

## Sheet1

INTDES,C,10	NAME,C,25	CATNR	SOURCE,C,1	LAUNCH,C,5	SITE,C,5	DECAY,C,9
ALPHA 2	SPUTNIK 1	2	USSR	04 OCT 57	TYMSC	03 JAN 58
BETA 1	SPUTNIK 2	3	USSR	03 NOV 57	TYMSC	14 APR 58
ALPHA 1	EXPLORER 1	4	US	01 FEB 58	AFETR	31 MAR 70
BETA 2	VANGUARD 1	5	US	17 MAR 58	AFETR	EARTH OR
GAMMA 1	EXPLORER 3	6	US	26 MAR 58	AFETR	28 JUN 58
DELTA 2	SPUTNIK 3	8	USSR	15 MAY 58	TYMSC	06 APR 60
EPSILON 1	EXPLORER 4	9	US	26 JUL 58	AFETR	23 OCT 59
ZETA 1	SCORE	10	US	18 DEC 58	AFETR	21 JAN 59
ETA 1	PIONEER 1	110	US	11 OCT 58	AFETR	12 OCT 58
THETA 1	PIONEER 3	111	US	06 DEC 58	AFETR	07 DEC 58
ALPHA 1	VANGUARD 2	11	US	17 FEB 59	AFETR	EARTH OR
BETA 1	DISCOVERER 1	13	US	28 FEB 59	AFWTR	03 MAR 59
GAMMA 1	DISCOVERER 2	14	US	13 APR 59	AFWTR	26 APR 59
DELTA 1	EXPLORER 6 (S-2)	15	US	07 AUG 59	AFETR	30 JUN 61
EPSILON 1	DISCOVERER 5	18	US	13 AUG 59	AFWTR	28 SEP 59
EPSILON 2	DISCOVERER 5 CAPSULE	26	US	13 AUG 59	AFWTR	11 FEB 61
ZETA 1	DISCOVERER 6	19	US	19 AUG 59	AFWTR	20 OCT 59
ETA 1	VANGUARD 3	20	US	18 SEP 59	AFETR	EARTH OR
THETA 1	LUNA 3	21	USSR	04 OCT 59	TYMSC	20 APR 60
IOTA 1	EXPLORER 7	22	US	13 OCT 59	AFETR	EARTH OR
KAPPA 1	DISCOVERER 7	24	US	07 NOV 59	AFWTR	26 NOV 59
LAMBDA 1	DISCOVERER 8	25	US	20 NOV 59	AFWTR	08 MAR 60
MU 1	LUNA 1	112	USSR	02 JAN 59	TYMSC	SOLAR OR
NU 1	PIONEER 4	113	US	03 MAR 59	AFETR	SOLAR OR
XI 1	LUNA 2	114	USSR	12 SEP 59	TYMSC	13 SEP 59
ALPHA 1	PIONEER 5	27	US	11 MAR 60	AFETR	SOLAR OR
BETA 2	TIROS 1	29	US	01 APR 60	AFETR	EARTH OR
GAMMA 2	TRANSIT 1B	31	US	13 APR 60	AFETR	05 OCT 67
DELTA 1	DISCOVERER 11	32	US	15 APR 60	AFWTR	26 APR 60
EPSILON 1	SPUTNIK 4	34	USSR	15 MAY 60	TYMSC	05 SEP 62
EPSILON 3	SPUTNIK 4 CABIN	36	USSR	15 MAY 60	TYMSC	15 OCT 65
ZETA 1	MIDAS 2	43	US	24 MAY 60	AFETR	07 FEB 74
ETA 1	TRANSIT 2A	45	US	22 JUN 60	AFETR	EARTH OR
ETA 2	SOLRAD 1	46	US	22 JUN 60	AFETR	EARTH OR
THETA 1	DISCOVERER 13	48	US	10 AUG 60	AFWTR	14 NOV 60
IOTA 1	ECHO 1	49	US	12 AUG 60	AFETR	24 MAY 68
KAPPA 1	DISCOVERER 14	54	US	18 AUG 60	AFWTR	16 SEP 60
LAMBDA 1	SPUTNIK 5	55	USSR	19 AUG 60	TYMSC	20 AUG 60
MU 1	DISCOVERER 15	57	US	13 SEP 60	AFWTR	18 OCT 60
NU 1	COURIER 1B	58	US	04 OCT 60	AFETR	EARTH OR
XI 1	EXPLORER 8	60	US	03 NOV 60	AFETR	EARTH OR
OMICRON 1	DISCOVERER 17	61	US	12 NOV 60	AFWTR	29 DEC 60
PI 1	TIROS 2	63	US	23 NOV 60	AFETR	EARTH OR
RHO 1	SPUTNIK 6	65	USSR	01 DEC 60	TYMSC	02 DEC 60
SIGMA 1	DISCOVERER 18	67	US	07 DEC 60	AFWTR	02 APR 61
TAU 1	DISCOVERER 19	68	US	20 DEC 60	AFWTR	23 JAN 61
ALPHA 1	KH 1-02 (SAMOS 2)	70	US	31 JAN 61	AFWTR	21 OCT 73
BETA 1	SPUTNIK 7	71	USSR	04 FEB 61	TYMSC	26 FEB 61

## Sheet1

GAMMA 1	VENERA 1	80 USSR	12 FEB 61	TYMSC	SOLAR ORE
GAMMA 3	SPUTNIK 8	77 USSR	12 FEB 61	TYMSC	25 FEB 61
DELTA 1	EXPLORER 9	81 US	16 FEB 61	WLPIS	09 APR 64
EPSILON 1	DISCOVERER 20	83 US	17 FEB 61	AFWTR	28 JUL 62
ZETA 1	DISCOVERER 21	84 US	18 FEB 61	AFWTR	20 APR 62
ETA 1	TRANSIT 3B (LOFT 1)	87 US	22 FEB 61	AFETR	30 MAR 61
THETA 1	SPUTNIK 9	91 USSR	09 MAR 61	TYMSC	09 MAR 61
IOTA 1	SPUTNIK 10	95 USSR	25 MAR 61	TYMSC	25 MAR 61
KAPPA 1	EXPLORER 10 (P-14)	98 US	25 MAR 61	AFETR	30 JUN 61
LAMBDA 1	DISCOVERER 23	100 US	08 APR 61	AFWTR	16 APR 62
LAMBDA 2	DISCOVERER 23 CAPSULE	102 US	08 APR 61	AFWTR	23 MAY 62
MU 1	VOSTOK 1	103 USSR	12 APR 61	TYMSC	12 APR 61
NU 1	EXPLORER 11	107 US	27 APR 61	AFETR	EARTH ORE
XI 1	DISCOVERER 25	108 US	16 JUN 61	AFWTR	12 JUL 61
OMICRON 1	TRANSIT 4A	116 US	29 JUN 61	AFETR	EARTH ORE
OMICRON 2	INJUN 1 - SOLRAD 3	117 US	29 JUN 61	AFETR	EARTH ORE
PI 1	DISCOVERER 26	160 US	07 JUL 61	AFWTR	05 DEC 61
RHO 1	TIROS 3	162 US	12 JUL 61	AFETR	EARTH ORE
SIGMA 1	MIDAS 3	163 US	12 JUL 61	AFWTR	EARTH ORE
TAU 1	VOSTOK 2	168 USSR	06 AUG 61	TYMSC	07 AUG 61
UPSILON 1	EXPLORER 12	170 US	16 AUG 61	AFETR	30 SEP 63
PHI 1	RANGER 1	173 US	23 AUG 61	AFETR	30 AUG 61
CHI 1	EXPLORER 13 (S-55A)	180 US	25 AUG 61	AFETR	28 AUG 61
PSI 1	DISCOVERER 29	181 US	30 AUG 61	AFWTR	10 SEP 61
OMEGA 1	DISCOVERER 30	182 US	12 SEP 61	AFWTR	11 DEC 61
A ALPHA 1	MERCURY 4	183 US	13 SEP 61	AFETR	13 SEP 61
A BETA 1	DISCOVERER 31	186 US	17 SEP 61	AFWTR	26 OCT 61
A GAMMA 1	DISCOVERER 32	189 US	13 OCT 61	AFWTR	13 NOV 61
A DELTA 1	MIDAS 4	192 US	21 OCT 61	AFWTR	EARTH ORE
A EPSLN 1	DISCOVERER 34	197 US	05 NOV 61	AFWTR	07 DEC 62
A ZETA 1	DISCOVERER 35	201 US	15 NOV 61	AFWTR	03 DEC 61
A ETA 1	TRANSIT 4B	202 US	15 NOV 61	AFETR	EARTH ORE
A ETA 2	TRAAC	205 US	15 NOV 61	AFETR	EARTH ORE
A THETA 1	RANGER 2	206 US	18 NOV 61	AFETR	20 NOV 61
A IOTA 1	MERCURY 5	208 US	29 NOV 61	AFETR	29 NOV 61
A KAPPA 1	DISCOVERER 36	213 US	12 DEC 61	AFWTR	08 MAR 62
A KAPPA 2	OSCAR 1	214 US	12 DEC 61	AFWTR	31 JAN 62
A LAMBDA 3	KH 1-05 (SAMOS 5)	219 US	22 DEC 61	AFETR	09 JAN 62
ALPHA 1	RANGER 3	221 US	26 JAN 62	AFETR	SOLAR ORE
BETA 1	TIROS 4	226 US	08 FEB 62	AFETR	EARTH ORE
GAMMA 1	MERCURY 6 (FRIENDSHIP 7)	240 US	20 FEB 62	AFETR	20 FEB 62
DELTA 1	DISCOVERER 37	242 US	21 FEB 62	AFWTR	04 MAR 62
EPSILON 1	DISCOVERER 38	247 US	27 FEB 62	AFWTR	21 MAR 62
ZETA 1	OSO 1	255 US	07 MAR 62	AFETR	08 OCT 81
ETA 1	KH 4-01 (CLOSE LOOK)	256 US	07 MAR 62	AFWTR	07 JUN 63
THETA 1	COSMOS 1 (SPUTNIK 11)	266 USSR	16 MAR 62	KYMSC	25 MAY 62
IOTA 1	COSMOS 2 (SPUTNIK 12)	269 USSR	06 APR 62	TYMSC	23 AUG 63
KAPPA 1	MIDAS 5 (STRONGBACK)	271 US	09 APR 62	AFWTR	EARTH ORE
LAMBDA 1	UNIDENTIFIED	276 US	18 APR 62	AFWTR	28 MAY 62

## Sheet1

MU 1	RANGER 4	280 US	23 APR 62	AFETR	26 APR 62
NU 1	COSMOS 3 (SPUTNIK 13)	281 USSR	24 APR 62	KYMSC	17 OCT 62
XI 1	COSMOS 4 (SPUTNIK 14)	287 USSR	26 APR 62	TYMSC	29 APR 62
OMICRON 1	ARIEL 1 (UK 1)	285 UK	26 APR 62	AFETR	24 MAY 76
PI 1	KH 1-07 (SAMOS 7)	286 US	26 APR 62	AFWTR	28 APR 62
RHO 1	UNIDENTIFIED	290 US	29 APR 62	AFWTR	26 MAY 62
SIGMA 1	AGENA B [HEAVY FERRET]	292 US	15 MAY 62	AFWTR	26 NOV 63
TAU 1	MERCURY 7 (AURORA 7)	295 US	24 MAY 62	AFETR	24 MAY 62
UPSILON 1	COSMOS 5 (SPUTNIK 15)	297 USSR	28 MAY 62	KYMSC	02 MAY 63
PHI 1	UNIDENTIFIED	302 US	30 MAY 62	AFWTR	11 JUN 62
CHI 1	UNIDENTIFIED	304 US	02 JUN 62	AFWTR	28 JUN 62
CHI 2	OSCAR 2	305 US	02 JUN 62	AFWTR	21 JUN 62
PSI 1	KH 1-08 (SAMOS 8)	307 US	17 JUN 62	AFWTR	18 JUN 62
OMEGA 1	AGENA B [HEAVY FERRET]	308 US	18 JUN 62	AFWTR	30 OCT 63
A ALPHA 1	TIROS 5	309 US	19 JUN 62	AFETR	EARTH ORE
A BETA 1	UNIDENTIFIED	315 US	23 JUN 62	AFWTR	07 JUL 62
A GAMMA 1	UNIDENTIFIED	316 US	28 JUN 62	AFWTR	14 SEP 62
A DELTA 1	COSMOS 6 (SPUTNIK 16)	338 USSR	30 JUN 62	KYMSC	08 SEP 62
A EPSLN 1	TELSTAR 1	340 US	10 JUL 62	AFETR	EARTH ORE
A ZETA 2	KH 1-09 (SAMOS 9)	343 US	18 JUL 62	AFETR	27 JUL 62
A ETA 1	KH 4-??	344 US	21 JUL 62	AFWTR	14 AUG 62
A THETA 1	KH 4-??	345 US	28 JUL 62	AFWTR	24 AUG 62
A IOTA 1	COSMOS 7 (SPUTNIK 17)	346 USSR	28 JUL 62	TYMSC	01 AUG 62
A KAPPA 1	KH 4-??	360 US	02 AUG 62	AFWTR	22 AUG 62
A LAMBDA 1	KH 1-10 (SAMOS 10)	361 US	05 AUG 62	AFWTR	06 AUG 62
A MU 1	VOSTOK 3	363 USSR	11 AUG 62	TYMSC	15 AUG 62
A NU 1	VOSTOK 4	365 USSR	12 AUG 62	TYMSC	15 AUG 62
A XI 1	COSMOS 8 (SPUTNIK 18)	367 USSR	18 AUG 62	KYMSC	17 AUG 63
A OMI 1	UNIDENTIFIED	369 US	23 AUG 62	AFWTR	EARTH ORE
A PI 1	SPUTNIK 19	371 USSR	25 AUG 62	TYMSC	28 AUG 62
A RHO 1	MARINER 2	374 US	27 AUG 62	AFETR	SOLAR ORE
A SIGMA 1	UNIDENTIFIED	377 US	29 AUG 62	AFWTR	10 SEP 62
A TAU 1	SPUTNIK 20	381 USSR	01 SEP 62	TYMSC	06 SEP 62
A UPSLN 1	KH 4-??	385 US	01 SEP 62	AFWTR	26 OCT 64
A PHI 1	SPUTNIK 21	389 USSR	12 SEP 62	TYMSC	14 SEP 62
A CHI 1	TRS 1 (ERS 2)	396 US	17 SEP 62	AFWTR	16 NOV 62
A PSI 1	TIROS 6	397 US	18 SEP 62	AFETR	EARTH ORE
A OMEGA 1	COSMOS 9	422 USSR	27 SEP 62	TYMSC	01 OCT 62
B ALPHA 1	ALOUETTE 1	424 CANADA	29 SEP 62	AFWTR	EARTH ORE
B BETA 1	KH 4-??	427 US	29 SEP 62	AFWTR	14 OCT 62
B GAMMA 1	EXPLORER 14 (S-3A)	432 US	02 OCT 62	AFETR	01 JUL 66
B DELTA 1	MERCURY 8 (SIGMA 7)	433 US	03 OCT 62	AFETR	03 OCT 62
B EPSLN 1	UNIDENTIFIED	436 US	09 OCT 62	AFWTR	16 OCT 62
B ZETA 1	COSMOS 10	437 USSR	17 OCT 62	TYMSC	21 OCT 62
B ETA 1	RANGER 5	439 US	18 OCT 62	AFETR	SOLAR ORE
B THETA 1	COSMOS 11	441 USSR	20 OCT 62	KYMSC	18 MAY 64
B IOTA 1	SPUTNIK 22	443 USSR	24 OCT 62	TYMSC	29 OCT 62
B KAPPA 1	STARFISH RADIATION	444 US	26 OCT 62	AFWTR	05 OCT 67
B LAMBDA 1	EXPLORER 15 (S-3B)	445 US	27 OCT 62	AFETR	19 DEC 78

## Sheet1

B MU 1	ANNA 1B	446 US	31 OCT 62	AFETR	EARTH ORE
B NU 2	SPUTNIK 23	449 USSR	01 NOV 62	TYMSC	03 NOV 62
B NU 3	MARS 1	450 USSR	01 NOV 62	TYMSC	SOLAR ORE
B XI 1	SPUTNIK 24	451 USSR	04 NOV 62	TYMSC	05 NOV 62
B OMI 1	KH 1-?? (SAMOS ??)	453 US	05 NOV 62	AFWTR	03 DEC 62
B PI 1	KH 4-??	455 US	11 NOV 62	AFWTR	12 NOV 62
B RHO 1	KH 4-??	481 US	24 NOV 62	AFWTR	13 DEC 62
B SIGMA 1	UNIDENTIFIED	490 US	04 DEC 62	AFWTR	08 DEC 62
B TAU 1	BLACK SPHERE	502 US	13 DEC 62	AFWTR	09 FEB 67
B TAU 2	INJUN 3	504 US	13 DEC 62	AFWTR	25 AUG 68
B TAU 3	SURCAL 2A	507 US	13 DEC 62	AFWTR	01 JUL 63
B TAU 4	SURCAL 1A	508 US	13 DEC 62	AFWTR	18 JAN 66
B TAU 5	CALSPHERE 1A	513 US	13 DEC 62	AFWTR	05 FEB 67
B UPSLN 1	RELAY 1	503 US	13 DEC 62	AFETR	EARTH ORE
B PHI 1	UNIDENTIFIED	505 US	14 DEC 62	AFWTR	08 JAN 63
B CHI 1	EXPLORER 16 (S-55)	506 US	16 DEC 62	WLPIS	EARTH ORE
B PSI 1	TRANSIT 5A	509 US	19 DEC 62	AFWTR	25 SEP 86
B OMEGA 1	COSMOS 12	517 USSR	22 DEC 62	TYMSC	30 DEC 62
1963 001A	SPUTNIK 25	521 USSR	04 JAN 63	TYMSC	05 JAN 63
1963 002A	KH 1-?? (SAMOS ??)	525 US	07 JAN 63	AFWTR	24 JAN 63
1963 003A	UNIDENTIFIED	527 US	16 JAN 63	AFWTR	09 JAN 69
1963 004A	SYNCOM 1	553 US	14 FEB 63	AFETR	CENM
1963 005A	UNIDENTIFIED	533 US	19 FEB 63	AFWTR	26 DEC 79
1963 006A	COSMOS 13	554 USSR	21 MAR 63	TYMSC	29 MAR 63
1963 007A	UNIDENTIFIED	562 US	01 APR 63	AFWTR	26 APR 63
1963 008B	LUNA 4	566 USSR	02 APR 63	TYMSC	BARYCNTR
1963 009A	EXPLORER 17 (AE A)	564 US	03 APR 63	AFETR	24 NOV 66
1963 010A	COSMOS 14	567 USSR	13 APR 63	KYMSC	29 AUG 63
1963 011A	COSMOS 15	569 USSR	22 APR 63	TYMSC	27 APR 63
1963 012A	COSMOS 16	571 USSR	28 APR 63	TYMSC	08 MAY 63
1963 013A	TELSTAR 2	573 US	07 MAY 63	AFETR	EARTH ORE
1963 014A	MIDAS 6	574 US	09 MAY 63	AFWTR	EARTH ORE
1963 014B	TRS 2 (ERS 5)	579 US	09 MAY 63	AFWTR	EARTH ORE
1963 014C	TRS 3 (ERS 6)	608 US	09 MAY 63	AFWTR	EARTH ORE
1963 014D	DASH 1	589 US	09 MAY 63	AFWTR	EARTH ORE
1963 015A	MERCURY 9 (FAITH 7)	576 US	15 MAY 63	AFETR	16 MAY 63
1963 016A	KH 4A-03 (CORONA)	578 US	18 MAY 63	AFWTR	27 MAY 63
1963 017A	COSMOS 17	580 USSR	22 MAY 63	KYMSC	02 JUN 65
1963 018A	COSMOS 18	586 USSR	24 MAY 63	TYMSC	02 JUN 63
1963 019A	UNIDENTIFIED	590 US	12 JUN 63	AFWTR	11 JUL 63
1963 020A	VOSTOK 5	591 USSR	14 JUN 63	TYMSC	19 JUN 63
1963 021B	LOFTI 2A	601 US	15 JUN 63	AFWTR	18 JUL 63
1963 021C	SOLRAD 6A	599 US	15 JUN 63	AFWTR	01 AUG 63
1963 021D	RADOSE 112	600 US	15 JUN 63	AFWTR	30 JUL 63
1963 021E	UNIDENTIFIED	598 US	15 JUN 63	AFWTR	27 JUL 63
1963 021F	SURCAL 1B	597 US	15 JUN 63	AFWTR	05 JUL 63
1963 022A	TRANSIT 7 (5A3)	594 US	16 JUN 63	AFWTR	03 AUG 90
1963 023A	VOSTOK 6	595 USSR	16 JUN 63	TYMSC	19 JUN 63
1963 024A	TIROS 7	604 US	19 JUN 63	AFETR	EARTH ORE

## Sheet1

1963 025A	KH 4A-05	609 US	27 JUN 63	AFWTR	26 JUL 63
1963 025B	HITCH HIKER 1	614 US	27 JUN 63	AFWTR	EARTH ORE
1963 026A	GRS	612 US	28 JUN 63	WLPIS	14 DEC 83
1963 027A	UNIDENTIFIED	613 US	29 JUN 63	AFWTR	26 OCT 69
1963 028A	KH 7-01 (GAMBIT)	618 US	12 JUL 63	AFWTR	17 JUL 63
1963 029A	KH 4A-06	621 US	18 JUL 63	AFWTR	13 AUG 63
1963 030A	MIDAS 7 (ERS 10)	622 US	18 JUL 63	AFWTR	EARTH ORE
1963 030B	TRS 4 (ERS 9)	635 US	18 JUL 63	AFWTR	EARTH ORE
1963 030D	DASH 2	624 US	18 JUL 63	AFWTR	12 APR 71
1963 031A	SYNCOM 2	634 US	26 JUL 63	AFETR	CENM
1963 032A	KH 4A-07	626 US	31 JUL 63	AFWTR	12 AUG 63
1963 033A	COSMOS 19	632 USSR	06 AUG 63	KYMSC	30 MAR 64
1963 034A	KH 4A-08	636 US	25 AUG 63	AFWTR	12 SEP 63
1963 035A	LAMPO	637 US	29 AUG 63	AFWTR	07 NOV 63
1963 035B	[SUBSATELLITE FERRET]	638 US	29 AUG 63	AFWTR	13 OCT 63
1963 036A	KH 7-02	641 US	06 SEP 63	AFWTR	13 SEP 63
1963 037A	KH 4A-09	668 US	23 SEP 63	AFWTR	12 OCT 63
1963 038B	TRANSIT 5B-1 (5BN1)	670 US	28 SEP 63	AFWTR	EARTH ORE
1963 038C	SN 39 (5E 1)	671 US	28 SEP 63	AFWTR	EARTH ORE
1963 039A	VELA 2	674 US	17 OCT 63	AFETR	CENM
1963 039B	TRS 5 (ERS 12)	675 US	17 OCT 63	AFETR	01 JUL 65
1963 039C	VELA 1	692 US	17 OCT 63	AFETR	CENM
1963 040A	COSMOS 20	673 USSR	18 OCT 63	TYMSC	26 OCT 63
1963 041A	KH 7-03	677 US	25 OCT 63	AFWTR	29 OCT 63
1963 042A	KH 4A-10	681 US	29 OCT 63	AFWTR	21 JAN 64
1963 042B	HITCH HIKER 2	682 US	29 OCT 63	AFWTR	23 MAY 65
1963 043A	POLYOT 1	683 USSR	01 NOV 63	TYMSC	16 OCT 82
1963 044A	COSMOS 21	687 USSR	11 NOV 63	TYMSC	14 NOV 63
1963 045A	COSMOS 22	689 USSR	16 NOV 63	TYMSC	22 NOV 63
1963 046A	EXPLORER 18 (IMP 1)	693 US	27 NOV 63	AFETR	30 DEC 65
1963 047A	ATLAS CENTAUR 2	694 US	27 NOV 63	AFETR	EARTH ORE
1963 048A	KH 4A-11	695 US	27 NOV 63	AFWTR	15 DEC 63
1963 049B	TRANSIT 5B-2 (5BN2)	704 US	05 DEC 63	AFWTR	EARTH ORE
1963 049C	UNIDENTIFIED (5E 3)	705 US	05 DEC 63	AFWTR	EARTH ORE
1963 050A	COSMOS 23	707 USSR	13 DEC 63	KYMSC	27 MAR 64
1963 051A	KH 7-04	711 US	18 DEC 63	AFWTR	20 DEC 63
1963 052A	COSMOS 24	712 USSR	19 DEC 63	TYMSC	28 DEC 63
1963 053A	EXPLORER 19 (ADE A)	714 US	19 DEC 63	AFWTR	10 MAY 81
1963 054A	TIROS 8	716 US	21 DEC 63	AFWTR	EARTH ORE
1963 055A	KH 4A-12	718 US	21 DEC 63	AFWTR	08 JAN 64
1963 055B	HITCH HIKER 3	719 US	21 DEC 63	AFWTR	07 NOV 64
1964 001B	GGSE 1	728 US	11 JAN 64	AFWTR	EARTH ORE
1964 001C	SECOR 1 (EGRS 1)	729 US	11 JAN 64	AFWTR	EARTH ORE
1964 001D	SOLRAD 7A	730 US	11 JAN 64	AFWTR	EARTH ORE
1964 001E	GREB	731 US	11 JAN 64	AFWTR	EARTH ORE
1964 002B	UNIDENTIFIED CAPSULE	734 US	19 JAN 64	AFWTR	EARTH ORE
1964 002C	UNIDENTIFIED	735 US	19 JAN 64	AFWTR	EARTH ORE
1964 003A	RELAY 2	737 US	21 JAN 64	AFETR	EARTH ORE
1964 004A	ECHO 2	740 US	25 JAN 64	AFWTR	07 JUN 69

## Sheet1

1964 005A	SATURN 5	744 US	29 JAN 64	AFETR	30 APR 66
1964 006A	ELEKTRON 1	746 USSR	30 JAN 64	TYMSC	EARTH ORE
1964 006B	ELEKTRON 2	748 USSR	30 JAN 64	TYMSC	EARTH ORE
1964 007A	RANGER 6	747 US	30 JAN 64	AFETR	02 FEB 64
1964 008A	KH 4A-13	752 US	15 FEB 64	AFWTR	09 MAR 64
1964 009A	KH 7-05	754 US	25 FEB 64	AFWTR	01 MAR 64
1964 010A	COSMOS 25	757 USSR	27 FEB 64	KYMSC	21 NOV 64
1964 011A	AGENA D [HEAVY FERRET]	759 US	28 FEB 64	AFWTR	19 FEB 69
1964 012A	KH 7-06	764 US	11 MAR 64	AFWTR	16 MAR 64
1964 013A	COSMOS 26	766 USSR	18 MAR 64	KYMSC	28 SEP 64
1964 014A	COSMOS 27	772 USSR	27 MAR 64	TYMSC	29 MAR 64
1964 015A	ARIEL 2 (UK 2)	771 UK	27 MAR 64	AFETR	18 NOV 67
1964 016D	ZOND 1	785 USSR	02 APR 64	TYMSC	SOLAR ORE
1964 017A	COSMOS 28	779 USSR	04 APR 64	TYMSC	12 APR 64
1964 018A	GEMINI 1	782 US	08 APR 64	AFETR	12 APR 64
1964 019B	POLYOT 2	784 USSR	12 APR 64	TYMSC	08 JUN 66
1964 020A	KH 7-07	786 US	23 APR 64	AFWTR	29 APR 64
1964 021A	COSMOS 29	791 USSR	25 APR 64	TYMSC	02 MAY 64
1964 022A	KH 4A-15	796 US	27 APR 64	AFWTR	26 MAY 64
1964 023A	COSMOS 30	797 USSR	18 MAY 64	TYMSC	26 MAY 64
1964 024A	KH 7-08	799 US	19 MAY 64	AFWTR	22 MAY 64
1964 025A	SATURN 6	800 US	28 MAY 64	AFETR	01 JUN 64
1964 026A	TRANSIT 9	801 US	04 JUN 64	AFWTR	EARTH ORE
1964 027A	KH 4A-16	802 US	04 JUN 64	AFWTR	18 JUN 64
1964 028A	COSMOS 31	803 USSR	06 JUN 64	KYMSC	20 OCT 64
1964 029A	COSMOS 32	807 USSR	10 JUN 64	TYMSC	18 JUN 64
1964 030A	STARFLASH 1A	811 US	13 JUN 64	AFWTR	02 JUN 65
1964 031A	UNIDENTIFIED CAPSULE	812 US	18 JUN 64	AFWTR	EARTH ORE
1964 031B	UNIDENTIFIED CAPSULE	813 US	18 JUN 64	AFWTR	EARTH ORE
1964 032A	KH 4A-17	814 US	19 JUN 64	AFWTR	16 JUL 64
1964 033A	COSMOS 33	816 USSR	23 JUN 64	TYMSC	01 JUL 64
1964 034A	COSMOS 34	822 USSR	01 JUL 64	TYMSC	09 JUL 64
1964 035A	UNIDENTIFIED	824 US	02 JUL 64	AFWTR	07 AUG 69
1964 036A	KH 7-09	825 US	06 JUL 64	AFWTR	08 JUL 64
1964 036B	KH 7-09 SUBSATELLITE	826 US	06 JUL 64	AFWTR	03 JAN 65
1964 037A	KH 4A-18	828 US	10 JUL 64	AFWTR	06 AUG 64
1964 038A	ELEKTRON 3	829 USSR	10 JUL 64	TYMSC	EARTH ORE
1964 038B	ELEKTRON 4	830 USSR	10 JUL 64	TYMSC	12 OCT 83
1964 039A	COSMOS 35	833 USSR	15 JUL 64	TYMSC	23 JUL 64
1964 040A	VELA 3	836 US	17 JUL 64	AFETR	CENM
1964 040B	VELA 4	837 US	17 JUL 64	AFETR	CENM
1964 040C	TRS 6 (ERS 13)	838 US	17 JUL 64	AFETR	01 JUL 66
1964 041A	RANGER 7	842 US	28 JUL 64	AFETR	31 JUL 64
1964 042A	COSMOS 36	844 USSR	30 JUL 64	KYMSC	28 FEB 65
1964 043A	KH 4A-19	846 US	05 AUG 64	AFWTR	01 SEP 64
1964 044A	COSMOS 37	848 USSR	14 AUG 64	TYMSC	22 AUG 64
1964 045A	KH 7-10	850 US	14 AUG 64	AFWTR	23 AUG 64
1964 045B	KH 7-10 SUBSATELLITE	851 US	14 AUG 64	AFWTR	08 MAR 79
1964 046A	COSMOS 38	853 USSR	18 AUG 64	TYMSC	08 NOV 64

## Sheet1

1964 046B	COSMOS 39	854 USSR	18 AUG 64	TYMSC	17 NOV 64
1964 046C	COSMOS 40	855 USSR	18 AUG 64	TYMSC	18 NOV 64
1964 047A	SYNCOM 3	858 US	19 AUG 64	AFETR	CENM
1964 048A	STARFLASH 1B	861 US	21 AUG 64	AFWTR	31 MAR 65
1964 049D	COSMOS 41	869 USSR	22 AUG 64	TYMSC	EARTH ORE
1964 050A	COSMOS 42	864 USSR	22 AUG 64	KYMSC	19 DEC 65
1964 050C	COSMOS 43	867 USSR	22 AUG 64	KYMSC	27 DEC 65
1964 051A	EXPLORER 20 (IE A)	870 US	25 AUG 64	AFWTR	EARTH ORE
1964 052A	NIMBUS 1	872 US	28 AUG 64	AFWTR	16 MAY 74
1964 053A	COSMOS 44	876 USSR	28 AUG 64	TYMSC	EARTH ORE
1964 054A	OGO 1	879 US	05 SEP 64	AFETR	CENM
1964 055A	COSMOS 45	880 USSR	13 SEP 64	TYMSC	18 SEP 64
1964 056A	KH 4A-20	882 US	15 SEP 64	AFWTR	06 OCT 64
1964 057A	SATURN 7	883 US	18 SEP 64	AFETR	22 SEP 64
1964 058A	KH 7-11	884 US	23 SEP 64	AFWTR	28 SEP 64
1964 059A	COSMOS 46	885 USSR	24 SEP 64	TYMSC	02 OCT 64
1964 060A	EXPLORER 21 (IMP 2)	889 US	04 OCT 64	AFETR	30 JAN 66
1964 061A	KH 4A-21	890 US	05 OCT 64	AFWTR	26 OCT 64
1964 062A	COSMOS 47	891 USSR	06 OCT 64	TYMSC	07 OCT 64
1964 063B	TRANSIT 5B-4	897 US	06 OCT 64	AFWTR	EARTH ORE
1964 063C	CALSPHERE 1	900 US	06 OCT 64	AFWTR	EARTH ORE
1964 063E	CALSPHERE 2	902 US	06 OCT 64	AFWTR	EARTH ORE
1964 064A	EXPLORER 22 (BEACON B)	899 US	10 OCT 64	AFWTR	EARTH ORE
1964 065A	VOSKHOD 1	904 USSR	12 OCT 64	TYMSC	13 OCT 64
1964 066A	COSMOS 48	908 USSR	14 OCT 64	TYMSC	20 OCT 64
1964 067A	KH 4A-22	911 US	17 OCT 64	AFWTR	04 NOV 64
1964 068A	KH 7-13	912 US	23 OCT 64	AFWTR	28 OCT 64
1964 068B	KH 7-13 CAPSULE	914 US	23 OCT 64	AFWTR	23 FEB 65
1964 069A	COSMOS 49	913 USSR	24 OCT 64	KYMSC	21 AUG 65
1964 070A	COSMOS 50	919 USSR	28 OCT 64	TYMSC	05 NOV 64
1964 071A	KH 4A-23	921 US	02 NOV 64	AFWTR	28 NOV 64
1964 072A	UNIDENTIFIED	922 US	04 NOV 64	AFWTR	05 NOV 69
1964 073A	MARINER 3	923 US	05 NOV 64	AFETR	SOLAR ORE
1964 074A	EXPLORER 23 (S-55C)	924 US	06 NOV 64	AFETR	29 JUN 83
1964 075A	KH 4A-24 (ORBIS?)	930 US	18 NOV 64	AFWTR	06 DEC 64
1964 076A	EXPLORER 24 (ADE B)	931 US	21 NOV 64	AFWTR	18 OCT 68
1964 076B	EXPLORER 25 (INJUN 4)	932 US	21 NOV 64	AFWTR	EARTH ORE
1964 077A	MARINER 4	938 US	28 NOV 64	AFETR	SOLAR ORE
1964 078C	ZOND 2	945 USSR	30 NOV 64	TYMSC	SOLAR ORE
1964 079A	KH 7-14	946 US	04 DEC 64	AFWTR	05 DEC 64
1964 080A	COSMOS 51	947 USSR	09 DEC 64	KYMSC	14 NOV 65
1964 081A	TITAN 3A TRANSTAGE 2	949 US	10 DEC 64	AFETR	13 DEC 64
1964 082A	ATLAS CENTAUR 4	951 US	11 DEC 64	AFETR	12 DEC 64
1964 083C	SN 43 (5E 5)	959 US	13 DEC 64	AFWTR	EARTH ORE
1964 083D	TRANSIT 5B-5	965 US	13 DEC 64	AFWTR	EARTH ORE
1964 084A	SAN MARCO 1	957 ITALY	15 DEC 64	WLPIS	13 SEP 65
1964 085A	KH 4A-25	961 US	19 DEC 64	AFWTR	14 JAN 65
1964 086A	EXPLORER 26	963 US	21 DEC 64	AFETR	EARTH ORE
1964 087A	KH 4A-26	964 US	21 DEC 64	AFWTR	11 JAN 65

## Sheet1

1965 001A	COSMOS 52	968 USSR	11 JAN 65	TYMSC	19 JAN 65
1965 002A	KH 4A-27	972 US	15 JAN 65	AFWTR	09 FEB 65
1965 003A	UNIDENTIFIED	973 US	19 JAN 65	AFWTR	13 JUL 79
1965 004A	TIROS 9	978 US	22 JAN 65	AFETR	EARTH ORE
1965 005A	KH 7-15	980 US	23 JAN 65	AFWTR	29 JAN 65
1965 006A	COSMOS 53	983 USSR	30 JAN 65	KYMSC	12 AUG 66
1965 007A	OSO 2	987 US	03 FEB 65	AFETR	09 AUG 89
1965 008A	TITAN 3A TRANSTAGE 3	1001 US	11 FEB 65	AFETR	EARTH ORE
1965 008C	LES 1	1002 US	11 FEB 65	AFETR	EARTH ORE
1965 009A	PEGASUS 1	1085 US	16 FEB 65	AFETR	17 SEP 78
1965 010A	RANGER 8	1086 US	17 FEB 65	AFETR	20 FEB 65
1965 011A	COSMOS 54	1089 USSR	21 FEB 65	TYMSC	15 SEP 68
1965 011B	COSMOS 55	1090 USSR	21 FEB 65	TYMSC	02 FEB 68
1965 011C	COSMOS 56	1091 USSR	21 FEB 65	TYMSC	02 NOV 67
1965 012A	COSMOS 57	1093 USSR	22 FEB 65	TYMSC	22 FEB 65
1965 013A	KH 4A-28	1096 US	25 FEB 65	AFWTR	18 MAR 65
1965 014A	COSMOS 58	1097 USSR	26 FEB 65	TYMSC	25 FEB 90
1965 015A	COSMOS 59	1191 USSR	07 MAR 65	TYMSC	15 MAR 65
1965 016A	SOLRAD 6B (GREB 6)	1271 US	09 MAR 65	AFWTR	EARTH ORE
1965 016B	GGSE 2	1244 US	09 MAR 65	AFWTR	EARTH ORE
1965 016C	GGSE 3	1292 US	09 MAR 65	AFWTR	EARTH ORE
1965 016D	SOLRAD 7B	1291 US	09 MAR 65	AFWTR	EARTH ORE
1965 016E	SECOR 3 (EGRS 3)	1208 US	09 MAR 65	AFWTR	EARTH ORE
1965 016F	OSCAR 3	1293 US	09 MAR 65	AFWTR	EARTH ORE
1965 016G	SURCAL 2B	1310 US	09 MAR 65	AFWTR	27 MAR 81
1965 016H	DODECAPOLE 1/PORCUPINE	1272 US	09 MAR 65	AFWTR	EARTH ORE
1965 017A	NNSS 30030	1303 US	11 MAR 65	AFWTR	14 JUN 65
1965 017B	SECOR 2 (EGRS 2)	1250 US	11 MAR 65	AFWTR	26 FEB 68
1965 018A	COSMOS 60	1246 USSR	12 MAR 65	TYMSC	17 MAR 65
1965 019A	KH 7-16	1247 US	12 MAR 65	AFWTR	17 MAR 65
1965 020A	COSMOS 61	1267 USSR	15 MAR 65	TYMSC	15 JAN 68
1965 020B	COSMOS 62	1268 USSR	15 MAR 65	TYMSC	24 SEP 68
1965 020C	COSMOS 63	1269 USSR	15 MAR 65	TYMSC	04 NOV 67
1965 021A	UNIDENTIFIED	1273 US	18 MAR 65	AFWTR	31 DEC 89
1965 022A	VOSKHOD 2	1274 USSR	18 MAR 65	TYMSC	19 MAR 65
1965 023A	RANGER 9	1294 US	21 MAR 65	AFETR	24 MAR 65
1965 024A	GEMINI 3	1301 US	23 MAR 65	AFETR	23 MAR 65
1965 025A	COSMOS 64	1305 USSR	25 MAR 65	TYMSC	02 APR 65
1965 026A	KH 4A-29	1307 US	25 MAR 65	AFWTR	04 APR 65
1965 027A	SNAPSHOT	1314 US	03 APR 65	AFWTR	EARTH ORE
1965 027B	SECOR 4 (EGRS 4)	1315 US	03 APR 65	AFWTR	EARTH ORE
1965 028A	INTELSAT 1 F-1/EARLY BIRD	1317 ITSO	06 APR 65	AFETR	EARTH ORE
1965 029A	COSMOS 65	1320 USSR	17 APR 65	TYMSC	25 APR 65
1965 030A	MOLNIYA 1-01	1324 USSR	23 APR 65	TYMSC	16 AUG 79
1965 031A	KH 7-17	1327 US	28 APR 65	AFWTR	03 MAY 65
1965 031B	KH 7-17 CAPSULE	1329 US	28 APR 65	AFWTR	31 OCT 69
1965 032A	EXPLORER 27 (BEACON C)	1328 US	29 APR 65	WLPIS	EARTH ORE
1965 033A	KH 4A-30	1330 US	29 APR 65	AFWTR	26 MAY 65
1965 033B	KH 4A-30 CAPSULE	1367 US	29 APR 65	AFWTR	08 JUN 65



## Sheet1

1965 034A	TITAN 3A TRANSTAGE 4	1359 US	06 MAY 65	AFETR	EARTH ORE
1965 034B	LES 2	1360 US	06 MAY 65	AFETR	EARTH ORE
1965 034C	LCS 1	1361 US	06 MAY 65	AFETR	EARTH ORE
1965 035A	COSMOS 66	1362 USSR	07 MAY 65	TYMSC	15 MAY 65
1965 036A	LUNA 5	1366 USSR	09 MAY 65	TYMSC	12 MAY 65
1965 037A	KH 4A-31	1374 US	18 MAY 65	AFWTR	15 JUN 65
1965 038A	UNIDENTIFIED	1377 US	20 MAY 65	AFWTR	EARTH ORE
1965 039A	PEGASUS 2	1381 US	25 MAY 65	AFETR	03 NOV 79
1965 040A	COSMOS 67	1382 USSR	25 MAY 65	TYMSC	02 JUN 65
1965 041A	KH 7-18	1386 US	27 MAY 65	AFWTR	01 JUN 65
1965 042A	EXPLORER 28 (IMP 3)	1388 US	29 MAY 65	AFETR	04 JUL 68
1965 043A	GEMINI 4	1390 US	03 JUN 65	AFETR	07 JUN 65
1965 044A	LUNA 6	1393 USSR	08 JUN 65	TYMSC	SOLAR ORE
1965 045A	KH 4A-32	1396 US	09 JUN 65	AFWTR	22 JUN 65
1965 046A	COSMOS 68	1404 USSR	15 JUN 65	TYMSC	23 JUN 65
1965 047A	TITAN 3C 7 (BALLAST)	1412 US	18 JUN 65	AFETR	29 JUN 65
1965 048A	TRANSIT 5B-6	1420 US	24 JUN 65	AFWTR	EARTH ORE
1965 049A	COSMOS 69	1421 USSR	25 JUN 65	TYMSC	03 JUL 65
1965 050A	KH 7-19 CAPSULE	1422 US	25 JUN 65	AFWTR	22 AUG 68
1965 050B	KH 7-19	1424 US	25 JUN 65	AFWTR	30 JUN 65
1965 051A	TIROS 10	1430 US	02 JUL 65	AFETR	EARTH ORE
1965 052A	COSMOS 70	1431 USSR	02 JUL 65	KYMSC	18 DEC 66
1965 053A	COSMOS 71	1441 USSR	16 JUL 65	TYMSC	11 AUG 70
1965 053B	COSMOS 72	1442 USSR	16 JUL 65	TYMSC	24 AUG 79
1965 053C	COSMOS 73	1443 USSR	16 JUL 65	TYMSC	20 MAR 74
1965 053D	COSMOS 74	1444 USSR	16 JUL 65	TYMSC	13 DEC 79
1965 053E	COSMOS 75	1445 USSR	16 JUL 65	TYMSC	28 SEP 79
1965 054A	PROTON 1	1466 USSR	16 JUL 65	TYMSC	11 OCT 65
1965 055A	UNIDENTIFIED	1447 US	17 JUL 65	AFWTR	18 DEC 68
1965 056A	ZOND 3	1454 USSR	18 JUL 65	TYMSC	SOLAR ORE
1965 057A	KH 4A-33	1457 US	19 JUL 65	AFWTR	18 AUG 65
1965 058A	VELA 5	1458 US	20 JUL 65	AFETR	CENM
1965 058B	VELA 6	1459 US	20 JUL 65	AFETR	CENM
1965 058C	ORS 3 (ERS 17)	1460 US	20 JUL 65	AFETR	01 JUL 68
1965 059A	COSMOS 76	1464 USSR	23 JUL 65	KYMSC	16 MAR 66
1965 060A	PEGASUS 3	1467 US	30 JUL 65	AFETR	04 AUG 69
1965 061A	COSMOS 77	1469 USSR	03 AUG 65	TYMSC	11 AUG 65
1965 062A	KH 7-21	1471 US	03 AUG 65	AFWTR	07 AUG 65
1965 062B	KH 7-21 CAPSULE	1472 US	03 AUG 65	AFWTR	17 JUN 68
1965 063A	SECOR 5 (EGRS 5)	1506 US	10 AUG 65	WLPIS	EARTH ORE
1965 064A	ATLAS CENTAUR 6	1503 US	11 AUG 65	AFETR	BARYCNTR
1965 065C	DODECAPOLE 2	1510 US	13 AUG 65	AFWTR	EARTH ORE
1965 065E	TEMPSAT 1	1512 US	13 AUG 65	AFWTR	EARTH ORE
1965 065F	TRANSIT 5B-7	1514 US	13 AUG 65	AFWTR	EARTH ORE
1965 065G	UNIDENTIFIED	1515 US	13 AUG 65	AFWTR	EARTH ORE
1965 065H	CALSPHERE 4A	1520 US	13 AUG 65	AFWTR	EARTH ORE
1965 065J	PORCUPINE 2	1577 US	13 AUG 65	AFWTR	EARTH ORE
1965 066A	COSMOS 78	1505 USSR	14 AUG 65	TYMSC	22 AUG 65
1965 067A	KH 4A-34	1513 US	17 AUG 65	AFWTR	11 OCT 65

## Sheet1

1965 068A	GEMINI 5	1516 US	21 AUG 65	AFETR	29 AUG 65
1965 068C	GEMINI 5 (REP)	1518 US	21 AUG 65	AFETR	27 AUG 65
1965 069A	COSMOS 79	1523 USSR	25 AUG 65	TYMSC	02 SEP 65
1965 070A	COSMOS 80	1570 USSR	03 SEP 65	TYMSC	EARTH ORE
1965 070B	COSMOS 81	1571 USSR	03 SEP 65	TYMSC	EARTH ORE
1965 070C	COSMOS 82	1572 USSR	03 SEP 65	TYMSC	EARTH ORE
1965 070D	COSMOS 83	1573 USSR	03 SEP 65	TYMSC	EARTH ORE
1965 070E	COSMOS 84	1574 USSR	03 SEP 65	TYMSC	EARTH ORE
1965 071A	COSMOS 85	1578 USSR	09 SEP 65	TYMSC	17 SEP 65
1965 072A	DMSF BII-1	1580 US	10 SEP 65	AFWTR	EARTH ORE
1965 073A	COSMOS 86	1584 USSR	18 SEP 65	TYMSC	EARTH ORE
1965 073B	COSMOS 87	1585 USSR	18 SEP 65	TYMSC	EARTH ORE
1965 073C	COSMOS 88	1586 USSR	18 SEP 65	TYMSC	EARTH ORE
1965 073D	COSMOS 89	1587 USSR	18 SEP 65	TYMSC	EARTH ORE
1965 073E	COSMOS 90	1588 USSR	18 SEP 65	TYMSC	EARTH ORE
1965 074A	KH 4A-36	1602 US	22 SEP 65	AFWTR	11 OCT 65
1965 075A	COSMOS 91	1603 USSR	23 SEP 65	TYMSC	01 OCT 65
1965 076A	KH 7-22	1609 US	01 OCT 65	AFWTR	05 OCT 65
1965 077A	LUNA 7	1610 USSR	04 OCT 65	TYMSC	07 OCT 65
1965 078A	OV1-02	1613 US	05 OCT 65	AFWTR	EARTH ORE
1965 079A	KH 4A-37	1615 US	05 OCT 65	AFWTR	29 OCT 65
1965 080A	MOLNIYA 1-02	1621 USSR	14 OCT 65	TYMSC	17 MAR 67
1965 081A	OGO 2	1620 US	14 OCT 65	AFWTR	17 SEP 81
1965 082A	OV2-1 (LCS 2)	1624 US	15 OCT 65	AFETR	27 JUL 72
1965 083A	COSMOS 92	1626 USSR	16 OCT 65	TYMSC	24 OCT 65
1965 084A	COSMOS 93	1629 USSR	19 OCT 65	KYMSC	03 JAN 66
1965 085A	COSMOS 94	1636 USSR	28 OCT 65	TYMSC	05 NOV 65
1965 086A	KH 4A-38	1637 US	28 OCT 65	AFWTR	17 NOV 65
1965 087A	PROTON 2	1701 USSR	02 NOV 65	TYMSC	06 FEB 66
1965 088A	COSMOS 95	1706 USSR	04 NOV 65	KYMSC	18 JAN 66
1965 089A	EXPLORER 29 (GEOS 1)	1726 US	06 NOV 65	AFETR	EARTH ORE
1965 090A	KH 7-23	1727 US	08 NOV 65	AFWTR	11 NOV 65
1965 090B	KH 7-23 CAPSULE	1728 US	08 NOV 65	AFWTR	09 NOV 65
1965 091A	VENERA 2	1730 USSR	12 NOV 65	TYMSC	SOLAR ORE
1965 092A	VENERA 3	1733 USSR	16 NOV 65	TYMSC	01 MAR 66
1965 093A	EXPLORER 30 (IQSY)	1738 US	19 NOV 65	AFWTR	EARTH ORE
1965 094A	COSMOS 96	1742 USSR	23 NOV 65	TYMSC	09 DEC 65
1965 095A	COSMOS 97	1777 USSR	26 NOV 65	KYMSC	02 APR 67
1965 096A	ASTERIX 1	1778 FRANCE	26 NOV 65	HGSTR	EARTH ORE
1965 097A	COSMOS 98	1780 USSR	27 NOV 65	TYMSC	05 DEC 65
1965 098A	ALOUETTE 2	1804 CANADA	29 NOV 65	AFWTR	EARTH ORE
1965 098B	EXPLORER 31 (DME A)	1806 US	29 NOV 65	AFWTR	EARTH ORE
1965 099A	LUNA 8	1810 USSR	03 DEC 65	TYMSC	06 DEC 65
1965 100A	GEMINI 7	1812 US	04 DEC 65	AFETR	18 DEC 65
1965 101A	FRANCE 1 (FR-1)	1814 FRANCE	06 DEC 65	AFWTR	EARTH ORE
1965 102A	KH 4A-39	1816 US	09 DEC 65	AFWTR	26 DEC 65
1965 103A	COSMOS 99	1817 USSR	10 DEC 65	TYMSC	18 DEC 65
1965 104A	GEMINI 6	1839 US	15 DEC 65	AFETR	16 DEC 65
1965 105A	PIONEER 6	1841 US	16 DEC 65	AFETR	SOLAR ORE

## Sheet1

1965 106A	COSMOS 100	1843 USSR	17 DEC 65	TYMSC	EARTH ORE
1965 107A	COSMOS 101	1846 USSR	21 DEC 65	KYMSC	12 JUL 66
1965 108A	OV2-3	1863 US	21 DEC 65	AFETR	17 AUG 75
1965 108B	LES 4	1870 US	21 DEC 65	AFETR	01 AUG 77
1965 108C	OSCAR 4	1902 US	21 DEC 65	AFETR	12 APR 76
1965 108D	LES 3	1941 US	21 DEC 65	AFETR	06 APR 68
1965 109A	TRANSIT 10	1864 US	22 DEC 65	AFWTR	EARTH ORE
1965 110A	KH 4A-40	1866 US	24 DEC 65	AFWTR	20 JAN 66
1965 111A	COSMOS 102	1867 USSR	27 DEC 65	TYMSC	13 JAN 66
1965 112A	COSMOS 103	1868 USSR	28 DEC 65	TYMSC	02 JAN 90
1966 001A	COSMOS 104	1903 USSR	07 JAN 66	TYMSC	15 JAN 66
1966 002A	KH 7-24	1939 US	19 JAN 66	AFWTR	25 JAN 66
1966 002B	KH 7-24 CAPSULE	1940 US	19 JAN 66	AFWTR	23 JAN 66
1966 003A	COSMOS 105	1945 USSR	22 JAN 66	TYMSC	30 JAN 66
1966 004A	COSMOS 106	1949 USSR	25 JAN 66	KYMSC	14 NOV 66
1966 005A	TRANSIT 11	1952 US	28 JAN 66	AFWTR	EARTH ORE
1966 006A	LUNA 9	1954 USSR	31 JAN 66	TYMSC	03 FEB 66
1966 007A	KH 4A-41	1968 US	02 FEB 66	AFWTR	27 FEB 66
1966 008A	ESSA 1	1982 US	03 FEB 66	AFETR	EARTH ORE
1966 009A	UNIDENTIFIED	1997 US	09 FEB 66	AFWTR	26 SEP 69
1966 010A	COSMOS 107	1998 USSR	10 FEB 66	TYMSC	18 FEB 66
1966 011A	COSMOS 108	2002 USSR	11 FEB 66	KYMSC	21 NOV 66
1966 012A	KH 7-25	2012 US	15 FEB 66	AFWTR	22 FEB 66
1966 012B	BLUEBELL 2 (CYLINDER)	2014 US	15 FEB 66	AFWTR	17 FEB 66
1966 012C	BLUEBELL 2 (SPHERE)	2015 US	15 FEB 66	AFWTR	22 FEB 66
1966 013A	D-1A/DIAPASON	2016 FRANCE	17 FEB 66	HGSTR	EARTH ORE
1966 014A	COSMOS 109	2019 USSR	19 FEB 66	TYMSC	27 FEB 66
1966 015A	COSMOS 110	2070 USSR	22 FEB 66	TYMSC	16 MAR 66
1966 016A	ESSA 2	2091 US	28 FEB 66	AFETR	EARTH ORE
1966 017A	COSMOS 111	2093 USSR	01 MAR 66	TYMSC	03 MAR 66
1966 018A	KH 4A-42	2099 US	09 MAR 66	AFWTR	29 MAR 66
1966 019A	GEMINI 8 AGENA TARGET	2104 US	16 MAR 66	AFETR	15 SEP 67
1966 020A	GEMINI 8	2105 US	16 MAR 66	AFETR	17 MAR 66
1966 021A	COSMOS 112	2107 USSR	17 MAR 66	PLMSC	25 MAR 66
1966 022A	KH 7-26 CAPSULE	2109 US	18 MAR 66	AFWTR	24 MAR 66
1966 022B	KH 7-26	2112 US	18 MAR 66	AFWTR	23 MAR 66
1966 023A	COSMOS 113	2114 USSR	21 MAR 66	TYMSC	29 MAR 66
1966 024A	TRANSIT 12	2119 US	26 MAR 66	AFWTR	EARTH ORE
1966 025A	OV1-04	2121 US	30 MAR 66	AFWTR	EARTH ORE
1966 025B	OV1-05	2122 US	30 MAR 66	AFWTR	EARTH ORE
1966 026A	DMSP BII-2	2125 US	31 MAR 66	AFWTR	EARTH ORE
1966 027A	LUNA 10	2126 USSR	31 MAR 66	TYMSC	LUNAR ORE
1966 028A	COSMOS 114	2133 USSR	06 APR 66	PLMSC	14 APR 66
1966 029A	KH 4A-43	2136 US	07 APR 66	AFWTR	26 APR 66
1966 030A	SURVEYOR MODULE	2139 US	08 APR 66	AFETR	05 MAY 66
1966 031A	OAD 1	2142 US	08 APR 66	AFETR	EARTH ORE
1966 032A	KH 7-27	2146 US	19 APR 66	AFWTR	26 APR 66
1966 033A	COSMOS 115	2147 USSR	20 APR 66	TYMSC	28 APR 66
1966 034A	OV3-1	2150 US	22 APR 66	AFWTR	EARTH ORE

## Sheet1

1966 035A	MOLNIYA 1-03	2151 USSR	25 APR 66	TYMSC	11 JUN 73
1966 036A	COSMOS 116	2152 USSR	26 APR 66	KYMSC	03 DEC 66
1966 037A	COSMOS 117	2163 USSR	06 MAY 66	TYMSC	14 MAY 66
1966 038A	COSMOS 118	2168 USSR	11 MAY 66	TYMSC	23 NOV 88
1966 039A	KH 7-28	2171 US	14 MAY 66	AFWTR	21 MAY 66
1966 039B	KH 7-28 CAPSULE	2172 US	14 MAY 66	AFWTR	27 OCT 70
1966 040A	NIMBUS 2	2173 US	15 MAY 66	AFWTR	EARTH ORE
1966 041A	TRANSIT 13	2176 US	19 MAY 66	AFWTR	EARTH ORE
1966 042A	KH 4A-45	2181 US	24 MAY 66	AFWTR	09 JUN 66
1966 043A	COSMOS 119	2182 USSR	24 MAY 66	KYMSC	30 NOV 66
1966 044A	EXPLORER 32 (AE B)	2183 US	25 MAY 66	AFETR	22 FEB 85
1966 045A	SURVEYOR 1	2185 US	30 MAY 66	AFETR	02 JUN 66
1966 046A	GEMINI 9 ATDA	2186 US	01 JUN 66	AFETR	11 JUN 66
1966 047A	GEMINI 9	2191 US	03 JUN 66	AFETR	06 JUN 66
1966 048A	KH 7-29	2192 US	03 JUN 66	AFWTR	09 JUN 66
1966 048B	KH 7-29 CAPSULE	2194 US	03 JUN 66	AFWTR	09 JUN 66
1966 049A	OGO 3	2195 US	07 JUN 66	AFETR	CENM
1966 050A	COSMOS 120	2196 USSR	08 JUN 66	TYMSC	16 JUN 66
1966 051A	UNIDENTIFIED	2200 US	09 JUN 66	AFWTR	03 DEC 66
1966 051B	SECOR 6 (EGRS 6)	2205 US	09 JUN 66	AFWTR	06 JUL 67
1966 051C	ORS 2 (ERS 16)	2202 US	09 JUN 66	AFWTR	12 MAR 67
1966 052A	OV3-4	2201 US	09 JUN 66	WLPIS	EARTH ORE
1966 053A	GGTS 1	2207 US	16 JUN 66	AFETR	CENM
1966 053B	IDCSP 1-1	2215 US	16 JUN 66	AFETR	EARTH ORE
1966 053C	IDCSP 1-2	2216 US	16 JUN 66	AFETR	CENM
1966 053D	IDCSP 1-3	2217 US	16 JUN 66	AFETR	CENM
1966 053E	IDCSP 1-4	2218 US	16 JUN 66	AFETR	CENM
1966 053F	IDCSP 1-5	2219 US	16 JUN 66	AFETR	CENM
1966 053G	IDCSP 1-6	2220 US	16 JUN 66	AFETR	CENM
1966 053H	IDCSP 1-7	2221 US	16 JUN 66	AFETR	CENM
1966 054A	COSMOS 121	2210 USSR	17 JUN 66	PLMSC	25 JUN 66
1966 055A	KH 4A-46	2227 US	21 JUN 66	AFWTR	14 JUL 66
1966 056A	PAGEOS 1	2253 US	24 JUN 66	AFWTR	EARTH ORE
1966 057A	COSMOS 122	2254 USSR	25 JUN 66	TYMSC	14 NOV 89
1966 058A	EXPLORER 33 (IMP 4)	2258 US	01 JUL 66	AFETR	CENM
1966 059A	APOLLO 2	2289 US	05 JUL 66	AFETR	05 JUL 66
1966 060A	PROTON 3	2290 USSR	06 JUL 66	TYMSC	16 SEP 66
1966 061A	COSMOS 123	2295 USSR	08 JUL 66	KYMSC	10 DEC 66
1966 062A	KH 7-30	2322 US	12 JUL 66	AFWTR	20 JUL 66
1966 063A	OV1-08	2324 US	14 JUL 66	AFWTR	04 JAN 78
1966 064A	COSMOS 124	2325 USSR	14 JUL 66	TYMSC	22 JUL 66
1966 065A	GEMINI 10 AGENA TARGET	2348 US	18 JUL 66	AFETR	29 DEC 66
1966 066A	GEMINI 10	2349 US	18 JUL 66	AFETR	21 JUL 66
1966 067A	COSMOS 125	2351 USSR	20 JUL 66	TYMSC	02 AUG 66
1966 068A	COSMOS 126	2368 USSR	28 JUL 66	TYMSC	06 AUG 66
1966 069A	KH 8-01 (GAMBIT)	2376 US	28 JUL 66	AFWTR	06 AUG 66
1966 070A	OV3-3	2389 US	04 AUG 66	AFWTR	EARTH ORE
1966 071A	COSMOS 127	2391 USSR	08 AUG 66	TYMSC	16 AUG 66
1966 072A	KH 4B-01 (CORONA)	2393 US	09 AUG 66	AFWTR	11 SEP 66

## Sheet1

1966 073A	LUNAR ORBITER 1	2394 US	10 AUG 66	AFETR	29 OCT 66
1966 074A	KH 7-31	2396 US	16 AUG 66	AFWTR	24 AUG 66
1966 074B	KH 7-31 CAPSULE	2397 US	16 AUG 66	AFWTR	05 MAR 70
1966 075A	PIONEER 7	2398 US	17 AUG 66	AFETR	SOLAR ORE
1966 076A	TRANSIT 14	2401 US	18 AUG 66	AFWTR	EARTH ORE
1966 077A	MIDAS 8	2403 US	19 AUG 66	AFWTR	EARTH ORE
1966 077B	SECOR 7 (EGRS 7)	2411 US	19 AUG 66	AFWTR	EARTH ORE
1966 077C	ORS 1 (ERS 15)	2412 US	19 AUG 66	AFWTR	EARTH ORE
1966 078A	LUNA 11	2406 USSR	24 AUG 66	TYMSC	LUNAR ORE
1966 079A	COSMOS 128	2409 USSR	27 AUG 66	TYMSC	04 SEP 66
1966 080A	GEMINI 11 AGENA TARGET	2414 US	12 SEP 66	AFETR	30 DEC 66
1966 081A	GEMINI 11	2415 US	12 SEP 66	AFETR	15 SEP 66
1966 082A	DMSP BIV-1	2418 US	16 SEP 66	AFWTR	EARTH ORE
1966 083A	KH 7-32	2419 US	16 SEP 66	AFWTR	23 SEP 66
1966 083B	KH 7-32 CAPSULE	2420 US	16 SEP 66	AFWTR	09 MAY 68
1966 084A	SURVEYOR 2	2425 US	20 SEP 66	AFETR	23 SEP 66
1966 085A	KH 4A-47	2427 US	20 SEP 66	AFWTR	12 OCT 66
1966 086A	KH 8-02	2433 US	28 SEP 66	AFWTR	07 OCT 66
1966 087A	ESSA 3 (TOS A)	2435 US	02 OCT 66	AFWTR	EARTH ORE
1966 088A	UNKNOWN	2437 USSR	17 SEP 66	TYMSC	11 NOV 66
1966 089A	MIDAS 9	2481 US	05 OCT 66	AFWTR	EARTH ORE
1966 089B	SECOR 8 (EGRS 8)	2520 US	05 OCT 66	AFWTR	EARTH ORE
1966 090A	KH 7-33	2489 US	12 OCT 66	AFWTR	20 OCT 66
1966 090B	KH 7-33 CAPSULE	2490 US	12 OCT 66	AFWTR	21 OCT 66
1966 091A	COSMOS 129	2491 USSR	14 OCT 66	PLMSC	21 OCT 66
1966 092A	MOLNIYA 1-04	2501 USSR	20 OCT 66	TYMSC	11 SEP 68
1966 093A	COSMOS 130	2502 USSR	20 OCT 66	TYMSC	28 OCT 66
1966 094A	LUNA 12	2508 USSR	22 OCT 66	TYMSC	LUNAR ORE
1966 095A	ATLAS CENTAUR 9	2512 US	26 OCT 66	AFETR	06 NOV 66
1966 096A	INTELSAT 2 F-1	2514 ITSO	26 OCT 66	AFETR	EARTH ORE
1966 097A	OV3-2	2517 US	28 OCT 66	AFWTR	29 SEP 71
1966 098A	KH 7-34	2523 US	02 NOV 66	AFWTR	10 NOV 66
1966 098B	KH 7-34 CAPSULE	2525 US	02 NOV 66	AFWTR	16 NOV 66
1966 099A	OV4-3 (MOL CANISTER)	2524 US	03 NOV 66	AFETR	09 JAN 67
1966 099B	OV4-1R	2526 US	03 NOV 66	AFETR	05 JAN 67
1966 099C	OV1-06	2527 US	03 NOV 66	AFETR	31 DEC 66
1966 099D	OV4-1T	2528 US	03 NOV 66	AFETR	11 JAN 67
1966 100A	LUNAR ORBITER 2	2534 US	06 NOV 66	AFETR	11 OCT 67
1966 101A	UNKNOWN	2536 USSR	02 NOV 66	TYMSC	17 NOV 66
1966 102A	KH 4B-02	2537 US	08 NOV 66	AFWTR	29 NOV 66
1966 103A	GEMINI 12 AGENA TARGET	2565 US	11 NOV 66	AFETR	23 DEC 66
1966 104A	GEMINI 12	2566 US	11 NOV 66	AFETR	15 NOV 66
1966 105A	COSMOS 131	2568 USSR	12 NOV 66	PLMSC	20 NOV 66
1966 106A	COSMOS 132	2599 USSR	19 NOV 66	TYMSC	27 NOV 66
1966 107A	COSMOS 133	2601 USSR	28 NOV 66	TYMSC	30 NOV 66
1966 108A	COSMOS 134	2603 USSR	03 DEC 66	TYMSC	11 DEC 66
1966 109A	KH 7-35	2606 US	05 DEC 66	AFWTR	14 DEC 66
1966 110A	ATS 1	2608 US	07 DEC 66	AFETR	EARTH ORE
1966 111A	OV1-09	2610 US	11 DEC 66	AFWTR	EARTH ORE

## Sheet1

1966 111B	OV1-10	2611 US	11 DEC 66	AFWTR	EARTH ORE
1966 112A	COSMOS 135	2612 USSR	12 DEC 66	KYMSC	12 APR 67
1966 113A	KH 8-03	2618 US	14 DEC 66	AFWTR	24 DEC 66
1966 114A	BIOSAT 1	2632 US	14 DEC 66	AFETR	15 FEB 67
1966 115A	COSMOS 136	2624 USSR	19 DEC 66	PLMSC	27 DEC 66
1966 116A	LUNA 13	2626 USSR	21 DEC 66	TYMSC	24 DEC 66
1966 117A	COSMOS 137	2627 USSR	21 DEC 66	KYMSC	23 NOV 67
1966 118A	UNIDENTIFIED	2634 US	29 DEC 66	AFWTR	05 APR 69
1967 001A	INTELSAT 2 F-2	2639 ITSO	11 JAN 67	AFETR	CENM
1967 002A	KH 4B-03	2642 US	14 JAN 67	AFWTR	02 FEB 67
1967 003A	IDCSP 2-1	2645 US	18 JAN 67	AFETR	CENM
1967 003B	IDCSP 2-2	2649 US	18 JAN 67	AFETR	CENM
1967 003C	IDCSP 2-3	2650 US	18 JAN 67	AFETR	CENM
1967 003D	IDCSP 2-4	2651 US	18 JAN 67	AFETR	CENM
1967 003E	IDCSP 2-5	2652 US	18 JAN 67	AFETR	CENM
1967 003F	IDCSP 2-6	2653 US	18 JAN 67	AFETR	EARTH ORE
1967 003G	IDCSP 2-7	2654 US	18 JAN 67	AFETR	CENM
1967 003H	IDCSP 2-8	2655 US	18 JAN 67	AFETR	CENM
1967 004A	COSMOS 138	2646 USSR	19 JAN 67	PLMSC	27 JAN 67
1967 005A	COSMOS 139	2656 USSR	25 JAN 67	TYMSC	25 JAN 67
1967 006A	ESSA 4 (TOS B)	2657 US	26 JAN 67	AFWTR	EARTH ORE
1967 007A	KH 7-36	2664 US	02 FEB 67	AFWTR	12 FEB 67
1967 008A	LUNAR ORBITER 3	2666 US	05 FEB 67	AFETR	09 OCT 67
1967 009A	COSMOS 140	2667 USSR	07 FEB 67	TYMSC	09 FEB 67
1967 010A	DMSB BIV-2	2669 US	08 FEB 67	AFWTR	EARTH ORE
1967 011A	D-1C/DIADEME 1	2674 FRANCE	08 FEB 67	HGSTR	EARTH ORE
1967 012A	COSMOS 141	2670 USSR	08 FEB 67	PLMSC	16 FEB 67
1967 013A	COSMOS 142	2678 USSR	14 FEB 67	KYMSC	06 JUL 67
1967 014A	D-1D/DIADEME 2	2680 FRANCE	15 FEB 67	HGSTR	EARTH ORE
1967 015A	KH 4B-04	2686 US	22 FEB 67	AFWTR	11 MAR 67
1967 016A	KH 8-04	2687 US	24 FEB 67	AFWTR	06 MAR 67
1967 017A	COSMOS 143	2693 USSR	27 FEB 67	TYMSC	07 MAR 67
1967 018A	COSMOS 144	2695 USSR	28 FEB 67	PLMSC	14 SEP 82
1967 019A	COSMOS 145	2697 USSR	03 MAR 67	KYMSC	08 MAR 68
1967 020A	OSO 3	2703 US	08 MAR 67	AFETR	04 APR 82
1967 021A	COSMOS 146	2705 USSR	10 MAR 67	TYMSC	18 MAR 67
1967 022A	COSMOS 147	2710 USSR	13 MAR 67	PLMSC	21 MAR 67
1967 023A	COSMOS 148	2712 USSR	16 MAR 67	PLMSC	07 MAY 67
1967 024A	COSMOS 149	2714 USSR	21 MAR 67	KYMSC	07 APR 67
1967 025A	COSMOS 150	2715 USSR	22 MAR 67	PLMSC	30 MAR 67
1967 026A	INTELSAT 2 F-3	2717 ITSO	23 MAR 67	AFETR	EARTH ORE
1967 027A	COSMOS 151	2720 USSR	24 MAR 67	TYMSC	06 MAY 91
1967 028A	COSMOS 152	2722 USSR	25 MAR 67	PLMSC	05 AUG 67
1967 029A	KH 4B-05	2736 US	30 MAR 67	AFWTR	17 APR 67
1967 030A	COSMOS 153	2740 USSR	04 APR 67	PLMSC	12 APR 67
1967 031A	ATS 2	2743 US	06 APR 67	AFETR	02 SEP 69
1967 031B	UNIDENTIFIED	2744 US	06 APR 67	AFETR	29 JUN 68
1967 032A	COSMOS 154	2745 USSR	08 APR 67	TYMSC	10 APR 67
1967 033A	COSMOS 155	2750 USSR	12 APR 67	TYMSC	20 APR 67

