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SPACE OPERATIONS CONTROL CENTER

SATELLITE SITUATION REPORT

VOL. 3, NO. 14

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JULY 15, 1963 19p

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NASA GODDARD SPACE FLIGHT CENTER
GREENBELT, MD.

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SPACE OPERATIONS CONTROL CENTER
GODDARD SPACE FLIGHT CENTER
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

VOLUME 3 NO. 14 JULY 15, 1963

SATELLITE SITUATION REPORT

THE FOLLOWING REPORT REFLECTS DATA COMPUTED AND COMPILED BY THE GODDARD SPACE FLIGHT CENTER, NORAD, AND SMITHSONIAN ASTROPHYSICAL OBSERVATORY AS OF 1200Z ON JULY 15, 1963.

OBJECTS IN ORBIT

OBJECT	CODE NAME	SOURCE	LAUNCH	NODAL PERIOD	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1958 LAUNCHES								
ALPHA 1	EXPLORER 1	US	1 FEB	104.9	33.19	1651	341	
BETA 1	ROCKET BODY	US	17 MAR	138.3	34.25	4331	641	
BETA 2	VANGUARD 1	US	17 MAR	133.9	34.24	3929	664	108.023 &
1959 LAUNCHES								
ALPHA 1	VANGUARD 2	US	17 FEB	125.3	32.87	3308	540	
ALPHA 2	ROCKET BODY	US	17 FEB	129.8	32.90	3681	557	
ETA 1	VANGUARD 3	US	18 SEP	129.7	33.35	3717	513	
MU 1*	LUNIK 1	USSR	2 JAN	450 D	0.01	1.315AU	0.9766AU	
NU 1*	PIONEER 4	US	3 MAR	398 D	1.30	1.142AU	0.9871AU	
IOTA 1	EXPLORER 7	US	13 OCT	101.1	50.32	1053	574	
IOTA 2	ROCKET BODY	US	13 OCT	100.9	50.30	1074	534	
1960 LAUNCHES								
ALPHA 1*	PIONEER 5	US	11 MAR	312 D	3.35	0.995AU	0.8061AU	
BETA 1	ROCKET BODY	US	1 APR	99.0	48.35	737	697	
BETA 2	TIROS 1	US	1 APR	99.1	48.35	738	702	
BETA 3	NONE	US	1 APR	97.8	48.47	673	643	
BETA 4	NONE	US	1 APR	99.8	48.14	819	689	
GAMMA 2	TRANSIT 1B	US	13 APR	94.2	51.25	598	364	
GAMMA 4	NONE	US	13 APR	96.7	51.26	736	473	
EPSILON 3	NONE	USSR	15 MAY	92.0	64.98	490	256	
ZETA 1	MIDAS 2	US	24 MAY	94.2	33.04	517	456	
ETA 1	TRANSIT 2A	US	22 JUN	101.6	66.70	1054	616	
ETA 2	GREB	US	22 JUN	101.6	66.69	1050	619	
ETA 3	ROCKET BODY	US	22 JUN	101.4	66.66	1027	623	
IOTA 1	ECHO 1	US	12 AUG	115.1	47.28	1866	1056	
IOTA 2	ROCKET BODY	US	12 AUG	118.0	47.23	1679	1509	
IOTA 3	METAL OBJECT	US	12 AUG	118.2	47.22	1686	1517	
IOTA 4	METAL OBJECT	US	12 AUG	INSUFFICIENT OBSERVATIONS				
IOTA 5	METAL OBJECT	US	12 AUG	118.3	47.28	1671	1549	

OBJECTS IN ORBIT

OBJECT	CODE NAME	SOURCE	LAUNCH	NODAL PERIOD	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1960 LAUNCHES								
NU 1	COURIER 1B	US	4 OCT	106.8	28.36	1[illegible]	975	
NU 2	ROCKET BODY	US	4 OCT	106.4	28.27	1199	937	
XI 1	EXPLORER 8	US	3 NOV	112.3	49.80	2271	403	
XI 2	ROCKET BODY	US	3 NOV	112.0	49.96	2317	424	
XI 3	NONE	US	3 NOV	109.8	49.35	2049	394	
XI 4	NONE	US	3 NOV	110.8	50.52	2119	415	
PI 1	TIROS 2	US	23 NOV	98.[illegible]	48.48	743	606	
PI 2	ROCKET BODY	US	23 NOV	9[illegible].0	48.47	694	643	
PI 3	NONE	US	23 NOV	98.1	48.51	706	637	
PI 4	NONE	US	23 NOV	98.2	48.45	713	643	
1961 LAUNCHES								
ALPHA 1	SAMOS 2	US	31 JAN	94.8	37.44	546	467	
ALPHA 2	METAL OBJECT	US	31 JAN	94.7	97.42	540	467	
GAMMA 1*	VENUS PROBE	USSR	12 FEB	300 D	0.58	1.019AU	0.7183AU	
DELTA 1	EXPLORER 9	US	16 FEB	116.5	38.92	2551	504	
DELTA 2	ROCKET BODY	US	16 FEB	118.4	38.84	2586	644	
DELTA 3	NONE	US	16 FEB	INSUFFICIENT OBSERVATIONS				
KAPPA 1	EXPLORER 10	US	25 MAR	POSITION UNCERTAIN				
NU 1	EXPLORER 11	US	27 APR	107.8	28.81	1786	478	
OMICRON 1	TRANSIT 4A	US	29 JUN	103.8	66.81	985	893	
OMICRON 2	INJUN-SR-3	US	29 JUN	103.8	66.81	994	886	
OMICRON 3-186**	METAL OBJECTS	US	29 JUN					
RHO 1	TIROS 3	US	12 JUL	100.3	47.88	814	742	
RHO 2	ROCKET BODY	US	12 JUL	100.3	47.89	805	745	
RHO 3	METAL OBJECT	US	12 JUL	98.8	47.93	806	601	
RHO 4	METAL OBJECT	US	12 JUL	101.9	47.84	928	779	
SIGMA 1	MIDAS 3	US	12 JUL	161.5	91.23	3490	3399	
SIGMA 3	METAL OBJECT	US	12 JUL	161.2	91.20	3544	3318	
SIGMA 4	METAL OBJECT	US	12 JUL	161.9	91.23	3551	3371	
UPSILON 1	EXPLORER 12	US	16 AUG	INSUFFICIENT OBSERVATIONS				
A DELTA 1	MIDAS 4	US	21 OCT	166.0	95.89	3691	3561	

