COMM. SATELLITE

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS

ORIGINAL PAGE IS
OF POOR QUALITY

CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 28 CC05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CM05 CONT FLOW ELEC- TROPH PLATFORM

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

ADJUSTED SERVICING TIME FOR 29 CM05 0.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAILS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 29 CM05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CM06 CONTINUOUS FLOW ELECTRO RESUPP

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

ORIGINAL PAGE IS
OF POOR QUALITY

REMOTE SERVICE	=	48.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 30 CM06 179.9 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	74.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	139.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	67.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	138.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	56.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	168.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	304.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	74.071
S/C SYS - DATA	139.339
S/C SYS - ELEC	67.418
S/C SYS - MECH	138.400
S/C SYS - FLUIDS	56.806
SP STA SYS OPS	168.336
EVA SERVICE TECH	56.952
TMS PILOT	304.483

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 30 CM06 IN MANDAYS/YR

SERVICING OPERATIONS	179.9
SCIENCE & TECH DEMO	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

PAYLOAD WITH KEY 0T01 LOW INCL STA MODULE DEL

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 33 0T01 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RESEARCH MISSION RESULTS																
CREW SKILL MANDAYS																

DURATION SUMMARY FOR PAYLOAD NO. 33 OT01 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT02 LOW INCL STA RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 34 OT02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY TS02 TECH DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 20.000

UPDATED WORK DURATION AT SP STA 20.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDN TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0

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ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	4.000
ENGINEERING	20.000
S/C SYS - DATA	3.000
S/C SYS - ELEC	1.000
S/C SYS - MECH	1.000
S/C SYS - FLUIDS	4.000
SP STA SYS OPS	2.000
EVA CRANE OP	1.000
EVA SERVICE TECH	1.000
MANNED OTV PILOT	3.000

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DURATION SUMMARY FOR PAYLOAD NO. 45 TS02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	20.0

SKILL MIX SUMMARIES LOW INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	15.3	47.5	0.0	0.0	206.4	0.0	0.0	0.0	0.0	4.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	410.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	40.8	0.0	0.8	31.5	451.1	0.0	15.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	10.6	23.8	0.6	38.0	181.4	0.0	10.3	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	29.5	0.0	0.6	32.9	447.6	0.0	10.3	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	8.5	23.8	0.5	29.2	141.6	0.0	9.7	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	41.7	23.8	3.4	71.1	488.5	0.0	61.2	0.0	0.0	4.0	0.0	6.6	0.0	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	1.4	53.6	0.0	0.0	22.0	0.0	0.0	1.0	0.0	78.1	67.2	0.0	0.0
EVA SERVICE TECH	2.5	14.2	0.0	1.4	75.4	213.6	0.0	17.3	0.0	0.0	1.0	0.0	78.1	67.2	0.0	0.0

MANNED OTV PILOT	0.0	0.0	0.0	0.0	47.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	50.9	0.0	0.0	0.0	856.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
822.	3512.	40.	935.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	340.3
MED/BIO RESEARCH	410.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	20.0
ASTROPHSICS	65.0
S/C SYS - DATA	543.0
S/C SYS - ELEC	265.6
S/C SYS - MECH	522.0
S/C SYS - FLUIDS	223.9
SP STA SYS OPS	1264.8
EVA CRANE OP	225.8
EVA SERVICE TECH	470.7
MANNED OTV PILOT	50.0
TMS PILOT	907.1
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 14.5 PEOPLE

SKILL MIX SUMMARIES HIGH INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	41.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	54.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	295.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	20.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	20.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	20.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.7	470.4	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6	67.2	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT

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MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	108.8
MED/BIO RESEARCH	0.0
PHYS SCI RESEARC	54.0
EARTH, OCEAN OBS	295.0
ENGINEERING	0.0
ASTROPHSICS	67.0
S/C SYS - DATA	0.0
S/C SYS - ELEC	20.8
S/C SYS - MECH	0.0
S/C SYS - FLUIDS	20.8
SP STA SYS OPS	505.9
EVA CRANE OP	79.8
EVA SERVICE TECH	79.8
MANNED OTV PILOT	0.0
TMS PILOT	0.0
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 3.4 PEOPLE

LOW INCLINATION

DURATION SUMMARY FOR YEAR 1998 IN MANDAYS/YR

STS OPERATIONS	59.2
CONSTRUCTION	32.3
OTV OPERATIONS	36.8
OTV MISSIONS	23.1
SERVICING OPERATIONS	906.4
SCIENCE & TECH DEMO	795.0

HIGH INCLINATION

DURATION SUMMARY FOR YEAR 1998 IN MANDAYS/YR

STS OPERATIONS	7.0
CONSTRUCTION	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	336.0
SCIENCE & TECH DEMO	416.0

SUMMARY OF SPACE STATION PAYLOADS THIS YEAR

KEY	TITLE	PLCODE	INCL	PK POWER	DUTY CYCLE
S001	EARTH OBSERV PALLET	SPCL	98.0	3.5	82.2
S004	UPPER ATMOS RESEARCH PKG	SPCL	98.0	2.2	54.8

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OT03 SPACE STATION MODULES	SSSS	98.0	15.0	100.0
OT04 HI-INCL STATION RESUPPLY	SORS	98.0	1.0	100.0
SP02 SPACE PHYSICS PALLET	SPCM	98.0	10.0	9.9
SA01 VLBI/COSMIC RAY PKG	SPCL	98.0	2.0	100.0
SL01 HUMAN LIFE SI CARRY-ONS	SSSA	29.0	1.7	100.0
SL02 SMALL MAMMALS CARRY-ONS	SSSA	29.0	4.0	100.0
SL03 PLANT DEVEL CARRY-ONS	SSSA	29.0	0.5	100.0
SL04 LIFESCIENCES RES FAC	SPXX	29.0	12.2	100.0
SL05 CENTRIFUGE (ADD TO LSRF)	SSCL	29.0	4.0	100.0
CM01 MATLS SCIENCE LAB	SPXX	29.0	25.0	35.6
CM02 CRYSTAL GROWTH FACTORY/PLAT	PMCL	29.0	0.0	100.0
CM03 CRYSTAL GROWTH RESUP-1	PMXX	29.0	0.0	0.5
CM04 CRYSTAL GROWTH RESUP-2	PMCL	29.0	0.0	0.5
SA02 ASTRO TELESCOPE CLUSTER	SPXX	29.0	4.0	100.0
SA04 ASTROPHYSICS OBSERVATORIES	FMXM	29.0	1.0	100.0
CC03 INTELSAT-7,7A CLASS COMSAT	FXCL	0.0	0.0	0.0
CC04 MULTIBEAM COMM. SATELLITE	SSCM	0.0	0.0	0.0
CC05 RECONFIGURABLE COMM. SATELLITE	FXCM	0.0	0.0	1.9
CM05 CONT FLOW ELEC-TROPH PLATFORM	PMCL	29.0	0.0	100.0
CM06 CONTINUOUS FLOW ELECTRO RESUPP	PMXL	29.0	2.0	0.0

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OT01	LOW INCL STA MODULE DEL	SSSS	29.0	20.0	100.0
OT02	LOW INCL STA RESUPPLY	SORS	29.0	0.0	100.0
TS02	TECH DEVEL CARRY-ONS	SSSA	29.0	0.5	6.8

LOW INCLINATION

PEAK POWER	AVERAGE POWER
74.9	56.3

HIGH INCLINATION

PEAK POWER	AVERAGE POWER
33.7	23.0

RESOURCES SUMMARY FOR LOW INCLINATION SPACE STATION

INTERNAL VOLUME	11.8	CUBIC METERS
POWER	56.3	KW
NO. OF PORTS	3.	

RESOURCES SUMMARY FOR HIGH INCLINATION SPACE STATION

INTERNAL VOLUME	6.4	CUBIC METERS
POWER	23.0	KW
NO. OF PORTS	4.	

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POINTING & DISTURBANCE SUMMARY FOR LOW INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: x

DAYS/YEAR

	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350
SL01	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CM01						----------	----------	----------							
CM02	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CM03								-							
CM04								-							
SA02	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
SA04	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CC03								-							
CC04								-							
CC05								-							
CM05	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CM06								-							
OT01	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
OT02	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
TS02								-----							

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POINTING & DISTURBANCE SUMMARY FOR HIGH INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350
S001	0000000000000000000000000000000000000000000000000C000000000000000														
S004	000000000000000000000000000000000000000000														
OT03	----------														
OT04	----------														
SP02	0000000														
SA01	**********														

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* * * SPACE STATION OPERATIONS ANALYSIS FOR YEAR 1999 * * *

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 1
NUMBER OF FLIGHTS: 1 PRIME MISSION: **MULTIBEAM COMM SATELLITE OUTCOME # IS 0 KEY IS CC04
INCLINATION IS 0.00
CODE IS SSCM
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - FLUIDS 1.661

SP STA SYS OPS 10.075

EVA CRANE OP. 7.560

EVA SERVICE TECH 7.560

OTV OPERATIONS

UNADJUSTED DURATIONS
MAINTAIN STAGE = 1.150
MATE TO PAYLD = 0.131
STAGE/STAGE MATE = 0.210

ORIGINAL PAGE IS
OF POOR QUALITY

OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	2.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 8.756AWAY 4.200

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	6.987
S/C SYS - ELEC	9.160
S/C SYS - MECH	7.470
S/C SYS - FLUIDS	7.879
SP STA SYS OPS	16.972
EVA CRANE OP	8.636
EVA SERVICE TECH	15.881
MANNED OTV PILOT	8.660

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.700
TEST & C/O	=	3.400
MODULE MATE	=	0.152
FAB STRUCT	=	0.246

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 11.650

ORIGINAL PAGE IS
OF POOR QUALITY

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	5.776
S/C SYS - ELEC	3.730
S/C SYS - MECH	3.730
S/C SYS - FLUIDS	3.570
SP STA SYS OPS	23.299
EVA CRANE OP	8.502
EVA SERVICE TECH	5.562

ORIGINAL PAGE IS
OF POOR QUALITY

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 1 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	11.6
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

TYPE #1 = 4 TYPE #2 = 1

***>> FLIGHT NO. 2
NUMBER OF FLIGHTS: 1 PRIME MISSION: SPACE STATION MODULES OUTCOME # IS 0 KEY IS 0T03
INCLINATION IS 98.00
CODE IS SSSS
SECOND MISSION: SYNTH APERTURE RADAR OUTCOME # IS 0
KEY IS S002
CODE IS SPCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416

ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 2.651

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
EVA SERVICE TECH	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS CREW SKILL	MISSION RESULTS MANDAYS
SP STA SYS OPS	5.478
EVA CRANE OP	5.040
EVA SERVICE TECH	5.040

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 2 IN MANDAYS/YR.

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.140
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 2.012

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	4.024
EVA CRANE OP	1.982
EVA SERVICE TECH	1.394

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	2.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 3
NUMBER OF FLIGHTS: 1 PRIME MISSION: **CRYSTAL GROWTH FACTORY/PLAT OUTCOME # IS 0 KEY IS CM02
INCLINATION IS 29.00
CODE IS PMCL
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3792
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

ORIGINAL PAGE IS
OF POOR QUALITY

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	1.593
SP STA SYS OPS	9.989
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.718

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.436
EVA CRANE OP	1.394
EVA SERVICE TECH	1.394

DURATION SUMMARY FOR FIRST MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	1.7
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 4
NUMBER OF FLIGHTS: 1 PRIME MISSION: **INTELSAT-7,7A CLASS COMSAT OUTCOME # IS 0 KEY IS CC03
INCLINATION IS 0.00
CODE IS FXCL
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS

ORBITER ARRIVE	=	0.0416	
ORBITER OFFLOAD	=	0.6000	
ORBITER OFFLOAD	=	0.6000	(MISSION 2)
ORBITER RELOAD	=	0.6000	(MISSION 2)
ORBITER DEPART	=	0.0210	
ORBITER PROP XFR	=	0.3954	

ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS***				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - FLUIDS	1.661
SP STA SYS OPS	10.075
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

OTV OPERATIONS

UNADJUSTED DURATIONS

MAINTAIN STAGE	=	1.150
MATE TO PAYLD	=	0.131
STAGE/STAGE MATE	=	0.210
OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	2.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 8.756AWAY 4.200

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FIRST	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	6.987
S/C SYS - ELEC	9.160

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - MECH	7.470
S/C SYS - FLUIDS	7.879
SP STA SYS OPS	16.972
EVA CRANE OP	8.636
EVA SERVICE TECH	15.881
MANNED OTV PILOT	8.660

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.280
TEST & C/O	=	0.486

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 2.146

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FIRST CREW SKILL	MISSION RESULTS MANDAYS															
S/C SYS - DATA	0.816															
S/C SYS - ELEC	0.510															
S/C SYS - MECH	0.510															
S/C SYS - FLUIDS	0.510															
SP STA SYS OPS	4.292															
EVA CRANE OP	2.251															
EVA SERVICE TECH	1.075															

ORIGINAL PAGE IS
OF POOR QUALITY

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 4 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	2.1
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

TYPE #1 = 1 TYPE #2 = 2

***>> FLIGHT NO. 5
NUMBER OF FLIGHTS: 1 PRIME MISSION: **CLOSED ENV LSS EXPT MOD OUTCOME # IS 0 KEY IS SL06
INCLINATION IS 29.00
CODE IS SPCL
SECOND MISSION: RECONFIGURABLE COMM. SATELLITE OUTCOME # IS 0
KEY IS CC05
CODE IS FXCM

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 2.651

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
EVA SERVICE TECH	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	1.661
SP STA SYS OPS	7.555
EVA CRANE OP	5.040
EVA SERVICE TECH	5.040

ORIGINAL PAGE IS
OF POOR QUALITY

OTV OPERATIONS

UNADJUSTED DURATIONS

MAINTAIN STAGE	=	1.150
MATE TO PAYLD	=	0.131
STAGE/STAGE MATE	=	0.210
OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	7.000

ADJ OTV OP DURATION FOR SECOND MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 19.256AWAY 14.700

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	17.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	19.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
EVA SERVICE TECH	2.5	0.0	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	29.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	17.487
S/C SYS - ELEC	19.660
S/C SYS - MECH	17.970
S/C SYS - FLUIDS	18.379
SP STA SYS OPS	14.452
EVA CRANE OP	6.116
EVA SERVICE TECH	13.361
MANNED OTV PILOT	29.660

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056

ORIGINAL PAGE IS
OF POOR QUALITY

TEST & C/O = 0.486
MODULE MATE = 0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.718

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.436
EVA CRANE OP	1.394
EVA SERVICE TECH	1.394

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 5 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	1.7
OTV OPERATIONS	19.3
OTV MISSIONS	14.7

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.993
MATE TO FIXT = 0.056
DEPLOY/ASSEMBLE = 0.140
TEST & C/O = 3.400
MODULE MATE = 0.152

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 11.674

ORIGINAL PAGE IS
OF POOR QUALITY

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.8	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.6	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.6	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.5	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	3.4	0.0	0.0	0.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	1.4	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	1.4	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANRED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS

SECOND CREW SKILL	MANDAYS
S/C SYS - DATA	6.624
S/C SYS - ELEC	4.320
S/C SYS - MECH	4.320
S/C SYS - FLUIDS	4.080
SP STA SYS OPS	23.348
EVA CRANE OP	7.027
EVA SERVICE TECH	6.439

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 5 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	11.7
OTV OPERATIONS	19.3
OTV MISSIONS	14.7

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 6
NUMBER OF FLIGHTS: 1 PRIME MISSION: **CRYSTAL GROWTH RESUP-2 OUTCOME # IS 0 KEY IS CM04
INCLINATION IS 29.00
CODE IS PMCL
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)

ORIGINAL PAGE IS
OF POOR QUALITY

ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3304
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - FLUIDS	1.388
SP STA SYS OPS	9.733
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.200
MATE TO FIXT = 0.056
TEST & C/O = 0.486
MODULE MATE = 0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.718

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.436
EVA CRANE OP	1.394
EVA SERVICE TECH	1.394

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 6 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	1.7
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 7
NUMBER OF FLIGHTS: 2 PRIME MISSION: HI-INCL STATION RESUPPLY OUTCOME # IS 0 KEY IS OT04
INCLINATION IS 98.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 2 FLIGHTS: 5.303

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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OF POOR QUALITY

S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	MISSION RESULTS															
CREW SKILL	MANDAYS															
SP STA SYS OPS	10.957															
EVA CRANE OP	10.080															
EVA SERVICE TECH	10.080															

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 7 IN MANDAYS/YR

STS OPERATIONS	5.3
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 0

***>> FLIGHT NO. 8
NUMBER OF FLIGHTS: 4 PRIME MISSION: **CRYSTAL GROWTH RESUP-2 OUTCOME # IS 0 KEY IS CM04
INCLINATION IS 29.00
CODE IS PMCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 4 FLIGHTS: 5.566

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		1.7	0.0	0.0	0.0	

ORIGINAL PAGE IS
OF POOR QUALITY

SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - FLUIDS	6.643
SP STA SYS OPS	20.138
EVA CRANE OP	10.080
EVA SERVICE TECH	10.080

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 4 FLIGHTS, AT SPACE STATION 6.871

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	3.394
S/C SYS - ELEC	2.360
S/C SYS - MECH	2.360
S/C SYS - FLUIDS	2.041
SP STA SYS OPS	13.742

ORIGINAL PAGE IS
OF POOR QUALITY

EVA CRANE OP 5.578

EVA SERVICE TECH 5.578

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 8 IN MANDAYS/YR

STS OPERATIONS	5.6
CONSTRUCTION OPERATIONS	6.9
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 0

***>> FLIGHT NO. 10
NUMBER OF FLIGHTS: 11 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 11 FLIGHTS: 15.306

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	32.543
EVA CRANE OP	27.720
EVA SERVICE TECH	27.720

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 10 IN MANDAYS/YR

STS OPERATIONS	15.3
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 11
NUMBER OF FLIGHTS: 8 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS

ORBITER ARRIVE	=	0.0416
ORBITER OFFLOAD	=	0.6000
ORBITER RELOAD	=	0.6000
ORBITER DEPART	=	0.0210

ADJ STS DURATION AT SP STA FOR TOTAL OF 8 FLIGHTS: 21.212

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	43.828
EVA CRANE OP	40.320
EVA SERVICE TECH	40.320

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 11 IN MANDAYS/YR

STS OPERATIONS	21.2
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

PAYLOADS SERVICING ANALYSIS

PAYLOAD WITH KEY S001 EARTH OBSERV PALLET

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 150.000

UPDATED WORK DURATION AT SP STA 150.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	15.000
EARTH, OCEAN OBS	150.000
S/C SYS - ELEC	7.500
S/C SYS - FLUIDS	7.500
SP STA SYS OPS	7.500

DURATION SUMMARY FOR PAYLOAD NO. 1 S001 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	150.0

PAYLOAD WITH KEY S002 SYNTH APERTURE RADAR

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 5.000

UPDATED WORK DURATION AT SP STA 5.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN OP	CONST		OPS	SERV	MSN OP	CONST		OPS	SERV	MSN OP	CONST		OPS	SERV	MSN OP	CONST	
NO SPECIAL SKILL	0.0	0.0	0.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	5.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 0.500

EARTH, OCEAN OBS 5.000

S/C SYS - ELEC 0.250

S/C SYS - FLUIDS 0.250

SP STA SYS OPS 0.250

DURATION SUMMARY FOR PAYLOAD NO. 2 S002 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 5.0

PAYLOAD WITH KEY S004 UPPER ATMOS RESEARCH PKG

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 145.000

UPDATED WORK DURATION AT SP STA 145.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	145.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	14.500
EARTH, OCEAN OBS	145.000
S/C SYS - ELEC	7.250
S/C SYS - FLUIDS	7.250
SP STA SYS OPS	7.250

DURATION SUMMARY FOR PAYLOAD NO. 4 S004 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	145.0

PAYLOAD WITH KEY OT03 SPACE STATION MODULES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 5 OT03 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***	***COMMERC MISSIONS***	***TECH DEV MISSIONS**	****OPER SUPPORT*****

	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 5 OT03 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT04 HI-INCL STATION RESUPPLY

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 6 OT04 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY SP02 SPACE PHYSICS PALLET

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
PHYSICS SCIENCE = 54.000

UPDATED WORK DURATION AT SP STA 54.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	54.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	5.400
PHYS SCI RESEARC	54.000
S/C SYS - ELEC	2.700
S/C SYS - FLUIDS	2.700
SP STA SYS OPS	2.700

DURATION SUMMARY FOR PAYLOAD NO. 8 SP02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 54.0

PAYLOAD WITH KEY SA01 VLBI/COSMIC RAY PKG

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
ASTROPHYSICS = 67.000

UPDATED WORK DURATION AT SP STA 67.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	6.700
ASTROPHSICS	67.000
S/C SYS - ELEC	3.350

S/C SYS - FLUIDS	3.350
SP STA SYS OPS	3.350

DURATION SUMMARY FOR PAYLOAD NO. 9 SA01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	67.0

PAYLOAD WITH KEY SL01 HUMAN LIFE SI CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

LIFE SCIENCE = 73.000

UPDATED WORK DURATION AT SP STA 73.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	73.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	7.300
MED/BIO RESEARCH	73.000
S/C SYS - ELEC	3.650
S/C SYS - FLUIDS	3.650
SP STA SYS OPS	3.650

DURATION SUMMARY FOR PAYLOAD NO. 11 SL01 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 73.0

PAYLOAD WITH KEY SL02 SMALL MAMMALS CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

1. UNADJUSTED DURATIONS
LIFE SCIENCE = 41.000

UPDATED WORK DURATION AT SP STA 41.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	4.100
MED/BIO RESEARCH	41.000
S/C SYS - ELEC	2.050
S/C SYS - FLUIDS	2.050
SP STA SYS OPS	2.050

DURATION SUMMARY FOR PAYLOAD NO. 12 SL02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 41.0

PAYLOAD WITH KEY SL03 PLANT DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 14.000

UPDATED WORK DURATION AT SP STA 14.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	1.4	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	14.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	1.400
MED/BIO RESEARCH	14.000
S/C SYS - ELEC	0.700
S/C SYS - FLUIDS	0.700
SP STA SYS OPS	0.700

DURATION SUMMARY FOR PAYLOAD NO. 13 SL03 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	14.0

PAYLOAD WITH KEY SL04 LIFESCIENCES RES FAC

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 191.000

UPDATED WORK DURATION AT SP STA 191.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	19.1	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	191.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	9.6	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	9.6	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	9.6	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	19.100
MED/BIO RESEARCH	191.000
S/C SYS - ELEC	9.550
S/C SYS - FLUIDS	9.550
SP STA SYS OPS	9.550

DURATION SUMMARY FOR PAYLOAD NO. 14 SL04 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	191.0

PAYLOAD WITH KEY SL05 CENTRIFUGE (ADD TO LSRF)

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 91.000

UPDATED WORK DURATION AT SP STA 91.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	91.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	9.100
MED/BIO RESEARCH	91.000
S/C SYS - ELEC	4.550
S/C SYS - FLUIDS	4.550
SP STA SYS OPS	4.550

DURATION SUMMARY FOR PAYLOAD NO. 15 SL05 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	91.0

PAYLOAD WITH KEY SL06 CLOSED ENV LSS EXPT MOD

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 547.500

UPDATED WORK DURATION AT SP STA 547.5 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	547.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	54.750
MED/BIO RESEARCH	547.500
S/C SYS - ELEC	27.375
S/C SYS - FLUIDS	27.375
SP STA SYS OPS	27.375

DURATION SUMMARY FOR PAYLOAD NO. 16 SL06 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	547.5

PAYLOAD WITH KEY CM01 MATLS SCIENCE LAB

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 300.000

UPDATED WORK DURATION AT SP STA 300.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 17 CM01 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 300.0

PAYLOAD WITH KEY CM02 CRYSTAL GROWTH FACTORY/PLAT

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	36.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 18 CM02 154.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	126.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	125.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	44.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	143.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TMS PILOT	0.0	0.0	0.0	0.0	0.0	254.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	61.471
S/C SYS - DATA	126.739
S/C SYS - ELEC	54.818
S/C SYS - MECH	125.800
S/C SYS - FLUIDS	44.206
SP STA SYS OPS	143.136
EVA SERVICE TECH	56.952
TMS PILOT	254.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 18 CM02 IN MANDAYS/YR

SERVICING OPERATIONS	154.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM03 CRYSTAL GROWTH RESUP-1

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	12.000
TEST & C/O	=	1.458
TMS LAUNCH	=	0.246
TMS OPS	=	9.000
TMS CREW OPS	=	9.000
TMS CAPTURE/BRTH	=	0.126
TMS MAINT/REFUEL	=	3.300
CREW MOD MAINT	=	5.130

ADJUSTED SERVICING TIME FOR 19 CM03 84.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	30.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	79.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	25.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	78.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	75.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	42.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	127.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	30.353
S/C SYS - DATA	79.304
S/C SYS - ELEC	25.364
S/C SYS - MECH	78.600
S/C SYS - FLUIDS	17.404
SP STA SYS OPS	75.852
EVA SERVICE TECH	42.714
TMS PILOT	127.562

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 19 CM03 IN MANDAYS/YR

SERVICING OPERATIONS	84.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM04 CRYSTAL GROWTH RESUP-2

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	16.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 20 CM04 112.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	40.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	105.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	33.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	104.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	23.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	101.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	170.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	40.471
S/C SYS - DATA	105.739
S/C SYS - ELEC	33.818
S/C SYS - MECH	104.800
S/C SYS - FLUIDS	23.206
SP STA SYS OPS	101.136
EVA SERVICE TECH	56.952
TMS PILOT	170.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 20 CM04 IN MANDAYS/YR

SERVICING OPERATIONS	112.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA02 ASTRO TELESCOPE CLUSTER

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

ASTROPHYSICS = 65.000

UPDATED WORK DURATION AT SP STA 65.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	6.500
ASTROPHSICS	65.000
S/C SYS - ELEC	3.250
S/C SYS - FLUIDS	3.250
SP STA SYS OPS	3.250

DURATION SUMMARY FOR PAYLOAD NO. 21 SA02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	65.0

PAYLOAD WITH KEY SA04 ASTROPHYSICS OBSERVATORIES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	6.000
TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 23 SA04 38.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	40.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	41.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	50.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	15.278
S/C SYS - DATA	40.774
S/C SYS - ELEC	10.555
S/C SYS - MECH	29.524
S/C SYS - FLUIDS	8.513
SP STA SYS OPS	41.723
EVA SERVICE TECH	14.238
TMS PILOT	50.921

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 23 SA04 IN MANDAYS/YR

SERVICING OPERATIONS	38.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CC03 INTELSAT-7,7A CLASS COMSAT

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS.

