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SPACE OPERATIONS CONTROL CENTER

Title
SATELLITE SITUATION REPORT

VOLUME 4, NUMBER 6

~~VOL. 4, NO. 6~~

APRIL 1, 1964

GODDARD SPACE FLIGHT CENTER,
GREENBELT, MD.

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

VOLUME 4 NO. 6 APRIL 1, 1964

SATELLITE SITUATION REPORT

THE FOLLOWING REPORT REFLECTS DATA COMPUTED AND COMPILED BY THE GODDARD SPACE FLIGHT CENTER, NORAD, AND SMITHSONIAN ASTROPHSICAL OBSERVATORY AS OF 1200Z ON APRIL 1, 1964.

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	NODAL PERIOD	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1958 LAUNCHES									
ALPHA 1	EXPLORER 1	004	US	1 FEB	104.7	33.18	1611	345	
BETA 1	ROCKET BODY	016	US	17 MAR	138.4	34.25	4327	641	
BETA 2	VANGUARD 1	005	US	17 MAR	134.0	34.23	3959	630	108.012 &
1959 LAUNCHES									
ALPHA 1	VANGUARD 2	011	US	17 FEB	125.4	32.86	3284	558	
ALPHA 2	ROCKET BODY	012	US	17 FEB	129.7	32.91	3677	536	
ETA 1	VANGUARD 3	020	US	18 SEP	129.8	33.34	3721	508	
MU 1*	LUNIK 1	112	USSR	2 JAN	HELIOCENTRIC ORBIT				
NU 1*	PIONEER 4	113	US	3 MAR	HELIOCENTRIC ORBIT				
IOTA 1	EXPLORER 7	022	US	13 OCT	101.2	50.33	1075	551	
IOTA 2	ROCKET BODY	023	US	13 OCT	100.9	50.30	1056	548	
1960 LAUNCHES									
ALPHA 1*	PIONEER 5	027	US	11 MAR	HELIOCENTRIC ORBIT				
BETA 1	ROCKET BODY	028	US	1 APR	99.1	48.39	745	687	
BETA 2	TIROS 1	029	US	1 APR	99.2	48.40	735	704	
BETA 3	NONE	101	US	1 APR	97.9	48.49	698	616	
BETA 4	NONE	115	US	1 APR	99.9	48.15	803	703	
GAMMA 2	TRANSIT 1B	031	US	13 APR	94.0	51.24	593	346	
GAMMA 4	NONE	099	US	13 APR	96.8	41.23	734	472	
EPSILON 3	NONE	036	USSR	15 MAY	91.4	64.94	442	244	
ZETA 1	MIDAS 2	043	US	24 MAY	94.3	33.02	502	465	
ETA 1	TRANSIT 2A	045	US	22 JUN	101.6	66.70	1057	615	
ETA 2	GREB	046	US	22 JUN	101.6	66.69	1055	614	
ETA 3	ROCKET BODY	047	US	22 JUN	101.4	66.67	1039	612	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	NODAL PERIOD	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1960 LAUNCHES (CONT'D)									
IOTA 1	ECHO 1	049	US	12 AUG	114.7	47.27	1652	1226	
IOTA 2	ROCKET BODY	050	US	12 AUG	118.1	47.24	1679	1508	
IOTA 3	METAL OBJECT	051	US	12 AUG	118.2	47.22	1686	1516	
IOTA 4	METAL OBJECT	052	US	12 AUG	CURRENT ELEMENTS NOT MAINTAINED				
IOTA 5	METAL OBJECT	053	US	12 AUG	118.4	47.28	1684	1536	
NU 1	COURIER 1B	058	US	4 OCT	107.0	28.28	1212	963	
NU 2	ROCKET BODY	059	US	4 OCT	106.6	28.21	1209	922	
XI 1	EXPLORER 8	060	US	3 NOV	112.3	50.02	2244	423	
XI 2	ROCKET BODY	062	US	3 NOV	111.9	49.97	2208	422	
XI 3	NONE	069	US	3 NOV	109.4	49.36	2004	393	
XI 4	NONE	105	US	3 NOV	110.6	50.49	2093	416	
PI 1	TIROS 2	063	US	23 NOV	98.2	48.52	724	624	
PI 2	ROCKET BODY	064	US	23 NOV	98.1	48.53	720	615	
PI 3	NONE	074	US	23 NOV	98.2	48.51	733	607	
PI 4	NONE	075	US	23 NOV	98.3	48.50	731	623	
1961 LAUNCHES									