OBJECTS IN ORBIT

OBJECT	CODE NAME	SOURCE	LAUNCH	NODAL PERIOD	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1961 LAUNCHES								
A DELTA 3	METAL OBJECT	US	21 OCT	165.6	95.93	3684	3536	
A DELTA 4	METAL OBJECT	US	21 OCT	166.4	95.97	3772	3514	
A ETA 1	TRANSIT 4B	US	15 NOV	105.6	32.42	1114	948	
A ETA 2	TRAAC	US	15 NOV	105.6	32.44	1115	949	
A ETA 3	ROCKET BODY	US	15 NOV	105.5	32.43	1103	946	
1962 LAUNCHES								
ALPHA 1*	RANGER 3	US	26 JAN	406.4D	.3988	1.163AU	0.9839AU	
ALPHA 2	ROCKET BODY	US	26 JAN	INSUFFICIENT OBSERVATIONS				
BETA 1	TIROS 4	US	8 FEB	100.3	48.26	858	695	
BETA 2	ROCKET BODY	US	8 FEB	101.3	48.12	943	703	
BETA 3	METAL OBJECT	US	8 FEB	99.4	48.42	773	694	
BETA 4	METAL OBJECT	US	8 FEB	100.2	48.30	828	719	
ZETA 1	ORB.SOL.OBS. 1	US	7 MAR	95.9	32.84	575	564	136.744
ZETA 2	ROCKET BODY	US	7 MAR	95.9	32.82	594	549	
IOTA 1	COSMOS 2	USSR	6 APR	91.1	48.97	477	184	
KAPPA 1		US	9 APR	153.0	86.71	3367	2828	
KAPPA 3		US	9 APR	152.7	86.65	3369	2795	
KAPPA 4		US	9 APR	153.4	86.64	3420	2804	
MU 2	ROCKET BODY	US	23 APR	INSUFFICIENT OBSERVATIONS				
OMICRON 1	ARIEL	US/UK	26 APR	100.6	53.86	1197	385	136.406
OMICRON 2	ROCKET BODY	US/UK	26 APR	100.6	53.83	1196	382	
SIGMA 1		US	15 MAY	91.8	82.33	459	266	
OMEGA 1		US	18 JUN	91.0	82.11	332	309	
A ALPHA 1	TIROS 5	US	19 JUN	100.4	58.10	955	607	136.233;136.923
A ALPHA 2	ROCKET BODY	US	19 JUN	100.4	58.07	953	602	
A ALPHA 3	METAL OBJECT	US	19 JUN	101.7	59.21	1077	606	
A ALPHA 4	METAL OBJECT	US	19 JUN	99.1	57.99	861	571	
A EPSILON 1	TELSTAR 1	US	10 JUL	157.6	44.78	5639	944	
A EPSILON 2	ROCKET BODY	US	10 JUL	157.5	44.81	5625	946	