## Sheet1

1967 034A	TRANSIT 15	2754 US	14 APR 67	AFWTR	EARTH ORE
1967 035A	SURVEYOR 3	2756 US	17 APR 67	AFETR	20 APR 67
1967 036A	ESSA 5 (TOS C)	2757 US	20 APR 67	AFWTR	EARTH ORE
1967 037A	SOYUZ 1	2759 USSR	23 APR 67	TYMSC	24 APR 67
1967 038A	SAN MARCO 2	2761 ITALY	26 APR 67	SNMLP	14 OCT 67
1967 039A	COSMOS 156	2762 USSR	27 APR 67	PLMSC	23 OCT 89
1967 040A	VELA 7	2765 US	28 APR 67	AFETR	CENM
1967 040B	VELA 8	2766 US	28 APR 67	AFETR	CENM
1967 040C	ERS 18	2767 US	28 APR 67	AFETR	CENM
1967 040D	OV5-3 (ERS 20)	2768 US	28 APR 67	AFETR	CENM
1967 040E	OV5-1 (ERS 27)	2769 US	28 APR 67	AFETR	CENM
1967 041A	LUNAR ORBITER 4	2772 US	04 MAY 67	AFETR	06 OCT 67
1967 042A	ARIEL 3 (UK 3)	2773 UK	05 MAY 67	AFWTR	14 DEC 70
1967 043A	KH 4B-06	2779 US	09 MAY 67	AFWTR	13 JUL 67
1967 043B	KH 4B-06 SUBSATELLITE	2780 US	09 MAY 67	AFWTR	14 MAR 93
1967 044A	COSMOS 157	2781 USSR	12 MAY 67	TYMSC	20 MAY 67
1967 045A	COSMOS 158	2801 USSR	15 MAY 67	PLMSC	EARTH ORE
1967 046A	COSMOS 159	2805 USSR	16 MAY 67	TYMSC	11 NOV 77
1967 047A	COSMOS 160	2806 USSR	17 MAY 67	TYMSC	18 MAY 67
1967 048A	TRANSIT 16	2807 US	18 MAY 67	AFWTR	EARTH ORE
1967 049A	COSMOS 161	2812 USSR	22 MAY 67	PLMSC	30 MAY 67
1967 050A	KH 7-37	2813 US	22 MAY 67	AFWTR	30 MAY 67
1967 050B	KH 7-37 CAPSULE	2816 US	22 MAY 67	AFWTR	27 MAY 67
1967 051A	EXPLORER 34 (IMP 5)	2817 US	24 MAY 67	AFWTR	03 MAY 69
1967 052A	MOLNIYA 1-05	2822 USSR	24 MAY 67	TYMSC	26 NOV 71
1967 053A	UNIDENTIFIED	2826 US	31 MAY 67	AFWTR	EARTH ORE
1967 053C	GGSE 4	2828 US	31 MAY 67	AFWTR	EARTH ORE
1967 053D	GGSE 5	2834 US	31 MAY 67	AFWTR	EARTH ORE
1967 053E	TIMATION 1	2847 US	31 MAY 67	AFWTR	EARTH ORE
1967 053F	SURCAL 159	2872 US	31 MAY 67	AFWTR	EARTH ORE
1967 053G	UNIDENTIFIED	2873 US	31 MAY 67	AFWTR	EARTH ORE
1967 053H	UNIDENTIFIED	2874 US	31 MAY 67	AFWTR	EARTH ORE
1967 053J	SURCAL 150B	2909 US	31 MAY 67	AFWTR	EARTH ORE
1967 054A	COSMOS 162	2827 USSR	01 JUN 67	TYMSC	09 JUN 67
1967 055A	KH 7-38	2831 US	04 JUN 67	AFWTR	12 JUN 67
1967 056A	COSMOS 163	2832 USSR	05 JUN 67	KYMSC	11 OCT 67
1967 057A	COSMOS 164	2836 USSR	08 JUN 67	PLMSC	14 JUN 67
1967 058A	VENERA 4	2840 USSR	12 JUN 67	TYMSC	18 OCT 67
1967 059A	COSMOS 165	2842 USSR	12 JUN 67	PLMSC	15 JAN 68
1967 060A	MARINER 5	2845 US	14 JUN 67	AFETR	SOLAR ORE
1967 061A	COSMOS 166	2848 USSR	16 JUN 67	KYMSC	25 OCT 67
1967 062A	KH 4B-07	2850 US	16 JUN 67	AFWTR	20 JUL 67
1967 062B	KH 4B-07 SUBSATELLITE	2851 US	16 JUN 67	AFWTR	22 OCT 68
1967 063A	COSMOS 167	2852 USSR	17 JUN 67	TYMSC	25 JUN 67
1967 064A	KH 8-06	2858 US	20 JUN 67	AFWTR	30 JUN 67
1967 065A	SECOR 9 (EGRS 9)	2861 US	29 JUN 67	AFWTR	EARTH ORE
1967 065B	AURORA 1	2876 US	29 JUN 67	AFWTR	EARTH ORE
1967 066A	IDCSP 3-1	2862 US	01 JUL 67	AFETR	EARTH ORE
1967 066B	IDCSP 3-2	2863 US	01 JUL 67	AFETR	CENM

## Sheet1

1967 066C	IDCSP 3-3	2864 US	01 JUL 67	AFETR	EARTH ORE
1967 066D	IDCSP 3-4	2865 US	01 JUL 67	AFETR	EARTH ORE
1967 066E	LES 5	2866 US	01 JUL 67	AFETR	EARTH ORE
1967 066F	DODGE 1	2867 US	01 JUL 67	AFETR	EARTH ORE
1967 067A	COSMOS 168	2869 USSR	04 JUL 67	TYMSC	12 JUL 67
1967 068A	SURVEYOR 4	2875 US	14 JUL 67	AFETR	17 JUL 67
1967 069A	COSMOS 169	2878 USSR	17 JUL 67	TYMSC	17 JUL 67
1967 070A	EXPLORER 35 (IMP 6)	2884 US	19 JUL 67	AFETR	LUNAR ORE
1967 071A	UNIDENTIFIED	2890 US	25 JUL 67	AFWTR	12 JUN 69
1967 072A	OV1-86	2893 US	27 JUL 67	AFWTR	22 FEB 72
1967 072D	OV1-12	2901 US	27 JUL 67	AFWTR	22 JUL 80
1967 073A	OGO 4	2895 US	28 JUL 67	AFWTR	16 AUG 72
1967 074A	COSMOS 170	2902 USSR	31 JUL 67	TYMSC	31 JUL 67
1967 075A	LUNAR ORBITER 5	2907 US	01 AUG 67	AFETR	31 JAN 68
1967 076A	KH 4B-08	2910 US	07 AUG 67	AFWTR	01 SEP 67
1967 077A	COSMOS 171	2911 USSR	08 AUG 67	TYMSC	08 AUG 67
1967 078A	COSMOS 172	2914 USSR	09 AUG 67	TYMSC	17 AUG 67
1967 079A	KH 8-07	2919 US	16 AUG 67	AFWTR	28 AUG 67
1967 080A	DMSB BIV-3	2920 US	23 AUG 67	AFWTR	EARTH ORE
1967 081A	COSMOS 173	2921 USSR	24 AUG 67	PLMSC	17 DEC 67
1967 082A	COSMOS 174	2925 USSR	31 AUG 67	TYMSC	30 DEC 68
1967 083A	BIOSAT 2	2935 US	07 SEP 67	AFETR	04 OCT 67
1967 084A	SURVEYOR 5	2937 US	08 SEP 67	AFETR	11 SEP 67
1967 085A	COSMOS 175	2939 USSR	11 SEP 67	PLMSC	19 SEP 67
1967 086A	COSMOS 176	2942 USSR	12 SEP 67	PLMSC	03 MAR 68
1967 087A	KH 4B-09	2946 US	15 SEP 67	AFWTR	04 OCT 67
1967 088A	COSMOS 177	2947 USSR	16 SEP 67	TYMSC	24 SEP 67
1967 089A	COSMOS 178	2951 USSR	19 SEP 67	TYMSC	19 SEP 67
1967 090A	KH 8-08	2952 US	19 SEP 67	AFWTR	30 SEP 67
1967 091A	COSMOS 179	2962 USSR	22 SEP 67	TYMSC	22 SEP 67
1967 092A	TRANSIT 17	2965 US	25 SEP 67	AFWTR	EARTH ORE
1967 093A	COSMOS 180	2966 USSR	26 SEP 67	PLMSC	04 OCT 67
1967 094A	INTELSAT 2 F-4	2969 ITSO	28 SEP 67	AFETR	EARTH ORE
1967 095A	MOLNIYA 1-06	2973 USSR	03 OCT 67	TYMSC	04 MAR 69
1967 096A	DMSB BIV-4	2980 US	11 OCT 67	AFWTR	EARTH ORE
1967 097A	COSMOS 181	2981 USSR	11 OCT 67	PLMSC	19 OCT 67
1967 098A	COSMOS 182	2995 USSR	16 OCT 67	TYMSC	24 OCT 67
1967 099A	COSMOS 183	3001 USSR	18 OCT 67	TYMSC	18 OCT 67
1967 100A	OSO 4	3000 US	18 OCT 67	AFETR	15 JUN 82
1967 101A	MOLNIYA 1-07	3008 USSR	22 OCT 67	TYMSC	31 DEC 69
1967 102A	COSMOS 184	3010 USSR	24 OCT 67	PLMSC	02 APR 89
1967 103A	KH 8-09	3012 US	25 OCT 67	AFWTR	05 NOV 67
1967 104A	COSMOS 185	3013 USSR	27 OCT 67	TYMSC	14 JAN 69
1967 105A	COSMOS 186	3014 USSR	27 OCT 67	TYMSC	31 OCT 67
1967 106A	COSMOS 187	3016 USSR	28 OCT 67	TYMSC	28 OCT 67
1967 107A	COSMOS 188	3020 USSR	30 OCT 67	TYMSC	02 NOV 67
1967 108A	COSMOS 189	3021 USSR	30 OCT 67	PLMSC	08 JUN 78
1967 109A	KH 4B-10	3024 US	02 NOV 67	AFWTR	02 DEC 67
1967 109B	KH 4B-10 SUBSATELLITE	3025 US	02 NOV 67	AFWTR	28 MAR 69



## Sheet1

1967 110A	COSMOS 190	3026 USSR	03 NOV 67	PLMSC	11 NOV 67
1967 111A	ATS 3	3029 US	05 NOV 67	AFETR	EARTH ORE
1967 112A	SURVEYOR 6	3031 US	07 NOV 67	AFETR	10 NOV 67
1967 113A	APOLLO 4	3032 US	09 NOV 67	AFETR	09 NOV 67
1967 114A	ESSA 6 (TOS D)	3035 US	10 NOV 67	AFWTR	EARTH ORE
1967 115A	COSMOS 191	3043 USSR	21 NOV 67	PLMSC	02 MAR 68
1967 116A	COSMOS 192	3047 USSR	23 NOV 67	PLMSC	EARTH ORE
1967 117A	COSMOS 193	3052 USSR	25 NOV 67	PLMSC	03 DEC 67
1967 118A	WRESAT	3054 AUSTRAL	29 NOV 67	WOMRA	10 JAN 68
1967 119A	COSMOS 194	3055 USSR	03 DEC 67	PLMSC	11 DEC 67
1967 120A	OV3-6 (ATCOS 2)	3057 US	05 DEC 67	AFWTR	09 MAR 69
1967 121A	KH 8-10	3058 US	05 DEC 67	AFWTR	16 DEC 67
1967 122A	KH 4B-11	3063 US	09 DEC 67	AFWTR	25 DEC 67
1967 123A	PIONEER 8	3066 US	13 DEC 67	AFETR	SOLAR ORE
1967 123B	TATS 1 (TETR 1)	3067 US	13 DEC 67	AFETR	28 APR 68
1967 124A	COSMOS 195	3071 USSR	16 DEC 67	PLMSC	24 DEC 67
1967 125A	COSMOS 196	3074 USSR	19 DEC 67	KYMSC	07 JUL 68
1967 126A	COSMOS 197	3079 USSR	26 DEC 67	KYMSC	30 JAN 68
1967 127A	COSMOS 198	3081 USSR	27 DEC 67	TYMSC	EARTH ORE
1968 001A	SURVEYOR 7	3091 US	07 JAN 68	AFETR	10 JAN 68
1968 002A	EXPLORER 36 (GEOS 2)	3093 US	11 JAN 68	AFWTR	EARTH ORE
1968 003A	COSMOS 199	3099 USSR	16 JAN 68	PLMSC	01 FEB 68
1968 004A	UNIDENTIFIED	3097 US	17 JAN 68	AFWTR	07 JUL 70
1968 005A	KH 8-11	3098 US	18 JAN 68	AFWTR	04 FEB 68
1968 006A	COSMOS 200	3100 USSR	19 JAN 68	PLMSC	24 FEB 73
1968 007A	APOLLO 5 LM (ASCENT)	3106 US	22 JAN 68	AFETR	24 JAN 68
1968 007B	APOLLO 5 LM (DESCENT)	3107 US	22 JAN 68	AFETR	12 FEB 68
1968 008A	KH 4B-12	3113 US	24 JAN 68	AFWTR	27 FEB 68
1968 008B	KH 4B-12 SUBSATELLITE	3114 US	24 JAN 68	AFWTR	04 MAR 70
1968 009A	COSMOS 201	3118 USSR	06 FEB 68	TYMSC	14 FEB 68
1968 010A	COSMOS 202	3128 USSR	20 FEB 68	KYMSC	24 MAR 68
1968 011A	COSMOS 203	3129 USSR	20 FEB 68	PLMSC	EARTH ORE
1968 012A	TRANSIT 18	3133 US	02 MAR 68	AFWTR	EARTH ORE
1968 013A	ZOND 4	3134 USSR	02 MAR 68	TYMSC	SOLAR ORE
1968 014A	OGO 5	3138 US	04 MAR 68	AFETR	CENM
1968 015A	COSMOS 204	3139 USSR	05 MAR 68	PLMSC	02 MAR 69
1968 016A	COSMOS 205	3140 USSR	05 MAR 68	PLMSC	13 MAR 68
1968 017A	EXPLORER 37 (SOLRAD 9)	3141 US	05 MAR 68	WLPIS	16 NOV 90
1968 018A	KH 8-12	3148 US	13 MAR 68	AFWTR	24 MAR 68
1968 019A	COSMOS 206	3150 USSR	14 MAR 68	PLMSC	22 APR 89
1968 020A	KH 4B-13	3152 US	14 MAR 68	AFWTR	10 APR 68
1968 020B	KH 4B-13 SUBSATELLITE	3153 US	14 MAR 68	AFWTR	03 JAN 70
1968 021A	COSMOS 207	3154 USSR	16 MAR 68	PLMSC	24 MAR 68
1968 022A	COSMOS 208	3156 USSR	21 MAR 68	TYMSC	02 APR 68
1968 023A	COSMOS 209	3158 USSR	22 MAR 68	TYMSC	EARTH ORE
1968 024A	COSMOS 210	3168 USSR	03 APR 68	PLMSC	11 APR 68
1968 025A	APOLLO 6	3170 US	04 APR 68	AFETR	04 APR 68
1968 026A	OV1-13	3173 US	06 APR 68	AFWTR	EARTH ORE
1968 026B	OV1-14	3174 US	06 APR 68	AFWTR	EARTH ORE

## Sheet1

1968 027A	LUNA 14	3178 USSR	07 APR 68	TYMSC	LUNAR ORE
1968 028A	COSMOS 211	3181 USSR	09 APR 68	PLMSC	10 NOV 68
1968 029A	COSMOS 212	3183 USSR	14 APR 68	TYMSC	19 APR 68
1968 030A	COSMOS 213	3193 USSR	15 APR 68	TYMSC	20 APR 68
1968 031A	KH 8-13	3199 US	17 APR 68	AFWTR	29 APR 68
1968 032A	COSMOS 214	3203 USSR	18 APR 68	PLMSC	26 APR 68
1968 033A	COSMOS 215	3205 USSR	18 APR 68	KYMSC	30 JUN 68
1968 034A	COSMOS 216	3207 USSR	20 APR 68	TYMSC	28 APR 68
1968 035A	MOLNIYA 1-08	3209 USSR	21 APR 68	TYMSC	29 JAN 74
1968 036A	COSMOS 217	3216 USSR	24 APR 68	TYMSC	26 APR 68
1968 037A	COSMOS 218	3217 USSR	25 APR 68	TYMSC	25 APR 68
1968 038A	COSMOS 219	3220 USSR	26 APR 68	KYMSC	02 MAR 69
1968 039A	KH 4B-14	3228 US	01 MAY 68	AFWTR	15 MAY 68
1968 040A	COSMOS 220	3229 USSR	07 MAY 68	PLMSC	EARTH ORE
1968 041A	ESRO 2B (IRIS)	3233 ESRO	17 MAY 68	AFWTR	08 MAY 71
1968 042A	DMSB BIV-5	3266 US	23 MAY 68	AFWTR	EARTH ORE
1968 043A	COSMOS 221	3269 USSR	24 MAY 68	KYMSC	31 AUG 69
1968 044A	COSMOS 222	3272 USSR	30 MAY 68	PLMSC	11 OCT 68
1968 045A	COSMOS 223	3274 USSR	01 JUN 68	PLMSC	09 JUN 68
1968 046A	COSMOS 224	3276 USSR	04 JUN 68	TYMSC	12 JUN 68
1968 047A	KH 8-14	3278 US	05 JUN 68	AFWTR	17 JUN 68
1968 048A	COSMOS 225	3279 USSR	11 JUN 68	KYMSC	02 NOV 68
1968 049A	COSMOS 226	3282 USSR	12 JUN 68	PLMSC	18 OCT 83
1968 050A	IDCSP 4-1	3284 US	13 JUN 68	AFETR	EARTH ORE
1968 050B	IDCSP 4-2	3285 US	13 JUN 68	AFETR	CENM
1968 050C	IDCSP 4-3	3286 US	13 JUN 68	AFETR	CENM
1968 050D	IDCSP 4-4	3287 US	13 JUN 68	AFETR	CENM
1968 050E	IDCSP 4-5	3288 US	13 JUN 68	AFETR	CENM
1968 050F	IDCSP 4-6	3289 US	13 JUN 68	AFETR	CENM
1968 050G	IDCSP 4-7	3290 US	13 JUN 68	AFETR	CENM
1968 050H	IDCSP 4-8	3291 US	13 JUN 68	AFETR	CENM
1968 051A	COSMOS 227	3294 USSR	18 JUN 68	TYMSC	26 JUN 68
1968 052A	KH 4B-15	3296 US	20 JUN 68	AFWTR	16 JUL 68
1968 052B	KH 4B-15 SUBSATELLITE	3297 US	20 JUN 68	AFWTR	11 JAN 70
1968 053A	COSMOS 228	3298 USSR	21 JUN 68	TYMSC	03 JUL 68
1968 054A	COSMOS 229	3304 USSR	26 JUN 68	PLMSC	04 JUL 68
1968 055A	EXPLORER 38 (RAE 1)	3307 US	04 JUL 68	AFWTR	EARTH ORE
1968 056A	COSMOS 230	3308 USSR	05 JUL 68	KYMSC	02 NOV 68
1968 057A	MOLNIYA 1-09	3310 USSR	05 JUL 68	TYMSC	15 MAY 71
1968 058A	COSMOS 231	3316 USSR	10 JUL 68	TYMSC	18 JUL 68
1968 059A	OV1-15 (SPADES)	3318 US	11 JUL 68	AFWTR	06 NOV 68
1968 059B	OV1-16 (CANNONBALL 1)	3319 US	11 JUL 68	AFWTR	19 AUG 68
1968 060A	COSMOS 232	3322 USSR	16 JUL 68	PLMSC	24 JUL 68
1968 061A	COSMOS 233	3326 USSR	18 JUL 68	PLMSC	07 FEB 69
1968 062A	COSMOS 234	3332 USSR	30 JUL 68	TYMSC	05 AUG 68
1968 063A	BMEWS 1	3334 US	06 AUG 68	AFETR	ELNA
1968 064A	KH 8-15	3335 US	06 AUG 68	AFWTR	16 AUG 68
1968 065A	KH 4B-16	3336 US	07 AUG 68	AFWTR	27 AUG 68
1968 066A	EXPLORER 39 (ADE C)	3337 US	08 AUG 68	AFWTR	22 JUN 81

## Sheet1

1968 066B	EXPLORER 40 (INJUN 5)	3338 US	08 AUG 68	AFWTR	EARTH ORE
1968 067A	COSMOS 235	3339 USSR	09 AUG 68	TYMSC	17 AUG 68
1968 068A	ATS 4	3344 US	10 AUG 68	AFETR	17 OCT 68
1968 069A	ESSA 7 (TOS E)	3345 US	16 AUG 68	AFWTR	EARTH ORE
1968 070A	COSMOS 236	3347 USSR	27 AUG 68	TYMSC	04 MAR 90
1968 071A	COSMOS 237	3348 USSR	27 AUG 68	PLMSC	04 SEP 68
1968 072A	COSMOS 238	3351 USSR	28 AUG 68	TYMSC	01 SEP 68
1968 073A	COSMOS 239	3353 USSR	05 SEP 68	TYMSC	13 SEP 68
1968 074A	KH 8-16	3375 US	10 SEP 68	AFWTR	25 SEP 68
1968 075A	COSMOS 240	3388 USSR	14 SEP 68	TYMSC	21 SEP 68
1968 076A	ZOND 5	3394 USSR	14 SEP 68	TYMSC	21 SEP 68
1968 077A	COSMOS 241	3398 USSR	16 SEP 68	PLMSC	24 SEP 68
1968 078A	KH 4B-17	3408 US	18 SEP 68	AFWTR	08 OCT 68
1968 078B	KH 4B-17 SUBSATELLITE	3409 US	18 SEP 68	AFWTR	28 SEP 69
1968 079A	COSMOS 242	3414 USSR	20 SEP 68	PLMSC	13 NOV 68
1968 080A	COSMOS 243	3418 USSR	23 SEP 68	TYMSC	04 OCT 68
1968 081A	OV2-5	3428 US	26 SEP 68	AFETR	EARTH ORE
1968 081B	OV5-2 (ERS 28)	3429 US	26 SEP 68	AFETR	15 FEB 71
1968 081C	OV5-4 (ERS 21)	3430 US	26 SEP 68	AFETR	CENM
1968 081D	LES 6	3431 US	26 SEP 68	AFETR	EARTH ORE
1968 082A	COSMOS 244	3449 USSR	02 OCT 68	TYMSC	02 OCT 68
1968 083A	COSMOS 245	3457 USSR	03 OCT 68	PLMSC	15 JAN 69
1968 084A	ESRO 1A (AURORAE)	3459 ESRO	03 OCT 68	AFWTR	26 JUN 70
1968 085A	MOLNIYA 1-10	3469 USSR	05 OCT 68	TYMSC	16 JUL 76
1968 086A	UNIDENTIFIED	3472 US	05 OCT 68	AFWTR	26 MAR 71
1968 087A	COSMOS 246	3473 USSR	07 OCT 68	PLMSC	12 OCT 68
1968 088A	COSMOS 247	3484 USSR	11 OCT 68	PLMSC	19 OCT 68
1968 089A	APOLLO 7	3486 US	11 OCT 68	AFETR	22 OCT 68
1968 090A	COSMOS 248	3503 USSR	19 OCT 68	TYMSC	26 FEB 80
1968 091A	COSMOS 249	3504 USSR	20 OCT 68	TYMSC	EARTH ORE
1968 092A	DMSB BIV-6	3510 US	23 OCT 68	AFWTR	EARTH ORE
1968 093A	SOYUZ 2	3511 USSR	25 OCT 68	TYMSC	28 OCT 68
1968 094A	SOYUZ 3	3516 USSR	26 OCT 68	TYMSC	30 OCT 68
1968 095A	COSMOS 250	3526 USSR	30 OCT 68	PLMSC	15 FEB 78
1968 096A	COSMOS 251	3528 USSR	31 OCT 68	TYMSC	18 NOV 68
1968 097A	COSMOS 252	3530 USSR	01 NOV 68	TYMSC	EARTH ORE
1968 098A	KH 4B-18	3531 US	03 NOV 68	AFWTR	23 NOV 68
1968 099A	KH 8-17	3532 US	06 NOV 68	AFWTR	20 NOV 68
1968 100A	PIONEER 9	3533 US	08 NOV 68	AFETR	SOLAR ORE
1968 100B	TATS 2 (TETR 2)	3534 US	08 NOV 68	AFETR	19 SEP 79
1968 101A	ZOND 6	3535 USSR	10 NOV 68	TYMSC	17 NOV 68
1968 102A	COSMOS 253	3542 USSR	13 NOV 68	PLMSC	18 NOV 68
1968 103A	PROTON 4	3544 USSR	16 NOV 68	TYMSC	24 JUL 69
1968 104A	COSMOS 254	3562 USSR	21 NOV 68	PLMSC	29 NOV 68
1968 105A	COSMOS 255	3574 USSR	29 NOV 68	PLMSC	07 DEC 68
1968 106A	COSMOS 256	3576 USSR	30 NOV 68	PLMSC	EARTH ORE
1968 107A	COSMOS 257	3578 USSR	03 DEC 68	PLMSC	05 MAR 69
1968 108A	KH 8-18	3594 US	04 DEC 68	AFWTR	12 DEC 68
1968 109A	HEOS 1	3595 ESRO	05 DEC 68	AFETR	28 OCT 75

## Sheet1

1968 110A	OA0 2	3597 US	07 DEC 68	AFETR	EARTH ORE
1968 111A	COSMOS 258	3602 USSR	10 DEC 68	TYMSC	18 DEC 68
1968 112A	KH 4B-19	3604 US	12 DEC 68	AFWTR	28 DEC 68
1968 112B	KH 4B-19 SUBSATELLITE	3605 US	12 DEC 68	AFWTR	EARTH ORE
1968 113A	COSMOS 259	3612 USSR	14 DEC 68	KYMSC	05 MAY 69
1968 114A	ESSA 8 (TOS F)	3615 US	15 DEC 68	AFWTR	EARTH ORE
1968 115A	COSMOS 260	3619 USSR	16 DEC 68	TYMSC	09 JUL 73
1968 116A	INTELSAT 3 F-2	3623 ITSO	19 DEC 68	AFETR	EARTH ORE
1968 117A	COSMOS 261	3624 USSR	19 DEC 68	PLMSC	12 FEB 69
1968 118A	APOLLO 8	3626 US	21 DEC 68	AFETR	27 DEC 68
1968 119A	COSMOS 262	3629 USSR	26 DEC 68	KYMSC	18 JUL 69
1969 001A	VENERA 5	3642 USSR	05 JAN 69	TYMSC	16 MAY 69
1969 002A	VENERA 6	3648 USSR	10 JAN 69	TYMSC	17 MAY 69
1969 003A	COSMOS 263	3651 USSR	12 JAN 69	PLMSC	20 JAN 69
1969 004A	SOYUZ 4	3654 USSR	14 JAN 69	TYMSC	17 JAN 69
1969 005A	SOYUZ 5	3656 USSR	15 JAN 69	TYMSC	18 JAN 69
1969 006A	OSO 5	3663 US	22 JAN 69	AFETR	02 APR 84
1969 007A	KH 8-19	3665 US	22 JAN 69	AFWTR	03 FEB 69
1969 008A	COSMOS 264	3667 USSR	23 JAN 69	TYMSC	05 FEB 69
1969 009A	ISIS 1	3669 CANADA	30 JAN 69	AFWTR	EARTH ORE
1969 010A	KH 4B-20	3672 US	05 FEB 69	AFWTR	24 FEB 69
1969 010B	KH 4B-20 SUBSATELLITE	3673 US	05 FEB 69	AFWTR	EARTH ORE
1969 011A	INTELSAT 3 F-3	3674 ITSO	06 FEB 69	AFETR	CENM
1969 012A	COSMOS 265	3675 USSR	07 FEB 69	PLMSC	01 MAY 69
1969 013A	TACSAT 1	3691 US	09 FEB 69	AFETR	CENM
1969 014A	MARINER 6	3759 US	25 FEB 69	AFETR	SOLAR ORE
1969 015A	COSMOS 266	3761 USSR	25 FEB 69	PLMSC	05 MAR 69
1969 016A	ESSA 9 (TOS G)	3764 US	26 FEB 69	AFETR	EARTH ORE
1969 017A	COSMOS 267	3765 USSR	26 FEB 69	TYMSC	06 MAR 69
1969 018A	APOLLO 9	3769 US	03 MAR 69	AFETR	13 MAR 69
1969 018C	APOLLO 9 LM (ASCENT)	3771 US	03 MAR 69	AFETR	23 OCT 81
1969 018D	APOLLO 9 LM (DESCENT)	3780 US	03 MAR 69	AFETR	22 MAR 69
1969 019A	KH 8-20	3772 US	04 MAR 69	AFWTR	18 MAR 69
1969 020A	COSMOS 268	3773 USSR	05 MAR 69	KYMSC	09 MAY 70
1969 021A	COSMOS 269	3775 USSR	05 MAR 69	PLMSC	21 OCT 78
1969 022A	COSMOS 270	3777 USSR	06 MAR 69	PLMSC	14 MAR 69
1969 023A	COSMOS 271	3807 USSR	15 MAR 69	PLMSC	23 MAR 69
1969 024A	COSMOS 272	3818 USSR	17 MAR 69	PLMSC	EARTH ORE
1969 025A	OV1-17	3823 US	18 MAR 69	AFWTR	05 MAR 70
1969 025B	OV1-18	3824 US	18 MAR 69	AFWTR	27 AUG 72
1969 025C	OV1-19	3825 US	18 MAR 69	AFWTR	EARTH ORE
1969 025D	OV1-17A (ORBISCAL 2)	3826 US	18 MAR 69	AFWTR	24 MAR 69
1969 026A	KH 4B-21	3829 US	19 MAR 69	AFWTR	24 MAR 69
1969 026B	KH 4B-21 SUBSATELLITE	3830 US	19 MAR 69	AFWTR	06 DEC 71
1969 027A	COSMOS 273	3831 USSR	22 MAR 69	PLMSC	30 MAR 69
1969 028A	COSMOS 274	3833 USSR	24 MAR 69	TYMSC	01 APR 69
1969 029A	METEOR 1-01	3835 USSR	26 MAR 69	PLMSC	EARTH ORE
1969 030A	MARINER 7	3837 US	27 MAR 69	AFETR	SOLAR ORE
1969 031A	COSMOS 275	3846 USSR	28 MAR 69	PLMSC	07 FEB 70

## Sheet1

1969 032A	COSMOS 276	3854 USSR	04 APR 69	PLMSC	11 APR 69
1969 033A	COSMOS 277	3855 USSR	04 APR 69	PLMSC	06 JUL 69
1969 034A	COSMOS 278	3883 USSR	09 APR 69	PLMSC	17 APR 69
1969 035A	MOLNIYA 1-11	3885 USSR	11 APR 69	TYMSC	17 APR 74
1969 036A	BMEWS 2	3889 US	13 APR 69	AFETR	ELNA
1969 037A	NIMBUS 3	3890 US	14 APR 69	AFWTR	EARTH ORE
1969 037B	SECOR 13 (EGRS 13)	3891 US	14 APR 69	AFWTR	EARTH ORE
1969 038A	COSMOS 279	3893 USSR	15 APR 69	TYMSC	23 APR 69
1969 039A	KH 8-21	3895 US	15 APR 69	AFWTR	30 APR 69
1969 040A	COSMOS 280	3906 USSR	23 APR 69	TYMSC	06 MAY 69
1969 041A	KH 4B-22	3914 US	02 MAY 69	AFWTR	23 MAY 69
1969 041B	KH 4B-22 SUBSATELLITE	3915 US	02 MAY 69	AFWTR	16 FEB 70
1969 042A	COSMOS 281	3939 USSR	13 MAY 69	PLMSC	21 MAY 69
1969 043A	APOLLO 10	3941 US	18 MAY 69	AFETR	26 MAY 69
1969 043C	APOLLO 10 LM (DESCENT)	3948 US	18 MAY 69	AFETR	LUNAR ORE
1969 043D	APOLLO 10 LM (ASCENT)	3949 US	18 MAY 69	AFETR	SOLAR ORE
1969 044A	COSMOS 282	3944 USSR	20 MAY 69	PLMSC	28 MAY 69
1969 045A	INTELSAT 3 F-4	3947 ITSO	22 MAY 69	AFETR	CENM
1969 046A	OV5-5 (ERS 29)	3950 US	23 MAY 69	AFETR	CENM
1969 046B	OV5-6 (ERS 26)	3951 US	23 MAY 69	AFETR	CENM
1969 046C	OV5-9	3952 US	23 MAY 69	AFETR	CENM
1969 046D	VELA 9	3954 US	23 MAY 69	AFETR	EARTH ORE
1969 046E	VELA 10	3955 US	23 MAY 69	AFETR	EARTH ORE
1969 047A	COSMOS 283	3957 USSR	27 MAY 69	PLMSC	10 DEC 69
1969 048A	COSMOS 284	3971 USSR	29 MAY 69	TYMSC	06 JUN 69
1969 049A	COSMOS 285	3983 USSR	03 JUN 69	PLMSC	07 OCT 69
1969 050A	KH 8-22	3984 US	03 JUN 69	AFWTR	14 JUN 69
1969 051A	OGO 6	3986 US	05 JUN 69	AFWTR	12 OCT 79
1969 052A	COSMOS 286	3988 USSR	15 JUN 69	PLMSC	23 JUN 69
1969 053A	EXPLORER 41 (IMP 7)	3990 US	21 JUN 69	AFWTR	23 DEC 72
1969 054A	COSMOS 287	3991 USSR	24 JUN 69	TYMSC	02 JUL 69
1969 055A	COSMOS 288	3994 USSR	27 JUN 69	TYMSC	05 JUL 69
1969 056A	BIOSAT 3	4000 US	29 JUN 69	AFETR	20 JAN 70
1969 057A	COSMOS 289	4034 USSR	10 JUL 69	PLMSC	15 JUL 69
1969 058A	LUNA 15	4036 USSR	13 JUL 69	TYMSC	21 JUL 69
1969 059A	APOLLO 11	4039 US	16 JUL 69	AFETR	24 JUL 69
1969 059C	APOLLO 11 LUNAR MODULE	4041 US	16 JUL 69	AFETR	LUNAR ORE
1969 060A	COSMOS 290	4042 USSR	22 JUL 69	PLMSC	30 JUL 69
1969 061A	MOLNIYA 1-12	4043 USSR	22 JUL 69	TYMSC	18 JUN 71
1969 062A	DMSP BIV-7	4047 US	23 JUL 69	AFWTR	EARTH ORE
1969 063A	KH 4B-23	4050 US	24 JUL 69	AFWTR	23 AUG 69
1969 064A	INTELSAT 3 F-5	4051 ITSO	26 JUL 69	AFETR	14 OCT 88
1969 065A	UNIDENTIFIED	4054 US	31 JUL 69	AFWTR	04 JAN 73
1969 066A	COSMOS 291	4058 USSR	06 AUG 69	TYMSC	08 SEP 69
1969 067A	ZOND 7	4062 USSR	07 AUG 69	TYMSC	14 AUG 69
1969 068A	OSO 6	4065 US	09 AUG 69	AFETR	07 MAR 81
1969 068B	PAC 1	4066 US	09 AUG 69	AFETR	28 APR 77
1969 069A	ATS 5	4068 US	12 AUG 69	AFETR	EARTH ORE
1969 070A	COSMOS 292	4070 USSR	13 AUG 69	PLMSC	EARTH ORE

## Sheet1

1969 071A	COSMOS 293	4072 USSR	16 AUG 69	TYMSC	28 AUG 69
1969 072A	COSMOS 294	4074 USSR	19 AUG 69	PLMSC	27 AUG 69
1969 073A	COSMOS 295	4076 USSR	22 AUG 69	PLMSC	01 DEC 69
1969 074A	KH 8-23	4078 US	23 AUG 69	AFWTR	07 SEP 69
1969 075A	COSMOS 296	4080 USSR	29 AUG 69	TYMSC	06 SEP 69
1969 076A	COSMOS 297	4082 USSR	02 SEP 69	PLMSC	10 SEP 69
1969 077A	COSMOS 298	4092 USSR	15 SEP 69	TYMSC	15 SEP 69
1969 078A	COSMOS 299	4097 USSR	18 SEP 69	TYMSC	22 SEP 69
1969 079A	KH 4B-24	4102 US	22 SEP 69	AFWTR	12 OCT 69
1969 079B	KH 4B-24 SUBSATELLITE	4103 US	22 SEP 69	AFWTR	16 MAY 71
1969 080A	COSMOS 300	4104 USSR	23 SEP 69	TYMSC	27 SEP 69
1969 081A	COSMOS 301	4106 USSR	24 SEP 69	PLMSC	02 OCT 69
1969 082A	UNIDENTIFIED CAPSULE	4111 US	30 SEP 69	AFWTR	30 OCT 70
1969 082B	[TIMATION]	4256 US	30 SEP 69	AFWTR	EARTH ORE
1969 082C	TIMATION 2	4257 US	30 SEP 69	AFWTR	EARTH ORE
1969 082D	[TIMATION]	4259 US	30 SEP 69	AFWTR	EARTH ORE
1969 082E	[TIMATION]	4237 US	30 SEP 69	AFWTR	EARTH ORE
1969 082F	[TIMATION]	4247 US	30 SEP 69	AFWTR	EARTH ORE
1969 082G	UNIDENTIFIED	4295 US	30 SEP 69	AFWTR	EARTH ORE
1969 082H	TEMPSAT 2	4168 US	30 SEP 69	AFWTR	EARTH ORE
1969 082J	SOICAL (CYLINDER)	4166 US	30 SEP 69	AFWTR	EARTH ORE
1969 082K	SOICAL (CONE)	4132 US	30 SEP 69	AFWTR	EARTH ORE
1969 083A	ESRO 1B (BOREAS)	4114 ESRO	01 OCT 69	AFWTR	23 NOV 69
1969 084A	METEOR 1-02	4119 USSR	06 OCT 69	PLMSC	EARTH ORE
1969 085A	SOYUZ 6	4122 USSR	11 OCT 69	TYMSC	16 OCT 69
1969 086A	SOYUZ 7	4124 USSR	12 OCT 69	TYMSC	17 OCT 69
1969 087A	SOYUZ 8	4126 USSR	13 OCT 69	TYMSC	18 OCT 69
1969 088A	INTERCOSMOS 1	4128 USSR	14 OCT 69	KYMSC	02 JAN 70
1969 089A	COSMOS 302	4130 USSR	17 OCT 69	PLMSC	25 OCT 69
1969 090A	COSMOS 303	4136 USSR	18 OCT 69	PLMSC	23 JAN 70
1969 091A	COSMOS 304	4138 USSR	21 OCT 69	PLMSC	EARTH ORE
1969 092A	COSMOS 305	4150 USSR	22 OCT 69	TYMSC	24 OCT 69
1969 093A	COSMOS 306	4182 USSR	24 OCT 69	TYMSC	05 NOV 69
1969 094A	COSMOS 307	4184 USSR	24 OCT 69	KYMSC	30 DEC 70
1969 095A	KH 8-24	4186 US	24 OCT 69	AFWTR	08 NOV 69
1969 096A	COSMOS 308	4219 USSR	04 NOV 69	PLMSC	04 JAN 70
1969 097A	AZUR (GRS A)	4221 FRG	08 NOV 69	AFWTR	EARTH ORE
1969 098A	COSMOS 309	4223 USSR	12 NOV 69	PLMSC	20 NOV 69
1969 099A	APOLLO 12	4225 US	14 NOV 69	AFETR	24 NOV 69
1969 099C	APOLLO 12 LUNAR MODULE	4246 US	14 NOV 69	AFETR	20 NOV 69
1969 100A	COSMOS 310	4232 USSR	15 NOV 69	TYMSC	23 NOV 69
1969 101A	SKYNET 1A	4250 UK	22 NOV 69	AFETR	EARTH ORE
1969 102A	COSMOS 311	4252 USSR	24 NOV 69	PLMSC	10 MAR 70
1969 103A	COSMOS 312	4254 USSR	24 NOV 69	PLMSC	EARTH ORE
1969 104A	COSMOS 313	4262 USSR	03 DEC 69	PLMSC	15 DEC 69
1969 105A	KH 4B-25	4264 US	04 DEC 69	AFWTR	10 JAN 70
1969 106A	COSMOS 314	4266 USSR	11 DEC 69	PLMSC	22 MAR 70
1969 107A	COSMOS 315	4273 USSR	20 DEC 69	PLMSC	25 MAR 79
1969 108A	COSMOS 316	4282 USSR	23 DEC 69	TYMSC	28 AUG 70

Sheet1

1969 109A	COSMOS 317	4280 USSR	23 DEC 69	PLMSC	05 JAN 70
1969 110A	INTERCOSMOS 2	4285 USSR	25 DEC 69	KYMSC	07 JUN 70
1970 001A	COSMOS 318	4292 USSR	09 JAN 70	TYMSC	21 JAN 70
1970 002A	KH 8-25	4296 US	14 JAN 70	AFWTR	01 FEB 70
1970 003A	INTELSAT 3 F-6	4297 ITSO	15 JAN 70	AFETR	CENM
1970 004A	COSMOS 319	4299 USSR	15 JAN 70	PLMSC	01 JUL 70
1970 005A	COSMOS 320	4301 USSR	16 JAN 70	KYMSC	10 FEB 70
1970 006A	COSMOS 321	4308 USSR	20 JAN 70	PLMSC	23 MAR 70
1970 007A	COSMOS 322	4315 USSR	21 JAN 70	PLMSC	29 JAN 70
1970 008A	ITOS 1 (TIROS M)	4320 US	23 JAN 70	AFWTR	EARTH ORE
1970 008B	OSCAR 5	4321 AUSTRAL	23 JAN 70	AFWTR	EARTH ORE
1970 009A	SERT 2	4327 US	04 FEB 70	AFWTR	EARTH ORE
1970 010A	COSMOS 323	4328 USSR	10 FEB 70	PLMSC	18 FEB 70
1970 011A	OHSUMI	4330 JAPAN	11 FEB 70	KSCUT	EARTH ORE
1970 012A	DMSB B5A-01	4331 US	11 FEB 70	AFWTR	EARTH ORE
1970 013A	MOLNIYA 1-13	4336 USSR	19 FEB 70	PLMSC	29 SEP 75
1970 014A	COSMOS 324	4338 USSR	27 FEB 70	PLMSC	23 MAY 70
1970 015A	COSMOS 325	4340 USSR	04 MAR 70	PLMSC	12 MAR 70
1970 016A	KH 4B-26	4342 US	04 MAR 70	AFWTR	26 MAR 70
1970 016B	KH 4B-26 SUBSATELLITE	4343 US	04 MAR 70	AFWTR	10 NOV 71
1970 017A	DIAL-WIKA	4344 FRG	10 MAR 70	FRGUI	05 OCT 78
1970 018A	COSMOS 326	4346 USSR	13 MAR 70	PLMSC	21 MAR 70
1970 019A	METEOR 1-03	4349 USSR	17 MAR 70	PLMSC	18 NOV 83
1970 020A	COSMOS 327	4351 USSR	18 MAR 70	PLMSC	19 JAN 71
1970 021A	NATO 1	4353 NATO	20 MAR 70	AFETR	EARTH ORE
1970 022A	COSMOS 328	4355 USSR	27 MAR 70	PLMSC	09 APR 70
1970 023A	COSMOS 329	4357 USSR	03 APR 70	PLMSC	15 APR 70
1970 024A	COSMOS 330	4360 USSR	07 APR 70	PLMSC	12 JUN 79
1970 025A	NIMBUS 4	4362 US	08 APR 70	AFWTR	EARTH ORE
1970 025B	TOPO 1	4363 US	08 APR 70	AFWTR	EARTH ORE
1970 026A	COSMOS 331	4364 USSR	08 APR 70	TYMSC	16 APR 70
1970 027A	VELA 12	4366 US	08 APR 70	AFETR	EARTH ORE
1970 027B	VELA 11	4368 US	08 APR 70	AFETR	EARTH ORE
1970 028A	COSMOS 332	4369 USSR	11 APR 70	PLMSC	EARTH ORE
1970 029A	APOLLO 13	4371 US	11 APR 70	AFETR	17 APR 70
1970 030A	COSMOS 333	4373 USSR	15 APR 70	PLMSC	28 APR 70
1970 031A	KH 8-26	4375 US	15 APR 70	AFWTR	06 MAY 70
1970 032A	INTELSAT 3 F-7	4376 ITSO	23 APR 70	AFETR	CENM
1970 033A	COSMOS 334	4378 USSR	23 APR 70	PLMSC	09 AUG 70
1970 034A	MAO 1	4382 PRC	24 APR 70	SCMTR	EARTH ORE
1970 035A	COSMOS 335	4380 USSR	24 APR 70	KYMSC	22 JUN 70
1970 036A	COSMOS 336	4383 USSR	25 APR 70	PLMSC	EARTH ORE
1970 036B	COSMOS 337	4384 USSR	25 APR 70	PLMSC	EARTH ORE
1970 036C	COSMOS 338	4385 USSR	25 APR 70	PLMSC	EARTH ORE
1970 036D	COSMOS 339	4386 USSR	25 APR 70	PLMSC	EARTH ORE
1970 036E	COSMOS 340	4387 USSR	25 APR 70	PLMSC	EARTH ORE
1970 036F	COSMOS 341	4388 USSR	25 APR 70	PLMSC	EARTH ORE
1970 036G	COSMOS 342	4389 USSR	25 APR 70	PLMSC	EARTH ORE
1970 036H	COSMOS 343	4390 USSR	25 APR 70	PLMSC	EARTH ORE

## Sheet1

1970 037A	METEOR 1-04	4393 USSR	28 APR 70	PLMSC	EARTH ORE
1970 038A	COSMOS 344	4401 USSR	12 MAY 70	PLMSC	20 MAY 70
1970 039A	COSMOS 345	4403 USSR	20 MAY 70	TYMSC	28 MAY 70
1970 040A	KH 4B-27	4405 US	20 MAY 70	AFWTR	17 JUN 70
1970 040B	DOPPLER BEACON 2	4406 US	20 MAY 70	AFWTR	08 MAR 74
1970 041A	SOYUZ 9	4407 USSR	01 JUN 70	TYMSC	19 JUN 70
1970 042A	COSMOS 346	4409 USSR	10 JUN 70	TYMSC	17 JUN 70
1970 043A	COSMOS 347	4411 USSR	12 JUN 70	KYMSC	07 NOV 71
1970 044A	COSMOS 348	4413 USSR	13 JUN 70	PLMSC	25 JUL 70
1970 045A	COSMOS 349	4416 USSR	17 JUN 70	PLMSC	25 JUN 70
1970 046A	BMEWS 3	4418 US	19 JUN 70	AFETR	ELNA
1970 047A	METEOR 1-05	4419 USSR	23 JUN 70	PLMSC	EARTH ORE
1970 048A	KH 8-27	4422 US	25 JUN 70	AFWTR	06 JUL 70
1970 049A	MOLNIYA 1-14	4430 USSR	26 JUN 70	PLMSC	16 FEB 76
1970 050A	COSMOS 350	4425 USSR	26 JUN 70	TYMSC	08 JUL 70
1970 051A	COSMOS 351	4427 USSR	27 JUN 70	PLMSC	13 OCT 70
1970 052A	COSMOS 352	4446 USSR	07 JUL 70	TYMSC	15 JUL 70
1970 053A	COSMOS 353	4455 USSR	09 JUL 70	PLMSC	21 JUL 70
1970 054A	KH 4B-28	4477 US	23 JUL 70	AFWTR	19 AUG 70
1970 055A	INTELSAT 3 F-8	4478 ITSO	23 JUL 70	AFETR	EARTH ORE
1970 056A	COSMOS 354	4481 USSR	28 JUL 70	TYMSC	28 JUL 70
1970 057A	INTERCOSMOS 3	4482 USSR	07 AUG 70	KYMSC	06 DEC 70
1970 058A	COSMOS 355	4484 USSR	07 AUG 70	PLMSC	15 AUG 70
1970 059A	COSMOS 356	4487 USSR	10 AUG 70	PLMSC	02 OCT 70
1970 060A	VENERA 7	4489 USSR	17 AUG 70	TYMSC	15 DEC 70
1970 061A	KH 8-28	4492 US	18 AUG 70	AFWTR	03 SEP 70
1970 062A	SKYNET 1B	4493 UK	19 AUG 70	AFETR	CENM
1970 063A	COSMOS 357	4495 USSR	19 AUG 70	PLMSC	24 NOV 70
1970 064A	COSMOS 358	4497 USSR	20 AUG 70	PLMSC	26 JUN 90
1970 065A	COSMOS 359	4501 USSR	22 AUG 70	TYMSC	06 NOV 70
1970 066A	NNSS 30190	4503 US	26 AUG 70	AFWTR	26 MAR 75
1970 067A	NNSS 19	4507 US	27 AUG 70	AFWTR	EARTH ORE
1970 068A	COSMOS 360	4508 USSR	29 AUG 70	TYMSC	08 SEP 70
1970 069A	BMEWS 4	4510 US	01 SEP 70	AFETR	ELNA
1970 070A	DMSP B5A-02	4512 US	03 SEP 70	AFWTR	EARTH ORE
1970 071A	COSMOS 361	4524 USSR	08 SEP 70	PLMSC	21 SEP 70
1970 072A	LUNA 16	4527 USSR	12 SEP 70	TYMSC	24 SEP 70
1970 073A	COSMOS 362	4536 USSR	16 SEP 70	PLMSC	13 OCT 71
1970 074A	COSMOS 363	4538 USSR	17 SEP 70	TYMSC	29 SEP 70
1970 075A	COSMOS 364	4553 USSR	22 SEP 70	PLMSC	02 OCT 70
1970 076A	COSMOS 365	4556 USSR	25 SEP 70	TYMSC	25 SEP 70
1970 077A	MOLNIYA 1-15	4569 USSR	29 SEP 70	PLMSC	20 MAR 76
1970 078A	COSMOS 366	4561 USSR	01 OCT 70	TYMSC	13 OCT 70
1970 079A	COSMOS 367	4564 USSR	03 OCT 70	TYMSC	EARTH ORE
1970 080A	COSMOS 368	4571 USSR	08 OCT 70	TYMSC	14 OCT 70
1970 081A	COSMOS 369	4573 USSR	08 OCT 70	PLMSC	22 JAN 71
1970 082A	COSMOS 370	4576 USSR	09 OCT 70	TYMSC	22 OCT 70
1970 083A	COSMOS 371	4578 USSR	12 OCT 70	PLMSC	EARTH ORE
1970 084A	INTERCOSMOS 4	4580 USSR	14 OCT 70	KYMSC	17 JAN 71



## Sheet1

1970 085A	METEOR 1-06	4583 USSR	15 OCT 70	PLMSC	EARTH ORE
1970 086A	COSMOS 372	4588 USSR	16 OCT 70	PLMSC	EARTH ORE
1970 087A	COSMOS 373	4590 USSR	20 OCT 70	TYMSC	08 MAR 80
1970 088A	ZOND 8	4591 USSR	20 OCT 70	TYMSC	27 OCT 70
1970 089A	COSMOS 374	4594 USSR	23 OCT 70	TYMSC	EARTH ORE
1970 090A	KH 8-29	4596 US	23 OCT 70	AFWTR	11 NOV 70
1970 091A	COSMOS 375	4598 USSR	30 OCT 70	TYMSC	EARTH ORE
1970 092A	COSMOS 376	4599 USSR	30 OCT 70	PLMSC	12 NOV 70
1970 093A	IMEWS 1 (DSP ??)	4630 US	06 NOV 70	AFETR	EARTH ORE
1970 094A	OFO 1	4690 US	09 NOV 70	WLPIS	09 MAY 71
1970 094B	RMS	4692 US	09 NOV 70	WLPIS	07 FEB 71
1970 095A	LUNA 17	4691 USSR	10 NOV 70	TYMSC	17 NOV 70
1970 096A	COSMOS 377	4695 USSR	11 NOV 70	TYMSC	23 NOV 70
1970 097A	COSMOS 378	4713 USSR	17 NOV 70	PLMSC	17 AUG 72
1970 098A	KH 4B-29	4721 US	18 NOV 70	AFWTR	11 DEC 70
1970 098B	KH 4B-29 SUBSATELLITE	4722 US	18 NOV 70	AFWTR	14 SEP 77
1970 099A	COSMOS 379	4760 USSR	24 NOV 70	TYMSC	21 SEP 83
1970 100A	COSMOS 380	4762 USSR	24 NOV 70	PLMSC	17 JUN 71
1970 101A	MOLNIYA 1-16	4779 USSR	27 NOV 70	PLMSC	25 NOV 75
1970 102A	COSMOS 381	4783 USSR	02 DEC 70	PLMSC	EARTH ORE
1970 103A	COSMOS 382	4786 USSR	02 DEC 70	TYMSC	EARTH ORE
1970 104A	COSMOS 383	4787 USSR	03 DEC 70	PLMSC	16 DEC 70
1970 105A	COSMOS 384	4791 USSR	10 DEC 70	PLMSC	22 DEC 70
1970 106A	NOAA 1 (ITOS A)	4793 US	11 DEC 70	AFWTR	EARTH ORE
1970 107A	EXPLORER 42 (SAS 1)	4797 US	12 DEC 70	SNMLP	05 APR 79
1970 108A	COSMOS 385	4799 USSR	12 DEC 70	PLMSC	EARTH ORE
1970 109A	PEOLE	4801 FRANCE	12 DEC 70	FRGUI	16 JUN 80
1970 110A	COSMOS 386	4804 USSR	15 DEC 70	TYMSC	28 DEC 70
1970 111A	COSMOS 387	4806 USSR	16 DEC 70	PLMSC	19 JAN 80
1970 112A	COSMOS 388	4811 USSR	18 DEC 70	PLMSC	10 MAY 71
1970 113A	COSMOS 389	4813 USSR	18 DEC 70	PLMSC	EARTH ORE
1970 114A	MOLNIYA 1-17	4829 USSR	25 DEC 70	TYMSC	22 DEC 75
1971 001A	COSMOS 390	4845 USSR	12 JAN 71	TYMSC	25 JAN 71
1971 002A	COSMOS 391	4847 USSR	14 JAN 71	PLMSC	21 FEB 72
1971 003A	METEOR 1-07	4849 USSR	20 JAN 71	PLMSC	EARTH ORE
1971 004A	COSMOS 392	4872 USSR	21 JAN 71	TYMSC	02 FEB 71
1971 005A	KH 8-30	4874 US	21 JAN 71	AFWTR	09 FEB 71
1971 006A	INTELSAT 4 F-2	4881 ITSO	26 JAN 71	AFETR	EARTH ORE
1971 007A	COSMOS 393	4884 USSR	26 JAN 71	PLMSC	16 JUN 71
1971 008A	APOLLO 14	4900 US	31 JAN 71	AFETR	09 FEB 71
1971 008C	APOLLO 14 LUNAR MODULE	4905 US	31 JAN 71	AFETR	07 FEB 71
1971 009A	NATO 2	4902 NATO	03 FEB 71	AFETR	EARTH ORE
1971 010A	COSMOS 394	4922 USSR	09 FEB 71	PLMSC	EARTH ORE
1971 011A	TANSEI 1	4952 JAPAN	16 FEB 71	KSCUT	EARTH ORE
1971 012A	DMSB B5A-03	4953 US	17 FEB 71	AFWTR	EARTH ORE
1971 012C	CALSPHERE 3	4957 US	17 FEB 71	AFWTR	17 OCT 89
1971 012D	CALSPHERE 4	4958 US	17 FEB 71	AFWTR	20 SEP 89
1971 012E	CALSPHERE 5	4963 US	17 FEB 71	AFWTR	07 JAN 90
1971 013A	COSMOS 395	4955 USSR	17 FEB 71	PLMSC	06 APR 80

## Sheet1

1971 014A	COSMOS 396	4959 USSR	18 FEB 71	PLMSC	03 MAR 71
1971 015A	COSMOS 397	4964 USSR	25 FEB 71	TYMSC	EARTH ORE
1971 016A	COSMOS 398	4966 USSR	26 FEB 71	TYMSC	EARTH ORE
1971 017A	COSMOS 399	5003 USSR	03 MAR 71	TYMSC	17 MAR 71
1971 018A	MAO 2	5007 PRC	03 MAR 71	SCMTR	17 JUN 79
1971 019A	EXPLORER 43 (IMP 8)	5043 US	13 MAR 71	AFETR	02 OCT 74
1971 020A	COSMOS 400	5050 USSR	18 MAR 71	PLMSC	EARTH ORE
1971 021A	SDS 1	5053 US	21 MAR 71	AFWTR	ELNA
1971 022A	KH 4B-31	5059 US	24 MAR 71	AFWTR	12 APR 71
1971 023A	COSMOS 401	5086 USSR	27 MAR 71	PLMSC	09 APR 71
1971 024A	ISIS 2	5104 CANADA	01 APR 71	AFWTR	EARTH ORE
1971 025A	COSMOS 402	5105 USSR	01 APR 71	TYMSC	EARTH ORE
1971 026A	COSMOS 403	5108 USSR	02 APR 71	PLMSC	14 APR 71
1971 027A	COSMOS 404	5113 USSR	04 APR 71	TYMSC	04 APR 71
1971 028A	COSMOS 405	5117 USSR	07 APR 71	PLMSC	EARTH ORE
1971 029A	COSMOS 406	5124 USSR	14 APR 71	PLMSC	24 APR 71
1971 030A	D-2A/TOURNESOL	5128 FRANCE	15 APR 71	FRGUI	28 JAN 80
1971 031A	METEOR 1-08	5142 USSR	17 APR 71	PLMSC	10 JAN 91
1971 032A	SALYUT 1	5160 USSR	19 APR 71	TYMSC	11 OCT 71
1971 033A	KH 8-31	5171 US	22 APR 71	AFWTR	13 MAY 71
1971 034A	SOYUZ 10	5172 USSR	22 APR 71	TYMSC	24 APR 71
1971 035A	COSMOS 407	5174 USSR	23 APR 71	PLMSC	EARTH ORE
1971 036A	SAN MARCO 3	5176 ITALY	24 APR 71	SNMLP	29 NOV 71
1971 037A	COSMOS 408	5177 USSR	24 APR 71	PLMSC	29 DEC 71
1971 038A	COSMOS 409	5180 USSR	28 APR 71	PLMSC	EARTH ORE
1971 039A	IMEWS 2 (DSP ??)	5204 US	05 MAY 71	AFETR	ELNA
1971 040A	COSMOS 410	5207 USSR	06 MAY 71	TYMSC	18 MAY 71
1971 041A	COSMOS 411	5210 USSR	07 MAY 71	PLMSC	EARTH ORE
1971 041B	COSMOS 412	5211 USSR	07 MAY 71	PLMSC	EARTH ORE
1971 041C	COSMOS 413	5212 USSR	07 MAY 71	PLMSC	EARTH ORE
1971 041D	COSMOS 414	5213 USSR	07 MAY 71	PLMSC	EARTH ORE
1971 041E	COSMOS 415	5214 USSR	07 MAY 71	PLMSC	EARTH ORE
1971 041F	COSMOS 416	5215 USSR	07 MAY 71	PLMSC	EARTH ORE
1971 041G	COSMOS 417	5216 USSR	07 MAY 71	PLMSC	EARTH ORE
1971 041H	COSMOS 418	5217 USSR	07 MAY 71	PLMSC	EARTH ORE
1971 042A	COSMOS 419	5221 USSR	10 MAY 71	TYMSC	12 MAY 71
1971 043A	COSMOS 420	5230 USSR	18 MAY 71	TYMSC	29 MAY 71
1971 044A	COSMOS 421	5232 USSR	19 MAY 71	PLMSC	08 NOV 71
1971 045A	MARS 2	5234 USSR	19 MAY 71	TYMSC	MARS ORB'
1971 045D	MARS 2 CAPSULE	5739 USSR	19 MAY 71	TYMSC	27 NOV 71
1971 046A	COSMOS 422	5238 USSR	22 MAY 71	PLMSC	EARTH ORE
1971 047A	COSMOS 423	5246 USSR	27 MAY 71	PLMSC	26 NOV 71
1971 048A	COSMOS 424	5248 USSR	28 MAY 71	PLMSC	10 JUN 71
1971 049A	MARS 3	5252 USSR	28 MAY 71	TYMSC	MARS ORB'
1971 049E	MARS 3 DESCENT CRAFT	5667 USSR	28 MAY 71	TYMSC	02 DEC 71
1971 050A	COSMOS 425	5253 USSR	29 MAY 71	PLMSC	15 JAN 80
1971 051A	MARINER 9	5261 US	30 MAY 71	AFETR	MARS ORB'
1971 052A	COSMOS 426	5281 USSR	04 JUN 71	PLMSC	EARTH ORE
1971 053A	SOYUZ 11	5283 USSR	06 JUN 71	TYMSC	29 JUN 71

## Sheet1

1971 054A	SESP 1	5285 US	08 JUN 71	AFWTR	31 JAN 82
1971 055A	COSMOS 427	5289 USSR	11 JUN 71	PLMSC	23 JUN 71
1971 056A	KH 9-01 (BIG BIRD)	5297 US	15 JUN 71	AFWTR	06 AUG 71
1971 057A	COSMOS 428	5305 USSR	24 JUN 71	TYMSC	06 JUL 71
1971 058A	EXPLORER 44 (SOLRAD 10)	5317 US	08 JUL 71	WLPIS	15 DEC 79
1971 059A	METEOR 1-09	5327 USSR	16 JUL 71	PLMSC	27 AUG 91
1971 060A	[HEAVY FERRET]	5329 US	16 JUL 71	AFWTR	31 AUG 78
1971 061A	COSMOS 429	5331 USSR	20 JUL 71	TYMSC	02 AUG 71
1971 062A	COSMOS 430	5340 USSR	23 JUL 71	PLMSC	05 AUG 71
1971 063A	APOLLO 15	5351 US	26 JUL 71	AFETR	07 AUG 71
1971 063C	APOLLO 15 LUNAR MODULE	5366 US	26 JUL 71	AFETR	03 AUG 71
1971 063D	APOLLO 15 SUBSATELLITE	5377 US	26 JUL 71	AFETR	LUNAR ORE
1971 064A	MOLNIYA 1-18	5367 USSR	28 JUL 71	PLMSC	19 JUL 77
1971 065A	COSMOS 431	5364 USSR	30 JUL 71	TYMSC	11 AUG 71
1971 066A	COSMOS 432	5379 USSR	05 AUG 71	TYMSC	18 AUG 71
1971 067A	OV1-20	5394 US	07 AUG 71	AFWTR	28 AUG 71
1971 067B	OV1-21	5397 US	07 AUG 71	AFWTR	EARTH ORE
1971 067C	CANNONBALL 2	5382 US	07 AUG 71	AFWTR	31 JAN 72
1971 067D	MUSKETBALL 1	5383 US	07 AUG 71	AFWTR	19 SEP 71
1971 067E	GRIDSPHERE 1	5398 US	07 AUG 71	AFWTR	EARTH ORE
1971 067F	LCS 4	5396 US	07 AUG 71	AFWTR	11 JUN 72
1971 067G	GRIDSPHERE 2	5401 US	07 AUG 71	AFWTR	14 APR 79
1971 067H	RIGIDSPHERE	5406 US	07 AUG 71	AFWTR	02 NOV 79
1971 067P	MYLAR BALLOON	5410 US	07 AUG 71	AFWTR	01 SEP 81
1971 068A	COSMOS 433	5402 USSR	08 AUG 71	TYMSC	09 AUG 71
1971 069A	COSMOS 434	5407 USSR	12 AUG 71	TYMSC	22 AUG 81
1971 070A	KH 8-32	5409 US	12 AUG 71	AFWTR	03 SEP 71
1971 071A	EOLE 1	5435 FRANCE	16 AUG 71	WLPIS	EARTH ORE
1971 072A	COSMOS 435	5441 USSR	27 AUG 71	PLMSC	28 JAN 72
1971 073A	LUNA 18	5448 USSR	02 SEP 71	TYMSC	11 SEP 71
1971 074A	COSMOS 436	5461 USSR	07 SEP 71	PLMSC	04 JAN 80
1971 075A	COSMOS 437	5466 USSR	10 SEP 71	PLMSC	29 MAR 80
1971 076A	KH 4B-32	5468 US	10 SEP 71	AFWTR	05 OCT 71
1971 076B	KH 4B-32 SUBSATELLITE	5469 US	10 SEP 71	AFWTR	03 FEB 76
1971 077A	COSMOS 438	5475 USSR	14 SEP 71	PLMSC	27 SEP 71
1971 078A	COSMOS 439	5478 USSR	21 SEP 71	PLMSC	02 OCT 71
1971 079A	COSMOS 440	5480 USSR	24 SEP 71	PLMSC	29 OCT 72
1971 080A	SS-01/SHINSEI	5485 JAPAN	28 SEP 71	KSCUT	EARTH ORE
1971 081A	COSMOS 441	5486 USSR	28 SEP 71	TYMSC	10 OCT 71
1971 082A	LUNA 19	5488 USSR	28 SEP 71	TYMSC	LUNAR ORE
1971 083A	OSO 7	5491 US	29 SEP 71	AFETR	09 JUL 74
1971 083B	TATS 3 (TETR 4)	5492 US	29 SEP 71	AFETR	19 SEP 78
1971 084A	COSMOS 442	5493 USSR	29 SEP 71	PLMSC	12 OCT 71
1971 085A	COSMOS 443	5536 USSR	07 OCT 71	PLMSC	19 OCT 71
1971 086A	COSMOS 444	5547 USSR	13 OCT 71	PLMSC	EARTH ORE
1971 086B	COSMOS 445	5548 USSR	13 OCT 71	PLMSC	EARTH ORE
1971 086C	COSMOS 446	5549 USSR	13 OCT 71	PLMSC	EARTH ORE
1971 086D	COSMOS 447	5550 USSR	13 OCT 71	PLMSC	EARTH ORE
1971 086E	COSMOS 448	5551 USSR	13 OCT 71	PLMSC	EARTH ORE