ALPHA 1	SAMOS 2	070	US	31 JAN	94.7	97.40	543	470	
ALPHA 2	METAL OBJECT	079	US	31 JAN	94.6	97.42	539	467	
GAMMA 1*	VENUS PROBE	080	USSR	12 FEB	HELIOCENTRIC ORBIT				
DELTA 1	EXPLORER 9	081	US	16 FEB	98.7	38.86	1058	298	
DELTA 2	ROCKET BODY	082	US	16 FEB	118.5	38.85	2589	639	
DELTA 3	NONE	085	US	16 FEB	CURRENT ELEMENTS NOT MAINTAINED				
KAPPA 1	EXPLORER 10	098	US	25 MAR	POSITION UNCERTAIN				
NU 1	EXPLORER 11	107	US	27 APR	108.0	28.80	1767	5494	
OMICRON 1	TRANSIT 4A	116	US	29 JUN	103.8	66.82	998	881	150;400
OMICRON 2	INJUN-SR-3	117	US	29 JUN	103.8	66.81	999	881	
OMICRON 3-206	METAL OBJECTS		US	29 JUN					
RHO 1	TIROS 3	162	US	12 JUL	100.4	47.85	816	738	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	NODAL PERIOD	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1961 LAUNCHES (CONT'D)									
RHO 2	ROCKET BODY	165	US	12 JUL	100.3	47.88	802	747	
RHO 3	METAL OBJECT	166	US	12 JUL	98.8	47.92	797	610	
RHO 4	METAL OBJECT	167	US	12 JUL	102.0	47.84	941	765	
SIGMA 1	MIDAS 3	163	US	12 JUL	161.5	91.14	3563	3328	
SIGMA 3	METAL OBJECT	188	US	12 JUL	161.1	91.19	3579	3284	
SIGMA 4	METAL OBJECT	196	US	12 JUL	161.9	91.23	3572	3352	
UPSILON 1	EXPLORER 12	170	US	16 AUG	CURRENT ELEMENTS NOT MAINTAINED				
A DELTA 1	MIDAS 4	192	US	21 OCT	166.0	95.88	3731	3522	
A DELTA 3	METAL OBJECT	194	US	21 OCT	165.6	96.81	3713	3508	
A DELTA 4	METAL OBJECT	195	US	21 OCT	166.4	95.86	3780	3507	
A ETA 1	TRANSIT 4B	202	US	15 NOV	105.8	32.43	1126	933	
A ETA 2	TRAAC	205	US	15 NOV	105.8	32.41	1101	960	
A ETA 3	ROCKET BODY	204	US	15 NOV	105.6	32.44	1091	955	
1962 LAUNCHES									
ALPHA 1*	RANGER 3	221	US	26 JAN	HELIOCENTRIC ORBIT				
ALPHA 2*	ROCKET BODY	222	US	26 JAN	HELIOCENTRIC ORBIT				
BETA 1	TIROS 4	226	US	8 FEB	100.4	48.32	838	714	
BETA 2	ROCKET BODY	227	US	8 FEB	101.4	48.15	958	687	
BETA 3	METAL OBJECT	228	US	8 FEB	99.5	48.42	769	697	
BETA 4	METAL OBJECT	229	US	8 FEB	100.3	48.30	834	711	
ZETA 1	ORB.SOL.OBS.1	255	US	7 MAR	96.0	32.84	583	552	136.744
ZETA 2	ROCKET BODY	257	US	7 MAR	96.0	32.82	589	554	
KAPPA 1		271	US	9 APR	153.0	86.70	3384	2813	
KAPPA 3		273	US	9 APR	152.6	86.65	3370	2796	
KAPPA 4		274	US	9 APR	153.3	86.71	3420	2805	
MU 2	ROCKET BODY	282	US	23 APR	HELIOCENTRIC ORBIT				
OMICRON 1	ARIEL 1	285	US/UK	26 APR	100.6	53.87	1185	387	136.406
OMICRON 2	ROCKET BODY	288	US/UK	26 APR	100.5	53.86	1175	389	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	NODAL PERIOD	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1962 LAUNCHES (CONT'D)									
A ALPHA 1	TIROS 5	309	US	19 JUN	100.5	58.10	976	587	
A ALPHA 2	ROCKET BODY	311	US	19 JUN	100.4	58.08	976	579	
A ALPHA 3	METAL OBJECT	312	US	19 JUN	101.7	58.20	1091	592	
A ALPHA 4	METAL OBJECT	313	US	19 JUN	99.1	57.99	854	578	
A EPSILON 1	TELSTAR 1	340	US	10 JUL	157.8	44.80	5638	950	
A EPSILON 2	ROCKET BODY	341	US	10 JUL	157.6	44.80	5626	948	