DURATION SUMMARY FOR PAYLOAD NO. 26 CC03 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CC04 MULTIBEAM COMM. SATELLITE

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTIED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 27 CC04 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CC05 RECONFIGURABLE ' COMM. SATELLITE

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 28 CC05 IN MANDAYS/YR

SERVICING OPERATIONS	0.0

SCIEN_ & TECH DEMO 0.0

PAYLOAD WITH KEY CM05 CONT FLOW ELEC- TROPH PLATFORM

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

ADJUSTED SERVICING TIME FOR 29 CM05 0.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 29 CM05 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM06 CONTINUOUS FLOW ELECTRO RESUPP

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	48.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 30 CM06 179.9 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	74.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	139.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	67.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	138.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	56.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	168.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	304.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	74.071
S/C SYS - DATA	139.339
S/C SYS - ELEC	67.418
S/C SYS - MECH	138.400
S/C SYS - FLUIDS	56.806
SP STA SYS OPS	168.336
EVA SERVICE TECH	56.952
TMS PILOT	304.483

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 30 CM06 IN MANDAYS/YR

SERVICING OPERATIONS	179.9
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY OT01 LGW INCL STA MODULE DEL

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 33 OT01 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 33 OT01 IN MANDAYS/YR

SERVICING OPERATIONS . 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT02 LOW INCL STA RESUPPLY

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 34 OT02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT05 HI-ALT STA RESUPPLY

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 35 OT05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY TS02 TECH DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 20.000

UPDATED WORK DURATION AT SP STA 20.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***		***COMMERC MISSIONS***		***TECH DEV MISSIONS**		****OPER SUPPORT*****	
	OPS SERV	MSN OP CONST	OPS SERV	MSN OP CONST	OPS SERV	MSN OP CONST	OPS SERV	MSN OP CONST

NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	4.000
ENGINEERING	20.000
S/C SYS - DATA	3.000
S/C SYS - ELEC	1.000
S/C SYS - MECH	1.000
S/C SYS - FLUIDS	4.000
SP STA SYS OPS	2.000
EVA CRANE OP	1.000
EVA SERVICE TECH	1.000
MANNED OTV PILOT	3.000

DURATION SUMMARY FOR PAYLOAD NO. 45 TS02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	20.0

SKILL MIX SUMMARIES LOW INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	15.3	102.3	0.0	0.0	206.4	0.0	0.0	0.0	0.0	4.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	957.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	40.8	0.0	1.7	31.5	451.1	0.0	17.5	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	10.6	51.1	1.2	38.0	181.4	0.0	11.5	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0

S/C SYS - MECH	0.0	29.5	0.0	1.2	32.9	447.6	0.0	11.5	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	8.5	51.1	1.0	29.2	141.6	0.0	10.7	0.0	0.0	4.0	0.0	19.6	0.0	0.0	0.0
SP STA SYS OPS	5.0	41.7	51.1	6.9	78.7	488.5	0.0	68.1	0.0	0.0	2.0	0.0	108.6	470.4	0.0	0.0
EVA CRANE OP	5.0	0.0	0.0	2.8	61.2	0.0	0.0	24.8	0.0	0.0	1.0	0.0	70.6	67.2	0.0	0.0
EVA SERVICE TECH	5.0	14.2	0.0	2.8	82.9	213.6	0.0	20.0	0.0	0.0	1.0	0.0	70.6	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	47.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	50.9	0.0	0.0	0.0	856.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
1522.	3552.	40.	941.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	395.1
MED/BIO RESEARCH	957.5
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	20.0
ASTROPHSICS	65.0
S/C SYS - DATA	545.5
S/C SYS - ELEC	294.8
S/C SYS - MECH	523.7
S/C SYS - FLUIDS	265.7
SP STA SYS OPS	1321.0
EVA CRANE OP	232.5
EVA SERVICE TECH	477.4
MANNED OTV PILOT	50.0
TMS PILOT	907.1
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 16.6 PEOPLE

SKILL MIX SUMMARIES HIGH INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	42.1	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	67.2	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	54.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	300.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	67.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.8		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	21.1	0.6		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.6		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	21.1	0.5		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	2.5	0.0	21.1	4.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		13.9	470.4	0.0	0.0	
EVA CRANE OP	2.5	0.0	0.0	2.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		12.6	67.2	0.0	0.0	
EVA SERVICE TECH	2.5	0.0	0.0	1.4		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		12.6	67.2	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
544.	0.	0.	711.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	109.3
MED/BIO RESEARCH	0.0
PHYS SCI RESEARC	54.0
EARTH, OCEAN OBS	300.0
ENGINEERING	0.0
ASTROPHSICS	67.6
S/C SYS - DATA	0.8
S/C SYS - ELEC	21.6
S/C SYS - MECH	0.6
S/C SYS - FLUIDS	21.6
SP STA SYS OPS	511.9
EVA CRANE OP	84.3
EVA SERVICE TECH	83.7
MANNED OTV PILOT	0.0
TMS PILOT	0.0
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 3.4 PEOPLE

LOW INCLINATION

DURATION SUMMARY FOR YEAR 1999 IN MANDAYS/YR

STS OPERATIONS	60.4
CONSTRUCTION	37.5
OTV OPERATIONS	36.8
OTV MISSIONS	23.1
SERVICING OPERATIONS	906.4
SCIENCE & TECH DEMO	1342.5

HIGH INCLINATION

DURATION SUMMARY FOR YEAR 1999 IN MANDAYS/YR

STS OPERATIONS	8.0
CONSTRUCTION	2.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	336.0
SCIENCE & TECH DEMO	421.0

SUMMARY OF SPACE STATION PAYLOADS THIS YEAR

KEY	TITLE	PLCODE	INCL	PK POWER	DUTY CYCLE
S001	EARTH OBSERV	SPCL	98.0	3.5	82.2

	PALLET				
S002	SYNTH APERTURE RADAR	SPCL	98.0	10.0	2.7
S004	UPPER ATMOS RESEARCH PKG	SPCL	98.0	2.2	54.8
OT03	SPACE STATION MODULES	SSSS	98.0	15.0	100.0
OT04	HI-INCL STATION RESUPPLY	SORS	98.0	1.0	100.0
SP02	SPACE PHYSICS PALLET	SPCM	98.0	10.0	9.9
SA01	VLBI/COSMIC RAY PKG	SPCL	98.0	2.0	100.0
SL01	HUMAN LIFE SI CARRY-ONS	SSSA	29.0	1.7	100.0
SL02	SMALL MAMMALS CARRY-ONS	SSSA	29.0	4.0	100.0
SL03	PLANT DEVEL CARRY-ONS	SSSA	29.0	0.5	100.0
SL04	LIFESCIENCES RES FAC	SPXX	29.0	12.2	100.0
SL05	CENTRIFUGE (ADD TO LSRF)	SSCL	29.0	4.0	100.0
SL06	CLOSED ENV LSS EXPT MOD	SPCL	29.0	9.7	100.0
CM01	MATLS SCIENCE LAB	SPXX	29.0	25.0	35.6
CM02	CRYSTAL GROWTH FACTORY/PLAT	PMCL	29.0	0.0	100.0
CM03	CRYSTAL GROWTH RESUP-1	PMXX	29.0	0.0	0.5
CM04	CRYSTAL GROWTH RESUP-2	PMCL	29.0	0.0	0.5
SA02	ASTRO TELESCOPE CLUSTER	SPXX	29.0	4.0	100.0
SA04	ASTROPHYSICS OBSERVATORIES	FMXM	29.0	1.0	100.0
CC03	INTELSAT-7,7A CLASS COMSAT	FXCL	0.0	0.0	0.0
CC04	MULTIBEAM COMM.	SSCM	0.0	0.0	0.0

SATELLITE

CC05	RECONFIGURABLE COMM. SATELLITE	FXCM	0.0	0.0	1.9
CM05	CONT FLOW ELEC-TROPH PLATFORM	PMCL	29.0	0.0	100.0
CM06	CONTINUOUS FLOW ELECTRO RESUPP	PMXL	29.0	2.0	0.0
OT01	LOW INCL STA MODULE DEL	SSSS	29.0	20.0	100.0
OT02	LOW INCL STA RESUPPLY	SORS	29.0	0.0	100.0
OT05	HI-ALT STA RESUPPLY	OMSB	29.0	0.0	100.0
TS02	TECH DEVEL CARRY-ONS	SSSA	29.0	0.5	6.8

LOW INCLINATION

PEAK POWER	AVERAGE POWER
84.6	66.0

HIGH INCLINATION

PEAK POWER	AVERAGE POWER
43.7	23.3

RESOURCES SUMMARY FOR LOW INCLINATION SPACE STATION

INTERNAL VOLUME	11.8 CUBIC METERS
POWER	66.0 KW
NO. OF PORTS	4.

RESOURCES SUMMARY FOR HIGH INCLINATION SPACE STATION

INTERNAL VOLUME	7.4 CUBIC METERS
POWER	23.3 KW
NO. OF PORTS	5.

POINTING & DISTURBANCE SUMMARY FOR LOW INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350
SL01	----------														
CM01						----------									
CM02	----------														
CM03								-							
CM04								-							
SA02	**********														
SA04	----------														
CC03								-							
CC04								-							
CC05								-							
CM05	----------														
CM06								-							
OT01	----------														
OT02	----------														
OT05	----------														
TS02								-----							

POINTING & DISTURBANCE SUMMARY FOR HIGH INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

```
                                1   1   1   1   2   2   2   2   3   3   3
      2   5   7   0   2   5   7   0   2   5   7   0   2   5
  0   5   0   5   0   5   0   5   0   5   0   5   0   5   0
SO01 000000000000000000000000000000000000000000000000000000000000000000000
SO02 00
SO04 0000000000000000000000000000000000000000000000000
OT03 ----------------------------------------------------------------------
OT04 ----------------------------------------------------------------------
SP02 0000000
SA01 ***********************************************************************
```

* * * SPACE STATION OPERATIONS ANALYSIS FOR YEAR 2000 * * *

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 1
NUMBER OF FLIGHTS: 1 PRIME MISSION: **MULTIBEAM COMM SATELLITE OUTCOME # IS 0 KEY IS CC04
INCLINATION IS 0.00
CODE IS SSCM
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	1.661
SP STA SYS OPS	10.075
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

OTV OPERATIONS

UNADJUSTED DURATIONS
MAINTAIN STAGE = 1.150
MATE TO PAYLD = 0.131
STAGE/STAGE MATE = 0.210

OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	2.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 8.756AWAY 4.200

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS CREW SKILL	MANDAYS
S/C SYS - DATA	6.987
S/C SYS - ELEC	9.160
S/C SYS - MECH	7.470
S/C SYS - FLUIDS	7.879
SP STA SYS OPS	16.972
EVA CRANE OP	8.636
EVA SERVICE TECH	15.881
MANNED OTV PILOT	8.660

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.700
TEST & C/O	=	3.400
MODULE MATE	=	0.152
FAB STRUCT	=	0.246

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 11.650

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	5.8		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	3.7		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	3.7		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	3.6		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	23.3		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	8.5		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	5.6		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	5.776
S/C SYS - ELEC	3.730
S/C SYS - MECH	3.730
S/C SYS - FLUIDS	3.570
SP STA SYS OPS	23.299
EVA CRANE OP	8.502
EVA SERVICE TECH	5.562

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 1 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	11.6
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

TYPE #1 = 1 TYPE #2 = 4

***>> FLIGHT NO. 2
NUMBER OF FLIGHTS: 1 PRIME MISSION: **LARGE RADIO TELESCOPE OUTCOME # IS 0 KEY IS SA05
INCLINATION IS 29.00
CODE IS FMCH
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)

ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - FLUIDS	1.661
SP STA SYS OPS	10.075
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 6.100
MATE TO FIXT = 0.056
TEST & C/O = 10.100

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 34.138

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SP STA SYS OPS	0.0	0.0	0.0	68.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	25.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	25.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	16.968
S/C SYS - ELEC	10.605
S/C SYS - MECH	10.605
S/C SYS - FLUIDS	10.605
SP STA SYS OPS	68.275
EVA CRANE OP	25.855
EVA SERVICE TECH	25.855

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	34.1
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 1

***>> FLIGHT NO. 3
NUMBER OF FLIGHTS: 1 PRIME MISSION: HI-INCL STATION RESUPPLY OUTCOME # IS 0 KEY IS OT04
INCLINATION IS 98.00
CODE IS SORS
SECOND MISSION: SPACE SCIENCE SUBSATELLITE OUTCOME # IS 0
KEY IS SP01
CODE IS FSXX

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS 8.261

EVA CRANE OP 7.560

EVA SERVICE TECH 7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 4
NUMBER OF FLIGHTS: 1 PRIME MISSION: **INTELSAT-7,7A CLASS COMSAT OUTCOME # IS 0 KEY IS CC03
INCLINATION IS 0.00
CODE IS FXCL
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	MISSION RESULTS															
CREW SKILL	MANDAYS															
S/C SYS - FLUIDS	1.661															
SP STA SYS OPS	10.075															
EVA CRANE OP	7.560															
EVA SERVICE TECH	7.560															

OTV OPERATIONS

UNADJUSTED DURATIONS

MAINTAIN STAGE	=	1.150
MATE TO PAYLD	=	0.131
STAGE/STAGE MATE	=	0.210
OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	2.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 8.756AWAY 4.200

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0

SP STA SYS OPS	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	6.987
S/C SYS - ELEC	9.160
S/C SYS - MECH	7.470
S/C SYS - FLUIDS	7.879
SP STA SYS OPS	16.972
EVA CRANE OP	8.636
EVA SERVICE TECH	15.881
MANNED OTV PILOT	8.660

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.280
TEST & C/O	=	0.486

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 2.146

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	0.816

S/C SYS - ELEC	0.510
S/C SYS - MECH	0.510
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	4.292
EVA CRANE OP	2.251
EVA SERVICE TECH	1.075

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 4 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	2.1
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

TYPE #1 = 2 TYPE #2 = 2

***>> FLIGHT NO. 5
NUMBER OF FLIGHTS: 2 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: RECONFIGURABLE COMM. SATELLITE OUTCOME # IS 0
KEY IS CC05
CODE IS FXCM

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 2 FLIGHTS: 5.478

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS CREW SKILL	MISSION RESULTS MANDAYS
SP STA SYS OPS	11.481
EVA CRANE OP	10.080
EVA SERVICE TECH	10.080

OTV OPERATIONS.

UNADJUSTED DURATIONS

MAINTAIN STAGE	=	1.150
MATE TO PAYLD	=	0.131
STAGE/STAGE MATE	=	0.210
OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	7.000

ADJ OTV OP DURATION FOR SECOND MISSION, TOTAL OF 2 FLIGHTS:
AT SPACE STA 38.512AWAY 29.400

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	17.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	19.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	13.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	29.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	34.973
S/C SYS - ELEC	39.320
S/C SYS - MECH	35.939
S/C SYS - FLUIDS	33.436
SP STA SYS OPS	25.277
EVA CRANE OP	12.232
EVA SERVICE TECH	26.722

MANNED OTV PILOT 59.319

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 5 IN MANDAYS/YR

STS OPERATIONS	5.5
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	38.5
OTV MISSIONS	29.4

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.140
TEST & C/O	=	3.400
MODULE MATE	=	0.152

ADJUSTED DUR FOR 2 FLIGHTS, AT SPACE STATION 19.912

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	11.552
S/C SYS - ELEC	7.459
S/C SYS - MECH	7.459
S/C SYS - FLUIDS	7.140
SP STA SYS OPS	39.824
EVA CRANE OP	11.264
EVA SERVICE TECH	10.088

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 5 IN MANDAYS/YR

STS OPERATIONS	5.5
CONSTRUCTION OPERATIONS	19.9
OTV OPERATIONS	38.5
OTV MISSIONS	29.4

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 6
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.0	0.0		2.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0		5.7	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		2.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0		5.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		2.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0		5.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	8.261
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 6 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 7
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: TMS DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONS
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.0	0.0		2.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0		5.7	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		2.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0		5.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		2.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0		5.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	8.261
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 7 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 2

***>> FLIGHT NO. 8
NUMBER OF FLIGHTS: 1 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS
SECOND MISSION: CONT FLOW ELEC- TROPH PLATFORM OUTCOME # IS 0
KEY IS CM05
CODE IS PMCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	7.998
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 8 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.718

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SECOND	MISSION RESULTS															
CREW SKILL	MANDAYS															
S/C SYS - DATA	0.848															
S/C SYS - ELEC	0.590															
S/C SYS - MECH	0.590															
S/C SYS - FLUIDS	0.510															
SP STA SYS OPS	3.436															
EVA CRANE OP	1.394															
EVA SERVICE TECH	1.394															

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 8 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	1.7
OTV OPERATIONS	0.0

OTV MISSIONS 0.0

TYPE #1 = 4 TYPE #2 = 3

***>> FLIGHT NO. 9
NUMBER OF FLIGHTS: 1 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS
SECOND MISSION: PRECISION OPT CONSTR & TEST OUTCOME # IS 0
KEY IS TM02
CODE IS SPCH

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS CREW SKILL	MISSION RESULTS MANDAYS
SP STA SYS OPS	7.998
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 9 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	0.0

OTV OPERATIONS	0.0
OTV MISSIONS	0.0

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	6.100
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.490
TEST & C/O	=	10.100
MODULE MATE	=	6.232

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 48.254

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	19.6		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	17.1		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	17.1		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	10.6		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	96.5		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	54.1		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	52.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

SECOND MISSION RESULTS

SECOND CREW SKILL	MANDAYS
S/C SYS - DATA	19.585
S/C SYS - ELEC	17.149
S/C SYS - MECH	17.149
S/C SYS - FLUIDS	10.605
SP STA SYS OPS	96.508
EVA CRANE OP	54.088
EVA SERVICE TECH	52.030

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 9 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	48.3
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 2

***>> FLIGHT NO. 10
NUMBER OF FLIGHTS: 5 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS
SECOND MISSION: CRYSTAL GROWTH RESUP-2 OUTCOME # IS 0
KEY IS CM04
CODE IS PMCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 5 FLIGHTS: 19.557

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	39.992
EVA CRANE OP	37.800
EVA SERVICE TECH	37.800

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 10 IN MANDAYS/YR

STS OPERATIONS	19.6
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

UNADJUSTED DURATIONS

SETUP/TAKEDOWN = 0.200
MATE TO FIXT = 0.056
TEST & C/O = 0.486
MODULE MATE = 0.076

ADJUSTED DUR FOR 5 FLIGHTS, AT SPACE STATION 8.589

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	4.242
S/C SYS - ELEC	2.951
S/C SYS - MECH	2.951
S/C SYS - FLUIDS	2.551
SP STA SYS OPS	17.178
EVA CRANE OP	6.972
EVA SERVICE TECH	6.972

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 10 IN MANDAYS/YR

STS OPERATIONS	19.6
CONSTRUCTION OPERATIONS	8.6
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 0

***>> FLIGHT NO. 11
NUMBER OF FLIGHTS: 8 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 8 FLIGHTS: 11.831

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS CREW SKILL	MISSION RESULTS MANDAYS
SP STA SYS OPS	25.764
EVA CRANE OP	20.160
EVA SERVICE TECH	20.160

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 11 IN MANDAYS/YR

STS OPERATIONS	11.8
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 12
NUMBER OF FLIGHTS: 1 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832

ORBITER OFFLOAD = 0.6000
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 2.739

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	5.741
EVA CRANE OP	5.040
EVA SERVICE TECH	5.040

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 12 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 13
NUMBER OF FLIGHTS: 1 PRIME MISSION: HI-INCL STATION RESUPPLY OUTCOME # IS 0 KEY IS OT04
INCLINATION IS 98.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210

ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 2.739

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS CREW SKILL	MISSION RESULTS MANDAYS
SP STA SYS OPS	5.741
EVA CRANE OP	5.040
EVA SERVICE TECH	5.040

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 13 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

PAYLOADS SERVICING ANALYSIS

PAYLOAD WITH KEY S001 EARTH OBSERV PALLET

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 150.000

UPDATED WORK DURATION AT SP STA 150.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 15.000

EARTH, OCEAN OBS 150.000

S/C SYS - ELEC 7.500

S/C SYS - FLUIDS 7.500

SP STA SYS OPS 7.500

DURATION SUMMARY FOR PAYLOAD NO. 1 S001 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 150.0

PAYLOAD WITH KEY S002 SYNTH APERTURE RADAR

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 5.000

UPDATED WORK DURATION AT SP STA 5.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	0.500
EARTH, OCEAN OBS	5.000
S/C SYS - ELEC	0.250
S/C SYS - FLUIDS	0.250
SP STA SYS OPS	0.250

DURATION SUMMARY FOR PAYLOAD NO. 2 S002 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	5.0

PAYLOAD WITH KEY S004 UPPER ATMOS RESEARCH PKG

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 145.000

UPDATED WORK DURATION AT SP STA 145.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	145.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	14.500
EARTH, OCEAN OBS	145.000
S/C SYS - ELEC	7.250
S/C SYS - FLUIDS	7.250
SP STA SYS OPS	7.250

DURATION SUMMARY FOR PAYLOAD NO. 4 S004 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	145.0

PAYLOAD WITH KEY 0T03 SPACE STATION MODULES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 5 0T03 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***	***COMMERC MISSIONS***	***TECH DEV MISSIONS**	****OPER SUPPORT*****

	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 5 OT03 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT04 HI-INCL STATION RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 6 OT04 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY SP01 SPACE SCIENCE SUBSATELLITE

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.200
MATE TO FIXT = 0.056
TEST & C/O = 0.486
TMS MATE/DEMATE = 0.260

ADJUSTED SERVICING TIME FOR 7 SP01 2.1 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 0.510

S/C SYS - DATA	2.041
S/C SYS - MECH	0.204
S/C SYS - FLUIDS	0.102
SP STA SYS OPS	4.208
EVA CRANE OP	1.807
EVA SERVICE TECH	1.807

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 7 SP01 IN MANDAYS/YR

SERVICING OPERATIONS	2.1
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SP02 SPACE PHYSICS PALLET

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
PHYSICS SCIENCE = 54.000

UPDATED WORK DURATION AT SP STA 54.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	54.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	5.400
PHYS SCI RESEARC	54.000
S/C SYS - ELEC	2.700
S/C SYS - FLUIDS	2.700
SP STA SYS OPS	2.700

DURATION SUMMARY FOR PAYLOAD NO. 8 SP02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	54.0

PAYLOAD WITH KEY SA01 VLBI/COSMIC RAY PKG

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

ASTROPHYSICS = 67.000

UPDATED WORK DURATION AT SP STA 67.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	6.700
ASTROPHSICS	67.000
S/C SYS - ELEC	3.350

S/C SYS - FLUIDS	3.350
SP STA SYS OPS	3.350

DURATION SUMMARY FOR PAYLOAD NO. 9 SA01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	67.0

PAYLOAD WITH KEY SL01 HUMAN LIFE SI CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

LIFE SCIENCE = 73.000

UPDATED WORK DURATION AT SP STA 73.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	7.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	73.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	3.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	3.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	3.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	7.300
MED/BIO RESEARCH	73.000
S/C SYS - ELEC	3.650
S/C SYS - FLUIDS	3.650
SP STA SYS OPS	3.650

DURATION SUMMARY FOR PAYLOAD NO. 11 SL01 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 73.0

PAYLOAD WITH KEY SL02 SMALL MAMMALS CARRY-ONS

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 41.000

UPDATED WORK DURATION AT SP STA 41.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	4.1	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	41.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	2.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	2.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	2.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 4.100

MED/BIO RESEARCH 41.000

S/C SYS - ELEC 2.050

S/C SYS - FLUIDS 2.050

SP STA SYS OPS 2.050

DURATION SUMMARY FOR PAYLOAD NO. 12 SL02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 41.0

PAYLOAD WITH KEY SL04 LIFESCIENCES RES FAC

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 191.000

UPDATED WORK DURATION AT SP STA 191.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	19.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	191.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	19.100
MED/BIO RESEARCH	191.000
S/C SYS - ELEC	9.550
S/C SYS - FLUIDS	9.550
SP STA SYS OPS	9.550

DURATION SUMMARY FOR PAYLOAD NO. 14 SL04 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	191.0

PAYLOAD WITH KEY SL05 CENTRIFUGE (ADD TO LSRF)

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 91.000

UPDATED WORK DURATION AT SP STA 91.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER. SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	91.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	9.100
MED/BIO RESEARCH	91.000
S/C SYS - ELEC	4.550
S/C SYS - FLUIDS	4.550
SP STA SYS OPS	4.550

DURATION SUMMARY FOR PAYLOAD NO. 15 SL05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 91.0

PAYLOAD WITH KEY SL06 CLOSED ENV LSS EXPT MOD

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 547.500

UPDATED WORK DURATION AT SP STA 547.5 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	547.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	54.750
MED/BIO RESEARCH	547.500
S/C SYS - ELEC	27.375
S/C SYS - FLUIDS	27.375
SP STA SYS OPS	27.375

DURATION SUMMARY FOR PAYLOAD NO. 16 SL06 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	547.5

PAYLOAD WITH KEY CM01 MATLS SCIENCE LAB

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 300.000

UPDATED WORK DURATION AT SP STA 300.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 17 CM01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	300.0

PAYLOAD WITH KEY CM02 CRYSTAL GROWTH FACTORY/PLAT

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	36.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 18 CM02 154.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	126.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	125.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	44.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	143.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	254.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	61.471
S/C SYS - DATA	126.739
S/C SYS - ELEC	54.818
S/C SYS - MECH	125.800
S/C SYS - FLUIDS	44.206
SP STA SYS OPS	143.136
EVA SERVICE TECH	56.952
TMS PILOT	254.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 18 CM02 IN MANDAYS/YR

SERVICING OPERATIONS	154.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM03 CRYSTAL GROWTH RESUP-1

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	12.000
TEST & C/O	=	1.458
TMS LAUNCH	=	0.246
TMS OPS	=	9.000
TMS CREW OPS	=	9.000
TMS CAPTURE/BRTH	=	0.126
TMS MAINT/REFUEL	=	3.300
CREW MOD MAINT	=	5.130

ADJUSTED SERVICING TIME FOR 19 CM03 84.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS****					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	30.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	79.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	25.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	78.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	75.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	42.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	127.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	30.353
S/C SYS - DATA	79.304
S/C SYS - ELEC	25.364
S/C SYS - MECH	78.600
S/C SYS - FLUIDS	17.404
SP STA SYS OPS	75.852
EVA SERVICE TECH	42.714
TMS PILOT	127.562

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 19 CM03 IN MANDAYS/YR

SERVICING OPERATIONS	84.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM04 CRYSTAL GROWTH RESUP-2

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	16.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 20 CM04 112.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	40.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	105.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	33.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	104.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	23.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	101.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	170.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	40.471
S/C SYS - DATA	105.739
S/C SYS - ELEC	33.818
S/C SYS - MECH	104.800
S/C SYS - FLUIDS	23.206
SP STA SYS OPS	101.136
EVA SERVICE TECH	56.952
TMS PILOT	170.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 20 CM04 IN MANDAYS/YR

SERVICING OPERATIONS	112.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA04 ASTROPHYSICS OBSERVATORIES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	6.000
TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100

CREW MOD MAINT = 1.710

ADJUSTED SERVICING TIME FOR 23 SA04 38.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	40.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	41.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	50.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	15.278
S/C SYS - DATA	40.774
S/C SYS - ELEC	10.555
S/C SYS - MECH	29.524
S/C SYS - FLUIDS	8.513
SP STA SYS OPS	41.723
EVA SERVICE TECH	14.238
TMS PILOT	50.921