## Sheet1

1971 086F	COSMOS 449	5552 USSR	13 OCT 71	PLMSC	EARTH ORE
1971 086G	COSMOS 450	5553 USSR	13 OCT 71	PLMSC	EARTH ORE
1971 086H	COSMOS 451	5554 USSR	13 OCT 71	PLMSC	EARTH ORE
1971 087A	DMSP B5B-04	5557 US	14 OCT 71	AFWTR	EARTH ORE
1971 088A	COSMOS 452	5558 USSR	14 OCT 71	TYMSC	27 OCT 71
1971 089A	ASTEX	5560 US	17 OCT 71	AFWTR	EARTH ORE
1971 090A	COSMOS 453	5563 USSR	19 OCT 71	PLMSC	19 MAR 72
1971 091A	ITOS B	5565 US	21 OCT 71	AFWTR	21 JUL 72
1971 092A	KH 8-33	5575 US	23 OCT 71	AFWTR	17 NOV 71
1971 093A	PROSPERO	5580 UK	28 OCT 71	WOMRA	EARTH ORE
1971 094A	COSMOS 454	5585 USSR	02 NOV 71	PLMSC	16 NOV 71
1971 095A	DSCS II-01	5587 US	03 NOV 71	AFETR	EARTH ORE
1971 095B	DSCS II-02	5588 US	03 NOV 71	AFETR	EARTH ORE
1971 096A	EXPLORER 45 (SSS 1)	5598 US	15 NOV 71	SNMLP	10 JAN 92
1971 097A	COSMOS 455	5608 USSR	17 NOV 71	PLMSC	09 APR 72
1971 098A	COSMOS 456	5611 USSR	19 NOV 71	PLMSC	02 DEC 71
1971 099A	COSMOS 457	5614 USSR	20 NOV 71	PLMSC	EARTH ORE
1971 100A	MOLNIYA 2-01	5620 USSR	24 NOV 71	PLMSC	10 MAY 76
1971 101A	COSMOS 458	5623 USSR	29 NOV 71	PLMSC	20 APR 72
1971 102A	COSMOS 459	5625 USSR	29 NOV 71	PLMSC	27 DEC 71
1971 103A	COSMOS 460	5628 USSR	30 NOV 71	PLMSC	05 MAR 80
1971 104A	INTERCOSMOS 5	5641 USSR	02 DEC 71	KYMSC	07 APR 72
1971 105A	COSMOS 461	5643 USSR	02 DEC 71	PLMSC	21 FEB 79
1971 106A	COSMOS 462	5646 USSR	03 DEC 71	TYMSC	04 APR 75
1971 107A	COSMOS 463	5661 USSR	06 DEC 71	TYMSC	11 DEC 71
1971 108A	COSMOS 464	5670 USSR	10 DEC 71	PLMSC	16 DEC 71
1971 109A	ARIEL 4 (UK 4)	5675 UK	11 DEC 71	AFWTR	12 DEC 78
1971 110A	[TIMATION]	5678 US	14 DEC 71	AFWTR	ELNA
1971 110C	[TIMATION]	5680 US	14 DEC 71	AFWTR	ELNA
1971 110D	[TIMATION]	5681 US	14 DEC 71	AFWTR	ELNA
1971 110E	[TIMATION]	5682 US	14 DEC 71	AFWTR	ELNA
1971 111A	COSMOS 465	5683 USSR	15 DEC 71	PLMSC	EARTH ORE
1971 112A	COSMOS 466	5687 USSR	16 DEC 71	TYMSC	27 DEC 71
1971 113A	COSMOS 467	5704 USSR	17 DEC 71	PLMSC	18 APR 72
1971 114A	COSMOS 468	5705 USSR	17 DEC 71	PLMSC	EARTH ORE
1971 115A	MOLNIYA 1-19	5712 USSR	19 DEC 71	PLMSC	13 APR 77
1971 116A	INTELSAT 4 F-3	5709 ITSO	20 DEC 71	AFETR	EARTH ORE
1971 117A	COSMOS 469	5721 USSR	25 DEC 71	TYMSC	EARTH ORE
1971 118A	COSMOS 470	5727 USSR	27 DEC 71	PLMSC	06 JAN 72
1971 119A	AUREOLE 1	5729 FRANCE	27 DEC 71	PLMSC	EARTH ORE
1971 120A	METEOR 1-10	5731 USSR	29 DEC 71	PLMSC	EARTH ORE
1972 001A	COSMOS 471	5764 USSR	12 JAN 72	TYMSC	25 JAN 72
1972 002A	KH 9-02	5769 US	20 JAN 72	AFWTR	29 FEB 72
1972 002D	KH 9-02 SUBSATELLITE	5772 US	20 JAN 72	AFWTR	17 APR 79
1972 003A	INTELSAT 4 F-4	5775 ITSO	23 JAN 72	AFETR	EARTH ORE
1972 004A	COSMOS 472	5804 USSR	25 JAN 72	PLMSC	18 AUG 72
1972 005A	HEOS 2	5814 ESRO	31 JAN 72	AFWTR	02 AUG 74
1972 006A	COSMOS 473	5821 USSR	03 FEB 72	TYMSC	15 FEB 72
1972 007A	LUNA 20	5835 USSR	14 FEB 72	TYMSC	25 FEB 72

## Sheet1

1972 008A	COSMOS 474	5839 USSR	16 FEB 72	TYMSC	29 FEB 72
1972 009A	COSMOS 475	5846 USSR	25 FEB 72	PLMSC	EARTH ORE
1972 010A	IMEWS 3	5851 US	01 MAR 72	AFETR	ELNA
1972 011A	COSMOS 476	5852 USSR	01 MAR 72	PLMSC	25 OCT 91
1972 012A	PIONEER 10	5860 US	03 MAR 72	AFETR	SS ESCAPE
1972 013A	COSMOS 477	5862 USSR	04 MAR 72	PLMSC	16 MAR 72
1972 014A	THOR DELTA 1A	5879 ESRO	12 MAR 72	AFWTR	09 JAN 80
1972 015A	COSMOS 478	5885 USSR	15 MAR 72	PLMSC	28 MAR 72
1972 016A	KH 8-34	5888 US	17 MAR 72	AFWTR	11 APR 72
1972 017A	COSMOS 479	5894 USSR	22 MAR 72	PLMSC	13 APR 80
1972 018A	DMSB B5B-05	5903 US	24 MAR 72	AFWTR	EARTH ORE
1972 019A	COSMOS 480	5905 USSR	25 MAR 72	PLMSC	EARTH ORE
1972 020A	COSMOS 481	5906 USSR	25 MAR 72	PLMSC	02 SEP 72
1972 021A	VENERA 8	5912 USSR	27 MAR 72	TYMSC	22 JUL 72
1972 022A	METEOR 1-11	5917 USSR	30 MAR 72	PLMSC	EARTH ORE
1972 023A	COSMOS 482	5919 USSR	31 MAR 72	TYMSC	05 MAY 81
1972 024A	COSMOS 483	5924 USSR	03 APR 72	PLMSC	15 APR 72
1972 025A	MOLNIYA 1-20	5927 USSR	04 APR 72	PLMSC	30 JAN 74
1972 025B	SRET 1	5928 FRANCE	04 APR 72	PLMSC	26 FEB 74
1972 026A	COSMOS 484	5933 USSR	06 APR 72	PLMSC	18 APR 72
1972 027A	INTERCOSMOS 6	5936 USSR	07 APR 72	TYMSC	11 APR 72
1972 028A	COSMOS 485	5938 USSR	11 APR 72	PLMSC	30 AUG 72
1972 029A	PROGNOZ 1	5941 USSR	14 APR 72	TYMSC	CENM
1972 030A	COSMOS 486	5945 USSR	14 APR 72	PLMSC	27 APR 72
1972 031A	APOLLO 16	6000 US	16 APR 72	AFETR	27 APR 72
1972 031C	APOLLO 16 LUNAR MODULE	6005 US	16 APR 72	AFETR	LUNAR ORE
1972 031D	APOLLO 16 SUBSATELLITE	6009 US	16 APR 72	AFETR	29 MAY 72
1972 032A	KH 4B-33	6003 US	19 APR 72	AFWTR	12 MAY 72
1972 033A	COSMOS 487	6006 USSR	21 APR 72	PLMSC	24 SEP 72
1972 034A	COSMOS 488	6016 USSR	05 MAY 72	PLMSC	18 MAY 72
1972 035A	COSMOS 489	6019 USSR	06 MAY 72	PLMSC	EARTH ORE
1972 036A	COSMOS 490	6021 USSR	17 MAY 72	PLMSC	29 MAY 72
1972 037A	MOLNIYA 2-02	6031 USSR	19 MAY 72	PLMSC	22 MAR 77
1972 038A	COSMOS 491	6035 USSR	25 MAY 72	TYMSC	08 JUN 72
1972 039A	KH 4B-34	6037 US	25 MAY 72	AFWTR	04 JUN 72
1972 040A	COSMOS 492	6049 USSR	09 JUN 72	TYMSC	22 JUN 72
1972 041A	INTELSAT 4 F-5	6052 ITSO	13 JUN 72	AFETR	EARTH ORE
1972 042A	COSMOS 493	6053 USSR	21 JUN 72	TYMSC	03 JUL 72
1972 043A	COSMOS 494	6059 USSR	23 JUN 72	PLMSC	EARTH ORE
1972 044A	COSMOS 495	6060 USSR	23 JUN 72	PLMSC	06 JUL 72
1972 045A	COSMOS 496	6066 USSR	26 JUN 72	TYMSC	02 JUL 72
1972 046A	PROGNOZ 2	6068 USSR	29 JUN 72	TYMSC	15 DEC 82
1972 047A	INTERCOSMOS 7	6075 USSR	30 JUN 72	KYMSC	05 OCT 72
1972 048A	COSMOS 497	6076 USSR	30 JUN 72	PLMSC	07 NOV 73
1972 049A	METEOR 1-12	6079 USSR	30 JUN 72	PLMSC	EARTH ORE
1972 050A	COSMOS 498	6086 USSR	05 JUL 72	PLMSC	25 NOV 72
1972 051A	COSMOS 499	6090 USSR	06 JUL 72	TYMSC	17 JUL 72
1972 052A	KH 9-03	6094 US	07 JUL 72	AFWTR	13 SEP 72
1972 052C	KH 9-03 SUBSATELLITE	6096 US	07 JUL 72	AFWTR	06 MAY 78

## Sheet1

1972 053A	COSMOS 500	6097 USSR	10 JUL 72	PLMSC	29 MAR 80
1972 054A	COSMOS 501	6099 USSR	12 JUL 72	KYMSC	09 MAY 74
1972 055A	COSMOS 502	6105 USSR	13 JUL 72	PLMSC	25 JUL 72
1972 056A	COSMOS 503	6114 USSR	19 JUL 72	PLMSC	01 AUG 72
1972 057A	COSMOS 504	6117 USSR	20 JUL 72	PLMSC	EARTH ORE
1972 057B	COSMOS 505	6118 USSR	20 JUL 72	PLMSC	EARTH ORE
1972 057C	COSMOS 506	6119 USSR	20 JUL 72	PLMSC	EARTH ORE
1972 057D	COSMOS 507	6120 USSR	20 JUL 72	PLMSC	EARTH ORE
1972 057E	COSMOS 508	6121 USSR	20 JUL 72	PLMSC	EARTH ORE
1972 057F	COSMOS 509	6122 USSR	20 JUL 72	PLMSC	EARTH ORE
1972 057G	COSMOS 510	6123 USSR	20 JUL 72	PLMSC	EARTH ORE
1972 057H	COSMOS 511	6124 USSR	20 JUL 72	PLMSC	EARTH ORE
1972 058A	LANDSAT 1 (ERTS 1)	6126 US	23 JUL 72	AFWTR	EARTH ORE
1972 059A	COSMOS 512	6130 USSR	28 JUL 72	PLMSC	09 AUG 72
1972 060A	COSMOS 513	6135 USSR	02 AUG 72	TYMSC	15 AUG 72
1972 061A	EXPLORER 46 (MTS)	6142 US	13 AUG 72	WLPIS	02 NOV 79
1972 062A	COSMOS 514	6148 USSR	16 AUG 72	PLMSC	EARTH ORE
1972 063A	COSMOS 515	6150 USSR	18 AUG 72	PLMSC	31 AUG 72
1972 064A	SS-02/DENPA	6152 JAPAN	19 AUG 72	KSCUT	19 MAY 80
1972 065A	OA0 3 (COPERNICUS)	6153 US	21 AUG 72	AFETR	EARTH ORE
1972 066A	COSMOS 516	6154 USSR	21 AUG 72	TYMSC	EARTH ORE
1972 067A	COSMOS 517	6168 USSR	30 AUG 72	TYMSC	11 SEP 72
1972 068A	KH 8-35	6172 US	01 SEP 72	AFWTR	30 SEP 72
1972 069A	TRIAD 1	6173 US	02 SEP 72	AFWTR	EARTH ORE
1972 070A	COSMOS 518	6186 USSR	15 SEP 72	PLMSC	24 SEP 72
1972 071A	COSMOS 519	6188 USSR	16 SEP 72	TYMSC	26 SEP 72
1972 072A	COSMOS 520	6192 USSR	19 SEP 72	PLMSC	EARTH ORE
1972 073A	EXPLORER 47 (IMP 9)	6197 US	23 SEP 72	AFETR	CENM
1972 074A	COSMOS 521	6206 USSR	29 SEP 72	PLMSC	EARTH ORE
1972 075A	MOLNIYA 2-03	6208 USSR	30 SEP 72	PLMSC	12 JAN 78
1972 076A	RADCAT	6212 US	02 OCT 72	AFWTR	EARTH ORE
1972 076B	RADSAT	6217 US	02 OCT 72	AFWTR	EARTH ORE
1972 077A	COSMOS 522	6219 USSR	04 OCT 72	PLMSC	17 OCT 72
1972 078A	COSMOS 523	6222 USSR	05 OCT 72	PLMSC	07 MAR 73
1972 079A	KH 9-04	6227 US	10 OCT 72	AFWTR	08 JAN 73
1972 079C	KH 9-04 SUBSATELLITE	6822 US	10 OCT 72	AFWTR	EARTH ORE
1972 080A	COSMOS 524	6229 USSR	11 OCT 72	PLMSC	25 MAR 73
1972 081A	MOLNIYA 1-21	6231 USSR	14 OCT 72	PLMSC	01 NOV 77
1972 082A	NOAA 2 (ITOS D)	6235 US	15 OCT 72	AFWTR	EARTH ORE
1972 082B	OSCAR 6	6236 US	15 OCT 72	AFWTR	EARTH ORE
1972 083A	COSMOS 525	6248 USSR	18 OCT 72	PLMSC	29 OCT 72
1972 084A	COSMOS 526	6254 USSR	25 OCT 72	PLMSC	08 APR 73
1972 085A	METEOR 1-13	6256 USSR	26 OCT 72	PLMSC	EARTH ORE
1972 086A	COSMOS 527	6260 USSR	31 OCT 72	PLMSC	13 NOV 72
1972 087A	COSMOS 528	6262 USSR	01 NOV 72	PLMSC	EARTH ORE
1972 087B	COSMOS 529	6264 USSR	01 NOV 72	PLMSC	EARTH ORE
1972 087C	COSMOS 530	6265 USSR	01 NOV 72	PLMSC	EARTH ORE
1972 087D	COSMOS 531	6266 USSR	01 NOV 72	PLMSC	EARTH ORE
1972 087E	COSMOS 532	6267 USSR	01 NOV 72	PLMSC	EARTH ORE

## Sheet1

1972 087F	COSMOS 533	6268 USSR	01 NOV 72	PLMSC	EARTH ORE
1972 087G	COSMOS 534	6269 USSR	01 NOV 72	PLMSC	EARTH ORE
1972 087H	COSMOS 535	6270 USSR	01 NOV 72	PLMSC	EARTH ORE
1972 088A	COSMOS 536	6272 USSR	03 NOV 72	PLMSC	20 JUL 80
1972 089A	DMSP B5C-06	6275 US	09 NOV 72	AFWTR	EARTH ORE
1972 090A	ANIK A1 (TELESAT 1)	6278 CANADA	10 NOV 72	AFETR	EARTH ORE
1972 091A	EXPLORER 48 (SAS 2)	6282 US	15 NOV 72	SNMLP	20 AUG 76
1972 092A	ESRO 4	6285 ESRO	22 NOV 72	AFWTR	15 APR 74
1972 093A	COSMOS 537	6287 USSR	25 NOV 72	TYMSC	07 DEC 72
1972 094A	INTERCOSMOS 8	6291 USSR	30 NOV 72	PLMSC	02 MAR 73
1972 095A	MOLNIYA 1-22	6294 USSR	02 DEC 72	TYMSC	11 FEB 76
1972 096A	APOLLO 17	6300 US	07 DEC 72	AFETR	19 DEC 72
1972 096C	APOLLO 17 LUNAR MODULE	6307 US	07 DEC 72	AFETR	15 DEC 72
1972 097A	NIMBUS 5	6305 US	11 DEC 72	AFWTR	EARTH ORE
1972 098A	MOLNIYA 2-04	6308 USSR	12 DEC 72	PLMSC	22 JAN 75
1972 099A	COSMOS 538	6311 USSR	14 DEC 72	PLMSC	27 DEC 72
1972 100A	AEROS 1 (GRS B)	6315 FRG	16 DEC 72	AFWTR	22 AUG 73
1972 101A	BMEWS 5	6317 US	20 DEC 72	AFETR	CENM
1972 102A	COSMOS 539	6319 USSR	21 DEC 72	PLMSC	EARTH ORE
1972 103A	KH 8-36	6321 US	21 DEC 72	AFWTR	23 JAN 73
1972 104A	COSMOS 540	6323 USSR	25 DEC 72	PLMSC	EARTH ORE
1972 105A	COSMOS 541	6326 USSR	27 DEC 72	PLMSC	08 JAN 73
1972 106A	COSMOS 542	6328 USSR	28 DEC 72	PLMSC	09 OCT 83
1973 001A	LUNA 21	6333 USSR	08 JAN 73	TYMSC	15 JAN 73
1973 002A	COSMOS 543	6339 USSR	11 JAN 73	TYMSC	24 JAN 73
1973 003A	COSMOS 544	6343 USSR	20 JAN 73	PLMSC	15 JUN 80
1973 004A	COSMOS 545	6348 USSR	24 JAN 73	PLMSC	31 JUL 73
1973 005A	COSMOS 546	6350 USSR	26 JAN 73	KYMSC	EARTH ORE
1973 006A	COSMOS 547	6353 USSR	01 FEB 73	TYMSC	13 FEB 73
1973 007A	MOLNIYA 1-23	6356 USSR	03 FEB 73	TYMSC	23 OCT 77
1973 008A	COSMOS 548	6359 USSR	08 FEB 73	PLMSC	21 FEB 73
1973 009A	PROGNOZ 3	6364 USSR	15 FEB 73	TYMSC	CENM
1973 010A	COSMOS 549	6373 USSR	28 FEB 73	PLMSC	29 JUN 80
1973 011A	COSMOS 550	6376 USSR	01 MAR 73	PLMSC	11 MAR 73
1973 012A	COSMOS 551	6378 USSR	06 MAR 73	TYMSC	20 MAR 73
1973 013A	BMEWS 6 (RHYOLITE 1)	6380 US	06 MAR 73	AFETR	ELNA
1973 014A	KH 9-05	6382 US	09 MAR 73	AFWTR	17 MAY 73
1973 015A	METEOR 1-14	6392 USSR	20 MAR 73	PLMSC	EARTH ORE
1973 016A	COSMOS 552	6394 USSR	22 MAR 73	PLMSC	03 APR 73
1973 017A	SALYUT 2	6398 USSR	03 APR 73	TYMSC	28 MAY 73
1973 018A	MOLNIYA 2-05	6418 USSR	05 APR 73	PLMSC	06 JAN 79
1973 019A	PIONEER 11	6421 US	06 APR 73	AFETR	SS ESCAPE
1973 020A	COSMOS 553	6427 USSR	12 APR 73	PLMSC	11 NOV 73
1973 021A	COSMOS 554	6432 USSR	19 APR 73	PLMSC	27 MAY 73
1973 022A	INTERCOSMOS 9	6433 USSR	19 APR 73	KYMSC	15 OCT 73
1973 023A	ANIK A2 (TELESAT 2)	6437 CANADA	20 APR 73	AFETR	EARTH ORE
1973 024A	COSMOS 555	6440 USSR	25 APR 73	PLMSC	07 MAY 73
1973 025A	COSMOS 556	6446 USSR	05 MAY 73	PLMSC	14 MAY 73
1973 026A	COSMOS 557	6498 USSR	11 MAY 73	TYMSC	22 MAY 73

## Sheet1

1973 027A	SKYLAB 1	6633 US	14 MAY 73	AFETR	11 JUL 79
1973 028A	KH 8-37	6640 US	16 MAY 73	AFWTR	13 JUN 73
1973 029A	COSMOS 558	6645 USSR	17 MAY 73	PLMSC	22 DEC 73
1973 030A	COSMOS 559	6647 USSR	18 MAY 73	PLMSC	23 MAY 73
1973 031A	COSMOS 560	6652 USSR	23 MAY 73	PLMSC	05 JUN 73
1973 032A	SKYLAB 2	6655 US	25 MAY 73	AFETR	22 JUN 73
1973 033A	COSMOS 561	6657 USSR	25 MAY 73	PLMSC	06 JUN 73
1973 034A	METEOR 1-15	6659 USSR	29 MAY 73	PLMSC	EARTH ORE
1973 035A	COSMOS 562	6665 USSR	05 JUN 73	PLMSC	07 JAN 74
1973 036A	COSMOS 563	6667 USSR	06 JUN 73	PLMSC	18 JUN 73
1973 037A	COSMOS 564	6675 USSR	08 JUN 73	PLMSC	EARTH ORE
1973 037B	COSMOS 565	6676 USSR	08 JUN 73	PLMSC	EARTH ORE
1973 037C	COSMOS 566	6677 USSR	08 JUN 73	PLMSC	EARTH ORE
1973 037D	COSMOS 567	6678 USSR	08 JUN 73	PLMSC	EARTH ORE
1973 037E	COSMOS 568	6679 USSR	08 JUN 73	PLMSC	EARTH ORE
1973 037F	COSMOS 569	6680 USSR	08 JUN 73	PLMSC	EARTH ORE
1973 037G	COSMOS 570	6681 USSR	08 JUN 73	PLMSC	EARTH ORE
1973 037H	COSMOS 571	6682 USSR	08 JUN 73	PLMSC	EARTH ORE
1973 038A	COSMOS 572	6684 USSR	10 JUN 73	TYMSC	23 JUN 73
1973 039A	EXPLORER 49 (RAE 2)	6686 US	10 JUN 73	AFETR	LUNAR ORE
1973 040A	IMEWS 4	6691 US	12 JUN 73	AFETR	ELNA
1973 041A	COSMOS 573	6694 USSR	15 JUN 73	TYMSC	17 JUN 73
1973 042A	COSMOS 574	6707 USSR	20 JUN 73	PLMSC	EARTH ORE
1973 043A	COSMOS 575	6709 USSR	21 JUN 73	PLMSC	03 JUL 73
1973 044A	COSMOS 576	6713 USSR	27 JUN 73	PLMSC	09 JUL 73
1973 045A	MOLNIYA 2-06	6722 USSR	11 JUL 73	PLMSC	05 AUG 78
1973 046A	KH 9-06	6727 US	13 JUL 73	AFWTR	12 OCT 73
1973 047A	MARS 4	6742 USSR	21 JUL 73	TYMSC	SOLAR ORE
1973 048A	COSMOS 577	6745 USSR	25 JUL 73	PLMSC	07 AUG 73
1973 049A	MARS 5	6754 USSR	25 JUL 73	TYMSC	MARS ORB
1973 050A	SKYLAB 3	6757 US	28 JUL 73	AFETR	25 SEP 73
1973 051A	COSMOS 578	6759 USSR	01 AUG 73	PLMSC	13 AUG 73
1973 052A	MARS 6	6768 USSR	05 AUG 73	TYMSC	MARS ORB
1973 052D	MARS 6 DESCENT CRAFT	7223 USSR	05 AUG 73	TYMSC	12 MAR 74
1973 053A	MARS 7	6776 USSR	09 AUG 73	TYMSC	SOLAR ORE
1973 053D	MARS 7 DESCENT CRAFT	7224 USSR	09 AUG 73	TYMSC	SOLAR ORE
1973 054A	DMSB B5C-07	6787 US	17 AUG 73	AFWTR	EARTH ORE
1973 055A	COSMOS 579	6789 USSR	21 AUG 73	PLMSC	03 SEP 73
1973 056A	SDS 2	6791 US	21 AUG 73	AFWTR	ELNA
1973 057A	COSMOS 580	6793 USSR	22 AUG 73	PLMSC	01 APR 74
1973 058A	INTELSAT 4 F-7	6796 ITSO	23 AUG 73	AFETR	EARTH ORE
1973 059A	COSMOS 581	6798 USSR	24 AUG 73	TYMSC	06 SEP 73
1973 060A	COSMOS 582	6802 USSR	28 AUG 73	PLMSC	05 SEP 80
1973 061A	MOLNIYA 1-24	6805 USSR	30 AUG 73	PLMSC	05 DEC 79
1973 062A	COSMOS 583	6809 USSR	30 AUG 73	TYMSC	12 SEP 73
1973 063A	COSMOS 584	6818 USSR	06 SEP 73	PLMSC	20 SEP 73
1973 064A	COSMOS 585	6825 USSR	08 SEP 73	PLMSC	EARTH ORE
1973 065A	COSMOS 586	6828 USSR	14 SEP 73	PLMSC	EARTH ORE
1973 066A	COSMOS 587	6832 USSR	21 SEP 73	PLMSC	04 OCT 73



## Sheet1

1973 067A	SOYUZ 12	6836 USSR	27 SEP 73	TYMSC	29 SEP 73
1973 068A	KH 8-38	6837 US	27 SEP 73	AFWTR	29 OCT 73
1973 069A	COSMOS 588	6845 USSR	02 OCT 73	PLMSC	EARTH ORE
1973 069B	COSMOS 589	6846 USSR	02 OCT 73	PLMSC	EARTH ORE
1973 069C	COSMOS 590	6847 USSR	02 OCT 73	PLMSC	EARTH ORE
1973 069D	COSMOS 591	6848 USSR	02 OCT 73	PLMSC	EARTH ORE
1973 069E	COSMOS 592	6849 USSR	02 OCT 73	PLMSC	EARTH ORE
1973 069F	COSMOS 593	6850 USSR	02 OCT 73	PLMSC	EARTH ORE
1973 069G	COSMOS 594	6851 USSR	02 OCT 73	PLMSC	EARTH ORE
1973 069H	COSMOS 595	6852 USSR	02 OCT 73	PLMSC	EARTH ORE
1973 070A	COSMOS 596	6856 USSR	03 OCT 73	PLMSC	09 OCT 73
1973 071A	COSMOS 597	6858 USSR	06 OCT 73	PLMSC	12 OCT 73
1973 072A	COSMOS 598	6862 USSR	10 OCT 73	PLMSC	16 OCT 73
1973 073A	COSMOS 599	6867 USSR	15 OCT 73	TYMSC	28 OCT 73
1973 074A	COSMOS 600	6873 USSR	16 OCT 73	PLMSC	23 OCT 73
1973 075A	COSMOS 601	6875 USSR	16 OCT 73	PLMSC	15 AUG 74
1973 076A	MOLNIYA 2-07	6877 USSR	19 OCT 73	PLMSC	08 JUL 83
1973 077A	COSMOS 602	6885 USSR	20 OCT 73	PLMSC	29 OCT 73
1973 078A	EXPLORER 50 (IMP 10)	6893 US	26 OCT 73	AFETR	CENM
1973 079A	COSMOS 603	6900 USSR	27 OCT 73	PLMSC	09 NOV 73
1973 080A	COSMOS 604	6907 USSR	29 OCT 73	PLMSC	19 JAN 92
1973 081A	NNSS 20	6909 US	30 OCT 73	AFWTR	EARTH ORE
1973 082A	INTERCOSMOS 10	6911 USSR	30 OCT 73	PLMSC	01 JUL 77
1973 083A	COSMOS 605	6913 USSR	31 OCT 73	PLMSC	22 NOV 73
1973 084A	COSMOS 606	6916 USSR	02 NOV 73	PLMSC	EARTH ORE
1973 085A	MARINER 10	6919 US	03 NOV 73	AFETR	SOLAR ORE
1973 086A	NOAA 3 (ITOS F)	6920 US	06 NOV 73	AFWTR	EARTH ORE
1973 087A	COSMOS 607	6926 USSR	10 NOV 73	PLMSC	22 NOV 73
1973 088A	KH 9-07	6928 US	10 NOV 73	AFWTR	13 MAR 74
1973 088C	UNIDENTIFIED	6931 US	10 NOV 73	AFWTR	26 DEC 78
1973 088D	KH 9-07 SUBSATELLITE	6938 US	10 NOV 73	AFWTR	EARTH ORE
1973 089A	MOLNIYA 1-25	6932 USSR	14 NOV 73	TYMSC	26 MAY 79
1973 090A	SKYLAB 4	6936 US	16 NOV 73	AFETR	08 FEB 74
1973 091A	COSMOS 608	6941 USSR	20 NOV 73	PLMSC	10 JUL 74
1973 092A	COSMOS 609	6943 USSR	21 NOV 73	TYMSC	04 DEC 73
1973 093A	COSMOS 610	6950 USSR	27 NOV 73	PLMSC	15 SEP 80
1973 094A	COSMOS 611	6952 USSR	28 NOV 73	PLMSC	19 JUN 74
1973 095A	COSMOS 612	6953 USSR	28 NOV 73	PLMSC	11 DEC 73
1973 096A	COSMOS 613	6957 USSR	30 NOV 73	TYMSC	29 JAN 74
1973 097A	MOLNIYA 1-26	6958 USSR	30 NOV 73	PLMSC	09 JUN 85
1973 098A	COSMOS 614	6965 USSR	04 DEC 73	PLMSC	EARTH ORE
1973 099A	COSMOS 615	6971 USSR	13 DEC 73	PLMSC	17 DEC 75
1973 100A	DSCS II-03	6973 US	13 DEC 73	AFETR	EARTH ORE
1973 100B	DSCS II-04	6974 US	13 DEC 73	AFETR	EARTH ORE
1973 101A	EXPLORER 51 (AE C)	6977 US	16 DEC 73	AFWTR	12 DEC 78
1973 102A	COSMOS 616	6979 USSR	17 DEC 73	PLMSC	28 DEC 73
1973 103A	SOYUZ 13	6982 USSR	18 DEC 73	TYMSC	26 DEC 73
1973 104A	COSMOS 617	6985 USSR	19 DEC 73	PLMSC	EARTH ORE
1973 104B	COSMOS 618	6986 USSR	19 DEC 73	PLMSC	EARTH ORE

## Sheet1

1973 104C	COSMOS 619	6987 USSR	19 DEC 73	PLMSC	EARTH ORE
1973 104D	COSMOS 620	6988 USSR	19 DEC 73	PLMSC	EARTH ORE
1973 104E	COSMOS 621	6989 USSR	19 DEC 73	PLMSC	EARTH ORE
1973 104F	COSMOS 622	6990 USSR	19 DEC 73	PLMSC	EARTH ORE
1973 104G	COSMOS 623	6991 USSR	19 DEC 73	PLMSC	EARTH ORE
1973 104H	COSMOS 624	6992 USSR	19 DEC 73	PLMSC	EARTH ORE
1973 105A	COSMOS 625	6995 USSR	21 DEC 73	PLMSC	03 JAN 74
1973 106A	MOLNIYA 2-08	7000 USSR	25 DEC 73	PLMSC	24 NOV 84
1973 107A	AUREOLE 2	7003 FRANCE	26 DEC 73	PLMSC	EARTH ORE
1973 108A	COSMOS 626	7005 USSR	27 DEC 73	TYMSC	EARTH ORE
1973 109A	COSMOS 627	7008 USSR	29 DEC 73	PLMSC	EARTH ORE
1974 001A	COSMOS 628	7094 USSR	17 JAN 74	PLMSC	EARTH ORE
1974 002A	SKYNET 2A	7096 UK	19 JAN 74	AFETR	25 JAN 74
1974 003A	COSMOS 629	7100 USSR	24 JAN 74	PLMSC	05 FEB 74
1974 004A	COSMOS 630	7104 USSR	30 JAN 74	PLMSC	13 FEB 74
1974 005A	COSMOS 631	7109 USSR	06 FEB 74	PLMSC	03 OCT 80
1974 006A	COSMOS 632	7117 USSR	12 FEB 74	TYMSC	26 FEB 74
1974 007A	KH 8-39	7121 US	13 FEB 74	AFWTR	17 MAR 74
1974 008A	TANSEI 2	7122 JAPAN	16 FEB 74	KSCUT	22 JAN 83
1974 009A	SAN MARCO 4	7154 ITALY	18 FEB 74	SNMLP	04 MAY 76
1974 010A	COSMOS 633	7187 USSR	27 FEB 74	PLMSC	04 OCT 74
1974 011A	METEOR 1-16	7209 USSR	05 MAR 74	PLMSC	EARTH ORE
1974 012A	COSMOS 634	7211 USSR	05 MAR 74	PLMSC	09 OCT 74
1974 013A	MIRANDA (X-4)	7213 UK	09 MAR 74	AFWTR	EARTH ORE
1974 014A	COSMOS 635	7216 USSR	14 MAR 74	PLMSC	26 MAR 74
1974 015A	DMSB B5C-08	7218 US	16 MAR 74	AFWTR	EARTH ORE
1974 016A	COSMOS 636	7225 USSR	20 MAR 74	TYMSC	03 APR 74
1974 017A	COSMOS 637	7229 USSR	26 MAR 74	TYMSC	EARTH ORE
1974 018A	COSMOS 638	7234 USSR	03 APR 74	TYMSC	13 APR 74
1974 019A	COSMOS 639	7240 USSR	04 APR 74	PLMSC	15 APR 74
1974 020A	KH 9-08	7242 US	10 APR 74	AFWTR	28 JUL 74
1974 020B	KH 9-08 CAPSULE	7244 US	10 APR 74	AFWTR	ELNA
1974 020C	KH 9-08 CAPSULE	7247 US	10 APR 74	AFWTR	22 FEB 80
1974 021A	COSMOS 640	7245 USSR	11 APR 74	PLMSC	23 APR 74
1974 022A	WESTAR 1	7250 US	13 APR 74	AFETR	EARTH ORE
1974 023A	MOLNIYA 1-27	7260 USSR	20 APR 74	PLMSC	17 NOV 83
1974 024A	COSMOS 641	7265 USSR	23 APR 74	PLMSC	EARTH ORE
1974 024B	COSMOS 642	7266 USSR	23 APR 74	PLMSC	EARTH ORE
1974 024C	COSMOS 643	7267 USSR	23 APR 74	PLMSC	EARTH ORE
1974 024D	COSMOS 644	7268 USSR	23 APR 74	PLMSC	EARTH ORE
1974 024E	COSMOS 645	7269 USSR	23 APR 74	PLMSC	EARTH ORE
1974 024F	COSMOS 646	7270 USSR	23 APR 74	PLMSC	EARTH ORE
1974 024G	COSMOS 647	7271 USSR	23 APR 74	PLMSC	EARTH ORE
1974 024H	COSMOS 648	7272 USSR	23 APR 74	PLMSC	EARTH ORE
1974 025A	METEOR 1-17	7274 USSR	24 APR 74	PLMSC	EARTH ORE
1974 026A	MOLNIYA 2-09	7276 USSR	26 APR 74	PLMSC	EARTH ORE
1974 027A	COSMOS 649	7280 USSR	29 APR 74	PLMSC	11 MAY 74
1974 028A	COSMOS 650	7281 USSR	29 APR 74	PLMSC	EARTH ORE
1974 029A	COSMOS 651	7291 USSR	15 MAY 74	TYMSC	EARTH ORE

## Sheet1

1974 030A	COSMOS 652	7292 USSR	15 MAY 74	TYMSC	23 MAY 74
1974 031A	COSMOS 653	7293 USSR	15 MAY 74	PLMSC	27 MAY 74
1974 032A	COSMOS 654	7297 USSR	17 MAY 74	TYMSC	EARTH ORE
1974 033A	SMS 1	7298 US	17 MAY 74	AFETR	EARTH ORE
1974 034A	INTERCOSMOS 11	7299 USSR	17 MAY 74	KYMSC	06 SEP 79
1974 035A	COSMOS 655	7306 USSR	21 MAY 74	PLMSC	19 NOV 80
1974 036A	COSMOS 656	7313 USSR	27 MAY 74	TYMSC	29 MAY 74
1974 037A	LUNA 22	7315 USSR	29 MAY 74	TYMSC	LUNAR ORE
1974 038A	COSMOS 657	7317 USSR	30 MAY 74	PLMSC	13 JUN 74
1974 039A	ATS 6	7318 US	30 MAY 74	AFETR	EARTH ORE
1974 040A	EXPLORER 52 (HAWKEYE)	7325 US	03 JUN 74	AFWTR	30 APR 78
1974 041A	COSMOS 658	7328 USSR	06 JUN 74	TYMSC	18 JUN 74
1974 042A	KH 8-40	7330 US	06 JUN 74	AFWTR	25 AUG 74
1974 043A	COSMOS 659	7334 USSR	13 JUN 74	PLMSC	26 JUN 74
1974 044A	COSMOS 660	7337 USSR	18 JUN 74	PLMSC	EARTH ORE
1974 045A	COSMOS 661	7339 USSR	21 JUN 74	PLMSC	27 AUG 80
1974 046A	SALYUT 3	7342 USSR	24 JUN 74	TYMSC	24 JAN 75
1974 047A	COSMOS 662	7347 USSR	26 JUN 74	PLMSC	28 AUG 76
1974 048A	COSMOS 663	7349 USSR	27 JUN 74	PLMSC	EARTH ORE
1974 049A	COSMOS 664	7351 USSR	29 JUN 74	PLMSC	11 JUL 74
1974 050A	COSMOS 665	7352 USSR	29 JUN 74	PLMSC	06 JUL 90
1974 051A	SOYUZ 14	7361 USSR	03 JUL 74	TYMSC	19 JUL 74
1974 052A	METEOR 1-18	7363 USSR	09 JUL 74	PLMSC	EARTH ORE
1974 053A	COSMOS 666	7367 USSR	12 JUL 74	PLMSC	25 JUL 74
1974 054A	NTS 1 (TIMATION 3)	7369 US	14 JUL 74	AFWTR	EARTH ORE
1974 055A	AEROS 2	7371 FRG	16 JUL 74	AFWTR	25 SEP 75
1974 056A	MOLNIYA 2-10	7376 USSR	23 JUL 74	PLMSC	EARTH ORE
1974 057A	COSMOS 667	7383 USSR	25 JUL 74	TYMSC	07 AUG 74
1974 058A	COSMOS 668	7385 USSR	25 JUL 74	PLMSC	21 FEB 75
1974 059A	COSMOS 669	7389 USSR	26 JUL 74	PLMSC	08 AUG 74
1974 060A	MOLNIYA 1-S	7392 USSR	29 JUL 74	TYMSC	EARTH ORE
1974 061A	COSMOS 670	7405 USSR	06 AUG 74	TYMSC	09 AUG 74
1974 062A	COSMOS 671	7409 USSR	07 AUG 74	PLMSC	20 AUG 74
1974 063A	DMSB B5C-09	7411 US	09 AUG 74	AFWTR	EARTH ORE
1974 064A	COSMOS 672	7413 USSR	12 AUG 74	TYMSC	18 AUG 74
1974 065A	KH 8-41	7416 US	14 AUG 74	AFWTR	29 SEP 74
1974 066A	COSMOS 673	7417 USSR	16 AUG 74	PLMSC	01 JUN 91
1974 067A	SOYUZ 15	7421 USSR	26 AUG 74	TYMSC	28 AUG 74
1974 068A	COSMOS 674	7423 USSR	29 AUG 74	TYMSC	07 SEP 74
1974 069A	COSMOS 675	7424 USSR	29 AUG 74	PLMSC	EARTH ORE
1974 070A	ANS 1	7427 NETH	30 AUG 74	AFWTR	14 JUN 77
1974 071A	COSMOS 676	7433 USSR	11 SEP 74	PLMSC	EARTH ORE
1974 072A	COSMOS 677	7435 USSR	19 SEP 74	PLMSC	EARTH ORE
1974 072B	COSMOS 678	7436 USSR	19 SEP 74	PLMSC	EARTH ORE
1974 072C	COSMOS 679	7437 USSR	19 SEP 74	PLMSC	EARTH ORE
1974 072D	COSMOS 680	7438 USSR	19 SEP 74	PLMSC	EARTH ORE
1974 072E	COSMOS 681	7439 USSR	19 SEP 74	PLMSC	EARTH ORE
1974 072F	COSMOS 682	7440 USSR	19 SEP 74	PLMSC	EARTH ORE
1974 072G	COSMOS 683	7441 USSR	19 SEP 74	PLMSC	EARTH ORE

## Sheet1

1974 072H	COSMOS 684	7442 USSR	19 SEP 74	PLMSC	EARTH ORE
1974 073A	COSMOS 685	7445 USSR	20 SEP 74	TYMSC	02 OCT 74
1974 074A	COSMOS 686	7447 USSR	26 SEP 74	PLMSC	01 MAY 75
1974 075A	WESTAR 2	7466 US	10 OCT 74	AFETR	EARTH ORE
1974 076A	COSMOS 687	7469 USSR	11 OCT 74	PLMSC	05 FEB 78
1974 077A	ARIEL 5 (UK 5)	7471 UK	15 OCT 74	SNMLP	14 MAR 80
1974 078A	COSMOS 688	7473 USSR	18 OCT 74	PLMSC	30 OCT 74
1974 079A	COSMOS 689	7476 USSR	18 OCT 74	PLMSC	EARTH ORE
1974 080A	COSMOS 690	7478 USSR	22 OCT 74	PLMSC	12 NOV 74
1974 081A	MOLNIYA 1-28	7480 USSR	24 OCT 74	PLMSC	29 DEC 85
1974 082A	COSMOS 691	7483 USSR	25 OCT 74	TYMSC	06 NOV 74
1974 083A	METEOR 1-19	7490 USSR	28 OCT 74	PLMSC	EARTH ORE
1974 084A	LUNA 23	7491 USSR	28 OCT 74	TYMSC	06 NOV 74
1974 085A	KH 9-09	7495 US	29 OCT 74	AFWTR	18 MAR 75
1974 085B	KH 9-09 SUBSATELLITE	7498 US	29 OCT 74	AFWTR	23 JAN 80
1974 085C	SESP 73-5	7499 US	29 OCT 74	AFWTR	26 MAY 75
1974 086A	INTERCOSMOS 12	7500 USSR	31 OCT 74	PLMSC	11 JUL 75
1974 087A	COSMOS 692	7502 USSR	01 NOV 74	PLMSC	13 NOV 74
1974 088A	COSMOS 693	7509 USSR	04 NOV 74	PLMSC	16 NOV 74
1974 089A	NOAA 4 (ITOS G)	7529 US	15 NOV 74	AFWTR	EARTH ORE
1974 089B	OSCAR 7	7530 US	15 NOV 74	AFWTR	EARTH ORE
1974 089C	INTASAT 1	7531 SPAIN	15 NOV 74	AFWTR	EARTH ORE
1974 090A	COSMOS 694	7533 USSR	16 NOV 74	PLMSC	29 NOV 74
1974 091A	COSMOS 695	7538 USSR	20 NOV 74	PLMSC	15 JUL 75
1974 092A	MOLNIYA 3-01	7540 USSR	21 NOV 74	PLMSC	15 MAY 86
1974 093A	INTELSAT 4 F-8	7544 ITSO	21 NOV 74	AFETR	EARTH ORE
1974 094A	SKYNET 2B	7547 UK	23 NOV 74	AFETR	EARTH ORE
1974 095A	COSMOS 696	7551 USSR	27 NOV 74	PLMSC	09 DEC 74
1974 096A	SOYUZ 16	7561 USSR	02 DEC 74	TYMSC	08 DEC 74
1974 097A	HELIOS 1	7567 FRG	10 DEC 74	AFETR	SOLAR ORE
1974 098A	COSMOS 697	7571 USSR	13 DEC 74	PLMSC	25 DEC 74
1974 099A	METEOR 1-20	7574 USSR	17 DEC 74	PLMSC	EARTH ORE
1974 100A	COSMOS 698	7576 USSR	18 DEC 74	PLMSC	09 DEC 80
1974 101A	SYMPHONIE 1	7578 FR/FRG	19 DEC 74	AFETR	EARTH ORE
1974 102A	MOLNIYA 2-11	7583 USSR	21 DEC 74	PLMSC	07 JUL 88
1974 103A	COSMOS 699	7587 USSR	24 DEC 74	TYMSC	16 OCT 77
1974 104A	SALYUT 4	7591 USSR	26 DEC 74	TYMSC	02 FEB 77
1974 105A	COSMOS 700	7593 USSR	26 DEC 74	PLMSC	EARTH ORE
1974 106A	COSMOS 701	7596 USSR	27 DEC 74	TYMSC	09 JAN 75
1975 001A	SOYUZ 17	7604 USSR	10 JAN 75	TYMSC	09 FEB 75
1975 002A	COSMOS 702	7606 USSR	17 JAN 75	TYMSC	29 JAN 75
1975 003A	COSMOS 703	7611 USSR	21 JAN 75	PLMSC	20 NOV 75
1975 004A	LANDSAT 2 (ERTS 2)	7615 US	22 JAN 75	AFWTR	EARTH ORE
1975 005A	COSMOS 704	7617 USSR	23 JAN 75	PLMSC	06 FEB 75
1975 006A	COSMOS 705	7623 USSR	28 JAN 75	PLMSC	18 NOV 75
1975 007A	COSMOS 706	7625 USSR	30 JAN 75	PLMSC	EARTH ORE
1975 008A	COSMOS 707	7637 USSR	05 FEB 75	PLMSC	07 SEP 80
1975 009A	MOLNIYA 2-12	7641 USSR	06 FEB 75	PLMSC	04 AUG 85
1975 010A	STARLETTE	7646 FRANCE	06 FEB 75	FRGUI	EARTH ORE

## Sheet1

1975 011A	SMS 2	7648 US	06 FEB 75	AFETR	EARTH ORE
1975 012A	COSMOS 708	7663 USSR	12 FEB 75	PLMSC	EARTH ORE
1975 013A	COSMOS 709	7664 USSR	12 FEB 75	PLMSC	25 FEB 75
1975 014A	SS-03/TAIYO (SRATS)	7671 JAPAN	24 FEB 75	KSCUT	29 JUN 80
1975 015A	COSMOS 710	7675 USSR	26 FEB 75	TYMSC	12 MAR 75
1975 016A	COSMOS 711	7678 USSR	28 FEB 75	PLMSC	EARTH ORE
1975 016B	COSMOS 712	7679 USSR	28 FEB 75	PLMSC	EARTH ORE
1975 016C	COSMOS 713	7680 USSR	28 FEB 75	PLMSC	EARTH ORE
1975 016D	COSMOS 714	7681 USSR	28 FEB 75	PLMSC	EARTH ORE
1975 016E	COSMOS 715	7682 USSR	28 FEB 75	PLMSC	EARTH ORE
1975 016F	COSMOS 716	7683 USSR	28 FEB 75	PLMSC	EARTH ORE
1975 016G	COSMOS 717	7684 USSR	28 FEB 75	PLMSC	EARTH ORE
1975 016H	COSMOS 718	7685 USSR	28 FEB 75	PLMSC	EARTH ORE
1975 017A	SDS ??	7687 US	10 MAR 75	AFWTR	ELNA
1975 018A	COSMOS 719	7691 USSR	12 MAR 75	TYMSC	25 MAR 75
1975 019A	COSMOS 720	7696 USSR	21 MAR 75	PLMSC	01 APR 75
1975 020A	COSMOS 721	7705 USSR	26 MAR 75	PLMSC	07 APR 75
1975 021A	COSMOS 722	7709 USSR	27 MAR 75	TYMSC	09 APR 75
1975 022A	INTERCOSMOS 13	7710 USSR	27 MAR 75	PLMSC	02 SEP 80
1975 023A	METEOR 1-21	7714 USSR	01 APR 75	PLMSC	EARTH ORE
1975 024A	COSMOS 723	7718 USSR	02 APR 75	TYMSC	EARTH ORE
1975 025A	COSMOS 724	7727 USSR	07 APR 75	TYMSC	EARTH ORE
1975 026A	COSMOS 725	7730 USSR	08 APR 75	PLMSC	06 JAN 76
1975 027A	GEOS 3	7734 US	09 APR 75	AFWTR	EARTH ORE
1975 028A	COSMOS 726	7736 USSR	11 APR 75	PLMSC	EARTH ORE
1975 029A	MOLNIYA 3-02	7738 USSR	14 APR 75	PLMSC	29 NOV 88
1975 030A	COSMOS 727	7742 USSR	16 APR 75	TYMSC	28 APR 75
1975 031A	COSMOS 728	7745 USSR	18 APR 75	PLMSC	29 APR 75
1975 032A	KH 8-42	7747 US	18 APR 75	AFWTR	05 JUN 75
1975 033A	ARYABHATA	7752 INDIA	19 APR 75	KYMSC	11 FEB 92
1975 034A	COSMOS 729	7768 USSR	22 APR 75	PLMSC	EARTH ORE
1975 035A	COSMOS 730	7770 USSR	24 APR 75	PLMSC	06 MAY 75
1975 036A	MOLNIYA 1-29	7780 USSR	29 APR 75	PLMSC	EARTH ORE
1975 037A	EXPLORER 53 (SAS 3)	7788 US	07 MAY 75	SNMLP	09 APR 79
1975 038A	ANIK A3 (TELESAT 3)	7790 CANADA	07 MAY 75	AFETR	EARTH ORE
1975 039A	D-5A/POLLUX	7801 FRANCE	17 MAY 75	FRGUI	05 AUG 75
1975 039B	D-5B/CASTOR	7802 FRANCE	17 MAY 75	FRGUI	18 FEB 79
1975 040A	DSCS II-05	7807 US	20 MAY 75	AFETR	26 MAY 75
1975 040B	DSCS II-06	7808 US	20 MAY 75	AFETR	26 MAY 75
1975 041A	COSMOS 731	7810 USSR	21 MAY 75	TYMSC	02 JUN 75
1975 042A	INTELSAT 4 F-1	7815 ITSO	22 MAY 75	AFETR	EARTH ORE
1975 043A	DMSP B5C-10	7816 US	24 MAY 75	AFWTR	ELNA
1975 044A	SOYUZ 18B	7818 USSR	24 MAY 75	TYMSC	26 JUL 75
1975 045A	COSMOS 732	7820 USSR	28 MAY 75	PLMSC	EARTH ORE
1975 045B	COSMOS 733	7822 USSR	28 MAY 75	PLMSC	EARTH ORE
1975 045C	COSMOS 734	7823 USSR	28 MAY 75	PLMSC	EARTH ORE
1975 045D	COSMOS 735	7824 USSR	28 MAY 75	PLMSC	EARTH ORE
1975 045E	COSMOS 736	7825 USSR	28 MAY 75	PLMSC	EARTH ORE
1975 045F	COSMOS 737	7826 USSR	28 MAY 75	PLMSC	EARTH ORE

## Sheet1

1975 045G	COSMOS 738	7827 USSR	28 MAY 75	PLMSC	EARTH ORE
1975 045H	COSMOS 739	7828 USSR	28 MAY 75	PLMSC	EARTH ORE
1975 046A	COSMOS 740	7821 USSR	28 MAY 75	TYMSC	10 JUN 75
1975 047A	COSMOS 741	7877 USSR	30 MAY 75	PLMSC	11 JUN 75
1975 048A	COSMOS 742	7900 USSR	03 JUN 75	PLMSC	15 JUN 75
1975 049A	MOLNIYA 1-30	7903 USSR	05 JUN 75	PLMSC	12 AUG 87
1975 049B	SRET 2	7910 FRANCE	05 JUN 75	PLMSC	CENM
1975 050A	VENERA 9	7915 USSR	08 JUN 75	TYMSC	VENUS ORE
1975 050D	VENERA 9 DESCENT CRAFT	8411 USSR	08 JUN 75	TYMSC	22 OCT 75
1975 051A	KH 9-10	7918 US	08 JUN 75	AFWTR	05 NOV 75
1975 051C	SSU A	7937 US	08 JUN 75	AFWTR	EARTH ORE
1975 052A	NIMBUS 6	7924 US	12 JUN 75	AFWTR	EARTH ORE
1975 053A	COSMOS 743	7925 USSR	12 JUN 75	PLMSC	25 JUN 75
1975 054A	VENERA 10	7947 USSR	14 JUN 75	TYMSC	VENUS ORE
1975 054D	VENERA 10 DESCENT CRAFT	8423 USSR	14 JUN 75	TYMSC	25 OCT 75
1975 055A	UNIDENTIFIED	7963 US	18 JUN 75	AFETR	ELNA
1975 056A	COSMOS 744	7968 USSR	20 JUN 75	PLMSC	12 OCT 91
1975 057A	OSO 8	7970 US	21 JUN 75	AFETR	09 JUL 86
1975 058A	COSMOS 745	7982 USSR	24 JUN 75	PLMSC	12 MAR 76
1975 059A	COSMOS 746	7985 USSR	25 JUN 75	PLMSC	08 JUL 75
1975 060A	COSMOS 747	7990 USSR	27 JUN 75	PLMSC	09 JUL 75
1975 061A	COSMOS 748	8006 USSR	03 JUL 75	PLMSC	16 JUL 75
1975 062A	COSMOS 749	8009 USSR	04 JUL 75	PLMSC	26 SEP 80
1975 063A	MOLNIYA 2-13	8015 USSR	08 JUL 75	PLMSC	EARTH ORE
1975 064A	METEOR 2-01	8026 USSR	11 JUL 75	PLMSC	EARTH ORE
1975 065A	SOYUZ 19 (ASTP)	8030 USSR	15 JUL 75	TYMSC	21 JUL 75
1975 066A	APOLLO 18 (ASTP)	8032 US	15 JUL 75	AFETR	24 JUL 75
1975 067A	COSMOS 750	8036 USSR	17 JUL 75	PLMSC	29 SEP 77
1975 068A	COSMOS 751	8040 USSR	23 JUL 75	PLMSC	04 AUG 75
1975 069A	COSMOS 752	8043 USSR	24 JUL 75	PLMSC	28 FEB 81
1975 070A	MAO 3	8053 PRC	26 JUL 75	SCMTR	14 SEP 75
1975 071A	COSMOS 753	8059 USSR	31 JUL 75	PLMSC	13 AUG 75
1975 072A	COS B	8062 ESA	09 AUG 75	AFWTR	CENM
1975 073A	COSMOS 754	8069 USSR	13 AUG 75	TYMSC	26 AUG 75
1975 074A	COSMOS 755	8072 USSR	14 AUG 75	PLMSC	EARTH ORE
1975 075A	VIKING 1 ORBITER	8108 US	20 AUG 75	AFETR	MARS ORB
1975 075C	VIKING 1 LANDER	9024 US	20 AUG 75	AFETR	20 JUL 76
1975 076A	COSMOS 756	8127 USSR	22 AUG 75	PLMSC	05 NOV 92
1975 077A	SYMPHONIE 2	8132 FR/FRG	27 AUG 75	AFETR	EARTH ORE
1975 078A	COSMOS 757	8147 USSR	27 AUG 75	PLMSC	09 SEP 75
1975 079A	MOLNIYA 1-31	8187 USSR	02 SEP 75	PLMSC	19 NOV 85
1975 080A	COSMOS 758	8191 USSR	05 SEP 75	PLMSC	25 SEP 75
1975 081A	MOLNIYA 2-14	8195 USSR	09 SEP 75	PLMSC	EARTH ORE
1975 082A	KIKU 1 (ETS 1)	8197 JAPAN	09 SEP 75	TANSC	EARTH ORE
1975 083A	VIKING 2 ORBITER	8199 US	09 SEP 75	AFETR	MARS ORB
1975 083C	VIKING 2 LANDER	9408 US	09 SEP 75	AFETR	03 SEP 76
1975 084A	COSMOS 759	8275 USSR	12 SEP 75	PLMSC	23 SEP 75
1975 085A	COSMOS 760	8281 USSR	16 SEP 75	TYMSC	30 SEP 75
1975 086A	COSMOS 761	8285 USSR	17 SEP 75	PLMSC	EARTH ORE

## Sheet1

1975 086B	COSMOS 762	8286 USSR	17 SEP 75	PLMSC	EARTH ORE
1975 086C	COSMOS 763	8287 USSR	17 SEP 75	PLMSC	EARTH ORE
1975 086D	COSMOS 764	8288 USSR	17 SEP 75	PLMSC	EARTH ORE
1975 086E	COSMOS 765	8289 USSR	17 SEP 75	PLMSC	EARTH ORE
1975 086F	COSMOS 766	8290 USSR	17 SEP 75	PLMSC	EARTH ORE
1975 086G	COSMOS 767	8291 USSR	17 SEP 75	PLMSC	EARTH ORE
1975 086H	COSMOS 768	8292 USSR	17 SEP 75	PLMSC	EARTH ORE
1975 087A	METEOR 1-22	8293 USSR	18 SEP 75	PLMSC	EARTH ORE
1975 088A	COSMOS 769	8322 USSR	23 SEP 75	PLMSC	05 OCT 75
1975 089A	COSMOS 770	8325 USSR	24 SEP 75	PLMSC	EARTH ORE
1975 090A	COSMOS 771	8327 USSR	25 SEP 75	PLMSC	08 OCT 75
1975 091A	INTELSAT 4A F-1	8330 ITSO	26 SEP 75	AFETR	EARTH ORE
1975 092A	D-2B/AURA	8332 FRANCE	27 SEP 75	FRGUI	30 SEP 82
1975 093A	COSMOS 772	8338 USSR	29 SEP 75	TYMSC	02 OCT 75
1975 094A	COSMOS 773	8343 USSR	30 SEP 75	PLMSC	EARTH ORE
1975 095A	COSMOS 774	8345 USSR	01 OCT 75	TYMSC	15 OCT 75
1975 096A	EXPLORER 54 (AE D)	8353 US	06 OCT 75	AFWTR	12 MAR 76
1975 097A	COSMOS 775	8357 USSR	08 OCT 75	TYMSC	EARTH ORE
1975 098A	KH 8-43	8360 US	09 OCT 75	AFWTR	30 NOV 75
1975 099A	TRIAD 2 (TIP 2)	8361 US	12 OCT 75	AFWTR	26 MAY 91
1975 100A	GOES 1 (SMS 3)	8366 US	16 OCT 75	AFETR	EARTH ORE
1975 101A	COSMOS 776	8369 USSR	17 OCT 75	PLMSC	29 OCT 75
1975 102A	COSMOS 777	8416 USSR	29 OCT 75	TYMSC	03 JUN 76
1975 103A	COSMOS 778	8419 USSR	04 NOV 75	PLMSC	EARTH ORE
1975 104A	COSMOS 779	8420 USSR	04 NOV 75	PLMSC	18 NOV 75
1975 105A	MOLNIYA 3-03	8425 USSR	14 NOV 75	PLMSC	EARTH ORE
1975 106A	SOYUZ 20	8430 USSR	17 NOV 75	TYMSC	16 FEB 76
1975 107A	EXPLORER 55 (AE E)	8440 US	20 NOV 75	AFETR	10 JUN 81
1975 108A	COSMOS 780	8442 USSR	21 NOV 75	TYMSC	03 DEC 75
1975 109A	COSMOS 781	8444 USSR	21 NOV 75	PLMSC	26 NOV 80
1975 110A	COSMOS 782	8450 USSR	25 NOV 75	PLMSC	15 DEC 75
1975 111A	MAO 4	8452 PRC	26 NOV 75	SCMTR	29 DEC 75
1975 112A	COSMOS 783	8458 USSR	28 NOV 75	PLMSC	EARTH ORE
1975 113A	COSMOS 784	8463 USSR	03 DEC 75	PLMSC	15 DEC 75
1975 114A	KH 9-11	8467 US	04 DEC 75	AFWTR	01 APR 76
1975 114B	KH 9-11 SUBSATELLITE	8468 US	04 DEC 75	AFWTR	01 MAY 78
1975 115A	INTERCOSMOS 14	8471 USSR	11 DEC 75	PLMSC	27 FEB 83
1975 116A	COSMOS 785	8473 USSR	12 DEC 75	TYMSC	EARTH ORE
1975 117A	RCA SATCOM 1	8476 US	13 DEC 75	AFETR	EARTH ORE
1975 118A	IMEWS 5	8482 US	14 DEC 75	AFETR	ELNA
1975 119A	MAO 5	8488 PRC	16 DEC 75	SCMTR	27 JAN 76
1975 120A	COSMOS 786	8489 USSR	16 DEC 75	TYMSC	29 DEC 75
1975 121A	MOLNIYA 2-15	8492 USSR	17 DEC 75	PLMSC	11 JUN 90
1975 122A	PROGNOZ 4	8510 USSR	22 DEC 75	TYMSC	CENM
1975 123A	RADUGA 1	8513 USSR	22 DEC 75	TYMSC	EARTH ORE
1975 124A	METEOR 1-23	8519 USSR	25 DEC 75	PLMSC	EARTH ORE
1975 125A	MOLNIYA 3-04	8521 USSR	27 DEC 75	PLMSC	12 AUG 86
1976 001A	COSMOS 787	8530 USSR	06 JAN 76	PLMSC	12 DEC 80
1976 002A	COSMOS 788	8551 USSR	07 JAN 76	PLMSC	20 JAN 76

## Sheet1

1976 003A	HELIOS 2	8582 FRG	15 JAN 76	AFETR	SOLAR ORE
1976 004A	CTS 1	8585 CANADA	17 JAN 76	AFETR	EARTH ORE
1976 005A	COSMOS 789	8591 USSR	20 JAN 76	PLMSC	EARTH ORE
1976 006A	MOLNIYA 1-32	8601 USSR	22 JAN 76	TYMSC	EARTH ORE
1976 007A	COSMOS 790	8604 USSR	22 JAN 76	PLMSC	12 NOV 80
1976 008A	COSMOS 791	8607 USSR	28 JAN 76	PLMSC	EARTH ORE
1976 008B	COSMOS 792	8608 USSR	28 JAN 76	PLMSC	EARTH ORE
1976 008C	COSMOS 793	8609 USSR	28 JAN 76	PLMSC	EARTH ORE
1976 008D	COSMOS 794	8610 USSR	28 JAN 76	PLMSC	EARTH ORE
1976 008E	COSMOS 795	8611 USSR	28 JAN 76	PLMSC	EARTH ORE
1976 008F	COSMOS 796	8612 USSR	28 JAN 76	PLMSC	EARTH ORE
1976 008G	COSMOS 797	8613 USSR	28 JAN 76	PLMSC	EARTH ORE
1976 008H	COSMOS 798	8614 USSR	28 JAN 76	PLMSC	EARTH ORE
1976 009A	COSMOS 799	8616 USSR	29 JAN 76	TYMSC	10 FEB 76
1976 010A	INTELSAT 4A F-2	8620 ITSO	29 JAN 76	AFETR	EARTH ORE
1976 011A	COSMOS 800	8645 USSR	03 FEB 76	PLMSC	EARTH ORE
1976 012A	COSMOS 801	8658 USSR	05 FEB 76	PLMSC	05 JAN 78
1976 013A	COSMOS 802	8681 USSR	11 FEB 76	TYMSC	25 FEB 76
1976 014A	COSMOS 803	8688 USSR	12 FEB 76	PLMSC	EARTH ORE
1976 015A	COSMOS 804	8694 USSR	16 FEB 76	TYMSC	16 FEB 76
1976 016A	DMSB B5C-11	8696 US	19 FEB 76	AFWTR	19 FEB 76
1976 017A	MARISAT 1	8697 US	19 FEB 76	AFETR	EARTH ORE
1976 018A	COSMOS 805	8699 USSR	20 FEB 76	PLMSC	11 MAR 76
1976 019A	UME 1 (ISS 1)	8709 JAPAN	29 FEB 76	TANSC	EARTH ORE
1976 020A	COSMOS 806	8737 USSR	10 MAR 76	TYMSC	23 MAR 76
1976 021A	MOLNIYA 1-33	8741 USSR	11 MAR 76	PLMSC	10 OCT 90
1976 022A	COSMOS 807	8744 USSR	12 MAR 76	PLMSC	EARTH ORE
1976 023A	LES 8	8746 US	15 MAR 76	AFETR	EARTH ORE
1976 023B	LES 9	8747 US	15 MAR 76	AFETR	EARTH ORE
1976 023C	SOLRAD 11A	8748 US	15 MAR 76	AFETR	CENM
1976 023D	SOLRAD 11B	8749 US	15 MAR 76	AFETR	CENM
1976 024A	COSMOS 808	8754 USSR	16 MAR 76	PLMSC	20 NOV 93
1976 025A	COSMOS 809	8758 USSR	18 MAR 76	TYMSC	30 MAR 76
1976 026A	MOLNIYA 1-34	8762 USSR	19 MAR 76	TYMSC	14 MAY 85
1976 027A	KH 8-44	8770 US	22 MAR 76	AFWTR	18 MAY 76
1976 028A	COSMOS 810	8772 USSR	26 MAR 76	PLMSC	08 APR 76
1976 029A	RCA SATCOM 2	8774 US	26 MAR 76	AFETR	EARTH ORE
1976 030A	COSMOS 811	8781 USSR	31 MAR 76	PLMSC	12 APR 76
1976 031A	COSMOS 812	8794 USSR	06 APR 76	PLMSC	30 OCT 80
1976 032A	METEOR 1-24	8799 USSR	07 APR 76	PLMSC	EARTH ORE
1976 033A	COSMOS 813	8801 USSR	09 APR 76	PLMSC	21 APR 76
1976 034A	COSMOS 814	8806 USSR	13 APR 76	TYMSC	13 APR 76
1976 035A	NATO 3A	8808 NATO	22 APR 76	AFETR	EARTH ORE
1976 036A	COSMOS 815	8811 USSR	28 APR 76	PLMSC	11 MAY 76
1976 037A	COSMOS 816	8812 USSR	28 APR 76	PLMSC	24 NOV 79
1976 038A	NOSS 1 (WHITECLOUD 1)	8818 US	30 APR 76	AFWTR	ELNA
1976 038C	SSU 1 [NOSS 1]	8835 US	30 APR 76	AFWTR	ELNA
1976 038D	SSU 2 [NOSS 1]	8836 US	30 APR 76	AFWTR	ELNA
1976 038J	SSU 3 [NOSS 1]	8884 US	30 APR 76	AFWTR	ELNA



## Sheet1

1976 039A	LAGEOS	8820 US	04 MAY 76	AFWTR	EARTH ORE
1976 040A	COSMOS 817	8823 USSR	05 MAY 76	TYMSC	18 MAY 76
1976 041A	MOLNIYA 3-05	8833 USSR	12 MAY 76	PLMSC	14 APR 90
1976 042A	COMSTAR 1	8838 US	13 MAY 76	AFETR	EARTH ORE
1976 043A	METEOR 1-25	8845 USSR	15 MAY 76	PLMSC	EARTH ORE
1976 044A	COSMOS 818	8851 USSR	18 MAY 76	PLMSC	07 MAR 77
1976 045A	COSMOS 819	8853 USSR	20 MAY 76	TYMSC	01 JUN 76
1976 046A	COSMOS 820	8856 USSR	21 MAY 76	PLMSC	02 JUN 76
1976 047A	P 76-5	8860 US	22 MAY 76	AFWTR	EARTH ORE
1976 048A	COSMOS 821	8862 USSR	26 MAY 76	PLMSC	08 JUN 76
1976 049A	COSMOS 822	8865 USSR	28 MAY 76	PLMSC	08 AUG 78
1976 050A	JUMPSEAT ?	8871 US	02 JUN 76	AFWTR	ELNA
1976 051A	COSMOS 823	8873 USSR	02 JUN 76	PLMSC	EARTH ORE
1976 052A	COSMOS 824	8877 USSR	08 JUN 76	TYMSC	21 JUN 76
1976 053A	MARISAT 2	8882 US	10 JUN 76	AFETR	EARTH ORE
1976 054A	COSMOS 825	8889 USSR	15 JUN 76	PLMSC	EARTH ORE
1976 054B	COSMOS 826	8890 USSR	15 JUN 76	PLMSC	EARTH ORE
1976 054C	COSMOS 827	8891 USSR	15 JUN 76	PLMSC	EARTH ORE
1976 054D	COSMOS 828	8892 USSR	15 JUN 76	PLMSC	EARTH ORE
1976 054E	COSMOS 829	8893 USSR	15 JUN 76	PLMSC	EARTH ORE
1976 054F	COSMOS 830	8894 USSR	15 JUN 76	PLMSC	EARTH ORE
1976 054G	COSMOS 831	8895 USSR	15 JUN 76	PLMSC	EARTH ORE
1976 054H	COSMOS 832	8896 USSR	15 JUN 76	PLMSC	EARTH ORE
1976 055A	COSMOS 833	8898 USSR	16 JUN 76	PLMSC	29 JUN 76
1976 056A	INTERCOSMOS 15	8903 USSR	19 JUN 76	PLMSC	18 NOV 79
1976 057A	SALYUT 5	8911 USSR	22 JUN 76	TYMSC	08 AUG 77
1976 058A	COSMOS 834	8914 USSR	24 JUN 76	PLMSC	06 JUL 76
1976 059A	IMEWS 6	8916 US	26 JUN 76	AFETR	ELNA
1976 060A	COSMOS 835	8922 USSR	29 JUN 76	TYMSC	12 JUL 76
1976 061A	COSMOS 836	8923 USSR	29 JUN 76	PLMSC	EARTH ORE
1976 062A	COSMOS 837	8927 USSR	01 JUL 76	PLMSC	18 NOV 83
1976 063A	COSMOS 838	8932 USSR	02 JUL 76	TYMSC	23 AUG 77
1976 064A	SOYUZ 21	8934 USSR	06 JUL 76	TYMSC	24 AUG 76
1976 065A	KH 9-12	9006 US	08 JUL 76	AFWTR	13 DEC 76
1976 065B	SESP 74-2	9007 US	08 JUL 76	AFWTR	24 APR 86
1976 065C	KH 9-12 SUBSATELLITE	9008 US	08 JUL 76	AFWTR	ELNA
1976 066A	PALAPA 1	9009 INDNSA	08 JUL 76	AFETR	EARTH ORE
1976 067A	COSMOS 839	9011 USSR	08 JUL 76	PLMSC	EARTH ORE
1976 068A	COSMOS 840	9019 USSR	14 JUL 76	PLMSC	26 JUL 76
1976 069A	COSMOS 841	9022 USSR	15 JUL 76	PLMSC	EARTH ORE
1976 070A	COSMOS 842	9025 USSR	21 JUL 76	PLMSC	EARTH ORE
1976 071A	COSMOS 843	9043 USSR	21 JUL 76	TYMSC	21 JUL 76
1976 072A	COSMOS 844	9046 USSR	22 JUL 76	PLMSC	30 AUG 76
1976 073A	COMSTAR 2	9047 US	22 JUL 76	AFETR	EARTH ORE
1976 074A	MOLNIYA 1-35	9049 USSR	23 JUL 76	TYMSC	29 MAY 87
1976 075A	COSMOS 845	9053 USSR	27 JUL 76	PLMSC	15 NOV 80
1976 076A	INTERCOSMOS 16	9055 USSR	27 JUL 76	KYMSC	10 JUL 79
1976 077A	NOAA 5 (ITOS H)	9057 US	29 JUL 76	AFWTR	EARTH ORE
1976 078A	COSMOS 846	9061 USSR	29 JUL 76	PLMSC	EARTH ORE