A OMICRON 1		369	US	23 AUG	99.5	98.69	854	621	
A OMICRON 2		370	US	23 AUG	98.2	98.67	760	593	
A OMICRON 3		378	US	23 AUG	100.8	98.68	981	615	
A OMICRON 4		388	US	23 AUG	99.5	98.68	852	622	
A RHO 1*	MARINER	374	US	27 AUG	HELIOCENTRIC ORBIT				
A RHO 2*	ROCKET BODY	375	US	27 AUG	HELIOCENTRIC ORBIT				
A UPSILON 1		385	US	1 SEP	91.8	82.80	460	274	
A PSI 1	TIROS 6	397	US	18 SEP	98.7	58.31	719	678	
A PSI 2	ROCKET BODY	398	US	18 SEP	98.7	58.31	716	675	
A PSI 3	METAL OBJECT	399	US	18 SEP	99.4	58.43	779	680	
A PSI 4	METAL OBJECT	400	US	18 SEP	98.0	58.23	685	644	
B ALPHA 1	ALOUETTE	424	CANADA	29 SEP	105.5	80.47	1040	995	136.978 $136.593 $136.077
B ALPHA 2	ROCKET BODY	426	US	29 SEP	105.4	80.48	1031	999	
B ALPHA 3	METAL OBJECT	510	US	29 SEP	105.4	80.55	1036	989	
B ALPHA 4	METAL OBJECT	511	US	29 SEP	105.5	80.44	1038	998	
B GAMMA 1	EXPLORER 14	432	US	2 OCT	CURRENT ELEMENTS NOT MAINTAINED				
B GAMMA 2#	ROCKET BODY	NNA	US	2 OCT	CURRENT ELEMENTS NOT MAINTAINED				
B ETA 1*	RANGER 5	439	US	18 OCT	HELIOCENTRIC ORBIT				
B ETA 2*	ROCKET BODY	440	US	18 OCT	HELIOCENTRIC ORBIT				
B THETA 1		441	USSR	20 OCT	90.9	48.95	412	212	
B KAPPA 1		444	US	26 OCT	136.1	71.38	4567	204	
B LAMBDA 1	EXPLORER 15	445	US	27 OCT	312.6	18.04	17448	307	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	NODAL PERIOD	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1962 LAUNCHES (CONT'D)									
B LAMBDA 2#	ROCKET BODY	NNA	US	27 OCT	INSUFFICIENT OBSERVATIONS				
B MU 1	ANNA 1B	446	US	31 OCT	107.9	50.15	1174	1085	162;324
B MU 2	ROCKET BODY	447	US	31 OCT	107.6	50.14	1154	1078	
B NU 3*		450	USSR	1 NOV	HELIOCENTRIC ORBIT				
B TAU 1		502	US	13 DEC	110.9	70.37	2303	238	
B TAU 2	INJUN 3	504	US	13 DEC	113.4	70.38	2527	235	
B TAU 4		508	US	13 DEC	108.2	70.36	2047	237	
B TAU 5		513	US	13 DEC	110.8	70.36	2296	234	
B TAU 6		520	US	13 DEC	112.8	70.38	2473	239	
B UPSILON 1	RELAY 1	503	US	13 DEC	185.1	47.52	7445	1313	136.140 $136.620
B UPSILON 2	ROCKET BODY	515	US	13 DEC	184.9	47.52	7428	1314	
B CHI 1	EXPLORER 16	506	US	16 DEC	104.4	52.01	1188	741	
B PSI 1	TRANSIT 5A	509	US	19 DEC	99.1	90.62	729	704	
B PSI 2		514	US	19 DEC	97.7	90.72	724	580	
B PSI 3		519	US	19 DEC	99.1	90.63	728	703	
B PSI 4		523	US	19 DEC	100.2	90.48	836	704	
1963 LAUNCHES									
1963 03A		527	US	16 JAN	94.5	81.88	521	470	
1963 04A	SYNCOM 1	553	US	14 FEB	CURRENT ELEMENTS NOT MAINTAINED				
1963 04B	ROCKET BODY	532	US	14 FEB	CURRENT ELEMENTS NOT MAINTAINED				
1963 05A		533	US	19 FEB	97.7	100.49	797	503	
1963 05B		534	US	19 FEB	97.7	100.49	797	503	
1963 05C		535	US	19 FEB	96.9	100.50	751	474	
1963 05D		536	US	19 FEB	98.4	100.49	839	524	
1963 08B		566	USSR	2 APR	BARYCENTRIC ORBIT				
1963 09A	EXPLORER 17	564	US	3 APR	93.4	57.61	807	261	
1963 13A	TELSTAR 2	573	US	7 MAY	225.3	42.74	10799	973	136.050