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OBJECTS IN ORBIT

OBJECT	CODE NAME	SOURCE	LAUNCH	NODAL PERIOD	INCLI NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
.962 LAUNCHES								
A XI 1	COSMOS 8	USSR	18 AUG	89.7	48.97	307	223	
A OMICRON 1		US	23 AUG	99.6	98.66	858	615	
A OMICRON 2		US	23 AUG	98.3	98.65	752	599	
A OMICRON 3		US	23 AUG	100.9	98.62	962	632	
A OMICRON 4		US	23 AUG	99.6	98.65	854	617	
A RHO 1*	MARINER 2	US	27 AUG	348 D	1.66	1.229AU	0.7046AU	
A RHO 2	ROCKET BODY	US	27 AUG					
A UPSILON 1		US	1 SEP	93.3	82.81	581	284	
A PSI 1	TIROS 6	US	18 SEP	98.7	58.29	719	677	136.233;136.921
A PSI 2	ROCKET BODY	US	18 SEP	98.7	58.29	717	674	
A PSI 3	METAL OBJECT	US	18 SEP	99.4	58.43	762	697	
A PSI 4	METAL OBJECT	US	18 SEP	98.0	58.21	678	652	
B ALPHA 1	ALOUETTE	CANADA	29 SEP	105.5	80.47	1036	997	136.978;$13[illegible]590 $136.080
B ALPHA 2	ROCKET BODY	US	29 SEP	105.5	80.48	1032	996	
B ALPHA 3	METAL OBJECT	US	29 SEP	105.4	80.54	1027	995	
B ALPHA 4	METAL OBJECT	US	29 SEP	105.5	80.46	1054	979	
B GAMMA 1	EXPLORER 14	US	2 OCT	2185.0	39.57	97129	1673	136.440
B GAMMA 2	ROCKET BODY	US	2 OCT	INSUFFICIENT OBSERVATIONS				
B ETA 1	RANGER 5	US	18 OCT	370 D	.44422	1.0681AU	0.9498AU	
B ETA 2	ROCKET BODY	US	18 OCT					
B THETA 1		USSR	20 OCT	93.9	48.94	712	230	
B KAPPA 1		US	26 OCT	142.3	71.40	5073	226	
B LAMBDA 1	EXPLORER 15	US	27 OCT	314.0	17.98	17567	308	
B LAMBDA 2	ROCKET BODY	US	27 OCT	INSUFFICIENT OBSERVATIONS				
B MU 1	ANNA 1B	US	31 OCT	107.8	50.14	1173	1087	162;324
B MU 2	ROCKET BODY	US	31 OCT	107.5	50.14	1170	1062	
B NU 3		USSR	1 NOV	COMPUTATIONS IN PROGRESS				
B TAU 1		US	13 DEC	114.0	70.36	2577	239	
B TAU 2	INJUN 3	US	13 DEC	115.0	70.37	2670	241	$136.868
B TAU 4		US	13 DEC	112.8	70.46	2460	247	

OBJECTS IN ORBIT

OBJECT	CODE NAME	SOURCE	LAUNCH	NODAL PERIOD	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1962 LAUNCHES								
B TAU 5		US	13 DEC	113.9	70.35	2573	237	
B TAU 6		US	13 DEC	114.7	70.36	2643	242	
B UPSILON 1	RELAY 1	US	13 DEC	185.0	47.52	7444	1317	136.140;$136.620
B UPSILON 2	ROCKET BODY	US	13 DEC	184.8	47.54	7410	1334	
B CHI 1	EXPLORER 16	US	16 DEC	104.3	52.00	1176	754	$136.860;$136.200
B PSI 1	TRANSIT 5A	US	19 DEC	99.2	90.62	741	689	
B PSI 2		US	19 DEC	97.9	90.71	744	565	
B PSI 3		US	19 DEC	99.1	90.62	730	700	
B PSI 4		US	19 DEC	100.3	90.45	845	693	
1963 LAUNCHES								
1963 3A		US	16 JAN	9[illegible] 6	81.90	522	473	
1963 3B		US	16 JAN	93.6	81.88	472	421	
1963 3C		US	16 JAN	94.0	81.88	506	426	
1963 4A	SYNCOM	US	14 FEB	1426.4	33.51	37016	34182	
1963 4B	ROCKET BODY	US	14 FEB	603.0	33.12	34306	248	
1963 5A		US	19 FEB	97.8	100.49	802	418	
1963 5B		US	19 FEB	97.8	100.49	804	494	
1963 5C		US	19 FEB	97.1	100.55	770	462	
1963 5D		US	19 FEB	98.4	100.49	850	514	
1963 8B		USSR	2 APR	INSUFFICIENT OBSERVATIONS				
1963 9A	EXPLORER 17	US	3 APR	96.0	57.61	871	268	$136.316;.36.559
1963 9B	ROCKET BODY	US	3 APR	94.3	57.61	715	258	
1963 10A		USSR	13 APR	90.4	48.93	354	246	
1963 13A	TELSTAR 2	US	7 MAY	225.2	42.74	10800	975	136.050
1963 13B	ROCKET BODY	US	7 MAY	225.0	42.67	10826	932	
1963 14A		US	9 MAY	166.5	87.39	3728	3561	
1963 14B		US	9 MAY	166.5	87.35	3684	3607	136.892
1963 14C		US	9 MAY	166.5	87.34	3680	3610	136.410
1963 14D		US	9 MAY	166.5	87.42	3678	3610	
1963 14E		US	9 MAY	166.1	87.36	3662	3598	