## Sheet1

1976 079A	COSMOS 847	9214 USSR	04 AUG 76	PLMSC	17 AUG 76
1976 080A	SDS 3	9270 US	06 AUG 76	AFWTR	ELNA
1976 081A	LUNA 24	9272 USSR	09 AUG 76	TYMSC	18 AUG 76
1976 081E	LUNA 24 RETURN VEHICLE	9384 USSR	09 AUG 76	TYMSC	22 AUG 76
1976 082A	COSMOS 848	9280 USSR	12 AUG 76	PLMSC	25 AUG 76
1976 083A	COSMOS 849	9382 USSR	18 AUG 76	PLMSC	24 APR 78
1976 084A	COSMOS 850	9387 USSR	26 AUG 76	PLMSC	16 MAY 77
1976 085A	COSMOS 851	9389 USSR	27 AUG 76	PLMSC	05 AUG 89
1976 086A	COSMOS 852	9391 USSR	28 AUG 76	TYMSC	10 SEP 76
1976 087A	MAO 6	9394 PRC	30 AUG 76	SCMTR	25 NOV 78
1976 088A	COSMOS 853	9398 USSR	01 SEP 76	PLMSC	31 DEC 76
1976 089A	TIP 3	9403 US	01 SEP 76	AFWTR	30 MAY 81
1976 090A	COSMOS 854	9405 USSR	03 SEP 76	PLMSC	16 SEP 76
1976 091A	DMSF B5D1-1 (AMS 1)	9415 US	11 SEP 76	AFWTR	ELNA
1976 092A	RADUGA 2	9416 USSR	11 SEP 76	TYMSC	EARTH ORE
1976 093A	SOYUZ 22	9421 USSR	15 SEP 76	TYMSC	23 SEP 76
1976 094A	KH 8-45	9426 US	15 SEP 76	AFWTR	05 NOV 76
1976 095A	COSMOS 855	9433 USSR	21 SEP 76	PLMSC	03 OCT 76
1976 096A	COSMOS 856	9435 USSR	22 SEP 76	TYMSC	05 OCT 76
1976 097A	COSMOS 857	9439 USSR	24 SEP 76	PLMSC	07 OCT 76
1976 098A	COSMOS 858	9443 USSR	29 SEP 76	PLMSC	EARTH ORE
1976 099A	COSMOS 859	9471 USSR	10 OCT 76	TYMSC	21 OCT 76
1976 100A	SOYUZ 23	9477 USSR	14 OCT 76	TYMSC	16 OCT 76
1976 101A	MARISAT 3	9478 US	14 OCT 76	AFETR	EARTH ORE
1976 102A	METEOR 1-26	9481 USSR	15 OCT 76	PLMSC	EARTH ORE
1976 103A	COSMOS 860	9486 USSR	17 OCT 76	TYMSC	EARTH ORE
1976 104A	COSMOS 861	9494 USSR	21 OCT 76	TYMSC	EARTH ORE
1976 105A	COSMOS 862	9495 USSR	22 OCT 76	PLMSC	EARTH ORE
1976 106A	COSMOS 863	9499 USSR	25 OCT 76	PLMSC	05 NOV 76
1976 107A	EKRAN 1	9503 USSR	26 OCT 76	TYMSC	EARTH ORE
1976 108A	COSMOS 864	9509 USSR	29 OCT 76	PLMSC	EARTH ORE
1976 109A	COSMOS 865	9515 USSR	01 NOV 76	PLMSC	13 NOV 76
1976 110A	COSMOS 866	9532 USSR	11 NOV 76	TYMSC	23 NOV 76
1976 111A	COSMOS 867	9552 USSR	23 NOV 76	PLMSC	06 DEC 76
1976 112A	PROGNOZ 5	9557 USSR	25 NOV 76	TYMSC	CENM
1976 113A	COSMOS 868	9561 USSR	26 NOV 76	TYMSC	08 JUL 78
1976 114A	COSMOS 869	9564 USSR	29 NOV 76	TYMSC	17 DEC 76
1976 115A	COSMOS 870	9573 USSR	02 DEC 76	PLMSC	20 DEC 80
1976 116A	MOLNIYA 2-16	9574 USSR	02 DEC 76	PLMSC	21 FEB 91
1976 117A	MAO 7	9587 PRC	07 DEC 76	SCMTR	02 JAN 77
1976 118A	COSMOS 871	9588 USSR	07 DEC 76	PLMSC	EARTH ORE
1976 118B	COSMOS 872	9589 USSR	07 DEC 76	PLMSC	EARTH ORE
1976 118C	COSMOS 873	9590 USSR	07 DEC 76	PLMSC	EARTH ORE
1976 118D	COSMOS 874	9591 USSR	07 DEC 76	PLMSC	EARTH ORE
1976 118E	COSMOS 875	9592 USSR	07 DEC 76	PLMSC	EARTH ORE
1976 118F	COSMOS 876	9593 USSR	07 DEC 76	PLMSC	EARTH ORE
1976 118G	COSMOS 877	9594 USSR	07 DEC 76	PLMSC	EARTH ORE
1976 118H	COSMOS 878	9595 USSR	07 DEC 76	PLMSC	EARTH ORE
1976 119A	COSMOS 879	9599 USSR	09 DEC 76	PLMSC	22 DEC 76

## Sheet1

1976 120A	COSMOS 880	9601 USSR	09 DEC 76	PLMSC	08 OCT 79
1976 121A	COSMOS 881	9606 USSR	15 DEC 76	TYMSC	15 DEC 76
1976 121B	COSMOS 882	9607 USSR	15 DEC 76	TYMSC	15 DEC 76
1976 122A	COSMOS 883	9610 USSR	15 DEC 76	PLMSC	EARTH ORE
1976 123A	COSMOS 884	9614 USSR	17 DEC 76	TYMSC	29 DEC 76
1976 124A	COSMOS 885	9615 USSR	17 DEC 76	PLMSC	14 OCT 79
1976 125A	KH 11-1	9627 US	19 DEC 76	AFWTR	28 JAN 79
1976 126A	COSMOS 886	9634 USSR	27 DEC 76	TYMSC	EARTH ORE
1976 127A	MOLNIYA 3-06	9635 USSR	28 DEC 76	PLMSC	06 FEB 90
1976 128A	COSMOS 887	9637 USSR	28 DEC 76	PLMSC	EARTH ORE
1977 001A	COSMOS 888	9658 USSR	06 JAN 77	TYMSC	19 JAN 77
1977 002A	METEOR 2-02	9661 USSR	06 JAN 77	PLMSC	EARTH ORE
1977 003A	COSMOS 889	9735 USSR	20 JAN 77	TYMSC	01 FEB 77
1977 004A	COSMOS 890	9737 USSR	20 JAN 77	PLMSC	EARTH ORE
1977 005A	NATO 3B	9785 NATO	28 JAN 77	AFETR	EARTH ORE
1977 006A	COSMOS 891	9801 USSR	02 FEB 77	PLMSC	04 FEB 81
1977 007A	IMEWS 7	9803 US	06 FEB 77	AFETR	ELNA
1977 008A	SOYUZ 24	9804 USSR	07 FEB 77	TYMSC	25 FEB 77
1977 009A	COSMOS 892	9812 USSR	09 FEB 77	PLMSC	22 FEB 77
1977 010A	MOLNIYA 2-17	9829 USSR	11 FEB 77	PLMSC	EARTH ORE
1977 011A	COSMOS 893	9833 USSR	15 FEB 77	PLMSC	06 OCT 84
1977 012A	TANSEI 3	9841 JAPAN	19 FEB 77	KSCUT	EARTH ORE
1977 013A	COSMOS 894	9846 USSR	21 FEB 77	PLMSC	EARTH ORE
1977 014A	KIKU 2 (ETS 2)	9852 JAPAN	23 FEB 77	TANSC	EARTH ORE
1977 015A	COSMOS 895	9853 USSR	26 FEB 77	PLMSC	22 MAR 92
1977 016A	COSMOS 896	9857 USSR	03 MAR 77	PLMSC	16 MAR 77
1977 017A	COSMOS 897	9860 USSR	10 MAR 77	PLMSC	23 MAR 77
1977 018A	PALAPA 2	9862 INDNSA	10 MAR 77	AFETR	EARTH ORE
1977 019A	KH 8-46	9863 US	13 MAR 77	AFWTR	26 MAY 77
1977 020A	COSMOS 898	9871 USSR	17 MAR 77	PLMSC	30 MAR 77
1977 021A	MOLNIYA 1-36	9880 USSR	24 MAR 77	PLMSC	EARTH ORE
1977 022A	COSMOS 899	9883 USSR	24 MAR 77	PLMSC	19 OCT 80
1977 023A	COSMOS 900	9898 USSR	29 MAR 77	PLMSC	11 OCT 79
1977 024A	METEOR 1-27	9903 USSR	05 APR 77	PLMSC	EARTH ORE
1977 025A	COSMOS 901	9905 USSR	05 APR 77	PLMSC	28 JUN 78
1977 026A	COSMOS 902	9908 USSR	07 APR 77	PLMSC	20 APR 77
1977 027A	COSMOS 903	9911 USSR	11 APR 77	PLMSC	EARTH ORE
1977 028A	COSMOS 904	9930 USSR	20 APR 77	TYMSC	04 MAY 77
1977 029A	ESA-GEOS 1	9931 ESA	20 APR 77	AFETR	EARTH ORE
1977 030A	COSMOS 905	9937 USSR	26 APR 77	PLMSC	26 MAY 77
1977 031A	COSMOS 906	9938 USSR	27 APR 77	KYMSC	23 MAR 80
1977 032A	MOLNIYA 3-07	9941 USSR	28 APR 77	PLMSC	EARTH ORE
1977 033A	COSMOS 907	9944 USSR	05 MAY 77	PLMSC	16 MAY 77
1977 034A	DSCS II-07	10000 US	12 MAY 77	AFETR	EARTH ORE
1977 034B	DSCS II-08	10001 US	12 MAY 77	AFETR	EARTH ORE
1977 035A	COSMOS 908	10007 USSR	17 MAY 77	TYMSC	31 MAY 77
1977 036A	COSMOS 909	10010 USSR	19 MAY 77	PLMSC	EARTH ORE
1977 037A	COSMOS 910	10014 USSR	23 MAY 77	TYMSC	23 MAY 77
1977 038A	RHYOLITE ?	10016 US	23 MAY 77	AFETR	ELNA

## Sheet1

1977 039A	COSMOS 911	10019 USSR	25 MAY 77	PLMSC	EARTH ORE
1977 040A	COSMOS 912	10021 USSR	26 MAY 77	PLMSC	08 JUN 77
1977 041A	INTELSAT 4A F-4	10024 ITSO	26 MAY 77	AFETR	EARTH ORE
1977 042A	COSMOS 913	10028 USSR	30 MAY 77	PLMSC	29 DEC 79
1977 043A	COSMOS 914	10030 USSR	31 MAY 77	TYMSC	13 JUN 77
1977 044A	DMSB B5D1-2 (AMS 2)	10033 US	05 JUN 77	AFWTR	ELNA
1977 045A	COSMOS 915	10038 USSR	08 JUN 77	PLMSC	21 JUN 77
1977 046A	COSMOS 916	10040 USSR	10 JUN 77	PLMSC	21 JUN 77
1977 047A	COSMOS 917	10059 USSR	16 JUN 77	PLMSC	EARTH ORE
1977 048A	GOES 2	10061 US	16 JUN 77	AFETR	EARTH ORE
1977 049A	SIGNE 3	10064 FRANCE	17 JUN 77	KYMSC	20 JUN 79
1977 050A	COSMOS 918	10065 USSR	17 JUN 77	TYMSC	18 JUN 77
1977 051A	COSMOS 919	10070 USSR	18 JUN 77	PLMSC	28 AUG 78
1977 052A	COSMOS 920	10086 USSR	22 JUN 77	TYMSC	05 JUL 77
1977 053A	NTS 2	10091 US	23 JUN 77	AFWTR	EARTH ORE
1977 054A	MOLNIYA 1-37	10092 USSR	24 JUN 77	TYMSC	20 MAY 93
1977 055A	COSMOS 921	10095 USSR	24 JUN 77	PLMSC	EARTH ORE
1977 056A	KH 9-13	10111 US	27 JUN 77	AFWTR	23 DEC 77
1977 057A	METEOR 1-28	10113 USSR	29 JUN 77	TYMSC	28 AUG 93
1977 058A	COSMOS 922	10115 USSR	30 JUN 77	PLMSC	13 JUL 77
1977 059A	COSMOS 923	10120 USSR	01 JUL 77	PLMSC	EARTH ORE
1977 060A	COSMOS 924	10129 USSR	04 JUL 77	PLMSC	10 FEB 81
1977 061A	COSMOS 925	10134 USSR	07 JUL 77	PLMSC	29 APR 93
1977 062A	COSMOS 926	10137 USSR	08 JUL 77	PLMSC	EARTH ORE
1977 063A	COSMOS 927	10139 USSR	12 JUL 77	PLMSC	25 JUL 77
1977 064A	COSMOS 928	10141 USSR	13 JUL 77	PLMSC	EARTH ORE
1977 065A	HIMAWARI 1 (GMS 1)	10143 JAPAN	14 JUL 77	AFETR	EARTH ORE
1977 066A	COSMOS 929	10146 USSR	17 JUL 77	TYMSC	02 FEB 78
1977 067A	COSMOS 930	10149 USSR	19 JUL 77	PLMSC	12 MAY 80
1977 068A	COSMOS 931	10150 USSR	20 JUL 77	PLMSC	EARTH ORE
1977 069A	COSMOS 932	10153 USSR	20 JUL 77	TYMSC	02 AUG 77
1977 070A	COSMOS 933	10157 USSR	22 JUL 77	PLMSC	01 NOV 78
1977 071A	RADUGA 3	10159 USSR	23 JUL 77	TYMSC	EARTH ORE
1977 072A	COSMOS 934	10164 USSR	27 JUL 77	PLMSC	09 AUG 77
1977 073A	COSMOS 935	10168 USSR	29 JUL 77	PLMSC	11 AUG 77
1977 074A	COSMOS 936	10172 USSR	03 AUG 77	PLMSC	22 AUG 77
1977 075A	HEAO 1	10217 US	12 AUG 77	AFETR	15 MAR 79
1977 076A	VOYAGER 2	10271 US	20 AUG 77	AFETR	SS ESCAPE
1977 077A	COSMOS 937	10278 USSR	24 AUG 77	TYMSC	19 OCT 78
1977 078A	COSMOS 938	10281 USSR	24 AUG 77	PLMSC	06 SEP 77
1977 079A	COSMOS 939	10282 USSR	24 AUG 77	PLMSC	EARTH ORE
1977 079B	COSMOS 940	10286 USSR	24 AUG 77	PLMSC	EARTH ORE
1977 079C	COSMOS 941	10287 USSR	24 AUG 77	PLMSC	EARTH ORE
1977 079D	COSMOS 942	10288 USSR	24 AUG 77	PLMSC	EARTH ORE
1977 079E	COSMOS 943	10289 USSR	24 AUG 77	PLMSC	EARTH ORE
1977 079F	COSMOS 944	10290 USSR	24 AUG 77	PLMSC	EARTH ORE
1977 079G	COSMOS 945	10291 USSR	24 AUG 77	PLMSC	EARTH ORE
1977 079H	COSMOS 946	10292 USSR	24 AUG 77	PLMSC	EARTH ORE
1977 080A	SIRIO 1	10294 ITALY	25 AUG 77	AFETR	EARTH ORE

## Sheet1

1977 081A	COSMOS 947	10299 USSR	27 AUG 77	PLMSC	09 SEP 77
1977 082A	MOLNIYA 1-38	10315 USSR	30 AUG 77	PLMSC	28 SEP 93
1977 083A	COSMOS 948	10319 USSR	02 SEP 77	PLMSC	15 SEP 77
1977 084A	VOYAGER 1	10321 US	05 SEP 77	AFETR	SS ESCAPE
1977 085A	COSMOS 949	10326 USSR	06 SEP 77	PLMSC	06 OCT 77
1977 086A	COSMOS 950	10351 USSR	13 SEP 77	PLMSC	27 SEP 77
1977 087A	COSMOS 951	10352 USSR	13 SEP 77	PLMSC	EARTH ORE
1977 088A	COSMOS 952	10358 USSR	16 SEP 77	TYMSC	EARTH ORE
1977 089A	COSMOS 953	10359 USSR	16 SEP 77	PLMSC	29 SEP 77
1977 090A	COSMOS 954	10361 USSR	18 SEP 77	TYMSC	24 JAN 78
1977 091A	COSMOS 955	10362 USSR	20 SEP 77	PLMSC	EARTH ORE
1977 092A	EKRAN 2	10365 USSR	20 SEP 77	TYMSC	EARTH ORE
1977 093A	PROGNOZ 6	10370 USSR	22 SEP 77	TYMSC	CENM
1977 094A	KH 8-47	10374 US	23 SEP 77	AFWTR	08 DEC 77
1977 095A	COSMOS 956	10375 USSR	24 SEP 77	PLMSC	27 JUN 82
1977 096A	INTERCOSMOS 17	10376 USSR	24 SEP 77	PLMSC	08 NOV 79
1977 097A	SALYUT 6	10382 USSR	29 SEP 77	TYMSC	29 JUL 82
1977 098A	COSMOS 957	10385 USSR	30 SEP 77	TYMSC	13 OCT 77
1977 099A	SOYUZ 25	10401 USSR	09 OCT 77	TYMSC	11 OCT 77
1977 100A	COSMOS 958	10403 USSR	11 OCT 77	PLMSC	24 OCT 77
1977 101A	COSMOS 959	10419 USSR	21 OCT 77	PLMSC	30 NOV 77
1977 102A	ISEE 1	10422 US	22 OCT 77	AFETR	26 SEP 87
1977 102B	ISEE 2	10423 ESA	22 OCT 77	AFETR	26 SEP 87
1977 103A	COSMOS 960	10430 USSR	25 OCT 77	PLMSC	22 OCT 80
1977 104A	COSMOS 961	10434 USSR	26 OCT 77	TYMSC	26 OCT 77
1977 105A	MOLNIYA 3-08	10455 USSR	28 OCT 77	PLMSC	EARTH ORE
1977 106A	TRANSAT	10457 US	28 OCT 77	AFWTR	EARTH ORE
1977 107A	COSMOS 962	10459 USSR	28 OCT 77	PLMSC	EARTH ORE
1977 108A	METEOSAT 1	10489 ESA	23 NOV 77	AFETR	EARTH ORE
1977 109A	COSMOS 963	10491 USSR	24 NOV 77	PLMSC	EARTH ORE
1977 110A	COSMOS 964	10498 USSR	04 DEC 77	PLMSC	17 DEC 77
1977 111A	COSMOS 965	10501 USSR	08 DEC 77	PLMSC	16 DEC 79
1977 112A	NOSS 2	10502 US	08 DEC 77	AFWTR	ELNA
1977 112D	SSU 4 (SS-1) [NOSS 2]	10529 US	08 DEC 77	AFWTR	ELNA
1977 112E	SSU 5 (SS-2) [NOSS 2]	10544 US	08 DEC 77	AFWTR	ELNA
1977 112F	SSU 6 (SS-3) [NOSS 2]	10594 US	08 DEC 77	AFWTR	ELNA
1977 113A	SOYUZ 26	10506 USSR	10 DEC 77	TYMSC	16 JAN 78
1977 114A	RHYOLITE ?	10508 US	11 DEC 77	AFETR	ELNA
1977 115A	COSMOS 966	10510 USSR	12 DEC 77	TYMSC	24 DEC 77
1977 116A	COSMOS 967	10512 USSR	13 DEC 77	PLMSC	EARTH ORE
1977 117A	METEOR 2-03	10514 USSR	14 DEC 77	PLMSC	EARTH ORE
1977 118A	SAKURA 1A (CS-1A)	10516 JAPAN	15 DEC 77	AFETR	EARTH ORE
1977 119A	COSMOS 968	10520 USSR	16 DEC 77	PLMSC	EARTH ORE
1977 120A	COSMOS 969	10527 USSR	20 DEC 77	PLMSC	03 JAN 78
1977 121A	COSMOS 970	10531 USSR	21 DEC 77	TYMSC	EARTH ORE
1977 122A	COSMOS 971	10536 USSR	23 DEC 77	PLMSC	EARTH ORE
1977 123A	COSMOS 972	10539 USSR	27 DEC 77	PLMSC	EARTH ORE
1977 124A	COSMOS 973	10540 USSR	27 DEC 77	TYMSC	09 JAN 78
1978 001A	COSMOS 974	10554 USSR	06 JAN 78	PLMSC	19 JAN 78

## Sheet1

1978 002A	INTELSAT 4A F-3	10557 ITSO	07 JAN 78	AFETR	EARTH ORE
1978 003A	SOYUZ 27	10560 USSR	10 JAN 78	TYMSC	16 MAR 78
1978 004A	COSMOS 975	10561 USSR	10 JAN 78	PLMSC	EARTH ORE
1978 005A	COSMOS 976	10581 USSR	10 JAN 78	PLMSC	EARTH ORE
1978 005B	COSMOS 977	10584 USSR	10 JAN 78	PLMSC	EARTH ORE
1978 005C	COSMOS 978	10585 USSR	10 JAN 78	PLMSC	EARTH ORE
1978 005D	COSMOS 979	10586 USSR	10 JAN 78	PLMSC	EARTH ORE
1978 005E	COSMOS 980	10587 USSR	10 JAN 78	PLMSC	EARTH ORE
1978 005F	COSMOS 981	10588 USSR	10 JAN 78	PLMSC	EARTH ORE
1978 005G	COSMOS 982	10589 USSR	10 JAN 78	PLMSC	EARTH ORE
1978 005H	COSMOS 983	10590 USSR	10 JAN 78	PLMSC	EARTH ORE
1978 006A	COSMOS 984	10592 USSR	13 JAN 78	PLMSC	26 JAN 78
1978 007A	COSMOS 985	10599 USSR	17 JAN 78	PLMSC	EARTH ORE
1978 008A	PROGRESS 1	10603 USSR	20 JAN 78	TYMSC	08 FEB 78
1978 009A	MOLNIYA 3-09	10605 USSR	24 JAN 78	PLMSC	24 APR 90
1978 010A	COSMOS 986	10607 USSR	24 JAN 78	TYMSC	07 FEB 78
1978 011A	MAO 8	10611 PRC	26 JAN 78	SCMTR	07 FEB 78
1978 012A	IUE 1	10637 US	26 JAN 78	AFETR	EARTH ORE
1978 013A	COSMOS 987	10639 USSR	31 JAN 78	PLMSC	14 FEB 78
1978 014A	SS-05/KYOKKO (EXOS A)	10664 JAPAN	04 FEB 78	KSCUT	EARTH ORE
1978 015A	COSMOS 988	10666 USSR	08 FEB 78	PLMSC	20 FEB 78
1978 016A	FLTSATCOM 1	10669 US	09 FEB 78	AFETR	EARTH ORE
1978 017A	COSMOS 989	10672 USSR	14 FEB 78	TYMSC	28 FEB 78
1978 018A	UME 2 (ISS 2)	10674 JAPAN	16 FEB 78	TANSC	EARTH ORE
1978 019A	COSMOS 990	10676 USSR	17 FEB 78	PLMSC	EARTH ORE
1978 020A	NAVSTAR 1 (GPS)	10684 US	22 FEB 78	AFWTR	EARTH ORE
1978 021A	SDS 4	10688 US	25 FEB 78	AFWTR	ELNA
1978 022A	COSMOS 991	10692 USSR	28 FEB 78	PLMSC	EARTH ORE
1978 023A	SOYUZ 28	10694 USSR	02 MAR 78	TYMSC	10 MAR 78
1978 024A	MOLNIYA 1-39	10696 USSR	02 MAR 78	PLMSC	09 MAR 92
1978 025A	COSMOS 992	10699 USSR	04 MAR 78	TYMSC	17 MAR 78
1978 026A	LANDSAT 3 (ERTS 3)	10702 US	05 MAR 78	AFWTR	EARTH ORE
1978 026B	OSCAR 8	10703 US	05 MAR 78	AFWTR	EARTH ORE
1978 027A	COSMOS 993	10725 USSR	10 MAR 78	PLMSC	23 MAR 78
1978 028A	COSMOS 994	10731 USSR	15 MAR 78	PLMSC	EARTH ORE
1978 029A	KH 9-14	10733 US	16 MAR 78	AFWTR	11 SEP 78
1978 029B	KH 9-14 SUBSATELLITE	10734 US	16 MAR 78	AFWTR	ELNA
1978 030A	COSMOS 995	10735 USSR	17 MAR 78	PLMSC	30 MAR 78
1978 031A	COSMOS 996	10744 USSR	28 MAR 78	PLMSC	EARTH ORE
1978 032A	COSMOS 997	10770 USSR	30 MAR 78	TYMSC	30 MAR 78
1978 032B	COSMOS 998	10771 USSR	30 MAR 78	TYMSC	30 MAR 78
1978 033A	COSMOS 999	10773 USSR	30 MAR 78	TYMSC	12 APR 78
1978 034A	COSMOS 1000	10776 USSR	31 MAR 78	PLMSC	EARTH ORE
1978 035A	INTELSAT 4A F-6	10778 ITSO	31 MAR 78	AFETR	EARTH ORE
1978 036A	COSMOS 1001	10783 USSR	04 APR 78	TYMSC	15 APR 78
1978 037A	COSMOS 1002	10785 USSR	06 APR 78	TYMSC	19 APR 78
1978 038A	RHYOLITE 5	10787 US	07 APR 78	AFETR	ELNA
1978 039A	YURI 1 (BSE 1)	10792 JAPAN	07 APR 78	AFETR	EARTH ORE
1978 040A	COSMOS 1003	10811 USSR	20 APR 78	PLMSC	04 MAY 78

## Sheet1

1978 041A	HCMM (AEM 1)	10818 US	26 APR 78	AFWTR	22 DEC 81
1978 042A	DMSB B5D1-3 (AMS 3)	10820 US	01 MAY 78	AFWTR	EARTH OR
1978 043A	COSMOS 1004	10846 USSR	05 MAY 78	PLMSC	18 MAY 78
1978 044A	OTS 2	10855 ESA	11 MAY 78	AFETR	EARTH OR
1978 045A	COSMOS 1005	10860 USSR	12 MAY 78	PLMSC	EARTH OR
1978 046A	COSMOS 1006	10862 USSR	12 MAY 78	PLMSC	14 MAR 79
1978 047A	NAVSTAR 2 (GPS)	10893 US	13 MAY 78	AFWTR	EARTH OR
1978 048A	COSMOS 1007	10895 USSR	16 MAY 78	PLMSC	29 MAY 78
1978 049A	COSMOS 1008	10898 USSR	17 MAY 78	PLMSC	08 JAN 81
1978 050A	COSMOS 1009	10904 USSR	19 MAY 78	TYMSC	19 MAY 78
1978 051A	PIONEER VENUS ORBITER	10911 US	20 MAY 78	AFETR	VENUS OR
1978 052A	COSMOS 1010	10915 USSR	23 MAY 78	PLMSC	05 JUN 78
1978 053A	COSMOS 1011	10917 USSR	23 MAY 78	PLMSC	EARTH OR
1978 054A	COSMOS 1012	10919 USSR	25 MAY 78	PLMSC	07 JUN 78
1978 055A	MOLNIYA 1-40	10925 USSR	02 JUN 78	PLMSC	EARTH OR
1978 056A	COSMOS 1013	10930 USSR	07 JUN 78	PLMSC	EARTH OR
1978 056B	COSMOS 1014	10931 USSR	07 JUN 78	PLMSC	EARTH OR
1978 056C	COSMOS 1015	10932 USSR	07 JUN 78	PLMSC	EARTH OR
1978 056D	COSMOS 1016	10933 USSR	07 JUN 78	PLMSC	EARTH OR
1978 056E	COSMOS 1017	10934 USSR	07 JUN 78	PLMSC	EARTH OR
1978 056F	COSMOS 1018	10935 USSR	07 JUN 78	PLMSC	EARTH OR
1978 056G	COSMOS 1019	10936 USSR	07 JUN 78	PLMSC	EARTH OR
1978 056H	COSMOS 1020	10937 USSR	07 JUN 78	PLMSC	EARTH OR
1978 057A	COSMOS 1021	10939 USSR	10 JUN 78	TYMSC	23 JUN 78
1978 058A	IMEWS 8 (CHALET ?)	10941 US	10 JUN 78	AFETR	ELNA
1978 059A	COSMOS 1022	10944 USSR	12 JUN 78	PLMSC	25 JUN 78
1978 060A	KH 11-2	10947 US	14 JUN 78	AFWTR	23 AUG 81
1978 061A	SOYUZ 29	10952 USSR	15 JUN 78	TYMSC	03 SEP 78
1978 062A	GOES 3	10953 US	16 JUN 78	AFETR	EARTH OR
1978 063A	COSMOS 1023	10961 USSR	21 JUN 78	PLMSC	EARTH OR
1978 064A	SEASAT 1	10967 US	27 JUN 78	AFWTR	EARTH OR
1978 065A	SOYUZ 30	10968 USSR	27 JUN 78	TYMSC	05 JUL 78
1978 066A	COSMOS 1024	10970 USSR	28 JUN 78	PLMSC	EARTH OR
1978 067A	COSMOS 1025	10973 USSR	28 JUN 78	PLMSC	EARTH OR
1978 068A	COMSTAR 3	10975 US	29 JUN 78	AFETR	EARTH OR
1978 069A	COSMOS 1026	10977 USSR	02 JUL 78	TYMSC	06 JUL 78
1978 070A	PROGRESS 2	10979 USSR	07 JUL 78	TYMSC	04 AUG 78
1978 071A	ESA-GEOS 2	10981 ESA	14 JUL 78	AFETR	EARTH OR
1978 072A	MOLNIYA 1-41	10984 USSR	14 JUL 78	PLMSC	08 FEB 92
1978 073A	RADUGA 4	10987 USSR	18 JUL 78	TYMSC	EARTH OR
1978 074A	COSMOS 1027	10991 USSR	27 JUL 78	PLMSC	EARTH OR
1978 075A	SDS 5	10993 US	05 AUG 78	AFWTR	ELNA
1978 076A	COSMOS 1028	10995 USSR	05 AUG 78	PLMSC	04 SEP 78
1978 077A	PROGRESS 3	10999 USSR	07 AUG 78	TYMSC	23 AUG 78
1978 078A	PIONEER VENUS PROBE BUS	11001 US	08 AUG 78	AFETR	09 DEC 78
1978 078D	PIONEER VENUS PROBE 1	12103 US	08 AUG 78	AFETR	09 DEC 78
1978 078E	PIONEER VENUS PROBE 2	12104 US	08 AUG 78	AFETR	09 DEC 78
1978 078F	PIONEER VENUS PROBE 3	12105 US	08 AUG 78	AFETR	09 DEC 78
1978 078G	PIONEER VENUS PROBE 4	12106 US	08 AUG 78	AFETR	09 DEC 78

Sheet1

1978 079A	ISEE 3 (ICE)	11004 US	12 AUG 78	AFETR	SOLAR ORE
1978 080A	MOLNIYA 1-42	11007 USSR	22 AUG 78	PLMSC	EARTH ORE
1978 081A	SOYUZ 31	11010 USSR	26 AUG 78	TYMSC	02 NOV 78
1978 082A	COSMOS 1029	11012 USSR	29 AUG 78	PLMSC	08 SEP 78
1978 083A	COSMOS 1030	11015 USSR	06 SEP 78	PLMSC	EARTH ORE
1978 084A	VENERA 11	11020 USSR	09 SEP 78	TYMSC	SOLAR ORE
1978 084D	VENERA 11 DESCENT CRAFT	12027 USSR	09 SEP 78	TYMSC	25 DEC 78
1978 085A	COSMOS 1031	11022 USSR	09 SEP 78	PLMSC	22 SEP 78
1978 086A	VENERA 12	11025 USSR	14 SEP 78	TYMSC	SOLAR ORE
1978 086C	VENERA 12 DESCENT CRAFT	12028 USSR	14 SEP 78	TYMSC	21 DEC 78
1978 087A	SS-06/JIKI'KEN (EXOS B)	11027 JAPAN	16 SEP 78	KSCUT	EARTH ORE
1978 088A	COSMOS 1032	11029 USSR	19 SEP 78	PLMSC	02 OCT 78
1978 089A	COSMOS 1033	11039 USSR	03 OCT 78	PLMSC	16 OCT 78
1978 090A	PROGRESS 4	11040 USSR	03 OCT 78	TYMSC	26 OCT 78
1978 091A	COSMOS 1034	11042 USSR	04 OCT 78	PLMSC	EARTH ORE
1978 091B	COSMOS 1035	11044 USSR	04 OCT 78	PLMSC	EARTH ORE
1978 091C	COSMOS 1036	11045 USSR	04 OCT 78	PLMSC	EARTH ORE
1978 091D	COSMOS 1037	11046 USSR	04 OCT 78	PLMSC	EARTH ORE
1978 091E	COSMOS 1038	11047 USSR	04 OCT 78	PLMSC	EARTH ORE
1978 091F	COSMOS 1039	11048 USSR	04 OCT 78	PLMSC	EARTH ORE
1978 091G	COSMOS 1040	11049 USSR	04 OCT 78	PLMSC	EARTH ORE
1978 091H	COSMOS 1041	11050 USSR	04 OCT 78	PLMSC	EARTH ORE
1978 092A	COSMOS 1042	11052 USSR	06 OCT 78	PLMSC	19 OCT 78
1978 093A	NAVSTAR 3 (GPS)	11054 US	07 OCT 78	AFWTR	EARTH ORE
1978 094A	COSMOS 1043	11055 USSR	10 OCT 78	PLMSC	EARTH ORE
1978 095A	MOLNIYA 3-10	11057 USSR	13 OCT 78	PLMSC	EARTH ORE
1978 096A	TIROS N	11060 US	13 OCT 78	AFWTR	EARTH ORE
1978 097A	COSMOS 1044	11065 USSR	17 OCT 78	PLMSC	30 OCT 78
1978 098A	NIMBUS 7	11080 US	24 OCT 78	AFWTR	EARTH ORE
1978 098B	CAMEO	11081 US	24 OCT 78	AFWTR	EARTH ORE
1978 099A	INTERCOSMOS 18 (MAGIC)	11082 USSR	24 OCT 78	PLMSC	17 MAR 81
1978 099C	MAGION 1	11110 CZECH	24 OCT 78	PLMSC	11 SEP 81
1978 100A	COSMOS 1045	11084 USSR	26 OCT 78	PLMSC	EARTH ORE
1978 100B	RADIO SPUTNIK 1	11085 USSR	26 OCT 78	PLMSC	EARTH ORE
1978 100C	RADIO SPUTNIK 2	11086 USSR	26 OCT 78	PLMSC	EARTH ORE
1978 101A	PROGNOZ 7	11088 USSR	30 OCT 78	TYMSC	22 OCT 80
1978 102A	COSMOS 1046	11098 USSR	01 NOV 78	PLMSC	13 NOV 78
1978 103A	HEAO 2	11101 US	13 NOV 78	AFETR	25 MAR 82
1978 104A	COSMOS 1047	11108 USSR	15 NOV 78	PLMSC	28 NOV 78
1978 105A	COSMOS 1048	11111 USSR	16 NOV 78	PLMSC	EARTH ORE
1978 106A	NATO 3C	11115 NATO	19 NOV 78	AFETR	EARTH ORE
1978 107A	COSMOS 1049	11118 USSR	21 NOV 78	PLMSC	04 DEC 78
1978 108A	COSMOS 1050	11121 USSR	28 NOV 78	PLMSC	12 DEC 78
1978 109A	COSMOS 1051	11128 USSR	05 DEC 78	PLMSC	EARTH ORE
1978 109B	COSMOS 1052	11129 USSR	05 DEC 78	PLMSC	EARTH ORE
1978 109C	COSMOS 1053	11130 USSR	05 DEC 78	PLMSC	EARTH ORE
1978 109D	COSMOS 1054	11131 USSR	05 DEC 78	PLMSC	EARTH ORE
1978 109E	COSMOS 1055	11132 USSR	05 DEC 78	PLMSC	EARTH ORE
1978 109F	COSMOS 1056	11133 USSR	05 DEC 78	PLMSC	EARTH ORE



## Sheet1

1978 109G	COSMOS 1057	11134 USSR	05 DEC 78	PLMSC	EARTH ORE
1978 109H	COSMOS 1058	11135 USSR	05 DEC 78	PLMSC	EARTH ORE
1978 110A	COSMOS 1059	11137 USSR	07 DEC 78	PLMSC	20 DEC 78
1978 111A	COSMOS 1060	11139 USSR	08 DEC 78	TYMSC	21 DEC 78
1978 112A	NAVSTAR 4 (GPS)	11141 US	11 DEC 78	AFWTR	EARTH ORE
1978 113A	DSCS II-11	11144 US	14 DEC 78	AFETR	EARTH ORE
1978 113B	DSCS II-12	11145 US	14 DEC 78	AFETR	EARTH ORE
1978 114A	COSMOS 1061	11148 USSR	14 DEC 78	PLMSC	27 DEC 78
1978 115A	COSMOS 1062	11150 USSR	15 DEC 78	PLMSC	20 APR 81
1978 116A	ANIK B1 (TELESAT 4)	11153 CANADA	16 DEC 78	AFETR	EARTH ORE
1978 117A	COSMOS 1063	11155 USSR	19 DEC 78	PLMSC	EARTH ORE
1978 118A	GORIZONT 1	11158 USSR	19 DEC 78	TYMSC	EARTH ORE
1978 119A	COSMOS 1064	11161 USSR	20 DEC 78	PLMSC	12 NOV 89
1978 120A	COSMOS 1065	11163 USSR	22 DEC 78	KYMSC	01 AUG 79
1978 121A	COSMOS 1066	11165 USSR	23 DEC 78	PLMSC	EARTH ORE
1978 122A	COSMOS 1067	11168 USSR	26 DEC 78	PLMSC	EARTH ORE
1978 123A	COSMOS 1068	11169 USSR	26 DEC 78	PLMSC	08 JAN 79
1978 124A	COSMOS 1069	11173 USSR	28 DEC 78	PLMSC	10 JAN 79
1979 001A	COSMOS 1070	11229 USSR	11 JAN 79	PLMSC	20 JAN 79
1979 002A	COSMOS 1071	11233 USSR	13 JAN 79	PLMSC	26 JAN 79
1979 003A	COSMOS 1072	11238 USSR	16 JAN 79	PLMSC	EARTH ORE
1979 004A	MOLNIYA 3-11	11240 USSR	18 JAN 79	PLMSC	EARTH ORE
1979 005A	METEOR 1-29	11251 USSR	25 JAN 79	TYMSC	EARTH ORE
1979 006A	COSMOS 1073	11255 USSR	30 JAN 79	PLMSC	12 FEB 79
1979 007A	SCATHA	11256 US	30 JAN 79	AFETR	EARTH ORE
1979 008A	COSMOS 1074	11259 USSR	31 JAN 79	TYMSC	01 APR 79
1979 009A	AYAME 1 (ECS 1)	11261 JAPAN	06 FEB 79	TANSC	EARTH ORE
1979 010A	COSMOS 1075	11262 USSR	08 FEB 79	PLMSC	19 OCT 81
1979 011A	COSMOS 1076	11266 USSR	12 FEB 79	PLMSC	EARTH ORE
1979 012A	COSMOS 1077	11268 USSR	13 FEB 79	PLMSC	EARTH ORE
1979 013A	SAGE (AEM 2)	11270 US	18 FEB 79	WLPIS	11 APR 89
1979 014A	SS-04/HAKUCHO (CORSA B)	11272 JAPAN	21 FEB 79	KSCUT	15 APR 85
1979 015A	EKRAN 3	11273 USSR	21 FEB 79	TYMSC	EARTH ORE
1979 016A	COSMOS 1078	11276 USSR	22 FEB 79	PLMSC	02 MAR 79
1979 017A	SOLWIND (P 78-1)	11278 US	24 FEB 79	AFWTR	20 JUL 92
1979 018A	SOYUZ 32	11281 USSR	25 FEB 79	TYMSC	13 JUN 79
1979 019A	COSMOS 1079	11283 USSR	27 FEB 79	PLMSC	11 MAR 79
1979 020A	INTERCOSMOS 19	11285 USSR	27 FEB 79	PLMSC	EARTH ORE
1979 021A	METEOR 2-04	11288 USSR	01 MAR 79	PLMSC	EARTH ORE
1979 022A	PROGRESS 5	11292 USSR	12 MAR 79	TYMSC	05 APR 79
1979 023A	COSMOS 1080	11294 USSR	14 MAR 79	PLMSC	28 MAR 79
1979 024A	COSMOS 1081	11296 USSR	15 MAR 79	PLMSC	EARTH ORE
1979 024B	COSMOS 1082	11297 USSR	15 MAR 79	PLMSC	EARTH ORE
1979 024C	COSMOS 1083	11298 USSR	15 MAR 79	PLMSC	EARTH ORE
1979 024D	COSMOS 1084	11299 USSR	15 MAR 79	PLMSC	EARTH ORE
1979 024E	COSMOS 1085	11300 USSR	15 MAR 79	PLMSC	EARTH ORE
1979 024F	COSMOS 1086	11301 USSR	15 MAR 79	PLMSC	EARTH ORE
1979 024G	COSMOS 1087	11302 USSR	15 MAR 79	PLMSC	EARTH ORE
1979 024H	COSMOS 1088	11303 USSR	15 MAR 79	PLMSC	EARTH ORE

## Sheet1

1979 025A	KH 9-15	11305 US	16 MAR 79	AFWTR	22 SEP 79
1979 025B	KH 9-15 SUBSATELLITE	11306 US	16 MAR 79	AFWTR	ELNA
1979 026A	COSMOS 1089	11308 USSR	21 MAR 79	PLMSC	EARTH ORE
1979 027A	COSMOS 1090	11313 USSR	31 MAR 79	PLMSC	13 APR 79
1979 028A	COSMOS 1091	11320 USSR	07 APR 79	PLMSC	EARTH ORE
1979 029A	SOYUZ 33	11324 USSR	10 APR 79	TYMSC	12 APR 79
1979 030A	COSMOS 1092	11326 USSR	11 APR 79	PLMSC	EARTH ORE
1979 031A	MOLNIYA 1-43	11328 USSR	12 APR 79	PLMSC	09 DEC 89
1979 032A	COSMOS 1093	11331 USSR	14 APR 79	PLMSC	EARTH ORE
1979 033A	COSMOS 1094	11333 USSR	18 APR 79	TYMSC	07 NOV 79
1979 034A	COSMOS 1095	11335 USSR	20 APR 79	PLMSC	04 MAY 79
1979 035A	RADUGA 5	11343 USSR	25 APR 79	TYMSC	EARTH ORE
1979 036A	COSMOS 1096	11346 USSR	25 APR 79	TYMSC	24 NOV 79
1979 037A	COSMOS 1097	11348 USSR	27 APR 79	PLMSC	27 MAY 79
1979 038A	FLTSATCOM 2	11353 US	04 MAY 79	AFETR	EARTH ORE
1979 039A	PROGRESS 6	11356 USSR	13 MAY 79	TYMSC	09 JUN 79
1979 040A	COSMOS 1098	11358 USSR	15 MAY 79	PLMSC	28 MAY 79
1979 041A	COSMOS 1099	11360 USSR	17 MAY 79	PLMSC	30 MAY 79
1979 042A	COSMOS 1100	11362 USSR	22 MAY 79	TYMSC	23 MAY 79
1979 042B	COSMOS 1101	11363 USSR	22 MAY 79	TYMSC	23 MAY 79
1979 043A	COSMOS 1102	11368 USSR	25 MAY 79	PLMSC	07 JUN 79
1979 044A	KH 8-48	11372 US	28 MAY 79	AFWTR	26 AUG 79
1979 045A	COSMOS 1103	11376 USSR	31 MAY 79	PLMSC	14 JUN 79
1979 046A	COSMOS 1104	11378 USSR	31 MAY 79	PLMSC	EARTH ORE
1979 047A	ARIEL 6 (UK 6)	11382 UK	02 JUN 79	WLPIS	23 SEP 90
1979 048A	MOLNIYA 3-12	11384 USSR	05 JUN 79	PLMSC	26 SEP 92
1979 049A	SOYUZ 34	11387 USSR	06 JUN 79	TYMSC	19 AUG 79
1979 050A	DMSP B5D1-4 (AMS 4)	11389 US	06 JUN 79	AFWTR	ELNA
1979 051A	BHASKARA 1	11392 INDIA	07 JUN 79	KYMSC	17 FEB 89
1979 052A	COSMOS 1105	11394 USSR	08 JUN 79	PLMSC	21 JUN 79
1979 053A	IMEWS 9	11397 US	10 JUN 79	AFETR	ELNA
1979 054A	COSMOS 1106	11399 USSR	12 JUN 79	PLMSC	25 JUN 79
1979 055A	COSMOS 1107	11404 USSR	15 JUN 79	PLMSC	29 JUN 79
1979 056A	COSMOS 1108	11413 USSR	22 JUN 79	PLMSC	05 JUL 79
1979 057A	NOAA 6	11416 US	27 JUN 79	AFWTR	EARTH ORE
1979 058A	COSMOS 1109	11417 USSR	27 JUN 79	PLMSC	EARTH ORE
1979 059A	PROGRESS 7	11421 USSR	28 JUN 79	TYMSC	20 JUL 79
1979 060A	COSMOS 1110	11425 USSR	28 JUN 79	PLMSC	EARTH ORE
1979 061A	COSMOS 1111	11429 USSR	29 JUN 79	PLMSC	14 JUL 79
1979 062A	GORIZONT 2	11440 USSR	05 JUL 79	TYMSC	EARTH ORE
1979 063A	COSMOS 1112	11443 USSR	06 JUL 79	KYMSC	21 JAN 80
1979 064A	COSMOS 1113	11447 USSR	10 JUL 79	TYMSC	23 JUL 79
1979 065A	COSMOS 1114	11449 USSR	11 JUL 79	PLMSC	26 DEC 81
1979 066A	COSMOS 1115	11451 USSR	13 JUL 79	PLMSC	26 JUL 79
1979 067A	COSMOS 1116	11457 USSR	20 JUL 79	PLMSC	11 MAR 93
1979 068A	COSMOS 1117	11463 USSR	25 JUL 79	PLMSC	07 AUG 79
1979 069A	COSMOS 1118	11465 USSR	27 JUL 79	PLMSC	09 AUG 79
1979 070A	MOLNIYA 1-44	11474 USSR	31 JUL 79	PLMSC	EARTH ORE
1979 071A	COSMOS 1119	11478 USSR	03 AUG 79	PLMSC	15 AUG 79

## Sheet1

1979 072A	WESTAR 3	11484 US	10 AUG 79	AFETR	EARTH ORE
1979 073A	COSMOS 1120	11485 USSR	11 AUG 79	TYMSC	24 AUG 79
1979 074A	COSMOS 1121	11487 USSR	14 AUG 79	PLMSC	13 SEP 79
1979 075A	COSMOS 1122	11491 USSR	17 AUG 79	PLMSC	30 AUG 79
1979 076A	COSMOS 1123	11496 USSR	21 AUG 79	PLMSC	03 SEP 79
1979 077A	COSMOS 1124	11509 USSR	28 AUG 79	PLMSC	EARTH ORE
1979 078A	COSMOS 1125	11510 USSR	28 AUG 79	PLMSC	EARTH ORE
1979 079A	COSMOS 1126	11515 USSR	31 AUG 79	PLMSC	14 SEP 79
1979 080A	COSMOS 1127	11520 USSR	05 SEP 79	PLMSC	18 SEP 79
1979 081A	COSMOS 1128	11529 USSR	14 SEP 79	PLMSC	27 SEP 79
1979 082A	HEAO 3	11532 US	20 SEP 79	AFETR	07 DEC 81
1979 083A	COSMOS 1129	11536 USSR	25 SEP 79	PLMSC	14 OCT 79
1979 084A	COSMOS 1130	11538 USSR	25 SEP 79	PLMSC	EARTH ORE
1979 084B	COSMOS 1131	11539 USSR	25 SEP 79	PLMSC	EARTH ORE
1979 084C	COSMOS 1132	11540 USSR	25 SEP 79	PLMSC	EARTH ORE
1979 084D	COSMOS 1133	11541 USSR	25 SEP 79	PLMSC	EARTH ORE
1979 084E	COSMOS 1134	11542 USSR	25 SEP 79	PLMSC	EARTH ORE
1979 084F	COSMOS 1135	11543 USSR	25 SEP 79	PLMSC	EARTH ORE
1979 084G	COSMOS 1136	11544 USSR	25 SEP 79	PLMSC	EARTH ORE
1979 084H	COSMOS 1137	11545 USSR	25 SEP 79	PLMSC	EARTH ORE
1979 085A	COSMOS 1138	11548 USSR	28 SEP 79	PLMSC	12 OCT 79
1979 086A	IMEWS 10 (CHALET ?)	11558 US	01 OCT 79	AFETR	ELNA
1979 087A	EKRAN 4	11561 USSR	03 OCT 79	TYMSC	EARTH ORE
1979 088A	COSMOS 1139	11564 USSR	05 OCT 79	PLMSC	18 OCT 79
1979 089A	COSMOS 1140	11573 USSR	11 OCT 79	PLMSC	EARTH ORE
1979 090A	COSMOS 1141	11585 USSR	16 OCT 79	PLMSC	EARTH ORE
1979 091A	MOLNIYA 1-45	11589 USSR	20 OCT 79	PLMSC	EARTH ORE
1979 092A	COSMOS 1142	11592 USSR	22 OCT 79	PLMSC	04 NOV 79
1979 093A	COSMOS 1143	11600 USSR	26 OCT 79	PLMSC	EARTH ORE
1979 094A	MAGSAT	11604 US	30 OCT 79	AFWTR	11 JUN 80
1979 095A	METEOR 2-05	11605 USSR	31 OCT 79	PLMSC	EARTH ORE
1979 096A	INTERCOSMOS 20	11609 USSR	01 NOV 79	PLMSC	05 MAR 81
1979 097A	COSMOS 1144	11611 USSR	02 NOV 79	PLMSC	04 DEC 79
1979 098A	DSCS II-13	11621 US	21 NOV 79	AFETR	EARTH ORE
1979 098B	DSCS II-14	11622 US	21 NOV 79	AFETR	EARTH ORE
1979 099A	COSMOS 1145	11629 USSR	27 NOV 79	PLMSC	EARTH ORE
1979 100A	COSMOS 1146	11632 USSR	05 DEC 79	PLMSC	25 NOV 81
1979 101A	RCA SATCOM 3	11635 US	07 DEC 79	AFETR	EARTH ORE
1979 102A	COSMOS 1147	11638 USSR	12 DEC 79	PLMSC	26 DEC 79
1979 103A	SOYUZ T-01	11640 USSR	16 DEC 79	TYMSC	25 MAR 80
1979 104A	CAT 1	11645 ESA	24 DEC 79	FRGUI	27 NOV 89
1979 105A	GORIZONT 3	11648 USSR	28 DEC 79	TYMSC	EARTH ORE
1979 106A	COSMOS 1148	11649 USSR	28 DEC 79	PLMSC	10 JAN 80
1980 001A	COSMOS 1149	11652 USSR	09 JAN 80	PLMSC	23 JAN 80
1980 002A	MOLNIYA 1-46	11662 USSR	11 JAN 80	PLMSC	22 OCT 92
1980 003A	COSMOS 1150	11667 USSR	14 JAN 80	PLMSC	EARTH ORE
1980 004A	FLTSATCOM 3	11669 US	18 JAN 80	AFETR	EARTH ORE
1980 005A	COSMOS 1151	11671 USSR	23 JAN 80	PLMSC	EARTH ORE
1980 006A	COSMOS 1152	11678 USSR	24 JAN 80	PLMSC	06 FEB 80

## Sheet1

1980 007A	COSMOS 1153	11680 USSR	25 JAN 80	PLMSC	EARTH ORE
1980 008A	COSMOS 1154	11682 USSR	30 JAN 80	PLMSC	EARTH ORE
1980 009A	COSMOS 1155	11685 USSR	07 FEB 80	PLMSC	21 FEB 80
1980 010A	KH 11-3	11687 US	07 FEB 80	AFWTR	30 OCT 82
1980 011A	NAVSTAR 5 (GPS)	11690 US	09 FEB 80	AFWTR	EARTH ORE
1980 012A	COSMOS 1156	11691 USSR	11 FEB 80	PLMSC	EARTH ORE
1980 012B	COSMOS 1157	11692 USSR	11 FEB 80	PLMSC	EARTH ORE
1980 012C	COSMOS 1158	11693 USSR	11 FEB 80	PLMSC	EARTH ORE
1980 012D	COSMOS 1159	11694 USSR	11 FEB 80	PLMSC	EARTH ORE
1980 012E	COSMOS 1160	11695 USSR	11 FEB 80	PLMSC	EARTH ORE
1980 012F	COSMOS 1161	11696 USSR	11 FEB 80	PLMSC	EARTH ORE
1980 012G	COSMOS 1162	11697 USSR	11 FEB 80	PLMSC	EARTH ORE
1980 012H	COSMOS 1163	11698 USSR	11 FEB 80	PLMSC	EARTH ORE
1980 013A	COSMOS 1164	11700 USSR	12 FEB 80	PLMSC	12 FEB 80
1980 014A	SMM	11703 US	14 FEB 80	AFETR	02 DEC 89
1980 015A	TANSEI 4	11706 JAPAN	17 FEB 80	KSCUT	12 MAY 83
1980 016A	RADUGA 6	11708 USSR	20 FEB 80	TYMSC	EARTH ORE
1980 017A	COSMOS 1165	11713 USSR	21 FEB 80	PLMSC	05 MAR 80
1980 018A	AYAME 2 (ECS 2)	11715 JAPAN	22 FEB 80	TANSC	EARTH ORE
1980 019A	NOSS 3	11720 US	03 MAR 80	AFWTR	ELNA
1980 019C	EP-1 [NOSS 3]	11731 US	03 MAR 80	AFWTR	ELNA
1980 019D	EP-2 [NOSS 3]	11732 US	03 MAR 80	AFWTR	ELNA
1980 019G	EP-3 [NOSS 3]	11745 US	03 MAR 80	AFWTR	ELNA
1980 020A	COSMOS 1166	11722 USSR	04 MAR 80	PLMSC	18 MAR 80
1980 021A	COSMOS 1167	11729 USSR	14 MAR 80	TYMSC	01 OCT 81
1980 022A	COSMOS 1168	11735 USSR	17 MAR 80	PLMSC	EARTH ORE
1980 023A	COSMOS 1169	11741 USSR	27 MAR 80	PLMSC	03 MAR 83
1980 024A	PROGRESS 8	11743 USSR	27 MAR 80	TYMSC	26 APR 80
1980 025A	COSMOS 1170	11747 USSR	01 APR 80	TYMSC	12 APR 80
1980 026A	COSMOS 1171	11750 USSR	03 APR 80	PLMSC	EARTH ORE
1980 027A	SOYUZ 35	11753 USSR	09 APR 80	TYMSC	03 JUN 80
1980 028A	COSMOS 1172	11758 USSR	12 APR 80	PLMSC	EARTH ORE
1980 029A	COSMOS 1173	11763 USSR	17 APR 80	TYMSC	28 APR 80
1980 030A	COSMOS 1174	11765 USSR	18 APR 80	TYMSC	EARTH ORE
1980 031A	COSMOS 1175	11767 USSR	18 APR 80	PLMSC	28 MAY 80
1980 032A	NAVSTAR 6 (GPS)	11783 US	26 APR 80	AFWTR	EARTH ORE
1980 033A	PROGRESS 9	11784 USSR	27 APR 80	TYMSC	22 MAY 80
1980 034A	COSMOS 1176	11788 USSR	29 APR 80	TYMSC	EARTH ORE
1980 035A	COSMOS 1177	11789 USSR	29 APR 80	PLMSC	12 JUN 80
1980 036A	COSMOS 1178	11793 USSR	07 MAY 80	PLMSC	22 MAY 80
1980 037A	COSMOS 1179	11796 USSR	14 MAY 80	PLMSC	18 JUL 89
1980 038A	COSMOS 1180	11798 USSR	15 MAY 80	PLMSC	26 MAY 80
1980 039A	COSMOS 1181	11803 USSR	20 MAY 80	PLMSC	EARTH ORE
1980 040A	COSMOS 1182	11808 USSR	23 MAY 80	PLMSC	05 JUN 80
1980 041A	SOYUZ 36	11811 USSR	26 MAY 80	TYMSC	31 JUL 80
1980 042A	COSMOS 1183	11816 USSR	28 MAY 80	PLMSC	11 JUN 80
1980 043A	NOAA 7	11819 US	29 MAY 80	AFWTR	03 MAY 81
1980 044A	COSMOS 1184	11821 USSR	04 JUN 80	PLMSC	EARTH ORE
1980 045A	SOYUZ T-02	11825 USSR	05 JUN 80	TYMSC	09 JUN 80

## Sheet1

1980 046A	COSMOS 1185	11827 USSR	06 JUN 80	PLMSC	20 JUN 80
1980 047A	COSMOS 1186	11829 USSR	06 JUN 80	PLMSC	01 JAN 82
1980 048A	COSMOS 1187	11837 USSR	12 JUN 80	PLMSC	26 JUN 80
1980 049A	GORIZONT 4	11841 USSR	14 JUN 80	TYMSC	EARTH ORE
1980 050A	COSMOS 1188	11844 USSR	14 JUN 80	PLMSC	EARTH ORE
1980 051A	METEOR 1-30	11848 USSR	18 JUN 80	TYMSC	01 MAR 92
1980 052A	KH 9-16	11850 US	18 JUN 80	AFWTR	06 MAR 81
1980 052C	KH 9-16 SUBSATELLITE	11852 US	18 JUN 80	AFWTR	ELNA
1980 053A	MOLNIYA 1-47	11856 USSR	21 JUN 80	PLMSC	01 APR 91
1980 054A	COSMOS 1189	11863 USSR	26 JUN 80	PLMSC	10 JUL 80
1980 055A	PROGRESS 10	11867 USSR	29 JUN 80	TYMSC	19 JUL 80
1980 056A	COSMOS 1190	11869 USSR	01 JUL 80	PLMSC	EARTH ORE
1980 057A	COSMOS 1191	11871 USSR	02 JUL 80	PLMSC	EARTH ORE
1980 058A	COSMOS 1192	11875 USSR	09 JUL 80	PLMSC	EARTH ORE
1980 058B	COSMOS 1193	11876 USSR	09 JUL 80	PLMSC	EARTH ORE
1980 058C	COSMOS 1194	11877 USSR	09 JUL 80	PLMSC	EARTH ORE
1980 058D	COSMOS 1195	11878 USSR	09 JUL 80	PLMSC	EARTH ORE
1980 058E	COSMOS 1196	11879 USSR	09 JUL 80	PLMSC	EARTH ORE
1980 058F	COSMOS 1197	11880 USSR	09 JUL 80	PLMSC	EARTH ORE
1980 058G	COSMOS 1198	11881 USSR	09 JUL 80	PLMSC	EARTH ORE
1980 058H	COSMOS 1199	11882 USSR	09 JUL 80	PLMSC	EARTH ORE
1980 059A	COSMOS 1200	11884 USSR	09 JUL 80	PLMSC	23 JUL 80
1980 060A	EKRAN 5	11890 USSR	14 JUL 80	TYMSC	EARTH ORE
1980 061A	COSMOS 1201	11894 USSR	15 JUL 80	PLMSC	28 JUL 80
1980 062A	ROHINI 1B	11899 INDIA	18 JUL 80	SRILR	20 MAY 81
1980 063A	MOLNIYA 3-13	11896 USSR	18 JUL 80	PLMSC	EARTH ORE
1980 064A	SOYUZ 37	11905 USSR	23 JUL 80	TYMSC	11 OCT 80
1980 065A	COSMOS 1202	11907 USSR	24 JUL 80	PLMSC	07 AUG 80
1980 066A	COSMOS 1203	11915 USSR	31 JUL 80	PLMSC	14 AUG 80
1980 067A	COSMOS 1204	11917 USSR	31 JUL 80	KYMSC	23 FEB 81
1980 068A	COSMOS 1205	11924 USSR	12 AUG 80	PLMSC	26 AUG 80
1980 069A	COSMOS 1206	11932 USSR	15 AUG 80	PLMSC	EARTH ORE
1980 070A	COSMOS 1207	11938 USSR	22 AUG 80	PLMSC	04 SEP 80
1980 071A	COSMOS 1208	11945 USSR	26 AUG 80	PLMSC	24 SEP 80
1980 072A	COSMOS 1209	11950 USSR	03 SEP 80	PLMSC	17 SEP 80
1980 073A	METEOR 2-06	11962 USSR	09 SEP 80	PLMSC	EARTH ORE
1980 074A	GOES 4	11964 US	09 SEP 80	AFETR	EARTH ORE
1980 075A	SOYUZ 38	11977 USSR	18 SEP 80	TYMSC	26 SEP 80
1980 076A	COSMOS 1210	11980 USSR	19 SEP 80	PLMSC	03 OCT 80
1980 077A	COSMOS 1211	11982 USSR	23 SEP 80	PLMSC	04 OCT 80
1980 078A	COSMOS 1212	11985 USSR	26 SEP 80	PLMSC	09 OCT 80
1980 079A	PROGRESS 11	11993 USSR	28 SEP 80	TYMSC	11 DEC 80
1980 080A	COSMOS 1213	11997 USSR	03 OCT 80	PLMSC	17 OCT 80
1980 081A	RADUGA 7	12003 USSR	05 OCT 80	TYMSC	EARTH ORE
1980 082A	COSMOS 1214	12008 USSR	10 OCT 80	PLMSC	23 OCT 80
1980 083A	COSMOS 1215	12016 USSR	14 OCT 80	PLMSC	12 MAY 83
1980 084A	COSMOS 1216	12019 USSR	16 OCT 80	PLMSC	30 OCT 80
1980 085A	COSMOS 1217	12032 USSR	24 OCT 80	PLMSC	EARTH ORE
1980 086A	COSMOS 1218	12039 USSR	30 OCT 80	TYMSC	12 DEC 80

## Sheet1

1980 087A	FLTSATCOM 4	12046 US	31 OCT 80	AFETR	EARTH ORE
1980 088A	COSMOS 1219	12050 USSR	31 OCT 80	PLMSC	13 NOV 80
1980 089A	COSMOS 1220	12054 USSR	04 NOV 80	TYMSC	EARTH ORE
1980 090A	COSMOS 1221	12058 USSR	12 NOV 80	PLMSC	26 NOV 80
1980 091A	SBS 1	12065 US	15 NOV 80	AFETR	EARTH ORE
1980 092A	MOLNIYA 1-48	12066 USSR	16 NOV 80	PLMSC	EARTH ORE
1980 093A	COSMOS 1222	12071 USSR	21 NOV 80	PLMSC	EARTH ORE
1980 094A	SOYUZ T-03	12077 USSR	27 NOV 80	TYMSC	10 DEC 80
1980 095A	COSMOS 1223	12078 USSR	27 NOV 80	PLMSC	EARTH ORE
1980 096A	COSMOS 1224	12084 USSR	01 DEC 80	PLMSC	15 DEC 80
1980 097A	COSMOS 1225	12087 USSR	05 DEC 80	PLMSC	EARTH ORE
1980 098A	INTELSAT 5 F-2	12089 ITSO	06 DEC 80	AFETR	EARTH ORE
1980 099A	COSMOS 1226	12091 USSR	10 DEC 80	PLMSC	EARTH ORE
1980 100A	SDS 6	12093 US	13 DEC 80	AFWTR	ELNA
1980 101A	COSMOS 1227	12100 USSR	16 DEC 80	PLMSC	28 DEC 80
1980 102A	COSMOS 1228	12107 USSR	23 DEC 80	PLMSC	EARTH ORE
1980 102B	COSMOS 1229	12108 USSR	23 DEC 80	PLMSC	EARTH ORE
1980 102C	COSMOS 1230	12109 USSR	23 DEC 80	PLMSC	EARTH ORE
1980 102D	COSMOS 1231	12110 USSR	23 DEC 80	PLMSC	EARTH ORE
1980 102E	COSMOS 1232	12111 USSR	23 DEC 80	PLMSC	EARTH ORE
1980 102F	COSMOS 1233	12112 USSR	23 DEC 80	PLMSC	EARTH ORE
1980 102G	COSMOS 1234	12113 USSR	23 DEC 80	PLMSC	EARTH ORE
1980 102H	COSMOS 1235	12114 USSR	23 DEC 80	PLMSC	EARTH ORE
1980 103A	PROGNOZ 8	12116 USSR	25 DEC 80	TYMSC	EARTH ORE
1980 104A	EKRAN 6	12120 USSR	26 DEC 80	TYMSC	EARTH ORE
1980 105A	COSMOS 1236	12121 USSR	26 DEC 80	PLMSC	21 JAN 81
1981 001A	COSMOS 1237	12130 USSR	06 JAN 81	PLMSC	20 JAN 81
1981 002A	MOLNIYA 3-14	12133 USSR	09 JAN 81	PLMSC	EARTH ORE
1981 003A	COSMOS 1238	12138 USSR	16 JAN 81	PLMSC	EARTH ORE
1981 004A	COSMOS 1239	12140 USSR	16 JAN 81	PLMSC	28 JAN 81
1981 005A	COSMOS 1240	12143 USSR	20 JAN 81	TYMSC	17 FEB 81
1981 006A	COSMOS 1241	12149 USSR	21 JAN 81	PLMSC	EARTH ORE
1981 007A	PROGRESS 12	12152 USSR	24 JAN 81	TYMSC	20 MAR 81
1981 008A	COSMOS 1242	12154 USSR	27 JAN 81	PLMSC	EARTH ORE
1981 009A	MOLNIYA 1-49	12156 USSR	30 JAN 81	PLMSC	EARTH ORE
1981 010A	COSMOS 1243	12160 USSR	02 FEB 81	TYMSC	02 FEB 81
1981 011A	INTERCOSMOS 21	12162 USSR	06 FEB 81	PLMSC	07 JUL 82
1981 012A	KIKU 3 (ETS 4)	12295 JAPAN	11 FEB 81	TANSC	EARTH ORE
1981 013A	COSMOS 1244	12297 USSR	12 FEB 81	PLMSC	EARTH ORE
1981 014A	COSMOS 1245	12299 USSR	13 FEB 81	PLMSC	27 FEB 81
1981 015A	COSMOS 1246	12301 USSR	18 FEB 81	TYMSC	13 MAR 81
1981 016A	COSMOS 1247	12303 USSR	19 FEB 81	PLMSC	EARTH ORE
1981 017A	SS-07/HINOTORI (ASTRO 1)	12307 JAPAN	21 FEB 81	KSCUT	11 JUL 91
1981 018A	COMSTAR 4	12309 US	21 FEB 81	AFETR	EARTH ORE
1981 019A	KH 8-49	12315 US	28 FEB 81	AFWTR	20 JUN 81
1981 020A	COSMOS 1248	12317 USSR	05 MAR 81	PLMSC	04 APR 81
1981 021A	COSMOS 1249	12319 USSR	05 MAR 81	TYMSC	EARTH ORE
1981 022A	COSMOS 1250	12320 USSR	06 MAR 81	PLMSC	EARTH ORE
1981 022B	COSMOS 1251	12321 USSR	06 MAR 81	PLMSC	EARTH ORE