OBJECTS IN ORBIT

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1963 LAUNCHES (CONT'D)									
1963 13B	ROCKET BODY	575	US	7 MAY	225.1	42.80	10784	971	
1963 14A		574	US	9 MAY	166.4	87.31	3694	3597	
1963 14B		579	US	9 MAY	166.4	87.28	3738	3554	
1963 14C		608	US	9 MAY	166.4	87.35	3655	3636	
1963 14D		589	US	9 MAY	166.4	87.36	3676	3612	
1963 14E		602	US	9 MAY	166.1	87.33	3639	3623	
1963 14F		628	US	9 MAY	166.8	87.39	3713	3609	
1963 14G		629	US	9 MAY	166.4	87.35	3658	3632	
1963 14H		702	US	9 MAY	166.4	87.35	3650	3641	
1963 17A		580	USSR	22 MAY	93.4	48.98	628	250	
1963 17C		582	USSR	22 MAY	94.7	49.20	680	330	
1963 17G		588	USSR	22 MAY	90.4	48.97	247	215	
1963 22A		594	US	16 JUN	99.7	90.01	753	738	150;400
1963 22B		603	US	16 JUN	99.7	90.03	760	730	
1963 22C		610	US	16 JUN	101.2	90.21	898	738	
1963 22D		611	US	16 JUN	98.2	89.83	778	566	
1963 24A	TIROS 7	604	US	19 JUN	97.4	58.23	647	625	136.234;136.922
1963 24B	ROCKET BODY	605	US	19 JUN	97.4	58.24	644	621	
1963 24C	METAL OBJECT	606	US	19 JUN	97.9	58.38	682	633	
1963 24D	METAL OBJECT	607	US	19 JUN	96.9	58.10	632	588	
1963 25B		614	US	27 JUN	132.4	82.17	4112	344	
1963 26A	RESEARCH SATELLITE FOR GEOPHYSICS	612	US	28 JUN	102.1	49.74	1300	414	
1963 27A		613	US	29 JUN	94.7	82.32	530	482	
1963 27B		615	US	29 JUN	93.7	82.30	468	445	
1963 30A		622	US	19 JUL	167.8	88.36	3733	3672	
1963 30B		635	US	19 JUL	167.8	88.31	3724	3681	
1963 30C		630	US	19 JUL	167.5	88.30	3719	3658	
1963 30D		624	US	19 JUL	168.0	88.44	3912	3502	
1963 30E		631	US	19 JUL	168.3	88.37	3778	3661	