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 23 SA04 IN MANDAYS/YR

SERVICING OPERATIONS	38.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CC03 INTELSAT-7,7A CLASS COMSAT

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 26 CC03 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CC04 MULTIBEAM COMM. SATELLITE

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 27 CC04 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CC05 RECONFIGURABLE COMM. SATELLITE

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 28 CC05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CM05 CONT FLOW ELEC- TROPH PLATFORM

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

ADJUSTED SERVICING TIME FOR 29 CM05 0.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 29 CM05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CM06 CONTINUOUS FLOW ELECTRO RESUPP

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	48.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 30 CM06 179.9 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	74.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	139.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	67.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	138.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	56.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	168.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	304.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	74.071
S/C SYS - DATA	139.339
S/C SYS - ELEC	67.418
S/C SYS - MECH	138.400
S/C SYS - FLUIDS	56.806
SP STA SYS OPS	168.336
EVA SERVICE TECH	56.952
TMS PILOT	304.483

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 30 CM06 IN MANDAYS/YR

SERVICING OPERATIONS	179.9
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY OT01 LOW INCL STA MODULE DEL

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 33 OT01 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 33 OT01 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT02 LOW INCL STA RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 34 OT02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT05 HI-ALT STA RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 35 OT05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY TM02 PRECISION OPT CONSTR & TEST

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 50.000

UPDATED WORK DURATION AT SP STA 50.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	10.000
ENGINEERING	50.000
S/C SYS - DATA	7.500
S/C SYS - ELEC	2.500
S/C SYS - MECH	2.500
S/C SYS - FLUIDS	10.000
SP STA SYS OPS	5.000
EVA CRANE OP	2.500
EVA SERVICE TECH	2.500
MANNED OTV PILOT	7.500

DURATION SUMMARY FOR PAYLOAD NO. 42 TM02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	50.0

PAYLOAD WITH KEY TS02 TECH DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 20.000

UPDATED WORK DURATION AT SP STA 20.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	4.000
ENGINEERING	20.000
S/C SYS - DATA	3.000
S/C SYS - ELEC	1.000
S/C SYS - MECH	1.000
S/C SYS - FLUIDS	4.000
SP STA SYS OPS	2.000
EVA CRANE OP	1.000
EVA SERVICE TECH	1.000
MANNED OTV PILOT	3.000

DURATION SUMMARY FOR PAYLOAD NO. 45 TS02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 20.0

PAYLOAD WITH KEY SA05 LARGE RADIO TELESCOPE

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	10.000
TEST & C/O	=	10.100
TM LAUNCH	=	0.082
TM OPS	=	3.000
TM CREW OPS	=	3.000
TM CAPTURE/BRTH	=	0.042
TM MAINT/REFUEL	=	1.100
CRE MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 46 SA05 61.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	26.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	73.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	14.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	36.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	14.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	78.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	67.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	26.512
S/C SYS - DATA	73.114
S/C SYS - ELEC	14.755
S/C SYS - MECH	36.538
S/C SYS - FLUIDS	14.120
SP STA SYS OPS	78.263
EVA SERVICE TECH	14.238
TMS PILOT	67.721

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 46 SA05 IN MANDAYS/YR

SERVICING OPERATIONS	61.0
SCIENCE & TECH DEMO	0.0

SKILL MIX SUMMARIES LOW INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	41.8	94.4		0.0	0.0	206.4		0.0	0.0	0.0	0.0	14.0		0.0	0.0	67.2		0.0	0.0
MED/BIO RESEARCH	0.0	0.0	943.5		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
ENGINEERING	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	70.0		0.0	0.0	0.0		0.0	0.0
ASTROPHSICS	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
S/C SYS - DATA	0.0	113.9	0.0		0.0	48.9	451.1		0.0	23.2	0.0	0.0	10.5		19.6	0.0	0.0		0.0	0.0
S/C SYS - ELEC	0.0	25.3	47.2		0.0	57.6	181.4		0.0	15.2	0.0	0.0	3.5		17.1	0.0	0.0		0.0	0.0
S/C SYS - MECH	0.0	66.1	0.0		0.0	50.9	447.6		0.0	15.2	0.0	0.0	3.5		17.1	0.0	0.0		0.0	0.0
S/C SYS - FLUIDS	0.0	22.6	47.2		0.0	45.9	141.6		0.0	14.3	0.0	0.0	14.0		10.6	6.6	0.0		0.0	0.0
SP STA SYS OPS	0.0	120.0	47.2		0.0	98.2	488.5		0.0	88.0	2.5	0.0	7.0		96.5	94.2	470.4		0.0	0.0
EVA CRANE OP	0.0	0.0	0.0		0.0	74.9	0.0		0.0	30.4	2.5	0.0	3.5		54.1	70.6	67.2		0.0	0.0
EVA SERVICE TECH	0.0	28.5	0.0		0.0	103.8	213.6		0.0	25.1	2.5	0.0	3.5		52.0	70.6	67.2		0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0		0.0	76.6	0.0		0.0	0.0	0.0	0.0	10.5		0.0	0.0	0.0		0.0	0.0
TMS PILOT	0.0	118.6	0.0		0.0	0.0	856.2		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
1716.	3755.	415.	914.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	423.7
MED/BIO RESEARCH	943.5
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	70.0
ASTROPHSICS	0.0
S/C SYS - DATA	667.3
S/C SYS - ELEC	347.4
S/C SYS - MECH	600.4
S/C SYS - FLUIDS	302.8
SP STA SYS OPS	1512.4
EVA CRANE OP	303.1
EVA SERVICE TECH	566.8
MANNED OTV PILOT	87.1
TMS PILOT	974.9
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 18.6 PEOPLE

SKILL MIX SUMMARIES HIGH INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.5	42.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	54.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	300.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	2.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	21.1	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.2	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.1	21.1	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	5.0	4.2	21.1	68.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	470.4	0.0	0.0
EVA CRANE OP	5.0	1.8	0.0	25.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.1	67.2	0.0	0.0
EVA SERVICE TECH	5.0	1.8	0.0	25.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.1	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
721.	0.	0.	723.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	109.8
MED/BIO RESEARCH	0.0
PHYS SCI RESEARC	54.0
EARTH, OCEAN OBS	300.0
ENGINEERING	0.0
ASTROPHSICS	67.0
S/C SYS - DATA	19.0
S/C SYS - ELEC	31.7
S/C SYS - MECH	10.8
S/C SYS - FLUIDS	33.4
SP STA SYS OPS	588.0
EVA CRANE OP	115.0
EVA SERVICE TECH	115.0
MANNED OTV PILOT	0.0
TMS PILOT	0.0
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 4.0 PEOPLE

LOW INCLINATION

DURATION SUMMARY FOR YEAR 2000 IN MANDAYS/YR

STS OPERATIONS	63.2
CONSTRUCTION	92.3

OTV OPERATIONS	56.0
OTV MISSIONS	37.8
SERVICING OPERATIONS	967.4
SCIENCE & TECH DEMO	1313.5

HIGH INCLINATION

DURATION SUMMARY FOR YEAR 2000 IN MANDAYS/YR

STS OPERATIONS	10.6
CONSTRUCTION	34.1
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	338.1
SCIENCE & TECH DEMO	421.0

SUMMARY OF SPACE STATION PAYLOADS THIS YEAR

KEY	TITLE	PLCODE	INCL	PK POWER	DUTY CYCLE
S001	EARTH OBSERV PALLET	SPCL	98.0	3.5	82.2
S002	SYNTH APERTURE RADAR	SPCL	98.0	10.0	2.7
S004	UPPER ATMOS RESEARCH PKG	SPCL	98.0	2.2	54.8
OT03	SPACE STATION MODULES	SSSS	98.0	15.0	100.0
OT04	HI-INCL STATION RESUPPLY	SORS	98.0	1.0	100.0
SP01	SPACE SCIENCE SUBSATELLITE	FSXX	98.0	0.0	100.0
SP02	SPACE PHYSICS PALLET	SPCM	98.0	10.0	9.9
SA01	VLBI/COSMIC RAY PKG	SPCL	98.0	2.0	100.0
SL01	HUMAN LIFE SI CARRY-ONS	SSSA	29.0	1.7	100.0
SL02	SMALL MAMMALS CARRY-ONS	SSSA	29.0	4.0	100.0
SL04	LIFESCIENCES RES FAC	SPXX	29.0	12.2	100.0
SL05	CENTRIFUGE (ADD TO LSRF)	SSCL	29.0	4.0	100.0
SL06	CLOSED ENV LSS EXPT MOD	SPCL	29.0	9.7	100.0

CM01	MATLS SCIENCE LAB	SPXX	29.0	25.0	35.6
CM02	CRYSTAL GROWTH FACTORY/PLAT	PMCL	29.0	0.0	100.0
CM03	CRYSTAL GROWTH RESUP-1	PMXX	29.0	0.0	0.5
CM04	CRYSTAL GROWTH RESUP-2	PMCL	29.0	0.0	0.5
S/04	ASTROPHYSICS OBSERVATORIES	FMXM	29.0	1.0	100.0
CC03	INTELSAT-7,7A CLASS COMSAT	FXCL	0.0	0.0	0.0
CC04	MULTIBEAM COMM. SATELLITE	SSCM	0.0	0.0	0.0
CC05	RECONFIGURABLE COMM. SATELLITE	FXCM	0.0	0.0	1.9
CM05	CONT FLOW ELEC-TROPH PLATFORM	PMCL	29.0	0.0	100.0
CM06	CONTINUOUS FLOW ELECTRO RESUPP	PMXL	29.0	2.0	0.0
OT01	LOW INCL STA MODULE DEL	SSSS	29.0	20.0	100.0
OT02	LOW INCL STA RESUPPLY	SORS	29.0	0.0	100.0
OT05	HI-ALT STA RESUPPLY	OMSB	29.0	0.0	100.0
TM02	PRECISION OPT CONSTR & TEST	SPCH	29.0	4.0	13.7
TS02	TECH DEVEL CARRY-ONS	SSSA	29.0	0.5	6.8
SA05	LARGE RADIO TELESCOPE	FMCH	29.0	0.0	100.0

LOW INCLINATION

PEAK POWER	AVERAGE POWER
84.1	62.1

HIGH INCLINATION

PEAK POWER	AVERAGE POWER

43.7 23.3

RESOURCES SUMMARY FOR LOW INCLINATION SPACE STATION

INTERNAL VOLUME	8.8	CUBIC METERS
POWER	62.1	KW
NO. OF PORTS	4.	

RESOURCES SUMMARY FOR HIGH INCLINATION SPACE STATION

INTERNAL VOLUME	7.4	CUBIC METERS
POWER	23.3	KW
NO. OF PORTS	5.	

POINTING & DISTURBANCE SUMMARY FOR LOW INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350
SL01	----------														
CM01						----------									
CM02	----------														
CM03								-							
CM04								-							
SA04	----------														
CC03								-							
CC04								-							
CC05								-							
CM05	----------														
CM06								-							
OT01	----------														
OT02	----------														
OT05	----------														
TM02														**********	
TS02							-----								
SA05	----------														

POINTING & DISTURBANCE SUMMARY FOR HIGH INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

```
                        1   1   1   1   2   2   2   2   3   3   3
          2   5   7     0   2   5   7   0   2   5   7   0   2   5
      0   5   0   5     0   5   0   5   0   5   0   5   0   5   0
SO01  00000000000000000000000000000000000000000000000000000000000000
SO02  00
SO04  00000000000000000000000000000000000000000000000
OT03  ------------------------------------------------------------------------
OT04  ------------------------------------------------------------------------
SP01  ------------------------------------------------------------------------
SP02  0000000
SA01  ************************************************************************
```

* * * SPACE STATION OPERATIONS ANALYSIS FOR YEAR 2001 * * *

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 1
NUMBER OF FLIGHTS: 1 PRIME MISSION: **MULTIBEAM COMM SATELLITE OUTCOME # IS 0 KEY IS CC04
INCLINATION IS 0.00
CODE IS SSCM
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	1.661
SP STA SYS OPS	10.075
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

OTV OPERATIONS

UNADJUSTED DURATIONS
MAINTAIN STAGE = 1.150
MATE TO PAYLD = 0.131
STAGE/STAGE MATE = 0.210

OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	2.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 8.756AWAY 4.200

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS CREW SKILL	MANDAYS
S/C SYS - DATA	6.987
S/C SYS - ELEC	9.160
S/C SYS - MECH	7.470
S/C SYS - FLUIDS	7.879
SP STA SYS OPS	16.972
EVA CRANE OP	8.636
EVA SERVICE TECH	15.881
MANNED OTV PILOT	8.660

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.700
TEST & C/O	=	3.400
MODULE MATE	=	0.152
FAB STRUCT	=	0.246

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 11.650

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	5.776
S/C SYS - ELEC	3.730
S/C SYS - MECH	3.730
S/C SYS - FLUIDS	3.570
SP STA SYS OPS	23.299
EVA CRANE OP	8.502
EVA SERVICE TECH	5.562

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 1 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	11.6
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 2
NUMBER OF FLIGHTS: 1 PRIME MISSION: **CRYSTAL GROWTH FACTORY/PLAT OUTCOME # IS 0 KEY IS CM02
INCLINATION IS 29.00
CODE IS PMCL
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)

ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3792
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	1.593
SP STA SYS OPS	9.989
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.200
MATE TO FIXT = 0.056
TEST & C/O = 0.486
MODULE MATE = 0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.718

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.436
EVA CRANE OP	1.394
EVA SERVICE TECH	1.394

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	1.7
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1.= 2 TYPE #2 = 4

***>> FLIGHT NO. 3
NUMBER OF FLIGHTS: 1 PRIME MISSION: **INTELSAT-7,7A CLASS COMSAT OUTCOME # IS 0 KEY IS CC03
INCLINATION IS 0.00
CODE IS FXCL
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	MISSION RESULTS															
CREW SKILL	MANDAYS															
S/C SYS - FLUIDS	1.661															
SP STA SYS OPS	10.075															
EVA CRANE OP	7.560															
EVA SERVICE TECH	7.560															

OTV OPERATIONS

UNADJUSTED DURATIONS

MAINTAIN STAGE	=	1.150
MATE TO PAYLD	=	0.131
STAGE/STAGE MATE	=	0.210
OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	2.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 8.756AWAY 4.200

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FIRST	MISSION RESULTS															
CREW SKILL	MANDAYS															

S/C SYS - DATA	6.987
S/C SYS - ELEC	9.160
S/C SYS - MECH	7.470
S/C SYS - FLUIDS	7.879
SP STA SYS OPS	16.972
EVA CRANE OP	8.636
EVA SERVICE TECH	15.881
MANNED OTV PILOT	8.660

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.280
TEST & C/O	=	0.486

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 2.146

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	0.816
S/C SYS - ELEC	0.510
S/C SYS - MECH	0.510
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	4.292

EVA CRANE OP 2.251

EVA SERVICE TECH 1.075

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	2.1
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

TYPE #1 = 2 TYPE #2 = 2

***>> FLIGHT NO. 4
NUMBER OF FLIGHTS: 3 PRIME MISSION: **RECONFIGURABLE COMM. SATELLI OUTCOME # IS 0 KEY IS CC05
INCLINATION IS 0.00
CODE IS FXCM
SECOND MISSION: CRYSTAL GROWTH RESUP-2 OUTCOME # IS 0
KEY IS CML
CODE IS PML

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3629
ADJ STS DURATION AT SP STA FOR TOTAL OF 3 FLIGHTS: 7.954

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	4.573
SP STA SYS OPS	22.152

EVA CRANE OP	15.120
EVA SERVICE TECH	15.120

OTV OPERATIONS

UNADJUSTED DURATIONS

MAINTAIN STAGE	=	1.150
MATE TO PAYLD	=	0.131
STAGE/STAGE MATE	=	0.210
OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	7.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 3 FLIGHTS:
AT SPACE STA 57.768AWAY 44.100

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	17.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	19.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	13.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	29.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	52.460
S/C SYS - ELEC	58.981
S/C SYS - MECH	53.909
S/C SYS - FLUIDS	54.727
SP STA SYS OPS	42.845
EVA CRANE OP	18.348
EVA SERVICE TECH	40.083
MANNED OTV PILOT	88.979

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.140
TEST & C/O	=	3.400
MODULE MATE	=	0.152

ADJUSTED DUR FOR 3 FLIGHTS, AT SPACE STATION 29.868

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	17.328
S/C SYS - ELEC	11.189
S/C SYS - MECH	11.189
S/C SYS - FLUIDS	10.710
SP STA SYS OPS	59.737
EVA CRANE OP	16.897
EVA SERVICE TECH	15.133

DURATION SUMMARY FOR FIRST MISSION FLIGHT NO. 4 IN MANDAYS/YR

STS OPERATIONS	8.0
CONSTRUCTION OPERATIONS	29.9
OTV OPERATIONS	57.8
OTV MISSIONS	44.1

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 3 FLIGHTS, AT SPACE STATION 35.022

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NG SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	19.873
S/C SYS - ELEC	12.959
S/C SYS - MECH	12.959
S/C SYS - FLUIDS	12.241
SP STA SYS OPS	70.043
EVA CRANE OP	21.080
EVA SERVICE TECH	19.316

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 4 IN MANDAYS/YR

STS OPERATIONS	8.0
CONSTRUCTION OPERATIONS	35.0
OTV OPERATIONS	57.8
OTV MISSIONS	44.1

TYPE #1 = 1 TYPE #2 = 4

***>> FLIGHT NO. 5
NUMBER OF FLIGHTS: 1 PRIME MISSION: ASTROPHYSICS FREE-FLYER OUTCOME # IS 0 KEY IS SA03
INCLINATION IS 29.00
CODE IS FMXM
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS

ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	2.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	2.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		5.5	0.0	0.0	0.0	
EVA SERVICE TECH	2.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		5.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		5.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	7.998
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 5 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 6
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832

ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS CREW SKILL	MISSION RESULTS MANDAYS
SP STA SYS OPS	8.261
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 6 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 7
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: TMS DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000

ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	8.261
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 7 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 2

***>> FLIGHT NO. 8
NUMBER OF FLIGHTS: 3 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS
SECOND MISSION: CRYSTAL GROWTH RESUP-2 OUTCOME # IS 0
KEY IS CM04
CODE IS PMCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416

ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 3 FLIGHTS: 11.734

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
MED/BIO RESEARCH	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
PHYS SCI RESEARC	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
EARTH, OCEAN OBS	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
ENGINEERING	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
ASTROPHSICS	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
S/C SYS - DATA	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
S/C SYS - ELEC	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
S/C SYS - MECH	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
S/C SYS - FLUIDS	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
SP STA SYS OPS	0.0	0.0	0.0		0.0	2.5	0.0	0.0		0.0	0.0	0.0	0.0		0.0	5.5	0.0	0.0		0.0
EVA CRANE OP	0.0	0.0	0.0		0.0	2.5	0.0	0.0		0.0	0.0	0.0	0.0		0.0	5.0	0.0	0.0		0.0
EVA SERVICE TECH	0.0	0.0	0.0		0.0	2.5	0.0	0.0		0.0	0.0	0.0	0.0		0.0	5.0	0.0	0.0		0.0
MANNED OTV PILOT	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
TMS PILOT	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
MATLS SCIENCE	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	23.995
EVA CRANE OP	22.680
EVA SERVICE TECH	22.680

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 8 IN MANDAYS/YR

STS OPERATIONS	11.7
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 3 FLIGHTS, AT SPACE STATION 5.153

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0

MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	2.545
S/C SYS - ELEC	1.770
S/C SYS - MECH	1.770
S/C SYS - FLUIDS	1.531
SP STA SYS OPS	10.307
EVA CRANE OP	4.183
EVA SERVICE TECH	4.183

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 8 IN MANDAYS/YR

STS OPERATIONS	11.7
CONSTRUCTION OPERATIONS	5.2
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 0

***>> FLIGHT NO. 9
NUMBER OF FLIGHTS: 12 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 12 FLIGHTS: 17.746

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***			***COMMERC MISSIONS***			***TECH DEV MISSIONS**			****OPER SUPPORT*****		
	OPS SERV	MSN OP	CONST	OPS SERV	MSN OP	CONST	OPS SERV	MSN OP	CONST	OPS SERV	MSN OP	CONST

NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS	38.647
EVA CRANE OP	30.240
EVA SERVICE TECH	30.240

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 9 IN MANDAYS/YR

STS OPERATIONS	17.7
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 10
NUMBER OF FLIGHTS: 5 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS

ORBITER ARRIVE	=	0.0832
ORBITER OFFLOAD	=	0.6000
ORBITER RELOAD	=	0.6000
ORBITER DEPART	=	0.0210

ADJ STS DURATION AT SP STA FOR TOTAL OF 5 FLIGHTS: 13.694

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS	28.703
EVA CRANE OP	25.200
EVA SERVICE TECH	25.200

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 10 IN MANDAYS/YR

STS OPERATIONS	13.7
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 11
NUMBER OF FLIGHTS: 2 PRIME MISSION: HI-INCL STATION RESUPPLY OUTCOME # IS 0 KEY IS OT04
INCLINATION IS 98.00
CODE IS S0RS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS

ORBITER ARRIVE	=	0.0832
ORBITER OFFLOAD	=	0.6000
ORBITER RELOAD	=	0.6000
ORBITER DEPART	=	0.0210

ADJ STS DURATION AT SP STA FOR TOTAL OF 2 FLIGHTS: 5.478

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	MISSION RESULTS															
CREW SKILL	MANDAYS															

SP STA SYS OPS	11.481
EVA CRANE OP	10.080
EVA SERVICE TECH	10.080

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 11 IN MANDAYS/YR

STS OPERATIONS	5.5
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

PAYLOADS SERVICING ANALYSIS

PAYLOAD WITH KEY S001 EARTH OBSERV PALLET

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 150.000

UPDATED WORK DURATION AT SP STA 150.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	15.000
EARTH, OCEAN OBS	150.000
S/C SYS - ELEC	7.500
S/C SYS - FLUIDS	7.500
SP STA SYS OPS	7.500

DURATION SUMMARY FOR PAYLOAD NO. 1 S001 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	150.0

PAYLOAD WITH KEY S002 SYNTH APERTURE RADAR

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 5.000

UPDATED WORK DURATION AT SP STA 5.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	0.500
EARTH, OCEAN OBS	5.000
S/C SYS - ELEC	0.250
S/C SYS - FLUIDS	0.250
SP STA SYS OPS	0.250

DURATION SUMMARY FOR PAYLOAD NO. 2 S002 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	5.0

PAYLOAD WITH KEY S004 UPPER ATMOS RESEARCH PKG

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

ORIGINAL PAGE IS
OF POOR QUALITY

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 145.000

UPDATED WORK DURATION AT SP STA 145.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	145.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	14.500
EARTH, OCEAN OBS	145.000
S/C SYS - ELEC	7.250
S/C SYS - FLUIDS	7.250
SP STA SYS OPS	7.250

DURATION SUMMARY FOR PAYLOAD NO. 4 S004 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	145.0

PAYLOAD WITH KEY OT03 SPACE STATION MODULES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 5 OT03 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***	***COMMERC MISSIONS***	***TECH DEV MISSIONS**	****OPER SUPPORT*****

	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 5 OT03 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT04 HI-INCL STATION RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 6 OT04 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY SP01 SPACE SCIENCE SUBSATELLITE

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.200
MATE TO FIXT = 0.056
TEST & C/O = 0.486
TMS MATE/DEMATE = 0.260

ADJUSTED SERVICING TIME FOR 7 SP01 2.1 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 0.510

S/C SYS - DATA	2.041
S/C SYS - MECH	0.204
S/C SYS - FLUIDS	0.102
SP STA SYS OPS	4.208
EVA CRANE OP	1.807
EVA SERVICE TECH	1.807

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 7 SP01 IN MANDAYS/YR

SERVICING OPERATIONS 2.1
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY SA01 VLBI/COSMIC RAY PKG

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
ASTROPHYSICS = 67.000

UPDATED WORK DURATION AT SP STA 67.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	67.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	3.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	3.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	3.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	6.700
ASTROPHSICS	67.000
S/C SYS - ELEC	3.350
S/C SYS - FLUIDS	3.350
SP STA SYS OPS	3.350

DURATION SUMMARY FOR PAYLOAD NO. 9 SA01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	67.0

PAYLOAD WITH KEY SL08 RAD BIOLOGY IN SM MAMMALS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

LIFE SCIENCE = 30.000

UPDATED WORK DURATION AT SP STA 30.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	3.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	30.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	1.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	1.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	1.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	3.000
MED/BIO RESEARCH	30.000
S/C SYS - ELEC	1.500

S/C SYS - FLUIDS	1.500
SP STA SYS OPS	1.500

DURATION SUMMARY FOR PAYLOAD NO. 10 SL08 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	30.0

PAYLOAD WITH KEY SL01 HUMAN LIFE SI CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

LIFE SCIENCE = 73.000

UPDATED WORK DURATION AT SP STA 73.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	7.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	73.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	3.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	3.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	3.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	7.300
MED/BIO RESEARCH	73.000
S/C SYS - ELEC	3.650
S/C SYS - FLUIDS	3.650
SP STA SYS OPS	3.650

DURATION SUMMARY FOR PAYLOAD NO. 11 SL01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	73.0

PAYLOAD WITH KEY SL04 LIFESCIENCES RES FAC

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

LIFE SCIENCE = 191.000

UPDATED WORK DURATION AT SP STA 191.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	19.1	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	191.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	9.6	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	9.6	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	9.6	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	19.100
MED/BIO RESEARCH	191.000
S/C SYS - ELEC	9.550
S/C SYS - FLUIDS	9.550
SP STA SYS OPS	9.550

DURATION SUMMARY FOR PAYLOAD NO. 14 SL04 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	191.0

PAYLOAD WITH KEY SL05 CENTRIFUGE (ADD TO LSRF)

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 91.000

UPDATED WORK DURATION AT SP STA 91.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	91.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 9.100

MED/BIO RESEARCH 91.000

S/C SYS - ELEC 4.550

S/C SYS - FLUIDS 4.550

SP STA SYS OPS 4.550

DURATION SUMMARY FOR PAYLOAD NO. 15 SL05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 91.0

PAYLOAD WITH KEY SL06 CLOSED ENV LSS EXPT MOD

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS

CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 547.500

UPDATED WORK DURATION AT SP STA 547.5 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	54.8	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	547.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	27.4	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	27.4	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	27.4	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	54.750
MED/BIO RESEARCH	547.500
S/C SYS - ELEC	27.375
S/C SYS - FLUIDS	27.375
SP STA SYS OPS	27.375

DURATION SUMMARY FOR PAYLOAD NO. 16 SL06 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	547.5

PAYLOAD WITH KEY CM01 MATLS SCIENCE LAB

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 300.000

UPDATED WORK DURATION AT SP STA 300.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 17 CM01 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 300.0

PAYLOAD WITH KEY CM02 CRYSTAL GROWTH FACTORY/PLAT

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
REMOTE SERVICE = 36.000
TEST & C/O = 1.944
TMS LAUNCH = 0.328
TMS OPS = 12.000
TMS CREW OPS = 12.000
TMS CAPTURE/BRTH = 0.168
TMS MAINT/REFUEL = 4.400
CREW MOD MAINT = 6.840