## Sheet1

1981 022C	COSMOS 1252	12322 USSR	06 MAR 81	PLMSC	EARTH ORE
1981 022D	COSMOS 1253	12323 USSR	06 MAR 81	PLMSC	EARTH ORE
1981 022E	COSMOS 1254	12324 USSR	06 MAR 81	PLMSC	EARTH ORE
1981 022F	COSMOS 1255	12325 USSR	06 MAR 81	PLMSC	EARTH ORE
1981 022G	COSMOS 1256	12326 USSR	06 MAR 81	PLMSC	EARTH ORE
1981 022H	COSMOS 1257	12327 USSR	06 MAR 81	PLMSC	EARTH ORE
1981 023A	SOYUZ T-04	12334 USSR	12 MAR 81	TYMSC	26 MAY 81
1981 024A	COSMOS 1258	12337 USSR	14 MAR 81	TYMSC	14 MAR 81
1981 025A	IMEWS 11	12339 US	16 MAR 81	AFETR	ELNA
1981 026A	COSMOS 1259	12341 USSR	17 MAR 81	TYMSC	31 MAR 81
1981 027A	RADUGA 8	12351 USSR	18 MAR 81	TYMSC	EARTH ORE
1981 028A	COSMOS 1260	12364 USSR	20 MAR 81	TYMSC	22 MAY 82
1981 029A	SOYUZ 39	12366 USSR	22 MAR 81	TYMSC	30 MAR 81
1981 030A	MOLNIYA 3-15	12368 USSR	24 MAR 81	PLMSC	19 OCT 92
1981 031A	COSMOS 1261	12376 USSR	31 MAR 81	PLMSC	EARTH ORE
1981 032A	COSMOS 1262	12385 USSR	07 APR 81	PLMSC	21 APR 81
1981 033A	COSMOS 1263	12388 USSR	09 APR 81	PLMSC	EARTH ORE
1981 034A	STS-01 (OFT-1)	12399 US	12 APR 81	AFETR	14 APR 81
1981 035A	COSMOS 1264	12400 USSR	15 APR 81	TYMSC	29 APR 81
1981 036A	COSMOS 1265	12402 USSR	16 APR 81	PLMSC	28 APR 81
1981 037A	COSMOS 1266	12409 USSR	21 APR 81	TYMSC	EARTH ORE
1981 038A	SDS 7	12418 US	24 APR 81	AFWTR	ELNA
1981 039A	COSMOS 1267	12419 USSR	25 APR 81	TYMSC	29 JUL 82
1981 040A	COSMOS 1268	12423 USSR	28 APR 81	TYMSC	12 MAY 81
1981 041A	COSMOS 1269	12442 USSR	07 MAY 81	PLMSC	EARTH ORE
1981 042A	SOYUZ 40	12454 USSR	14 MAY 81	TYMSC	22 MAY 81
1981 043A	METEOR 2-07	12456 USSR	14 MAY 81	PLMSC	EARTH ORE
1981 044A	NOVA 1	12458 US	15 MAY 81	AFWTR	EARTH ORE
1981 045A	COSMOS 1270	12461 USSR	18 MAY 81	TYMSC	17 JUN 81
1981 046A	COSMOS 1271	12464 USSR	19 MAY 81	PLMSC	EARTH ORE
1981 047A	COSMOS 1272	12466 USSR	21 MAY 81	TYMSC	04 JUN 81
1981 048A	COSMOS 1273	12469 USSR	22 MAY 81	PLMSC	04 JUN 81
1981 049A	GOES 5	12472 US	22 MAY 81	AFETR	EARTH ORE
1981 050A	INTELSAT 5 F-1	12474 ITSO	23 MAY 81	AFETR	EARTH ORE
1981 051A	ROHINI 2	12491 INDIA	31 MAY 81	SRILR	08 JUN 81
1981 052A	COSMOS 1274	12495 USSR	03 JUN 81	PLMSC	03 JUL 81
1981 053A	COSMOS 1275	12504 USSR	04 JUN 81	PLMSC	EARTH ORE
1981 054A	MOLNIYA 3-16	12512 USSR	09 JUN 81	PLMSC	EARTH ORE
1981 055A	COSMOS 1276	12517 USSR	16 JUN 81	PLMSC	29 JUN 81
1981 056A	COSMOS 1277	12520 USSR	17 JUN 81	TYMSC	01 JUL 81
1981 057A	METEOSAT 2	12544 ESA	19 JUN 81	FRGUI	EARTH ORE
1981 057B	APPLE	12545 INDIA	19 JUN 81	FRGUI	EARTH ORE
1981 057C	CAT 3	12546 ESA	19 JUN 81	FRGUI	EARTH ORE
1981 058A	COSMOS 1278	12547 USSR	19 JUN 81	PLMSC	EARTH ORE
1981 059A	NOAA 7C	12553 US	23 JUN 81	AFWTR	EARTH ORE
1981 060A	MOLNIYA 1-50	12556 USSR	24 JUN 81	PLMSC	14 DEC 91
1981 061A	EKRAN 7	12564 USSR	25 JUN 81	TYMSC	EARTH ORE
1981 062A	COSMOS 1279	12571 USSR	01 JUL 81	TYMSC	15 JUL 81
1981 063A	COSMOS 1280	12577 USSR	02 JUL 81	PLMSC	15 JUL 81

## Sheet1

1981 064A	COSMOS 1281	12583 USSR	07 JUL 81	PLMSC	21 JUL 81
1981 065A	METEOR 1-31	12585 USSR	10 JUL 81	TYMSC	EARTH ORE
1981 065C	ISKRA 1	12587 USSR	10 JUL 81	TYMSC	07 OCT 81
1981 066A	COSMOS 1282	12588 USSR	15 JUL 81	TYMSC	14 AUG 81
1981 067A	COSMOS 1283	12598 USSR	17 JUL 81	PLMSC	31 JUL 81
1981 068A	COSMOS 1284	12614 USSR	29 JUL 81	PLMSC	12 AUG 81
1981 069A	RADUGA 9	12618 USSR	30 JUL 81	TYMSC	EARTH ORE
1981 070A	DYNAMICS EXPLORER 1	12624 US	03 AUG 81	AFWTR	EARTH ORE
1981 070B	DYNAMICS EXPLORER 2	12625 US	03 AUG 81	AFWTR	19 FEB 83
1981 071A	COSMOS 1285	12627 USSR	04 AUG 81	PLMSC	EARTH ORE
1981 072A	COSMOS 1286	12631 USSR	04 AUG 81	TYMSC	16 OCT 82
1981 073A	FLTSATCOM 5	12635 US	06 AUG 81	AFETR	EARTH ORE
1981 074A	COSMOS 1287	12636 USSR	06 AUG 81	PLMSC	EARTH ORE
1981 074B	COSMOS 1288	12637 USSR	06 AUG 81	PLMSC	EARTH ORE
1981 074C	COSMOS 1289	12638 USSR	06 AUG 81	PLMSC	EARTH ORE
1981 074D	COSMOS 1290	12639 USSR	06 AUG 81	PLMSC	EARTH ORE
1981 074E	COSMOS 1291	12640 USSR	06 AUG 81	PLMSC	EARTH ORE
1981 074F	COSMOS 1292	12641 USSR	06 AUG 81	PLMSC	EARTH ORE
1981 074G	COSMOS 1293	12642 USSR	06 AUG 81	PLMSC	EARTH ORE
1981 074H	COSMOS 1294	12643 USSR	06 AUG 81	PLMSC	EARTH ORE
1981 075A	INTERCOSMOS 22	12645 USSR	07 AUG 81	PLMSC	EARTH ORE
1981 076A	HIMAWARI 2 (GMS 2)	12677 JAPAN	10 AUG 81	TANSC	EARTH ORE
1981 077A	COSMOS 1295	12681 USSR	12 AUG 81	PLMSC	EARTH ORE
1981 078A	COSMOS 1296	12687 USSR	13 AUG 81	PLMSC	13 SEP 81
1981 079A	COSMOS 1297	12716 USSR	18 AUG 81	PLMSC	30 AUG 81
1981 080A	COSMOS 1298	12776 USSR	21 AUG 81	TYMSC	02 OCT 81
1981 081A	COSMOS 1299	12783 USSR	24 AUG 81	TYMSC	EARTH ORE
1981 082A	COSMOS 1300	12785 USSR	24 AUG 81	PLMSC	EARTH ORE
1981 083A	COSMOS 1301	12788 USSR	27 AUG 81	PLMSC	10 SEP 81
1981 084A	COSMOS 1302	12791 USSR	28 AUG 81	PLMSC	EARTH ORE
1981 085A	KH 11-4	12799 US	03 SEP 81	AFWTR	23 NOV 84
1981 086A	COSMOS 1303	12801 USSR	04 SEP 81	TYMSC	18 SEP 81
1981 087A	COSMOS 1304	12803 USSR	04 SEP 81	PLMSC	EARTH ORE
1981 088A	COSMOS 1305	12818 USSR	11 SEP 81	PLMSC	EARTH ORE
1981 089A	COSMOS 1306	12828 USSR	14 SEP 81	TYMSC	16 JUL 82
1981 090A	COSMOS 1307	12830 USSR	15 SEP 81	PLMSC	28 SEP 81
1981 091A	COSMOS 1308	12835 USSR	18 SEP 81	PLMSC	EARTH ORE
1981 092A	COSMOS 1309	12837 USSR	18 SEP 81	PLMSC	01 OCT 81
1981 093A	PRC 9	12842 PRC	19 SEP 81	SCMTR	26 SEP 81
1981 093B	PRC 10	12843 PRC	19 SEP 81	SCMTR	06 OCT 82
1981 093D	PRC 11	12845 PRC	19 SEP 81	SCMTR	17 AUG 82
1981 094A	AUREOLE 3	12848 FRANCE	21 SEP 81	PLMSC	EARTH ORE
1981 095A	COSMOS 1310	12852 USSR	23 SEP 81	PLMSC	03 APR 89
1981 096A	SBS 2	12855 US	24 SEP 81	AFETR	EARTH ORE
1981 097A	COSMOS 1311	12871 USSR	28 SEP 81	PLMSC	28 AUG 83
1981 098A	COSMOS 1312	12879 USSR	30 SEP 81	PLMSC	EARTH ORE
1981 099A	COSMOS 1313	12881 USSR	01 OCT 81	TYMSC	15 OCT 81
1981 100A	SME	12887 US	06 OCT 81	AFWTR	05 MAR 91
1981 100B	UOSAT 1	12888 UK	06 OCT 81	AFWTR	13 OCT 89



## Sheet1

1981 101A	COSMOS 1314	12895 USSR	09 OCT 81	PLMSC	22 OCT 81
1981 102A	RADUGA 10	12897 USSR	09 OCT 81	TYMSC	EARTH ORE
1981 103A	COSMOS 1315	12903 USSR	13 OCT 81	PLMSC	EARTH ORE
1981 104A	COSMOS 1316	12905 USSR	15 OCT 81	TYMSC	29 OCT 81
1981 105A	MOLNIYA 3-17	12915 USSR	17 OCT 81	PLMSC	EARTH ORE
1981 106A	VENERA 13	12927 USSR	30 OCT 81	TYMSC	SOLAR ORE
1981 106D	VENERA 13 DESCENT CRAFT	15599 USSR	30 OCT 81	TYMSC	01 MAR 82
1981 107A	IMEWS 12 (CHALET ?)	12930 US	31 OCT 81	AFETR	ELNA
1981 108A	COSMOS 1317	12933 USSR	31 OCT 81	PLMSC	EARTH ORE
1981 109A	COSMOS 1318	12936 USSR	03 NOV 81	PLMSC	04 DEC 81
1981 110A	VENERA 14	12938 USSR	04 NOV 81	TYMSC	SOLAR ORE
1981 110D	VENERA 14 DESCENT CRAFT	15600 USSR	04 NOV 81	TYMSC	05 MAR 82
1981 111A	STS-02 (OFT-2)	12953 US	12 NOV 81	AFETR	14 NOV 81
1981 112A	COSMOS 1319	12954 USSR	13 NOV 81	TYMSC	27 NOV 81
1981 113A	MOLNIYA 1-51	12959 USSR	17 NOV 81	PLMSC	02 NOV 93
1981 114A	RCA SATCOM 3R	12967 US	20 NOV 81	AFETR	EARTH ORE
1981 115A	BHASKARA 2	12968 INDIA	20 NOV 81	KYMSC	30 NOV 91
1981 116A	COSMOS 1320	12975 USSR	28 NOV 81	PLMSC	EARTH ORE
1981 116B	COSMOS 1321	12976 USSR	28 NOV 81	PLMSC	EARTH ORE
1981 116C	COSMOS 1322	12977 USSR	28 NOV 81	PLMSC	EARTH ORE
1981 116D	COSMOS 1323	12978 USSR	28 NOV 81	PLMSC	EARTH ORE
1981 116E	COSMOS 1324	12979 USSR	28 NOV 81	PLMSC	EARTH ORE
1981 116F	COSMOS 1325	12980 USSR	28 NOV 81	PLMSC	EARTH ORE
1981 116G	COSMOS 1326	12981 USSR	28 NOV 81	PLMSC	EARTH ORE
1981 116H	COSMOS 1327	12982 USSR	28 NOV 81	PLMSC	EARTH ORE
1981 117A	COSMOS 1328	12987 USSR	03 DEC 81	PLMSC	EARTH ORE
1981 118A	COSMOS 1329	12989 USSR	04 DEC 81	TYMSC	18 DEC 81
1981 119A	INTELSAT 5 F-3	12994 ITSO	15 DEC 81	AFETR	EARTH ORE
1981 120A	RADIO SPUTNIK 3	12997 USSR	17 DEC 81	PLMSC	EARTH ORE
1981 120B	RADIO SPUTNIK 8	12998 USSR	17 DEC 81	PLMSC	EARTH ORE
1981 120C	RADIO SPUTNIK 5	12999 USSR	17 DEC 81	PLMSC	EARTH ORE
1981 120D	RADIO SPUTNIK 4	13000 USSR	17 DEC 81	PLMSC	EARTH ORE
1981 120E	RADIO SPUTNIK 7	13001 USSR	17 DEC 81	PLMSC	EARTH ORE
1981 120F	RADIO SPUTNIK 6	13002 USSR	17 DEC 81	PLMSC	EARTH ORE
1981 121A	COSMOS 1330	13008 USSR	19 DEC 81	TYMSC	19 JAN 82
1981 122A	MARECS 1	13010 ESA	20 DEC 81	FRGUI	EARTH ORE
1981 122B	CAT 4	13011 ESA	20 DEC 81	FRGUI	EARTH ORE
1981 123A	MOLNIYA 1-52	13012 USSR	23 DEC 81	TYMSC	EARTH ORE
1982 001A	COSMOS 1331	13027 USSR	07 JAN 82	PLMSC	EARTH ORE
1982 002A	COSMOS 1332	13031 USSR	12 JAN 82	PLMSC	25 JAN 82
1982 003A	COSMOS 1333	13033 USSR	14 JAN 82	PLMSC	EARTH ORE
1982 004A	RCA SATCOM 4	13035 US	16 JAN 82	AFETR	EARTH ORE
1982 005A	COSMOS 1334	13036 USSR	20 JAN 82	PLMSC	03 FEB 82
1982 006A	UNIDENTIFIED	13040 US	21 JAN 82	AFWTR	23 MAY 82
1982 007A	COSMOS 1335	13042 USSR	29 JAN 82	PLMSC	05 APR 87
1982 008A	COSMOS 1336	13045 USSR	30 JAN 82	TYMSC	26 FEB 82
1982 009A	EKRAN 8	13056 USSR	05 FEB 82	TYMSC	EARTH ORE
1982 010A	COSMOS 1337	13061 USSR	11 FEB 82	TYMSC	25 JUL 82
1982 011A	COSMOS 1338	13063 USSR	16 FEB 82	PLMSC	02 MAR 82

## Sheet1

1982 012A	COSMOS 1339	13065 USSR	17 FEB 82	PLMSC	EARTH ORE
1982 013A	COSMOS 1340	13067 USSR	19 FEB 82	PLMSC	EARTH ORE
1982 014A	WESTAR 4	13069 US	26 FEB 82	AFETR	EARTH ORE
1982 015A	MOLNIYA 1-53	13070 USSR	26 FEB 82	PLMSC	EARTH ORE
1982 016A	COSMOS 1341	13080 USSR	03 MAR 82	PLMSC	EARTH ORE
1982 017A	INTELSAT 5 F-4	13083 ITSO	05 MAR 82	AFETR	EARTH ORE
1982 018A	COSMOS 1342	13084 USSR	05 MAR 82	PLMSC	19 MAR 82
1982 019A	IMEWS 13	13086 US	06 MAR 82	AFETR	ELNA
1982 020A	GORIZONT 5	13092 USSR	15 MAR 82	TYMSC	EARTH ORE
1982 021A	COSMOS 1343	13096 USSR	17 MAR 82	PLMSC	31 MAR 82
1982 022A	STS-03 (OFT-3)	13106 US	22 MAR 82	AFETR	30 MAR 82
1982 023A	MOLNIYA 3-18	13107 USSR	24 MAR 82	PLMSC	23 JUN 92
1982 024A	COSMOS 1344	13110 USSR	24 MAR 82	PLMSC	EARTH ORE
1982 025A	METEOR 2-08	13113 USSR	25 MAR 82	PLMSC	EARTH ORE
1982 026A	COSMOS 1345	13118 USSR	31 MAR 82	PLMSC	27 SEP 89
1982 027A	COSMOS 1346	13120 USSR	31 MAR 82	PLMSC	EARTH ORE
1982 028A	COSMOS 1347	13122 USSR	02 APR 82	TYMSC	21 MAY 82
1982 029A	COSMOS 1348	13124 USSR	07 APR 82	PLMSC	EARTH ORE
1982 030A	COSMOS 1349	13127 USSR	08 APR 82	PLMSC	EARTH ORE
1982 031A	INSAT 1A	13129 INDIA	10 APR 82	AFETR	EARTH ORE
1982 032A	COSMOS 1350	13134 USSR	15 APR 82	PLMSC	16 MAY 82
1982 033A	SALYUT 7	13138 USSR	19 APR 82	TYMSC	07 FEB 91
1982 033C	ISKRA 2	13176 USSR	17 MAY 82	TYMSC	09 JUL 82
1982 033AD	ISKRA 3	13663 USSR	18 NOV 82	TYMSC	16 DEC 82
1982 034A	COSMOS 1351	13142 USSR	21 APR 82	KYMSC	14 MAR 83
1982 035A	COSMOS 1352	13144 USSR	21 APR 82	TYMSC	05 MAY 82
1982 036A	COSMOS 1353	13146 USSR	23 APR 82	PLMSC	06 MAY 82
1982 037A	COSMOS 1354	13148 USSR	28 APR 82	PLMSC	EARTH ORE
1982 038A	COSMOS 1355	13150 USSR	29 APR 82	TYMSC	07 MAR 84
1982 039A	COSMOS 1356	13153 USSR	05 MAY 82	PLMSC	EARTH ORE
1982 040A	COSMOS 1357	13160 USSR	06 MAY 82	PLMSC	EARTH ORE
1982 040B	COSMOS 1358	13161 USSR	06 MAY 82	PLMSC	EARTH ORE
1982 040C	COSMOS 1359	13162 USSR	06 MAY 82	PLMSC	EARTH ORE
1982 040D	COSMOS 1360	13163 USSR	06 MAY 82	PLMSC	EARTH ORE
1982 040E	COSMOS 1361	13164 USSR	06 MAY 82	PLMSC	EARTH ORE
1982 040F	COSMOS 1362	13165 USSR	06 MAY 82	PLMSC	EARTH ORE
1982 040G	COSMOS 1363	13166 USSR	06 MAY 82	PLMSC	EARTH ORE
1982 040H	COSMOS 1364	13167 USSR	06 MAY 82	PLMSC	EARTH ORE
1982 041A	KH 9-17	13170 US	11 MAY 82	AFWTR	05 DEC 82
1982 041C	KH 9-17 SUBSATELLITE	13172 US	11 MAY 82	AFWTR	ELNA
1982 042A	SOYUZ T-05	13173 USSR	13 MAY 82	TYMSC	27 AUG 82
1982 043A	COSMOS 1365	13175 USSR	14 MAY 82	TYMSC	EARTH ORE
1982 044A	COSMOS 1366	13177 USSR	17 MAY 82	TYMSC	EARTH ORE
1982 045A	COSMOS 1367	13205 USSR	20 MAY 82	PLMSC	EARTH ORE
1982 046A	COSMOS 1368	13208 USSR	21 MAY 82	TYMSC	03 JUN 82
1982 047A	PROGRESS 13	13210 USSR	23 MAY 82	TYMSC	06 JUN 82
1982 048A	COSMOS 1369	13213 USSR	25 MAY 82	PLMSC	08 JUN 82
1982 049A	COSMOS 1370	13219 USSR	28 MAY 82	TYMSC	11 JUL 82
1982 050A	MOLNIYA 1-54	13237 USSR	28 MAY 82	PLMSC	19 NOV 92

## Sheet1

1982 051A	COSMOS 1371	13241 USSR	01 JUN 82	PLMSC	EARTH ORE
1982 052A	COSMOS 1372	13243 USSR	01 JUN 82	TYMSC	EARTH ORE
1982 053A	COSMOS 1373	13244 USSR	02 JUN 82	TYMSC	16 JUN 82
1982 054A	COSMOS 1374	13257 USSR	03 JUN 82	KYMSC	03 JUN 82
1982 055A	COSMOS 1375	13259 USSR	06 JUN 82	PLMSC	EARTH ORE
1982 056A	COSMOS 1376	13263 USSR	08 JUN 82	PLMSC	22 JUN 82
1982 057A	COSMOS 1377	13265 USSR	08 JUN 82	TYMSC	22 JUL 82
1982 058A	WESTAR 5	13269 US	09 JUN 82	AFETR	EARTH ORE
1982 059A	COSMOS 1378	13271 USSR	10 JUN 82	PLMSC	EARTH ORE
1982 060A	COSMOS 1379	13281 USSR	18 JUN 82	TYMSC	18 JUN 82
1982 061A	COSMOS 1380	13282 USSR	18 JUN 82	PLMSC	27 JUN 82
1982 062A	COSMOS 1381	13283 USSR	18 JUN 82	TYMSC	01 JUL 82
1982 063A	SOYUZ T-06	13292 USSR	24 JUN 82	TYMSC	02 JUL 82
1982 064A	COSMOS 1382	13295 USSR	25 JUN 82	PLMSC	EARTH ORE
1982 065A	STS-04 (OFT-4)	13300 US	27 JUN 82	AFETR	04 JUL 82
1982 066A	COSMOS 1383 (COSPAS 1)	13301 USSR	29 JUN 82	PLMSC	EARTH ORE
1982 067A	COSMOS 1384	13303 USSR	30 JUN 82	PLMSC	30 JUL 82
1982 068A	COSMOS 1385	13345 USSR	06 JUL 82	PLMSC	20 JUL 82
1982 069A	COSMOS 1386	13353 USSR	07 JUL 82	PLMSC	EARTH ORE
1982 070A	PROGRESS 14	13361 USSR	10 JUL 82	TYMSC	13 AUG 82
1982 071A	COSMOS 1387	13365 USSR	13 JUL 82	PLMSC	26 JUL 82
1982 072A	LANDSAT 4	13367 US	16 JUL 82	AFWTR	EARTH ORE
1982 073A	COSMOS 1388	13375 USSR	21 JUL 82	PLMSC	EARTH ORE
1982 073B	COSMOS 1389	13376 USSR	21 JUL 82	PLMSC	EARTH ORE
1982 073C	COSMOS 1390	13377 USSR	21 JUL 82	PLMSC	EARTH ORE
1982 073D	COSMOS 1391	13378 USSR	21 JUL 82	PLMSC	EARTH ORE
1982 073E	COSMOS 1392	13379 USSR	21 JUL 82	PLMSC	EARTH ORE
1982 073F	COSMOS 1393	13380 USSR	21 JUL 82	PLMSC	EARTH ORE
1982 073G	COSMOS 1394	13381 USSR	21 JUL 82	PLMSC	EARTH ORE
1982 073H	COSMOS 1395	13382 USSR	21 JUL 82	PLMSC	EARTH ORE
1982 074A	MOLNIYA 1-55	13383 USSR	21 JUL 82	TYMSC	08 OCT 92
1982 075A	COSMOS 1396	13391 USSR	27 JUL 82	PLMSC	10 AUG 82
1982 076A	COSMOS 1397	13394 USSR	29 JUL 82	KYMSC	18 MAY 83
1982 077A	COSMOS 1398	13396 USSR	03 AUG 82	PLMSC	13 AUG 82
1982 078A	COSMOS 1399	13399 USSR	04 AUG 82	TYMSC	16 SEP 82
1982 079A	COSMOS 1400	13402 USSR	05 AUG 82	PLMSC	EARTH ORE
1982 080A	SOYUZ T-07	13425 USSR	19 AUG 82	TYMSC	10 DEC 82
1982 081A	COSMOS 1401	13427 USSR	20 AUG 82	PLMSC	03 SEP 82
1982 082A	ANIK D1 (TELESAT 5)	13431 CANADA	26 AUG 82	AFETR	EARTH ORE
1982 083A	MOLNIYA 3-19	13432 USSR	27 AUG 82	PLMSC	EARTH ORE
1982 084A	COSMOS 1402	13441 USSR	30 AUG 82	TYMSC	23 JAN 83
1982 085A	COSMOS 1403	13448 USSR	01 SEP 82	TYMSC	15 SEP 82
1982 086A	COSMOS 1404	13449 USSR	01 SEP 82	PLMSC	15 SEP 82
1982 087A	KIKU 4 (ETS 3)	13492 JAPAN	03 SEP 82	TANSC	EARTH ORE
1982 088A	COSMOS 1405	13508 USSR	04 SEP 82	TYMSC	05 FEB 84
1982 089A	COSMOS 1406	13519 USSR	08 SEP 82	PLMSC	21 SEP 82
1982 090A	PRC 12	13521 PRC	09 SEP 82	SCMTR	21 SEP 82
1982 091A	COSMOS 1407	13546 USSR	15 SEP 82	PLMSC	16 OCT 82
1982 092A	COSMOS 1408	13552 USSR	16 SEP 82	PLMSC	EARTH ORE

## Sheet1

1982 093A	EKRAN 9	13554 USSR	16 SEP 82	TYMSC	EARTH ORE
1982 094A	PROGRESS 15	13558 USSR	18 SEP 82	TYMSC	16 OCT 82
1982 095A	COSMOS 1409	13585 USSR	22 SEP 82	PLMSC	EARTH ORE
1982 096A	COSMOS 1410	13589 USSR	24 SEP 82	PLMSC	EARTH ORE
1982 097A	INTELSAT 5 F-5	13595 ITSO	28 SEP 82	AFETR	EARTH ORE
1982 098A	COSMOS 1411	13597 USSR	30 SEP 82	PLMSC	14 OCT 82
1982 099A	COSMOS 1412	13600 USSR	02 OCT 82	TYMSC	EARTH ORE
1982 100A	COSMOS 1413	13603 USSR	12 OCT 82	TYMSC	EARTH ORE
1982 100D	COSMOS 1414	13606 USSR	12 OCT 82	TYMSC	EARTH ORE
1982 100F	COSMOS 1415	13607 USSR	12 OCT 82	TYMSC	EARTH ORE
1982 101A	COSMOS 1416	13611 USSR	14 OCT 82	TYMSC	28 OCT 82
1982 102A	COSMOS 1417	13617 USSR	19 OCT 82	PLMSC	EARTH ORE
1982 103A	GORIZONT 6	13624 USSR	20 OCT 82	TYMSC	EARTH ORE
1982 104A	COSMOS 1418	13627 USSR	21 OCT 82	KYMSC	30 SEP 83
1982 105A	RCA SATCOM 5	13631 US	28 OCT 82	AFETR	EARTH ORE
1982 106A	DSCS II-15	13636 US	30 OCT 82	AFETR	EARTH ORE
1982 106B	DSCS III-01	13637 US	30 OCT 82	AFETR	EARTH ORE
1982 107A	PROGRESS 16	13638 USSR	31 OCT 82	TYMSC	14 DEC 82
1982 108A	COSMOS 1419	13641 USSR	02 NOV 82	TYMSC	16 NOV 82
1982 109A	COSMOS 1420	13648 USSR	11 NOV 82	PLMSC	EARTH ORE
1982 110A	STS-05	13650 US	11 NOV 82	AFETR	16 NOV 82
1982 110B	SBS 3	13651 US	11 NOV 82	AFETR	EARTH ORE
1982 110C	ANIK C3 (TELESAT 6)	13652 CANADA	12 NOV 82	AFETR	EARTH ORE
1982 111A	KH 11-5	13659 US	17 NOV 82	AFWTR	13 AUG 85
1982 112A	COSMOS 1421	13661 USSR	18 NOV 82	TYMSC	02 DEC 82
1982 113A	RADUGA 11	13669 USSR	26 NOV 82	TYMSC	EARTH ORE
1982 114A	COSMOS 1422	13677 USSR	03 DEC 82	PLMSC	17 DEC 82
1982 115A	COSMOS 1423	13685 USSR	08 DEC 82	TYMSC	18 JAN 86
1982 116A	METEOR 2-09	13718 USSR	14 DEC 82	PLMSC	EARTH ORE
1982 117A	COSMOS 1424	13725 USSR	16 DEC 82	TYMSC	28 JAN 83
1982 118A	DMSB B5D2-1 (AMS 5)	13736 US	21 DEC 82	AFWTR	EARTH ORE
1982 119A	COSMOS 1425	13739 USSR	23 DEC 82	TYMSC	06 JAN 83
1982 120A	COSMOS 1426	13745 USSR	28 DEC 82	TYMSC	05 MAR 83
1982 121A	COSMOS 1427	13750 USSR	29 DEC 82	PLMSC	05 OCT 89
1983 001A	COSMOS 1428	13757 USSR	12 JAN 83	PLMSC	EARTH ORE
1983 002A	COSMOS 1429	13761 USSR	19 JAN 83	PLMSC	EARTH ORE
1983 002B	COSMOS 1430	13762 USSR	19 JAN 83	PLMSC	EARTH ORE
1983 002C	COSMOS 1431	13763 USSR	19 JAN 83	PLMSC	EARTH ORE
1983 002D	COSMOS 1432	13764 USSR	19 JAN 83	PLMSC	EARTH ORE
1983 002E	COSMOS 1433	13765 USSR	19 JAN 83	PLMSC	EARTH ORE
1983 002F	COSMOS 1434	13766 USSR	19 JAN 83	PLMSC	EARTH ORE
1983 002G	COSMOS 1435	13767 USSR	19 JAN 83	PLMSC	EARTH ORE
1983 002H	COSMOS 1436	13768 USSR	19 JAN 83	PLMSC	EARTH ORE
1983 003A	COSMOS 1437	13770 USSR	20 JAN 83	PLMSC	EARTH ORE
1983 004A	IRAS	13777 US	26 JAN 83	AFWTR	EARTH ORE
1983 005A	COSMOS 1438	13779 USSR	27 JAN 83	TYMSC	07 FEB 83
1983 006A	SAKURA 2A (CS-2A)	13782 JAPAN	04 FEB 83	TANSC	EARTH ORE
1983 007A	COSMOS 1439	13784 USSR	06 FEB 83	TYMSC	22 FEB 83
1983 008A	NOSS 4	13791 US	09 FEB 83	AFWTR	ELNA

## Sheet1

1983 008B	SSD [NOSS 4]	13792 US	09 FEB 83	AFWTR	ELNA
1983 008E	SSA [NOSS 4]	13844 US	09 FEB 83	AFWTR	ELNA
1983 008F	SSB [NOSS 4]	13845 US	09 FEB 83	AFWTR	ELNA
1983 008H	SSC [NOSS 4]	13874 US	09 FEB 83	AFWTR	ELNA
1983 009A	COSMOS 1440	13793 USSR	10 FEB 83	PLMSC	24 FEB 83
1983 010A	COSMOS 1441	13818 USSR	16 FEB 83	PLMSC	EARTH ORE
1983 011A	SS-08/TENMA (ASTRO B)	13829 JAPAN	20 FEB 83	TANSC	17 DEC 88
1983 012A	COSMOS 1442	13850 USSR	25 FEB 83	PLMSC	11 APR 83
1983 013A	COSMOS 1443	13868 USSR	02 MAR 83	TYMSC	19 SEP 83
1983 014A	COSMOS 1444	13870 USSR	02 MAR 83	PLMSC	16 MAR 83
1983 015A	MOLNIYA 3-20	13875 USSR	11 MAR 83	PLMSC	EARTH ORE
1983 016A	EKRAN 10	13878 USSR	12 MAR 83	TYMSC	EARTH ORE
1983 017A	COSMOS 1445	13883 USSR	15 MAR 83	KYMSC	16 MAR 83
1983 018A	COSMOS 1446	13886 USSR	16 MAR 83	TYMSC	30 MAR 83
1983 019A	MOLNIYA 1-56	13890 USSR	16 MAR 83	PLMSC	EARTH ORE
1983 020A	ASTRON	13901 USSR	23 MAR 83	TYMSC	EARTH ORE
1983 021A	COSMOS 1447	13916 USSR	24 MAR 83	PLMSC	EARTH ORE
1983 022A	NOAA 8	13923 US	28 MAR 83	AFWTR	EARTH ORE
1983 023A	COSMOS 1448	13949 USSR	30 MAR 83	PLMSC	EARTH ORE
1983 024A	COSMOS 1449	13955 USSR	31 MAR 83	PLMSC	15 APR 83
1983 025A	MOLNIYA 1-57	13964 USSR	02 APR 83	TYMSC	EARTH ORE
1983 026A	STS-06	13968 US	04 APR 83	AFETR	09 APR 83
1983 026B	TDRS 1	13969 US	04 APR 83	AFETR	EARTH ORE
1983 027A	COSMOS 1450	13972 USSR	06 APR 83	PLMSC	30 MAY 90
1983 028A	RADUGA 12	13974 USSR	08 APR 83	TYMSC	EARTH ORE
1983 029A	COSMOS 1451	13975 USSR	08 APR 83	PLMSC	22 APR 83
1983 030A	RCA SATCOM 6	13984 US	11 APR 83	AFETR	EARTH ORE
1983 031A	COSMOS 1452	13991 USSR	12 APR 83	PLMSC	EARTH ORE
1983 032A	KH 8-50	14001 US	15 APR 83	AFWTR	21 AUG 83
1983 033A	ROHINI 3	14002 INDIA	17 APR 83	SRILR	19 APR 90
1983 034A	COSMOS 1453	14006 USSR	19 APR 83	PLMSC	08 MAY 89
1983 035A	SOYUZ T-08	14014 USSR	20 APR 83	TYMSC	22 APR 83
1983 036A	COSMOS 1454	14017 USSR	22 APR 83	PLMSC	22 MAY 83
1983 037A	COSMOS 1455	14032 USSR	23 APR 83	PLMSC	EARTH ORE
1983 038A	COSMOS 1456	14034 USSR	25 APR 83	PLMSC	EARTH ORE
1983 039A	COSMOS 1457	14039 USSR	26 APR 83	TYMSC	08 JUN 83
1983 040A	COSMOS 1458	14044 USSR	28 APR 83	PLMSC	11 MAY 83
1983 041A	GOES 6	14050 US	28 APR 83	AFETR	EARTH ORE
1983 042A	COSMOS 1459	14057 USSR	06 MAY 83	PLMSC	EARTH ORE
1983 043A	COSMOS 1460	14058 USSR	06 MAY 83	TYMSC	20 MAY 83
1983 044A	COSMOS 1461	14064 USSR	07 MAY 83	TYMSC	EARTH ORE
1983 045A	COSMOS 1462	14071 USSR	17 MAY 83	PLMSC	31 MAY 83
1983 046A	COSMOS 1463	14075 USSR	19 MAY 83	PLMSC	24 JAN 93
1983 047A	INTELSAT 5 F-6	14077 ITSO	19 MAY 83	AFETR	EARTH ORE
1983 048A	COSMOS 1464	14084 USSR	24 MAY 83	PLMSC	EARTH ORE
1983 049A	COSMOS 1465	14087 USSR	26 MAY 83	KYMSC	23 JAN 85
1983 050A	COSMOS 1466	14089 USSR	26 MAY 83	TYMSC	06 JUL 83
1983 051A	EXOSAT	14095 ESA	26 MAY 83	AFWTR	06 MAY 86
1983 052A	COSMOS 1467	14100 USSR	31 MAY 83	PLMSC	12 JUN 83

## Sheet1

1983 053A	VENERA 15	14104 USSR	02 JUN 83	TYMSC	VENUS ORI
1983 054A	VENERA 16	14107 USSR	07 JUN 83	TYMSC	VENUS ORI
1983 055A	COSMOS 1468	14110 USSR	07 JUN 83	PLMSC	21 JUN 83
1983 056A	NOSS 5	14112 US	09 JUN 83	AFWTR	ELNA
1983 056C	GB-1 [NOSS 5]	14143 US	09 JUN 83	AFWTR	ELNA
1983 056D	GB-2 [NOSS 5]	14144 US	09 JUN 83	AFWTR	ELNA
1983 056G	GB-3 [NOSS 5]	14180 US	09 JUN 83	AFWTR	ELNA
1983 057A	COSMOS 1469	14123 USSR	14 JUN 83	PLMSC	24 JUN 83
1983 058A	ECS 1	14128 ESA	16 JUN 83	FRGUI	EARTH ORI
1983 058B	OSCAR 10	14129 FRG	16 JUN 83	FRGUI	EARTH ORI
1983 059A	STS-07	14132 US	18 JUN 83	AFETR	24 JUN 83
1983 059B	ANIK C2 (TELESAT 7)	14133 CANADA	18 JUN 83	AFETR	EARTH ORI
1983 059C	PALAPA B1	14134 INDNSA	18 JUN 83	AFETR	EARTH ORI
1983 059F	SPAS-01	14142 FRG	18 JUN 83	AFETR	24 JUN 83
1983 060A	KH 9-18	14137 US	20 JUN 83	AFWTR	21 MAR 84
1983 060C	KH 9-18 SUBSATELLITE	14139 US	20 JUN 83	AFWTR	ELNA
1983 061A	COSMOS 1470	14147 USSR	22 JUN 83	PLMSC	EARTH ORI
1983 062A	SOYUZ T-09	14152 USSR	27 JUN 83	TYMSC	23 NOV 83
1983 063A	HILAT	14154 US	27 JUN 83	AFWTR	EARTH ORI
1983 064A	COSMOS 1471	14156 USSR	28 JUN 83	PLMSC	28 JUL 83
1983 065A	GALAXY 1	14158 US	28 JUN 83	AFETR	EARTH ORI
1983 066A	GORIZONT 7	14160 USSR	30 JUN 83	TYMSC	EARTH ORI
1983 067A	PROGNOZ 9	14163 USSR	01 JUL 83	TYMSC	CENM
1983 068A	COSMOS 1472	14169 USSR	05 JUL 83	PLMSC	19 JUL 83
1983 069A	COSMOS 1473	14171 USSR	06 JUL 83	PLMSC	EARTH ORI
1983 069B	COSMOS 1474	14172 USSR	06 JUL 83	PLMSC	EARTH ORI
1983 069C	COSMOS 1475	14173 USSR	06 JUL 83	PLMSC	EARTH ORI
1983 069D	COSMOS 1476	14174 USSR	06 JUL 83	PLMSC	EARTH ORI
1983 069E	COSMOS 1477	14175 USSR	06 JUL 83	PLMSC	EARTH ORI
1983 069F	COSMOS 1478	14176 USSR	06 JUL 83	PLMSC	EARTH ORI
1983 069G	COSMOS 1479	14177 USSR	06 JUL 83	PLMSC	EARTH ORI
1983 069H	COSMOS 1480	14178 USSR	06 JUL 83	PLMSC	EARTH ORI
1983 070A	COSMOS 1481	14182 USSR	08 JUL 83	PLMSC	EARTH ORI
1983 071A	COSMOS 1482	14185 USSR	13 JUL 83	TYMSC	27 JUL 83
1983 072A	NAVSTAR 8 (GPS)	14189 US	14 JUL 83	AFWTR	EARTH ORI
1983 073A	MOLNIYA 1-58	14199 USSR	19 JUL 83	TYMSC	EARTH ORI
1983 074A	COSMOS 1483	14204 USSR	20 JUL 83	PLMSC	03 AUG 83
1983 075A	COSMOS 1484	14207 USSR	24 JUL 83	TYMSC	EARTH ORI
1983 076A	COSMOS 1485	14210 USSR	26 JUL 83	PLMSC	09 AUG 83
1983 077A	TELSTAR 3A	14234 US	28 JUL 83	AFETR	EARTH ORI
1983 078A	SDS 8	14237 US	31 JUL 83	AFWTR	ELNA
1983 079A	COSMOS 1486	14240 USSR	03 AUG 83	PLMSC	EARTH ORI
1983 080A	COSMOS 1487	14245 USSR	05 AUG 83	PLMSC	19 AUG 83
1983 081A	SAKURA 2B (CS-2B)	14248 JAPAN	05 AUG 83	TANSC	EARTH ORI
1983 082A	COSMOS 1488	14251 USSR	09 AUG 83	PLMSC	23 AUG 83
1983 083A	COSMOS 1489	14256 USSR	10 AUG 83	TYMSC	23 SEP 83
1983 084A	COSMOS 1490	14258 USSR	10 AUG 83	TYMSC	EARTH ORI
1983 084B	COSMOS 1491	14259 USSR	10 AUG 83	TYMSC	EARTH ORI
1983 084C	COSMOS 1492	14260 USSR	10 AUG 83	TYMSC	EARTH ORI

## Sheet1

1983 085A	PROGRESS 17	14283 USSR	17 AUG 83	TYMSC	18 SEP 83
1983 086A	PRC 13	14288 PRC	19 AUG 83	SCMTR	03 SEP 83
1983 087A	COSMOS 1493	14299 USSR	23 AUG 83	PLMSC	06 SEP 83
1983 088A	RADUGA 13	14307 USSR	25 AUG 83	TYMSC	EARTH ORE
1983 089A	STS-08	14312 US	30 AUG 83	AFETR	05 SEP 83
1983 089B	INSAT 1B	14318 INDIA	31 AUG 83	AFETR	EARTH ORE
1983 090A	MOLNIYA 3-21	14313 USSR	30 AUG 83	PLMSC	EARTH ORE
1983 091A	COSMOS 1494	14316 USSR	31 AUG 83	KYMSC	26 SEP 85
1983 092A	COSMOS 1495	14320 USSR	03 SEP 83	PLMSC	16 SEP 83
1983 093A	COSMOS 1496	14326 USSR	07 SEP 83	PLMSC	19 OCT 83
1983 094A	RCA SATCOM 7	14328 US	08 SEP 83	AFETR	EARTH ORE
1983 095A	COSMOS 1497	14330 USSR	09 SEP 83	PLMSC	23 SEP 83
1983 096A	COSMOS 1498	14334 USSR	14 SEP 83	PLMSC	29 SEP 83
1983 097A	COSMOS 1499	14339 USSR	17 SEP 83	PLMSC	01 OCT 83
1983 098A	GALAXY 2	14365 US	22 SEP 83	AFETR	EARTH ORE
1983 099A	COSMOS 1500	14372 USSR	28 SEP 83	PLMSC	EARTH ORE
1983 100A	EKRAN 11	14377 USSR	29 SEP 83	TYMSC	EARTH ORE
1983 101A	COSMOS 1501	14380 USSR	30 SEP 83	PLMSC	26 MAY 89
1983 102A	COSMOS 1502	14395 USSR	05 OCT 83	PLMSC	29 AUG 85
1983 103A	COSMOS 1503	14401 USSR	12 OCT 83	PLMSC	EARTH ORE
1983 104A	COSMOS 1504	14403 USSR	14 OCT 83	TYMSC	06 DEC 83
1983 105A	INTELSAT 5 F-7	14421 ITSO	19 OCT 83	FRGUI	EARTH ORE
1983 106A	PROGRESS 18	14422 USSR	20 OCT 83	TYMSC	16 NOV 83
1983 107A	COSMOS 1505	14425 USSR	21 OCT 83	PLMSC	04 NOV 83
1983 108A	COSMOS 1506	14450 USSR	26 OCT 83	PLMSC	EARTH ORE
1983 109A	METEOR 2-10	14452 USSR	28 OCT 83	PLMSC	EARTH ORE
1983 110A	COSMOS 1507	14455 USSR	29 OCT 83	TYMSC	19 AUG 87
1983 111A	COSMOS 1508	14483 USSR	11 NOV 83	PLMSC	EARTH ORE
1983 112A	COSMOS 1509	14490 USSR	17 NOV 83	PLMSC	01 DEC 83
1983 113A	DMSF B5D2-2	14506 US	18 NOV 83	AFWTR	EARTH ORE
1983 114A	MOLNIYA 1-59	14516 USSR	23 NOV 83	PLMSC	EARTH ORE
1983 115A	COSMOS 1510	14521 USSR	24 NOV 83	PLMSC	EARTH ORE
1983 116A	STS-09 (STS 41A)	14523 US	28 NOV 83	AFETR	08 DEC 83
1983 117A	COSMOS 1511	14530 USSR	30 NOV 83	PLMSC	13 JAN 84
1983 118A	GORIZONT 8	14532 USSR	30 NOV 83	TYMSC	EARTH ORE
1983 119A	COSMOS 1512	14542 USSR	07 DEC 83	PLMSC	21 DEC 83
1983 120A	COSMOS 1513	14546 USSR	08 DEC 83	PLMSC	EARTH ORE
1983 121A	COSMOS 1514	14549 USSR	14 DEC 83	PLMSC	19 DEC 83
1983 122A	COSMOS 1515	14551 USSR	15 DEC 83	PLMSC	EARTH ORE
1983 123A	MOLNIYA 3-22	14570 USSR	21 DEC 83	PLMSC	18 AUG 93
1983 124A	COSMOS 1516	14583 USSR	27 DEC 83	TYMSC	09 FEB 84
1983 125A	COSMOS 1517	14585 USSR	27 DEC 83	KYMSC	27 DEC 83
1983 126A	COSMOS 1518	14587 USSR	28 DEC 83	PLMSC	EARTH ORE
1983 127A	COSMOS 1519	14590 USSR	29 DEC 83	TYMSC	EARTH ORE
1983 127B	COSMOS 1520	14591 USSR	29 DEC 83	TYMSC	EARTH ORE
1983 127C	COSMOS 1521	14592 USSR	29 DEC 83	TYMSC	EARTH ORE
1984 001A	COSMOS 1522	14611 USSR	05 JAN 84	PLMSC	EARTH ORE
1984 001B	COSMOS 1523	14612 USSR	05 JAN 84	PLMSC	EARTH ORE
1984 001C	COSMOS 1524	14613 USSR	05 JAN 84	PLMSC	EARTH ORE

## Sheet1

1984 001D	COSMOS 1525	14614 USSR	05 JAN 84	PLMSC	EARTH ORE
1984 001E	COSMOS 1526	14615 USSR	05 JAN 84	PLMSC	EARTH ORE
1984 001F	COSMOS 1527	14616 USSR	05 JAN 84	PLMSC	EARTH ORE
1984 001G	COSMOS 1528	14617 USSR	05 JAN 84	PLMSC	EARTH ORE
1984 001H	COSMOS 1529	14618 USSR	05 JAN 84	PLMSC	EARTH ORE
1984 002A	COSMOS 1530	14622 USSR	11 JAN 84	PLMSC	25 JAN 84
1984 003A	COSMOS 1531	14624 USSR	11 JAN 84	PLMSC	EARTH ORE
1984 004A	COSMOS 1532	14634 USSR	13 JAN 84	PLMSC	26 FEB 84
1984 005A	YURI 2A (BS-2A)	14659 JAPAN	23 JAN 84	TANSC	EARTH ORE
1984 006A	COSMOS 1533	14666 USSR	26 JAN 84	TYMSC	09 FEB 84
1984 007A	COSMOS 1534	14668 USSR	26 JAN 84	PLMSC	19 SEP 90
1984 008A	PRC 14	14670 PRC	29 JAN 84	SCMTR	EARTH ORE
1984 009A	DSCS III-02	14675 US	31 JAN 84	AFETR	ELNA
1984 010A	COSMOS 1535	14679 USSR	02 FEB 84	PLMSC	EARTH ORE
1984 011A	STS 41B	14681 US	03 FEB 84	AFETR	11 FEB 84
1984 011B	WESTAR 6	14688 US	03 FEB 84	AFETR	16 NOV 84
1984 011C	IRT	14689 US	05 FEB 84	AFETR	11 FEB 84
1984 011D	PALAPA B2	14692 INDNSA	06 FEB 84	AFETR	16 NOV 84
1984 012A	NOSS 6	14690 US	05 FEB 84	AFWTR	ELNA
1984 012C	JD-1 [NOSS 6]	14728 US	05 FEB 84	AFWTR	ELNA
1984 012D	JD-2 [NOSS 6]	14729 US	05 FEB 84	AFWTR	ELNA
1984 012F	JD-3 [NOSS 6]	14795 US	05 FEB 84	AFWTR	ELNA
1984 013A	COSMOS 1536	14699 USSR	08 FEB 84	PLMSC	EARTH ORE
1984 014A	SOYUZ T-10B	14701 USSR	08 FEB 84	TYMSC	11 APR 84
1984 015A	SS-09/OHZORA (EXOS C)	14722 JAPAN	14 FEB 84	KSCUT	19 JUL 89
1984 016A	RADUGA 14	14725 USSR	15 FEB 84	TYMSC	EARTH ORE
1984 017A	COSMOS 1537	14737 USSR	16 FEB 84	PLMSC	01 MAR 84
1984 018A	PROGRESS 19	14757 USSR	21 FEB 84	TYMSC	01 APR 84
1984 019A	COSMOS 1538	14759 USSR	21 FEB 84	PLMSC	EARTH ORE
1984 020A	COSMOS 1539	14763 USSR	28 FEB 84	PLMSC	09 APR 84
1984 021A	LANDSAT 5	14780 US	01 MAR 84	AFWTR	EARTH ORE
1984 021B	UOSAT 2	14781 UK	01 MAR 84	AFWTR	EARTH ORE
1984 022A	COSMOS 1540	14783 USSR	02 MAR 84	TYMSC	EARTH ORE
1984 023A	INTELSAT 5 F-8	14786 ITSO	05 MAR 84	FRGUI	EARTH ORE
1984 024A	COSMOS 1541	14790 USSR	06 MAR 84	PLMSC	EARTH ORE
1984 025A	COSMOS 1542	14793 USSR	07 MAR 84	TYMSC	21 MAR 84
1984 026A	COSMOS 1543	14797 USSR	10 MAR 84	PLMSC	05 APR 84
1984 027A	COSMOS 1544	14819 USSR	15 MAR 84	PLMSC	EARTH ORE
1984 028A	EKRAN 12	14821 USSR	16 MAR 84	TYMSC	EARTH ORE
1984 029A	MOLNIYA 1-60	14825 USSR	16 MAR 84	PLMSC	EARTH ORE
1984 030A	COSMOS 1545	14849 USSR	21 MAR 84	PLMSC	05 APR 84
1984 031A	COSMOS 1546	14867 USSR	29 MAR 84	TYMSC	EARTH ORE
1984 032A	SOYUZ T-11	14872 USSR	03 APR 84	TYMSC	02 OCT 84
1984 033A	COSMOS 1547	14884 USSR	04 APR 84	PLMSC	EARTH ORE
1984 034A	STS 41C	14897 US	06 APR 84	AFETR	13 APR 84
1984 034B	LDEF	14898 US	06 APR 84	AFETR	20 JAN 90
1984 035A	PRC 15	14899 PRC	08 APR 84	CHINA	EARTH ORE
1984 036A	COSMOS 1548	14902 USSR	10 APR 84	PLMSC	25 MAY 84
1984 037A	CHALET ?	14930 US	14 APR 84	AFETR	ELNA



## Sheet1

1984 038A	PROGRESS 20	14932 USSR	15 APR 84	TYMSC	07 MAY 84
1984 039A	KH 8-51	14935 US	17 APR 84	AFWTR	13 AUG 84
1984 040A	COSMOS 1549	14938 USSR	19 APR 84	PLMSC	03 MAY 84
1984 041A	GORIZONT 9	14940 USSR	22 APR 84	TYMSC	EARTH ORE
1984 042A	PROGRESS 21	14961 USSR	07 MAY 84	TYMSC	26 MAY 84
1984 043A	COSMOS 1550	14965 USSR	11 MAY 84	PLMSC	EARTH ORE
1984 044A	COSMOS 1551	14967 USSR	11 MAY 84	PLMSC	23 MAY 84
1984 045A	COSMOS 1552	14971 USSR	14 MAY 84	TYMSC	03 NOV 84
1984 046A	COSMOS 1553	14973 USSR	17 MAY 84	PLMSC	EARTH ORE
1984 047A	COSMOS 1554	14977 USSR	19 MAY 84	TYMSC	EARTH ORE
1984 047B	COSMOS 1555	14978 USSR	19 MAY 84	TYMSC	EARTH ORE
1984 047C	COSMOS 1556	14979 USSR	19 MAY 84	TYMSC	EARTH ORE
1984 048A	COSMOS 1557	14982 USSR	22 MAY 84	PLMSC	04 JUN 84
1984 049A	SPACENET 1	14985 US	23 MAY 84	FRGUI	EARTH ORE
1984 050A	COSMOS 1558	14993 USSR	25 MAY 84	PLMSC	08 JUL 84
1984 051A	PROGRESS 22	14996 USSR	28 MAY 84	TYMSC	15 JUL 84
1984 052A	COSMOS 1559	14998 USSR	28 MAY 84	PLMSC	EARTH ORE
1984 052B	COSMOS 1560	14999 USSR	28 MAY 84	PLMSC	EARTH ORE
1984 052C	COSMOS 1561	15000 USSR	28 MAY 84	PLMSC	EARTH ORE
1984 052D	COSMOS 1562	15001 USSR	28 MAY 84	PLMSC	EARTH ORE
1984 052E	COSMOS 1563	15002 USSR	28 MAY 84	PLMSC	EARTH ORE
1984 052F	COSMOS 1564	15003 USSR	28 MAY 84	PLMSC	EARTH ORE
1984 052G	COSMOS 1565	15004 USSR	28 MAY 84	PLMSC	EARTH ORE
1984 052H	COSMOS 1566	15005 USSR	28 MAY 84	PLMSC	EARTH ORE
1984 053A	COSMOS 1567	15009 USSR	30 MAY 84	TYMSC	03 APR 88
1984 054A	COSMOS 1568	15011 USSR	01 JUN 84	PLMSC	14 JUN 84
1984 055A	COSMOS 1569	15027 USSR	06 JUN 84	PLMSC	EARTH ORE
1984 056A	COSMOS 1570	15031 USSR	08 JUN 84	PLMSC	EARTH ORE
1984 057A	INTELSAT 5 F-9	15034 ITSO	09 JUN 84	AFETR	24 OCT 84
1984 058A	COSMOS 1571	15036 USSR	11 JUN 84	TYMSC	26 JUN 84
1984 059A	NAVSTAR 9 (GPS)	15039 US	13 JUN 84	AFWTR	EARTH ORE
1984 060A	COSMOS 1572	15046 USSR	15 JUN 84	PLMSC	29 JUN 84
1984 061A	COSMOS 1573	15051 USSR	19 JUN 84	PLMSC	28 JUN 84
1984 062A	COSMOS 1574	15055 USSR	21 JUN 84	PLMSC	EARTH ORE
1984 063A	RADUGA 15	15057 USSR	22 JUN 84	TYMSC	EARTH ORE
1984 064A	COSMOS 1575	15060 USSR	22 JUN 84	PLMSC	07 JUL 84
1984 065A	KH 9-19 (USA 2)	15063 US	25 JUN 84	AFWTR	18 OCT 84
1984 065C	KH 9-19 SUBSATELLITE	15071 US	25 JUN 84	AFWTR	ELNA
1984 066A	COSMOS 1576	15070 USSR	26 JUN 84	PLMSC	24 AUG 84
1984 067A	COSMOS 1577	15077 USSR	27 JUN 84	PLMSC	EARTH ORE
1984 068A	COSMOS 1578	15080 USSR	28 JUN 84	KYMSC	10 JAN 93
1984 069A	COSMOS 1579	15085 USSR	29 JUN 84	TYMSC	EARTH ORE
1984 070A	COSMOS 1580	15090 USSR	29 JUN 84	PLMSC	13 JUL 84
1984 071A	COSMOS 1581	15095 USSR	03 JUL 84	PLMSC	EARTH ORE
1984 072A	METEOR 2-11	15099 USSR	05 JUL 84	PLMSC	EARTH ORE
1984 073A	SOYUZ T-12	15119 USSR	17 JUL 84	TYMSC	29 JUL 84
1984 074A	COSMOS 1582	15121 USSR	19 JUL 84	PLMSC	02 AUG 84
1984 075A	COSMOS 1583	15123 USSR	24 JUL 84	PLMSC	08 AUG 84
1984 076A	COSMOS 1584	15131 USSR	27 JUL 84	PLMSC	10 AUG 84

## Sheet1

1984 077A	COSMOS 1585	15142 USSR	31 JUL 84	TYMSC	28 SEP 84
1984 078A	GORIZONT 10	15144 USSR	01 AUG 84	TYMSC	EARTH ORE
1984 079A	COSMOS 1586	15147 USSR	02 AUG 84	PLMSC	EARTH ORE
1984 080A	HIMAWARI 3 (GMS 3)	15152 JAPAN	02 AUG 84	TANSC	EARTH ORE
1984 081A	ECS 2	15158 ESA	04 AUG 84	FRGUI	EARTH ORE
1984 081B	TELECOM 1A	15159 FRANCE	04 AUG 84	FRGUI	EARTH ORE
1984 082A	COSMOS 1587	15163 USSR	06 AUG 84	PLMSC	31 AUG 84
1984 083A	COSMOS 1588	15167 USSR	07 AUG 84	TYMSC	17 FEB 88
1984 084A	COSMOS 1589	15171 USSR	08 AUG 84	PLMSC	EARTH ORE
1984 085A	MOLNIYA 1-61	15182 USSR	10 AUG 84	PLMSC	EARTH ORE
1984 086A	PROGRESS 23	15193 USSR	14 AUG 84	TYMSC	28 AUG 84
1984 087A	COSMOS 1590	15197 USSR	16 AUG 84	PLMSC	30 AUG 84
1984 088A	AMPTE 1/CCE	15199 US	16 AUG 84	AFETR	EARTH ORE
1984 088B	AMPTE 2/IRM	15200 FRG	16 AUG 84	AFETR	EARTH ORE
1984 088C	AMPTE 3/UKS	15201 UK	16 AUG 84	AFETR	EARTH ORE
1984 089A	MOLNIYA 1-62	15214 USSR	24 AUG 84	PLMSC	EARTH ORE
1984 090A	EKRAN 13	15219 USSR	24 AUG 84	TYMSC	EARTH ORE
1984 091A	SDS 9 (USA 4)	15226 US	28 AUG 84	AFWTR	ELNA
1984 092A	COSMOS 1591	15232 USSR	30 AUG 84	PLMSC	13 SEP 84
1984 093A	STS 41D	15234 US	30 AUG 84	AFETR	05 SEP 84
1984 093B	SBS 4	15235 US	31 AUG 84	AFETR	EARTH ORE
1984 093C	SYNCOM IV-2 (LEASAT 2)	15236 US	31 AUG 84	AFETR	EARTH ORE
1984 093D	TELSTAR 3B	15237 US	01 SEP 84	AFETR	EARTH ORE
1984 094A	COSMOS 1592	15257 USSR	04 SEP 84	PLMSC	18 SEP 84
1984 095A	COSMOS 1593	15259 USSR	04 SEP 84	TYMSC	EARTH ORE
1984 095B	COSMOS 1594	15260 USSR	04 SEP 84	TYMSC	EARTH ORE
1984 095C	COSMOS 1595	15261 USSR	04 SEP 84	TYMSC	EARTH ORE
1984 096A	COSMOS 1596	15267 USSR	07 SEP 84	PLMSC	EARTH ORE
1984 097A	NAVSTAR 10 (GPS)	15271 US	08 SEP 84	AFWTR	ELNA
1984 098A	PRC 16	15279 PRC	12 SEP 84	SCMTR	29 SEP 84
1984 099A	COSMOS 1597	15287 USSR	13 SEP 84	PLMSC	26 SEP 84
1984 100A	COSMOS 1598	15292 USSR	13 SEP 84	PLMSC	EARTH ORE
1984 101A	GALAXY 3	15308 US	21 SEP 84	AFETR	EARTH ORE
1984 102A	COSMOS 1599	15318 USSR	25 SEP 84	PLMSC	20 NOV 84
1984 103A	COSMOS 1600	15324 USSR	27 SEP 84	TYMSC	11 OCT 84
1984 104A	COSMOS 1601	15326 USSR	27 SEP 84	PLMSC	29 NOV 89
1984 105A	COSMOS 1602	15331 USSR	28 SEP 84	PLMSC	EARTH ORE
1984 106A	COSMOS 1603	15333 USSR	28 SEP 84	TYMSC	EARTH ORE
1984 107A	COSMOS 1604	15350 USSR	04 OCT 84	PLMSC	EARTH ORE
1984 108A	STS 41G	15353 US	05 OCT 84	AFETR	13 OCT 84
1984 108B	ERBS	15354 US	05 OCT 84	AFETR	EARTH ORE
1984 109A	COSMOS 1605	15359 USSR	11 OCT 84	PLMSC	EARTH ORE
1984 110A	NOVA 3	15362 US	12 OCT 84	AFWTR	EARTH ORE
1984 111A	COSMOS 1606	15369 USSR	18 OCT 84	PLMSC	EARTH ORE
1984 112A	COSMOS 1607	15378 USSR	31 OCT 84	TYMSC	EARTH ORE
1984 113A	STS 51A	15382 US	08 NOV 84	AFETR	16 NOV 84
1984 113B	ANIK D2	15383 CANADA	09 NOV 84	AFETR	EARTH ORE
1984 113C	SYNCOM IV-1 (LEASAT 1)	15384 US	10 NOV 84	AFETR	EARTH ORE
1984 114A	SPACENET 2	15385 US	10 NOV 84	FRGUI	EARTH ORE

## Sheet1

1984 114B	MARECS B2	15386 ESA	10 NOV 84	FRGUI	EARTH ORE
1984 115A	NATO 3D	15391 NATO	14 NOV 84	AFETR	EARTH ORE
1984 116A	COSMOS 1608	15393 USSR	14 NOV 84	TYMSC	17 DEC 84
1984 117A	COSMOS 1609	15395 USSR	14 NOV 84	PLMSC	28 NOV 84
1984 118A	COSMOS 1610	15398 USSR	15 NOV 84	PLMSC	EARTH ORE
1984 119A	COSMOS 1611	15403 USSR	21 NOV 84	TYMSC	11 JAN 85
1984 120A	COSMOS 1612	15406 USSR	27 NOV 84	PLMSC	31 JAN 85
1984 121A	COSMOS 1613	15414 USSR	29 NOV 84	PLMSC	24 DEC 84
1984 122A	KH 11-6 (USA 6)	15423 US	04 DEC 84	AFWTR	ELNA
1984 123A	NOAA 9	15427 US	12 DEC 84	AFWTR	EARTH ORE
1984 124A	MOLNIYA 1-63	15429 USSR	14 DEC 84	PLMSC	EARTH ORE
1984 125A	VEGA 1	15432 USSR	15 DEC 84	TYMSC	SOLAR ORE
1984 125E	VEGA 1 DESCENT CRAFT	15858 USSR	15 DEC 84	TYMSC	09 JUN 85
1984 125F	VEGA 1 BALLOON	15859 USSR	15 DEC 84	TYMSC	09 JUN 85
1984 126A	COSMOS 1614	15442 USSR	19 DEC 84	KYMSC	19 DEC 84
1984 127A	COSMOS 1615	15446 USSR	20 DEC 84	PLMSC	15 APR 90
1984 128A	VEGA 2	15449 USSR	21 DEC 84	TYMSC	SOLAR ORE
1984 128E	VEGA 2 DESCENT CRAFT	15856 USSR	21 DEC 84	TYMSC	15 JUN 85
1984 128F	VEGA 2 BALLOON	15857 USSR	21 DEC 84	TYMSC	15 JUN 85
1984 129A	USA 7	15453 US	22 DEC 84	AFETR	ELNA
1985 001A	SS-10/SAKIGAKE	15464 JAPAN	07 JAN 85	KSCUT	SOLAR ORE
1985 002A	COSMOS 1616	15467 USSR	09 JAN 85	TYMSC	04 MAR 85
1985 003A	COSMOS 1617	15469 USSR	15 JAN 85	PLMSC	EARTH ORE
1985 003B	COSMOS 1618	15470 USSR	15 JAN 85	PLMSC	EARTH ORE
1985 003C	COSMOS 1619	15471 USSR	15 JAN 85	PLMSC	EARTH ORE
1985 003D	COSMOS 1620	15472 USSR	15 JAN 85	PLMSC	EARTH ORE
1985 003E	COSMOS 1621	15473 USSR	15 JAN 85	PLMSC	EARTH ORE
1985 003F	COSMOS 1622	15474 USSR	15 JAN 85	PLMSC	EARTH ORE
1985 004A	MOLNIYA 3-23	15476 USSR	16 JAN 85	PLMSC	EARTH ORE
1985 005A	COSMOS 1623	15479 USSR	16 JAN 85	TYMSC	30 JAN 85
1985 006A	COSMOS 1624	15482 USSR	17 JAN 85	PLMSC	EARTH ORE
1985 007A	GORIZONT 11	15484 USSR	18 JAN 85	TYMSC	EARTH ORE
1985 008A	COSMOS 1625	15492 USSR	23 JAN 85	TYMSC	25 JAN 85
1985 009A	COSMOS 1626	15494 USSR	24 JAN 85	PLMSC	EARTH ORE
1985 010A	STS 51C	15496 US	24 JAN 85	AFETR	27 JAN 85
1985 010B	AQUACADE (MAGNUM)	15543 US	24 JAN 85	AFETR	ELNA
1985 011A	COSMOS 1627	15505 USSR	01 FEB 85	PLMSC	EARTH ORE
1985 012A	COSMOS 1628	15514 USSR	06 FEB 85	PLMSC	20 FEB 85
1985 013A	METEOR 2-12	15516 USSR	06 FEB 85	PLMSC	EARTH ORE
1985 014A	SDS 10 (USA 9)	15546 US	08 FEB 85	AFWTR	ELNA
1985 015A	ARABSAT 1A	15560 SAUDI	08 FEB 85	FRGUI	EARTH ORE
1985 015B	SBTS-1	15561 BRAZIL	08 FEB 85	FRGUI	EARTH ORE
1985 016A	COSMOS 1629	15574 USSR	21 FEB 85	TYMSC	EARTH ORE
1985 017A	COSMOS 1630	15582 USSR	27 FEB 85	TYMSC	23 APR 85
1985 018A	COSMOS 1631	15584 USSR	27 FEB 85	PLMSC	08 DEC 90
1985 019A	COSMOS 1632	15589 USSR	01 MAR 85	PLMSC	15 MAR 85
1985 020A	COSMOS 1633	15592 USSR	05 MAR 85	PLMSC	EARTH ORE
1985 021A	GEOSAT	15595 US	13 MAR 85	AFWTR	EARTH ORE
1985 022A	COSMOS 1634	15597 USSR	14 MAR 85	PLMSC	EARTH ORE