OBJECTS IN ORBIT

OBJECT	CODE NAME	SOURCE	LAUNCH	NODAL PERIOD	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1963 LAUNCHES								
1963 17A		USSR	22 MAY	94.7	49.00	755	257	
1963 17B		USSR	22 MAY	92.1	48.99	504	258	
1963 17C		USSR	22 MAY	96.1	49.22	809	345	
1963 17D		USSR	22 MAY	92.6	49.07	535	275	
1963 17E		USSR	22 MAY	90.8	48.98	386	251	
1963 17F		USSR	22 MAY	95.6	49.32	781	322	
1963 17G		USSR	22 MAY	94.5	48.99	733	266	
1963 21A		US	15 JUN	93.1	69.89	688	163	
1963 21B	LOFTI IIA	US	15 JUN	89.9	69.84	376	161	136.380
1963 21C	SOLAR RADIATION	US	15 JUN	92.5	69.86	626	163	136.890
1963 21D		US	15 JUN	92.3	68.87	607	165	
1963 21E		US	15 JUN	92.0	69.83	580	161	
1963 22A		US	16 JUN	99.8	90.02	765	724	
1963 22B		US	16 JUN	99.8	90.01	764	724	
1963 22C		US	16 JUN	101.3	90.25	889	745	
1963 22D		US	16 JUN	98.3	89.81	779	566	
1963 24A	TIROS 7	US	19 JUN	97.4	58.20	654	617	136.235;136.922
1963 24B	ROCKET BODY	US	19 JUN	97.4	58.22	655	612	
1963 24C	METAL OBJECT	US	19 JUN	97.9	58.40	689	626	
1963 24D	METAL OBJECT	US	19 JUN	96.9	58.09	646	576	
1963 25A		US	27 JUN	89.7	81.61	323	194	
1963 25B		US	27 JUN	132.6	82.14	4138	324	
1963 26A	RESEARCH SATELLITE FOR GEOPHYSICS	US	28 JUN	102.1	49.74	1303	415	
1963 27A		US	29 JUN	94.8	82.32	514	495	
1963 27B		US	29 JUN	94.8	82.31	519	490	
1963 28A		US	12 JUL	88.3	95.37	187	184	
1963 28C		US	12 JUL	88.1	95.37	181	174	

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* APHELION PERIHELION IN ASTRONOMICAL UNITS, INCLINATION TO ECLIPTIC.
** ONE HUNDRED AND EIGHTY FOUR METAL OBJECTS HAVE BEEN IDENTIFIED AS HAVING BEEN LAUNCHED WITH 1961 OMICRON 1 AND 1961 OMICRON 2. OBJECTS OF THIS SERIES THAT HAVE DECAYED CAN BE FOUND IN THE DECAYED OBJECTS LISTS.
$ TRANSMITTING ON COMMAND ONLY.
& TRANSMITTING WHEN IN SUNLIGHT ONLY.

DECAYED OBJECTS

OBJECT	CODE NAME	SOURCE	LAUNCH	DECAY
1957 LAUNCHES				
ALPHA 1	ROCKET BODY	USSR	4 OCT	1 DEC 57
ALPHA 2	SPUTNIK 1	USSR	4 OCT	EARLY JAN 58
BETA 1	SPUTNIK 2	USSR	3 NOV	14 APR 58
1958 LAUNCHES				
GAMMA 1	EXPLORER 3	US	26 MAR	28 JUN 58
DELTA 1	ROCKET BODY	USSR	15 MAY	3 DEC 58
DELTA 2	SPUTNIK 3	USSR	15 MAY	6 APR 60
EPSILON 1	EXPLORER 4	US	26 JUL	23 OCT 59
ZETA 1	SCORE	US	18 DEC	21 JAN 59
ETA 1	PIONEER 1	US	11 OCT	12 OCT 58
THETA 1	PIONEER 3	US	6 DEC	7 DEC 58
1959 LAUNCHES				
BETA 1	DISCOVERER 1	US	28 FEB	EARLY MAR 59
GAMMA 1	DISCOVERER 2	US	13 APR	26 APR 59
DELTA 1	EXPLORER 6	US	7 AUG	PRESUMED PRIOR JUL 61
DELTA 2	ROCKET BODY	US	7 AUG	PRESUMED PRIOR JUL 61
EPSILON 1	DISCOVERER 5	US	13 AUG	28 SEP 59
EPSILON 2	CAPSULE	US	13 AUG	11 FEB 61
ZETA 1	DISCOVERER 6	US	19 AUG	20 OCT 59
THETA 1	LUNIK 3	USSR	4 OCT	MAR 60
KAPPA 1	DISCOVERER 7	US	7 NOV	26 NOV 59
LAMBDA 1	DISCOVERER 8	US	20 NOV	8 MAR 60
XI 1	LUNIK 2	USSR	12 SEP	13 SEP 59*****
1960 LAUNCHES				
GAMMA 1	ROCKET BODY	US	13 APR	18 AUG 60
GAMMA 3	METAL OBJECT	US	13 APR	JUL 60

DECAYED OBJECTS (CONT'D)