ADJUSTED SERVICING TIME FOR 18 CM02 154.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	126.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	125.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	44.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	143.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	254.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	61.471
S/C SYS - DATA	126.739
S/C SYS - ELEC	54.818
S/C SYS - MECH	125.800
S/C SYS - FLUIDS	44.206
SP STA SYS OPS	143.136
EVA SERVICE TECH	56.952
TMS PILOT	254.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 18 CM02 IN MANDAYS/YR

SERVICING OPERATIONS	154.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM03 CRYSTAL GROWTH RESUP-1

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	12.000
TEST & C/O	=	1.458
TMS LAUNCH	=	0.246
TMS OPS	=	9.000
TMS CREW OPS	=	9.000
TMS CAPTURE/BRTH	=	0.126
TMS MAINT/REFUEL	=	3.300
CREW MOD MAINT	=	5.130

ADJUSTED SERVICING TIME FOR 19 CM03 84.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	30.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	79.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	25.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	78.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	75.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	42.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	127.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAILS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	30.353
S/C SYS - DATA	79.304
S/C SYS - ELEC	25.364
S/C SYS - MECH	78.600
S/C SYS - FLUIDS	17.404
SP STA SYS OPS	75.852
EVA SERVICE TECH	42.714
TMS PILOT	127.562

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 19 CM03 IN MANDAYS/YR

SERVICING OPERATIONS	84.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM04 CRYSTAL GROWTH RESUP-2

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	16.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400

CREW MOD MAINT = 6.840

ADJUSTED SERVICING TIME FOR 20 CM04 112.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	40.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	105.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	33.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	104.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	23.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	101.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	170.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	40.471
S/C SYS - DATA	105.739
S/C SYS - ELEC	33.818
S/C SYS - MECH	104.800
S/C SYS - FLUIDS	23.206
SP STA SYS OPS	101.136
EVA SERVICE TECH	56.952
TMS PILOT	170.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 20 CM04 IN MANDAYS/YR

SERVICING OPERATIONS	112.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA03 ASTROPHYSICS FREE-FLYER

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
REMOTE SERVICE = 2.000

TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 22 SA03 30.1 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	36.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	25.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	34.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	11.078
S/C SYS - DATA	36.574
S/C SYS - ELEC	6.355
S/C SYS - MECH	25.324
S/C SYS - FLUIDS	4.313
SP STA SYS OPS	33.323
EVA SERVICE TECH	14.238
TMS PILOT	34.121

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 22 SA03 IN MANDAYS/YR

SERVICING OPERATIONS	30.1
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA04 ASTROPHYSICS OBSERVATORIES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	6.000
TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 23 SA04 38.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	40.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	41.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	50.9	0.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	15.278
S/C SYS - DATA	40.774
S/C SYS - ELEC	10.555
S/C SYS - MECH	29.524
S/C SYS - FLUIDS	8.513
SP STA SYS OPS	41.723
EVA SERVICE TECH	14.238
TMS PILOT	50.921

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 23 SA04 IN MANDAYS/YR

SERVICING OPERATIONS 38.5
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CC03 INTELSAT-7,7A CLASS COMSAT

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 26 CC03 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CC04 MULTIBEAM COMM. SATELLITE

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS SERV	MSN OP	CONST		OPS SERV	MSN OP	CONST		OPS SERV	MSN OP	CONST		OPS SERV	MSN OP	CONST	
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 27 CC04 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CC05 RECONFIGURABLE COMM. SATELLITE

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 28 CC05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CM05 CONT FLOW ELEC- TROPH PLATFORM

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

ADJUSTED SERVICING TIME FOR 29 CM05 0.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 29 CM05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CM06 CONTINUOUS FLOW ELECTRO RESUPP

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	48.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 30 CM06 179.9 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	74.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	139.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	67.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	138.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	56.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	168.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	304.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	74.071
S/C SYS - DATA	139.339
S/C SYS - ELEC	67.418
S/C SYS - MECH	138.400
S/C SYS - FLUIDS	56.806
SP STA SYS OPS	168.336
EVA SERVICE TECH	56.952
TMS PILOT	304.483

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 30 CM06 IN MANDAYS/YR

SERVICING OPERATIONS 179.9
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT01 LOW INCL STA MODULE DEL

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 33 OT01 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				**TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 33 OT01 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT02 LOW INCL STA RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 34 OT02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT05 HI-ALT STA RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 35 OT05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0

SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY TS02 TECH DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 20.000

UPDATED WORK DURATION AT SP STA 20.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	4.000
ENGINEERING	20.000
S/C SYS - DATA	3.000
S/C SYS - ELEC	1.000
S/C SYS - MECH	1.000
S/C SYS - FLUIDS	4.000
SP STA SYS OPS	2.000
EVA CRANE OP	1.000
EVA SERVICE TECH	1.000
MANNED OTV PILOT	3.000

DURATION SUMMARY FOR PAYLOAD NO. 45 TS02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 20.0

PAYLOAD WITH KEY SA05 LARGE RADIO TELESCOPE

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	10.000
TEST & C/O	=	10.100
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 46 SA05 61.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	26.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	73.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	14.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	36.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	14.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	78.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	67.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	26.512
S/C SYS - DATA	73.114
S/C SYS - ELEC	14.755
S/C SYS - MECH	36.538
S/C SYS - FLUIDS	14.120
SP STA SYS OPS	78.263
EVA SERVICE TECH	14.238

TMS PILOT 67.721

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 46 SA05 IN MANDAYS/YR

SERVICING OPERATIONS	61.0
SCIENCE & TECH DEMO	0.0

SKILL MIX SUMMARIES LOW INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	52.9	90.3	0.0		0.0	206.4	0.0	0.0		0.0	0.0	4.0	0.0		0.0	67.2	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	902.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	20.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	150.5	0.0	0.0		66.4	451.1	0.0	47.2		0.0	0.0	3.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	31.7	45.1	0.0		77.3	181.4	0.0	30.7		0.0	0.0	1.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	91.4	0.0	0.0		68.8	447.6	0.0	30.7		0.0	0.0	1.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	26.9	45.1	0.0		62.6	141.6	0.0	29.1		0.0	0.0	4.0	0.0		17.4	0.0	0.0	0.0	
SP STA SYS OPS	2.5	153.3	45.1	0.0		120.2	488.5	0.0	171.1		0.0	0.0	2.0	0.0		122.3	470.4	0.0	0.0	
EVA CRANE OP	2.5	0.0	0.0	0.0		91.1	0.0	0.0	54.3		0.0	0.0	1.0	0.0		80.6	67.2	0.0	0.0	
EVA SERVICE TECH	2.5	42.7	0.0	0.0		127.3	213.6	0.0	46.7		0.0	0.0	1.0	0.0		80.6	67.2	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		106.3	0.0	0.0	0.0		0.0	0.0	3.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	152.8	0.0	0.0		0.0	856.2	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
1838.	4116.	40.	973.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	420.7
MED/BIO RESEARCH	902.5
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	20.0
ASTROPHSICS	0.0
S/C SYS - DATA	718.2
S/C SYS - ELEC	367.3
S/C SYS - MECH	639.6
S/C SYS - FLUIDS	326.7
SP STA SYS OPS	1575.4
EVA CRANE OP	296.7
EVA SERVICE TECH	581.6
MANNED OTV PILOT	109.3
TMS PILOT	1009.0

MATLS SCIENCE 0.0

TOTAL SPACE STATION CREW: 19.1 PEOPLE

SKILL MIX SUMMARIES HIGH INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.5	39.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	300.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.1	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	4.2	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	470.4	0.0	0.0
EVA SERVICE TECH	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	67.2	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
507.	0.	0.	704.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	107.4
MED/BIO RESEARCH	30.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	300.0
ENGINEERING	0.0
ASTROPHSICS	67.0
S/C SYS - DATA	2.0
S/C SYS - ELEC	19.9
S/C SYS - MECH	0.2
S/C SYS - FLUIDS	20.0
SP STA SYS OPS	505.9
EVA CRANE OP	79.1
EVA SERVICE TECH	79.1
MANNED OTV PILOT	0.0
TMS PILOT	0.0
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 3.3 PEOPLE

LOW INCLINATION

DURATION SUMMARY FOR YEAR 2001 IN MANDAYS/YR

STS OPERATIONS	74.8
CONSTRUCTION	85.6
OTV OPERATIONS	75.3
OTV MISSIONS	52.5
SERVICING OPERATIONS	997.5
SCIENCE & TECH DEMO	1222.5

HIGH INCLINATION

DURATION SUMMARY FOR YEAR 2001 IN MANDAYS/YR

STS OPERATIONS	5.5
CONSTRUCTION	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	338.1
SCIENCE & TECH DEMO	397.0

SUMMARY OF SPACE STATION PAYLOADS THIS YEAR

KEY	TITLE	PLCODE	INCL	PK POWER	DUTY CYCLE
S001	EARTH OBSERV PALLET	SPCL	98.0	3.5	82.2
S002	SYNTH APERTURE RADAR	SPCL	98.0	10.0	2.7
S004	UPPER ATMOS RESEARCH PKG	SPCL	98.0	2.2	54.8
OT03	SPACE STATION MODULES	SSSS	98.0	15.0	100.0
OT04	HI-INCL STATION RESUPPLY	SORS	98.0	1.0	100.0
SP01	SPACE SCIENCE SUBSATELLITE	FSXX	98.0	0.0	100.0
SA01	VLBI/COSMIC RAY PKG	SPCL	98.0	2.0	100.0
SL08	RAD BIOLOGY IN SM MAMMALS	SSSA	98.0	0.6	100.0
SL01	HUMAN LIFE SI CARRY-ONS	SSSA	29.0	1.7	100.0
SL04	LIFESCIENCES RES FAC	SPXX	29.0	12.2	100.0
SL05	CENTRIFUGE (ADD TO LSRF)	SSCL	29.0	4.0	100.0
SL06	CLOSED ENV	SPCL	29.0	9.7	100.0

LSS EXPT MOD				
CM01 MATLS SCIENCE LAB.	SPXX	29.0	25.0	35.6
CM02 CRYSTAL GROWTH FACTORY/PLAT	PMCL	29.0	0.0	100.0
CM03 CRYSTAL GROWTH RESUP-1	PMXX	29.0	0.0	0.5
CM04 CRYSTAL GROWTH RESUP-2	PMCL	29.0	0.0	0.5
SA03 ASTROPHYSICS FREE-FLYER	FMXM	29.0	0.0	100.0
SA04 ASTROPHYSICS OBSERVATORIES	FMXM	29.0	1.0	100.0
CC03 INTELSAT-7,7A CLASS COMSAT	FXCL	0.0	0.0	0.0
CC04 MULTIBEAM COMM. SATELLITE	SSCM	0.0	0.0	0.0
CC05 RECONFIGURABLE COMM. SATELLITE	FXCM	0.0	0.0	1.9
CM05 CONT FLOW ELEC-TROPH PLATFORM	PMCL	29.0	0.0	100.0
CM06 CONTINUOUS FLOW ELECTRO RESUPP	PMXL	29.0	2.0	0.0
OT01 LOW INCL STA MODULE DEL	SSSS	29.0	20.0	100.0
OT02 LOW INCL STA RESUPPLY	SORS	29.0	0.0	100.0
OT05 HI-ALT STA RESUPPLY	OMSB	29.0	0.0	100.0
TS02 TECH DEVEL CARRY-ONS	SSSA	29.0	0.5	6.8
SA05 LARGE RADIO TELESCOPE	FMCH	29.0	0.0	100.0

LOW INCLINATION

PEAK POWER	AVERAGE POWER
76.1	57.5

HIGH INCLINATION

PEAK POWER	AVERAGE POWER
34.3	22.9

RESOURCES SUMMARY FOR LOW INCLINATION SPACE STATION

INTERNAL VOLUME	5.4 CUBIC METERS
POWER	57.5 KW
NO. OF PORTS	3.

RESOURCES SUMMARY FOR HIGH INCLINATION SPACE STATION

INTERNAL VOLUME	5.8 CUBIC METERS
POWER	22.9 KW
NO. OF PORTS	4.

POINTING & DISTURBANCE SUMMARY FOR LOW INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350
SL01	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CM01						----------	----------	----------	----------						
CM02	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CM03								-							
CM04								-							
SA03	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
SA04	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CC03								-							
CC04								-							
CC05								-							
CM05	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CM06								-							
OT01	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
OT02	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
OT05	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
TS02								-----							
SA05	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

POINTING & DISTURBANCE SUMMARY FOR HIGH INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

0	25	50	75	100	125	150	175	200	225	250	275	300	325	350

SO01 0000000000000000000000000000000000000000000000000000000000000000000000000000000

SO02 00

SO04 0000000000000000000000000000000000000000000

OT03 ----------

OT04 ----------

SP01 ----------

SA01 ***

SL08 ----------

* * * SPACE STATION OPERATIONS ANALYSIS FOR YEAR 2002 * * *

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 1
NUMBER OF FLIGHTS: 1 PRIME MISSION: **MULTIBEAM COMM SATELLITE OUTCOME # IS 0 KEY IS CC04
INCLINATION IS 0.00
CODE IS SSCM
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK.

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - FLUIDS	1.661
SP STA SYS OPS	10.075
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

OTV OPERATIONS

UNADJUSTED DURATIONS
MAINTAIN STAGE = 1.150
MATE TO PAYLD = 0.131
STAGE/STAGE MATE = 0.210

OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	2.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 8.756AWAY 4.200

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	6.987
S/C SYS - ELEC	9.160
S/C SYS - MECH	7.470
S/C SYS - FLUIDS	7.879
SP STA SYS OPS	16.972
EVA CRANE OP	8.636
EVA SERVICE TECH	15.881
MANNED OTV PILOT	8.660

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.700
TEST & C/O	=	3.400
MODULE MATE	=	0.152
FAB STRUCT	=	0.246

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 11.650

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS CREW SKILL	MANDAYS
S/C SYS - DATA	5.776
S/C SYS - ELEC	3.730
S/C SYS - MECH	3.730
S/C SYS - FLUIDS	3.570
SP STA SYS OPS	23.299
EVA CRANE OP	8.502
EVA SERVICE TECH	5.562

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 1 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	11.6
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

TYPE #1 = 4 TYPE #2 = 1

***>> FLIGHT NO. 2
NUMBER OF FLIGHTS: 1 PRIME MISSION: HI-INCL STATION RESUPPLY OUTCOME # IS 0 KEY IS OT04
INCLINATION IS 98.00
CODE IS SORS
SECOND MISSION: HETERODYNING CO2 LIDAR OUTCOME # IS 0
KEY IS S003
CODE IS SPXX

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832

ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA SERVICE TECH	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	MISSION RESULTS															
CREW SKILL	MANDAYS															
SP STA SYS OPS	8.261															
EVA CRANE OP	7.560															
EVA SERVICE TECH	7.560															

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 3
NUMBER OF FLIGHTS: 1 PRIME MISSION: **INTELSAT-7,7A CLASS COMSAT OUTCOME # IS 0 KEY IS CC03

INCLINATION IS 0.00
CODE IS FXCL
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	1.661
SP STA SYS OPS	10.075
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

OTV OPERATIONS

UNADJUSTED DURATIONS
MAINTAIN STAGE = 1.150
MATE TO PAYLD = 0.131
STAGE/STAGE MATE = 0.210
OTV/PLD C/O = 0.555
LAUNCH = 0.082
CAPTURE = 0.042
MISSION OPS = 2.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 3.756AWAY 4.200

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
EVA CRANE OP.	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FIRST	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	6.987
S/C SYS - ELEC	9.160
S/C SYS - MECH	7.470
S/C SYS - FLUIDS	7.879
SP STA SYS OPS	16.972
EVA CRANE OP	8.636
EVA SERVICE TECH	15.881
MANNED OTV PILOT	8.660

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.280
TEST & C/O	=	0.486

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 2.146

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	0.816
S/C SYS - ELEC	0.510
S/C SYS - MECH	0.510
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	4.292
EVA CRANE OP	2.251
EVA SERVICE TECH	1.075

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	2.1
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

TYPE #1 = 2 TYPE #2 = 2

***>> FLIGHT NO. 4
NUMBER OF FLIGHTS: 4 PRIME MISSION: **RECONFIGURABLE COMM. SATELLI OUTCOME # IS 0 KEY IS CC05
INCLINATION IS 0.00
CODE IS FXCM
SECOND MISSION: CRYSTAL GROWTH RESUP-2 OUTCOME # IS 0
KEY IS CM04
CODE IS PMCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3629
ADJ STS DURATION AT SP STA FOR TOTAL OF 4 FLIGHTS: 10.606

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***			***COMMERC MISSIONS***			***TECH DEV MISSIONS**			****OPER SUPPORT*****		
	OPS	SERV	MSN OP CONST	OPS	SERV	MSN OP CONST	OPS	SERV	MSN OP CONST	OPS	SERV	MSN OP CONST

NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - FLUIDS	6.097
SP STA SYS OPS	29.536
EVA CRANE OP	20.160
EVA SERVICE TECH	20.160

OTV OPERATIONS

UNADJUSTED DURATIONS

MAINTAIN STAGE	=	1.150
MATE TO PAYLD	=	0.131
STAGE/STAGE MATE	=	0.210
OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	7.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 4 FLIGHTS:
AT SPACE STA 77.025AWAY 58.800

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	17.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	19.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	13.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	29.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	69.947
S/C SYS - ELEC	78.641
S/C SYS - MECH	71.879
S/C SYS - FLUIDS	72.970
SP STA SYS OPS	57.127
EVA CRANE OP	24.464
EVA SERVICE TECH	53.444
MANNED OTV PILOT	118.638

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.140
TEST & C/O	=	3.400
MODULE MATE	=	0.152

ADJUSTED DUR FOR 4 FLIGHTS, AT SPACE STATION 39.824

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	23.103
S/C SYS - ELEC	14.918

S/C SYS - MECH	14.918
S/C SYS - FLUIDS	14.280
SP STA SYS OPS	79.649
EVA CRANE OP	22.529
EVA SERVICE TECH	20.177

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 4 IN MANDAYS/YR

STS OPERATIONS	10.6
CONSTRUCTION OPERATIONS	39.8
OTV OPERATIONS	77.0
OTV MISSIONS	58.8

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 4 FLIGHTS, AT SPACE STATION 46.696

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	26.497
S/C SYS - ELEC	17.279
S/C SYS - MECH	17.279
S/C SYS - FLUIDS	16.321
SP STA SYS OPS	93.391

EVA CRANE OP 28.106

EVA SERVICE TECH 25.754

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 4 IN MANDAYS/YR

STS OPERATIONS	10.6
CONSTRUCTION OPERATIONS	46.7
OTV OPERATIONS	77.0
OTV MISSIONS	58.8

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 5
NUMBER OF FLIGHTS: 1 PRIME MISSION: **CRYSTAL GROWTH RESUP-2 OUTCOME # IS 0 KEY IS CM04
INCLINATION IS 29.00
CODE IS PMCL
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3467
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	1.456
SP STA SYS OPS	9.819
EVA CRANE OP	7.560

EVA SERVICE TECH 7.560

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.200
MATE TO FIXT = 0.056
TEST & C/O = 0.486
MODULE MATE = 0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.718

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.436
EVA CRANE OP	1.394
EVA SERVICE TECH	1.394

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 5 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	1.7
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 6
NUMBER OF FLIGHTS: 1 PRIME MISSION: **CRYSTAL GROWTH RESUP-2 OUTCOME # IS 0 KEY IS CM04
INCLINATION IS 29.00
CODE IS PMCL
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3304
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	1.388
SP STA SYS OPS	9.733
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.200
MATE TO FIXT = 0.056
TEST & C/O = 0.486
MODULE MATE = 0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.718

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.436
EVA CRANE OP	1.394
EVA SERVICE TECH	1.394

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 6 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	1.7
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 3 TYPE #2 = 4

***>> FLIGHT NO. 7
NUMBER OF FLIGHTS: 1 PRIME MISSION: PASSIVE MICW RADIOMETER OUTCOME # IS 0 KEY IS TM03
INCLINATION IS 29.00
CODE IS SPCM
SECOND MISSION: TMS DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)

ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS CREW SKILL MANDAYS	
SP STA SYS OPS	7.998
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	17.640
TEST & C/O	=	3.400
MODULE MATE	=	0.228

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 46.866

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93.7	0.0	0.0	0.0	0.0	0.0

EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	79.5	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	5.808
S/C SYS - ELEC	3.809
S/C SYS - MECH	3.809
S/C SYS - FLUIDS	3.570
SP STA SYS OPS	93.731
EVA CRANE OP	79.451
EVA SERVICE TECH	5.363

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 7 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	46.9
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 0

***>> FLIGHT NO. 8
NUMBER OF FLIGHTS: 16 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 16 FLIGHTS: 23.661

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN UP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS	51.529
EVA CRANE OP	40.320
EVA SERVICE TECH	40.320

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 8 IN MANDAYS/YR

STS OPERATIONS	23.7
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 9
NUMBER OF FLIGHTS: 8 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 8 FLIGHTS: 21.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0

MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	MISSION RESULTS															
CREW SKILL	MANDAYS															
SP STA SYS OPS	45.924															
EVA CRANE OP	40.320															
EVA SERVICE TECH	40.320															

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 9 IN MANDAYS/YR

STS OPERATIONS	21.9
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 10
NUMBER OF FLIGHTS: 1 PRIME MISSION: HI-INCL STATION RESUPPLY OUTCOME # IS 0 KEY IS OT04
INCLINATION IS 98.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 2.739

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS CREW SKILL	MISSION RESULTS MANDAYS
SP STA SYS OPS	5.741
EVA CRANE OP	5.040
EVA SERVICE TECH	5.040

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 10 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

PAYLOADS SERVICING ANALYSIS

PAYLOAD WITH KEY S001 EARTH OBSERV PALLET

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 150.000

UPDATED WORK DURATION AT SP STA 150.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS.

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	15.000
EARTH, OCEAN OBS	150.000
S/C SYS - ELEC	7.500
S/C SYS - FLUIDS	7.500
SP STA SYS OPS	7.500

DURATION SUMMARY FOR PAYLOAD NO. 1 S001 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	150.0

PAYLOAD WITH KEY S002 SYNTH APERTURE RADAR

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 5.000

UPDATED WORK DURATION AT SP STA 5.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 0.500

EARTH, OCEAN OBS 5.000

S/C SYS - ELEC 0.250

S/C SYS - FLUIDS 0.250

SP STA SYS OPS 0.250

DURATION SUMMARY FOR PAYLOAD NO. 2 S002 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 5.0

PAYLOAD WITH KEY S003 HETERODYNING CO2 LIDAR

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 5.000

UPDATED WORK DURATION AT SP STA 5.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	0.500
EARTH, OCEAN OBS	5.000
S/C SYS - ELEC	0.250
S/C SYS - FLUIDS	0.250
SP STA SYS OPS	0.250

DURATION SUMMARY FOR PAYLOAD NO. 3 5003 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	5.0

PAYLOAD WITH KEY S004 UPPER ATMOS RESEARCH PKG

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 145.000

UPDATED WORK DURATION AT SP STA 145.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	145.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	14.500
EARTH, OCEAN OBS	145.000
S/C SYS - ELEC	7.250
S/C SYS - FLUIDS	7.250
SP STA SYS OPS	7.250

DURATION SUMMARY FOR PAYLOAD NO. 4 S004 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	145.0

PAYLOAD WITH KEY OT03 SPACE STATION MODULES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 5 OT03 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 5 OT03 IN MANDAYS/YR

SERVICING OPERATIONS	336.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY OT04 HI-INCL STATION RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 6 OT04 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA01 VLBI/COSMIC RAY PKG

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
ASTROPHYSICS = 67.000

UPDATED WORK DURATION AT SP STA 67.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	6.700
ASTROPHSICS	67.000
S/C SYS - ELEC	3.350

S/C SYS - FLUIDS	3.350
SP STA SYS OPS	3.350

DURATION SUMMARY FOR PAYL D NO. 9 SA01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	67.0

PAYLOAD WITH KEY SL08 RAD BIOLOGY IN SM MAMMALS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

LIFE SCIENCE = 30.000

UPDATED WORK DURATION AT SP STA 30.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	3.000
MED/BIO RESEARCH	30.000
S/C SYS - ELEC	1.500
S/C SYS - FLUIDS	1.500
SP STA SYS OPS	1.500

DURATION SUMMARY FOR PAYLOAD NO. 10 SL08 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	30.0

PAYLOAD WITH KEY SL01 HUMAN LIFE SI CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

LIFE SCIENCE = 73.000

UPDATED WORK DURATION AT SP STA 73.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	73.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	7.300
MED/BIO RESEARCH	73.000
S/C SYS - ELEC	3.650
S/C SYS - FLUIDS	3.650
SP STA SYS OPS	3.650

DURATION SUMMARY FOR PAYLOAD NO. 11 SL01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	73.0

PAYLOAD WITH KEY SL04 LIFESCIENCES RES FAC

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 191.000

UPDATED WORK DURATION AT SP STA 191.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	19.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	191.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	19.100
MED/BIO RESEARCH	191.000
S/C SYS - ELEC	9.550
S/C SYS - FLUIDS	9.550
SP STA SYS OPS	9.550

DURATION SUMMARY FOR PAYLOAD NO. 14 SL04 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	191.0

PAYLOAD WITH KEY SL05 CENTRIFUGE (ADD TO LSRF)

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS

CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 91.000

UPDATED WORK DURATION AT SP STA 91.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	91.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	9.100
MED/BIO RESEARCH	91.000
S/C SYS - ELEC	4.550
S/C SYS - FLUIDS	4.550
SP STA SYS OPS	4.550

DURATION SUMMARY FOR PAYLOAD NO. 15 SL05 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	91.0

PAYLOAD WITH KEY SL06 CLOSED ENV LSS EXPT MOD

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 547.500

UPDATED WORK DURATION AT SP STA 547.5 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	547.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	54.750
MED/BIO RESEARCH	547.500
S/C SYS - ELEC	27.375
S/C SYS - FLUIDS	27.375
SP STA SYS OPS	27.375

DURATION SUMMARY FOR PAYLOAD NO. 16 SL06 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	547.5

PAYLOAD WITH KEY CM01 MATLS SCIENCE LAB

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 300.000

UPDATED WORK DURATION AT SP STA 300.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
RESEARCH MISSION RESULTS																				
CREW SKILL MANDAYS																				

DURATION SUMMARY FOR PAYLOAD NO. 17 CM01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	300.0

PAYLOAD WITH KEY CM02 CRYSTAL GROWTH FACTORY/PLAT

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	36.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 18 CM02 154.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	61.5	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	126.7	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.0	0.0		0.0	54.8	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	125.8	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	44.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	143.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	254.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	61.471
S/C SYS - DATA	126.739
S/C SYS - ELEC	54.818
S/C SYS - MECH	125.800
S/C SYS - FLUIDS	44.206
SP STA SYS OPS	143.136
EVA SERVICE TECH	56.952
TMS PILOT	254.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 18 CM02 IN MANDAYS/YR