## Sheet1

1985 023A	COSMOS 1635	15617 USSR	21 MAR 85	PLMSC	EARTH ORE
1985 023B	COSMOS 1636	15618 USSR	21 MAR 85	PLMSC	EARTH ORE
1985 023C	COSMOS 1637	15619 USSR	21 MAR 85	PLMSC	EARTH ORE
1985 023D	COSMOS 1638	15620 USSR	21 MAR 85	PLMSC	EARTH ORE
1985 023E	COSMOS 1639	15621 USSR	21 MAR 85	PLMSC	EARTH ORE
1985 023F	COSMOS 1640	15622 USSR	21 MAR 85	PLMSC	EARTH ORE
1985 023G	COSMOS 1641	15623 USSR	21 MAR 85	PLMSC	EARTH ORE
1985 023H	COSMOS 1642	15624 USSR	21 MAR 85	PLMSC	EARTH ORE
1985 024A	EKRAN 14	15626 USSR	22 MAR 85	TYMSC	EARTH ORE
1985 025A	INTELSAT 5A F-10	15629 ITSO	22 MAR 85	AFETR	EARTH ORE
1985 026A	COSMOS 1643	15634 USSR	25 MAR 85	TYMSC	18 OCT 85
1985 027A	COSMOS 1644	15636 USSR	03 APR 85	TYMSC	17 APR 85
1985 028A	STS 51D	15641 US	12 APR 85	AFETR	19 APR 85
1985 028B	ANIK C1	15642 CANADA	13 APR 85	AFETR	EARTH ORE
1985 028C	SYNCOM IV-3 (LEASAT 3)	15643 US	12 APR 85	AFETR	EARTH ORE
1985 029A	COSMOS 1645	15645 USSR	16 APR 85	PLMSC	29 APR 85
1985 030A	COSMOS 1646	15653 USSR	18 APR 85	TYMSC	12 MAY 88
1985 031A	COSMOS 1647	15655 USSR	19 APR 85	PLMSC	11 JUN 85
1985 032A	COSMOS 1648	15659 USSR	25 APR 85	PLMSC	06 MAY 85
1985 033A	PROGNOZ 10	15661 USSR	26 APR 85	TYMSC	EARTH ORE
1985 034A	STS 51B	15665 US	29 APR 85	AFETR	06 MAY 85
1985 034B	NUSAT-1	15666 US	29 APR 85	AFETR	15 DEC 86
1985 035A	GSTAR-1	15677 US	08 MAY 85	FRGUI	EARTH ORE
1985 035B	TELECOM 1B	15678 FRANCE	08 MAY 85	FRGUI	EARTH ORE
1985 036A	COSMOS 1649	15694 USSR	15 MAY 85	PLMSC	29 MAY 85
1985 037A	COSMOS 1650	15697 USSR	17 MAY 85	TYMSC	EARTH ORE
1985 037B	COSMOS 1651	15698 USSR	17 MAY 85	TYMSC	EARTH ORE
1985 037C	COSMOS 1652	15699 USSR	17 MAY 85	TYMSC	EARTH ORE
1985 038A	COSMOS 1653	15732 USSR	22 MAY 85	PLMSC	05 JUN 85
1985 039A	COSMOS 1654	15734 USSR	23 MAY 85	TYMSC	07 AUG 85
1985 040A	MOLNIYA 3-24	15738 USSR	29 MAY 85	PLMSC	EARTH ORE
1985 041A	COSMOS 1655	15751 USSR	30 MAY 85	PLMSC	EARTH ORE
1985 042A	COSMOS 1656	15755 USSR	30 MAY 85	TYMSC	EARTH ORE
1985 043A	SOYUZ T-13	15804 USSR	06 JUN 85	TYMSC	26 SEP 85
1985 044A	COSMOS 1657	15806 USSR	07 JUN 85	PLMSC	21 JUN 85
1985 045A	COSMOS 1658	15808 USSR	11 JUN 85	PLMSC	EARTH ORE
1985 046A	COSMOS 1659	15818 USSR	13 JUN 85	PLMSC	27 JUN 85
1985 047A	COSMOS 1660	15821 USSR	14 JUN 85	PLMSC	EARTH ORE
1985 048A	STS 51G	15823 US	17 JUN 85	AFETR	24 JUN 85
1985 048B	MORELOS-A	15824 MEXICO	17 JUN 85	AFETR	EARTH ORE
1985 048C	ARABSAT 1B	15825 SAUDI	18 JUN 85	AFETR	EARTH ORE
1985 048D	TELSTAR 3C	15826 US	19 JUN 85	AFETR	EARTH ORE
1985 048E	SPARTAN-1	15831 US	20 JUN 85	AFETR	24 JUN 85
1985 049A	COSMOS 1661	15827 USSR	18 JUN 85	PLMSC	EARTH ORE
1985 050A	COSMOS 1662	15833 USSR	19 JUN 85	TYMSC	16 NOV 89
1985 051A	PROGRESS 24	15838 USSR	21 JUN 85	TYMSC	15 JUL 85
1985 052A	COSMOS 1663	15840 USSR	21 JUN 85	PLMSC	05 JUL 85
1985 053A	UNKNOWN	15842 USSR	21 JUN 85	TYMSC	28 JUN 85
1985 054A	COSMOS 1664	15860 USSR	26 JUN 85	PLMSC	05 JUL 85

## Sheet1

1985 055A	INTELSAT 5A F-11	15873 ITSO	30 JUN 85	AFETR	EARTH ORE
1985 056A	GIOTTO	15875 ESA	02 JUL 85	FRGUI	SOLAR ORE
1985 057A	COSMOS 1665	15877 USSR	03 JUL 85	PLMSC	17 JUL 85
1985 058A	COSMOS 1666	15889 USSR	08 JUL 85	PLMSC	EARTH ORE
1985 059A	COSMOS 1667	15891 USSR	10 JUL 85	PLMSC	17 JUL 85
1985 060A	COSMOS 1668	15906 USSR	15 JUL 85	TYMSC	29 JUL 85
1985 061A	MOLNIYA 3-25	15909 USSR	17 JUL 85	PLMSC	EARTH ORE
1985 062A	COSMOS 1669	15918 USSR	19 JUL 85	TYMSC	30 AUG 85
1985 063A	STS 51F	15925 US	29 JUL 85	AFETR	06 AUG 85
1985 063B	PDP	15929 US	29 JUL 85	AFETR	06 AUG 85
1985 064A	COSMOS 1670	15930 USSR	01 AUG 85	TYMSC	EARTH ORE
1985 065A	COSMOS 1671	15931 USSR	02 AUG 85	PLMSC	16 AUG 85
1985 066A	TRANSIT 20 (OSCAR 30)	15935 US	03 AUG 85	AFWTR	EARTH ORE
1985 066B	TRANSIT 19 (OSCAR 24)	15936 US	03 AUG 85	AFWTR	EARTH ORE
1985 067A	COSMOS 1672	15940 USSR	07 AUG 85	PLMSC	21 AUG 85
1985 068A	COSMOS 1673	15942 USSR	08 AUG 85	TYMSC	19 SEP 85
1985 069A	COSMOS 1674	15944 USSR	08 AUG 85	PLMSC	EARTH ORE
1985 070A	RADUGA 16	15946 USSR	08 AUG 85	TYMSC	EARTH ORE
1985 071A	COSMOS 1675	15952 USSR	12 AUG 85	PLMSC	EARTH ORE
1985 072A	COSMOS 1676	15959 USSR	16 AUG 85	PLMSC	14 OCT 85
1985 073A	SS-11/SUISEI (PLANET-A)	15967 JAPAN	18 AUG 85	KSCUT	SOLAR ORE
1985 074A	MOLNIYA 1-64	15977 USSR	22 AUG 85	PLMSC	EARTH ORE
1985 075A	COSMOS 1677	15986 USSR	23 AUG 85	TYMSC	EARTH ORE
1985 076A	STS 51I	15992 US	27 AUG 85	AFETR	03 SEP 85
1985 076B	AUSSAT-1	15993 AUSTRAL	27 AUG 85	AFETR	EARTH ORE
1985 076C	ASC 1	15994 US	27 AUG 85	AFETR	EARTH ORE
1985 076D	SYNCOM IV-4 (LEASAT 4)	15995 US	29 AUG 85	AFETR	EARTH ORE
1985 077A	COSMOS 1678	15997 USSR	29 AUG 85	PLMSC	12 SEP 85
1985 078A	COSMOS 1679	15999 USSR	29 AUG 85	TYMSC	18 OCT 85
1985 079A	COSMOS 1680	16011 USSR	04 SEP 85	PLMSC	EARTH ORE
1985 080A	COSMOS 1681	16018 USSR	06 SEP 85	PLMSC	19 SEP 85
1985 081A	SOYUZ T-14	16051 USSR	17 SEP 85	TYMSC	21 NOV 85
1985 082A	COSMOS 1682	16054 USSR	19 SEP 85	TYMSC	17 MAY 88
1985 083A	COSMOS 1683	16056 USSR	19 SEP 85	PLMSC	04 OCT 85
1985 084A	COSMOS 1684	16064 USSR	24 SEP 85	PLMSC	EARTH ORE
1985 085A	COSMOS 1685	16088 USSR	26 SEP 85	PLMSC	10 OCT 85
1985 086A	COSMOS 1686	16095 USSR	27 SEP 85	TYMSC	07 FEB 91
1985 087A	INTELSAT 5A F-12	16101 ITSO	28 SEP 85	AFETR	EARTH ORE
1985 088A	COSMOS 1687	16103 USSR	30 SEP 85	PLMSC	EARTH ORE
1985 089A	COSMOS 1688	16107 USSR	02 OCT 85	KYMSC	02 JUL 88
1985 090A	COSMOS 1689	16110 USSR	03 OCT 85	TYMSC	EARTH ORE
1985 091A	MOLNIYA 3-26	16112 USSR	03 OCT 85	PLMSC	EARTH ORE
1985 092A	STS 51J	16115 US	03 OCT 85	AFETR	07 OCT 85
1985 092B	DSCS III-03 (USA 11)	16116 US	03 OCT 85	AFETR	ELNA
1985 092C	DSCS III-04 (USA 12)	16117 US	03 OCT 85	AFETR	ELNA
1985 093A	NAVSTAR 11 (GPS)	16129 US	09 OCT 85	AFWTR	EARTH ORE
1985 094A	COSMOS 1690	16138 USSR	09 OCT 85	PLMSC	EARTH ORE
1985 094B	COSMOS 1691	16139 USSR	09 OCT 85	PLMSC	EARTH ORE
1985 094C	COSMOS 1692	16140 USSR	09 OCT 85	PLMSC	EARTH ORE

## Sheet1

1985 094D	COSMOS 1693	16141 USSR	09 OCT 85	PLMSC	EARTH ORE
1985 094E	COSMOS 1694	16142 USSR	09 OCT 85	PLMSC	EARTH ORE
1985 094F	COSMOS 1695	16143 USSR	09 OCT 85	PLMSC	EARTH ORE
1985 095A	COSMOS 1696	16169 USSR	16 OCT 85	TYMSC	30 OCT 85
1985 096A	PRC 17	16177 PRC	21 OCT 85	SCMTR	07 NOV 85
1985 097A	COSMOS 1697	16181 USSR	22 OCT 85	TYMSC	EARTH ORE
1985 098A	COSMOS 1698	16183 USSR	22 OCT 85	PLMSC	EARTH ORE
1985 099A	MOLNIYA 1-65	16187 USSR	23 OCT 85	TYMSC	EARTH ORE
1985 100A	METEOR 3-01	16191 USSR	24 OCT 85	PLMSC	EARTH ORE
1985 101A	COSMOS 1699	16198 USSR	25 OCT 85	PLMSC	23 DEC 85
1985 102A	COSMOS 1700	16199 USSR	25 OCT 85	TYMSC	EARTH ORE
1985 103A	MOLNIYA 1-66	16220 USSR	28 OCT 85	PLMSC	EARTH ORE
1985 104A	STS 61A	16230 US	30 OCT 85	AFETR	06 NOV 85
1985 104B	GLOMAR	16231 US	30 OCT 85	AFETR	26 DEC 86
1985 105A	COSMOS 1701	16235 USSR	09 NOV 85	PLMSC	EARTH ORE
1985 106A	COSMOS 1702	16247 USSR	13 NOV 85	PLMSC	27 NOV 85
1985 107A	RADUGA 17	16250 USSR	15 NOV 85	TYMSC	EARTH ORE
1985 108A	COSMOS 1703	16262 USSR	22 NOV 85	PLMSC	EARTH ORE
1985 109A	STS 61B	16273 US	27 NOV 85	AFETR	03 DEC 85
1985 109B	MORELOS-B	16274 MEXICO	27 NOV 85	AFETR	EARTH ORE
1985 109C	AUSSAT-2	16275 AUSTRAL	27 NOV 85	AFETR	EARTH ORE
1985 109D	SATCOM-KU2	16276 US	28 NOV 85	AFETR	EARTH ORE
1985 109E	STS 61B OEX TARGET	16277 US	30 NOV 85	AFETR	02 MAR 87
1985 110A	COSMOS 1704	16291 USSR	28 NOV 85	PLMSC	EARTH ORE
1985 111A	COSMOS 1705	16296 USSR	03 DEC 85	PLMSC	17 DEC 85
1985 112A	COSMOS 1706	16306 USSR	11 DEC 85	PLMSC	09 FEB 86
1985 113A	COSMOS 1707	16326 USSR	12 DEC 85	PLMSC	EARTH ORE
1985 114A	ASAT BALLOON TARGET	16328 US	13 DEC 85	WLPIS	11 MAY 89
1985 114B	ASAT BALLOON TARGET	16329 US	13 DEC 85	WLPIS	09 AUG 87
1985 115A	COSMOS 1708	16331 USSR	13 DEC 85	PLMSC	27 DEC 85
1985 116A	COSMOS 1709	16368 USSR	19 DEC 85	PLMSC	EARTH ORE
1985 117A	MOLNIYA 3-27	16393 USSR	24 DEC 85	PLMSC	EARTH ORE
1985 118A	COSMOS 1710	16396 USSR	24 DEC 85	TYMSC	EARTH ORE
1985 118B	COSMOS 1711	16397 USSR	24 DEC 85	TYMSC	EARTH ORE
1985 118C	COSMOS 1712	16398 USSR	24 DEC 85	TYMSC	EARTH ORE
1985 119A	METEOR 2-13	16408 USSR	26 DEC 85	PLMSC	EARTH ORE
1985 120A	COSMOS 1713	16429 USSR	27 DEC 85	PLMSC	22 JAN 86
1985 121A	COSMOS 1714	16434 USSR	28 DEC 85	TYMSC	27 FEB 86
1986 001A	COSMOS 1715	16447 USSR	08 JAN 86	PLMSC	22 JAN 86
1986 002A	COSMOS 1716	16449 USSR	09 JAN 86	PLMSC	EARTH ORE
1986 002B	COSMOS 1717	16450 USSR	09 JAN 86	PLMSC	EARTH ORE
1986 002C	COSMOS 1718	16451 USSR	09 JAN 86	PLMSC	EARTH ORE
1986 002D	COSMOS 1719	16452 USSR	09 JAN 86	PLMSC	EARTH ORE
1986 002E	COSMOS 1720	16453 USSR	09 JAN 86	PLMSC	EARTH ORE
1986 002F	COSMOS 1721	16454 USSR	09 JAN 86	PLMSC	EARTH ORE
1986 002G	COSMOS 1722	16455 USSR	09 JAN 86	PLMSC	EARTH ORE
1986 002H	COSMOS 1723	16456 USSR	09 JAN 86	PLMSC	EARTH ORE
1986 003A	STS 61C	16481 US	12 JAN 86	AFETR	18 JAN 86
1986 003B	SATCOM-KU1	16482 US	12 JAN 86	AFETR	EARTH ORE

## Sheet1

1986 004A	COSMOS 1724	16490 USSR	15 JAN 86	PLMSC	15 MAR 86
1986 005A	COSMOS 1725	16493 USSR	16 JAN 86	PLMSC	EARTH ORE
1986 006A	COSMOS 1726	16495 USSR	17 JAN 86	PLMSC	EARTH ORE
1986 007A	RADUGA 18	16497 USSR	17 JAN 86	TYMSC	EARTH ORE
1986 008A	COSMOS 1727	16510 USSR	23 JAN 86	PLMSC	EARTH ORE
1986 009A	COSMOS 1728	16512 USSR	28 JAN 86	TYMSC	11 FEB 86
1986 010A	PRC 18	16526 PRC	01 FEB 86	CHINA	EARTH ORE
1986 011A	COSMOS 1729	16527 USSR	01 FEB 86	PLMSC	EARTH ORE
1986 012A	COSMOS 1730	16540 USSR	04 FEB 86	PLMSC	13 FEB 86
1986 013A	COSMOS 1731	16589 USSR	07 FEB 86	TYMSC	03 OCT 86
1986 014A	NOSS 7 (USA 15)	16591 US	09 FEB 86	AFWTR	ELNA
1986 014E	NOSS 7A (USA 16)	16624 US	09 FEB 86	AFWTR	ELNA
1986 014F	NOSS 7B (USA 17)	16625 US	09 FEB 86	AFWTR	ELNA
1986 014H	NOSS 7C (USA 18)	16631 US	09 FEB 86	AFWTR	ELNA
1986 015A	COSMOS 1732	16593 USSR	11 FEB 86	PLMSC	EARTH ORE
1986 016A	BS-2B	16597 JAPAN	12 FEB 86	TANSC	EARTH ORE
1986 017A	MIR	16609 USSR	19 FEB 86	TYMSC	EARTH ORE
1986 017DV	MAK 1	21425 USSR	19 FEB 86	TYMSC	18 OCT 91
1986 017GX	MAK 2	22225 USSR	19 FEB 86	TYMSC	01 APR 93
1986 018A	COSMOS 1733	16611 USSR	19 FEB 86	PLMSC	EARTH ORE
1986 019A	SPOT 1	16613 FRANCE	22 FEB 86	FRGUI	EARTH ORE
1986 019B	VIKING	16614 SWEDEN	22 FEB 86	FRGUI	EARTH ORE
1986 020A	COSMOS 1734	16618 USSR	26 FEB 86	PLMSC	26 APR 86
1986 021A	COSMOS 1735	16620 USSR	27 FEB 86	TYMSC	17 NOV 88
1986 022A	SOYUZ T-15	16643 USSR	13 MAR 86	TYMSC	16 JUL 86
1986 023A	PROGRESS 25	16645 USSR	19 MAR 86	TYMSC	21 APR 86
1986 024A	COSMOS 1736	16647 USSR	21 MAR 86	TYMSC	EARTH ORE
1986 025A	COSMOS 1737	16648 USSR	25 MAR 86	TYMSC	03 DEC 86
1986 026A	GSTAR-2	16649 US	28 MAR 86	FRGUI	EARTH ORE
1986 026B	SBTS-2	16650 BRAZIL	28 MAR 86	FRGUI	EARTH ORE
1986 027A	COSMOS 1738	16667 USSR	04 APR 86	TYMSC	EARTH ORE
1986 028A	COSMOS 1739	16677 USSR	09 APR 86	TYMSC	07 JUN 86
1986 029A	COSMOS 1740	16679 USSR	15 APR 86	PLMSC	28 APR 86
1986 030A	COSMOS 1741	16681 USSR	17 APR 86	PLMSC	EARTH ORE
1986 031A	MOLNIYA 3-28	16683 USSR	18 APR 86	PLMSC	EARTH ORE
1986 032A	PROGRESS 26	16687 USSR	23 APR 86	TYMSC	23 JUN 86
1986 033A	COSMOS 1742	16717 USSR	14 MAY 86	PLMSC	28 MAY 86
1986 034A	COSMOS 1743	16719 USSR	15 MAY 86	PLMSC	EARTH ORE
1986 035A	SOYUZ TM-01	16722 USSR	21 MAY 86	TYMSC	30 MAY 86
1986 036A	COSMOS 1744	16724 USSR	21 MAY 86	PLMSC	04 JUN 86
1986 037A	COSMOS 1745	16727 USSR	23 MAY 86	PLMSC	EARTH ORE
1986 038A	EKRAN 15	16729 USSR	24 MAY 86	TYMSC	EARTH ORE
1986 039A	METEOR 2-14	16735 USSR	27 MAY 86	PLMSC	EARTH ORE
1986 040A	COSMOS 1746	16737 USSR	28 MAY 86	PLMSC	11 JUN 86
1986 041A	COSMOS 1747	16745 USSR	29 MAY 86	TYMSC	12 JUN 86
1986 042A	COSMOS 1748	16758 USSR	06 JUN 86	PLMSC	EARTH ORE
1986 042B	COSMOS 1749	16759 USSR	06 JUN 86	PLMSC	EARTH ORE
1986 042C	COSMOS 1750	16760 USSR	06 JUN 86	PLMSC	EARTH ORE
1986 042D	COSMOS 1751	16761 USSR	06 JUN 86	PLMSC	EARTH ORE

## Sheet1

1986 042E	COSMOS 1752	16762 USSR	06 JUN 86	PLMSC	EARTH ORE
1986 042F	COSMOS 1753	16763 USSR	06 JUN 86	PLMSC	EARTH ORE
1986 042G	COSMOS 1754	16764 USSR	06 JUN 86	PLMSC	EARTH ORE
1986 042H	COSMOS 1755	16765 USSR	06 JUN 86	PLMSC	EARTH ORE
1986 043A	COSMOS 1756	16767 USSR	06 JUN 86	TYMSC	04 AUG 86
1986 044A	GORIZONT 12	16769 USSR	10 JUN 86	TYMSC	EARTH ORE
1986 045A	COSMOS 1757	16772 USSR	11 JUN 86	PLMSC	25 JUN 86
1986 046A	COSMOS 1758	16791 USSR	12 JUN 86	PLMSC	EARTH ORE
1986 047A	COSMOS 1759	16798 USSR	18 JUN 86	PLMSC	EARTH ORE
1986 048A	COSMOS 1760	16800 USSR	19 JUN 86	TYMSC	03 JUL 86
1986 049A	MOLNIYA 3-29	16802 USSR	19 JUN 86	PLMSC	EARTH ORE
1986 050A	COSMOS 1761	16849 USSR	05 JUL 86	PLMSC	EARTH ORE
1986 051A	COSMOS 1762	16855 USSR	10 JUL 86	PLMSC	24 JUL 86
1986 052A	COSMOS 1763	16860 USSR	16 JUL 86	PLMSC	EARTH ORE
1986 053A	COSMOS 1764	16861 USSR	17 JUL 86	TYMSC	11 SEP 86
1986 054A	COSMOS 1765	16874 USSR	24 JUL 86	PLMSC	07 AUG 86
1986 055A	COSMOS 1766	16881 USSR	28 JUL 86	PLMSC	EARTH ORE
1986 056A	COSMOS 1767	16883 USSR	30 JUL 86	TYMSC	16 AUG 86
1986 057A	MOLNIYA 1-67	16885 USSR	30 JUL 86	PLMSC	EARTH ORE
1986 058A	COSMOS 1768	16890 USSR	02 AUG 86	PLMSC	16 AUG 86
1986 059A	COSMOS 1769	16895 USSR	04 AUG 86	TYMSC	18 FEB 88
1986 060A	COSMOS 1770	16897 USSR	06 AUG 86	TYMSC	02 FEB 87
1986 061A	EGP	16908 JAPAN	12 AUG 86	TANSC	EARTH ORE
1986 061B	JAS-1 (FUJI OSCAR 12)	16909 JAPAN	12 AUG 86	TANSC	EARTH ORE
1986 062A	COSMOS 1771	16917 USSR	20 AUG 86	TYMSC	EARTH ORE
1986 063A	COSMOS 1772	16918 USSR	21 AUG 86	PLMSC	03 SEP 86
1986 064A	COSMOS 1773	16920 USSR	27 AUG 86	TYMSC	21 OCT 86
1986 065A	COSMOS 1774	16922 USSR	28 AUG 86	PLMSC	EARTH ORE
1986 066A	COSMOS 1775	16926 USSR	03 SEP 86	TYMSC	17 SEP 86
1986 067A	COSMOS 1776	16928 USSR	03 SEP 86	PLMSC	15 DEC 89
1986 068A	MOLNIYA 1-68	16934 USSR	05 SEP 86	PLMSC	EARTH ORE
1986 069A	USA 19	16937 US	05 SEP 86	AFETR	28 SEP 86
1986 070A	COSMOS 1777	16952 USSR	10 SEP 86	PLMSC	EARTH ORE
1986 071A	COSMOS 1778	16961 USSR	16 SEP 86	TYMSC	EARTH ORE
1986 071B	COSMOS 1779	16962 USSR	16 SEP 86	TYMSC	EARTH ORE
1986 071C	COSMOS 1780	16963 USSR	16 SEP 86	TYMSC	EARTH ORE
1986 072A	COSMOS 1781	16966 USSR	17 SEP 86	TYMSC	01 OCT 86
1986 073A	NOAA 10	16969 US	17 SEP 86	AFWTR	EARTH ORE
1986 074A	COSMOS 1782	16986 USSR	30 SEP 86	PLMSC	EARTH ORE
1986 075A	COSMOS 1783	16993 USSR	03 OCT 86	PLMSC	EARTH ORE
1986 076A	PRC 19	17001 PRC	06 OCT 86	SCMTR	23 OCT 86
1986 077A	COSMOS 1784	17003 USSR	06 OCT 86	TYMSC	11 NOV 86
1986 078A	COSMOS 1785	17031 USSR	15 OCT 86	PLMSC	EARTH ORE
1986 079A	MOLNIYA 3-30	17038 USSR	20 OCT 86	PLMSC	EARTH ORE
1986 080A	COSMOS 1786	17042 USSR	22 OCT 86	TYMSC	06 MAR 88
1986 081A	COSMOS 1787	17044 USSR	22 OCT 86	TYMSC	04 NOV 86
1986 082A	RADUGA 19	17046 USSR	25 OCT 86	TYMSC	EARTH ORE
1986 083A	COSMOS 1788	17050 USSR	27 OCT 86	PLMSC	21 JAN 91
1986 084A	COSMOS 1789	17054 USSR	31 OCT 86	PLMSC	14 NOV 86



## Sheet1

1986 085A	COSMOS 1790	17056 USSR	04 NOV 86	PLMSC	18 NOV 86
1986 086A	COSMOS 1791	17066 USSR	13 NOV 86	PLMSC	EARTH ORE
1986 087A	COSMOS 1792	17068 USSR	13 NOV 86	TYMSC	05 JAN 87
1986 088A	POLAR BEAR	17070 US	14 NOV 86	AFWTR	EARTH ORE
1986 089A	MOLNIYA 1-69	17078 USSR	15 NOV 86	PLMSC	EARTH ORE
1986 090A	GORIZONT 13	17083 USSR	18 NOV 86	TYMSC	EARTH ORE
1986 091A	COSMOS 1793	17134 USSR	20 NOV 86	PLMSC	EARTH ORE
1986 092A	COSMOS 1794	17138 USSR	21 NOV 86	PLMSC	EARTH ORE
1986 092B	COSMOS 1795	17139 USSR	21 NOV 86	PLMSC	EARTH ORE
1986 092C	COSMOS 1796	17140 USSR	21 NOV 86	PLMSC	EARTH ORE
1986 092D	COSMOS 1797	17141 USSR	21 NOV 86	PLMSC	EARTH ORE
1986 092E	COSMOS 1798	17142 USSR	21 NOV 86	PLMSC	EARTH ORE
1986 092F	COSMOS 1799	17143 USSR	21 NOV 86	PLMSC	EARTH ORE
1986 092G	COSMOS 1800	17144 USSR	21 NOV 86	PLMSC	EARTH ORE
1986 092H	COSMOS 1801	17145 USSR	21 NOV 86	PLMSC	EARTH ORE
1986 093A	COSMOS 1802	17159 USSR	24 NOV 86	PLMSC	EARTH ORE
1986 094A	COSMOS 1803	17177 USSR	02 DEC 86	PLMSC	EARTH ORE
1986 095A	COSMOS 1804	17179 USSR	04 DEC 86	TYMSC	18 DEC 86
1986 096A	FLTSATCOM F7 (USA 20)	17181 US	05 DEC 86	AFETR	EARTH ORE
1986 097A	COSMOS 1805	17191 USSR	10 DEC 86	PLMSC	EARTH ORE
1986 098A	COSMOS 1806	17213 USSR	12 DEC 86	PLMSC	EARTH ORE
1986 099A	COSMOS 1807	17217 USSR	16 DEC 86	PLMSC	23 JAN 87
1986 100A	COSMOS 1808	17239 USSR	17 DEC 86	PLMSC	EARTH ORE
1986 101A	COSMOS 1809	17241 USSR	18 DEC 86	PLMSC	EARTH ORE
1986 102A	COSMOS 1810	17262 USSR	26 DEC 86	TYMSC	11 SEP 87
1986 103A	MOLNIYA 1-70	17264 USSR	26 DEC 86	PLMSC	EARTH ORE
1987 001A	METEOR 2-15	17290 USSR	05 JAN 87	PLMSC	EARTH ORE
1987 002A	COSMOS 1811	17292 USSR	09 JAN 87	TYMSC	13 FEB 87
1987 003A	COSMOS 1812	17295 USSR	14 JAN 87	PLMSC	EARTH ORE
1987 004A	COSMOS 1813	17297 USSR	15 JAN 87	PLMSC	13 MAR 89
1987 005A	PROGRESS 27	17299 USSR	16 JAN 87	TYMSC	25 FEB 87
1987 006A	COSMOS 1814	17303 USSR	21 JAN 87	PLMSC	EARTH ORE
1987 007A	COSMOS 1815	17326 USSR	22 JAN 87	KYMSC	15 NOV 88
1987 008A	MOLNIYA 3-31	17328 USSR	22 JAN 87	PLMSC	EARTH ORE
1987 009A	COSMOS 1816	17359 USSR	29 JAN 87	PLMSC	EARTH ORE
1987 010A	COSMOS 1817	17365 USSR	30 JAN 87	TYMSC	31 JAN 87
1987 011A	COSMOS 1818	17369 USSR	01 FEB 87	TYMSC	EARTH ORE
1987 012A	ASTRO C	17480 JAPAN	05 FEB 87	KSCUT	01 NOV 91
1987 013A	SOYUZ TM-02	17482 USSR	05 FEB 87	TYMSC	30 JUL 87
1987 014A	COSMOS 1819	17484 USSR	07 FEB 87	PLMSC	18 FEB 87
1987 015A	SDS ?? (USA 21)	17506 US	12 FEB 87	AFWTR	ELNA
1987 016A	COSMOS 1820	17523 USSR	14 FEB 87	TYMSC	06 MAR 87
1987 017A	COSMOS 1821	17525 USSR	18 FEB 87	PLMSC	EARTH ORE
1987 018A	MOS-1	17527 JAPAN	19 FEB 87	TANSC	EARTH ORE
1987 019A	COSMOS 1822	17533 USSR	19 FEB 87	PLMSC	05 MAR 87
1987 020A	COSMOS 1823	17535 USSR	20 FEB 87	PLMSC	EARTH ORE
1987 021A	COSMOS 1824	17559 USSR	26 FEB 87	PLMSC	22 APR 87
1987 022A	GOES 7	17561 US	26 FEB 87	AFETR	EARTH ORE
1987 023A	PROGRESS 28	17564 USSR	03 MAR 87	TYMSC	28 MAR 87

## Sheet1

1987 024A	COSMOS 1825	17566 USSR	03 MAR 87	PLMSC	EARTH ORE
1987 025A	COSMOS 1826	17577 USSR	11 MAR 87	PLMSC	25 MAR 87
1987 026A	COSMOS 1827	17582 USSR	13 MAR 87	PLMSC	EARTH ORE
1987 026B	COSMOS 1828	17583 USSR	13 MAR 87	PLMSC	EARTH ORE
1987 026C	COSMOS 1829	17584 USSR	13 MAR 87	PLMSC	EARTH ORE
1987 026D	COSMOS 1830	17585 USSR	13 MAR 87	PLMSC	EARTH ORE
1987 026E	COSMOS 1831	17586 USSR	13 MAR 87	PLMSC	EARTH ORE
1987 026F	COSMOS 1832	17587 USSR	13 MAR 87	PLMSC	EARTH ORE
1987 027A	COSMOS 1833	17589 USSR	18 MAR 87	TYMSC	EARTH ORE
1987 028A	RADUGA 20	17611 USSR	19 MAR 87	TYMSC	EARTH ORE
1987 029A	PALAPA B2P	17706 INDNSA	20 MAR 87	AFETR	EARTH ORE
1987 030A	KVANT-1	17845 USSR	31 MAR 87	TYMSC	EARTH ORE
1987 031A	COSMOS 1834	17847 USSR	08 APR 87	TYMSC	14 OCT 88
1987 032A	COSMOS 1835	17849 USSR	09 APR 87	TYMSC	04 JUN 87
1987 033A	COSMOS 1836	17876 USSR	16 APR 87	TYMSC	02 DEC 87
1987 034A	PROGRESS 29	17878 USSR	21 APR 87	TYMSC	11 MAY 87
1987 035A	COSMOS 1837	17880 USSR	22 APR 87	PLMSC	28 APR 87
1987 036A	COSMOS 1838	17902 USSR	24 APR 87	TYMSC	15 MAY 91
1987 036B	COSMOS 1839	17903 USSR	24 APR 87	TYMSC	08 MAY 91
1987 036C	COSMOS 1840	17904 USSR	24 APR 87	TYMSC	13 SEP 91
1987 037A	COSMOS 1841	17907 USSR	24 APR 87	PLMSC	08 MAY 87
1987 038A	COSMOS 1842	17911 USSR	27 APR 87	PLMSC	EARTH ORE
1987 039A	COSMOS 1843	17940 USSR	05 MAY 87	TYMSC	19 MAY 87
1987 040A	GORIZONT 14	17969 USSR	11 MAY 87	TYMSC	EARTH ORE
1987 041A	COSMOS 1844	17973 USSR	13 MAY 87	TYMSC	EARTH ORE
1987 042A	COSMOS 1845	17975 USSR	13 MAY 87	TYMSC	27 MAY 87
1987 043A	NOSS 8 (USA 22)	17997 US	15 MAY 87	AFWTR	ELNA
1987 043E	NOSS 8A (USA 23)	18009 US	15 MAY 87	AFWTR	ELNA
1987 043F	NOSS 8B (USA 24)	18010 US	15 MAY 87	AFWTR	ELNA
1987 043H	NOSS 8C (USA 25)	18025 US	15 MAY 87	AFWTR	ELNA
1987 044A	PROGRESS 30	17999 USSR	19 MAY 87	TYMSC	19 JUL 87
1987 045A	COSMOS 1846	18004 USSR	21 MAY 87	PLMSC	04 JUN 87
1987 046A	COSMOS 1847	18011 USSR	26 MAY 87	PLMSC	22 JUL 87
1987 047A	COSMOS 1848	18017 USSR	28 MAY 87	PLMSC	11 JUN 87
1987 048A	COSMOS 1849	18083 USSR	04 JUN 87	PLMSC	EARTH ORE
1987 049A	COSMOS 1850	18095 USSR	09 JUN 87	PLMSC	EARTH ORE
1987 050A	COSMOS 1851	18103 USSR	12 JUN 87	PLMSC	EARTH ORE
1987 051A	COSMOS 1852	18113 USSR	16 JUN 87	PLMSC	EARTH ORE
1987 051B	COSMOS 1853	18114 USSR	16 JUN 87	PLMSC	EARTH ORE
1987 051C	COSMOS 1854	18115 USSR	16 JUN 87	PLMSC	EARTH ORE
1987 051D	COSMOS 1855	18116 USSR	16 JUN 87	PLMSC	EARTH ORE
1987 051E	COSMOS 1856	18117 USSR	16 JUN 87	PLMSC	EARTH ORE
1987 051F	COSMOS 1857	18118 USSR	16 JUN 87	PLMSC	EARTH ORE
1987 051G	COSMOS 1858	18119 USSR	16 JUN 87	PLMSC	EARTH ORE
1987 051H	COSMOS 1859	18120 USSR	16 JUN 87	PLMSC	EARTH ORE
1987 052A	COSMOS 1860	18122 USSR	18 JUN 87	TYMSC	EARTH ORE
1987 053A	DMSP B5D2-3 (USA 26)	18123 US	20 JUN 87	AFWTR	EARTH ORE
1987 054A	COSMOS 1861	18129 USSR	23 JUN 87	PLMSC	EARTH ORE
1987 055A	COSMOS 1862	18152 USSR	01 JUL 87	PLMSC	EARTH ORE

## Sheet1

1987 056A	COSMOS 1863	18155 USSR	04 JUL 87	PLMSC	18 JUL 87
1987 057A	COSMOS 1864	18160 USSR	06 JUL 87	PLMSC	EARTH ORE
1987 058A	COSMOS 1865	18162 USSR	08 JUL 87	TYMSC	14 AUG 87
1987 059A	COSMOS 1866	18184 USSR	09 JUL 87	PLMSC	06 NOV 87
1987 060A	COSMOS 1867	18187 USSR	10 JUL 87	TYMSC	EARTH ORE
1987 061A	COSMOS 1868	18192 USSR	14 JUL 87	PLMSC	03 MAR 89
1987 062A	COSMOS 1869	18214 USSR	16 JUL 87	PLMSC	EARTH ORE
1987 063A	SOYUZ TM-03	18222 USSR	22 JUL 87	TYMSC	29 DEC 87
1987 064A	COSMOS 1870	18225 USSR	25 JUL 87	TYMSC	29 JUL 89
1987 065A	COSMOS 1871	18259 USSR	01 AUG 87	TYMSC	10 AUG 87
1987 066A	PROGRESS 31	18283 USSR	03 AUG 87	TYMSC	23 SEP 87
1987 067A	PRC 20	18306 PRC	05 AUG 87	SCMTR	23 AUG 87
1987 068A	METEOR 2-16	18312 USSR	18 AUG 87	PLMSC	EARTH ORE
1987 069A	COSMOS 1872	18314 USSR	19 AUG 87	PLMSC	30 AUG 87
1987 070A	ETS-V	18316 JAPAN	27 AUG 87	TANSC	EARTH ORE
1987 071A	COSMOS 1873	18318 USSR	28 AUG 87	TYMSC	14 SEP 87
1987 072A	COSMOS 1874	18326 USSR	03 SEP 87	PLMSC	17 SEP 87
1987 073A	EKRAN 16	18328 USSR	04 SEP 87	TYMSC	EARTH ORE
1987 074A	COSMOS 1875	18334 USSR	07 SEP 87	PLMSC	EARTH ORE
1987 074B	COSMOS 1876	18335 USSR	07 SEP 87	PLMSC	EARTH ORE
1987 074C	COSMOS 1877	18336 USSR	07 SEP 87	PLMSC	EARTH ORE
1987 074D	COSMOS 1878	18337 USSR	07 SEP 87	PLMSC	EARTH ORE
1987 074E	COSMOS 1879	18338 USSR	07 SEP 87	PLMSC	EARTH ORE
1987 074F	COSMOS 1880	18339 USSR	07 SEP 87	PLMSC	EARTH ORE
1987 075A	PRC 21	18341 PRC	09 SEP 87	SCMTR	04 OCT 87
1987 076A	COSMOS 1881	18343 USSR	11 SEP 87	TYMSC	30 MAR 88
1987 077A	COSMOS 1882	18348 USSR	15 SEP 87	PLMSC	06 OCT 87
1987 078A	AUSSAT K3	18350 AUSTRAL	16 SEP 87	FRGUI	EARTH ORE
1987 078B	ECS 4	18351 ESA	16 SEP 87	FRGUI	EARTH ORE
1987 079A	COSMOS 1883	18355 USSR	16 SEP 87	TYMSC	EARTH ORE
1987 079B	COSMOS 1884	18356 USSR	16 SEP 87	TYMSC	EARTH ORE
1987 079C	COSMOS 1885	18357 USSR	16 SEP 87	TYMSC	EARTH ORE
1987 080A	OSCAR 27	18361 US	16 SEP 87	AFWTR	EARTH ORE
1987 080B	OSCAR 29	18362 US	16 SEP 87	AFWTR	EARTH ORE
1987 081A	COSMOS 1886	18366 USSR	17 SEP 87	PLMSC	02 NOV 87
1987 082A	PROGRESS 32	18376 USSR	23 SEP 87	TYMSC	19 NOV 87
1987 083A	COSMOS 1887	18380 USSR	29 SEP 87	PLMSC	12 OCT 87
1987 084A	COSMOS 1888	18384 USSR	01 OCT 87	TYMSC	EARTH ORE
1987 085A	COSMOS 1889	18394 USSR	09 OCT 87	TYMSC	23 OCT 87
1987 086A	COSMOS 1890	18396 USSR	10 OCT 87	TYMSC	26 DEC 88
1987 087A	COSMOS 1891	18402 USSR	14 OCT 87	PLMSC	EARTH ORE
1987 088A	COSMOS 1892	18421 USSR	20 OCT 87	PLMSC	EARTH ORE
1987 089A	COSMOS 1893	18432 USSR	22 OCT 87	PLMSC	16 DEC 87
1987 090A	KH 11-8 (USA 27)	18441 US	26 OCT 87	AFWTR	ELNA
1987 091A	COSMOS 1894	18443 USSR	28 OCT 87	TYMSC	EARTH ORE
1987 092A	COSMOS 1895	18491 USSR	11 NOV 87	TYMSC	26 NOV 87
1987 093A	COSMOS 1896	18535 USSR	14 NOV 87	TYMSC	25 DEC 87
1987 094A	PROGRESS 33	18568 USSR	20 NOV 87	TYMSC	19 DEC 87
1987 095A	TVSAT 1	18570 FRG	21 NOV 87	FRGUI	EARTH ORE

## Sheet1

1987 096A	COSMOS 1897	18575 USSR	26 NOV 87	TYMSC	EARTH ORE
1987 097A	DSP ?? (USA 28)	18583 US	29 NOV 87	AFETR	ELNA
1987 098A	COSMOS 1898	18585 USSR	01 DEC 87	PLMSC	EARTH ORE
1987 099A	COSMOS 1899	18625 USSR	07 DEC 87	TYMSC	21 DEC 87
1987 100A	RADUGA 21	18631 USSR	10 DEC 87	TYMSC	EARTH ORE
1987 101A	COSMOS 1900	18665 USSR	12 DEC 87	TYMSC	EARTH ORE
1987 102A	COSMOS 1901	18666 USSR	14 DEC 87	TYMSC	03 FEB 88
1987 103A	COSMOS 1902	18668 USSR	15 DEC 87	PLMSC	30 DEC 88
1987 104A	SOYUZ TM-04	18699 USSR	21 DEC 87	TYMSC	17 JUN 88
1987 105A	COSMOS 1903	18701 USSR	21 DEC 87	PLMSC	EARTH ORE
1987 106A	COSMOS 1904	18709 USSR	23 DEC 87	PLMSC	EARTH ORE
1987 107A	COSMOS 1905	18711 USSR	25 DEC 87	TYMSC	08 JAN 88
1987 108A	COSMOS 1906	18713 USSR	26 DEC 87	PLMSC	13 MAR 88
1987 109A	EKRAN 17	18715 USSR	27 DEC 87	TYMSC	EARTH ORE
1987 110A	COSMOS 1907	18720 USSR	29 DEC 87	PLMSC	12 JAN 88
1988 001A	COSMOS 1908	18748 USSR	06 JAN 88	PLMSC	EARTH ORE
1988 002A	COSMOS 1909	18788 USSR	15 JAN 88	PLMSC	EARTH ORE
1988 002B	COSMOS 1910	18789 USSR	15 JAN 88	PLMSC	EARTH ORE
1988 002C	COSMOS 1911	18790 USSR	15 JAN 88	PLMSC	EARTH ORE
1988 002D	COSMOS 1912	18791 USSR	15 JAN 88	PLMSC	EARTH ORE
1988 002E	COSMOS 1913	18792 USSR	15 JAN 88	PLMSC	EARTH ORE
1988 002F	COSMOS 1914	18793 USSR	15 JAN 88	PLMSC	EARTH ORE
1988 003A	PROGRESS 34	18795 USSR	20 JAN 88	TYMSC	04 MAR 88
1988 004A	COSMOS 1915	18809 USSR	26 JAN 88	PLMSC	09 FEB 88
1988 005A	METEOR 2-17	18820 USSR	30 JAN 88	PLMSC	EARTH ORE
1988 006A	DMSP B5D2-4 (USA 29)	18822 US	03 FEB 88	AFWTR	EARTH ORE
1988 007A	COSMOS 1916	18823 USSR	03 FEB 88	TYMSC	29 FEB 88
1988 008A	DELTA 181 (USA 30)	18847 US	08 FEB 88	AFETR	01 MAR 88
1988 009A	COSMOS 1917-1919	18857 USSR	17 FEB 88	TYMSC	17 FEB 88
1988 010A	COSMOS 1920	18860 USSR	18 FEB 88	PLMSC	09 MAR 88
1988 011A	COSMOS 1921	18875 USSR	19 FEB 88	TYMSC	04 MAR 88
1988 012A	CS-3A	18877 JAPAN	19 FEB 88	TANSC	EARTH ORE
1988 013A	COSMOS 1922	18881 USSR	26 FEB 88	PLMSC	EARTH ORE
1988 014A	PRC 22	18922 PRC	07 MAR 88	SCMTR	EARTH ORE
1988 015A	COSMOS 1923	18931 USSR	10 MAR 88	PLMSC	22 MAR 88
1988 016A	COSMOS 1924	18937 USSR	11 MAR 88	PLMSC	EARTH ORE
1988 016B	COSMOS 1925	18938 USSR	11 MAR 88	PLMSC	EARTH ORE
1988 016C	COSMOS 1926	18939 USSR	11 MAR 88	PLMSC	EARTH ORE
1988 016D	COSMOS 1927	18940 USSR	11 MAR 88	PLMSC	EARTH ORE
1988 016E	COSMOS 1928	18941 USSR	11 MAR 88	PLMSC	EARTH ORE
1988 016F	COSMOS 1929	18942 USSR	11 MAR 88	PLMSC	EARTH ORE
1988 016G	COSMOS 1930	18943 USSR	11 MAR 88	PLMSC	EARTH ORE
1988 016H	COSMOS 1931	18944 USSR	11 MAR 88	PLMSC	EARTH ORE
1988 017A	MOLNIYA 1-71	18946 USSR	11 MAR 88	TYMSC	EARTH ORE
1988 018A	SPACENET 3R	18951 US	11 MAR 88	FRGUI	EARTH ORE
1988 018B	TELECOM 1C	18952 FRANCE	11 MAR 88	FRGUI	EARTH ORE
1988 019A	COSMOS 1932	18957 USSR	14 MAR 88	TYMSC	EARTH ORE
1988 020A	COSMOS 1933	18958 USSR	15 MAR 88	PLMSC	EARTH ORE
1988 021A	IRS-1A	18960 INDIA	17 MAR 88	TYMSC	EARTH ORE

## Sheet1

1988 022A	MOLNIYA 1-72	18980 USSR	17 MAR 88	PLMSC	EARTH ORE
1988 023A	COSMOS 1934	18985 USSR	22 MAR 88	PLMSC	EARTH ORE
1988 024A	PROGRESS 35	18992 USSR	23 MAR 88	TYMSC	05 MAY 88
1988 025A	COSMOS 1935	19011 USSR	24 MAR 88	PLMSC	08 APR 88
1988 026A	SAN MARCO D/L	19013 ITALY	25 MAR 88	SNMLP	06 DEC 88
1988 027A	COSMOS 1936	19015 USSR	30 MAR 88	TYMSC	18 MAY 88
1988 028A	GORIZONT 15	19017 USSR	31 MAR 88	TYMSC	EARTH ORE
1988 029A	COSMOS 1937	19038 USSR	05 APR 88	PLMSC	EARTH ORE
1988 030A	COSMOS 1938	19041 USSR	11 APR 88	PLMSC	25 APR 88
1988 031A	FOTON 1	19043 USSR	14 APR 88	PLMSC	28 APR 88
1988 032A	COSMOS 1939	19045 USSR	20 APR 88	TYMSC	EARTH ORE
1988 033A	OSCAR 23	19070 US	26 APR 88	AFWTR	EARTH ORE
1988 033B	OSCAR 32	19071 US	26 APR 88	AFWTR	EARTH ORE
1988 034A	COSMOS 1940	19073 USSR	26 APR 88	TYMSC	EARTH ORE
1988 035A	COSMOS 1941	19079 USSR	27 APR 88	TYMSC	11 MAY 88
1988 036A	EKRAN 18	19090 USSR	06 MAY 88	TYMSC	EARTH ORE
1988 037A	COSMOS 1942	19115 USSR	12 MAY 88	PLMSC	04 JUL 88
1988 038A	PROGRESS 36	19117 USSR	13 MAY 88	TYMSC	05 JUN 88
1988 039A	COSMOS 1943	19119 USSR	15 MAY 88	TYMSC	EARTH ORE
1988 040A	INTELSAT 5A F-13	19121 ITSO	17 MAY 88	FRGUI	EARTH ORE
1988 041A	COSMOS 1944	19123 USSR	18 MAY 88	TYMSC	23 JUN 88
1988 042A	COSMOS 1945	19131 USSR	19 MAY 88	TYMSC	31 MAY 88
1988 043A	COSMOS 1946	19163 USSR	21 MAY 88	TYMSC	EARTH ORE
1988 043B	COSMOS 1947	19164 USSR	21 MAY 88	TYMSC	EARTH ORE
1988 043C	COSMOS 1948	19165 USSR	21 MAY 88	TYMSC	EARTH ORE
1988 044A	MOLNIYA 3-32	19189 USSR	26 MAY 88	PLMSC	EARTH ORE
1988 045A	COSMOS 1949	19193 USSR	28 MAY 88	TYMSC	23 APR 90
1988 046A	COSMOS 1950	19195 USSR	30 MAY 88	PLMSC	EARTH ORE
1988 047A	COSMOS 1951	19197 USSR	31 MAY 88	PLMSC	14 JUN 88
1988 048A	SOYUZ TM-05	19204 USSR	07 JUN 88	TYMSC	07 SEP 88
1988 049A	COSMOS 1952	19206 USSR	11 JUN 88	TYMSC	25 JUN 88
1988 050A	COSMOS 1953	19210 USSR	14 JUN 88	PLMSC	EARTH ORE
1988 051A	METEOSAT-P2	19215 ESA	15 JUN 88	FRGUI	EARTH ORE
1988 051B	OSCAR 13	19216 US	15 JUN 88	FRGUI	EARTH ORE
1988 051C	PAS 1	19217 US	15 JUN 88	FRGUI	EARTH ORE
1988 052A	NOVA 11	19223 US	16 JUN 88	AFWTR	EARTH ORE
1988 053A	COSMOS 1954	19256 USSR	21 JUN 88	PLMSC	EARTH ORE
1988 054A	COSMOS 1955	19258 USSR	22 JUN 88	TYMSC	20 AUG 88
1988 055A	COSMOS 1956	19263 USSR	23 JUN 88	PLMSC	07 JUL 88
1988 056A	OKEAN 1	19274 USSR	05 JUL 88	PLMSC	EARTH ORE
1988 057A	COSMOS 1957	19276 USSR	07 JUL 88	PLMSC	21 JUL 88
1988 058A	PHOBOS 1	19281 USSR	07 JUL 88	TYMSC	SOLAR ORE
1988 059A	PHOBOS 2	19287 USSR	12 JUL 88	TYMSC	MARS ORB
1988 060A	COSMOS 1958	19320 USSR	14 JUL 88	PLMSC	21 MAR 89
1988 061A	PROGRESS 37	19322 USSR	18 JUL 88	TYMSC	12 AUG 88
1988 062A	COSMOS 1959	19324 USSR	18 JUL 88	PLMSC	EARTH ORE
1988 063A	INSAT 1C	19330 INDIA	21 JUL 88	FRGUI	EARTH ORE
1988 063B	EUTELSAT-1 F5	19331 ESA	21 JUL 88	FRGUI	EARTH ORE
1988 064A	METEOR 3-02	19336 USSR	26 JUL 88	PLMSC	EARTH ORE

## Sheet1

1988 065A	COSMOS 1960	19338 USSR	28 JUL 88	PLMSC	09 APR 90
1988 066A	COSMOS 1961	19344 USSR	01 AUG 88	TYMSC	EARTH ORE
1988 067A	PRC 23	19368 PRC	05 AUG 88	SCMTR	13 AUG 88
1988 068A	COSMOS 1962	19372 USSR	08 AUG 88	TYMSC	22 AUG 88
1988 069A	MOLNIYA 1-73	19377 USSR	12 AUG 88	PLMSC	EARTH ORE
1988 070A	COSMOS 1963	19384 USSR	16 AUG 88	TYMSC	02 OCT 88
1988 071A	GORIZONT 16	19397 USSR	18 AUG 88	TYMSC	EARTH ORE
1988 072A	COSMOS 1964	19412 USSR	23 AUG 88	TYMSC	07 SEP 88
1988 073A	COSMOS 1965	19414 USSR	23 AUG 88	PLMSC	22 SEP 88
1988 074A	OSCAR 25	19419 US	25 AUG 88	AFWTR	EARTH ORE
1988 074B	OSCAR 31	19420 US	25 AUG 88	AFWTR	EARTH ORE
1988 075A	SOYUZ TM-06	19443 USSR	29 AUG 88	TYMSC	21 DEC 88
1988 076A	COSMOS 1966	19445 USSR	30 AUG 88	PLMSC	EARTH ORE
1988 077A	USA 31 [ELINT]	19458 US	02 SEP 88	AFETR	ELNA
1988 078A	USA 32 [NOSS]	19460 US	05 SEP 88	AFWTR	ELNA
1988 079A	COSMOS 1967	19462 USSR	06 SEP 88	PLMSC	15 SEP 88
1988 080A	FENGYUN 1-1	19467 PRC	06 SEP 88	WUZLF	EARTH ORE
1988 081A	GSTAR-3	19483 US	08 SEP 88	FRGUI	EARTH ORE
1988 081B	SBS 5	19484 US	08 SEP 88	FRGUI	EARTH ORE
1988 082A	COSMOS 1968	19488 USSR	09 SEP 88	PLMSC	23 SEP 88
1988 083A	PROGRESS 38	19486 USSR	09 SEP 88	TYMSC	23 NOV 88
1988 084A	COSMOS 1969	19495 USSR	15 SEP 88	PLMSC	13 NOV 88
1988 085A	COSMOS 1970	19501 USSR	16 SEP 88	TYMSC	EARTH ORE
1988 085B	COSMOS 1971	19502 USSR	16 SEP 88	TYMSC	EARTH ORE
1988 085C	COSMOS 1972	19503 USSR	16 SEP 88	TYMSC	EARTH ORE
1988 086A	CS-3B	19508 JAPAN	16 SEP 88	TANSC	EARTH ORE
1988 087A	HORIZON 1 (OFFEQ 1)	19519 ISRAEL	19 SEP 88	YAVNE	14 JAN 89
1988 088A	COSMOS 1973	19521 USSR	22 SEP 88	PLMSC	10 OCT 88
1988 089A	NOAA 11	19531 US	24 SEP 88	AFWTR	EARTH ORE
1988 090A	MOLNIYA 3-33	19541 USSR	29 SEP 88	PLMSC	EARTH ORE
1988 091A	STS-26	19547 US	29 SEP 88	AFETR	03 OCT 88
1988 091B	TDRS 2	19548 US	29 SEP 88	AFETR	EARTH ORE
1988 092A	COSMOS 1974	19554 USSR	03 OCT 88	PLMSC	EARTH ORE
1988 093A	COSMOS 1975	19573 USSR	11 OCT 88	PLMSC	EARTH ORE
1988 094A	COSMOS 1976	19582 USSR	13 OCT 88	PLMSC	27 OCT 88
1988 095A	RADUGA 22	19596 USSR	20 OCT 88	TYMSC	EARTH ORE
1988 096A	COSMOS 1977	19608 USSR	25 OCT 88	PLMSC	EARTH ORE
1988 097A	COSMOS 1978	19612 USSR	27 OCT 88	PLMSC	10 NOV 88
1988 098A	TDF-1	19621 FRANCE	28 OCT 88	FRGUI	EARTH ORE
1988 099A	SDS ?? (USA 33)	19625 US	06 NOV 88	AFWTR	ELNA
1988 100A	BURAN	19637 USSR	15 NOV 88	TYMSC	15 NOV 88
1988 101A	COSMOS 1979	19647 USSR	18 NOV 88	TYMSC	25 DEC 89
1988 102A	COSMOS 1980	19649 USSR	23 NOV 88	TYMSC	EARTH ORE
1988 103A	COSMOS 1981	19651 USSR	24 NOV 88	PLMSC	08 DEC 88
1988 104A	SOYUZ TM-07	19660 USSR	26 NOV 88	TYMSC	27 APR 89
1988 105A	COSMOS 1982	19662 USSR	30 NOV 88	TYMSC	14 DEC 88
1988 106A	STS-27	19670 US	02 DEC 88	AFETR	06 DEC 88
1988 106B	LACROSSE (USA 34)	19671 US	02 DEC 88	AFETR	ELNA
1988 107A	COSMOS 1983	19672 USSR	08 DEC 88	PLMSC	22 DEC 88

## Sheet1

1988 108A	EKRAN 19	19683 USSR	10 DEC 88	TYMSC	EARTH ORE
1988 109A	SKYNET 4B	19687 UK	11 DEC 88	FRGUI	EARTH ORE
1988 109B	ASTRA 1A	19688 LUXEMB	11 DEC 88	FRGUI	EARTH ORE
1988 110A	COSMOS 1984	19705 USSR	16 DEC 88	PLMSC	13 FEB 89
1988 111A	PRC 25	19710 PRC	22 DEC 88	XICLF	EARTH ORE
1988 112A	MOLNIYA 3-34	19713 USSR	22 DEC 88	PLMSC	EARTH ORE
1988 113A	COSMOS 1985	19720 USSR	23 DEC 88	PLMSC	04 MAY 92
1988 114A	PROGRESS 39	19728 USSR	25 DEC 88	TYMSC	07 FEB 89
1988 115A	MOLNIYA 1-74	19730 USSR	28 DEC 88	PLMSC	EARTH ORE
1988 116A	COSMOS 1986	19734 USSR	29 DEC 88	TYMSC	11 FEB 89
1989 001A	COSMOS 1987	19749 USSR	10 JAN 89	TYMSC	EARTH ORE
1989 001B	COSMOS 1988	19750 USSR	10 JAN 89	TYMSC	EARTH ORE
1989 001C	COSMOS 1989	19751 USSR	10 JAN 89	TYMSC	EARTH ORE
1989 002A	COSMOS 1990	19756 USSR	12 JAN 89	PLMSC	11 FEB 89
1989 003A	COSMOS 1991	19758 USSR	18 JAN 89	TYMSC	01 FEB 89
1989 004A	GORIZONT 17	19765 USSR	26 JAN 89	TYMSC	EARTH ORE
1989 005A	COSMOS 1992	19769 USSR	26 JAN 89	PLMSC	EARTH ORE
1989 006A	INTELSAT 5A F-15	19772 ITSO	27 JAN 89	FRGUI	EARTH ORE
1989 007A	COSMOS 1993	19774 USSR	28 JAN 89	TYMSC	27 MAR 89
1989 008A	PROGRESS 40	19783 USSR	10 FEB 89	TYMSC	05 MAR 89
1989 009A	COSMOS 1994	19785 USSR	10 FEB 89	PLMSC	EARTH ORE
1989 009B	COSMOS 1995	19786 USSR	10 FEB 89	PLMSC	EARTH ORE
1989 009C	COSMOS 1996	19787 USSR	10 FEB 89	PLMSC	EARTH ORE
1989 009D	COSMOS 1997	19788 USSR	10 FEB 89	PLMSC	EARTH ORE
1989 009E	COSMOS 1998	19789 USSR	10 FEB 89	PLMSC	EARTH ORE
1989 009F	COSMOS 1999	19790 USSR	10 FEB 89	PLMSC	EARTH ORE
1989 010A	COSMOS 2000	19792 USSR	10 FEB 89	PLMSC	02 MAR 89
1989 011A	COSMOS 2001	19796 USSR	14 FEB 89	PLMSC	EARTH ORE
1989 012A	COSMOS 2002	19800 USSR	14 FEB 89	PLMSC	15 OCT 89
1989 013A	NAVSTAR BII-01 (GPS)	19802 US	14 FEB 89	AFETR	EARTH ORE
1989 014A	MOLNIYA 1-75	19807 USSR	15 FEB 89	TYMSC	EARTH ORE
1989 015A	COSMOS 2003	19818 USSR	17 FEB 89	PLMSC	03 MAR 89
1989 016A	EXOS-D	19822 JAPAN	21 FEB 89	KSCUT	EARTH ORE
1989 017A	COSMOS 2004	19826 USSR	22 FEB 89	PLMSC	EARTH ORE
1989 018A	METEOR 2-18	19851 USSR	28 FEB 89	PLMSC	EARTH ORE
1989 019A	COSMOS 2005	19862 USSR	02 MAR 89	PLMSC	25 APR 89
1989 020A	JCSAT 1	19874 JAPAN	06 MAR 89	FRGUI	EARTH ORE
1989 020B	MOP 1	19876 ESA	06 MAR 89	FRGUI	EARTH ORE
1989 021A	STS-29	19882 US	13 MAR 89	AFETR	18 MAR 89
1989 021B	TDRS 3	19883 US	13 MAR 89	AFETR	EARTH ORE
1989 022A	COSMOS 2006	19893 USSR	16 MAR 89	PLMSC	31 MAR 89
1989 023A	PROGRESS 41	19895 USSR	16 MAR 89	TYMSC	25 APR 89
1989 024A	COSMOS 2007	19900 USSR	23 MAR 89	TYMSC	22 SEP 89
1989 025A	COSMOS 2008	19902 USSR	24 MAR 89	PLMSC	EARTH ORE
1989 025B	COSMOS 2009	19903 USSR	24 MAR 89	PLMSC	EARTH ORE
1989 025C	COSMOS 2010	19904 USSR	24 MAR 89	PLMSC	EARTH ORE
1989 025D	COSMOS 2011	19905 USSR	24 MAR 89	PLMSC	EARTH ORE
1989 025E	COSMOS 2012	19906 USSR	24 MAR 89	PLMSC	EARTH ORE
1989 025F	COSMOS 2013	19907 USSR	24 MAR 89	PLMSC	EARTH ORE

## Sheet1

1989 025G	COSMOS 2014	19908 USSR	24 MAR 89	PLMSC	EARTH ORE
1989 025H	COSMOS 2015	19909 USSR	24 MAR 89	PLMSC	EARTH ORE
1989 026A	DELTA STAR (USA 36)	19911 US	24 MAR 89	AFETR	23 JUN 92
1989 027A	TELE-X	19919 SWEDEN	02 APR 89	FRGUI	EARTH ORE
1989 028A	COSMOS 2016	19921 USSR	04 APR 89	PLMSC	EARTH ORE
1989 029A	COSMOS 2017	19923 USSR	06 APR 89	PLMSC	19 APR 89
1989 030A	RADUGA 23	19928 USSR	14 APR 89	TYMSC	EARTH ORE
1989 031A	COSMOS 2018	19938 USSR	20 APR 89	PLMSC	19 JUN 89
1989 032A	FOTON 2	19941 USSR	26 APR 89	PLMSC	11 MAY 89
1989 033A	STS-30	19968 US	04 MAY 89	AFETR	08 MAY 89
1989 033B	MAGELLAN	19969 US	04 MAY 89	AFETR	CENM
1989 034A	COSMOS 2019	19972 USSR	05 MAY 89	PLMSC	18 MAY 89
1989 035A	DSCS III-05 (USA 37)	19976 US	10 MAY 89	AFETR	ELNA
1989 036A	COSMOS 2020	19986 USSR	17 MAY 89	TYMSC	15 JUL 89
1989 037A	COSMOS 2021	20000 USSR	24 MAY 89	TYMSC	06 JUL 89
1989 038A	RESURS F-01	20006 USSR	25 MAY 89	PLMSC	17 JUN 89
1989 039A	COSMOS 2022	20024 USSR	31 MAY 89	TYMSC	EARTH ORE
1989 039B	COSMOS 2023	20025 USSR	31 MAY 89	TYMSC	EARTH ORE
1989 039C	COSMOS 2024	20026 USSR	31 MAY 89	TYMSC	EARTH ORE
1989 040A	COSMOS 2025	20035 USSR	01 JUN 89	PLMSC	15 JUN 89
1989 041A	SUPERBIRD A	20040 JAPAN	05 JUN 89	FRGUI	EARTH ORE
1989 041B	DFS-1	20041 FRG	05 JUN 89	FRGUI	EARTH ORE
1989 042A	COSMOS 2026	20045 USSR	07 JUN 89	PLMSC	EARTH ORE
1989 043A	MOLNIYA 3-35	20052 USSR	08 JUN 89	PLMSC	EARTH ORE
1989 044A	NAVSTAR BII-02 (GPS)	20061 US	10 JUN 89	AFETR	EARTH ORE
1989 045A	COSMOS 2027	20064 USSR	14 JUN 89	PLMSC	14 APR 92
1989 046A	DSP B14-1 (USA 39)	20066 US	14 JUN 89	AFETR	ELNA
1989 047A	COSMOS 2028	20073 USSR	16 JUN 89	TYMSC	06 JUL 89
1989 048A	RADUGA 1-1	20083 USSR	21 JUN 89	TYMSC	EARTH ORE
1989 049A	RESURS F-02	20095 USSR	27 JUN 89	PLMSC	11 JUL 89
1989 050A	NADEZHDA 1	20103 USSR	04 JUL 89	PLMSC	EARTH ORE
1989 051A	COSMOS 2029	20105 USSR	05 JUL 89	PLMSC	19 JUL 89
1989 052A	GORIZONT 18	20107 USSR	05 JUL 89	TYMSC	EARTH ORE
1989 053A	OLYMPUS	20122 ESA	12 JUL 89	FRGUI	EARTH ORE
1989 054A	COSMOS 2030	20124 USSR	12 JUL 89	PLMSC	29 JUL 89
1989 055A	RESURS F-03	20134 USSR	18 JUL 89	PLMSC	08 AUG 89
1989 056A	COSMOS 2031	20136 USSR	18 JUL 89	TYMSC	15 SEP 89
1989 057A	COSMOS 2032	20145 USSR	20 JUL 89	PLMSC	03 AUG 89
1989 058A	COSMOS 2033	20147 USSR	24 JUL 89	TYMSC	06 JAN 91
1989 059A	COSMOS 2034	20149 USSR	25 JUL 89	PLMSC	EARTH ORE
1989 060A	COSMOS 2035	20151 USSR	02 AUG 89	PLMSC	16 AUG 89
1989 061A	STS-28	20164 US	08 AUG 89	AFETR	13 AUG 89
1989 061B	USA 40 [PHOTO REC]	20167 US	08 AUG 89	AFETR	ELNA
1989 061C	USA 41	20172 US	08 AUG 89	AFETR	ELNA
1989 062A	TVSAT 2	20168 FRG	08 AUG 89	FRGUI	EARTH ORE
1989 062B	HIPPARCOS	20169 ESA	08 AUG 89	FRGUI	EARTH ORE
1989 063A	RESURS F-04	20175 USSR	15 AUG 89	PLMSC	14 SEP 89
1989 064A	NAVSTAR BII-03 (GPS)	20185 US	18 AUG 89	AFETR	EARTH ORE
1989 065A	COSMOS 2036	20188 USSR	22 AUG 89	PLMSC	05 SEP 89