OBJECT	CODE NAME	SOURCE	LAUNCH	DECAY
1960 LAUNCHES CONT'D				
DELTA 1	DISCOVERER 11	US	15 APR	26 APR 60
EPSILON 1	SPUTNIK 4	USSR	15 MAY	5 SEP 62
EPSILON 2	ROCKET BODY	USSR	15 MAY	17 JUL 60
EPSILON 4	NONE	USSR	15 MAY	PRIOR JUL 61
EPSILON 5	NONE	USSR	15 MAY	SEP-OCT 60
EPSILON 6	NONE	USSR	15 MAY	24 SEP 60
EPSILON 7	NONE	USSR	15 MAY	24 SEP 60
EPSILON 8	NONE	USSR	15 MAY	SEP-OCT 60
EPSILON 9	NONE	USSR	15 MAY	SEP-OCT 60
ZETA 2	METAL OBJECT	US	24 MAY	5 DEC 60
THETA 1	DISCOVERER 13	US	10 AUG	14 NOV 60
THETA 1	CAPSULE	US	10 AUG	11 AUG 60**
KAPPA 1	DISCOVERER 14	US	18 AUG	16 SEP 60
KAPPA 1	CAPSULE	US	18 AUG	19 AUG 60**
LAMBDA 1	SPUTNIK 5	USSR	19 AUG	20 AUG 60*
LAMBDA 2	ROCKET BODY	USSR	19 AUG	23 SEP 60
MU 1	DISCOVERER 15	US	13 SEP	18 OCT 60
MU 1	CAPSULE	US	13 SEP	15 SEP 60***
OMICRON 1	DISCOVERER 17	US	12 NOV	27 DEC 60
OMICRON 1	CAPSULE	US	12 NOV	14 NOV 60
RHO 1	SPUTNIK 6	USSR	1 DEC	2 DEC 60
RHO 2	ROCKET BODY	USSR	1 DEC	2 DEC 60
SIGMA 1	CAPSULE	US	7 DEC	1[illegible] DEC 60**
SIGMA 1	DISCOVERER 18	US	7 DEC	[illegible] APR 61
TAU 1	DISCOVERER 19	US	20 DEC	23 JAN 61
1961 LAUNCHES				
BETA 1	SPUTNIK 7	USSR	4 FEB	26 FEB 61
BETA 2	ROCKET BODY	USSR	4 FEB	12-13 FEB 61
BETA 3	NONE	USSR	4 FEB	17 MAR 61
GAMMA 2	ROCKET BODY	USSR	12 FEB	18 FEB 61

DECAYED OBJECTS (CONT'D)

OBJECT	CODE NAME	SOURCE	LAUNCH	DECAY
1961 LAUNCHES CONT'D				
GAMMA 3	SPUTNIK 8	USSR	12 FEB	25 FEB 61
GAMMA 4	NONE	USSR	12 FEB	13-18 FEB 61
DELTA 4	NONE	US	16 FEB	PRIOR JUL 61
EPSILON 1	DISCOVERER 20	US	17 FEB	28 JUL 62
EPSILON 2	NONE	US	17 FEB	30 MAR-2 APR 61
EPSILON 3	NONE	US	17 FEB	20 APR 61
EPSILON 4	NONE	US	17 FEB	31 OCT 61
ZETA 1	DISCOVERER 21	US	18 FEB	20 APR 62
ETA 1	TRANSIT 3B & LOFTI	US	22 FEB	30 MAR 61
THETA 1	SPUTNIK 9	USSR	9 MAR	9 MAR 61*
THETA 2	NONE	USSR	9 MAR	10 MAR 61
THETA 3	NONE	USSR	9 MAR	10 MAR 61
THETA 4	NONE	USSR	9 MAR	10 MAR 61
IOTA 1	SPUTNIK 10	USSR	25 MAR	25 MAR 61
IOTA 2	ROCKET BODY	USSR	25 MAR	26 MAR 61
IOTA 3	NONE	USSR	25 MAR	26 MAR 61
LAMBDA 1	DISCOVERER 23	US	8 APR	16 APR 62
LAMBDA 2	CAPSULE	US	8 APR	23 MAY 62
LAMBDA 3	NONE	US	8 APR	10 SEP 61
MU 1	VOSTOK 1	USSR	12 APR	12 APR 61****
MU 2	ROCKET BODY	USSR	12 APR	16 APR 61
XI 1	CAPSULE	US	16 JUN	18 JUN 61**
XI 1	DISCOVERER 25	US	16 JUN	12 JUL 61
XI 2	NONE	US	16 JUN	19 JUN 61
OMICRON 25	METAL OBJECT	US	29 JUN	30 SEP 62
OMICRON 28	METAL OBJECT	US	29 JUN	16 JUN 62
OMICRON 46	METAL OBJECT	US	29 JUN	29 JAN 62
PI 1	DISCOVERER 26	US	7 JUL	5 DEC 61
PI 1	CAPSULE	US	8 JUL	9 JUL 61**
SIGMA 2	METAL OBJECT	US	12 JUL	24 JUL 61
TAU 1	VOSTOK 2	USSR	6 AUG	7 AUG 61****
TAU 2	ROCKET BODY	USSR	6 AUG	9 AUG 61

DECAYED OBJECTS (CONT'D)