OBJECTS IN ORBIT

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1963 LAUNCHES (CONT'D)									
1963 31A	SYNCOM 2	634	US	26 JUL	1435.4	32.38	35959	35587	$136.980; $136.468$1814.069; $1815.794$1820.177
1963 31B	ROCKET BODY	625	US	26 JUL	CURRENT ELEMENTS NOT MAINTAINED				
1963 38A		669	US	28 SEP	107.1	89.91	1119	1067	
1963 38B		670	US	28 SEP	107.4	89.92	1141	1071	
1963 38C		671	US	28 SEP	107.3	89.91	1142	1068	136.651
1963 38D		672	US	28 SEP	107.3	89.93	1124	1086	
1963 38E		745	US	28 SEP	107.1	89.93	1133	1053	
1963 39A		674	US	17 OCT	CURRENT ELEMENTS NOT MAINTAINED				
1963 39B		675	US	17 OCT	2319.4	35.90	102373	953	
1963 39C		692	US	17 OCT	CURRENT ELEMENTS NOT MAINTAINED				
1963 42B		682	US	29 OCT	92.8	89.97	542	285	
1963 43A	POLYOT 1	683	USSR	1 NOV	102.4	58.95	1400	344	
1963 43B		684	USSR	1 NOV	101.7	58.68	1334	344	
1963 43C		685	USSR	1 NOV	99.8	58.99	1182	314	
1963 43D		686	USSR	1 NOV	101.4	59.83	1304	341	
1963 46A	EXPLORER 18	693	US	27 NOV	5558.682	32.829	194133	1754	136.110
1963 47A	CENTAUR 2	694	US	27 NOV	107.8	30.37	1778	472	
1963 47B		696	US	27 NOV	107.3	30.07	1614	582	
1963 47C		697	US	27 NOV	107.5	30.07	1648	571	
1963 47D		698	US	27 NOV	108.0	29.94	1657	612	
1963 47E		699	US	27 NOV	108.7	30.47	1783	543	
1963 47F		700	US	27 NOV	108.7	30.48	1771	554	
1963 47G		701	US	27 NOV	107.8	30.03	1636	611	
1963 47H		739	US	27 NOV	107.9	30.41	1678	578	
1963 49A		703	US	5 DEC	106.8	89.95	1089	1071	
1963 49B		704	US	5 DEC	107.1	89.96	1120	1065	150;400

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	NODAL PERIOD	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1963 LAUNCHES (CONT'D)									
1963 49C		705	US	5 DEC	107.1	89.96	1116	1072	54;162;324;648
1963 49D		706	US	5 DEC	107.1	89.97	1119	1065	
1963 49E		715	US	5 DEC	107.1	89.95	1124	1065	
1963 49F		753	US	5 DEC	107.1	89.97	1113	1077	
1963 53A	EXPLORER 19	714	US	19 DEC	115.7	78.62	2378	600	
1963 53B		721	US	19 DEC	115.8	78.65	2384	601	
1963 53C		722	US	19 DEC	115.9	78.67	2394	606	
1963 53D		723	US	19 DEC	115.9	78.65	2392	603	
1963 53E		724	US	19 DEC	115.8	78.64	2389	599	
1963 53F		725	US	19 DEC	115.9	78.58	2405	586	
1963 53G		726	US	19 DEC	115.8	78.62	2388	600	
1963 53H		732	US	19 DEC	115.8	78.63	2356	632	
1963 54A	TIROS 8	716	US	21 DEC	99.4	58.50	747	709	136.233
									136.924
1963 54B		717	US	21 DEC	99.3	58.50	748	702	
1963 54C		720	US	21 DEC	101.1	58.51	918	701	
1963 54D		736	US	21 DEC	97.7	58.51	717	580	
1963 55B		719	US	21 DEC	92.4	64.50	375	308	
1964 LAUNCHES									
1964 1A		727	US	11 JAN	103.4	69.92	931	914	
1964 1B	GGSE	728	US	11 JAN	103.4	70.03	948	897	136.319
1964 1C	EGRS	729	US	11 JAN	103.4	69.91	933	912	136.804
1964 1D	SOLAR RADIATION	730	US	11 JAN	103.5	69.92	934	912	136.887
1964 1E		731	US	11 JAN	103.5	69.91	933	913	
1964 2A		733	US	19 JAN	101.3	99.05	832	814	
1964 2B		734	US	19 JAN	101.3	99.04	830	809	
1964 2C		735	US	19 JAN	101.3	99.05	831	813	
1964 3A	RELAY 2	737	US	21 JAN	194.7	46.29	7410	2090	136.141
									$136.621