SERVICING OPERATIONS	154.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM03 CRYSTAL GROWTH RESUP-1

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	12.000
TEST & C/O	=	1.458
TMS LAUNCH	=	0.246
TMS OPS	=	9.000
TMS CREW OPS	=	9.000
TMS CAPTURE/BRTH	=	0.126
TMS MAINT/REFUEL	=	3.300
CREW MOD MAINT	=	5.130

ADJUSTED SERVICING TIME FOR 19 CM03 84.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	30.4	0.0	0.0								
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	79.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	25.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	78.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	75.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	42.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	127.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	30.353
S/C SYS - DATA	79.304
S/C SYS - ELEC	25.364
S/C SYS - MECH	78.600
S/C SYS - FLUIDS	17.404
SP STA SYS OPS	75.852
EVA SERVICE TECH	42.714
TMS PILOT	127.562

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 19 CM03 IN MANDAYS/YR

SERVICING OPERATIONS	84.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM04 CRYSTAL GROWTH RESUP-2

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	16.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 20 CM04 112.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	40.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	105.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	33.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	104.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	23.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	101.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	170.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	40.471
S/C SYS - DATA	105.739
S/C SYS - ELEC	33.818
S/C SYS - MECH	104.800
S/C SYS - FLUIDS	23.206
SP STA SYS OPS	101.136
EVA SERVICE TECH	56.952
TMS PILOT	170.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 20 CM04 IN MANDAYS/YR

SERVICING OPERATIONS	112.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA03 ASTROPHYSICS FREE-FLYER

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	2.000
TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100

CREW MOD MAINT = 1.710

ADJUSTED SERVICING TIME FOR 22 SA03 30.1 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	36.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	25.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	34.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	11.078
S/C SYS - DATA	36.574
S/C SYS - ELEC	6.355
S/C SYS - MECH	25.324
S/C SYS - FLUIDS	4.313
SP STA SYS OPS	33.323
EVA SERVICE TECH	14.238
TMS PILOT	34.121

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 22 SA03 IN MANDAYS/YR

SERVICING OPERATIONS	30.1
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA04 ASTROPHYSICS OBSERVATORIES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
REMOTE SERVICE = 6.000

TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 23 SA04 38.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	40.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	41.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	50.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	15.278
S/C SYS - DATA	40.774
S/C SYS - ELEC	10.555
S/C SYS - MECH	29.524
S/C SYS - FLUIDS	8.513
SP STA SYS OPS	41.723
EVA SERVICE TECH	14.238
TMS PILOT	50.921

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 23 SA04 IN MANDAYS/YR

SERVICING OPERATIONS	38.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CC03 INTELSAT-7,7A CLASS COMSAT

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 26 CC03 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CC04 MULTIBEAM COMM. SATELLITE

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 27 CC04 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CC05 RECONFIGURABLE COMM. SATELLITE

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 28 CC05 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM05 CONT FLOW ELEC- TROPH PLATFORM

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

ADJUSTED SERVICING TIME FOR 29 CM05 0.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 29 CM05 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM06 CONTINUOUS FLOW ELECTRO RESUPP

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	48.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 30 CM06 179.9 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	74.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	139.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	67.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	138.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	56.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	168.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	304.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	74.071
S/C SYS - DATA	139.339
S/C SYS - ELEC	67.418
S/C SYS - MECH	138.400
S/C SYS - FLUIDS	56.806
SP STA SYS OPS	168.336
EVA SERVICE TECH	56.952
TMS PILOT	304.483

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 30 CM06 IN MANDAYS/YR

SERVICING OPERATIONS 179.9
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT01 LOW INCL STA MODULE DEL

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 33 OT01 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RESEARCH MISSION RESULTS																	
CREW SKILL MANDAYS																	

DURATION SUMMARY FOR PAYLOAD NO. 33 OT01 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT02 LOW INCL STA RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 34 OT02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT05 HI-ALT STA RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 35 OT05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY TM03 PASSIVE MICW RADIOMETER

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 148.000

UPDATED WORK DURATION AT SP STA 148.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.6	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	148.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.6	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.8	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	29.600
ENGINEERING	148.000
S/C SYS - DATA	22.200
S/C SYS - ELEC	7.400
S/C SYS - MECH	7.400
S/C SYS - FLUIDS	29.600
SP STA SYS OPS	14.800
EVA CRANE OP	7.400
EVA SERVICE TECH	7.400
MANNED OTV PILOT	22.200

DURATION SUMMARY FOR PAYLOAD NO. 43 TM03 IN MANDAYS/YR

SERVICING OPERATIONS 0.0

SCIENCE & TECH DEMO 148.0

PAYLOAD WITH KEY TS02 TECH DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

DOD/TECH DEV = 20.000

UPDATED WORK DURATION AT SP STA 20.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	4.000
ENGINEERING	20.000
S/C SYS - DATA	3.000
S/C SYS - ELEC	1.000
S/C SYS - MECH	1.000
S/C SYS - FLUIDS	4.000
SP STA SYS OPS	2.000
EVA CRANE OP	1.000
EVA SERVICE TECH	1.000
MANNED OTV PILOT	3.000

DURATION SUMMARY FOR PAYLOAD NO. 45 TS02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 20.0

PAYLOAD WITH KEY SA05 LARGE RADIO TELESCOPE

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	10.000
TEST & C/O	=	10.100
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 46 SA05 61.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	26.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	73.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	14.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	36.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	14.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	78.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	67.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	26.512
S/C SYS - DATA	73.114
S/C SYS - ELEC	14.755
S/C SYS - MECH	36.538
S/C SYS - FLUIDS	14.120
SP STA SYS OPS	78.263
EVA SERVICE TECH	14.238

TMS PILOT 67..721

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 46 SA05 IN MANDAYS/YR

SERVICING OPERATIONS	61.0
SCIENCE & TECH DEMO	0.0

SKILL MIX SUMMARIES LOW INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	52.9	90.3	0.0	0.0	206.4	0.0	0.0	0.0	0.0	33.6	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	902.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	168.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	150.5	0.0	0.0	83.9	451.1	0.0	57.9	0.0	0.0	25.2	5.8	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	31.7	45.1	0.0	97.0	181.4	0.0	37.6	0.0	0.0	8.4	3.8	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	91.4	0.0	0.0	86.8	447.6	0.0	37.6	0.0	0.0	8.4	3.8	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	26.9	45.1	0.0	79.3	141.6	0.0	35.7	0.0	0.0	33.6	3.6	21.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	153.3	45.1	0.0	137.1	488.5	0.0	207.5	2.5	0.0	16.8	93.7	126.1	470.4	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	102.2	0.0	0.0	64.2	2.5	0.0	8.4	79.5	75.6	67.2	0.0	0.0
EVA SERVICE TECH	0.0	42.7	0.0	0.0	145.7	213.6	0.0	55.4	2.5	0.0	8.4	5.4	75.6	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	136.0	0.0	0.0	0.0	0.0	0.0	25.2	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	152.8	0.0	0.0	0.0	856.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
1830.	4350.	539.	971.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	450.3
MED/BIO RESEARCH	902.5
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	168.0
ASTROPHSICS	0.0
S/C SYS - DATA	774.4
S/C SYS - ELEC	405.0
S/C SYS - MECH	675.6
S/C SYS - FLUIDS	387.6
SP STA SYS OPS	1741.1
EVA CRANE OP	399.6
EVA SERVICE TECH	616.4
MANNED OTV PILOT	161.2
TMS PILOT	1009.0

MATLS SCIENCE 0.0

TOTAL SPACE STATION CREW: 21.1 PEOPLE

SKILL MIX SUMMARIES HIGH INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	40.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	305.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	20.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	20.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	0.0	20.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	479.4	0.0	0.0
EVA SERVICE TECH	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	67.2	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
510.	0.	0.	704.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	107.4
MED/BIO RESEARCH	30.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	305.0
ENGINEERING	0.0
ASTROPHSICS	67.0
S/C SYS - DATA	0.0
S/C SYS - ELEC	20.1
S/C SYS - MECH	0.0
S/C SYS - FLUIDS	20.1
SP STA SYS OPS	504.5
EVA CRANE OP	79.8
EVA SERVICE TECH	79.8
MANNED OTV PILOT	0.0
TMS PILOT	0.0
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 3.3 PEOPLE

LOW INCLINATION

DURATION SUMMARY FOR YEAR 2002 IN MANDAYS/YR

STS OPERATIONS	75.7
CONSTRUCTION	150.6
OTV OPERATIONS	94.5
OTV MISSIONS	67.2
SERVICING OPERATIONS	997.5
SCIENCE & TECH DEMO	1370.5

HIGH INCLINATION

DURATION SUMMARY FOR YEAR 2002 IN MANDAYS/YR

STS OPERATIONS	6.7
CONSTRUCTION	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	336.0
SCIENCE & TECH DEMO	402.0

SUMMARY OF SPACE STATION PAYLOADS THIS YEAR

KEY	TITLE	PLCODE	INCL	PK POWER	DUTY CYCLE
S001	EARTH OBSERV PALLET	SPCL	98.0	3.5	82.2
S002	SYNTH APERTURE RADAR	SPCL	98.0	10.0	2.7
S003	HETERODYNING CO2 LIDAR	SPXX	98.0	1.0	13.7
S004	UPPER ATMOS RESEARCH PKG	SPCL	98.0	2.2	54.8
OT03	SPACE STATION MODULES	SSSS	98.0	15.0	100.0
OT04	HI-INCL STATION RESUPPLY	SORS	98.0	1.0	100.0
SA01	VLBI/COSMIC RAY PKG	SPCL	98.0	2.0	100.0
SL08	RAD BIOLOGY IN SM MAMMALS	SSSA	98.0	0.6	100.0
SL01	HUMAN LIFE SI CARRY-ONS	SSSA	29.0	1.7	100.0
SL04	LIFESCIENCES RES FAC	SPXX	29.0	12.2	100.0
SL05	CENTRIFUGE (ADD TO LSRF)	SSCL	29.0	4.0	100.0
SL06	CLOSED ENV	SPCL	29.0	9.7	100.0

LSS EXPT MOD

CM01	MATLS SCIENCE LAB	SPXX	29.0	25.0	35.6
CM02	CRYSTAL GROWTH FACTORY/PLAT	PMCL	29.0	0.0	100.0
CM03	CRYSTAL GROWTH RESUP-1	PMXX	29.0	0.0	0.5
CM04	CRYSTAL GROWTH RESUP-2	PMCL	29.0	0.0	0.5
SA03	ASTROPHYSICS FREE-FLYER	FMXM	29.0	0.0	100.0
SA04	ASTROPHYSICS OBSERVATORIES	FMXM	29.0	1.0	100.0
CC03	INTELSAT-7,7A CLASS COMSAT	FXCL	0.0	0.0	0.0
CC04	MULTIBEAM COMM. SATELLITE	SSCM	0.0	0.0	0.0
CC05	RECONFIGURABLE COMM. SATELLITE	FXCM	0.0	0.0	1.9
CM05	CONT FLOW ELEC-TROPH PLATFORM	PMCL	29.0	0.0	100.0
CM06	CONTINUOUS FLOW ELECTRO RESUPP	PMXL	29.0	2.0	0.0
OT01	LOW INCL STA MODULE DEL	SSSS	29.0	20.0	100.0
OT02	LOW INCL STA RESUPPLY	SORS	29.0	0.0	100.0
OT05	HI-ALT STA RESUPPLY	OMSB	29.0	0.0	100.0
TM03	PASSIVE MICW RADIOMETER	SPCM	29.0	4.0	40.5
TS02	TECH DEVEL CARRY-ONS	SSSA	29.0	0.5	6.8
SA05	LARGE RADIO TELESCOPE	FMCH	29.0	0.0	100.0

LOW INCLINATION

PEAK POWER	AVERAGE POWER
80.1	59.2

HIGH INCLINATION

PEAK POWER	AVERAGE POWER
35.3	23.1

RESOURCES SUMMARY FOR LOW INCLINATION SPACE STATION

INTERNAL VOLUME	5.4 CUBIC METERS
POWER	59.2 KW
NO. OF PORTS	4.

RESOURCES SUMMARY FOR HIGH INCLINATION SPACE STATION

INTERNAL VOLUME	6.8 CUBIC METERS
POWER	23.1 KW
NO. OF PORTS	5.

POINTING & DISTURBANCE SUMMARY FOR LOW INCLINATION SPACE STATION

EARTH: . 0 NONE: - INERTIAL: *

DAYS/YEAR

	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350
SL01	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CM01						----------	----------	----------							
CM02	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CM03								-							
CM04								-							
SA03	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
SA04	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CC03								-							
CC04								-							
CC05								-							
CM05	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CM06								-							
OT01	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
OT02	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
OT05	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
TM03	0000000000000000000000000000000														
TS02								-----							
SA05	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

POINTING & DISTURBANCE SUMMARY FOR HIGH INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

				1	1	1	1	2	2	2	2	3	3	3
	2	5	7	0	2	5	7	0	2	5	7	0	2	5
0	5	0	5	0	5	0	5	0	5	0	5	0	5	0

S001 0000000000000000000000000000000000000000000000000000000000000000000000000000

S002 00

S003 0000000000

S004 00000000000000000000000000000000000000000000

OT03 ----------

OT04 ----------

SA01 **

SL08 ----------

* * * SPACE STATION OPERATIONS ANALYSIS FOR YEAR 2003 * * *

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 1
NUMBER OF FLIGHTS: 1 PRIME MISSION: **CRYSTAL GROWTH FACTORY/PLAT OUTCOME # IS 0 KEY IS CM02
INCLINATION IS 29.00
CODE IS PMCL
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3792
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	1.593
SP STA SYS OPS	9.989
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.200
MATE TO FIXT = 0.056
TEST & C/O = 0.486

MODULE MATE = 0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.718

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FIRST	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.436
EVA CRANE OP	1.394
EVA SERVICE TECH	1.394

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 1 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	1.7
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 2
NUMBER OF FLIGHTS: 1 PRIME MISSION: **INTELSAT-7,7A CLASS COMSAT OUTCOME # IS 0 KEY IS CC03
INCLINATION IS 0.00
CODE IS FXCL
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS

ORBITER ARRIVE	= 0.0416	
ORBITER OFFLOAD	= 0.6000	
ORBITER OFFLOAD	= 0.6000	(MISSION 2)
ORBITER RELOAD	= 0.6000	(MISSION 2)
ORBITER DEPART	= 0.0210	
ORBITER PROP XFR	= 0.3954	

ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	1.661
SP STA SYS OPS	10.075
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

OTV OPERATIONS

UNADJUSTED DURATIONS

MAINTAIN STAGE	=	1.150
MATE TO PAYLD	=	0.131
STAGE/STAGE MATE	=	0.210
OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	2.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 8.756AWAY 4.200

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	6.987
S/C SYS - ELEC	9.160
S/C SYS - MECH	7.470
S/C SYS - FLUIDS	7.879
SP STA SYS OPS	16.972
EVA CRANE OP	8.636
EVA SERVICE TECH	15.881
MANNED OTV PILOT	8.660

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.280
TEST & C/O	=	0.486

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 2.146

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	0.816
S/C SYS - ELEC	0.510
S/C SYS - MECH	0.510
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	4.292
EVA CRANE OP	2.251
EVA SERVICE TECH	1.075

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	2.1
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

TYPE #1 = 2 TYPE #2 = 2

***>> FLIGHT NO. 3
NUMBER OF FLIGHTS: 4 PRIME MISSION: **RECONFIGURABLE COMM. SATELLI OUTCOME # IS 0 KEY IS CC05
INCLINATION IS 0.00
CODE IS FXCM
SECOND MISSION: CRYSTAL GROWTH RESUP-2 OUTCOME # IS 0
KEY IS CM04
CODE IS PMCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS

ORBITER ARRIVE	=	0.0416
ORBITER OFFLOAD	=	0.6000
ORBITER OFFLOAD	=	0.6000 (MISSION 2)
ORBITER DEPART	=	0.0210
ORBITER PROP XFR	=	0.3629

ADJ STS DURATION AT SP STA FOR TOTAL OF 4 FLIGHTS: 10.606

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - FLUIDS	6.097
SP STA SYS OPS	29.536
EVA CRANE OP	20.160
EVA SERVICE TECH	20.160

OTV OPERATIONS

UNADJUSTED DURATIONS

MAINTAIN STAGE	=	1.150
MATE TO PAYLD	=	0.131
STAGE/STAGE MATE	=	0.210
OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	7.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 4 FLIGHTS:
AT SPACE STA 77.025AWAY 58.800

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	17.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	19.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	13.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	29.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	69.947
S/C SYS - ELEC	78.641
S/C SYS - MECH	71.879
S/C SYS - FLUIDS	72.970
SP STA SYS OPS	57.127
EVA CRANE OP	24.464
EVA SERVICE TECH	53.444
MANNED OTV PILOT	118.638

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.140
TEST & C/O	=	3.400
MODULE MATE	=	0.152

ADJUSTED DUR FOR 4 FLIGHTS, AT SPACE STATION 39.824

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FIRST	MISSION RESULTS																			
CREW SKILL	MANDAYS																			
S/C SYS - DATA	23.103																			
S/C SYS - ELEC	14.918																			
S/C SYS - MECH	14.918																			
S/C SYS - FLUIDS	14.280																			
SP STA SYS OPS	79.649																			

EVA CRANE OP	22.529
EVA SERVICE TECH	20.177

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	10.6
CONSTRUCTION OPERATIONS	39.8
OTV OPERATIONS	77.0
OTV MISSIONS	58.8

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 4 FLIGHTS, AT SPACE STATION 46.696

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SECOND	MISSION RESULTS															
CREW SKILL	MANDAYS															
S/C SYS - DATA	26.497															
S/C SYS - ELEC	17.279															
S/C SYS - MECH	17.279															
S/C SYS - FLUIDS	16.321															
SP STA SYS OPS	93.391															
EVA CRANE OP	28.106															
EVA SERVICE TECH	25.754															

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	10.6
CONSTRUCTION OPERATIONS	46.7
OTV OPERATIONS	77.0
OTV MISSIONS	58.8

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 4
NUMBER OF FLIGHTS: 2 PRIME MISSION: **CRYSTAL GROWTH RESUP-2 OUTCOME # IS 0 KEY IS CM04
INCLINATION IS 29.00
CODE IS PMCL
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS

ORBITER ARRIVE	=	0.0416	
ORBITER OFFLOAD	=	0.6000	
ORBITER OFFLOAD	=	0.6000	(MISSION 2)
ORBITER RELOAD	=	0.6000	(MISSION 2)
ORBITER DEPART	=	0.0210	
ORBITER PROP XFR	=	0.3304	

ADJ STS DURATION AT SP STA FOR TOTAL OF 2 FLIGHTS: 7.823

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	2.776
SP STA SYS OPS	19.467
EVA CRANE OP	15.120
EVA SERVICE TECH	15.120

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 2 FLIGHTS, AT SPACE STATION 3.436

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	1.697
S/C SYS - ELEC	1.180
S/C SYS - MECH	1.180
S/C SYS - FLUIDS	1.021
SP STA SYS OPS	6.871
EVA CRANE OP	2.789
EVA SERVICE TECH	2.789

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 4 IN MANDAYS/YR

STS OPERATIONS	7.8
CONSTRUCTION OPERATIONS	3.4
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 1 TYPE #2 = 4

***>> FLIGHT NO. 5
NUMBER OF FLIGHTS: 1 PRIME MISSION: ASTRO TELESCOPE CLUSTER OUTCOME # IS 0 KEY IS SA02
INCLINATION IS 29.00
CODE IS SPXX

SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA SERVICE TECH	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	8.261
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FOR FIRST MISSION FLIGHT NO. 5 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 6
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: TMS DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS CREW SKILL	MISSION RESULTS MANDAYS
SP STA SYS OPS	8.261
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 6 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 0

***>> FLIGHT NO. 7
NUMBER OF FLIGHTS: 16 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 16 FLIGHTS: 23.661

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	51.529
EVA CRANE OP	40.320
EVA SERVICE TECH	40.320

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 7 IN MANDAYS/YR

STS OPERATIONS	23.7
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 8
NUMBER OF FLIGHTS: 8 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER RELOAD = 0.6000

ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 8 FLIGHTS: 21.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CREW SKILL	MISSION RESULTS MANDAYS
SP STA SYS OPS	45.924
EVA CRANE OP	40.320
EVA SERVICE TECH	40.320

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 8 IN MANDAYS/YR

STS OPERATIONS	21.9
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 9
NUMBER OF FLIGHTS: 2 PRIME MISSION: HI-INCL STATION RESUPPLY OUTCOME # IS 0 KEY IS OT04
INCLINATION IS 98.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 2 FLIGHTS: 5.478

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				*****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	11.481
EVA CRANE OP	10.080
EVA SERVICE TECH	10.080

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 9 IN MANDAYS/YR

STS OPERATIONS	5.5
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

PAYLOADS SERVICING ANALYSIS

PAYLOAD WITH KEY S001 EARTH OBSERV PALLET

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 150.000

UPDATED WORK DURATION AT SP STA 150.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	15.000
EARTH, OCEAN OBS	150.000
S/C SYS - ELEC	7.500
S/C SYS - FLUIDS	7.500
SP STA SYS OPS	7.500

DURATION SUMMARY FOR PAYLOAD NO. 1 S001 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	150.0

PAYLOAD WITH KEY S002 SYNTH APERTURE RADAR

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 5.000

UPDATED WORK DURATION AT SP STA 5.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	0.500
EARTH, OCEAN OBS	5.000
S/C SYS - ELEC	0.250
S/C SYS - FLUIDS	0.250
SP STA SYS OPS	0.250

DURATION SUMMARY FOR PAYLOAD NO. 2 S002 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	5.0

PAYLOAD WITH KEY S003 HETERODYNING CO2 LIDAR

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 5.000

UPDATED WORK DURATION AT SP STA 5.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	5.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	0.500
EARTH, OCEAN OBS	5.000
S/C SYS - ELEC	0.250
S/C SYS - FLUIDS	0.250
SP STA SYS OPS	0.250

DURATION SUMMARY FOR PAYLOAD NO. 3 S003 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	5.0

PAYLOAD WITH KEY S004 UPPER ATMOS RESEARCH PKG

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 145.000

UPDATED WORK DURATION AT SP STA 145.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	145.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	14.500
EARTH, OCEAN OBS	145.000
S/C SYS - ELEC	7.250
S/C SYS - FLUIDS	7.250
SP STA SYS OPS	7.250

DURATION SUMMARY FOR PAYLOAD NO. 4 S004 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	145.0

PAYLOAD WITH KEY OT03 SPACE STATION MODULES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 5 OT03 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 5 OT03 IN MANDAYS/YR

SERVICING OPERATIONS	336.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY OT04 HI-INCL STATION RESUPPLY

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 6 OT04 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA01 VLBI/COSMIC RAY PKG

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
ASTROPHYSICS = 67.000

UPDATED WORK DURATION AT SP STA 67.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	6.700
ASTROPHSICS	67.000
S/C SYS - ELEC	3.350

S/C SYS - FLUIDS	3.350
SP STA SYS OPS	3.350

DURATION SUMMARY FOR PAYLOAD NO. 9 SA01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	67.0

PAYLOAD WITH KEY SL08 RAD BIOLOGY IN SM MAMMALS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

LIFE SCIENCE = 30.000

UPDATED WORK DURATION AT SP STA 30.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	3.000
MED/BIO RESEARCH	30.000
S/C SYS - ELEC	1.500
S/C SYS - FLUIDS	1.500
SP STA SYS OPS	1.500

DURATION SUMMARY FOR PAYLOAD NO. 10 SL08 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 30.0

PAYLOAD WITH KEY SL01 HUMAN LIFE SI CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 73.000

UPDATED WORK DURATION AT SP STA 73.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	73.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	7.300
MED/BIO RESEARCH	73.000
S/C SYS - ELEC	3.650
S/C SYS - FLUIDS	3.650
SP STA SYS OPS	3.650

DURATION SUMMARY FOR PAYLOAD NO. 11 SL01 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 73.0

PAYLOAD WITH KEY SL04 LIFESCIENCES RES FAC

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 191.000

UPDATED WORK DURATION AT SP STA 191.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	19.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	191.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	19.100
MED/BIO RESEARCH	191.000
S/C SYS - ELEC	9.550
S/C SYS - FLUIDS	9.550
SP STA SYS OPS	9.550

DURATION SUMMARY FOR PAYLOAD NO. 14 SL04 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	191.0

PAYLOAD WITH KEY SL05 CENTRIFUGE (ADD TO LSRF)

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 91.000

UPDATED WORK DURATION AT SP STA 91.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	91.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	9.100
MED/BIO RESEARCH	91.000
S/C SYS - ELEC	4.550
S/C SYS - FLUIDS	4.550
SP STA SYS OPS	4.550

DURATION SUMMARY FOR PAYLOAD NO. 15 SL05 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	91.0

PAYLOAD WITH KEY SL06 CLOSED ENV LSS EXPT MOD

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 547.500

UPDATED WORK DURATION AT SP STA 547.5 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	547.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	54.750
MED/BIO RESEARCH	547.500
S/C SYS - ELEC	27.375
S/C SYS - FLUIDS	27.375
SP STA SYS OPS	27.375

DURATION SUMMARY FOR PAYLOAD NO. I6 SL06 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	547.5

PAYLOAD WITH KEY CM01 MATLS SCIENCE LAB

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 300.000

UPDATED WORK DURATION AT SP STA 300.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 17 CM01 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 300.0

PAYLOAD WITH KEY CM02 CRYSTAL GROWTH FACTORY/PLAT

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	36.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 18 CM02 154.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	126.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	125.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	44.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	143.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	254.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	61.471
S/C SYS - DATA	126.739
S/C SYS - ELEC	54.818
S/C SYS - MECH	125.800
S/C SYS - FLUIDS	44.206
SP STA SYS OPS	143.136
EVA SERVICE TECH	56.952
TMS PILOT	254.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 18 CM02 IN MANDAYS/YR

SERVICING OPERATIONS	154.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM03 CRYSTAL GROWTH RESUP-1

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	12.000
TEST & C/O	=	1.458
TMS LAUNCH	=	0.246
TMS OPS	=	9.000
TMS CREW OPS	=	9.000
TMS CAPTURE/BRTH	=	0.126
TMS MAINT/REFUEL	=	3.300
CREW MOD MAINT	=	5.130

ADJUSTED SERVICING TIME FOR 19 CM03 84.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	30.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	79.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	25.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	78.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	75.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	42.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	127.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	30.353
S/C SYS - DATA	79.304
S/C SYS - ELEC	25.364
S/C SYS - MECH	78.600
S/C SYS - FLUIDS	17.404
SP STA SYS OPS	75.852
EVA SERVICE TECH	42.714
TMS PILOT	127.562

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 19 CM03 IN MANDAYS/YR

SERVICING OPERATIONS	84.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM04 CRYSTAL GROWTH RESUP-2

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	16.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 20 CM04 112.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	40.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	105.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	33.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	104.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	23.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	101.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	170.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	40.471
S/C SYS - DATA	105.739
S/C SYS - ELEC	33.818
S/C SYS - MECH	104.800
S/C SYS - FLUIDS	23.206
SP STA SYS OPS	101.136
EVA SERVICE TECH	56.952
TMS PILOT	170.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 20 CM04 IN MANDAYS/YR