OBJECT	CODE NAME	SOURCE	LAUNCH	DECAY
1961 LAUNCHES CONT'D				
PHI 1	RANGER 1	US	23 AUG	30 AUG 61
PHI 2	ROCKET BODY	US	23 AUG	3 SEP 61
CHI 1	EXPLORER 13	US	25 AUG	28 AUG 61
PSI 1	DISCOVERER 29	US	30 AUG	10 SEP 61
PSI 1	CAPSULE	US	30 AUG	4 SEP 61
OMEGA 1	DISCOVERER 30	US	12 SEP	11 DEC 61
OMEGA 1	CAPSULE	US	12 SEP	15 SEP 61**
OMEGA 2	METAL OBJECT	US	12 SEP	18 SEP 61
OMEGA 3	METAL OBJECT	US	12 SEP	28 SEP 61
A ALPHA 1	MA-4	US	13 SEP	13 SEP 61**
A ALPHA 2	ROCKET BODY	US	13 SEP	13 SEP 61
A BETA 1	DISCOVERER 31	US	17 SEP	26 OCT 61
A GAMMA 1	DISCOVERER 32	US	13 OCT	13 NOV 61
A GAMMA 1	CAPSULE	US	13 OCT	14 OCT 61**
A GAMMA 2	METAL OBJECT	US	13 OCT	25 OCT 61**
A GAMMA 3	METAL OBJECT	US	13 OCT	16 OCT 61
A DELTA 2		US	21 OCT	5 DEC 61
A EPSILON 1	DISCOVERER 34	US	5 NOV	7 DEC 62
A EPSILON 2	METAL OBJECT	US	5 NOV	30 NOV 61
A EPSILON 3	METAL OBJECT	US	5 NOV	9 DEC 61
A EPSILON 4	METAL OBJECT	US	5 NOV	10 DEC 61
A EPSILON 5	METAL OBJECT	US	5 NOV	12 DEC 61
A ZETA 1	DISCOVERER 35	US	15 NOV	3 DEC 61
A ZETA 1	CAPSULE	US	15 NOV	16 NOV 61**
A ZETA 2	METAL OBJECT	US	15 NOV	23 NOV 61
A THETA 1	RANGER 2	US	18 NOV	20 NOV 61
A IOTA 1	MA-5	US	29 NOV	29 NOV 61**
A IOTA 2	ROCKET BODY	US	29 NOV	30 NOV 61
A KAPPA 1	DISCOVERER 36	US	12 DEC	8 MAR 62
A KAPPA 1	CAPSULE	US	12 DEC	16 DEC 61**
A KAPPA 2	OSCAR 1	US	12 DEC	31 JAN 62
A KAPPA 3	METAL OBJECT	US	12 DEC	19 DEC 61

DECAYED OBJECTS (CONT'D)

OBJECT	CODE NAME	SOURCE	LAUNCH	DECAY
1961 LAUNCHES CONT'D				
A LAMBDA 1		US	22 DEC	14 AUG 62
A LAMBDA 2		US	22 DEC	31 DEC 61
A LAMBDA 3		US	22 DEC	9 JAN 62
1962 LAUNCHES				
GAMMA 1	FRIENDSHIP 7	US	20 FEB	20 FEB 62******
GAMMA 2	ROCKET BODY	US	20 FEB	21 FEB 62
DELTA 1		US	21 FEB	4 MAR 62
EPSILON 1	DISCOVERER 38	US	27 FEB	21 MAR 62
EPSILON 1	CAPSULE	US	27 FEB	3 MAR 62**
EPSILON 2	ROCKET BODY	US	27 FEB	3 MAR 62
EPSILON 3	METAL OBJECT	US	27 FEB	3 MAR 62
EPSILON 4	METAL OBJECT	US	27 FEB	7 MAR 62
ETA 1		US	7 MAR	7 JUN 63
ETA 2		US	7 MAR	31 MAR 62
ETA 3		US	7 MAR	3 NOV 62
THETA 1	COSMOS 1	USSR	16 MAR	25 MAY 62
THETA 2	ROCKET BODY	USSR	16 MAR	18 JUN 62
IOTA 2	ROCKET BODY	USSR	6 APR	6 OCT 62
KAPPA 2		US	9 APR	4 MAY 62
LAMBDA 1		US	18 APR	28 MAY 62
LAMBDA 2		US	18 APR	20 APR 62
LAMBDA 3		US	18 APR	21 APR 62
LAMBDA 4		US	18 APR	21 APR 62
MU 1	RANGER 4	US	23 APR	26 APR 62*****
NU 1	COSMOS 3	USSR	24 APR	17 OCT 62
NU 2	ROCKET BODY	USSR	24 APR	5 AUG 62
XI 1	COSMOS 4	USSR	26 APR	29 APR 62
XI 2	ROCKET BODY	USSR	26 APR	17 JUN 62
XI 3	METAL OBJECT	USSR	26 APR	3 MAY 62
PI 1		US	26 APR	28 APR 62
RHO 1		US	29 APR	26 MAY 62
RHO 2		US	29 APR	1 MAY 62

DECAYED OBJECTS (CONT'D)