## Sheet1

1989 066A	PROGRESS M-01	20191 USSR	23 AUG 89	TYMSC	01 DEC 89
1989 067A	BSB-R1	20193 UK	27 AUG 89	AFETR	EARTH ORE
1989 068A	COSMOS 2037	20196 USSR	28 AUG 89	PLMSC	EARTH ORE
1989 069A	DSCS III-06 (USA 43)	20202 US	04 SEP 89	AFETR	ELNA
1989 069B	DSCS III-07 (USA 44)	20203 US	04 SEP 89	AFETR	ELNA
1989 070A	GMS-4	20217 JAPAN	05 SEP 89	TANSC	EARTH ORE
1989 071A	SOYUZ TM-08	20218 USSR	05 SEP 89	TYMSC	19 FEB 90
1989 072A	USA 45	20220 US	06 SEP 89	AFWTR	ELNA
1989 073A	RESURS F-05	20222 USSR	06 SEP 89	PLMSC	22 SEP 89
1989 074A	COSMOS 2038	20232 USSR	14 SEP 89	PLMSC	EARTH ORE
1989 074B	COSMOS 2039	20233 USSR	14 SEP 89	PLMSC	EARTH ORE
1989 074C	COSMOS 2040	20234 USSR	14 SEP 89	PLMSC	EARTH ORE
1989 074D	COSMOS 2041	20235 USSR	14 SEP 89	PLMSC	EARTH ORE
1989 074E	COSMOS 2042	20236 USSR	14 SEP 89	PLMSC	EARTH ORE
1989 074F	COSMOS 2043	20237 USSR	14 SEP 89	PLMSC	EARTH ORE
1989 075A	COSMOS 2044	20242 USSR	15 SEP 89	PLMSC	29 SEP 89
1989 076A	COSMOS 2045	20244 USSR	22 SEP 89	TYMSC	02 OCT 89
1989 077A	FLTSATCOM F8 (USA 46)	20253 US	25 SEP 89	AFETR	EARTH ORE
1989 078A	MOLNIYA 1-76	20255 USSR	27 SEP 89	PLMSC	EARTH ORE
1989 079A	COSMOS 2046	20259 USSR	27 SEP 89	TYMSC	16 APR 91
1989 080A	INTERCOSMOS 24	20261 USSR	28 SEP 89	PLMSC	EARTH ORE
1989 080B	MAGION 2	20281 USSR	28 SEP 89	PLMSC	EARTH ORE
1989 081A	GORIZONT 19	20263 USSR	28 SEP 89	TYMSC	EARTH ORE
1989 082A	COSMOS 2047	20279 USSR	03 OCT 89	PLMSC	21 NOV 89
1989 083A	COSMOS 2048	20292 USSR	17 OCT 89	PLMSC	26 OCT 89
1989 084A	STS-34	20297 US	18 OCT 89	AFETR	23 OCT 89
1989 084B	GALILEO	20298 US	18 OCT 89	AFETR	ELNA
1989 085A	NAVSTAR BII-04 (GPS)	20302 US	21 OCT 89	AFETR	EARTH ORE
1989 086A	METEOR 3-03	20305 USSR	24 OCT 89	PLMSC	EARTH ORE
1989 087A	INTELSAT 6A F-2	20315 ITSO	27 OCT 89	FRGUI	EARTH ORE
1989 088A	COSMOS 2049	20320 USSR	17 NOV 89	TYMSC	19 JUN 90
1989 089A	COBE	20322 US	18 NOV 89	AFWTR	EARTH ORE
1989 090A	STS-33	20329 US	23 NOV 89	AFETR	28 NOV 89
1989 090B	USA 48 [SIGINT]	20355 US	23 NOV 89	AFETR	ELNA
1989 091A	COSMOS 2050	20330 USSR	23 NOV 89	PLMSC	EARTH ORE
1989 092A	COSMOS 2051	20334 USSR	24 NOV 89	TYMSC	21 JAN 90
1989 093A	KVANT-2	20335 USSR	26 NOV 89	TYMSC	EARTH ORE
1989 094A	MOLNIYA 3-36	20338 USSR	28 NOV 89	PLMSC	EARTH ORE
1989 095A	COSMOS 2052	20350 USSR	30 NOV 89	PLMSC	24 JAN 90
1989 096A	GRANAT	20352 USSR	01 DEC 89	TYMSC	EARTH ORE
1989 097A	NAVSTAR BII-05 (GPS)	20361 US	11 DEC 89	AFETR	EARTH ORE
1989 098A	RADUGA 24	20367 USSR	15 DEC 89	TYMSC	EARTH ORE
1989 099A	PROGRESS M-02	20373 USSR	20 DEC 89	TYMSC	09 FEB 90
1989 100A	COSMOS 2053	20389 USSR	27 DEC 89	PLMSC	EARTH ORE
1989 101A	COSMOS 2054	20391 USSR	27 DEC 89	TYMSC	EARTH ORE
1990 001A	SKYNET 4A	20401 UK	01 JAN 90	AFETR	EARTH ORE
1990 001B	JCSAT 2	20402 JAPAN	01 JAN 90	AFETR	EARTH ORE
1990 002A	STS-32	20409 US	09 JAN 90	AFETR	20 JAN 90
1990 002B	LEASAT-5	20410 US	09 JAN 90	AFETR	EARTH ORE

## Sheet1

1990 003A	COSMOS 2055	20426 USSR	17 JAN 90	PLMSC	29 JAN 90
1990 004A	COSMOS 2056	20432 USSR	18 JAN 90	PLMSC	EARTH ORE
1990 005A	SPOT 2	20436 FRANCE	22 JAN 90	FRGUI	EARTH ORE
1990 005B	OSCAR 14	20437 UK	22 JAN 90	FRGUI	EARTH ORE
1990 005C	OSCAR 15	20438 UK	22 JAN 90	FRGUI	EARTH ORE
1990 005D	OSCAR 16	20439 US	22 JAN 90	FRGUI	EARTH ORE
1990 005E	OSCAR 17	20440 BRAZIL	22 JAN 90	FRGUI	EARTH ORE
1990 005F	OSCAR 18	20441 US	22 JAN 90	FRGUI	EARTH ORE
1990 005G	OSCAR 19	20442 ARGENT	22 JAN 90	FRGUI	EARTH ORE
1990 006A	MOLNIYA 3-37	20444 USSR	23 JAN 90	PLMSC	EARTH ORE
1990 007A	MUSES-A	20448 JAPAN	24 JAN 90	KSCUT	ELNA
1990 007B	HAGOROMO	20618 JAPAN	24 JAN 90	KSCUT	LUNAR ORE
1990 008A	NAVSTAR BII-06 (GPS)	20452 US	24 JAN 90	AFETR	EARTH ORE
1990 009A	COSMOS 2057	20457 USSR	25 JAN 90	PLMSC	19 MAR 90
1990 010A	COSMOS 2058	20465 USSR	30 JAN 90	PLMSC	EARTH ORE
1990 011A	PRC 26	20473 PRC	04 FEB 90	XICLF	EARTH ORE
1990 012A	COSMOS 2059	20476 USSR	06 FEB 90	PLMSC	12 NOV 90
1990 013A	MOS-1B	20478 JAPAN	07 FEB 90	TANSC	EARTH ORE
1990 013B	DEBUT	20479 JAPAN	07 FEB 90	TANSC	EARTH ORE
1990 013C	JAS-1B	20480 JAPAN	07 FEB 90	TANSC	EARTH ORE
1990 014A	SOYUZ TM-09	20494 USSR	11 FEB 90	TYMSC	09 AUG 90
1990 015A	LACE (USA 51)	20496 US	14 FEB 90	AFETR	EARTH ORE
1990 015B	RME (USA 52)	20497 US	14 FEB 90	AFETR	24 MAY 92
1990 016A	RADUGA 25	20499 USSR	15 FEB 90	TYMSC	EARTH ORE
1990 017A	NADEZHDA 2	20508 USSR	27 FEB 90	PLMSC	EARTH ORE
1990 018A	OKEAN 2	20510 USSR	28 FEB 90	PLMSC	EARTH ORE
1990 019A	STS-36	20512 US	28 FEB 90	AFETR	04 MAR 90
1990 019B	AFP-731 (USA 53)	20516 US	28 FEB 90	AFETR	ELNA
1990 020A	PROGRESS M-03	20513 USSR	28 FEB 90	TYMSC	28 APR 90
1990 021A	INTELSAT 6 F-3	20523 ITSO	14 MAR 90	AFETR	EARTH ORE
1990 022A	COSMOS 2060	20525 USSR	14 MAR 90	TYMSC	01 SEP 91
1990 023A	COSMOS 2061	20527 USSR	20 MAR 90	PLMSC	EARTH ORE
1990 024A	COSMOS 2062	20529 USSR	22 MAR 90	PLMSC	05 APR 90
1990 025A	NAVSTAR BII-07 (GPS)	20533 US	26 MAR 90	AFETR	EARTH ORE
1990 026A	COSMOS 2063	20536 USSR	27 MAR 90	PLMSC	EARTH ORE
1990 027A	OFEQ 2	20540 ISRAEL	03 APR 90	YAVNE	09 JUL 90
1990 028A	PEGSAT	20546 US	05 APR 90	AFWTR	EARTH ORE
1990 028B	MACSAT (USA 55)	20547 US	05 APR 90	AFWTR	EARTH ORE
1990 029A	COSMOS 2064	20549 USSR	06 APR 90	PLMSC	EARTH ORE
1990 029B	COSMOS 2065	20550 USSR	06 APR 90	PLMSC	EARTH ORE
1990 029C	COSMOS 2066	20551 USSR	06 APR 90	PLMSC	EARTH ORE
1990 029D	COSMOS 2067	20552 USSR	06 APR 90	PLMSC	EARTH ORE
1990 029E	COSMOS 2068	20553 USSR	06 APR 90	PLMSC	EARTH ORE
1990 029F	COSMOS 2069	20554 USSR	06 APR 90	PLMSC	EARTH ORE
1990 029G	COSMOS 2070	20555 USSR	06 APR 90	PLMSC	EARTH ORE
1990 029H	COSMOS 2071	20556 USSR	06 APR 90	PLMSC	EARTH ORE
1990 030A	ASIASAT 1	20558 UK	07 APR 90	XICLF	EARTH ORE
1990 031A	USA 56	20560 US	11 APR 90	AFWTR	ELNA
1990 031B	USA 57	20561 US	11 APR 90	AFWTR	ELNA

## Sheet1

1990 031C	USA 58	20562 US	11 APR 90	AFWTR	ELNA
1990 032A	FOTON 3	20566 USSR	11 APR 90	PLMSC	27 APR 90
1990 033A	COSMOS 2072	20568 USSR	13 APR 90	TYMSC	22 NOV 90
1990 034A	PALAPA B2R	20570 INDNSA	13 APR 90	AFETR	EARTH ORE
1990 035A	COSMOS 2073	20573 USSR	17 APR 90	PLMSC	28 APR 90
1990 036A	COSMOS 2074	20577 USSR	20 APR 90	PLMSC	EARTH ORE
1990 037A	STS-31	20579 US	24 APR 90	AFETR	29 APR 90
1990 037B	HST	20580 US	24 APR 90	AFETR	EARTH ORE
1990 038A	COSMOS 2075	20581 USSR	25 APR 90	PLMSC	20 FEB 92
1990 039A	MOLNIYA 1-77	20583 USSR	26 APR 90	PLMSC	EARTH ORE
1990 040A	COSMOS 2076	20596 USSR	28 APR 90	PLMSC	EARTH ORE
1990 041A	PROGRESS 42	20602 USSR	05 MAY 90	TYMSC	27 MAY 90
1990 042A	COSMOS 2077	20604 USSR	07 MAY 90	PLMSC	04 JUL 90
1990 043A	M-1	20607 US	09 MAY 90	AFWTR	EARTH ORE
1990 043B	M-2	20608 US	09 MAY 90	AFWTR	EARTH ORE
1990 044A	COSMOS 2078	20615 USSR	15 MAY 90	TYMSC	28 JUN 90
1990 045A	COSMOS 2079	20619 USSR	19 MAY 90	TYMSC	EARTH ORE
1990 045B	COSMOS 2080	20620 USSR	19 MAY 90	TYMSC	EARTH ORE
1990 045C	COSMOS 2081	20621 USSR	19 MAY 90	TYMSC	EARTH ORE
1990 046A	COSMOS 2082	20624 USSR	22 MAY 90	TYMSC	EARTH ORE
1990 047A	RESURS F-06	20632 USSR	29 MAY 90	PLMSC	14 JUN 90
1990 048A	KRISTALL	20635 USSR	31 MAY 90	TYMSC	EARTH ORE
1990 049A	ROSAT	20638 FRG	01 JUN 90	AFETR	EARTH ORE
1990 050A	USA 59	20641 US	08 JUN 90	AFETR	ELNA
1990 050B	USA 60	20682 US	08 JUN 90	AFETR	ELNA
1990 050C	USA 61	20691 US	08 JUN 90	AFETR	ELNA
1990 050D	USA 62	20692 US	08 JUN 90	AFETR	ELNA
1990 051A	INSAT 1D	20643 INDIA	12 JUN 90	AFETR	EARTH ORE
1990 052A	MOLNIYA 3-38	20646 USSR	13 JUN 90	PLMSC	EARTH ORE
1990 053A	COSMOS 2083	20657 USSR	19 JUN 90	PLMSC	03 JUL 90
1990 054A	GORIZONT 20	20659 USSR	20 JUN 90	TYMSC	EARTH ORE
1990 055A	COSMOS 2084	20663 USSR	21 JUN 90	PLMSC	EARTH ORE
1990 056A	INTELSAT 6 F-4	20667 ITSO	23 JUN 90	AFETR	EARTH ORE
1990 057A	METEOR 2-19	20670 USSR	27 JUN 90	PLMSC	EARTH ORE
1990 058A	GAMMA	20683 USSR	11 JUL 90	TYMSC	28 FEB 92
1990 059A	BADR-A	20685 PAKIST	16 JUL 90	XICLF	08 DEC 90
1990 060A	RESURS F-07	20687 USSR	17 JUL 90	PLMSC	16 AUG 90
1990 061A	COSMOS 2085	20693 USSR	18 JUL 90	TYMSC	EARTH ORE
1990 062A	COSMOS 2086	20702 USSR	20 JUL 90	PLMSC	03 AUG 90
1990 063A	TDF-2	20705 FRANCE	24 JUL 90	FRGUI	EARTH ORE
1990 063B	DFS-2	20706 FRG	24 JUL 90	FRGUI	EARTH ORE
1990 064A	COSMOS 2087	20707 USSR	25 JUL 90	PLMSC	EARTH ORE
1990 065A	CRRES	20712 US	25 JUL 90	AFETR	EARTH ORE
1990 066A	COSMOS 2088	20720 USSR	30 JUL 90	PLMSC	EARTH ORE
1990 067A	SOYUZ TM-10	20722 USSR	01 AUG 90	TYMSC	10 DEC 90
1990 068A	NAVSTAR BII-08 (GPS)	20724 US	02 AUG 90	AFETR	EARTH ORE
1990 069A	COSMOS 2089	20732 USSR	03 AUG 90	PLMSC	01 OCT 90
1990 070A	COSMOS 2090	20735 USSR	08 AUG 90	PLMSC	EARTH ORE
1990 070B	COSMOS 2091	20736 USSR	08 AUG 90	PLMSC	EARTH ORE

## Sheet1

1990 070C	COSMOS 2092	20737 USSR	08 AUG 90	PLMSC	EARTH ORE
1990 070D	COSMOS 2093	20738 USSR	08 AUG 90	PLMSC	EARTH ORE
1990 070E	COSMOS 2094	20739 USSR	08 AUG 90	PLMSC	EARTH ORE
1990 070F	COSMOS 2095	20740 USSR	08 AUG 90	PLMSC	EARTH ORE
1990 071A	MOLNIYA 1-78	20742 USSR	10 AUG 90	PLMSC	EARTH ORE
1990 072A	PROGRESS M-04	20752 USSR	15 AUG 90	TYMSC	20 SEP 90
1990 073A	RESURS F-08	20754 USSR	16 AUG 90	PLMSC	01 SEP 90
1990 074A	BSB-R2	20762 UK	18 AUG 90	AFETR	EARTH ORE
1990 075A	COSMOS 2096	20765 USSR	23 AUG 90	TYMSC	30 AUG 92
1990 076A	COSMOS 2097	20767 USSR	28 AUG 90	PLMSC	EARTH ORE
1990 077A	BS-3A	20771 JAPAN	28 AUG 90	TANSC	EARTH ORE
1990 078A	COSMOS 2098	20774 USSR	28 AUG 90	PLMSC	EARTH ORE
1990 079A	SKYNET 4C	20776 UK	30 AUG 90	FRGUI	EARTH ORE
1990 079B	EUTELSAT-II F1	20777 ESA	30 AUG 90	FRGUI	EARTH ORE
1990 080A	COSMOS 2099	20779 USSR	31 AUG 90	PLMSC	14 SEP 90
1990 081A	FENGYUN 1-2	20788 PRC	03 SEP 90	WUZLF	EARTH ORE
1990 081B	PRC 31	20789 PRC	03 SEP 90	WUZLF	11 MAR 91
1990 081C	PRC 32	20790 PRC	03 SEP 90	WUZLF	24 JUL 91
1990 082A	RESURS F-09	20794 USSR	07 SEP 90	PLMSC	21 SEP 90
1990 083A	COSMOS 2100	20804 USSR	14 SEP 90	PLMSC	EARTH ORE
1990 084A	MOLNIYA 3-39	20813 USSR	20 SEP 90	PLMSC	EARTH ORE
1990 085A	PROGRESS M-05	20824 USSR	27 SEP 90	TYMSC	28 NOV 90
1990 086A	METEOR 2-20	20826 USSR	28 SEP 90	PLMSC	EARTH ORE
1990 087A	COSMOS 2101	20828 USSR	01 OCT 90	TYMSC	30 NOV 90
1990 088A	NAVSTAR BII-09 (GPS)	20830 US	01 OCT 90	AFETR	EARTH ORE
1990 089A	PRC 33	20838 PRC	05 OCT 90	SCMTR	23 OCT 90
1990 090A	STS-41	20841 US	06 OCT 90	AFETR	10 OCT 90
1990 090B	ULYSSES	20842 US	06 OCT 90	AFETR	SOLAR ORE
1990 091A	SBS 6	20872 US	12 OCT 90	FRGUI	EARTH ORE
1990 091B	GALAXY VI	20873 US	12 OCT 90	FRGUI	EARTH ORE
1990 092A	COSMOS 2102	20909 USSR	16 OCT 90	PLMSC	12 DEC 90
1990 093A	INMARSAT 2 F1	20918 UK	30 OCT 90	AFETR	EARTH ORE
1990 094A	GORIZONT 21	20923 USSR	03 NOV 90	TYMSC	EARTH ORE
1990 095A	USA 65 [DSP]	20929 US	13 NOV 90	AFETR	ELNA
1990 096A	COSMOS 2103	20933 USSR	14 NOV 90	TYMSC	03 APR 91
1990 097A	STS-38	20935 US	15 NOV 90	AFETR	20 NOV 90
1990 097B	USA 67 [ELINT]	20963 US	15 NOV 90	AFETR	ELNA
1990 098A	COSMOS 2104	20936 USSR	16 NOV 90	PLMSC	04 DEC 90
1990 099A	COSMOS 2105	20941 USSR	20 NOV 90	PLMSC	EARTH ORE
1990 100A	SATCOM I	20945 US	20 NOV 90	FRGUI	EARTH ORE
1990 100B	GSTAR-IV	20946 US	20 NOV 90	FRGUI	EARTH ORE
1990 101A	MOLNIYA 1-79	20949 USSR	23 NOV 90	PLMSC	EARTH ORE
1990 102A	GORIZONT 22	20953 USSR	23 NOV 90	TYMSC	EARTH ORE
1990 103A	NAVSTAR BIIA-10 (GPS)	20959 US	26 NOV 90	AFETR	EARTH ORE
1990 104A	COSMOS 2106	20966 USSR	28 NOV 90	PLMSC	EARTH ORE
1990 105A	DMSB B5D2-5 (USA 68)	20978 US	01 DEC 90	AFWTR	EARTH ORE
1990 106A	STS-35	20980 US	02 DEC 90	AFETR	11 DEC 90
1990 107A	SOYUZ TM-11	20981 USSR	02 DEC 90	TYMSC	26 MAY 91
1990 108A	COSMOS 2107	20985 USSR	04 DEC 90	TYMSC	06 APR 92

## Sheet1

1990 109A	COSMOS 2108	21000 USSR	04 DEC 90	PLMSC	28 JAN 91
1990 110A	COSMOS 2109	21006 USSR	08 DEC 90	TYMSC	EARTH ORE
1990 110B	COSMOS 2110	21007 USSR	08 DEC 90	TYMSC	EARTH ORE
1990 110C	COSMOS 2111	21008 USSR	08 DEC 90	TYMSC	EARTH ORE
1990 111A	COSMOS 2112	21014 USSR	10 DEC 90	PLMSC	EARTH ORE
1990 112A	RADUGA 26	21016 USSR	20 DEC 90	TYMSC	EARTH ORE
1990 113A	COSMOS 2113	21026 USSR	21 DEC 90	TYMSC	11 JUN 91
1990 114A	COSMOS 2114	21028 USSR	22 DEC 90	PLMSC	EARTH ORE
1990 114B	COSMOS 2115	21029 USSR	22 DEC 90	PLMSC	EARTH ORE
1990 114C	COSMOS 2116	21030 USSR	22 DEC 90	PLMSC	EARTH ORE
1990 114D	COSMOS 2117	21031 USSR	22 DEC 90	PLMSC	EARTH ORE
1990 114E	COSMOS 2118	21032 USSR	22 DEC 90	PLMSC	EARTH ORE
1990 114F	COSMOS 2119	21033 USSR	22 DEC 90	PLMSC	EARTH ORE
1990 115A	COSMOS 2120	21035 USSR	26 DEC 90	PLMSC	17 JAN 91
1990 115D	COSMOS 2120	21061 USSR	26 DEC 90	PLMSC	18 JAN 91
1990 116A	RADUGA 1-2	21038 USSR	27 DEC 90	TYMSC	EARTH ORE
1991 001A	NATO IV A	21047 US	08 JAN 91	AFETR	EARTH ORE
1991 002A	PROGRESS M-06	21053 USSR	14 JAN 91	TYMSC	15 MAR 91
1991 003A	ITALSAT 1	21055 ITALY	15 JAN 91	FRGUI	EARTH ORE
1991 003B	EUTELSAT-II F2	21056 ESA	15 JAN 91	FRGUI	EARTH ORE
1991 004A	COSMOS 2121	21059 USSR	17 JAN 91	PLMSC	10 FEB 91
1991 005A	COSMOS 2122	21065 USSR	18 JAN 91	TYMSC	28 MAR 93
1991 006A	INFORMATOR 1	21087 USSR	29 JAN 91	PLMSC	EARTH ORE
1991 007A	COSMOS 2123	21089 USSR	05 FEB 91	PLMSC	EARTH ORE
1991 008A	COSMOS 2124	21092 USSR	07 FEB 91	PLMSC	07 APR 91
1991 009A	COSMOS 2125	21100 USSR	12 FEB 91	PLMSC	EARTH ORE
1991 009B	COSMOS 2126	21101 USSR	12 FEB 91	PLMSC	EARTH ORE
1991 009C	COSMOS 2127	21102 USSR	12 FEB 91	PLMSC	EARTH ORE
1991 009D	COSMOS 2128	21103 USSR	12 FEB 91	PLMSC	EARTH ORE
1991 009E	COSMOS 2129	21104 USSR	12 FEB 91	PLMSC	EARTH ORE
1991 009F	COSMOS 2130	21105 USSR	12 FEB 91	PLMSC	EARTH ORE
1991 009G	COSMOS 2131	21106 USSR	12 FEB 91	PLMSC	EARTH ORE
1991 009H	COSMOS 2132	21107 USSR	12 FEB 91	PLMSC	EARTH ORE
1991 010A	COSMOS 2133	21111 USSR	14 FEB 91	TYMSC	EARTH ORE
1991 011A	COSMOS 2134	21116 USSR	15 FEB 91	TYMSC	01 APR 91
1991 012A	MOLNIYA 1-80	21118 USSR	15 FEB 91	PLMSC	EARTH ORE
1991 013A	COSMOS 2135	21130 USSR	26 FEB 91	PLMSC	EARTH ORE
1991 014A	RADUGA 27	21132 USSR	28 FEB 91	TYMSC	EARTH ORE
1991 015A	ASTRA 1B	21139 LUXEMB	02 MAR 91	FRGUI	EARTH ORE
1991 015B	MOP 2	21140 ESA	02 MAR 91	FRGUI	EARTH ORE
1991 016A	COSMOS 2136	21143 USSR	06 MAR 91	PLMSC	20 MAR 91
1991 017A	USA 69	21147 US	08 MAR 91	AFWTR	ELNA
1991 018A	INMARSAT 2 F2	21149 UK	08 MAR 91	AFETR	EARTH ORE
1991 019A	NADEZHDA 3	21152 USSR	12 MAR 91	PLMSC	EARTH ORE
1991 020A	PROGRESS M-07	21188 USSR	19 MAR 91	TYMSC	07 MAY 91
1991 021A	COSMOS 2137	21190 USSR	19 MAR 91	PLMSC	EARTH ORE
1991 022A	MOLNIYA 3-40	21196 USSR	22 MAR 91	PLMSC	EARTH ORE
1991 023A	COSMOS 2138	21203 USSR	26 MAR 91	PLMSC	24 MAY 91
1991 024A	ALMAZ 1	21213 USSR	31 MAR 91	TYMSC	17 OCT 92

## Sheet1

1991 025A	COSMOS 2139	21216 USSR	04 APR 91	TYMSC	EARTH ORE
1991 025B	COSMOS 2140	21217 USSR	04 APR 91	TYMSC	EARTH ORE
1991 025C	COSMOS 2141	21218 USSR	04 APR 91	TYMSC	EARTH ORE
1991 026A	ANIK E2	21222 CANADA	04 APR 91	FRGUI	EARTH ORE
1991 027A	STS-37	21224 US	05 APR 91	AFETR	11 APR 91
1991 027B	GRO	21225 US	05 APR 91	AFETR	EARTH ORE
1991 028A	ASC 2	21227 US	13 APR 91	AFETR	EARTH ORE
1991 029A	COSMOS 2142	21230 USSR	16 APR 91	PLMSC	EARTH ORE
1991 030A	METEOR 3-04	21232 USSR	24 APR 91	PLMSC	EARTH ORE
1991 031A	STS-39	21242 US	28 APR 91	AFETR	06 MAY 91
1991 031B	IBSS	21244 US	28 APR 91	AFETR	06 MAY 91
1991 031C	MPEC (USA 70)	21262 US	28 APR 91	AFETR	ELNA
1991 032A	NOAA 12	21263 US	14 MAY 91	AFWTR	EARTH ORE
1991 033A	COSMOS 2143	21299 USSR	16 MAY 91	PLMSC	EARTH ORE
1991 033B	COSMOS 2144	21300 USSR	16 MAY 91	PLMSC	EARTH ORE
1991 033C	COSMOS 2145	21301 USSR	16 MAY 91	PLMSC	EARTH ORE
1991 033D	COSMOS 2146	21302 USSR	16 MAY 91	PLMSC	EARTH ORE
1991 033E	COSMOS 2147	21303 USSR	16 MAY 91	PLMSC	EARTH ORE
1991 033F	COSMOS 2148	21304 USSR	16 MAY 91	PLMSC	EARTH ORE
1991 034A	SOYUZ TM-12	21311 USSR	18 MAY 91	TYMSC	10 OCT 91
1991 035A	RESURS F-10	21313 USSR	21 MAY 91	PLMSC	20 JUN 91
1991 036A	COSMOS 2149	21315 USSR	24 MAY 91	PLMSC	04 JUL 91
1991 037A	AURORA II	21392 US	29 MAY 91	AFETR	EARTH ORE
1991 038A	PROGRESS M-08	21395 USSR	30 MAY 91	TYMSC	16 AUG 91
1991 039A	OKEAN 3	21397 USSR	04 JUN 91	PLMSC	EARTH ORE
1991 040A	STS-40	21399 US	05 JUN 91	AFETR	14 JUN 91
1991 041A	COSMOS 2150	21418 USSR	11 JUN 91	PLMSC	EARTH ORE
1991 042A	COSMOS 2151	21422 USSR	13 JUN 91	PLMSC	EARTH ORE
1991 043A	MOLNIYA 1-81	21426 USSR	18 JUN 91	TYMSC	EARTH ORE
1991 044A	RESURS F-11	21524 USSR	28 JUN 91	PLMSC	21 JUL 91
1991 045A	REX	21527 US	29 JUN 91	AFWTR	EARTH ORE
1991 046A	GORIZONT 23	21533 USSR	01 JUL 91	TYMSC	EARTH ORE
1991 047A	NAVSTAR BIIA-11 (GPS)	21552 US	04 JUL 91	AFETR	EARTH ORE
1991 047B	LOSAT X	21553 US	04 JUL 91	AFETR	15 NOV 91
1991 048A	COSMOS 2152	21558 USSR	09 JUL 91	PLMSC	23 JUL 91
1991 049A	COSMOS 2153	21560 USSR	10 JUL 91	TYMSC	13 MAR 92
1991 050A	ERS-1	21574 ESA	17 JUL 91	FRGUI	EARTH ORE
1991 050B	UOSAT F	21575 UK	17 JUL 91	FRGUI	EARTH ORE
1991 050C	ORBCOMM-X	21576 US	17 JUL 91	FRGUI	EARTH ORE
1991 050D	TUBSAT	21577 FRG	17 JUL 91	FRGUI	EARTH ORE
1991 050E	SARA	21578 FRANCE	17 JUL 91	FRGUI	EARTH ORE
1991 051A	MICROSAT 1	21580 US	17 JUL 91	AFWTR	23 JAN 92
1991 051B	MICROSAT 2	21581 US	17 JUL 91	AFWTR	23 JAN 92
1991 051C	MICROSAT 3	21582 US	17 JUL 91	AFWTR	24 JAN 92
1991 051D	MICROSAT 4	21583 US	17 JUL 91	AFWTR	23 JAN 92
1991 051E	MICROSAT 5	21584 US	17 JUL 91	AFWTR	24 JAN 92
1991 051F	MICROSAT 6	21585 US	17 JUL 91	AFWTR	25 JAN 92
1991 051G	MICROSAT 7	21586 US	17 JUL 91	AFWTR	23 JAN 92
1991 052A	RESURS F-12	21611 USSR	23 JUL 91	PLMSC	08 AUG 91

## Sheet1

1991 053A	MOLNIYA 1-82	21630 USSR	01 AUG 91	PLMSC	EARTH ORE
1991 054A	STS-43	21638 US	02 AUG 91	AFETR	11 AUG 91
1991 054B	TDRS F5	21639 US	02 AUG 91	AFETR	EARTH ORE
1991 055A	INTELSAT 6 F-5	21653 ITSO	14 AUG 91	FRGUI	EARTH ORE
1991 056A	METEOR 3-05	21655 USSR	15 AUG 91	PLMSC	EARTH ORE
1991 057A	PROGRESS M-09	21662 USSR	20 AUG 91	TYMSC	30 SEP 91
1991 058A	RESURS F-13	21664 USSR	21 AUG 91	PLMSC	20 SEP 91
1991 059A	COSMOS 2154	21666 USSR	22 AUG 91	PLMSC	EARTH ORE
1991 060A	BS-3B	21668 JAPAN	25 AUG 91	TANSC	EARTH ORE
1991 061A	IRS-1B	21688 INDIA	29 AUG 91	TYMSC	EARTH ORE
1991 062A	SOLAR-A	21694 JAPAN	30 AUG 91	KSCUT	EARTH ORE
1991 063A	STS-48	21700 US	12 SEP 91	AFETR	19 SEP 91
1991 063B	UARS	21701 US	12 SEP 91	AFETR	EARTH ORE
1991 064A	COSMOS 2155	21702 USSR	13 SEP 91	TYMSC	EARTH ORE
1991 065A	MOLNIYA 3-41	21706 USSR	17 SEP 91	PLMSC	EARTH ORE
1991 066A	COSMOS 2156	21713 USSR	19 SEP 91	PLMSC	17 NOV 91
1991 067A	ANIK E1	21726 CANADA	26 SEP 91	FRGUI	EARTH ORE
1991 068A	COSMOS 2157	21728 USSR	28 SEP 91	PLMSC	EARTH ORE
1991 068B	COSMOS 2158	21729 USSR	28 SEP 91	PLMSC	EARTH ORE
1991 068C	COSMOS 2159	21730 USSR	28 SEP 91	PLMSC	EARTH ORE
1991 068D	COSMOS 2160	21731 USSR	28 SEP 91	PLMSC	EARTH ORE
1991 068E	COSMOS 2161	21732 USSR	28 SEP 91	PLMSC	EARTH ORE
1991 068F	COSMOS 2162	21733 USSR	28 SEP 91	PLMSC	EARTH ORE
1991 069A	SOYUZ TM-13	21735 USSR	02 OCT 91	TYMSC	25 MAR 92
1991 070A	FOTON 4	21737 USSR	04 OCT 91	PLMSC	20 OCT 91
1991 071A	COSMOS 2163	21741 USSR	09 OCT 91	TYMSC	07 DEC 91
1991 072A	COSMOS 2164	21743 USSR	10 OCT 91	PLMSC	12 DEC 92
1991 073A	PROGRESS M-10	21746 USSR	17 OCT 91	TYMSC	20 JAN 92
1991 074A	GORIZONT 24	21759 USSR	23 OCT 91	TYMSC	EARTH ORE
1991 075A	INTELSAT 6A F-1	21765 ITSO	29 OCT 91	FRGUI	EARTH ORE
1991 076A	USA 72	21775 US	08 NOV 91	AFWTR	ELNA
1991 076C	USA 74	21799 US	08 NOV 91	AFWTR	ELNA
1991 076D	USA 76	21808 US	08 NOV 91	AFWTR	ELNA
1991 076E	USA 77	21809 US	08 NOV 91	AFWTR	ELNA
1991 077A	COSMOS 2165	21779 USSR	12 NOV 91	PLMSC	EARTH ORE
1991 077B	COSMOS 2166	21780 USSR	12 NOV 91	PLMSC	EARTH ORE
1991 077C	COSMOS 2167	21781 USSR	12 NOV 91	PLMSC	EARTH ORE
1991 077D	COSMOS 2168	21782 USSR	12 NOV 91	PLMSC	EARTH ORE
1991 077E	COSMOS 2169	21783 USSR	12 NOV 91	PLMSC	EARTH ORE
1991 077F	COSMOS 2170	21784 USSR	12 NOV 91	PLMSC	EARTH ORE
1991 078A	COSMOS 2171	21787 USSR	20 NOV 91	PLMSC	18 JAN 92
1991 079A	COSMOS 2172	21789 USSR	22 NOV 91	TYMSC	EARTH ORE
1991 080A	STS-44	21795 US	24 NOV 91	AFETR	01 DEC 91
1991 080B	DSP-16 (USA 75)	21805 US	24 NOV 91	AFETR	ELNA
1991 081A	COSMOS 2173	21796 USSR	27 NOV 91	PLMSC	EARTH ORE
1991 082A	DMSB B5D2-6 (USA 73)	21798 US	28 NOV 91	AFWTR	EARTH ORE
1991 083A	EUTELSAT-II F3	21803 ESA	07 DEC 91	AFETR	EARTH ORE
1991 084A	TELECOM 2A	21813 FRANCE	16 DEC 91	FRGUI	EARTH ORE
1991 084B	INMARSAT 2 F3	21814 IMSO	16 DEC 91	FRGUI	EARTH ORE

## Sheet1

1991 085A	COSMOS 2174	21816 USSR	17 DEC 91	TYMSC	30 JAN 92
1991 086A	INTERCOSMOS 25	21819 USSR	18 DEC 91	PLMSC	EARTH ORE
1991 086E	MAGION 3	21835 CZECH	18 DEC 91	PLMSC	EARTH ORE
1991 087A	RADUGA 28	21821 USSR	19 DEC 91	TYMSC	EARTH ORE
1991 088A	PRC 34	21833 PRC	28 DEC 91	AFETR	EARTH ORE
1992 001A	COSMOS 2175	21844 USSR	21 JAN 92	PLMSC	20 MAR 92
1992 002A	STS-42	21846 US	22 JAN 92	AFETR	30 JAN 92
1992 003A	COSMOS 2176	21847 USSR	24 JAN 92	PLMSC	EARTH ORE
1992 004A	PROGRESS M-11	21851 USSR	25 JAN 92	TYMSC	13 MAR 92
1992 005A	COSMOS 2177	21853 USSR	29 JAN 92	TYMSC	EARTH ORE
1992 005B	COSMOS 2178	21854 USSR	29 JAN 92	TYMSC	EARTH ORE
1992 005C	COSMOS 2179	21855 USSR	29 JAN 92	TYMSC	EARTH ORE
1992 006A	DSCS III-08 (USA 78)	21873 US	11 FEB 92	AFETR	ELNA
1992 007A	JERS-1	21867 JAPAN	11 FEB 92	TANSC	EARTH ORE
1992 008A	COSMOS 2180	21875 USSR	17 FEB 92	PLMSC	EARTH ORE
1992 009A	NAVSTAR BIIA-12 (GPS)	21890 US	23 FEB 92	AFETR	EARTH ORE
1992 010A	SUPERBIRD B1	21893 JAPAN	26 FEB 92	FRGUI	EARTH ORE
1992 010B	ARABSAT 1C	21894 SAUDI	26 FEB 92	FRGUI	EARTH ORE
1992 011A	MOLNIYA 1-83	21897 USSR	04 MAR 92	PLMSC	EARTH ORE
1992 012A	COSMOS 2181	21902 USSR	09 MAR 92	PLMSC	EARTH ORE
1992 013A	GALAXY 5	21906 US	14 MAR 92	AFETR	EARTH ORE
1992 014A	SOYUZ TM-14	21908 USSR	17 MAR 92	TYMSC	10 AUG 92
1992 015A	STS-45	21915 US	24 MAR 92	AFETR	02 APR 92
1992 016A	COSMOS 2182	21920 USSR	01 APR 92	PLMSC	30 MAY 92
1992 017A	GORIZONT 25	21922 USSR	02 APR 92	TYMSC	EARTH ORE
1992 018A	COSMOS 2183	21928 USSR	08 APR 92	TYMSC	16 FEB 93
1992 019A	NAVSTAR BIIA-13 (GPS)	21930 US	10 APR 92	AFETR	EARTH ORE
1992 020A	COSMOS 2184	21937 USSR	15 APR 92	PLMSC	EARTH ORE
1992 021A	TELECOM 2B	21939 FRANCE	15 APR 92	FRGUI	EARTH ORE
1992 021B	INMARSAT 2 F4	21940 IMSO	15 APR 92	FRGUI	EARTH ORE
1992 022A	PROGRESS M-12	21946 USSR	19 APR 92	TYMSC	27 JUN 92
1992 023A	USA 81	21949 US	25 APR 92	AFWTR	ELNA
1992 024A	RESURS F-14	21951 USSR	29 APR 92	PLMSC	29 MAY 92
1992 025A	COSMOS 2185	21953 USSR	29 APR 92	TYMSC	11 JUN 92
1992 026A	STS-49	21963 US	07 MAY 92	AFETR	16 MAY 92
1992 027A	PALAPA B4	21964 INDNSA	14 MAY 92	AFETR	EARTH ORE
1992 028A	SROSS 3	21968 INDIA	20 MAY 92	SRILR	14 JUL 92
1992 029A	COSMOS 2186	21973 USSR	28 MAY 92	PLMSC	24 JUL 92
1992 030A	COSMOS 2187	21976 USSR	03 JUN 92	PLMSC	EARTH ORE
1992 030B	COSMOS 2188	21977 USSR	03 JUN 92	PLMSC	EARTH ORE
1992 030C	COSMOS 2189	21978 USSR	03 JUN 92	PLMSC	EARTH ORE
1992 030D	COSMOS 2190	21979 USSR	03 JUN 92	PLMSC	EARTH ORE
1992 030E	COSMOS 2191	21980 USSR	03 JUN 92	PLMSC	EARTH ORE
1992 030F	COSMOS 2192	21981 USSR	03 JUN 92	PLMSC	EARTH ORE
1992 030G	COSMOS 2193	21982 USSR	03 JUN 92	PLMSC	EARTH ORE
1992 030H	COSMOS 2194	21983 USSR	03 JUN 92	PLMSC	EARTH ORE
1992 031A	EUVE	21987 US	07 JUN 92	AFETR	EARTH ORE
1992 032A	INTELSAT K	21989 ITSO	10 JUN 92	AFETR	EARTH ORE
1992 033A	RESURS F-15	21998 USSR	23 JUN 92	PLMSC	09 JUL 92



## Sheet1

1992 034A	STS-50	22000 US	25 JUN 92	AFETR	09 JUL 92
1992 035A	PROGRESS M-13	22004 USSR	30 JUN 92	TYMSC	24 JUL 92
1992 036A	COSMOS 2195	22006 USSR	01 JUL 92	PLMSC	EARTH ORE
1992 037A	DSCS III-09 (USA 82)	22009 US	02 JUL 92	AFETR	ELNA
1992 038A	SAMPEX	22012 US	03 JUL 92	AFWTR	EARTH ORE
1992 039A	NAVSTAR BIIA-14 (GPS)	22014 US	07 JUL 92	AFETR	EARTH ORE
1992 040A	COSMOS 2196	22017 USSR	08 JUL 92	PLMSC	EARTH ORE
1992 041A	INSAT 2A	22027 INDIA	09 JUL 92	FRGUI	EARTH ORE
1992 041B	EUTELSAT-II F4	22028 FRANCE	09 JUL 92	FRGUI	EARTH ORE
1992 042A	COSMOS 2197	22034 USSR	13 JUL 92	PLMSC	EARTH ORE
1992 042B	COSMOS 2198	22035 USSR	13 JUL 92	PLMSC	EARTH ORE
1992 042C	COSMOS 2199	22036 USSR	13 JUL 92	PLMSC	EARTH ORE
1992 042D	COSMOS 2200	22037 USSR	13 JUL 92	PLMSC	EARTH ORE
1992 042E	COSMOS 2201	22038 USSR	13 JUL 92	PLMSC	EARTH ORE
1992 042F	COSMOS 2202	22039 USSR	13 JUL 92	PLMSC	EARTH ORE
1992 043A	GORIZONT 26	22041 USSR	14 JUL 92	TYMSC	EARTH ORE
1992 044A	GEOTAIL	22049 JAPAN	24 JUL 92	AFETR	EARTH ORE
1992 045A	COSMOS 2203	22052 USSR	24 JUL 92	PLMSC	22 SEP 92
1992 046A	SOYUZ TM-15	22054 USSR	27 JUL 92	TYMSC	01 FEB 93
1992 047A	COSMOS 2204	22056 USSR	30 JUL 92	TYMSC	EARTH ORE
1992 047B	COSMOS 2205	22057 USSR	30 JUL 92	TYMSC	EARTH ORE
1992 047C	COSMOS 2206	22058 USSR	30 JUL 92	TYMSC	EARTH ORE
1992 048A	COSMOS 2207	22062 USSR	30 JUL 92	PLMSC	13 AUG 92
1992 049A	STS-46	22064 US	31 JUL 92	AFETR	08 AUG 92
1992 049B	EURECA-1	22065 ESA	31 JUL 92	AFETR	01 JUL 93
1992 050A	MOLNIYA 1-84	22068 USSR	06 AUG 92	PLMSC	EARTH ORE
1992 051A	PRC 35	22072 PRC	09 AUG 92	SCMTR	01 SEP 92
1992 052A	TOPEX	22076 US	10 AUG 92	FRGUI	EARTH ORE
1992 052B	KITSAT-A	22077 KOREA	10 AUG 92	FRGUI	EARTH ORE
1992 052C	S80/T	22078 FRANCE	10 AUG 92	FRGUI	EARTH ORE
1992 053A	COSMOS 2208	22080 USSR	12 AUG 92	PLMSC	EARTH ORE
1992 054A	AUSSAT B1	22087 AUSTRAL	13 AUG 92	XICLF	EARTH ORE
1992 055A	PROGRESS M-14	22090 USSR	15 AUG 92	TYMSC	21 OCT 92
1992 056A	RESURS F-16	22093 USSR	19 AUG 92	PLMSC	04 SEP 92
1992 056C	PION 1	22099 USSR	19 AUG 92	PLMSC	25 SEP 92
1992 056D	PION 2	22100 USSR	19 AUG 92	PLMSC	24 SEP 92
1992 057A	SATCOM C4	22096 US	31 AUG 92	AFETR	EARTH ORE
1992 058A	NAVSTAR BIIA-15 (GPS)	22108 US	09 SEP 92	AFETR	EARTH ORE
1992 059A	COSMOS 2209	22112 USSR	10 SEP 92	TYMSC	EARTH ORE
1992 060A	HISPASAT 1A	22116 SPAIN	10 SEP 92	FRGUI	EARTH ORE
1992 060B	SATCOM C3	22117 US	10 SEP 92	FRGUI	EARTH ORE
1992 061A	STS-47	22120 US	12 SEP 92	AFETR	20 SEP 92
1992 062A	COSMOS 2210	22133 USSR	22 SEP 92	PLMSC	20 NOV 92
1992 063A	MARS OBSERVER	22136 US	25 SEP 92	AFETR	SOLAR ORE
1992 064A	FREJA	22161 SWEDEN	06 OCT 92	SCMTR	EARTH ORE
1992 064B	PRC 38	22162 PRC	06 OCT 92	SCMTR	31 OCT 92
1992 065A	FOTON 5	22173 USSR	08 OCT 92	PLMSC	24 OCT 92
1992 066A	DFS-3	22175 FRG	12 OCT 92	AFETR	EARTH ORE
1992 067A	MOLNIYA 3-42	22178 USSR	14 OCT 92	PLMSC	CENM

## Sheet1

1992 068A	COSMOS 2211	22182 USSR	20 OCT 92	PLMSC	EARTH ORE
1992 068B	COSMOS 2212	22183 USSR	20 OCT 92	PLMSC	EARTH ORE
1992 068C	COSMOS 2213	22184 USSR	20 OCT 92	PLMSC	EARTH ORE
1992 068D	COSMOS 2214	22185 USSR	20 OCT 92	PLMSC	EARTH ORE
1992 068E	COSMOS 2215	22186 USSR	20 OCT 92	PLMSC	EARTH ORE
1992 068F	COSMOS 2216	22187 USSR	20 OCT 92	PLMSC	EARTH ORE
1992 069A	COSMOS 2217	22189 USSR	21 OCT 92	PLMSC	EARTH ORE
1992 070A	STS-52	22194 US	22 OCT 92	AFETR	01 NOV 92
1992 070B	LAGEOS-II	22195 ITALY	22 OCT 92	AFETR	EARTH ORE
1992 070C	CTA	22214 CANADA	22 OCT 92	AFETR	01 NOV 92
1992 071A	PROGRESS M-15	22203 USSR	27 OCT 92	TYMSC	07 FEB 93
1992 072A	GALAXY VII	22205 US	28 OCT 92	FRGUI	EARTH ORE
1992 073A	COSMOS 2218	22207 USSR	29 OCT 92	PLMSC	EARTH ORE
1992 074A	EKRAN 20	22210 USSR	30 OCT 92	TYMSC	EARTH ORE
1992 075A	RESURS 500	22217 USSR	15 NOV 92	PLMSC	22 NOV 92
1992 076A	COSMOS 2219	22219 USSR	17 NOV 92	TYMSC	EARTH ORE
1992 077A	COSMOS 2220	22226 USSR	20 NOV 92	PLMSC	18 JAN 93
1992 078A	MSTI	22229 US	21 NOV 92	AFWTR	18 JUL 93
1992 079A	NAVSTAR BIIA-16 (GPS)	22231 US	22 NOV 92	AFETR	CENM
1992 080A	COSMOS 2221	22236 USSR	24 NOV 92	PLMSC	EARTH ORE
1992 081A	COSMOS 2222	22238 USSR	25 NOV 92	PLMSC	EARTH ORE
1992 082A	GORIZONT 27	22245 USSR	27 NOV 92	TYMSC	EARTH ORE
1992 083A	USA 86	22251 US	28 NOV 92	AFWTR	ELNA
1992 084A	SUPERBIRD A1	22253 JAPAN	01 DEC 92	FRGUI	EARTH ORE
1992 085A	MOLNIYA 3-43	22255 USSR	02 DEC 92	PLMSC	EARTH ORE
1992 086A	STS-53	22259 US	02 DEC 92	AFETR	09 DEC 92
1992 086B	USA 89	22518 US	02 DEC 92	AFETR	ELNA
1992 087A	COSMOS 2223	22260 USSR	09 DEC 92	TYMSC	16 DEC 93
1992 088A	COSMOS 2224	22269 USSR	17 DEC 92	TYMSC	EARTH ORE
1992 089A	NAVSTAR BIIA-17 (GPS)	22275 US	18 DEC 92	AFETR	EARTH ORE
1992 090A	AUSSAT B2	22278 AUSTRAL	21 DEC 92	XICLF	EARTH ORE
1992 091A	COSMOS 2225	22280 USSR	22 DEC 92	TYMSC	18 FEB 93
1992 092A	COSMOS 2226	22282 USSR	22 DEC 92	PLMSC	EARTH ORE
1992 093A	COSMOS 2227	22284 USSR	25 DEC 92	TYMSC	EARTH ORE
1992 094A	COSMOS 2228	22286 USSR	25 DEC 92	PLMSC	EARTH ORE
1992 095A	COSMOS 2229	22300 USSR	29 DEC 92	PLMSC	10 JAN 93
1993 001A	COSMOS 2230	22307 USSR	12 JAN 93	PLMSC	EARTH ORE
1993 002A	MOLNIYA 1-85	22309 USSR	13 JAN 93	PLMSC	EARTH ORE
1993 003A	STS-54	22313 US	13 JAN 93	AFETR	19 JAN 93
1993 003B	TDRS F6	22314 US	13 JAN 93	AFETR	EARTH ORE
1993 004A	COSMOS 2231	22317 USSR	19 JAN 93	PLMSC	25 MAR 93
1993 005A	SOYUZ TM-16	22319 USSR	24 JAN 93	TYMSC	22 JUL 93
1993 006A	COSMOS 2232	22321 USSR	26 JAN 93	PLMSC	EARTH ORE
1993 007A	NAVSTAR BIIA-18 (GPS)	22446 US	03 FEB 93	AFETR	EARTH ORE
1993 008A	COSMOS 2233	22487 USSR	09 FEB 93	PLMSC	EARTH ORE
1993 009A	OSP-1	22489 US	09 FEB 93	AFETR	EARTH ORE
1993 009B	SCD1	22490 BRAZIL	09 FEB 93	AFETR	EARTH ORE
1993 010A	COSMOS 2234	22512 USSR	17 FEB 93	TYMSC	EARTH ORE
1993 010B	COSMOS 2235	22513 USSR	17 FEB 93	TYMSC	EARTH ORE

## Sheet1

1993 010C	COSMOS 2236	22514 USSR	17 FEB 93	TYMSC	EARTH ORE
1993 011A	ASTRO D	22521 JAPAN	20 FEB 93	KSCUT	EARTH ORE
1993 012A	PROGRESS M-16	22530 USSR	21 FEB 93	TYMSC	27 MAR 93
1993 013A	RADUGA 29	22557 USSR	25 MAR 93	TYMSC	EARTH ORE
1993 014A	START-1	22561 USSR	25 MAR 93	PLMSC	EARTH ORE
1993 015A	UHF F1	22563 US	25 MAR 93	AFETR	EARTH ORE
1993 016A	COSMOS 2237	22565 USSR	26 MAR 93	TYMSC	EARTH ORE
1993 017A	NAVSTAR BIIA-19 (GPS)	22581 US	30 MAR 93	AFETR	EARTH ORE
1993 017B	SEDS 1	22582 US	30 MAR 93	AFETR	30 MAR 93
1993 018A	COSMOS 2238	22585 USSR	30 MAR 93	TYMSC	EARTH ORE
1993 019A	PROGRESS M-17	22588 USSR	31 MAR 93	TYMSC	EARTH ORE
1993 020A	COSMOS-2239	22590 USSR	01 APR 93	PLMSC	EARTH ORE
1993 021A	COSMOS 2240	22592 USSR	02 APR 93	PLMSC	07 JUN 93
1993 022A	COSMOS 2241	22594 USSR	06 APR 93	PLMSC	EARTH ORE
1993 023A	STS-56	22621 US	08 APR 93	AFETR	17 APR 93
1993 023B	SPARTAN-201	22623 US	08 APR 93	AFETR	13 APR 93
1993 024A	COSMOS-2242	22626 USSR	16 APR 93	PLMSC	EARTH ORE
1993 025A	MOLNIYA 3-44	22633 USSR	21 APR 93	PLMSC	EARTH ORE
1993 026A	ALEXIS	22638 US	25 APR 93	AFWTR	ELNA
1993 027A	STS-55	22640 US	26 APR 93	AFETR	06 MAY 93
1993 028A	COSMOS 2243	22641 USSR	27 APR 93	TYMSC	06 MAY 93
1993 029A	COSMOS 2244	22643 USSR	28 APR 93	TYMSC	EARTH ORE
1993 030A	COSMOS 2245	22646 USSR	11 MAY 93	PLMSC	EARTH ORE
1993 030B	COSMOS 2246	22647 USSR	11 MAY 93	PLMSC	EARTH ORE
1993 030C	COSMOS 2247	22648 USSR	11 MAY 93	PLMSC	EARTH ORE
1993 030D	COSMOS 2248	22649 USSR	11 MAY 93	PLMSC	EARTH ORE
1993 030E	COSMOS 2249	22650 USSR	11 MAY 93	PLMSC	EARTH ORE
1993 030F	COSMOS 2250	22651 USSR	11 MAY 93	PLMSC	EARTH ORE
1993 031A	ASTRA 1C	22653 LUXEMB	12 MAY 93	FRGUI	EARTH ORE
1993 031B	ARASENE	22654 FRANCE	12 MAY 93	FRGUI	EARTH ORE
1993 032A	NAVSTAR BIIA-20 (GPS)	22657 US	13 MAY 93	AFETR	EARTH ORE
1993 033A	RESURS F-17	22663 USSR	21 MAY 93	PLMSC	20 JUN 93
1993 034A	PROGRESS M-18	22666 USSR	22 MAY 93	TYMSC	04 JUL 93
1993 035A	MOLNIYA 1-86	22671 USSR	26 MAY 93	PLMSC	EARTH ORE
1993 036A	COSMOS 2251	22675 USSR	16 JUN 93	PLMSC	EARTH ORE
1993 037A	STS-57	22684 US	21 JUN 93	AFETR	01 JUL 93
1993 038A	COSMOS 2252	22687 USSR	24 JUN 93	PLMSC	EARTH ORE
1993 038B	COSMOS 2253	22688 USSR	24 JUN 93	PLMSC	EARTH ORE
1993 038C	COSMOS 2254	22689 USSR	24 JUN 93	PLMSC	EARTH ORE
1993 038D	COSMOS 2255	22690 USSR	24 JUN 93	PLMSC	EARTH ORE
1993 038E	COSMOS 2256	22691 USSR	24 JUN 93	PLMSC	EARTH ORE
1993 038F	COSMOS 2257	22692 USSR	24 JUN 93	PLMSC	EARTH ORE
1993 039A	GALAXY IV	22694 US	25 JUN 93	FRGUI	EARTH ORE
1993 040A	RESURS F-18	22696 USSR	25 JUN 93	PLMSC	12 JUL 93
1993 041A	RADCAL	22698 US	25 JUN 93	AFWTR	EARTH ORE
1993 042A	NAVSTAR BIIA-21 (GPS)	22700 US	26 JUN 93	AFETR	EARTH ORE
1993 043A	SOYUZ TM-17	22704 USSR	01 JUL 93	TYMSC	EARTH ORE
1993 044A	COSMOS 2258	22709 USSR	07 JUL 93	TYMSC	EARTH ORE
1993 045A	COSMOS 2259	22716 USSR	14 JUL 93	PLMSC	25 JUL 93

## Sheet1

1993 046A	DSCS III-10 (USA 93)	22719 US	19 JUL 93	AFETR	ELNA
1993 047A	COSMOS 2260	22721 USSR	22 JUL 93	PLMSC	05 AUG 93
1993 048A	HISPASAT-1B	22723 SPAIN	22 JUL 93	FRGUI	EARTH ORE
1993 048B	INSAT 2B	22724 INDIA	22 JUL 93	FRGUI	EARTH ORE
1993 049A	MOLNIYA 3-45	22729 USSR	04 AUG 93	PLMSC	EARTH ORE
1993 050A	NOAA 13	22739 US	09 AUG 93	AFWTR	EARTH ORE
1993 051A	COSMOS 2261	22741 USSR	10 AUG 93	PLMSC	EARTH ORE
1993 052A	PROGRESS M-19	22745 USSR	10 AUG 93	TYMSC	13 OCT 93
1993 053A	RESURS F-19	22777 USSR	24 AUG 93	PLMSC	10 SEP 93
1993 054A	NAVSTAR BIIA-22 (GPS)	22779 US	30 AUG 93	AFETR	EARTH ORE
1993 055A	METEOR 2-21	22782 USSR	31 AUG 93	PLMSC	EARTH ORE
1993 055B	TEMISAT	22783 ITALY	31 AUG 93	PLMSC	EARTH ORE
1993 056A	UHF F2 (USA 95)	22787 US	03 SEP 93	AFETR	EARTH ORE
1993 057A	COSMOS 2262	22789 USSR	07 SEP 93	TYMSC	EARTH ORE
1993 058A	STS-51	22795 US	12 SEP 93	AFETR	22 SEP 93
1993 058B	ACTS	22796 US	12 SEP 93	AFETR	EARTH ORE
1993 058C	ORFEUS-SPAS	22798 FRG	12 SEP 93	AFETR	22 SEP 93
1993 059A	COSMOS 2263	22802 USSR	16 SEP 93	TYMSC	EARTH ORE
1993 060A	COSMOS 2264	22808 USSR	17 SEP 93	TYMSC	EARTH ORE
1993 061A	SPOT-3	22823 FRANCE	26 SEP 93	FRGUI	EARTH ORE
1993 061B	STELLA	22824 FRANCE	26 SEP 93	FRGUI	EARTH ORE
1993 061C	KITSAT-B	22825 KOREA	26 SEP 93	FRGUI	EARTH ORE
1993 061D	POSAT-1	22826 PORTUG	26 SEP 93	FRGUI	EARTH ORE
1993 061E	HEALTHSAT-1	22827 US	26 SEP 93	FRGUI	EARTH ORE
1993 061F	ITAMSAT	22828 ITALY	26 SEP 93	FRGUI	EARTH ORE
1993 061G	EYESAT-A	22829 US	26 SEP 93	FRGUI	EARTH ORE
1993 062A	RADUGA 30	22836 USSR	30 SEP 93	TYMSC	EARTH ORE
1993 063A	JIANBING-93 P/L(2)	22859 PRC	08 OCT 93	SCMTR	EARTH ORE
1993 064A	PROGRESS M-20	22867 USSR	11 OCT 93	TYMSC	21 NOV 93
1993 065A	STS-58	22869 US	18 OCT 93	AFETR	01 NOV 93
1993 066A	INTELSAT VII FI	22871 ESA	22 OCT 93	FRGUI	EARTH ORE
1993 067A	COSMOS 2265	22875 USSR	26 OCT 93	PLMSC	EARTH ORE
1993 068A	NAVSTAR BIIA-23 (GPS)	22877 US	26 OCT 93	AFETR	EARTH ORE
1993 069A	GORIZONT 28	22880 USSR	28 OCT 93	TYMSC	EARTH ORE
1993 070A	COSMOS 2266	22888 USSR	02 NOV 93	PLMSC	EARTH ORE
1993 071A	COSMOS 2267	22904 USSR	05 NOV 93	TYMSC	EARTH ORE
1993 072A	GORIZONT 29	22907 USSR	18 NOV 93	TYMSC	EARTH ORE
1993 073A	SOLIDARIDAD 1	22911 MEXICO	20 NOV 93	FRGUI	EARTH ORE
1993 073B	METEOSAT 6	22912 ESA	20 NOV 93	FRGUI	EARTH ORE
1993 074A	DSCS III-11 (USA 97)	22915 US	28 NOV 93	AFETR	CENM
1993 075A	STS-61	22917 US	02 DEC 93	AFETR	13 DEC 93
1993 076A	NATO IVB (USA 98)	22921 US	08 DEC 93	AFETR	EARTH ORE
1993 077A	TELSTAR 401	22927 US	16 DEC 93	AFETR	EARTH ORE
1993 078A	DBS	22930 US	18 DEC 93	FRGUI	EARTH ORE
1993 078B	THAICOM	22931 THAI	18 DEC 93	FRGUI	EARTH ORE
1993 079A	MOLNIYA 1-87	22949 USSR	22 DEC 93	PLMSC	EARTH ORE

PERIOD,INC,N,APOGEEPERIGEICODE,C,2

96.1	65.0	945	227
103.7	65.3	1660	212
107.2	33.2	1859	347
133.2	34.2	3868	654
115.7	33.4	2799	186
106.0	65.2	1864	217
100.9	50.2	1352	257
101.5	32.3	1484	185

122.8	32.9	3049	557
96.0	89.7	968	163
90.4	89.9	346	239
765.0	47.0	42400	245
94.1	79.9	731	214
104.3	78.9	1700	218
95.1	83.9	846	207
126.4	33.4	3413	512

D

98.6	50.3	857	523
94.4	81.6	820	158
103.5	80.5	1661	186

3

3

D

3

98.3	48.4	696	656
94.6	51.2	644	363
92.2	80.4	603	166
92.5	65.0	514	284
91.7	65.2	460	257
94.3	33.0	494	473
100.8	66.7	988	604
100.2	66.7	935	596
94.0	82.8	683	258
117.3	47.3	2157	966
94.4	79.6	803	177
90.7	64.6	340	281
94.1	80.9	755	200
107.1	28.3	1214	967
102.2	49.9	1331	394
96.4	81.7	984	190
96.3	48.5	610	547
88.4	65.0	269	123
92.0	81.5	510	233
90.0	83.4	359	186
95.0	97.4	557	474
89.8	64.9	318	212

3

89.6	65.0	282	229
118.0	38.8	2433	757
92.3	80.8	491	277
91.3	80.6	458	212
96.4	28.3	983	188
88.6	64.9	239	173
88.0	64.9	175	175
5013.9	33.0	181100	221 D
94.1	82.3	651	295
93.7	81.8	705	197
89.3	65.0	315	169 1M
104.5	28.8	1458	480
90.8	82.1	404	222
103.5	66.8	986	865
103.6	66.8	992	869
94.9	82.9	803	228
100.0	47.9	790	723
161.4	91.2	3540	3343
88.4	64.8	221	172 1M
1587.3	33.4	76620	790
90.6	32.9	446	179
97.5	37.7	1164	125
91.5	82.1	542	152
92.3	82.5	557	219
88.4	32.8	248	156
90.8	82.6	403	231
90.7	81.6	391	233
165.9	95.9	3763	3482
95.6	82.4	859	231
89.7	81.6	278	238
105.7	32.4	1104	953
105.8	32.4	1107	956
88.3	33.3	242	150
88.3	32.6	237	158
87.5	89.5	173	131
91.8	81.2	474	245
89.4	89.6	310	187

3

99.9	48.3	812	693
88.6	32.5	265	159 1M
88.3	81.9	219	169
89.4	82.2	277	207
95.3	32.8	553	522
93.9	90.9	686	236
93.1	49.0	649	207 D
101.8	49.0	1485	207 D
152.9	86.7	3405	2784
91.6	73.5	540	158

Sheet1

93.8	49.0	707	216
90.5	65.0	317	285
100.8	53.8	1203	398

91.1	73.1	475	180
93.0	82.3	550	283
88.5	32.5	260	154 1M
102.6	49.1	1578	192
89.9	74.1	350	192
90.6	74.5	401	211
89.8	74.2	339	188
88.4	96.2	198	198
91.8	82.1	377	347
99.4	58.1	880	580
89.6	75.1	314	199
93.6	76.0	698	205
90.6	48.9	348	261
157.8	44.8	5643	945
88.6	96.0	234	184
90.3	70.0	376	206
90.6	71.0	403	204
90.0	64.9	356	197
90.8	83.0	423	212
88.5	96.2	203	201
88.3	65.0	218	166 1M
88.2	65.0	211	159 1M
92.9	49.0	598	244
98.1	98.5	752	578
88.7	64.9	252	173

3

90.4	65.2	400	187
88.8	64.7	246	185
94.0	82.8	639	293
88.4	64.9	218	179
93.3	81.8	668	204
97.6	58.3	654	631
103.1	67.6	981	829
105.2	80.5	1022	987
90.3	65.4	388	190
2184.6	42.3	96229	2558
88.8	32.5	285	153 1M
91.0	82.0	427	213
90.0	64.9	376	178

3

95.6	48.9	858	240
89.1	65.1	260	202
146.5	71.4	5458	197
314.7	17.9	17610	306

Sheet1

	107.9	50.1	1181	1075
	88.4	65.0	238	157
3				
	87.9	64.8	170	170
	90.6	75.0	403	208
	88.7	96.0	292	128
	89.9	65.0	339	206
	89.2	65.1	273	194
	111.8	70.3	2385	230
	112.1	70.3	2406	240
	115.8	70.2	2762	222
	109.3	70.3	2160	227
	108.4	70.3	2069	228
	185.1	47.5	7440	1319
	90.3	70.0	386	200
	104.1	52.0	1159	744
	91.4	90.6	347	336
	90.4	64.8	385	202
	88.0	64.6	189	165
	90.3	82.0	384	202
	94.4	81.9	522	461
	1425.5	33.3	36739	34392
	97.8	100.5	810	488
	89.6	65.2	303	214
	90.5	74.9	408	198
C				
	96.1	57.6	891	254
	91.1	48.9	410	250
	89.8	65.0	336	194
	90.3	64.7	379	201
	225.3	42.7	10802	972
	166.4	87.3	3676	3607
	165.0	87.2	4902	2269
	166.4	87.3	3691	3591
	166.3	87.3	3724	3558
	88.7	32.5	265	163 1M
	91.0	74.5	506	147
	93.7	48.9	658	251
	89.3	64.6	269	212
	90.7	81.8	416	193
	87.1	64.9	131	130 1M
	95.1	69.9	876	170
	95.1	69.9	869	170
	95.1	69.9	875	170
	94.9	69.9	859	170
	94.4	69.9	802	172
	91.6	89.8	360	350
	87.8	64.9	166	165 1M
	91.4	58.2	349	338



Sheet1

89.9	81.6	338	199
114.1	82.1	2506	323
102.1	49.7	1306	413
94.8	82.3	530	487
88.3	95.3	212	173
90.4	82.9	382	197
167.8	88.4	3725	3672
167.8	88.4	3736	3661
168.0	88.5	3839	3573
1441.5	32.7	35891	35891
90.6	74.9	455	152
92.1	49.0	497	267
89.4	75.0	320	161
90.8	81.9	324	292
92.0	81.9	422	315
88.7	94.4	243	171
90.6	74.8	442	162
107.1	90.0	1126	1062
107.1	90.0	1124	1061
6486.2	38.7	116582	101081
2319.4	35.9	102372	953 D
6519.6	37.8	116528	101925
89.4	64.8	296	201
88.8	99.0	312	123
90.6	89.9	318	283
93.3	90.0	581	288
102.4	58.9	1420	331
88.7	64.8	231	192
90.2	64.9	376	193
5666.2	33.3	197616	192
104.6	30.4	1478	469
90.0	69.6	368	182
106.9	90.1	1110	1057
106.9	90.1	1109	1056
92.4	48.9	560	232
88.5	97.9	266	122
90.5	65.0	391	204
115.9	78.6	2391	597
98.5	58.5	705	667
89.7	64.8	337	178
91.7	64.5	394	316
103.2	69.9	916	899
103.3	69.9	922	902
103.2	69.9	920	902
103.2	69.9	920	901
100.9	99.0	810	789
100.9	99.0	815	791
194.7	46.4	7540	1961
108.8	81.5	1315	1030

Sheet1

94.8	31.4	740	274
162.7	60.8	6584	400
1356.4	60.2	62811	5611

90.5	74.9	429	172
87.2	95.6	135	135
92.1	49.1	495	260
94.7	82.1	516	491
88.2	95.7	203	163
91.0	48.9	376	268
88.5	64.8	209	197
101.3	51.7	1349	287

3

90.4	65.0	373	213
89.0	32.6	299	154
92.3	58.1	479	303
89.4	103.6	336	150
89.5	65.0	292	203
90.8	79.9	445	175
90.3	64.9	366	206
89.7	101.1	380	141
88.2	31.7	204	179
102.2	90.5	898	825
90.3	80.0	429	149
91.7	48.9	485	221
89.8	51.3	322	205
91.7	114.9	362	352
101.2	99.8	820	812
101.3	99.8	822	814
90.9	85.0	451	180
89.4	64.9	279	205
89.9	64.9	342	201
94.9	82.1	520	502
89.1	92.9	345	121
91.1	92.9	505	156
89.7	84.9	346	173
161.0	60.8	6446	403
1313.8	60.8	66269	447
89.2	51.3	258	218
6024.8	39.1	104101	102500
6004.3	40.8	114000	92103
2366.2	36.7	104665	217 D

92.0	49.0	488	253
90.7	80.0	436	182
88.9	64.9	240	208
89.1	95.4	300	165
127.4	95.7	3751	272
94.3	56.1	766	203

Sheet1

94.6	56.1	792	205	
94.1	56.1	737	206	
1436.2	0.1	35792	35784	
91.7	114.9	363	351	
714.5	68.4	39169	1023	
98.1	48.9	1105	228	
98.0	48.9	1093	227	
103.6	79.9	1001	855	
98.4	98.7	937	429	
98.7	65.1	809	581	
3841.9	40.7	144824	4930	
89.6	64.9	311	203	
90.9	84.9	455	174	
88.5	31.7	215	181	
88.9	92.9	303	143	
89.2	51.3	264	211	
2097.0	33.5	95590	191	
90.8	80.0	440	182	
90.1	64.6	383	174	
106.4	90.1	1073	1045	
105.5	90.1	1034	997	
106.4	90.1	1075	1047	
104.3	79.7	1053	872	
89.6	64.7	336	178 3M	
89.3	65.1	284	204	
90.6	75.0	416	189	
88.5	95.5	267	140	
91.1	95.5	344	311	
91.9	48.9	472	260	
88.7	51.2	232	190	
88.4	51.2	210	181	
95.0	82.0	526	512	
3				
	99.2	51.9	980	463
	89.6	70.0	329	177
	116.3	81.4	2498	530
	114.6	81.4	2349	524
3				
3				
	89.7	97.0	357	158
	92.6	48.8	537	258
	88.0	32.1	180	166
	87.8	30.7	178	165
	105.9	89.8	1064	1007
	106.1	89.7	1079	1015
	95.1	37.8	842	200
	90.5	74.9	405	193
	205.7	19.8	10043	284
	89.5	70.1	264	238