SERVICING OPERATIONS	112.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA02 ASTRO TELESCOPE CLUSTER

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

ASTROPHYSICS = 65.000

UPDATED WORK DURATION AT SP STA 65.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	65.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	3.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	3.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	3.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	6.500
ASTROPHSICS	65.000
S/C SYS - ELEC	3.250
S/C SYS - FLUIDS	3.250
SP STA SYS OPS	3.250

DURATION SUMMARY FOR PAYLOAD NO. 21 SA02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	65.0

PAYLOAD WITH KEY SA03 ASTROPHYSICS FREE-FLYER

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	2.000
TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 22 SA03 30.1 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	36.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	25.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	34.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	11.078
S/C SYS - DATA	36.574
S/C SYS - ELEC	6.355
S/C SYS - MECH	25.324
S/C SYS - FLUIDS	4.313
SP STA SYS OPS	33.323
EVA SERVICE TECH	14.238
TMS PILOT	34.121

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 22 SA03 IN MANDAYS/YR

SERVICING OPERATIONS	30.1
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA04 ASTROPHYSICS OBSERVATORIES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	6.000
TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100

CREW MOD MAINT = 1.710

ADJUSTED SERVICING TIME FOR 23 SA04 38.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	15.3	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	40.8	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	10.6	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	29.5	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	8.5	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	41.7	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	14.2	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	50.9	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	15.278
S/C SYS - DATA	40.774
S/C SYS - ELEC	10.555
S/C SYS - MECH	29.524
S/C SYS - FLUIDS	8.513
SP STA SYS OPS	41.723
EVA SERVICE TECH	14.238
TMS PILOT	50.921

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 23 SA04 IN MANDAYS/YR

SERVICING OPERATIONS	38.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CC03 INTELSAT-7,7A : CLASS COMSAT

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 26 CC03 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CC04 MULTIBEAM COMM. SATELLITE

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 27 CC04 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CC05 RECONFIGURABLE COMM. SATELLITE

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 28 CC05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CM05 CONT FLOW ELEC- TROPH PLATFORM

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

ADJUSTED SERVICING TIME FOR 29 CM05 0.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 29 CM05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CM06 CONTINUOUS FLOW ELECTRO RESUPP

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	48.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 30 CM06 179.9 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	74.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	139.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	67.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	138.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	56.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	168.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	304.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	74.071
S/C SYS - DATA	139.339
S/C SYS - ELEC	67.418
S/C SYS - MECH	138.400
S/C SYS - FLUIDS	56.806
SP STA SYS OPS	168.336
EVA SERVICE TECH	56.952
TMS PILOT	304.483

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 30 CM06 IN MANDAYS/YR

SERVICING OPERATIONS	179.9
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY OT01 LOW INCL STA MODULE DEL

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 33 OT01 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 33 OT01 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT02 LOW INCL STA RESUPPLY

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 34 OT02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT05 HI-ALT STA RESUPPLY

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 35 OT05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY TS02 TECH DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 20.000

UPDATED WORK DURATION AT SP STA 20.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	4.000
ENGINEERING	20.000
S/C SYS - DATA	3.000
S/C SYS - ELEC	1.000
S/C SYS - MECH	1.000
S/C SYS - FLUIDS	4.000
SP STA SYS OPS	2.000
EVA CRANE OP	1.000
EVA SERVICE TECH	1.000
MANNED OTV PILOT	3.000

DURATION SUMMARY FOR PAYLOAD NO. 45 TS02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	20.0

PAYLOAD WITH KEY SA05 LARGE RADIO TELESCOPE

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	10.000
TEST & C/O	=	10.100
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 46 SA05 61.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	26.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	73.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	14.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	36.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	14.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	78.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	67.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	26.512
S/C SYS - DATA	73.114
S/C SYS - ELEC	14.755
S/C SYS - MECH	36.538
S/C SYS - FLUIDS	14.120
SP STA SYS OPS	78.263
EVA SERVICE TECH	14.238
TMS PILOT	67.721

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 46 SA05 IN MANDAYS/YR

SERVICING OPERATIONS	61.0
SCIENCE & TECH DEMO	0.0

SKILL MIX SUMMARIES LOW INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	52.9	96.8	0.0	0.0	206.4	0.0	0.0	0.0	0.0	4.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	902.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	150.5	0.0	0.0	76.9	451.1	0.0	53.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	31.7	48.4	0.0	87.8	181.4	0.0	34.5	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	91.4	0.0	0.0	79.3	447.6	0.0	34.5	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	26.9	48.4	0.0	73.1	141.6	0.0	32.6	0.0	0.0	4.0	0.0	19.9	0.0	0.0	0.0
SP STA SYS OPS	2.5	153.3	48.4	0.0	130.2	488.5	0.0	187.6	0.0	0.0	2.0	0.0	124.4	470.4	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	101.1	0.0	0.0	57.1	0.0	0.0	1.0	0.0	75.6	67.2	0.0	0.0
EVA SERVICE TECH	2.5	42.7	0.0	0.0	137.4	213.6	0.0	51.2	0.0	0.0	1.0	0.0	75.6	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	127.3	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	152.8	0.0	0.0	0.0	856.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
1919.	4250.	40.	967.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	427.2
MED/BIO RESEARCH	902.5
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	20.0
ASTROPHSICS	65.0
S/C SYS - DATA	734.5
S/C SYS - ELEC	384.7
S/C SYS - MECH	653.8
S/C SYS - FLUIDS	346.6
SP STA SYS OPS	1607.3
EVA CRANE OP	304.5
EVA SERVICE TECH	591.2
MANNED OTV PILOT	130.3
TMS PILOT	1009.0
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 19.7 PEOPLE

SKILL MIX SUMMARIES HIGH INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	40.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	305.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	20.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	20.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	20.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	470.4	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	67.2	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
503.	0.	0.	704.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	107.4
MED/BIO RESEARCH	30.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	305.0
ENGINEERING	0.0
ASTROPHSICS	67.0
S/C SYS - DATA	0.0
S/C SYS - ELEC	20.1
S/C SYS - MECH	0.0
S/C SYS - FLUIDS	20.1
SP STA SYS OPS	502.0
EVA CRANE OP	77.3
EVA SERVICE TECH	77.3
MANNED OTV PILOT	0.0
TMS PILOT	0.0
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 3.3 PEOPLE

LOW INCLINATION

DURATION SUMMARY FOR YEAR 2003 IN MANDAYS/YR

STS OPERATIONS	79.8
CONSTRUCTION	93.8
OTV OPERATIONS	85.8
OTV MISSIONS	63.0
SERVICING OPERATIONS	997.5
SCIENCE & TECH DEMO	1287.5

HIGH INCLINATION

DURATION SUMMARY FOR YEAR 2003 IN MANDAYS/YR

STS OPERATIONS	5.5
CONSTRUCTION	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	336.0
SCIENCE & TECH DEMO	402.0

SUMMARY OF SPACE STATION PAYLOADS THIS YEAR

KEY	TITLE	PLCODE	INCL	PK POWER	DUTY CYCLE
S001	EARTH OBSERV PALLET	SPCL	98.0	3.5	82.2
S002	SYNTH APERTURE RADAR	SPCL	98.0	10.0	2.7
S003	HETERODYNING CO2 LIDAR	SPXX	98.0	1.0	13.7
S004	UPPER ATMOS RESEARCH PKG	SPCL	98.0	2.2	54.8
OT03	SPACE STATION MODULES	SSSS	98.0	15.0	100.0
OT04	HI-INCL STATION RESUPPLY	SORS	98.0	1.0	100.0
SA01	VLBI/COSMIC RAY PKG	SPCL	98.0	2.0	100.0
SL08	RAD BIOLOGY IN SM MAMMALS	SSSA	98.0	0.6	100.0
SL01	HUMAN LIFE SI CARRY-ONS	SSSA	29.0	1.7	100.0
SL04	LIFESCIENCES RES FAC	SPXX	29.0	12.2	100.0
SL05	CENTRIFUGE (ADD TO LSRF)	SSCL	29.0	4.0	100.0
SL06	CLOSED ENV LSS EXPT MOD	SPCL	29.0	9.7	100.0
CM01	MATLS SCIENCE LAB	SPXX	29.0	25.0	35.6
CM02	CRYSTAL GROWTH FACTORY/PLAT	PMCL	29.0	0.0	100.0
CM03	CRYSTAL GROWTH	PMXX	29.0	0.0	0.5

RESUP-1

CM04	CRYSTAL GROWTH RESUP-2	PMCL	29.0	0.0	0.5
SA02	ASTRO TELESCOPE CLUSTER	SPXX	29.0	4.0	100.0
SA03	ASTROPHYSICS FREE-FLYER	FMXM	29.0	0.0	100.0
SA04	ASTROPHYSICS OBSERVATORIES	FMXM	29.0	1.0	100.0
CC03	INTELSAT-7,7A CLASS COMSAT	FXCL	0.0	0.0	0.0
CC04	MULTIBEAM COMM. SATELLITE	SSCM	0.0	0.0	0.0
CC05	RECONFIGURABLE COMM. SATELLITE	FXCM	0.0	0.0	1.9
CM05	CONT FLOW ELEC-TROPH PLATFORM	PMCL	29.0	0.0	100.0
CM06	CONTINUOUS FLOW ELECTRO RESUPP	PMXL	29.0	2.0	0.0
OT01	LOW INCL STA MODULE DEL	SSSS	29.0	20.0	100.0
OT02	LOW INCL STA RESUPPLY	SORS	29.0	0.0	100.0
OT05	HI-ALT STA RESUPPLY	OMSB	29.0	0.0	100.0
TS02	TECH DEVEL CARRY-ONS	SSSA	29.0	0.5	6.8
SA05	LARGE RADIO TELESCOPE	FMCH	29.0	0.0	100.0

LOW INCLINATION

PEAK POWER	AVERAGE POWER
80.1	61.5

HIGH INCLINATION

PEAK POWER	AVERAGE POWER
35.3	23.1

RESOURCES SUMMARY FOR LOW INCLINATION SPACE STATION

INTERNAL VOLUME	7.4 CUBIC METERS
POWER	61.5 KW
NO. OF PORTS	4.

RESOURCES SUMMARY FOR HIGH INCLINATION SPACE STATION

INTERNAL VOLUME	6.8 CUBIC METERS
POWER	23.1 KW
NO. OF PORTS	5.

POINTING & DISTURBANCE SUMMARY FOR LOW INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350
SL01	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CM01						----------	----------	----------	----------						
CM02	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CM03								-							
CM04								-							
SA02	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
SA03	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
SA04	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CC03								-							
CC04								-							
CC05								-							
CM05	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CM06								-							
OT01	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
OT02	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
OT05	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
TS02							-----								
SA05	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

ORIGINAL PAGE IS
OF POOR QUALITY

POINTING & DISTURBANCE SUMMARY FOR HIGH INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

				1	1	1	1	2	2	2	2	3	3	3
	2	5	7	0	2	5	7	0	2	5	7	0	2	5
0	5	0	5	0	5	0	5	0	5	0	5	0	5	0

S001 0000000000000000000000000000000000000000000000000000000000000000000000000000000

S002 00

S003 0000000000

S004 0000000000000000000000000000000000000000000000

OT03 ----------

OT04 ----------

SA01 **********

SL08 ----------

ORIGINAL PAGE IS
OF POOR QUALITY

* * * SPACE STATION OPERATIONS ANALYSIS FOR YEAR 2004 * * *

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 1
NUMBER OF FLIGHTS: 1 PRIME MISSION: **MULTIBEAM COMM SATELLITE OUTCOME # IS 0 KEY IS CC04
INCLINATION IS 0.00
CODE IS SSCM
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
MED/BIO RESEARCH	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
PHYS SCI RESEARC	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
EARTH, OCEAN OBS	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
ENGINEERING	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
ASTROPHSICS	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
S/C SYS - DATA	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
S/C SYS - ELEC	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
S/C SYS - MECH	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
S/C SYS - FLUIDS	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
SP STA SYS OPS	0.0	0.0	0.0		0.0	2.5	0.0	0.0		0.0	0.0	0.0	0.0		0.0	1.7	0.0	0.0		0.0
EVA CRANE OP	0.0	0.0	0.0		0.0	2.5	0.0	0.0		0.0	0.0	0.0	0.0		0.0	7.6	0.0	0.0		0.0
EVA SERVICE TECH	0.0	0.0	0.0		0.0	2.5	0.0	0.0		0.0	0.0	0.0	0.0		0.0	5.0	0.0	0.0		0.0
MANNED OTV PILOT	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	5.0	0.0	0.0		0.0
TMS PILOT	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
MATLS SCIENCE	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	1.661
SP STA SYS OPS	10.075
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

OTV OPERATIONS

UNADJUSTED DURATIONS
MAINTAIN STAGE = 1.150
MATE TO PAYLD = 0.131
STAGE/STAGE MATE = 0.210

OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	2.000

ADJ OTV OP DURATION FOR FIRST MISSION,. TOTAL OF 1 FLIGHTS:
AT SPACE STA 8.756AWAY 4.200

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT******			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	6.987
S/C SYS - ELEC	9.160
S/C SYS - MECH	7.470
S/C SYS - FLUIDS	7.879
SP STA SYS OPS	16.972
EVA CRANE OP	8.636
EVA SERVICE TECH	15.881
MANNED OTV PILOT	8.660

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.700
TEST & C/O	=	3.400
MODULE MATE	=	0.152
FAB STRUCT	=	0.246

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 11.650

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	5.776
S/C SYS - ELEC	3.730
S/C SYS - MECH	3.730
S/C SYS - FLUIDS	3.570
SP STA SYS OPS	23.299
EVA CRANE OP	8.502
EVA SERVICE TECH	5.562

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 1 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	11.6
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

TYPE #1 = 4 TYPE #2 = 1

***>> FLIGHT NO. 2
NUMBER OF FLIGHTS: 1 PRIME MISSION: HI-INCL STATION RESUPPLY OUTCOME # IS 0 KEY IS OT04
INCLINATION IS 98.00
CODE IS SORS
SECOND MISSION: SPACE SCIENCE SUBSATELLITE OUTCOME # IS 0
KEY IS SP01
CODE IS FSXX

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832

ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA SERVICE TECH	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	8.261
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 3
NUMBER OF FLIGHTS: 1 PRIME MISSION: **INTELSAT-7,7A CLASS COMSAT OUTCOME # IS 0 KEY IS CC03

INCLINATION IS 0.00
CODE IS FXCL
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	1.661
SP STA SYS OPS	10.075
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

OTV OPERATIONS

UNADJUSTED DURATIONS
MAINTAIN STAGE = 1.150
MATE TO PAYLD = 0.131
STAGE/STAGE MATE = 0.210
OTV/PLD C/O = 0.555
LAUNCH = 0.082
CAPTURE = 0.042
MISSION OPS = 2.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 8.756AWAY 4.200

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		6.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		7.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.0	0.0		9.2	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		7.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0		6.2	0.0	0.0	0.0		0.0	0.0	0.0	0.0		1.7	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.0	0.0		9.4	0.0	0.0	0.0		0.0	0.0	0.0	0.0		7.6	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		3.6	0.0	0.0	0.0		0.0	0.0	0.0	0.0		5.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		10.8	0.0	0.0	0.0		0.0	0.0	0.0	0.0		5.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		8.7	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

FIRST CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	6.987
S/C SYS - ELEC	9.160
S/C SYS - MECH	7.470
S/C SYS - FLUIDS	7.879
SP STA SYS OPS	16.972
EVA CRANE OP	8.636
EVA SERVICE TECH	15.881
MANNED OTV PILOT	8.660

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.280
TEST & C/O	=	0.486

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 2.146

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FIRST CREW SKILL	MISSION RESULTS MANDAYS																
S/C SYS - DATA	0.816																
S/C SYS - ELEC	0.510																
S/C SYS - MECH	0.510																
S/C SYS - FLUIDS	0.510																
SP STA SYS OPS	4.292																
EVA CRANE OP	2.251																
EVA SERVICE TECH	1.075																

DURATION SUMMARY FORFIRST MISSION FLIGHT NO, 3 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	2.1
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 4
NUMBER OF FLIGHTS: 1 PRIME MISSION: **INTELSAT-7,7A CLASS COMSAT OUTCOME # IS 0 KEY IS CC03
INCLINATION IS 0.00
CODE IS FXCL
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***			***COMMERC MISSIONS***			***TECH DEV MISSIONS**			****OPER SUPPORT*****		
	OPS SERV	MSN OP	CONST	OPS SERV	MSN OP	CONST	OPS SERV	MSN OP	CONST	OPS SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - FLUIDS	1.661
SP STA SYS OPS	10.075
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

OTV OPERATIONS

UNADJUSTED DURATIONS

MAINTAIN STAGE	=	1.150
MATE TO PAYLD	=	0.131
STAGE/STAGE MATE	=	0.210
OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	2.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 8.756AWAY 4.200

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	6.987
S/C SYS - ELEC	9.160
S/C SYS - MECH	7.470
S/C SYS - FLUIDS	7.879
SP STA SYS OPS	16.972
EVA CRANE OP	8.636
EVA SERVICE TECH	15.881
MANNED OTV PILOT	8.660

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.280
TEST & C/O	=	0.486

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 2.146

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	0.816
S/C SYS - ELEC	0.510
S/C SYS - MECH	0.510

S/C SYS - FLUIDS	0.510
SP STA SYS OPS	4.292
EVA CRANE OP	2.251
EVA SERVICE TECH	1.075

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 4 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	2.1
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

TYPE #1 = 2 TYPE #2 = 2

***>> FLIGHT NO. 5
NUMBER OF FLIGHTS: 4 PRIME MISSION: **RECONFIGURABLE COMM. SATELLI OUTCOME # IS 0 KEY IS CC05
INCLINATION IS 0.00
CODE IS FXCM
SECOND MISSION: CRYSTAL GROWTH RESUP-2 OUTCOME # IS 0
KEY IS CM04
CODE IS PMCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3629
ADJ STS DURATION AT SP STA FOR TOTAL OF 4 FLIGHTS: 10.606

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	MISSION RESULTS															
CREW SKILL	MANDAYS															

S/C SYS - FLUIDS	6.097
SP STA SYS OPS	29.536
EVA CRANE OP	20.160
EVA SERVICE TECH	20.160

OTV OPERATIONS

UNADJUSTED DURATIONS

MAINTAIN STAGE	=	1.150
MATE TO PAYLD	=	0.131
STAGE/STAGE MATE	=	0.210
OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	7.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 4 FLIGHTS:
AT SPACE STA 77.025AWAY 58.800

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	17.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	19.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	13.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	29.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	69.947
S/C SYS - ELEC	78.641
S/C SYS - MECH	71.879
S/C SYS - FLUIDS	72.970
SP STA SYS OPS	57.127
EVA CRANE OP	24.464
EVA SERVICE TECH	53.444

MANNED OTV PILOT 118.638

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.140
TEST & C/O	=	3.400
MODULE MATE	=	0.152

ADJUSTED DUR FOR 4 FLIGHTS, AT SPACE STATION 39.824

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	23.103
S/C SYS - ELEC	14.918
S/C SYS - MECH	14.918
S/C SYS - FLUIDS	14.280
SP STA SYS OPS	79.649
EVA CRANE OP	22.529
EVA SERVICE TECH	20.177

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 5 IN MANDAYS/YR

STS OPERATIONS	10.6
CONSTRUCTION OPERATIONS	39.8
OTV OPERATIONS	77.0
OTV MISSIONS	58.8

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.200
MATE TO FIXT = 0.056
TEST & C/O = 0.486
MODULE MATE = 0.076

ADJUSTED DUR FOR 4 FLIGHTS, AT SPACE STATION 46.696

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	26.497
S/C SYS - ELEC	17.279
S/C SYS - MECH	17.279
S/C SYS - FLUIDS	16.321
SP STA SYS OPS	93.391
EVA CRANE OP	28.106
EVA SERVICE TECH	25.754

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 5 IN MANDAYS/YR

STS OPERATIONS	10.6
CONSTRUCTION OPERATIONS	46.7
OTV OPERATIONS	77.0
OTV MISSIONS	58.8

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 6
NUMBER OF FLIGHTS: 1 PRIME MISSION: **CRYSTAL GROWTH RESUP-2 OUTC*** # IS 0 KEY IS CM04
INCLINATION IS 29.00
CODE IS PMCL

SECOND MISSION: TMS DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS

ORBITER ARRIVE	=	0.0416
ORBITER OFFLOAD	=	0.6000
ORBITER OFFLOAD	=	0.6000 (MISSION 2)
ORBITER RELOAD	=	0.6000 (MISSION 2)
ORBITER DEPART	=	0.0210
ORBITER PROP XFR	=	0.3629

ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	1.524
SP STA SYS OPS	9.904
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.718

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.436
EVA CRANE OP	1.394
EVA SERVICE TECH	1.394

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 6 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	1.7
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 2

***>> FLIGHT NO. 7
NUMBER OF FLIGHTS: 1 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS
SECOND MISSION: CRYSTAL GROWTH RESUP-2 OUTCOME # IS 0
KEY IS CM04
CODE IS PMCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	MISSION RESULTS															
CREW SKILL	MANDAYS															
SP STA SYS OPS	7.998															
EVA CRANE OP	7.560															
EVA SERVICE TECH	7.560															

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 7 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.718

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	0.848
S/C SYS - ELEC	0.590
S/C SYS - MECH	0.590
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.436
EVA CRANE OP	1.394
EVA SERVICE TECH	1.394

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 7 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	1.7
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 0

***>> FLIGHT NO. 8
NUMBER OF FLIGHTS: 20 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 20 FLIGHTS: 29.576

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS	64.411
EVA CRANE OP	50.400
EVA SERVICE TECH	50.400

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 8 IN MANDAYS/YR

STS OPERATIONS	29.6
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 9
NUMBER OF FLIGHTS: 7 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 7 FLIGHTS: 19.172

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	MISSION RESULTS															
CREW SKILL	MANDAYS															
SP STA SYS OPS	40.184															
EVA CRANE OP	35.280															
EVA SERVICE TECH	35.280															

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 9 IN MANDAYS/YR

STS OPERATIONS	19.2
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 10
NUMBER OF FLIGHTS: 1 PRIME MISSION: HI-INCL STATION RESUPPLY OUTCOME # IS 0 KEY IS OT04
INCLINATION IS 98.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 2.739

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0

EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CREW SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MISSION RESULTS
MANDAYS

SP STA SYS OPS	5.741
EVA CRANE OP	5.040
EVA SERVICE TECH	5.040

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 10 IN MANDAYS/YR

STS OPERATIONS	2.7
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

PAYLOADS SERVICING ANALYSIS

PAYLOAD WITH KEY S001 EARTH OBSERV PALLET

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 150.000

UPDATED WORK DURATION AT SP STA 150.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 15.000

EARTH, OCEAN OBS 150.000

S/C SYS - ELEC 7.500

S/C SYS - FLUIDS 7.500

SP STA SYS OPS 7.500

DURATION SUMMARY FOR PAYLOAD NO. 1 S001 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 150.0

PAYLOAD WITH KEY S002 SYNTH APERTURE RADAR

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 5.000

UPDATED WORK DURATION AT SP STA 5.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 0.500

EARTH, OCEAN OBS 5.000

S/C SYS - ELEC 0.250

S/C SYS - FLUIDS 0.250

SP STA SYS OPS 0.250

DURATION SUMMARY FOR PAYLOAD NO. 2 S002 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 5.0

PAYLOAD WITH KEY S003 HETERODYNING CO2 LIDAR

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 5.000

UPDATED WORK DURATION AT SP STA 5.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	5.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	0.500
EARTH, OCEAN OBS	5.000
S/C SYS - ELEC	0.250
S/C SYS - FLUIDS	0.250
SP STA SYS OPS	0.250

DURATION SUMMARY FOR PAYLOAD NO. 3 S003 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	5.0

PAYLOAD WITH KEY S004 UPPER ATMOS RESEARCH PKG

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 145.000

UPDATED WORK DURATION AT SP STA 145.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	145.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	14.500
EARTH, OCEAN OBS	145.000
S/C SYS - ELEC	7.250
S/C SYS - FLUIDS	7.250
SP STA SYS OPS	7.250

DURATION SUMMARY FOR PAYLOAD NO. 4 S004 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	145.0

PAYLOAD WITH KEY OT03 SPACE STATION MODULES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 5 OT03 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 5 OT03 IN MANDAYS/YR

SERVICING OPERATIONS	336.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY OT04 HI-INCL STATION RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 6 OT04 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY SP01 SPACE SCIENCE SUBSATELLITE

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.200
MATE TO FIXT = 0.056
TEST & C/O = 0.486
TMS MATE/DEMATE = 0.260

ADJUSTED SERVICING TIME FOR 7 SP01 2.1 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 0.510

S/C SYS - DATA 2.041

S/C SYS - MECH 0.204

S/C SYS - FLUIDS 0.102

SP STA SYS OPS	4.208
EVA CRANE OP	1.807
EVA SERVICE TECH	1.807

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 7 SP01 IN MANDAYS/YR

SERVICING OPERATIONS	2.1
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA01 VLBI/COSMIC RAY PKG

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

ASTROPHYSICS = 67.000

UPDATED WORK DURATION AT SP STA 67.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	6.700
ASTROPHSICS	67.000
S/C SYS - ELEC	3.350

S/C SYS - FLUIDS	3.350
SP STA SYS OPS	3.350

DURATION SUMMARY FOR PAYLOAD NO. 9 SA01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	67.0

PAYLOAD WITH KEY SL08 RAD BIOLOGY IN SM MAMMALS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

LIFE SCIENCE = 30.000

UPDATED WORK DURATION AT SP STA 30.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	3.000
MED/BIO RESEARCH	30.000
S/C SYS - ELEC	1.500
S/C SYS - FLUIDS	1.500
SP STA SYS OPS	1.500

DURATION SUMMARY FOR PAYLOAD NO. 10 SL08 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	30.0

PAYLOAD WITH KEY SL01 HUMAN LIFE SI CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

LIFE SCIENCE = 73.000

UPDATED WORK DURATION AT SP STA 73.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	73.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	7.300
MED/BIO RESEARCH	73.000
S/C SYS - ELEC	3.650
S/C SYS - FLUIDS	3.650
SP STA SYS OPS	3.650

DURATION SUMMARY FOR PAYLOAD NO. 11 SL01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	73.0

PAYLOAD WITH KEY SL04 LIFESCIENCES RES FAC

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 191.000

UPDATED WORK DURATION AT SP STA 191.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	19.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	191.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	19.100
MED/BIO RESEARCH	191.000
S/C SYS - ELEC	9.550
S/C SYS - FLUIDS	9.550
SP STA SYS OPS	9.550

DURATION SUMMARY FOR PAYLOAD NO. 14 SL04 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	191.0

PAYLOAD WITH KEY SL05 CENTRIFUGE (ADD TO LSRF)

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS

CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 91.000

UPDATED WORK DURATION AT SP STA 91.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	91.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	9.100
MED/BIO RESEARCH	91.000
S/C SYS - ELEC	4.550
S/C SYS - FLUIDS	4.550
SP STA SYS OPS	4.550

DURATION SUMMARY FOR PAYLOAD NO. 15 SL05 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	91.0