OBJECT	CODE NAME	SOURCE	LAUNCH	DECAY
1962 LAUNCHES CONT'D				
SIGMA 2		US	15 MAY	3 JUL 62
SIGMA 3		US	15 MAY	13 JUL 62
TAU 1	AURORA 7	US	24 MAY	24 MAY 62******
TAU 2	ROCKET BODY	US	24 MAY	25 MAY 62
UPSILON 1	COSMOS 5	USSR	28 MAY	2 MAY 63
UPSILON 2	ROCKET BODY	USSR	28 MAY	15 DEC 62
PHI 1		US	30 MAY	11 JUN 62
PHI 2		US	30 MAY	2 JUN 62
CHI 1		US	2 JUN	28 JUN 62
CHI 2	OSCAR 2	US	2 JUN	21 JUN 62
CHI 3		US	2 JUN	6 JUN 62
PSI 1		US	17 JUN	18 JUN 62
OMEGA 2		US	18 JUN	12 JUL 62
OMEGA 3		US	18 JUN	14 JUL 62
A BETA 1		US	23 JUN	7 JUL 62
A GAMMA 1		US	28 JUN	14 SEP 62
A DELTA 1	COSMOS 6	USSR	30 JUN	8 AUG 62
A DELTA 2	ROCKET BODY	USSR	30 JUN	8 SEP 62
A ZETA 1		US	18 JUL	25 JUL 62
A ZETA 2		US	18 JUL	27 JUL 62
A ETA 1		US	21 JUL	14 AUG 62
A THETA 1		US	28 JUL	24 AUG 62
A IOTA 1	COSMOS 7	USSR	28 JUL	1 AUG 62
A IOTA 2	ROCKET BODY	USSR	28 JUL	21 AUG 62
A IOTA 3	METAL OBJECT	USSR	28 JUL	31 JUL 62
A IOTA 4	METAL OBJECT	USSR	28 JUL	30 JUL 62
A KAPPA 1		US	2 AUG	26 AUG 62
A KAPPA 2		US	2 AUG	8 AUG 62
A LAMBDA 1		US	5 AUG	6 AUG 62
A MU 1	VOSTOK 3	USSR	11 AUG	15 AUG 62****
A MU 2	ROCKET BODY	USSR	11 AUG	14 AUG 62
A NU 1	VOSTOK 4	USSR	12 AUG	15 AUG 62****
A NU 2	ROCKET BODY	USSR	12 AUG	14 AUG 62

DECAYED OBJECTS (CONT'D)

OBJECT	CODE NAME	SOURCE	LAUNCH	DECAY
1962 LAUNCHES CONT'D				
A XI 2	ROCKET BODY	USSR	16 AUG	19 DEC 62
A PI 1		USSR	25 AUG	28 AUG 62
A PI 2		USSR	25 AUG	2 SEP 62
A PI 3		USSR	25 AUG	31 AUG 62
A PI 4		USSR	25 AUG	5 SEP 62
A PI 5		USSR	25 AUG	30 AUG 62
A PI 6		USSR	25 AUG	6 SEP 62
A PI 7		USSR	25 AUG	8 SEP 62
A PI 8		USSR	25 AUG	5 SEP 62
A SIGMA 1		US	29 AUG	10 SEP 62
A TAU 1		USSR	1 SEP	6 SEP 62
A TAU 2		USSR	1 SEP	3 SEP 62
A TAU 3		USSR	1 SEP	3 SEP-1 OCT 62
A TAU 4		USSR	1 SEP	21 SEP 62
A PHI 1		USSR	12 SEP	14 SEP 62
A PHI 2		USSR	12 SEP	12 SEP 62
A PHI 3		USSR	12 SEP	17 SEP 62
A PHI 4		USSR	12 SEP	13 SEP 62
A PHI 5		USSR	12 SEP	13 SEP 62
A PHI 6		USSR	12 SEP	16 SEP 62
A PHI 7		USSR	12 SEP	15 SEP 62
A CHI 1		US	17 SEP	16 NOV 62
A OMEGA 1		USSR	27 SEP	1 OCT 62
A OMEGA 2		USSR	27 SEP	22 DEC 62
A OMEGA 3		USSR	27 SEP	6 OCT 62
A OMEGA 4		USSR	27 SEP	8 OCT 62
A OMEGA 5		USSR	27 SEP	4 OCT 62
A OMEGA 6		USSR	27 SEP	8 OCT 62
A OMEGA 7		USSR	27 SEP	3 OCT 62
A OMEGA 8		USSR	27 SEP	6 OCT 62
B BETA 1		US	29 SEP	14 OCT 62
B DELTA 1	SIGMA 7	US	3 OCT	3 OCT 62
B DELTA 2	ROCKET BODY	US	3 OCT	4 OCT 62
B EPSILON 1		US	9 OCT	16 NOV 62
B ZETA 1		USSR	17 OCT	21 OCT 62
B ZETA 2		USSR	17 OCT	5 NOV 62

DECAYED OBJECTS (CONT'D)