OBJECTS IN ORBIT

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1964 LAUNCHES (CONT'D)									
1964 03B		738	US	21 JAN	194.8	46.30	7420	2085	
1964 03C		739	US	21 JAN	107.8	30.40	1672	573	
1964 04A	ECHO 2	740	US	25 JAN	108.8	81.46	1355	993	136.020;136.170
1964 04B		741	US	25 JAN	108.9	81.50	1312	1044	
1964 04C		742	US	25 JAN	108.8	81.49	1303	1045	
1964 04D		743	US	25 JAN	108.8	81.52	1318	1030	
1964 04E		749	US	25 JAN	100.1	81.61	1229	299	
1964 05A	SATURN 5	744	US	29 JAN	94.5	31.44	728	259	136.995
1964 06A	ELEKTRON 1	746	USSR	30 JAN	169.3	60.85	7118	404	
1964 06B	ELEKTRON 2	748	USSR	30 JAN	1356.4	60.20	67978	447	
1964 06C		750	USSR	30 JAN	168.3	60.83	7041	394	
1964 06D		751	USSR	30 JAN	1384.2	60.59	69123	404	
1964 10A	COSMOS 25	757	USSR	27 FEB	92.1	49.05	492	260	
1964 10B		758	USSR	27 FEB	91.8	49.03	473	249	
1964 10D		763	USSR	27 FEB	91.6	49.38	414	283	
1964 11A		759	US	29 FEB	94.7	82.07	511	495	
1964 11B		760	US	29 FEB	94.6	82.06	502	495	
1964 11C		761	US	29 FEB	94.7	82.08	508	496	
1964 13A	COSMOS 26	766	USSR	18 MAR	91.0	48.98	378	268	
1964 13B		767	USSR	18 MAR	90.9	49.01	360	271	
1964 13C		768	USSR	18 MAR	90.6	48.90	345	247	
1964 13D		769	USSR	18 MAR	90.5	48.95	310	259	
1964 14C		773	USSR	27 MAR	88.6	64.88	212	190	
1964 14D		774	USSR	27 MAR	88.7	64.81	232	189	
1964 15A	ARIEL 2	771	US/UK	27 MAR	101.3	51.63	1349	293	136.558
1964 15B		775	US/UK	27 MAR	101.3	51.67	1362	282	

* APHELION PERIHELION IN ASTRONOMICAL UNITS, INCLINATION TO ECLIPTIC.

** TWO HUNDRED AND 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.

NO CATALOGUE NUMBER ASSIGNED.

PLEASE ADD THE FOLLOWING TO THE DECAYED OBJECTS LIST.

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	DECAY
1963 33A		632	USSR	6 AUG	30 MAR 64
1963 50A	COSMOS 23	707	USSR	13 DEC	27 MAR 64
1964 12A		764	US	11 MAR	16 MAR 64
1964 14A	COSMOS 27	770	USSR	27 MAR	28 MAR 64
1964 14B		772	USSR	27 MAR	29 MAR 64