PAYLOAD WITH KEY SL06 CLOSED ENV LSS EXPT MOD

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 547.500

UPDATED WORK DURATION AT SP STA 547.5 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	547.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	54.750
MED/BIO RESEARCH	547.500
S/C SYS - ELEC	27.375
S/C SYS - FLUIDS	27.375
SP STA SYS OPS	27.375

DURATION SUMMARY FOR PAYLOAD NO. 16 SL06 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	547.5

PAYLOAD WITH KEY CM01 MATLS SCIENCE LAB

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 300.000

UPDATED WORK DURATION AT SP STA 300.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 17 CM01 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 300.0

PAYLOAD WITH KEY CM02 CRYSTAL GROWTH FACTORY/PLAT

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	36.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 18 CM02 154.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	61.5	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	126.7	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.0	0.0		0.0	54.8	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	125.8	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	44.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	143.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	254.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	61.471
S/C SYS - DATA	126.739
S/C SYS - ELEC	54.818
S/C SYS - MECH	125.800
S/C SYS - FLUIDS	44.206
SP STA SYS OPS	143.136
EVA SERVICE TECH	56.952
TMS PILOT	254.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 18 CM02 IN MANDAYS/YR

SERVICING OPERATIONS	154.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM03 CRYSTAL GROWTH RESUP-1

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	12.000
TEST & C/O	=	1.458
TMS LAUNCH	=	0.246
TMS OPS	=	9.000
TMS CREW OPS	=	9.000
TMS CAPTURE/BRTH	=	0.126
TMS MAINT/REFUEL	=	3.300
CREW MOD MAINT	=	5.130

ADJUSTED SERVICING TIME FOR 19 CM03 84.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	30.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	79.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	25.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	78.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	75.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	42.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	127.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	30.353
S/C SYS - DATA	79.304
S/C SYS - ELEC	25.364
S/C SYS - MECH	78.600
S/C SYS - FLUIDS	17.404
SP STA SYS OPS	75.852
EVA SERVICE TECH	42.714
TMS PILOT	127.562

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 19 CM03 IN MANDAYS/YR

SERVICING OPERATIONS	84.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM04 CRYSTAL GROWTH RESUP-2

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	16.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 20 CM04 112.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	40.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	105.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	33.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	104.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	23.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	101.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	170.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	40.471
S/C SYS - DATA	105.739
S/C SYS - ELEC	33.818
S/C SYS - MECH	104.800
S/C SYS - FLUIDS	23.206
SP STA SYS OPS	101.136
EVA SERVICE TECH	56.952
TMS PILOT	170.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 20 CM04 IN MANDAYS/YR

SERVICING OPERATIONS	112.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA02 ASTRO TELESCOPE CLUSTER

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

ASTROPHYSICS = 65.000

UPDATED WORK DURATION AT SP STA 65.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	6.500
ASTROPHSICS	65.000
S/C SYS - ELEC	3.250
S/C SYS - FLUIDS	3.250
SP STA SYS OPS	3.250

DURATION SUMMARY FOR PAYLOAD NO. 21 SA02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	65.0

PAYLOAD WITH KEY SA03 ASTROPHYSICS FREE-FLYER

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	2.000
TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 22 SA03 30.1 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	36.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	25.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	34.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	11.078
S/C SYS - DATA	36.574
S/C SYS - ELEC	6.355
S/C SYS - MECH	25.324
S/C SYS - FLUIDS	4.313
SP STA SYS OPS	33.323
EVA SERVICE TECH	14.238
TMS PILOT	34.121

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 22 SA03 IN MANDAYS/YR

SERVICING OPERATIONS	30.1
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA04 ASTROPHYSICS OBSERVATORIES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	6.000
TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100

CREW MOD MAINT = 1.710

ADJUSTED SERVICING TIME FOR 23 SA04 38.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	40.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	41.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	50.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	15.278
S/C SYS - DATA	40.774
S/C SYS - ELEC	10.555
S/C SYS - MECH	29.524
S/C SYS - FLUIDS	8.513
SP STA SYS OPS	41.723
EVA SERVICE TECH	14.238
TMS PILOT	50.921

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 23 SA04 IN MANDAYS/YR

SERVICING OPERATIONS	38.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CC03 INTELSAT-7,7A CLASS COMSAT

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 26 CC03 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CC04 MULTIBEAM COMM. SATELLITE

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RESEARCH MISSION RESULTS																
CREW SKILL	MANDAYS															

DURATION SUMMARY FOR PAYLOAD NO. 27 CC04 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CC05 RECONFIGURABLE COMM. SATELLITE

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS

CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 28 CC05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CM05 CONT FLOW ELEC- TROLYTIC PLATFORM

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

ADJUSTED SERVICING TIME FOR 29 CM05 0.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 29 CM05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CM06 CONTINUOUS FLOW ELECTRO RESUPP

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	48.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 30 CM06 179.9 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	74.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	139.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	67.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	138.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	56.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	168.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	304.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	74.071
S/C SYS - DATA	139.339
S/C SYS - ELEC	67.418
S/C SYS - MECH	138.400
S/C SYS - FLUIDS	56.806
SP STA SYS OPS	168.336
EVA SERVICE TECH	56.952
TMS PILOT	304.483

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 30 CM06 IN MANDAYS/YR

SERVICING OPERATIONS	179.9
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY OT01 LOW INCL STA MODULE DEL

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 33 OT01 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 33 OT01 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT02 LOW INCL STA RESUPPLY

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 34 OT02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT05 HI-ALT STA RESUPPLY

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 35 OT05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY TS02 TECH DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 20.000

UPDATED WORK DURATION AT SP STA 20.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	4.000
ENGINEERING	20.000
S/C SYS - DATA	3.000
S/C SYS - ELEC	1.000
S/C SYS - MECH	1.000
S/C SYS - FLUIDS	4.000
SP STA SYS OPS	2.000
EVA CRANE OP	1.000
EVA SERVICE TECH	1.000
MANNED OTV PILOT	3.000

DURATION SUMMARY FOR PAYLOAD NO. 45 TS02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	20.0

PAYLOAD WITH KEY SA05 LARGE RADIO TELESCOPE

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	10.000
TEST & C/O	=	10.100
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 46 SA05 61.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	26.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	73.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	14.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	36.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	14.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	78.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	67.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	26.512
S/C SYS - DATA	73.114
S/C SYS - ELEC	14.755
S/C SYS - MECH	36.538
S/C SYS - FLUIDS	14.120
SP STA SYS OPS	78.263
EVA SERVICE TECH	14.238
TMS PILOT	67.721

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 46, SA05 IN MANDAYS/YR

SERVICING OPERATIONS 61.0
SCIENCE & TECH DEMO 0.0

SKILL MIX SUMMARIES LOW INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	52.9	96.8	0.0	0.0	206.4	0.0	0.0	0.0	0.0	4.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	902.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	150.5	0.0	0.0	90.9	451.1	0.0	58.7	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	31.7	48.4	0.0	106.1	181.4	0.0	38.1	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	91.4	0.0	0.0	94.3	447.6	0.0	38.1	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	26.9	48.4	0.0	85.5	141.6	0.0	36.2	0.0	0.0	4.0	0.0	23.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	153.3	48.4	0.0	159.2	488.5	0.0	211.8	0.0	0.0	2.0	0.0	131.1	470.4	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	118.4	0.0	0.0	66.4	0.0	0.0	1.0	0.0	75.6	67.2	0.0	0.0
EVA SERVICE TECH	0.0	42.7	0.0	0.0	169.1	213.6	0.0	56.4	0.0	0.0	1.0	0.0	75.6	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	144.6	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	152.8	0.0	0.0	0.0	856.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
1911.	4460.	40.	978.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	427.2
MED/BIO RESEARCH	902.5
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	20.0
ASTROPHSICS	65.0
S/C SYS - DATA	754.2
S/C SYS - ELEC	406.7
S/C SYS - MECH	672.4
S/C SYS - FLUIDS	366.4
SP STA SYS OPS	1664.6
EVA CRANE OP	328.6
EVA SERVICE TECH	625.6
MANNED OTV PILOT	147.6
TMS PILOT	1009.0
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 20.2 PEOPLE

SKILL MIX SUMMARIES HIGH INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.5	40.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	305.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	20.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.1	20.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	2.5	4.2	20.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	470.4	0.0	0.0
EVA CRANE OP	2.5	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	67.2	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
521.	0.	0.	704.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	107.9
MED/BIO RESEARCH	30.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	305.0
ENGINEERING	0.0
ASTROPHSICS	67.0
S/C SYS - DATA	2.0
S/C SYS - ELEC	20.1
S/C SYS - MECH	0.2
S/C SYS - FLUIDS	20.2
SP STA SYS OPS	508.7
EVA CRANE OP	81.6
EVA SERVICE TECH	81.6
MANNED OTV PILOT	0.0
TMS PILOT	0.0
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 3.4 PEOPLE

LOW INCLINATION

DURATION SUMMARY FOR YEAR 2004 IN MANDAYS/YR

STS OPERATIONS	78.9
CONSTRUCTION	105.9
OTV OPERATIONS	103.3
OTV MISSIONS	71.4
SERVICING OPERATIONS	997.5
SCIENCE & TECH DEMO	1287.5

HIGH INCLINATION

DURATION SUMMARY FOR YEAR 2004 IN MANDAYS/YR

STS OPERATIONS	6.7
CONSTRUCTION	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	338.1
SCIENCE & TECH DEMO	402.0

SUMMARY OF SPACE STATION PAYLOADS THIS YEAR

KEY	TITLE	PLCODE	INCL	PK POWER	DUTY CYCLE
S001	EARTH OBSERV PALLET	SPCL	98.0	3.5	82.2
S002	SYNTH APERTURE RADAR	SPCL	98.0	10.0	2.7
S003	HETERODYNING CO2 LIDAR	SPXX	98.0	1.0	13.7
S004	UPPER ATMOS RESEARCH PKG	SPCL	98.0	2.2	54.8
OT03	SPACE STATION MODULES	SSSS	98.0	15.0	100.0
OT04	HI-INCL STATION RESUPPLY	SORS	98.0	1.0	100.0
SP01	SPACE SCIENCE SUBSATELLITE	FSXX	98.0	0.0	100.0
SA01	VLBI/COSMIC RAY PKG	SPCL	98.0	2.0	100.0
SL08	RAD BIOLOGY IN SM MAMMALS	SSSA	98.0	0.6	100.0
SL01	HUMAN LIFE SI CARRY-ONS	SSSA	29.0	1.7	100.0
SL04	LIFESCIENCES RES FAC	SPXX	29.0	12.2	100.0
SL05	CENTRIFUGE (ADD TO LSRF)	SSCL	29.0	4.0	100.0
SL06	CLOSED ENV LSS EXPT MOD	SPCL	29.0	9.7	100.0
CM01	MATLS SCIENCE LAB	SPXX	29.0	25.0	35.6
CM02	CRYSTAL GROWTH	PMCL	29.0	0.0	100.0

	FACTORY/PLAT				
CM03	CRYSTAL GROWTH RESUP-1	PMXX	29.0	0.0	0.5
CM04	CRYSTAL GROWTH RESUP-2	PMCL	29.0	0.0	.0.5
SA02	ASTRO TELESCOPE CLUSTER	SPXX	29.0	4.0	100.0
SA03	ASTROPHYSICS FREE-FLYER	FMXM	29.0	0.0	100.0
SA04	ASTROPHYSICS OBSERVATORIES	FMXM	29.0	1.0	100.0
CC03	INTELSAT-7,7A CLASS COMSAT	FXCL	0.0	0.0	0.0
CC04	MULTIBEAM COMM. SATELLITE	SSCM	0.0	0.0	.0.0
CC05	RECONFIGURABLE COMM. SATELLITE	FXCM	0.0	0.0	1.9
CM05	CONT FLOW ELEC-TROPH PLATFORM	PMCL	29.0	0.0	100.0
CM06	CONTINUOUS FLOW ELECTRO RESUPP	PMXL	29.0	2.0	0.0
OT01	LOW INCL STA MODULE DEL	SSSS	29.0	20.0	100.0
OT02	LOW INCL STA RESUPPLY	SORS	29.0	0.0	100.0
OT05	HI-ALT STA RESUPPLY	OMSB	29.0	0.0	100.0
TS02	TECH DEVEL CARRY-ONS	SSSA	29.0	0.5	6.8
SA05	LARGE RADIO TELESCOPE	FMCH	29.0	0.0	100.0

LOW INCLINATION

PEAK POWER	AVERAGE POWER
80.1	61.5

HIGH INCLINATION

PEAK POWER	AVERAGE POWER
35.3	23.1

RESOURCES SUMMARY FOR LOW INCLINATION SPACE STATION

INTERNAL VOLUME	7.4	CUBIC METERS
POWER	61.5	KW
NO. OF PORTS	4.	

RESOURCES SUMMARY FOR HIGH INCLINATION SPACE STATION

INTERNAL VOLUME	6.8	CUBIC METERS
POWER	23.1	KW
NO. OF PORTS	5.	

POINTING & DISTURBANCE SUMMARY FOR LOW INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350
SL01	----------														
CM01						----------									
CM02	----------														
CM03								-							
CM04								-							
SA02	**********							**********							
SA03	----------														
SA04	----------														
CC03								-							
CC04								-							
CC05								-							
CM05	----------														
CM06								-							
OT01	----------														
OT02	----------														
OT05	----------														
TS02								-----							
SA05	----------														

ORIGINAL PAGE IS
OF POOR QUALITY

POINTING & DISTURBANCE SUMMARY FOR HIGH INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

0	25	50	75	100	125	150	175	200	225	250	275	300	325	350

SD01 0000000000000000000000000000000000000000000000000000000000000000000000000000

SD02 00

SD03 0000000000

SD04 00000000000000000000000000000000000000000000000

OT03 ----------

OT04 ----------

SP01 ----------

SA01 **********:**********:**********:**********:**********:**********:**********:**********:**********:**********

SL08 ----------

* * * SPACE STATION OPERATIONS ANALYSIS FOR YEAR 2005 * * *

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 1
NUMBER OF FLIGHTS: 1 PRIME MISSION: **MULTIBEAM COMM SATELLITE OUTCOME # IS 0 KEY IS CC04
INCLINATION IS 0.00
CODE IS SSCM
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF . 1 FLIGHTS: 3.911

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	1.661
SP STA SYS OPS	10.075
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

OTV OPERATIONS

UNADJUSTED DURATIONS
MAINTAIN STAGE = 1.150
MATE TO PAYLD = 0.131
STAGE/STAGE MATE = 0.210

OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	2.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 1 FLIGHTS:
AT SPACE STA 8.756 AWAY 4.200

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		7.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.0	0.0		9.2	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		7.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0		6.2	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.0	0.0		9.4	0.0	0.0	0.0		0.0	0.0	0.0	0.0		1.7	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		3.6	0.0	0.0	0.0		0.0	0.0	0.0	0.0		7.6	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		10.8	0.0	0.0	0.0		0.0	0.0	0.0	0.0		5.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		8.7	0.0	0.0	0.0		0.0	0.0	0.0	0.0		5.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	6.987
S/C SYS - ELEC	9.160
S/C SYS - MECH	7.470
S/C SYS - FLUIDS	7.879
SP STA SYS OPS	16.972
EVA CRANE OP	8.636
EVA SERVICE TECH	15.881
MANNED OTV PILOT	8.660

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.700
TEST & C/O	=	3.400
MODULE MATE	=	0.152
FAB STRUCT	=	0.246

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 11.650

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	5.776
S/C SYS - ELEC	3.730
S/C SYS - MECH	3.730
S/C SYS - FLUIDS	3.570
SP STA SYS OPS	23.299
EVA CRANE OP	8.502
EVA SERVICE TECH	5.562

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 1 IN MANDAYS/YR

STS OPERATIONS	3.9
CONSTRUCTION OPERATIONS	11.6
OTV OPERATIONS	8.8
OTV MISSIONS	4.2

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 2
NUMBER OF FLIGHTS: 2 PRIME MISSION: **INTELSAT-7,7A CLASS COMSAT OUTCOME # IS 0 KEY IS CC03
INCLINATION IS 0.00
CODE IS FXCL
SECOND MISSION: TMS CAB DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)

ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3954
ADJ STS DURATION AT SP STA FOR TOTAL OF 2 FLIGHTS: 7.823

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		1.7	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.0	0.0		2.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0		7.6	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		2.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0		5.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		2.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0		5.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	3.322
SP STA SYS OPS	20.149
EVA CRANE OP	15.120
EVA SERVICE TECH	15.120

OTV OPERATIONS

UNADJUSTED DURATIONS

MAINTAIN STAGE	=	1.150
MATE TO PAYLD	=	0.131
STAGE/STAGE MATE	=	0.210
OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	2.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 2 FLIGHTS:
AT SPACE STA 17.512AWAY 8.400

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	13.973
S/C SYS - ELEC	18.320
S/C SYS - MECH	14.939
S/C SYS - FLUIDS	15.758
SP STA SYS OPS	33.945
EVA CRANE OP	17.272
EVA SERVICE TECH	31.762
MANNED OTV PILOT	17.319

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.280
TEST & C/O	=	0.486

ADJUSTED DUR FOR 2.FLIGHTS, AT SPACE STATION 4.292

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SEPV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	1.633
S/C SYS - ELEC	1.021
S/C SYS - MECH	1.021
S/C SYS - FLUIDS	1.021
SP STA SYS OPS	8.585
EVA CRANE OP	4.502
EVA SERVICE TECH	2.150

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 2 IN MANDAYS/YR

STS OPERATIONS	7.8
CONSTRUCTION OPERATIONS	4.3
OTV OPERATIONS	17.5
OTV MISSIONS	8.4

TYPE #1 = 2 TYPE #2 = 2

***>> FLIGHT NO. 3
NUMBER OF FLIGHTS: 4 PRIME MISSION: **RECONFIGURABLE COMM. SATELLI OUTCOME # IS 0 KEY IS CC05
INCLINATION IS 0.00
CODE IS FXCM
SECOND MISSION: CRYSTAL GROWTH RESUP-2 OUTCOME # IS 0
KEY IS CM04
CODE IS PMCL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS

ORBITER ARRIVE	=	0.0416
ORBITER OFFLOAD	=	0.6000
ORBITER OFFLOAD	=	0.6000 (MISSION 2)
ORBITER DEPART	=	0.0210
ORBITER PROP XFR	=	0.3629

ADJ STS DURATION AT SP STA FOR TOTAL OF 4 FLIGHTS: 10.606

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	6.097
SP STA SYS OPS	29.536
EVA CRANE OP	20.160
EVA SERVICE TECH	20.160

OTV OPERATIONS

UNADJUSTED DURATIONS

MAINTAIN STAGE	=	1.150
MATE TO PAYLD	=	0.131
STAGE/STAGE MATE	=	0.210
OTV/PLD C/O	=	0.555
LAUNCH	=	0.082
CAPTURE	=	0.042
MISSION OPS	=	7.000

ADJ OTV OP DURATION FOR FIRST MISSION, TOTAL OF 4 FLIGHTS:
AT SPACE STA 77.025AWAY 58.800

SKILL MIX DETAILS FOR OTV TASKS C L M

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				***OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	17.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	19.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	13.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	29.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - DATA	69.947
S/C SYS - ELEC	78.641

S/C SYS - MECH	71.879
S/C SYS - FLUIDS	72.970
SP STA SYS OPS	57.127
EVA CRANE OP	24.464
EVA SERVICE TECH	53.444
MANNED OTV PILOT	118.638

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.993
MATE TO FIXT	=	0.056
DEPLOY/ASSEMBLE	=	0.140
TEST & C/O	=	3.400
MODULE MATE	=	0.152

ADJUSTED DUR FOR 4 FLIGHTS, AT SPACE STATION 39.824

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	23.103
S/C SYS - ELEC	14.918
S/C SYS - MECH	14.918
S/C SYS - FLUIDS	14.280
SP STA SYS OPS	79.649
EVA CRANE OP	22.529
EVA SERVICE TECH	20.177

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	10.6
CONSTRUCTION OPERATIONS	39.8
OTV OPERATIONS	77.0
OTV MISSIONS	58.8

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
MODULE MATE	=	0.076

ADJUSTED DUR FOR 4 FLIGHTS, AT SPACE STATION 46.696

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECOND CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	26.497
S/C SYS - ELEC	17.279
S/C SYS - MECH	17.279
S/C SYS - FLUIDS	16.321
SP STA SYS OPS	93.391
EVA CRANE OP	28.106
EVA SERVICE TECH	25.754

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 3 IN MANDAYS/YR

STS OPERATIONS	10.6
CONSTRUCTION OPERATIONS	46.7

OTV OPERATIONS 77.0
OTV MISSIONS 58.8

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 4
NUMBER OF FLIGHTS: 2 PRIME MISSION: **CRYSTAL GROWTH RESUP-2 OUTCOME # IS 0 KEY IS CM04
INCLINATION IS 29.00
CODE IS PMCL
SECOND MISSION: TMS PROP DELIV OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0416
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ORBITER PROP XFR = 0.3304
ADJ STS DURATION AT SP STA FOR TOTAL OF 2 FLIGHTS: 7.823

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
S/C SYS - FLUIDS	2.776
SP STA SYS OPS	19.467
EVA CRANE OP	15.120
EVA SERVICE TECH	15.120

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.200
MATE TO FIXT = 0.056
TEST & C/O = 0.486

MODULE MATE = 0.076

ADJUSTED DUR FOR 2 FLIGHTS, AT SPACE STATION 3.436

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST CREW SKILL	MISSION RESULTS MANDAYS
S/C SYS - DATA	1.697
S/C SYS - ELEC	1.180
S/C SYS - MECH	1.180
S/C SYS - FLUIDS	1.021
SP STA SYS OPS	6.871
EVA CRANE OP	2.789
EVA SERVICE TECH	2.789

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 4 IN MANDAYS/YR

STS OPERATIONS	7.8
CONSTRUCTION OPERATIONS	3.4
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 4

***>> FLIGHT NO. 5
NUMBER OF FLIGHTS: 1 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL
SECOND MISSION: TMS DELIVERY OUTCOME # IS 0

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	8.261
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 5 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 3 TYPE #2 = 4

***>> FLIGHT NO. 6
NUMBER OF FLIGHTS: 1 PRIME MISSION: LIQ DROPLET RADIATOR OUTCOME # IS 0 KEY IS TE02
INCLINATION IS 29.00
CODE IS SPCL
SECOND MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0
KEY IS OT02
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER OFFLOAD = 0.6000 (MISSION 2)
ORBITER RELOAD = 0.6000 (MISSION 2)
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 1 FLIGHTS: 3.999

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	8.261
EVA CRANE OP	7.560
EVA SERVICE TECH	7.560

CONSTRUCTION OPERATIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.200
MATE TO FIXT = 0.056
TEST & C/O = 0.486

ADJUSTED DUR FOR 1 FLIGHTS, AT SPACE STATION 1.558

SKILL MIX DETAILS FOR CONSTRUCTION TAS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0

S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST MISSION RESULTS
CREW SKILL MANDAYS

S/C SYS - DATA	0.816
S/C SYS - ELEC	0.510
S/C SYS - MECH	0.510
S/C SYS - FLUIDS	0.510
SP STA SYS OPS	3.116
EVA CRANE OP	1.075
EVA SERVICE TECH	1.075

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 6 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	1.6
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

DURATION SUMMARY FORSECOND MISSION FLIGHT NO. 6 IN MANDAYS/YR

STS OPERATIONS	4.0
CONSTRUCTION OPERATIONS	1.6
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 2 TYPE #2 = 0

***>> FLIGHT NO. 7
NUMBER OF FLIGHTS: 19 PRIME MISSION: CONTINUOUS FLOW ELECTRO RESUPP OUTCOME # IS 0 KEY IS CM06
INCLINATION IS 29.00
CODE IS PMXL

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 19 FLIGHTS: 28.098

SKILL MIX DETAILS FOR STS TASK

CREW SKILL ***SCIENCE MISSIONS*** ***COMMERC MISSIONS*** ***TECH DEV MISSIONS** ****OPER SUPPORT*****

	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.0	0.0		2.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		2.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.7	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		2.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

STS OPERATIONS MISSION RESULTS

CREW SKILL	MANDAYS
SP STA SYS OPS	61.191
EVA CRANE OP	47.880
EVA SERVICE TECH	47.880

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 7 IN MANDAYS/YR

STS OPERATIONS	28.1
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 8
NUMBER OF FLIGHTS: 7 PRIME MISSION: LOW INCL STA RESUPPLY OUTCOME # IS 0 KEY IS OT02
INCLINATION IS 29.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 7 FLIGHTS: 19.172

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STS OPERATIONS MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS 40.184

EVA CRANE OP 35.280

EVA SERVICE TECH 35.280

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 8 IN MANDAYS/YR

STS OPERATIONS	19.2
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

TYPE #1 = 4 TYPE #2 = 0

***>> FLIGHT NO. 9
NUMBER OF FLIGHTS: 2 PRIME MISSION: HI-INCL STATION RESUPPLY OUTCOME # IS 0 KEY IS OT04
INCLINATION IS 98.00
CODE IS SORS

SHUTTLE OPERATIONS

UNADJUSTED DURATIONS
ORBITER ARRIVE = 0.0832
ORBITER OFFLOAD = 0.6000
ORBITER RELOAD = 0.6000
ORBITER DEPART = 0.0210
ADJ STS DURATION AT SP STA FOR TOTAL OF 2 FLIGHTS: 5.478

SKILL MIX DETAILS FOR STS TASK

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STS OPERATIONS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MISSION RESULTS
CREW SKILL MANDAYS

SP STA SYS OPS	11.481
EVA CRANE OP	10.080
EVA SERVICE TECH	10.080

CONSTRUCTION OPERATIONS

DURATION SUMMARY FORFIRST MISSION FLIGHT NO. 9 IN MANDAYS/YR

STS OPERATIONS	5.5
CONSTRUCTION OPERATIONS	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0

PAYLOADS SERVICING ANALYSIS

PAYLOAD WITH KEY S001 EARTH OBSERV PALLET

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 150.000

UPDATED WORK DURATION AT SP STA 150.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	15.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	150.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	7.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	7.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	7.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	15.000
EARTH, OCEAN OBS	150.000
S/C SYS - ELEC	7.500
S/C SYS - FLUIDS	7.500
SP STA SYS OPS	7.500

DURATION SUMMARY FOR PAYLOAD NO. 1 S001 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	150.0

PAYLOAD WITH KEY S002 SYNTH APERTURE RADAR

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 5.000

UPDATED WORK DURATION AT SP STA 5.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	5.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	0.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	0.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	0.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL 0.500

EARTH, OCEAN OBS 5.000

S/C SYS - ELEC 0.250

S/C SYS - FLUIDS 0.250

SP STA SYS OPS 0.250

DURATION SUMMARY FOR PAYLOAD NO. 2 S002 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 5.0

PAYLOAD WITH KEY S003 HETERODYNING CO2 LIDAR

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 5.000

UPDATED WORK DURATION AT SP STA 5.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	0.500
EARTH, OCEAN OBS	5.000
S/C SYS - ELEC	0.250
S/C SYS - FLUIDS	0.250
SP STA SYS OPS	0.250