OBJECT	CODE NAME	SOURCE	LAUNCH	DECAY
1962 LAUNCHES CONT'D				
B THETA 2		USSR	26 OCT	5 JUN 63
B IOTA 1		USSR	26 OCT	29 OCT 62
B IOTA 2		USSR	26 OCT	22 DEC 62
B IOTA 3		USSR	26 OCT	26 FEB 63
B IOTA 4		USSR	26 OCT	29 NOV 62
B IOTA 5		USSR	26 OCT	24 DEC 62
B IOTA 6		USSR	26 OCT	8 DEC 62
B IOTA 7		USSR	26 OCT	10 DEC 62
B IOTA 8		USSR	26 OCT	2 JAN 63
B IOTA 9		USSR	26 OCT	6 DEC 62
B IOTA 10		USSR	26 OCT	10 DEC 62
B IOTA 11		USSR	26 OCT	30 NOV 62
B IOTA 12		USSR	26 OCT	1 DEC 62
B IOTA 13		USSR	26 OCT	25 DEC 62
B IOTA 14		USSR	26 OCT	15 DEC 62
B IOTA 15		USSR	26 OCT	21 DEC 62
B IOTA 16		USSR	26 OCT	17 DEC 62
B IOTA 17		USSR	26 OCT	26 DEC 62
B IOTA 18		USSR	26 OCT	23 DEC 62
B IOTA 19		USSR	26 OCT	26 DEC 62
B IOTA 20		USSR	26 OCT	10 DEC 62
B IOTA 21		USSR	26 OCT	7 DEC 62
B IOTA 22		USSR	26 OCT	28 DEC 62
B IOTA 23		USSR	26 OCT	26 DEC 62
B IOTA 24		USSR	26 OCT	31 DEC 62
B KU 1		USSR	1 NOV	23 NOV 62
B KU 2		USSR	1 NOV	3 NOV 62
B XI 1		USSR	6 NOV	5 NOV 62
B XI 2		USSR	6 NOV	8 NOV 62
B XI 3		USSR	6 NOV	17 JAN 63
B XI 4		USSR	6 NOV	25 DEC 62
B XI 5		USSR	6 NOV	27 DEC 62

DECAYED OBJECTS (CONT'D)

OBJECT	CODE NAME	SOURCE	LAUNCH	DECAY
1962 LAUNCHES CONT'D				
B OMICRON 1		US	5 NOV	3 DEC 62
B PI 1		US	11 NOV	12 NOV 62
B RHO 1		US	24 NOV	13 DEC 62
B SIGMA 1		US	4 DEC	8 DEC 62
B TAU 3		US	13 DEC	1 JUL 63
B PHI 1		US	14 DEC	8 JAN 63
B OMEGA 1		USSR	22 DEC	30 DEC 62
B OMEGA 2		USSR	22 DEC	22 JAN 63
1963 LAUNCHES				
1963 1A		USSR	4 JAN	5 JAN 63
1963 1B		USSR	4 JAN	11 JAN 63
1963 1C		USSR	4 JAN	11 JAN 63
1963 2A		US	7 JAN	24 JAN 63
1963 2B		US	7 JAN	16 JAN 63
1963 6A		USSR	21 MAR	29 MAR 63
1963 6B		USSR	21 MAR	9 APR 63
1963 7A		US	1 APR	26 APR 63
1963 8A		USSR	2 APR	3 APR 63
1963 10B		USSR	13 APR	6 JUL 63
1963 11A		USSR	22 APR	27 APR 63
1963 11B		USSR	22 APR	1 MAY 63
1963 12A		USSR	28 APR	8 MAY 63
1963 12B		USSR	28 APR	20 MAY 63
1963 15A	FAITH 7	US	15 MAY	16 MAY 63******
1963 15B	ROCKET BODY	US	15 MAY	16 MAY 63
1963 16A		US	18 MAY	27 MAY 63
1963 18A		USSR	24 MAY	2 JUN 63
1963 18B		USSR	24 MAY	8 JUN 63
1963 19A		US	12 JUN	12 JUL 63

DECAYED OBJECTS (CONT'D)

OBJECT	CODE NAME	SOURCE	LAUNCH	DECAY
1963 LAUNCHES CONT'D				
1963 20A	VOSTOK 5	USSR	14 JUN	19 JUN 63****
1963 20B		USSR	14 JUN	16 JUN 63
1963 21F		US	15 JUN	5 JUL 63
1963 21G		US	15 JUN	3 JUL 63
1963 23A	VOSTOK 6	USSR	16 JUN	19 JUN 63****
1963 23B		USSR	16 JUN	18 JUN 63
1963 27C		US	29 JUN	10 JUL 63
1963 28B		US	12 JUL	13 JUL 63

* USSR ANNOUNCED SUCCESSFUL RE-ENTRY AND RECOVERY
** SUCCESSFUL RE-ENTRY AND RECOVERY
*** SUCCESSFUL RE-ENTRY, BUT NOT RECOVERY
**** USSR ANNOUNCED SUCCESSFUL RE-ENTRY AND RECOVERY OF A MANNED SPACE VEHICLE
***** HIT MOON
****** US SUCCESSFULLY ORBITED AND RECOVERED A MANNED SPACE VEHICLE

END
FILMED
OCT 24
1963

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