DURATION SUMMARY FOR PAYLOAD NO. 3 S003 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	5.0

PAYLOAD WITH KEY S004 UPPER ATMOS RESEARCH PKG

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
EARTH & OC SCI = 145.000

UPDATED WORK DURATION AT SP STA 145.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	14.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	145.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	7.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	7.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	7.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	14.500
EARTH, OCEAN OBS	145.000
S/C SYS - ELEC	7.250
S/C SYS - FLUIDS	7.250
SP STA SYS OPS	7.250

DURATION SUMMARY FOR PAYLOAD NO. 4 S004 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	145.0

PAYLOAD WITH KEY OT03 SPACE STATION MODULES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 5 OT03 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	67.2	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 5 OT03 IN MANDAYS/YR

SERVICING OPERATIONS	336.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY OT04 HI-INCL STATION RESUPPLY

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 6 OT04 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SP01 SPACE SCIENCE SUBSATELLITE

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

SETUP/TAKEDOWN	=	0.200
MATE TO FIXT	=	0.056
TEST & C/O	=	0.486
TMS MATE/DEMATE	=	0.260

ADJUSTED SERVICING TIME FOR 7 SP01 2.1 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	0.510
S/C SYS - DATA	2.041
S/C SYS - MECH	0.204
S/C SYS - FLUIDS	0.102

SP STA SYS OPS	4.208
EVA CRANE OP	1.807
EVA SERVICE TECH	1.807

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 7 SP01 IN MANDAYS/YR

SERVICING OPERATIONS	2.1
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA01 VLBI/COSMIC RAY PKG

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

ASTROPHYSICS = 67.000

UPDATED WORK DURATION AT SP STA 67.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	6.700
ASTROPHSICS	67.000
S/C SYS - ELEC	3.350

S/C SYS - FLUIDS	3.350
SP STA SYS OPS	3.350

DURATION SUMMARY FOR PAYLOAD NO. 9 SA01 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	67.0

PAYLOAD WITH KEY SL01 HUMAN LIFE SI CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS

LIFE SCIENCE = 73.000

UPDATED WORK DURATION AT SP STA 73.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	7.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	73.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	3.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	3.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	3.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	7.300
MED/BIO RESEARCH	73.000
S/C SYS - ELEC	3.650
S/C SYS - FLUIDS	3.650
SP STA SYS OPS	3.650

DURATION SUMMARY FOR PAYLOAD NO. 11 SL01 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 73.0

PAYLOAD WITH KEY SL04 LIFESCIENCES RES FAC

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 191.000

UPDATED WORK DURATION AT SP STA 191.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	19.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	191.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	19.100
MED/BIO RESEARCH	191.000
S/C SYS - ELEC	9.550
S/C SYS - FLUIDS	9.550
SP STA SYS OPS	9.550

DURATION SUMMARY FOR PAYLOAD NO. 14 SL04 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 191.0

PAYLOAD WITH KEY SL05 CENTRIFUGE (ADD TO LSRF)

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 91.000

UPDATED WORK DURATION AT SP STA 91.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	0.0	9.1	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	91.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	0.0	4.6	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	0.0	4.6	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
SP STA SYS OPS	0.0	0.0	4.6	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EVA SERVICE TECH	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	9.100
MED/BIO RESEARCH	91.000
S/C SYS - ELEC	4.550
S/C SYS - FLUIDS	4.550
SP STA SYS OPS	4.550

DURATION SUMMARY FOR PAYLOAD NO. 15 SL05 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	91.0

PAYLOAD WITH KEY SL06 CLOSED ENV LSS EXPT MOD

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
LIFE SCIENCE = 547.500

UPDATED WORK DURATION AT SP STA 547.5 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMER. MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	547.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	54.750
MED/BIO RESEARCH	547.500
S/C SYS - ELEC	27.375
S/C SYS - FLUIDS	27.375
SP STA SYS OPS	27.375

DURATION SUMMARY FOR PAYLOAD NO. 16 SL06 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	547.5

PAYLOAD WITH KEY CM01 MATLS SCIENCE LAB

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 300.000

UPDATED WORK DURATION AT SP STA 300.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 17 CM01 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 300.0

PAYLOAD WITH KEY CM02 CRYSTAL GROWTH FACTORY/PLAT

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
REMOTE SERVICE = 36.000
TEST & C/O = 1.944
TMS LAUNCH = 0.328
TMS OPS = 12.000
TMS CREW OPS = 12.000
TMS CAPTURE/BRTH = 0.168
TMS MAINT/REFUEL = 4.400
CREW MOD MAINT = 6.840

ADJUSTED SERVICING TIME FOR 18 CM02 154.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	126.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	125.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	44.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	143.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	254.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	61.471
S/C SYS - DATA	126.739
S/C SYS - ELEC	54.818
S/C SYS - MECH	125.800
S/C SYS - FLUIDS	44.206
SP STA SYS OPS	143.136
EVA SERVICE TECH	56.952
TMS PILOT	254.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 18 CM02 IN MANDAYS/YR

SERVICING OPERATIONS	154.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM03 CRYSTAL GROWTH, RESUP-1

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	12.000
TEST & C/O	=	1.458
TMS LAUNCH	=	0.246
TMS OPS	=	9.000
TMS CREW OPS	=	9.000
TMS CAPTURE/BRTH	=	0.126
TMS MAINT/REFUEL	=	3.300
CREW MOD MAINT	=	5.130

ADJUSTED SERVICING TIME FOR 19 CM03 84.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	30.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	79.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	25.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	78.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	75.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	42.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	127.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	30.353
S/C SYS - DATA	79.304
S/C SYS - ELEC	25.364
S/C SYS - MECH	78.600
S/C SYS - FLUIDS	17.404
SP STA SYS OPS	75.852
EVA SERVICE TECH	42.714
TMS PILOT	127.562

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 19 CM03 IN MANDAYS/YR

SERVICING OPERATIONS	84.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CM04 CRYSTAL GROWTH RESUP-2

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	16.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400

CREW MOD MAINT = 6.840

ADJUSTED SERVICING TIME FOR 20 CM04 . 112.7 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	40.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	105.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	33.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	104.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	23.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	101.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	170.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	40.471
S/C SYS - DATA	105.739
S/C SYS - ELEC	33.818
S/C SYS - MECH	104.800
S/C SYS - FLUIDS	23.206
SP STA SYS OPS	101.136
EVA SERVICE TECH	56.952
TMS PILOT	170.083

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 20 CM04 IN MANDAYS/YR

SERVICING OPERATIONS	112.7
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY SA02 ASTRO TELESCOPE CLUSTER

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
ASTROPHYSICS = 65.000

UPDATED WORK DURATION AT SP STA 65.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	6.500
ASTROPHSICS	65.000
S/C SYS - ELEC	3.250
S/C SYS - FLUIDS	3.250
SP STA SYS OPS	3.250

DURATION SUMMARY FOR PAYLOAD NO. 21 SA02 IN MANDAYS/YR

SERVICING OPERATIONS	0.0
SCIENCE & TECH DEMO	65.0

PAYLOAD WITH KEY SA03 ASTROPHYSICS FREE-FLYER

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
REMOTE SERVICE = 2.000
TEST & C/O = 3.400
TMS LAUNCH = 0.082
TMS OPS = 3.000
TMS CREW OPS = 3.000
TMS CAPTURE/BRTH = 0.042

TMS MAINT/REFUEL = 1.100
CREW MOD MAINT = 1.710

ADJUSTED SERVICING TIME FOR 22 SA03 30.1 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	36.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	25.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	34.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	11.078
S/C SYS - DATA	36.574
S/C SYS - ELEC	6.355
S/C SYS - MECH	25.324
S/C SYS - FLUIDS	4.313
SP STA SYS OPS	33.323
EVA SERVICE TECH	14.238
TMS PILOT	34.121

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 22 SA03 IN MANDAYS/YR

SERVICING OPERATIONS 30.1
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY SA04 ASTROPHYSICS OBSERVATORIES

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	6.000
TEST & C/O	=	3.400
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 23 SA04 38.5 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	40.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	41.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	50.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	15.278
S/C SYS - DATA	40.774
S/C SYS - ELEC	10.555
S/C SYS - MECH	29.524
S/C SYS - FLUIDS	8.513
SP STA SYS OPS	41.723
EVA SERVICE TECH	14.238
TMS PILOT	50.921

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 23 SA04 IN MANDAYS/YR

SERVICING OPERATIONS	38.5
SCIENCE & TECH DEMO	0.0

PAYLOAD WITH KEY CC03 INTELSAT-7,7A CLASS COMSAT

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 26 CC03 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CC04 MULTIBEAM COMM. SATELLITE

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 27 CC04 IN MANDAYS/YR

SERVICING OPERATIONS 0.0

SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CC05 RECONFIGURABLE COMM. SATELLITE

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 28 CC05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CM05 CONT FLOW ELEC- TROPH PLATFORM

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

ADJUSTED SERVICING TIME FOR 29 CM05 0.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 29 CM05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY CM06 CONTINUOUS FLOW ELECTRO RESUPP

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	48.000
TEST & C/O	=	1.944
TMS LAUNCH	=	0.328
TMS OPS	=	12.000
TMS CREW OPS	=	12.000
TMS CAPTURE/BRTH	=	0.168
TMS MAINT/REFUEL	=	4.400
CREW MOD MAINT	=	6.840

ADJUSTED SERVICING TIME FOR 30 CM06 179.9 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST	OPS	SERV	MSN	OP CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	74.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	139.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	67.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	138.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	56.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	168.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	304.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	74.071
S/C SYS - DATA	139.339
S/C SYS - ELEC	67.418
S/C SYS - MECH	138.400
S/C SYS - FLUIDS	56.806
SP STA SYS OPS	168.336
EVA SERVICE TECH	56.952
TMS PILOT	304.483

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 30 CM06 IN MANDAYS/YR

SERVICING OPERATIONS 179.9
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT01 LOW INCL STA MODULE DEL

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS
SPACE STA HOUSEK = 160.000

ADJUSTED SERVICING TIME FOR 33 OT01 336.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	470.4	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	67.200
SP STA SYS OPS	470.400
EVA CRANE OP	67.200
EVA SERVICE TECH	67.200

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
SETUP/TAKEDOWN = 0.000

UPDATED WORK DURATION AT SP STA 0.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

DURATION SUMMARY FOR PAYLOAD NO. 33 OT01 IN MANDAYS/YR

SERVICING OPERATIONS 336.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT02 LOW INCL STA RESUPPLY

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 34 OT02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY OT05 HI-ALT STA RESUPPLY

SATELLITE SERVICING OPERATIONS
SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 35 OT05 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 0.0

PAYLOAD WITH KEY TE02 LIQ DROPLET RADIATOR

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 20.000

UPDATED WORK DURATION AT SP STA 20.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	4.000
ENGINEERING	20.000
S/C SYS - DATA	3.000
S/C SYS - ELEC	1.000
S/C SYS - MECH	1.000
S/C SYS - FLUIDS	4.000
SP STA SYS OPS	2.000
EVA CRANE OP	1.000
EVA SERVICE TECH	1.000
MANNED OTV PILOT	3.000

DURATION SUMMARY FOR PAYLOAD NO. 44 TE02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 20.0

PAYLOAD WITH KEY TS02 TECH DEVEL CARRY-ONS

SATELLITE SERVICING OPERATIONS

SATELLITE SERVICING MISSION RESULTS
CREW SKILL MANDAYS

SCIENCE & APPLICATIONS ONBOARD MISSIONS

UNADJUSTED DURATIONS
DOD/TECH DEV = 20.000

UPDATED WORK DURATION AT SP STA 20.0 WORK DAYS

SKILL MIX DETAILS FOR SCI & TDM TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RESEARCH MISSION RESULTS
CREW SKILL MANDAYS

NO SPECIAL SKILL	4.000
ENGINEERING	20.000
S/C SYS - DATA	3.000
S/C SYS - ELEC	1.000
S/C SYS - MECH	1.000
S/C SYS - FLUIDS	4.000
SP STA SYS OPS	2.000
EVA CRANE OP	1.000
EVA SERVICE TECH	1.000
MANNED OTV PILOT	3.000

DURATION SUMMARY FOR PAYLOAD NO. 45 TS02 IN MANDAYS/YR

SERVICING OPERATIONS 0.0
SCIENCE & TECH DEMO 20.0

PAYLOAD WITH KEY SA05 LARGE RADIO TELESCOPE

SATELLITE SERVICING OPERATIONS

UNADJUSTED DURATIONS

REMOTE SERVICE	=	10.000
TEST & C/O	=	10.100
TMS LAUNCH	=	0.082
TMS OPS	=	3.000
TMS CREW OPS	=	3.000
TMS CAPTURE/BRTH	=	0.042
TMS MAINT/REFUEL	=	1.100
CREW MOD MAINT	=	1.710

ADJUSTED SERVICING TIME FOR 46 SA05 61.0 DAYS

SKILL MIX DETAILS FOR SERVICING TASKS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	26.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	73.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	14.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	36.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	14.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	78.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA SERVICE TECH	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TMS PILOT	0.0	67.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SATELLITE SERVICING MISSION RESULTS

CREW SKILL	MANDAYS
NO SPECIAL SKILL	26.512
S/C SYS - DATA	73.114
S/C SYS - ELEC	14.755
S/C SYS - MECH	36.538
S/C SYS - FLUIDS	14.120
SP STA SYS OPS	78.263
EVA SERVICE TECH	14.238

TMS PILOT 67.721

SCIENCE & APPLICATIONS ONBOARD MISSIONS

DURATION SUMMARY FOR PAYLOAD NO. 46 SA05 IN MANDAYS/YR

SERVICING OPERATIONS	61.0
SCIENCE & TECH DEMO	0.0

SKILL MIX SUMMARIES LOW INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***					***COMMERC MISSIONS***					***TECH DEV MISSIONS**					****OPER SUPPORT*****				
	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST	OPS	SERV	MSN	OP	CONST
NO SPECIAL SKILL	0.0	52.9	96.8	0.0		0.0	206.4	0.0	0.0		0.0	0.0	8.0	0.0		0.0	67.2	0.0	0.0	
MED/BIO RESEARCH	0.0	0.0	902.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHYS SCI RESEARC	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
EARTH, OCEAN OBS	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
ENGINEERING	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	40.0	0.0		0.0	0.0	0.0	0.0	
ASTROPHSICS	0.0	0.0	65.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
S/C SYS - DATA	0.0	150.5	0.0	0.0		90.9	451.1	0.0	58.7		0.0	0.0	6.0	0.8		0.0	0.0	0.0	0.0	
S/C SYS - ELEC	0.0	31.7	48.4	0.0		106.1	181.4	0.0	38.1		0.0	0.0	2.0	0.5		0.0	0.0	0.0	0.0	
S/C SYS - MECH	0.0	91.4	0.0	0.0		94.3	447.6	0.0	38.1		0.0	0.0	2.0	0.5		0.0	0.0	0.0	0.0	
S/C SYS - FLUIDS	0.0	26.9	48.4	0.0		85.5	141.6	0.0	36.2		0.0	0.0	8.0	0.5		24.9	0.0	0.0	0.0	
SP STA SYS OPS	0.0	153.3	48.4	0.0		159.2	488.5	0.0	211.8		2.5	0.0	4.0	3.1		143.5	470.4	0.0	0.0	
EVA CRANE OP	0.0	0.0	0.0	0.0		118.4	0.0	0.0	66.4		2.5	0.0	2.0	1.1		85.7	67.2	0.0	0.0	
EVA SERVICE TECH	0.0	42.7	0.0	0.0		169.1	213.6	0.0	56.4		2.5	0.0	2.0	1.1		85.7	67.2	0.0	0.0	
MANNED OTV PILOT	0.0	0.0	0.0	0.0		144.6	0.0	0.0	0.0		0.0	0.0	6.0	0.0		0.0	0.0	0.0	0.0	
TMS PILOT	0.0	152.8	0.0	0.0		0.0	856.2	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
MATLS SCIENCE	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
1911.	4460.	95.	1012.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	431.2
MED/BIO RESEARCH	902.5
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	0.0
ENGINEERING	40.0
ASTROPHSICS	65.0
S/C SYS - DATA	758.0
S/C SYS - ELEC	408.2
S/C SYS - MECH	673.9
S/C SYS - FLUIDS	372.1
SP STA SYS OPS	1684.6
EVA CRANE OP	343.3
EVA SERVICE TECH	640.3
MANNED OTV PILOT	150.6
TMS PILOT	1009.0

MATLS SCIENCE 0.0

TOTAL SPACE STATION CREW: 20.5 PEOPLE

SKILL MIX SUMMARIES HIGH INCLINATION

SKILL MIX DETAILS FOR ACCUMULATED MISS

CREW SKILL	***SCIENCE MISSIONS***				***COMMERC MISSIONS***				***TECH DEV MISSIONS**				****OPER SUPPORT*****			
	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST	OPS	SERV	MSN OP	CONST
NO SPECIAL SKILL	0.0	0.5	37.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.2	0.0	0.0
MED/BIO RESEARCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHYS SCI RESEARC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EARTH, OCEAN OBS	0.0	0.0	305.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGINEERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASTROPHSICS	0.0	0.0	67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - DATA	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - ELEC	0.0	0.0	18.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - MECH	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/C SYS - FLUIDS	0.0	0.1	18.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SP STA SYS OPS	0.0	4.2	18.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EVA CRANE OP	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	470.4	0.0	0.0
EVA SERVICE TECH	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	67.2	0.0	0.0
MANNED OTV PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	67.2	0.0	0.0
TMS PILOT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MATLS SCIENCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MANDAYS BY MISSION

SCIENCE & APP	COMMERCIAL	TECH DEV	OPS SUPPORT
476.	0.	0.	704.

MANDAYS BY SKILL

SKILL	MANDAYS
NO SPECIAL SKILL	104.9
MED/BIO RESEARCH	0.0
PHYS SCI RESEARC	0.0
EARTH, OCEAN OBS	305.0
ENGINEERING	0.0
ASTROPHSICS	67.0
S/C SYS - DATA	2.0
S/C SYS - ELEC	18.6
S/C SYS - MECH	0.2
S/C SYS - FLUIDS	18.7
SP STA SYS OPS	504.7
EVA CRANE OP	79.1
EVA SERVICE TECH	79.1
MANNED OTV PILOT	0.0
TMS PILOT	0.0
MATLS SCIENCE	0.0

TOTAL SPACE STATION CREW: 3.2 PEOPLE

LOW INCLINATION

DURATION SUMMARY FOR YEAR 2005 IN MANDAYS/YR

STS OPERATIONS	85.4
CONSTRUCTION	107.5
OTV OPERATIONS	103.3
OTV MISSIONS	71.4
SERVICING OPERATIONS	997.5
SCIENCE & TECH DEMO	1307.5

HIGH INCLINATION

DURATION SUMMARY FOR YEAR 2005 IN MANDAYS/YR

STS OPERATIONS	5.5
CONSTRUCTION	0.0
OTV OPERATIONS	0.0
OTV MISSIONS	0.0
SERVICING OPERATIONS	338.1
SCIENCE & TECH DEMO	372.0

SUMMARY OF SPACE STATION PAYLOADS THIS YEAR

KEY	TITLE	PLCODE	INCL	PK POWER	DUTY CYCLE
S001	EARTH OBSERV PALLET	SPCL	98.0	3.5	82.2
S002	SYNTH APERTURE RADAR	SPCL	98.0	10.0	2.7
S003	HETERODYNING CO2 LIDAR	SPXX	98.0	1.0	13.7
S004	UPPER ATMOS RESEARCH PKG	SPCL	98.0	2.2	54.8
OT03	SPACE STATION MODULES	SSSS	98.0	15.0	100.0
OT04	HI-INCL STATION RESUPPLY	SORS	98.0	1.0	100.0
SP01	SPACE SCIENCE SUBSATELLITE	FSXX	98.0	0.0	100.0
SA01	VLBI/COSMIC RAY PKG	SPCL	98.0	2.0	100.0
SL01	HUMAN LIFE SI CARRY-ONS	SSSA	29.0	1.7	100.0
SL04	LIFESCIENCES RES FAC	SPXX	29.0	12.2	100.0
SL05	CENTRIFUGE (ADD TO LSRF)	SSCL	29.0	4.0	100.0
SL06	CLOSED ENV	SPCL	29.0	9.7	100.0

LSS EXPT MOD

CM01	MATLS SCIENCE LAB	SPXX	29.0	25.0	35.6
CM02	CRYSTAL GROWTH FACTORY/PLAT	PMCL	29.0	0.0	100.0
CM03	CRYSTAL GROWTH RESUP-1	PMXX	29.0	0.0	0.5
CM04	CRYSTAL GROWTH RESUP-2	PMCL	29.0	0.0	0.5
SA02	ASTRO TELESCOPE CLUSTER	SPXX	29.0	4.0	100.0
SA03	ASTROPHYSICS FREE-FLYER	FMXM	29.0	0.0	100.0
SA04	ASTROPHYSICS OBSERVATORIES	FMXM	29.0	1.0	100.9
CC03	INTELSAT-7,7A CLASS COMSAT	FXCL	0.0	0.0	0.0
CC04	MULTIBEAM COMM. SATELLITE	SSCM	0.0	0.0	0.0
CC05	RECONFIGURABLE COMM. SATELLITE	FXCM	0.0	0.0	1.9
CM05	CONT FLOW ELEC-TROPH PLATFORM	PMCL	29.0	0.0	100.0
CM06	CONTINUOUS FLOW ELECTRO RESUPP	PMXL	29.0	2.0	0.0
OT01	LOW INCL STA MODULE DEL	SSSS	29.0	20.0	100.0
OT02	LOW INCL STA RESUPPLY	SORS	29.0	0.0	100.0
OT05	HI-ALT STA RESUPPLY	OMSB	29.0	0.0	100.0
TE02	LIQ DROPLET RADIATOR	SPCL	29.0	2.0	5.5
TS02	TECH DEVEL CARRY-ONS	SSSA	29.0	0.5	6.8
SA05	LARGE RADIO TELESCOPE	FMCH	29.0	0.0	100.0

LOW INCLINATION

PEAK POWER	AVERAGE POWER
82.1	61.6

HIGH INCLINATION

PEAK POWER	AVERAGE POWER
34.7	22.5

RESOURCES SUMMARY FOR LOW INCLINATION SPACE STATION

INTERNAL VOLUME	7.4	CUBIC METERS
POWER	61.6	KW
NO. OF PORTS	5.	

RESOURCES SUMMARY FOR HIGH INCLINATION SPACE STATION

INTERNAL VOLUME	6.4	CUBIC METERS
POWER	22.5	KW
NO. OF PORTS	5.	

POINTING & DISTURBANCE SUMMARY FOR LOW INCLINATION SPACE STATION

EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350
SL01	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CM01						----------	----------	----------	----------						
CM02	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CM03								-							
CM04								-							
SA02	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
SA03	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
SA04	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CC03								-							
CC04								-							
CC05								-							
CM05	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
CM06								-							
OT01	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
OT02	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
OT05	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
TE02															****
TS02							-----								
SA05	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

POINTING & DISTURBANCE SUMMARY FOR HIGH INCLINATION SPACE STATION

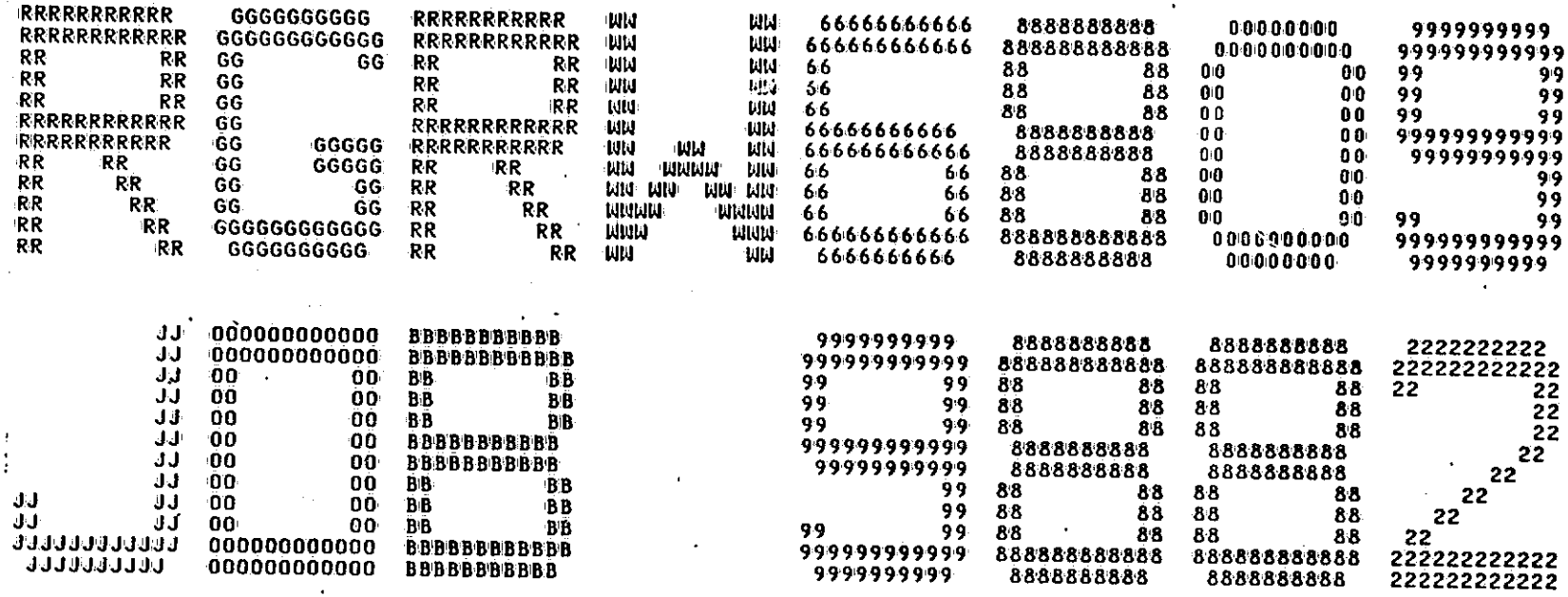
EARTH: 0 NONE: - INERTIAL: *

DAYS/YEAR

```
                                1   1   1   1   2   2   2   2   3   3   3
      2   5   7   1   1   1   1   2   2   2   2   3   3   2   5   7   0
  0   5   0   5   0   2   5   0   7   5   0   2   5   0   5   0   5   0
S001 00000000000000000000000000000000000000000000000000000000000000000000000
S002 00
S003 0000000000
S004 0000000000000000000000000000000000000000000
OT03 -------------------------------------------------------------------------
OT04 -------------------------------------------------------------------------
SP01 -------------------------------------------------------------------------
SA01 *************************************************************************
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LCL.NEWS

GENERAL PURPOSE SYSTEM



G.WOODCOCK 84-06

JOB RUN ON SY2-033H BEGINNING AT 08.43.28 ON 83.158
PRINTED ON PR3 BETWEEN 03.55.17 AND 04.14.57 ON 83.159

ORIGINAL PAGE IS
OF POOR QUALITY