Sheet1

89.5	65.0	298	203
90.5	75.0	420	180
97.6	98.8	833	462
118.9	96.4	2564	701
88.9	102.5	291	146
98.7	48.7	1172	221
90.5	32.8	306	294
145.4	32.2	2796	2766
145.8	32.1	2809	2783
97.0	31.7	726	510
106.3	56.1	1839	269
105.3	56.0	1752	261
104.6	56.0	1687	259
93.2	64.8	708	159
90.1	75.1	377	177
91.3	65.0	345	333
89.8	64.9	321	205
103.2	70.1	926	895
103.2	70.1	928	896
103.0	70.1	915	886
103.3	70.1	930	898
103.2	70.1	927	896
102.8	70.1	900	876
103.5	70.1	947	902
103.3	70.1	932	898
90.7	90.0	418	191
97.9	90.0	1014	296
88.9	64.7	248	195
90.3	107.5	358	223
105.1	56.0	1737	262
104.8	56.0	1712	259
104.4	56.0	1673	259
87.3	99.0	146	139
90.9	64.8	475	167 2M
88.4	33.0	240	160 2M
89.1	65.0	250	205
90.7	96.0	381	237
111.4	90.3	1314	1270
111.4	90.3	1312	1265
1434.9	14.7	35794	35730
89.7	65.0	315	207
707.3	65.5	39300	538
89.0	95.6	259	180
95.1	95.2	547	506
107.7	41.2	1309	932
91.0	85.0	461	181
91.0	84.9	509	134

Sheet1

157.1	32.1	3736	2794
309.9	32.2	14810	2771
145.6	32.1	2795	2786
91.3	64.9	397	285
91.7	75.0	399	321
97.1	98.1	731	503
97.0	31.7	740	502
90.1	51.8	351	203
88.7	95.6	267	149
8419.7	30.5	261206	229
88.8	32.5	281	162 2M
3			
89.9	75.1	355	176
89.7	65.0	306	208
88.1	32.1	191	168
106.6	90.1	1124	1015
89.7	64.9	310	206
94.7	107.6	510	496
90.5	107.6	349	254
100.1	98.8	807	722
98.8	48.8	1176	223
95.2	56.0	542	522
95.9	56.1	588	538
95.5	56.1	556	538
96.2	56.0	616	539
96.5	56.0	644	540
92.2	63.4	578	181
94.5	70.2	512	471
3			
91.0	85.1	461	189
6679.0	35.2	115839	106367
6712.7	34.2	121281	101715
2595.4	36.9	111793	566
92.2	48.8	513	256
93.4	28.9	449	441
89.3	51.8	281	200
90.8	107.4	352	278
94.8	107.4	515	501
122.2	69.2	2419	1134
C			
105.4	90.0	1051	979
108.0	90.0	1186	1078
107.9	90.0	1183	1075
107.2	90.0	1144	1047
107.9	90.1	1181	1074
107.9	89.9	1181	1073
91.6	69.0	379	330
90.3	70.0	399	179

Sheet1

91.5	32.6	395	304 2M
89.4	32.6	314	167
89.9	64.9	338	206
115.0	56.1	1541	1365
115.3	56.1	1542	1396
115.7	56.1	1549	1421
116.0	56.1	1561	1443
116.4	56.1	1572	1466
89.5	64.9	291	202
101.2	98.5	993	635
115.0	56.1	1627	1286
115.4	56.1	1633	1317
115.8	56.1	1645	1340
116.2	56.1	1658	1363
116.6	56.1	1668	1391
90.0	80.0	364	191
89.8	65.0	324	203
90.5	95.6	361	237

117.6	144.2	2735	408
89.7	75.1	322	202
718.8	65.2	39921	487
104.4	87.4	1515	419
99.8	32.6	791	708
89.9	64.9	331	204
91.8	48.4	513	216
89.2	65.0	271	205
90.5	74.9	432	173
92.5	63.5	608	189
91.9	48.4	521	211
120.3	59.4	2273	1114
90.8	93.9	352	280
88.9	93.9	284	155

3

100.2	59.7	871	667
89.7	51.9	296	222
108.9	48.4	2144	214
107.5	34.3	1697	527
92.1	65.0	547	205
118.3	79.8	2707	499
120.0	79.8	2857	502

89.9	28.9	318	217 2M
98.8	75.9	707	696
90.8	80.1	439	186
89.6	65.0	309	203
89.6	28.9	271	258 2M

3

Sheet1

95.0	65.0	547	485
92.5	48.8	533	256
589.3	26.4	33662	167
589.2	26.6	33632	189
587.5	26.8	33549	162
139.9	26.5	4829	267
104.6	89.1	1061	890
90.7	80.0	443	181
89.2	64.9	267	205
88.0	56.0	179	176
90.2	65.0	379	195
88.4	93.8	259	138
87.2	93.8	149	120
89.6	65.0	311	203
92.8	48.4	553	281
105.5	89.9	1183	849

90.6	75.0	428	182
99.7	97.8	806	684
94.7	82.0	511	507
89.7	65.0	313	216
95.3	48.8	850	220
88.9	96.5	290	142
88.1	96.5	253	115
88.6	96.5	268	147
115.8	34.1	2484	502
89.4	64.9	288	204
95.3	51.8	887	181
113.4	101.0	1412	1352
88.0	51.8	180	168
90.4	75.0	418	180
90.4	28.9	299	285
88.8	28.9	264	160 2M
93.3	72.0	664	214
89.3	101.0	308	162
88.8	101.0	285	149
89.6	64.9	314	202
104.9	89.7	1099	879
104.0	144.5	1008	884
105.6	144.6	1056	985
99.4	98.3	855	604

3

89.8	72.8	337	202
89.6	75.1	312	193
89.7	30.7	336	182
100.6	35.0	793	783
89.6	116.9	375	139
89.2	65.0	283	189
132.0	82.4	4079	339

Sheet1

709.8	65.0	39414	546
92.0	48.4	464	288
89.6	64.9	314	200
91.1	65.0	339	316
89.0	110.5	319	130
95.4	110.0	555	519
108.0	100.6	1174	1090
102.8	90.1	951	833
89.0	66.0	271	179
99.7	48.4	1278	209
116.0	64.6	2723	282
90.4	28.8	296	292
89.9	28.8	272	269 2M
88.9	87.0	288	143
88.2	86.9	230	148
2911.5	77.6	102806	19519
89.8	51.7	331	201
125.2	90.0	3678	154
125.0	90.0	3646	168
125.1	90.0	3641	178
142.9	40.9	4704	643
1334.0	4.2	33858	33663
1334.5	11.6	33898	33649
1335.3	4.9	33923	33657
1336.5	9.0	33989	33637
1338.6	8.0	34017	33694
1340.9	8.9	34093	33712
1344.0	8.9	34230	33695
1347.6	5.0	34359	33711
89.8	72.8	327	205
90.1	80.1	359	207
177.4	84.4	5207	2953
92.1	65.0	388	371
25863.5	40.9	481417	85228
88.5	31.9	212	183
92.3	63.5	594	185
92.3	48.8	512	256
88.7	95.5	261	150
105.2	144.2	1022	985
89.4	51.8	282	205
90.4	28.9	296	290
88.7	28.9	259	160 2M
89.1	64.9	260	204
90.1	51.8	343	209
88.5	94.2	252	154
121.4	81.4	3141	349
89.1	51.8	263	201
89.2	100.1	284	190



Sheet1

	89.2	93.2	330	143
	94.9	93.2	522	511
3				
	106.5	88.9	1089	1037
	167.4	89.7	3708	3658
	167.5	89.7	3700	3671
	167.6	89.7	3700	3680
3				
	90.0	64.9	343	207
	90.4	28.8	298	298
	88.8	28.8	280	161 2M
	100.2	98.3	857	674
	89.2	93.9	328	146
	94.2	94.1	501	461
	90.6	85.1	430	182
	88.8	93.9	287	146
	114.5	101.0	1483	1384
	93.9	49.6	792	138
	167.5	90.0	3721	3656
	167.6	90.0	3707	3674
	89.0	91.0	287	155
	89.0	90.9	258	181
	89.4	65.4	288	199
	714.4	65.3	39689	500
	89.7	64.9	316	204
3				
	15912.0	29.6	406200	166
	718.7	17.3	37070	3328
	104.2	81.9	1599	319
	89.2	91.0	305	159
	89.9	91.0	324	208
	90.4	32.8	305	298
	90.3	32.8	292	289
	90.3	32.8	290	287
	90.6	32.8	317	289
	92.9	49.7	651	188
	89.2	100.0	300	179
	89.9	28.8	310	243
	89.9	28.8	289	250 2M
	89.8	72.8	335	202
	89.1	65.0	257	202
	88.4	51.8	219	173
	89.5	64.9	286	206
	89.2	104.6	341	137
	1434.7	14.5	35794	35722
	139.9	99.1	4627	471

Sheet1

96.1	93.4	604	541
93.6	48.4	648	253
89.9	109.5	392	147
90.4	33.5	309	295
89.3	64.6	281	197
104.4	48.8	1718	219
94.4	75.0	495	487
1436.2	1.6	35808	35769
89.8	80.1	355	177
1329.5	8.7	33829	33518
1330.0	8.4	33844	33521
1330.7	8.5	33846	33548
1332.1	8.5	33873	33579
1334.2	8.5	33935	33599
1336.5	11.8	33995	33631
1339.5	8.6	34127	33622
1343.1	8.6	34224	33666
89.1	64.6	273	190
88.0	49.7	210	144
113.4	102.0	1437	1323
89.5	103.0	357	136
88.3	51.6	216	169
101.1	99.1	846	771
101.2	40.0	1084	545
89.7	72.9	316	205
100.1	48.4	1320	216
108.5	39.4	1733	584
90.1	80.0	380	180
90.0	107.0	414	135
90.5	64.9	390	202
96.9	81.3	644	574
108.7	48.4	2107	226
95.8	32.8	570	546
89.3	51.5	312	178
89.4	64.5	298	195
91.3	71.0	404	270
89.8	48.4	284	246
89.6	65.4	341	178
1434.9	14.1	35884	35641
92.4	56.0	399	384
91.9	71.0	472	271
89.5	85.0	326	167
89.3	64.6	279	199
218.8	28.4	11119	177
217.7	28.3	11070	151
88.3	51.5	203	187
89.2	51.8	267	200

Sheet1

106.2	90.1	1064	1037
113.5	102.0	1419	1352
88.7	50.8	223	197 1M
94.2	2.9	741	219
92.0	81.1	375	368
6652.1	32.1	112627	108948
6668.1	33.1	114578	107372
2831.3	0.0	110842	8991
2829.6	32.8	111229	8604
2827.8	32.8	110746	8979
95.6	80.6	604	499
94.3	85.0	791	183
93.2	84.9	458	399
89.6	51.3	262	249
100.3	74.0	811	729
1174.2	51.6	60637	350
87.6	49.7	177	137
106.7	89.6	1088	1059
89.7	65.6	321	201
88.8	91.5	293	135
88.4	91.5	240	148
6358.2	67.1	214379	242
627.0	64.6	35690	90
101.4	69.9	834	815
103.1	70.0	910	903
103.2	70.0	913	906
102.9	70.0	900	894
103.1	70.0	906	900
103.1	70.0	910	902
103.2	70.0	912	905
101.1	70.0	816	805
89.2	51.8	275	196
90.6	104.9	456	149
93.1	48.3	598	255
89.5	65.6	317	185
102.0	81.8	1514	200
93.0	48.4	555	288
90.0	80.0	380	169
94.8	80.2	517	501
89.2	51.8	264	211
89.0	111.4	325	127
172.1	90.1	3946	3792
172.1	90.1	3947	3792
1309.7	11.5	33538	33010
1310.4	1.2	33549	33030

3

Sheet1

1311.7	11.5	33558	33071
1313.6	11.6	33588	33119
1316.1	11.6	33618	33188
1319.1	11.6	33677	33251
89.1	51.8	230	223
87.8	49.7	200	135
3			
94.5	75.1	608	390
95.5	101.6	557	529
95.4	101.7	579	497
97.8	86.0	885	422
87.9	49.6	199	141
89.7	79.9	346	174
87.6	49.6	177	138
89.3	51.7	277	206
90.1	111.5	445	123
101.9	98.9	873	818
92.2	71.0	499	269
715.0	64.9	39796	430
90.7	33.5	318	297
89.8	72.8	356	181
102.2	81.9	1525	196
89.7	80.0	372	156
89.1	51.7	267	201
88.4	49.7	258	138
89.7	106.0	401	122
87.9	49.6	207	139
106.5	89.3	1099	1029
90.1	72.8	350	206
1435.2	14.5	35834	35703
714.9	64.7	39709	508
99.1	99.2	796	638
89.7	65.6	325	198
90.2	64.9	374	197
89.0	49.6	306	140
95.7	32.9	555	552
714.9	64.8	39709	508
92.8	81.2	414	409
90.1	111.5	431	134
98.8	64.2	887	518
88.6	51.6	223	179
88.9	49.6	301	143
88.7	51.7	247	180
95.7	73.8	599	510
90.4	81.5	410	184
94.3	81.6	525	454

Sheet1

89.7	65.6	327	197
1436.1	14.5	35837	35736

91.9	32.7	371	370
114.8	102.2	1482	1406
92.2	71.0	494	269
99.2	74.0	725	716
99.9	74.0	756	745
99.3	83.3	1252	198
89.6	65.6	312	201
93.0	90.0	443	409
90.2	109.5	428	141
88.4	81.6	248	151

3

92.2	32.9	490	287
90.0	65.6	352	204
95.5	48.7	869	220
91.5	48.4	486	217
103.4	65.1	927	907

112.2	105.8	1572	1079
90.2	65.6	363	206
94.6	75.1	536	462
89.9	111.5	405	137
95.2	74.0	539	518
89.5	31.6	322	163
89.9	31.6	374	169
90.7	81.5	438	179
94.7	81.7	545	470
89.9	64.9	334	207
91.5	48.4	488	210
109.2	74.1	1199	1180
106.7	90.0	1130	1013

3

3795.9	54.0	148186	271
95.7	70.9	626	485
89.4	65.7	293	197
92.4	59.3	433	353
89.9	99.9	407	128
92.6	81.2	405	396
90.2	83.0	390	183
94.6	83.1	524	481
89.7	65.6	320	201
89.4	64.9	287	205
103.0	65.3	927	876
90.3	81.4	373	200
88.2	32.5	184	183
198.7	99.9	9246	559
207.1	100.0	9880	552

3

102.3	81.9	1532	199
88.3	51.6	200	180
88.9	51.7	254	188
89.9	111.4	421	127
90.3	81.4	373	200
91.0	48.4	403	255
89.2	51.0	267	198
720.8	64.0	40099	405
87.7	62.3	179	140
87.3	49.6	162	123
104.6	48.4	1745	215
88.6	83.1	243	164
98.1	74.0	700	637
99.0	97.2	1085	334
101.8	98.9	883	806
108.9	48.4	2140	215
92.3	70.9	488	285
89.9	72.9	317	221
89.1	51.8	256	203
90.3	110.5	456	123
92.2	48.4	519	255
96.9	81.2	639	579
1335.2	11.9	33850	33725
1335.5	7.4	33863	33724
1335.9	7.4	33906	33699
1338.0	7.4	33953	33736
1339.6	7.4	34035	33721
1269.0	7.5	34126	30772
1345.2	7.5	34256	33721
1350.6	7.7	34442	33752
89.2	51.8	271	202
90.3	85.0	402	183
94.1	85.1	514	435
89.0	51.6	245	205
89.9	72.9	327	207
224.3	120.9	5861	5835
92.9	48.4	546	287
714.7	65.1	39806	396
89.6	64.9	311	206
104.6	89.8	1800	153
91.5	89.8	556	145
89.9	65.3	348	189
102.1	81.9	1514	198
89.4	51.8	288	208
1436.0	9.9	39860	31680
89.9	110.0	395	142
88.7	82.1	259	160
118.3	80.7	2538	670

Sheet1

117.9	80.7	2494	677	
89.3	51.8	281	201	
94.5	29.1	769	220	
114.9	101.4	1471	1428	
91.4	56.1	348	340	
89.7	65.4	320	200	
88.6	51.7	210	203	
89.2	51.8	274	201	
89.8	106.1	404	125	
89.3	51.8	283	203	
89.7	65.4	326	198	
90.1	83.0	393	167	
94.8	83.2	514	500	
91.3	71.0	406	272	
89.5	71.3	293	213	
1417.9	12.6	35774	35084	
630.8	26.4	35786	184	
1435.8	3.0	35786	35775	
1437.3	13.0	35847	35771	
87.4	49.6	158	140	
92.1	71.0	473	284	
103.0	93.8	1538	258	
712.5	64.9	39596	498	
94.6	75.0	511	483	
89.2	65.4	321	149	
89.9	65.4	345	199	
89.9	31.6	306	229 3M	
94.8	62.3	543	475	
111.4	62.3	2094	492	
101.0	98.7	828	783	
88.6	51.7	229	191	
88.3	51.7	205	183 1M	
95.3	74.0	542	522	
89.0	64.9	255	201	
112.0	62.3	2104	535	
88.9	82.2	288	150	
89.7	106.0	390	130	
3	98.0	32.9	945	375
90.0	65.4	337	216	
91.8	51.6	477	248	
89.9	65.4	335	197	
89.6	65.4	317	197	
109.3	74.0	1220	1170	
92.0	70.9	462	286	
93.3	106.2	735	137	
6704.3	60.5	202780	20020	

Sheet1

99.9	35.0	758	749
89.6	65.0	298	205
88.7	81.0	248	169
114.3	80.4	1465	1379
100.2	48.4	1331	215
114.6	101.8	1461	1411
712.2	65.0	39573	506
1475.2	15.1	37111	35984
93.0	71.2	637	206

3M

95.2	48.4	791	264
------	------	-----	-----

89.7	65.4	325	200
88.8	51.7	224	213 1M
88.6	51.7	212	196 3M
95.6	33.0	559	538
97.0	106.2	1090	142
89.6	69.9	295	209
127.7	88.4	3470	574
88.7	81.6	275	147
114.0	80.4	1428	1391
1435.4	6.5	35785	35762
91.8	71.0	456	273
1446.6	1.0	36044	35939

3

89.8	72.0	336	202
115.2	101.4	1503	1422
89.8	70.0	331	202
88.6	32.6	229	203 3M
164.7	28.9	6935	227
89.6	33.6	259	249
90.5	92.0	461	134
109.1	48.4	2173	209
95.3	74.1	543	525
89.8	65.4	331	200
89.7	65.4	324	196
109.2	74.0	1205	1177
93.2	99.1	466	400
95.2	98.9	583	466
151.4	104.8	5587	479
89.4	99.1	309	175
88.6	82.9	252	165
94.7	83.1	515	502
89.8	65.4	336	200
89.6	65.0	300	206
95.9	81.2	576	549

3

95.2	71.0	780	273
------	------	-----	-----



Sheet1

90.3	81.4	371	200
91.9	70.9	446	289
89.6	65.4	310	198
712.1	64.9	39595	483
1445.0	9.9	39270	32670
107.2	100.0	1128	1069
107.2	100.0	1126	1067
89.0	51.7	267	192
90.0	108.8	410	135
89.0	51.6	250	207
89.5	64.9	325	168
93.3	65.7	470	407
89.4	65.4	303	191

3M

3

3

89.7	65.4	321	202
1418.9	1.2	35671	35226
3121.9	33.0	69130	59630
3115.4	33.6	69022	59540
3115.1	33.5	69011	59543
6700.9	61.6	145637	77081
6700.7	61.0	150633	72080
102.0	81.9	1501	196
89.5	51.7	297	204
92.1	71.0	493	266
90.0	110.0	414	137
99.7	82.0	1089	397
89.7	65.4	322	197
4906.3	86.0	98159	80374
89.0	51.8	265	189
89.2	51.8	273	199
92.0	33.5	374	363
89.6	65.3	324	194

3M

3

89.7	65.4	332	195
711.0	64.9	39526	496
100.9	98.8	835	768
88.4	74.9	203	182
91.0	30.2	433	211
94.6	75.0	536	465
91.4	62.2	548	144
95.1	32.9	554	489
95.0	32.9	552	486
1447.4	14.3	36035	35981
99.3	74.1	733	719

Sheet1

89.1	51.7	244	215
89.8	65.4	329	200
91.9	71.0	472	270
89.6	108.1	377	138
89.6	65.0	302	207
89.7	72.8	314	207
87.3	49.6	162	127
89.4	65.0	284	207
88.8	85.0	253	178
94.5	85.2	496	490
88.2	51.5	189	184
89.3	65.4	271	203
93.9	69.6	484	446
103.1	70.0	918	893
103.2	70.0	925	898
103.3	70.0	930	896
103.3	70.0	925	899
103.2	70.0	925	898
103.3	70.0	926	899
103.2	70.0	924	899
100.9	70.0	812	791
102.1	70.0	870	844
91.3	85.0	378	298
95.3	81.2	552	513
88.8	51.6	218	212 2M
88.8	51.7	223	210 3M
88.7	51.7	227	201 2M
93.4	48.3	617	264
89.7	65.4	321	198
91.9	71.0	466	270
99.6	74.0	748	731
88.4	51.4	208	182
89.6	65.0	299	215
109.2	48.3	2150	229
93.4	108.0	740	136
91.3	71.0	408	271
110.5	102.7	2127	373
90.0	64.5	364	185
			3M
89.9	65.0	336	204
1436.2	13.9	35894	35682
92.3	71.1	484	297
108.5	74.0	1174	1138
89.8	65.4	335	198
88.4	81.4	229	161
91.9	71.0	465	272
95.3	74.0	542	518
102.8	49.5	1638	152

Sheet1

89.3	65.4	280	205
98.5	48.4	1178	200
90.3	65.0	379	206
89.7	110.0	383	134
1436.1	0.4	35791	35782
102.0	82.0	1508	200
90.2	48.4	326	247
92.1	71.0	479	272
89.6	65.3	298	216
115.0	101.3	1477	1431
115.0	101.4	1475	1431
106.0	99.3	1044	1037
89.7	65.4	314	201
113.4	31.0	2440	323
100.8	98.8	840	749
703.1	65.4	39170	461
91.9	71.0	465	274
89.8	65.4	327	200
88.8	88.0	257	167
94.1	88.1	509	441
104.2	5.4	1631	301
88.9	81.3	232	208
96.4	81.2	635	537
95.7	71.0	819	280
1436.0	13.4	35801	35768
89.5	72.9	299	203
88.8	81.3	228	198
95.2	74.1	543	514
107.1	99.9	1096	1085
106.9	99.8	1085	1081
89.8	65.0	320	206
6691.0	61.2	121226	101260
6707.9	57.3	119313	103569
99.4	74.0	736	727

3M

89.1	81.3	239	219
89.7	111.0	388	130
1436.1	0.2	35802	35772
92.0	70.9	458	287
111.6	68.4	2162	434
91.0	48.4	401	250
115.4	74.0	1484	1460
116.2	74.0	1550	1466
115.8	74.0	1515	1466
115.0	74.0	1466	1443
114.6	74.0	1468	1405
113.9	74.0	1466	1341
113.5	74.0	1466	1308
114.2	74.0	1466	1372

Sheet1

95.8	81.2	578	534
89.8	72.9	326	204
89.0	52.0	296	153
88.6	83.0	247	162
94.5	83.1	499	490
88.5	51.6	227	176 2M
90.0	51.8	351	206
89.9	48.3	373	173
92.5	71.0	598	205
89.8	65.4	332	199
588.9	28.2	33685	178
101.8	81.2	873	814
89.8	108.9	393	144
703.1	65.5	39172	459
89.0	51.7	274	180
91.9	71.0	467	270
89.9	51.8	340	203
89.6	65.4	304	205
89.8	59.9	379	156
1408.2	14.1	36628	33849
87.5	49.6	165	137
99.8	48.4	1294	201
89.6	65.3	321	198
92.6	82.0	573	231
89.8	111.1	377	149
665.4	25.9	37460	278
92.0	71.0	476	272
91.3	74.0	342	334
95.7	51.2	908	195
94.5	75.0	499	496
106.7	90.0	1202	944
89.4	65.0	287	207
1441.9	10.3	39855	31947
100.6	99.0	837	739
89.8	72.8	338	195
95.6	71.0	829	270
89.5	65.0	294	207
89.5	65.4	297	202
87.7	49.5	173	145
706.3	65.2	39296	492
89.5	65.0	284	216
104.5	65.3	1022	915
90.4	65.0	383	202
92.3	71.0	509	268
89.3	64.9	280	203
99.3	74.0	728	722
93.7	48.4	656	255

Sheet1

93.4	81.2	443	441
100.4	74.1	787	767
101.0	62.9	1103	510
106.7	63.0	1648	496
89.8	111.1	396	135
111.3	62.8	1995	577
89.4	65.4	286	207
1197.9	16.4	36128	25840
92.6	37.4	518	304
92.7	37.4	526	303
89.3	65.0	286	204
104.9	74.0	1742	234
88.5	82.9	227	180
94.6	83.1	505	493
88.7	51.6	232	198
102.2	82.0	1520	199
717.8	65.5	39895	463
104.8	74.0	1005	959
171.0	55.9	5269	2384
89.3	65.4	279	204
89.5	72.9	292	203
114.8	101.3	1470	1421
95.5	3.0	570	521
104.6	74.0	978	972
98.6	15.0	750	634
89.1	65.0	242	222
95.3	74.0	543	525
92.3	71.0	505	271
95.8	81.2	568	543
717.8	65.0	39881	474
89.2	65.0	276	196
95.3	70.9	803	267
95.5	81.2	550	538
89.3	65.0	278	204
90.1	110.9	418	139
1456.9	13.2	36246	36140
92.1	71.0	485	272

3M

1436.1	13.9	35802	35772
95.4	65.8	552	522
106.1	29.7	1106	986
100.2	98.7	799	741
95.0	98.4	531	509
94.5	98.4	502	486
91.5	98.2	360	340
95.4	74.0	546	529

Sheet1

89.4	65.4	285	204
113.2	65.7	2179	563
106.7	51.5	1958	186
89.3	64.9	285	200
106.1	69.8	1833	265
5957.9	31.2	203130	1845
104.9	65.8	998	983
596.7	63.2	33800	390
88.4	81.5	245	156
89.3	72.8	290	185
113.5	88.2	1423	1353
104.9	65.0	1011	965
88.9	81.3	229	216
103.1	65.7	1010	802
96.7	81.2	603	594
89.2	81.3	246	217
96.2	46.3	696	457
89.4	81.2	248	243
88.5	51.4	214	180 MS
89.8	110.6	403	132
89.1	51.6	258	209 3M
100.6	74.0	800	773
93.8	3.2	707	222
102.0	81.8	1488	212
109.2	74.0	1209	1174
1464.6	10.5	36527	36156
89.4	65.0	280	205
113.8	74.0	1488	1313
116.1	74.0	1533	1477
115.7	74.0	1505	1471
115.1	74.0	1492	1424
115.4	74.0	1497	1449
114.4	74.0	1489	1369
114.1	74.0	1489	1341
114.7	74.0	1491	1396
87.7	51.5	187	134
89.0	51.8	257	199
91.9	71.0	443	292

T

104.9	74.0	1003	980
92.2	71.0	487	272
89.4	65.4	282	204

T

95.2	74.0	553	506
------	------	-----	-----

T

99.4	74.0	1108	354
88.4	51.5	237	163 3M

Sheet1

95.8	90.2	580	544
89.7	72.8	314	204
89.3	96.4	300	180
89.1	51.7	257	205
95.2	51.1	632	433
91.5	81.2	349	342
93.6	74.9	460	450
89.0	51.8	252	202
89.5	65.4	305	199

3M

3

717.8	65.4	39877	478
89.0	51.7	284	165
89.1	51.7	252	200
105.9	92.0	1932	136
101.7	87.6	899	775
106.3	92.0	1970	133
94.6	87.6	859	134
101.0	87.6	856	756
101.8	87.6	910	779
101.9	87.6	915	783
101.8	87.6	916	781
101.9	87.6	912	791
88.5	49.4	299	112
99.3	51.6	1253	193 D
90.1	111.0	424	137
99.7	50.2	836	651
92.0	70.9	478	271

95.1	74.0	543	510
95.2	74.0	539	517
88.3	74.9	234	157
94.7	75.0	516	489
89.3	65.4	279	205
89.4	65.4	263	226
95.2	70.9	788	272
113.1	32.0	1866	872
89.2	65.0	266	207

3

93.5	33.1	572	326
94.3	33.0	570	403
89.5	72.9	313	182
89.5	65.4	300	204
114.1	74.0	1507	1318
114.4	74.0	1509	1348
114.8	74.0	1509	1379
115.1	74.0	1512	1408
115.5	74.0	1515	1437

Sheet1

116.2	74.0	1539	1481
115.8	74.0	1527	1460
116.6	74.0	1571	1486
101.1	99.1	850	772
89.0	64.9	248	193
99.8	92.7	761	738
92.2	70.9	497	267
102.7	102.5	1483	293
89.5	110.9	369	135
104.4	82.0	1403	531
90.0	65.4	346	204
1436.3	13.8	35815	35765
1437.9	13.6	35824	35819
322.8	3.2	18149	272
92.2	71.0	491	272
89.3	72.9	304	178
109.4	74.0	1216	1180
712.0	65.0	39553	516
92.2	70.0	497	271
89.4	65.0	286	199
95.2	74.0	541	517
98.5	48.4	1181	198
94.6	69.0	510	487
105.4	65.0	1800	229
89.2	64.0	272	202
89.4	72.0	311	180
95.3	82.0	592	476
104.9	70.0	999	983
104.9	70.0	999	983
104.9	70.0	997	982
104.9	70.0	997	981
104.8	74.0	1004	964
90.0	64.0	375	175
91.9	71.0	466	266
100.4	74.0	789	768
703.5	65.0	39126	522
1445.5	11.1	36009	35930
104.6	64.5	1006	948
89.0	65.0	259	192
108.8	74.0	1954	388
102.5	81.3	912	837
89.7	65.0	316	201
89.3	97.0	330	153
94.8	96.0	545	474
1442.5	10.5	35917	35905
102.2	82.0	1536	193
7477.1	89.9	240164	405
89.6	65.0	309	203



Sheet1

89.5	64.9	325	177
104.6	74.0	993	961
1429.9	0.2	35962	35416
92.2	81.2	388	379
:			
89.6	72.9	306	202
95.4	97.6	550	523
89.0	65.0	282	176
89.9	111.0	409	131
95.2	74.0	537	517
101.3	98.9	858	781
109.1	83.0	1196	1170
92.3	70.0	496	277
102.3	81.2	877	855
201.4	52.0	9806	204
89.7	72.8	313	209
717.6	65.7	40006	343
704.7	65.6	39250	458
88.6	81.0	223	194
89.8	51.8	326	203
92.0	70.0	477	269
5782.1	65.0	199667	1005
88.6	81.3	234	178
			3M
3			
88.8	81.0	276	154
92.2	70.0	504	269
89.5	65.4	294	207
104.7	74.0	997	959
89.3	65.0	285	205
706.0	65.0	39293	479
88.9	64.9	268	177
89.2	96.3	305	158
89.7	64.9	323	204
1438.3	11.3	35847	35811
89.1	64.9	267	202
100.4	74.1	786	772
89.2	65.4	277	202
88.7	51.5	253	176
5849.2	65.3	201804	517
92.6	48.4	550	260
95.2	70.9	787	271
102.7	81.2	893	876
92.1	70.0	490	266
89.3	51.8	283	204
88.7	96.0	254	176
94.7	96.2	504	498

Sheet1

95.2	74.0	548	505
109.3	48.0	2167	221
89.1	65.0	262	203
89.4	65.4	288	202
113.9	74.0	1494	1318
114.3	74.0	1494	1350
114.6	74.0	1493	1380
114.9	74.0	1494	1409
115.3	74.0	1494	1440
115.6	74.0	1496	1471
116.0	74.0	1507	1493
116.4	74.0	1543	1492
103.0	99.4	908	895
89.2	65.3	273	202
89.3	64.9	307	172
97.7	37.7	811	492
104.2	83.0	965	949
89.6	72.8	309	203
157.4	31.0	6322	238
99.2	35.0	724	713
104.5	64.8	1038	906
89.3	64.9	285	203
89.7	110.4	381	142
99.8	90.0	792	709
89.5	72.8	306	203
90.2	71.3	360	207
715.2	68.8	36091	4134
17670.0	17.2	235600	201100
104.9	65.8	992	987
703.3	65.0	39170	470
97.4	98.6	638	627
98.7	98.7	705	688
89.7	72.0	309	212
92.0	71.0	478	271
88.9	96.5	281	160
114.7	95.7	1462	1417
92.3	70.0	510	266
615.4	65.4	34684	494
114.9	102.0	1453	1446
114.9	102.0	1452	1446
89.2	65.0	268	207
92.1	70.0	485	274
102.3	81.2	880	851
89.6	65.4	306	207
114.1	74.0	1465	1364
114.5	74.0	1466	1399
113.7	74.0	1465	1330
114.7	74.0	1467	1418
113.4	74.0	1466	1297

Sheet1

113.6	74.0	1466	1314
113.9	74.0	1465	1347
114.3	74.0	1466	1381
95.2	74.0	539	522
101.1	98.6	841	785
1457.1	11.3	36247	36145
95.2	1.0	526	526
99.0	91.1	1173	245
89.6	64.0	303	203
93.1	71.0	645	203
712.0	64.0	39608	462

3M

107.1	99.8	1099	1086
706.4	65.3	39284	507
89.4	65.4	283	205
95.6	96.9	867	223
1440.4	9.7	40728	31012
112.9	74.0	1377	1340
89.7	110.5	378	139
100.4	74.1	790	763
90.2	81.0	348	218
96.3	81.0	640	527

89.2	64.9	274	191
95.2	74.0	535	528
92.2	71.0	495	268
95.7	50.7	564	537
89.6	64.0	309	203
712.2	65.0	39602	476
89.6	65.4	300	205
5783.0	65.0	200000	590
95.2	74.0	545	513
89.7	65.4	317	206
89.5	65.0	296	206
1435.1	0.2	35855	35679
88.7	95.7	262	150
102.3	81.2	878	860
89.6	72.0	308	202
89.1	51.6	248	216
717.7	65.2	39822	532

:

92.2	71.0	494	272
89.5	72.9	304	194
102.2	48.4	1526	199
1443.0	10.2	35967	35876
88.9	81.0	230	216
88.8	81.3	240	199
88.9	51.6	225	206

Sheet1

93.2	50.0	439	427 MS
89.4	110.5	352	136
92.3	71.0	501	269
89.8	65.4	325	204
89.7	72.9	314	203
93.2	50.0	440	425 3M
89.5	65.4	295	206
102.2	81.2	880	843
92.0	70.0	483	270
89.5	65.4	298	206
114.6	74.0	1479	1392
115.3	74.0	1487	1447
115.0	74.0	1480	1431
114.8	74.0	1481	1410
114.4	74.0	1478	1373
114.1	74.0	1477	1355
113.9	74.0	1478	1335
113.7	74.0	1476	1317
89.3	51.7	281	206
3			
1435.9	0.3	35786	35777
89.5	51.6	308	191
104.9	83.0	1008	975
89.3	65.4	271	204
89.8	72.9	332	204
706.0	65.0	39292	479
88.8	96.2	291	143
3			
89.3	65.4	309	175
T			
93.2	50.0	442	422 3M
89.4	65.4	292	200
T			
3			O
3			
100.9	98.9	819	779
88.9	65.4	270	171
705.7	63.3	39296	460
92.1	70.9	490	273
1452.5	10.4	36132	36080
89.0	51.6	276	177
95.3	74.0	543	519
717.8	65.5	39893	463
89.5	64.9	298	204
90.0	72.9	336	205
113.5	74.0	1402	1372
104.7	82.9	1000	960
89.6	65.4	301	205

Sheet1

91.0	51.0	348	306 2M
89.7	110.5	385	131
115.3	74.0	1491	1445
114.9	74.0	1486	1412
115.1	74.0	1485	1431
114.1	74.0	1484	1344
113.9	74.0	1483	1327
114.3	74.0	1483	1361
114.5	74.0	1483	1378
114.7	74.0	1483	1397
89.4	65.4	287	206
89.5	65.4	290	206
89.9	72.8	334	208
89.3	64.9	280	202
90.0	72.8	340	205
98.0	81.8	1135	195
722.9	62.8	40055	555
89.2	72.8	309	169
17279.0	28.7	288857	141185
90.1	72.9	357	205
92.9	81.2	424	413
105.2	89.8	1123	884
102.0	74.0	1453	257
90.7	62.8	403	213
717.7	69.0	36941	3411
3			
116.1	102.2	1508	1499
89.9	72.8	341	203
88.8	96.9	275	158
94.5	96.3	508	486
114.5	96.9	1453	1413
712.0	64.0	39607	461
93.1	50.0	437	422 3M
92.2	70.9	500	269
89.6	69.9	335	175
95.2	74.0	545	515
92.0	70.1	480	269
89.8	72.8	339	188
89.3	51.6	276	199
740.0	62.9	40829	619
100.2	74.1	787	751
95.7	71.0	834	270
1474.6	13.9	36661	36413
1476.3	13.5	36837	36300
132.5	68.1	4306	155
89.9	72.9	332	206
88.8	51.6	247	188 2M
113.9	74.0	1481	1332
115.2	74.0	1485	1441

Sheet1

115.0	74.0	1486	1421
115.4	74.0	1491	1457
114.7	74.0	1483	1403
114.3	74.0	1482	1367
114.5	74.0	1482	1385
114.1	74.0	1482	1349
89.8	72.8	321	204
718.0	62.9	39934	434
103.3	74.0	1441	387
103.9	65.4	982	907
104.9	83.0	1012	964
104.7	83.0	1007	950
104.1	37.5	1803	104
89.4	62.8	289	197
90.0	72.8	346	203
95.2	74.0	545	519
89.3	65.0	303	176
89.9	110.4	396	135
121.7	31.2	3231	284
96.1	2.9	875	270
92.2	71.0	491	271
101.9	81.2	877	821
92.2	70.9	491	271
100.3	97.9	866	677
89.7	72.8	322	204
100.9	99.1	846	757
89.2	65.0	302	169
1428.9	13.5	35813	35478
89.4	51.8	309	187
88.9	81.3	226	206
88.9	94.5	285	153
101.1	94.6	830	786
95.0	94.0	531	503
88.8	81.3	225	201
1441.6	9.9	35917	35871
717.8	63.0	39752	606
114.5	74.0	1479	1385
113.7	74.0	1478	1316
114.1	74.0	1480	1349
113.9	74.0	1480	1332
114.3	74.0	1480	1366
114.7	74.0	1482	1402
114.9	74.0	1481	1420
115.1	74.0	1487	1435
102.3	81.2	881	852
640.6	62.4	35752	722
89.3	62.8	299	181
113.4	74.0	1399	1365
103.4	65.0	946	890

Sheet1

89.6	51.8	343	173
89.3	62.8	287	192
104.4	64.9	1006	924
1460.3	15.5	36303	36216
94.5	50.6	511	483
95.3	74.1	542	523
90.0	51.6	364	195
3			
89.2	62.8	296	177
1412.0	13.1	35444	35184
3032.0	89.0	125569	469
89.4	65.0	286	204
89.8	110.5	394	136
89.3	62.8	329	153
104.3	83.0	1536	383
95.2	74.0	548	511
89.1	51.6	253	213 MS
95.5	70.9	812	271
104.7	83.0	997	961
90.0	72.9	341	205
709.6	61.8	39653	298
88.6	51.6	217	195 2M
102.9	81.2	908	882
89.6	62.8	328	181
468.7	125.0	13777	13442
95.6	97.5	869	224
717.3	62.4	39989	341
89.5	65.0	320	176
92.2	71.0	494	270
88.8	81.3	229	207
1435.1	13.9	35809	35724
89.5	50.6	294	211
89.2	62.8	304	168
101.1	98.8	844	779
88.9	51.7	226	222
89.9	110.5	402	135
92.7	81.2	416	399
88.5	51.6	236	173 2M
89.5	65.0	323	175
113.6	74.1	1421	1362
99.1	98.0	1173	258
100.6	74.0	798	779
114.4	74.0	1464	1394
115.9	74.0	1530	1463
115.7	74.0	1509	1463
115.5	74.0	1489	1464
115.3	74.0	1470	1463
115.0	74.0	1465	1450
114.8	74.0	1464	1431

Sheet1

114.6	74.0	1464	1413
89.3	64.9	281	209
92.1	70.9	476	279
1442.0	9.5	35910	35895
94.5	74.0	698	286
94.9	2.9	549	504
89.8	62.8	349	179
104.9	82.9	1012	970
90.3	62.8	364	215
735.8	62.8	40633	607 D
89.5	65.0	317	187
102.2	81.2	887	835

88.4	96.7	272	115
95.1	96.0	531	521
116.3	96.9	2888	150
94.1	74.0	707	243
89.4	62.8	295	197
89.1	81.3	243	219
114.9	101.9	1457	1442
114.8	101.9	1457	1437
114.8	101.9	1457	1439
89.6	72.8	336	172
92.0	71.0	468	273
717.6	64.1	40095	250
1443.2	8.8	35944	35907
1436.9	12.2	35822	35782
89.8	72.9	321	205
89.2	51.8	291	184 2M

3

90.2	62.8	392	174
102.1	81.2	869	844
95.3	74.0	552	515
1437.2	12.5	35808	35808
718.1	61.9	40065	305
93.3	65.0	440	428
89.1	51.6	251	212 MS
104.6	83.0	993	956
89.8	71.4	319	205
88.8	51.6	249	185 2M
89.7	71.3	313	205
102.1	82.0	1518	197
103.1	98.9	912	898
89.6	72.9	305	205
92.3	71.0	502	271
717.6	67.8	35365	4977
95.0	74.0	548	491
738.7	62.8	40746	653 D
104.2	49.8	1108	805



Sheet1

1447.1	12.0	36060	35941
113.5	69.2	1408	1367
89.4	62.8	310	181
120.2	31.5	3125	254
89.6	65.0	335	176
115.4	74.0	1490	1459
114.8	74.0	1488	1409
114.6	74.0	1484	1393
115.2	74.0	1489	1442
115.7	74.0	1501	1468
115.9	74.0	1511	1478
116.1	74.0	1534	1477
115.0	74.0	1488	1426
702.0	63.5	39337	295
89.3	65.0	307	175
89.3	62.8	273	212
88.9	81.3	228	208
89.9	71.4	337	204
104.9	83.0	1689	284
102.3	81.2	883	852
103.6	64.7	961	899
102.9	65.6	943	852
92.1	71.0	481	270
101.6	115.0	850	816
104.5	83.0	988	951
700.5	61.9	39323	174
89.6	65.0	334	172
89.7	72.8	311	209
89.8	110.5	398	133
92.6	50.7	409	398
104.8	83.0	1005	969
89.0	81.3	234	210
717.8	61.8	39360	994
94.7	3.0	507	498
1439.2	9.0	35851	35845
100.4	30.0	1256	299
100.3	29.9	1275	277
88.6	28.6	256	160
88.6	28.6	256	160
89.5	65.0	296	203
1450.7	8.9	36128	36016
101.7	98.7	880	794
88.6	51.7	230	186 2M
114.6	74.0	1468	1401
116.2	74.0	1551	1468
115.0	74.0	1469	1441
115.2	74.0	1471	1459
115.5	74.0	1484	1467
115.9	74.0	1527	1467

Sheet1

115.7	74.0	1508	1466
114.8	74.0	1470	1420
89.5	65.0	327	173
88.9	81.3	231	210
89.8	62.9	355	178
679.1	63.4	38307	121
737.8	62.8	40825	513

3

88.7	96.3	272	157
113.5	95.1	1393	1382
107.4	99.8	1110	1099
89.6	62.8	331	181

3

1422.0	9.0	40800	30200
92.0	81.2	380	367
95.6	32.9	553	539
92.4	71.0	514	264
89.5	62.8	325	180
89.3	62.8	280	204
89.4	62.8	303	190
95.3	74.0	550	509
718.6	61.8	39454	940
102.2	81.3	876	844
88.5	51.8	220	186 2M
87.6	51.7	166	152 3M
95.4	71.0	803	272
89.6	62.8	313	197
94.5	65.8	514	481
90.9	69.0	455	190
89.6	62.8	330	181
2203.9	90.3	99002	442
89.8	71.4	326	204
104.8	82.9	1006	964

T

92.5	81.2	403	394
1440.4	12.7	35873	35866
89.5	62.8	316	182
735.6	62.9	40598	633
89.5	67.1	326	174
718.0	61.7	39482	884
106.0	47.0	1103	975

T

89.6	62.8	276	231
89.6	65.0	335	174
114.6	74.0	1479	1398

Sheet1

115.1	74.0	1482	1436
115.8	74.0	1507	1472
116.0	74.0	1523	1477
116.3	74.0	1548	1476
114.9	74.0	1482	1416
115.3	74.0	1485	1452
115.5	74.0	1489	1468
102.0	81.3	910	798
89.6	72.8	307	203
109.1	83.0	1204	1163
88.7	81.3	219	203
1441.1	8.9	35910	35860
96.5	37.1	697	476
88.4	51.8	245	154
100.5	74.1	790	772
89.7	71.4	315	204
126.8	90.1	3819	151
1435.1	13.6	35812	35721
88.6	96.4	274	145
93.8	90.4	490	427
1436.1	12.4	35795	35779
89.4	62.8	288	200
93.3	65.0	442	425
104.7	83.0	999	966
89.7	62.8	341	182
717.7	61.7	39489	859
88.8	51.6	251	184
117.7	19.7	3002	154
89.3	65.0	278	201
95.2	74.0	563	499
90.5	62.8	384	218
91.1	63.0	483	183
100.6	74.1	797	779
88.9	81.3	231	215
88.4	96.3	234	157
103.0	96.3	1558	236
105.3	74.0	1684	335
104.2	65.1	1004	907
1446.0	8.9	36089	35868
1436.0	3.0	35785	35671
90.3	69.0	387	186
89.5	65.0	325	184
416.9	62.8	24113	103
5740.0	65.0	199000	634
1435.9	13.3	35807	35758
102.1	81.2	868	849
733.8	62.8	40708	452 D
95.3	74.0	565	509
89.5	62.8	321	183

3

1435.4	12.8	35840	35704
104.9	83.0	1011	964
720.1	62.3	39476	991
95.2	74.0	548	511
114.7	74.1	1485	1398
115.1	74.1	1488	1434
114.9	74.1	1488	1415
115.3	74.1	1491	1450
115.6	74.1	1495	1465
115.8	74.1	1514	1469
116.0	74.1	1528	1476
116.3	74.1	1552	1476
89.6	71.4	306	205
1444.6	9.0	35981	35924
104.9	83.0	1008	975
95.3	71.0	796	268
89.6	65.0	334	172
95.2	65.9	555	505
93.1	65.1	702	160
88.9	98.9	361	89
1436.1	11.1	35801	35773
89.7	67.1	351	171
105.0	69.7	1003	988
89.6	71.4	328	188
669.1	62.6	37773	151
104.6	82.9	1568	384
1436.1	17.0	35886	35687
1436.0	17.0	35825	35745
7344.3	25.7	119180	118383
7116.7	25.6	116645	115720
91.9	81.2	370	363
89.6	65.0	300	205
717.4	62.7	39722	617
89.3	96.4	347	125
89.7	62.8	338	181
1460.1	8.6	36494	36016
90.0	72.9	338	206
95.2	74.0	548	508
102.0	81.3	881	829
88.9	81.3	236	209
90.5	65.1	480	118
1442.2	10.7	36013	35799
89.0	81.3	231	218
94.8	65.9	566	453
107.5	63.5	1128	1092
107.4	63.4	1284	932
107.4	63.4	1286	931
107.4	63.4	1324	893

Sheet1

225.4	109.8	5945	5837
89.5	65.0	324	173
664.3	62.1	37589	93
1440.5	8.7	35878	35867
102.0	81.3	884	826
92.1	71.1	481	271
89.5	64.9	293	207
88.8	81.4	217	209
105.4	99.6	1044	981
89.7	72.8	314	204
94.5	74.1	711	280
703.8	63.3	39315	380
104.8	83.0	1005	969
89.8	71.4	325	204
1436.1	10.2	35799	35775
114.6	74.0	1484	1393
116.2	74.0	1542	1479
114.9	74.0	1487	1411
115.1	74.0	1487	1430
115.3	74.0	1489	1447
115.5	74.0	1491	1466
115.7	74.0	1504	1473
116.0	74.0	1518	1480
89.4	62.8	316	180
94.6	74.0	520	481
88.9	51.6	232	215 MS
89.1	81.4	237	216
1433.3	0.5	35860	35620
89.4	65.0	317	174
100.6	74.1	801	773
98.5	62.8	936	438
93.3	65.1	440	428
89.7	51.6	274	246 2M
88.5	97.0	242	159
179.0	97.5	8048	236
97.3	96.4	632	628
1438.6	8.6	35852	35818
115.6	65.9	2053	915
89.7	72.9	319	203
100.4	74.0	789	769
104.8	83.0	1004	963
89.3	65.1	346	132
89.8	67.2	353	172
1436.2	8.6	35812	35764
698.4	62.9	38911	483
95.4	74.0	597	487
94.4	50.6	517	464
116.3	102.1	1519	1504
104.6	82.9	1006	946

Sheet1

89.5	62.8	321	181
703.8	63.3	39315	380
89.6	62.8	303	206
96.0	71.0	865	264
92.2	70.9	493	272
90.7	81.2	313	300
89.5	65.0	332	173
108.8	69.2	2145	195
91.6	62.8	461	243
95.9	90.3	789	345
89.3	81.4	308	167
101.3	98.5	833	804
1436.0	13.1	35866	35704
89.3	64.8	296	185 2M
89.2	96.4	337	142
89.9	72.9	321	221
89.5	65.0	300	203
89.6	62.8	331	177
100.5	74.1	794	774
89.6	65.0	337	173
89.5	51.6	269	239 2M
1436.1	11.6	35789	35782
102.2	81.3	887	836
104.3	64.7	995	923
104.2	64.9	987	928
717.2	64.4	39791	535
89.7	62.8	348	178
1436.7	13.0	36080	35516
104.7	82.9	1002	957
89.8	72.9	326	203
89.2	65.0	287	180
91.1	62.8	402	250
5728.0	65.2	198560	777
93.3	65.0	444	422
89.4	51.7	289	209
95.3	74.0	563	504
641.5	62.0	36437	85
91.1	59.4	489	172
114.6	74.0	1462	1415
114.4	74.0	1462	1396
115.5	74.0	1494	1461
115.7	74.0	1513	1462
114.8	74.0	1461	1434
116.0	74.0	1536	1462
115.0	74.0	1461	1453
115.3	74.0	1473	1461
88.9	81.4	225	213

Sheet1

96.3	65.8	614	558
88.9	51.6	241	201
88.5	51.6	213	191
104.7	83.0	1003	952
89.6	65.1	345	169
94.1	65.9	520	433
92.3	96.9	531	246
114.7	65.8	2291	593
257.0	59.5	13594	426
104.6	82.9	1009	945
89.5	65.0	325	170
102.7	81.3	893	875
89.8	71.4	329	202
105.0	83.0	1013	973
1511.5	10.5	37421	37079
94.5	65.8	516	472
1433.3	0.5	35860	35620
89.3	51.6	264	226 2M
90.4	72.9	427	159
717.6	61.9	39707	638
105.2	74.0	1656	354
134.1	65.8	3802	799
104.8	82.9	1008	961
1439.7	11.9	35860	35854
93.3	81.2	442	433
88.6	72.9	206	202
89.6	72.9	340	171
1439.6	7.6	35867	35843
89.1	96.4	329	141
89.0	81.4	230	216
718.5	61.8	39676	714
95.2	74.1	547	503
94.4	83.0	522	457
102.3	81.3	887	844
95.5	71.0	820	269
89.0	81.4	279	168
718.4	67.7	37681	2701
89.8	71.4	328	203
734.1	26.8	38389	2767
90.3	67.1	413	170
94.4	50.6	515	464
717.7	61.9	39699	651
89.9	62.8	364	181
1489.6	12.4	36912	36741
1509.1	12.0	37352	37053
89.1	51.8	288	174
117.0	65.9	2108	984
91.0	65.1	506	149
1435.1	0.2	35855	35679

Sheet1

104.7	82.9	997	962
88.9	81.3	225	217
1448.2	7.8	36075	35969
94.5	74.0	520	474
89.4	65.0	284	202
101.3	99.0	849	788
89.1	62.8	289	173
90.1	62.7	304	255
717.5	67.6	36143	4196
1436.0	10.9	35794	35773
94.3	50.7	522	449
87.7	65.1	197	125
95.6	71.0	822	269
89.7	65.0	342	173
718.1	63.9	20256	20115
134.9	62.6	4564	106
97.1	75.8	651	587
88.5	97.0	239	155
91.2	97.4	338	332
89.5	62.8	283	221
100.7	74.0	800	781
95.2	74.0	552	513
90.0	81.2	275	269
104.9	82.9	1015	966
89.7	72.9	361	153
104.6	83.0	1004	946
1451.0	11.1	36148	36005
89.4	51.6	260	226
94.6	74.0	515	482
717.1	66.5	36549	3770
89.6	65.0	358	150
92.5	65.8	431	369
1437.2	12.7	35853	35763
89.4	62.8	255	231
89.2	81.3	251	217
90.6	62.8	396	219
93.4	22.7	447	429
:			
93.3	65.0	444	424
89.7	62.8	340	181
114.8	74.0	1460	1430
114.4	74.0	1460	1391
114.6	74.0	1460	1411
115.9	74.0	1529	1461
115.0	74.0	1459	1448
115.2	74.0	1468	1459
115.4	74.0	1488	1460
115.6	74.0	1507	1460
1437.4	9.6	35869	35755



Sheet1

89.8	72.9	321	203
677.5	62.6	38159	187
89.0	81.4	235	217
:			
89.5	62.8	325	177
89.4	62.8	282	205
104.8	83.0	1009	959
104.1	64.9	990	911
89.6	62.8	330	180
89.7	65.0	265	251
94.6	81.2	501	493
1436.8	12.7	35938	35663
5688.0	65.0	197867	488
89.1	96.5	335	134
96.8	75.8	864	355
94.4	83.0	514	466
88.7	51.6	237	188 MS
89.8	65.0	361	171
88.8	51.6	240	194 2M
90.6	62.8	351	257
94.6	65.8	850	146
3441.0	12.7	137806	436
3438.5	13.5	137765	406
95.1	74.0	546	502
101.8	66.4	1421	269
717.0	62.7	40024	294
106.8	89.7	1097	1059
104.7	83.0	1004	959
1437.6	11.9	35854	35777
109.2	82.9	1204	1176
89.9	72.9	362	171
94.4	74.0	516	465
107.5	63.4	1169	1054
107.5	63.4	1169	1054
107.5	63.4	1168	1055
107.5	63.4	1168	1055
88.8	51.6	235	205 2M
1435.1	0.2	35855	35679
89.5	65.0	296	204
104.7	65.8	1001	960
102.2	81.2	874	847
1455.9	10.5	36176	36169
100.4	74.0	791	765
89.5	62.8	317	180
105.9	65.9	1142	928
104.9	82.9	1002	972
103.7	75.8	1157	710
89.8	71.5	325	203
89.6	62.8	334	178

Sheet1

1441.5	7.2	35909	35874
88.7	51.7	237	190 2M
95.0	81.2	522	513
115.0	74.0	1462	1453
114.4	74.0	1462	1397
114.6	74.0	1462	1416
114.8	74.0	1462	1434
115.3	74.0	1474	1460
115.5	74.0	1494	1461
115.7	74.0	1514	1460
116.0	74.0	1536	1461
89.5	62.8	291	206
104.6	82.9	1013	937
88.7	51.6	256	173
636.8	63.3	36195	85
89.4	65.0	318	172
91.4	57.0	507	186
1436.3	34.3	41296	30285
89.6	62.8	322	189
134.0	65.4	3952	639
89.9	72.8	335	201
1436.1	11.3	35793	35780
89.4	65.1	318	169
107.2	69.4	1216	973
100.4	74.0	791	764
727.0	64.5	20584	20224
703.7	63.2	39377	311
104.6	83.0	1003	949
88.8	51.6	246	192 2M
717.9	62.0	39957	401
89.8	71.3	323	203
103.1	98.9	915	895
103.0	99.2	903	893
89.6	72.8	325	190
104.9	82.9	1005	969
88.5	96.4	240	160
97.6	95.8	645	639
88.8	81.3	227	209
104.6	82.9	1004	947
89.8	71.4	352	174
104.7	82.9	1006	953
1435.2	7.3	35797	35739
88.7	51.6	228	199
89.4	65.1	283	205
615.5	28.4	35033	150
1436.9	11.7	35868	35736
89.5	62.8	328	178

Sheet1

96.7	97.6	641	560
100.7	98.7	799	786
89.4	62.8	290	205
1452.6	9.3	36132	36084
94.4	81.2	494	485
92.4	65.8	407	384
714.2	63.6	20653	19523
89.7	72.8	350	168
95.1	74.0	549	499
108.6	65.9	1364	966
3			
89.0	81.4	230	217
104.7	82.9	1006	954
89.2	62.8	265	202
717.3	62.8	40067	265
116.3	74.0	1552	1476
116.0	74.0	1528	1477
115.8	74.0	1514	1472
115.6	74.0	1495	1469
115.4	74.0	1490	1455
115.2	74.0	1486	1439
115.0	74.0	1486	1421
114.7	74.0	1482	1405
89.4	65.0	313	173
1446.3	12.0	42039	29929
89.7	72.8	344	171
91.9	97.0	509	223
88.9	51.6	248	193 2M
1436.3	9.8	35812	35767
100.4	74.1	786	766
100.1	108.0	765	761
88.8	51.6	244	194 2M
717.7	67.3	35365	4984
95.8	82.5	567	551
1451.7	7.1	36183	36000
89.0	51.7	247	212
90.0	51.6	307	248
1449.1	11.8	36061	36020
681.9	61.8	38306	260
1437.1	12.3	35854	35757
104.6	82.9	997	955
697.1	62.5	39053	315
88.7	67.1	247	170
88.7	51.6	232	190

Sheet1

3	709.2	62.0	39433	495
	88.8	51.6	243	193 2M
	89.6	62.8	316	194
	717.0	66.2	36185	4131
3				
	89.6	62.8	329	182
3				
	370.9	31.3	21192	251
	88.9	81.3	226	215
	89.0	81.4	231	212
	88.8	51.7	247	185
	114.9	74.0	1479	1420
	114.6	74.0	1478	1400
	115.1	74.0	1478	1440
	115.3	74.0	1479	1460
	115.5	74.0	1485	1474
	116.3	74.0	1549	1476
	116.0	74.0	1525	1476
	115.8	74.0	1507	1474
	89.3	62.8	299	179
	744.2	63.3	20941	20706
	93.2	81.2	433	425
	715.2	62.7	40017	209
	101.7	98.7	845	829
	89.5	62.8	295	203
	104.0	99.1	953	941
	103.9	99.7	966	923
	96.3	83.0	757	403
	96.4	83.0	762	404
	120.3	82.5	1702	1683
	120.3	82.5	1703	1684
	120.3	82.5	1702	1683
	5881.1	64.9	202627	472
	89.8	72.9	324	202
	95.4	23.5	548	526
	89.8	72.9	354	171
	100.5	74.0	797	769
	1462.2	7.6	36310	36279
	89.6	72.9	338	169
	89.8	62.8	341	194
	114.6	74.0	1483	1392
	114.8	74.0	1485	1409
	115.0	74.0	1485	1427
	115.2	74.0	1487	1444
	115.4	74.0	1489	1461
	115.7	74.0	1502	1469

Sheet1

115.9	74.0	1513	1479
116.1	74.0	1535	1478
89.7	62.8	338	180
89.5	65.0	291	216
746.5	64.6	21012	20750
1531.4	9.8	37749	37515
1462.8	9.8	36332	36283
89.6	62.8	310	203
95.1	74.0	549	504
1442.6	6.6	35927	35900
95.1	81.2	524	518
1435.9	22.4	49371	22193
92.6	82.9	467	333
93.5	50.6	544	348
102.0	81.2	890	819
109.0	83.0	1210	1154
90.4	62.8	389	191
89.9	62.9	289	254
89.5	62.8	293	205
89.7	62.8	339	179
104.8	82.9	1010	957
717.6	63.0	39973	370
96.1	97.8	596	546
89.6	62.8	328	182
1418.4	10.2	42860	28018
88.8	51.6	238	195
1313.1	4.9	37425	29260
94.4	65.8	516	473
95.1	82.5	530	514
94.4	81.2	491	485
94.2	55.0	506	456
95.7	29.8	566	543
1435.7	11.9	35935	35621
89.0	72.9	280	168
90.8	97.8	317	310
88.9	51.6	256	193 2M
89.6	67.1	337	174
96.3	74.0	711	452
102.0	81.2	873	835
88.8	51.7	256	183
89.1	72.9	294	169
114.5	74.0	1463	1402
114.7	74.0	1463	1421
114.9	74.0	1463	1440
115.1	74.0	1462	1459
115.6	74.0	1501	1463
115.4	74.0	1479	1463
115.8	74.0	1522	1463
116.1	74.0	1545	1463

Sheet1

88.8	96.4	258	170
97.2	95.8	628	621
104.7	83.0	997	963
89.8	72.8	320	217
104.7	82.9	1006	958
89.0	51.6	261	194 2M
104.7	82.9	1002	957
713.4	64.0	39936	199
94.2	81.2	487	474
93.3	65.0	442	426
90.3	72.8	379	199
1436.5	11.9	35802	35785
93.3	65.1	442	428
89.5	62.8	331	173
1461.4	9.9	36335	36223
88.8	51.6	247	190
89.8	72.9	354	170
89.1	81.4	247	215
88.6	51.6	222	193
88.6	51.6	222	193
89.2	81.3	260	212
88.7	96.4	285	131
90.8	62.8	375	257
104.7	82.9	1003	954
92.1	55.0	383	372
339.6	63.0	19362	126
88.9	51.6	254	192
101.2	98.6	826	805
92.5	50.7	399	394
89.2	81.4	254	212
1435.9	1.8	35854	35712
89.1	81.4	237	216
89.5	72.9	301	198
89.1	81.3	245	214
100.7	98.6	800	785
718.1	67.3	38611	1758
88.8	51.6	251	186
100.6	74.0	797	775
90.6	62.8	354	255
1435.8	11.5	35782	35777
93.5	50.6	541	357
89.5	65.0	330	173
95.2	74.1	552	506
89.0	81.4	235	217
92.6	81.2	408	396
89.5	62.8	325	177
88.9	81.3	237	210
717.8	63.3	39806	550
89.0	81.4	245	213

Sheet1

1440.9	5.3	35895	35863
89.8	70.6	362	170
89.7	67.2	348	171
88.9	81.3	227	208
88.9	81.3	236	211
717.0	67.3	35403	4913
100.6	74.0	795	779
90.4	72.8	391	194
89.3	81.3	268	210
89.5	62.8	328	173
94.5	43.6	503	487
90.4	62.8	376	213
114.6	74.0	1478	1395
114.8	74.0	1480	1408
114.9	74.0	1480	1423
115.1	74.0	1481	1436
115.3	74.0	1482	1451
115.4	74.0	1490	1459
115.6	74.0	1494	1470
115.8	74.0	1511	1471
90.2	72.9	373	199
1445.5	7.5	41497	30443
1435.8	11.6	35867	35695
89.8	72.8	329	199
100.4	74.1	787	765
104.6	82.9	996	952
704.7	61.7	39615	93
90.3	72.9	382	198
95.2	81.3	533	524
93.7	96.8	561	352
102.4	81.2	879	861
94.4	74.1	519	462
89.4	67.2	337	158
1461.5	9.4	36295	36270
1436.1	9.5	36323	35249
94.4	81.2	495	484
93.9	65.9	493	438
788.9	8.1	35502	8306
90.2	72.9	377	192
89.2	51.6	252	213
259.1	17.8	14047	125
1437.1	11.0	35831	35779
89.6	67.1	340	170
90.3	72.9	384	191
500.3	63.2	28891	103
104.8	83.0	1010	962
1434.8	9.1	35851	35669
96.2	82.5	589	566
89.6	67.1	341	169

Sheet1

104.8	82.9	1012	959
95.5	81.2	545	540
90.3	72.8	393	191
91.7	97.0	498	220
718.0	64.9	20560	19805
114.5	74.0	1472	1396
114.7	74.0	1474	1413
115.0	74.0	1474	1432
115.2	74.0	1476	1448
115.4	74.0	1481	1463
115.6	74.0	1501	1465
115.8	74.0	1517	1469
116.1	74.0	1541	1469
736.8	62.8	40856	434 D
92.7	28.5	408	405
95.9	38.7	608	517
1436.7	11.4	35816	35780
89.7	72.9	350	170
1386.6	1.4	36839	32785
107.1	63.0	1150	1035
107.4	63.5	1166	1048
107.4	63.5	1166	1048
107.4	63.5	1166	1048
90.2	72.8	371	194
93.3	65.0	442	426
104.7	82.9	1007	955
94.4	65.8	513	466
88.9	51.6	250	185
90.1	70.4	379	178
104.8	65.8	1001	969
88.9	51.6	247	197 2M
716.4	64.7	38809	1476
89.8	70.3	352	174
102.9	66.1	1419	372
91.6	62.8	458	251
707.8	62.8	20471	19387
88.8	51.7	255	185
103.4	64.8	962	873
89.5	67.2	331	167
90.3	72.8	386	193
89.6	82.9	307	202
89.8	62.8	279	245
104.8	82.9	1002	967
89.1	82.3	251	211
89.0	51.6	263	190 2M
90.3	72.8	384	196
102.1	92.2	1445	264
95.3	81.2	535	532
88.7	51.6	232	195 2M



Sheet1

89.3	82.3	277	208
92.6	74.0	414	388
89.4	72.9	294	194
1460.1	10.8	36279	36231
718.5	67.3	38265	2124
93.4	97.7	457	428
88.8	96.4	262	164
112.3	96.6	1333	1331
423.5	63.6	24508	98
89.6	72.9	305	198
89.0	51.6	264	183
100.6	74.0	792	777
716.9	67.5	34907	5403
114.5	74.0	1472	1394
114.7	74.0	1473	1411
114.9	74.0	1472	1429
115.1	74.0	1473	1447
115.3	74.0	1473	1465
115.5	74.0	1489	1469
115.7	74.0	1506	1471
116.0	74.0	1529	1470
89.4	72.9	298	195
1436.1	0.0	35834	35737
89.1	82.3	243	213
97.0	44.7	921	307
717.8	63.1	38990	1364
89.1	51.5	273	190 2M
89.6	72.9	307	198
89.4	82.3	270	213
93.5	50.7	546	349
89.5	72.8	302	195
95.2	81.2	531	525
89.2	82.3	256	211
89.6	67.1	339	173
89.2	82.3	267	206
102.1	81.2	886	833
1451.2	9.4	36213	35948
89.0	51.6	257	195 2M
88.6	82.3	239	175
89.0	82.4	236	211
88.9	82.3	244	205
88.7	51.6	241	188
89.6	72.9	313	192
1434.8	10.8	35771	35751
89.7	67.2	347	170
95.0	74.0	546	493
90.1	72.9	367	189
716.9	67.0	38306	2007
88.9	64.9	285	158

Sheet1

1436.1	9.2	35803	35769
89.5	72.9	312	189
97.6	65.0	759	526
90.5	72.9	399	196
1442.5	6.1	35928	35895
713.9	62.4	39291	870
95.9	81.2	561	557
89.7	51.6	260	256 3M
718.1	68.3	34854	5517
90.2	72.9	374	194
104.8	82.9	1023	942
1436.1	4.6	35804	35769
104.8	82.9	1007	958
697.4	63.8	39130	250
89.4	72.8	296	194
114.4	74.0	1462	1392
114.6	74.0	1462	1412
114.4	74.0	1462	1398
114.5	74.0	1462	1404
114.6	74.0	1461	1411
114.7	74.0	1462	1417
114.6	74.0	1462	1408
114.6	74.0	1462	1412
5687.8	65.8	197364	978
1436.1	10.8	35810	35761
89.8	67.1	362	168
90.3	72.9	382	191
717.7	63.6	39863	487
106.2	83.0	1706	395
88.9	82.3	231	210
89.8	64.9	359	165
104.9	65.8	1000	981
90.0	51.7	308	247
96.2	81.2	584	568
717.3	63.7	38759	1571
97.8	65.8	1013	294
94.4	74.0	506	469
362.4	28.2	20680	240
104.7	83.0	1004	958
90.2	72.8	374	193
89.1	64.9	263	193
711.1	67.2	35529	4493
90.1	31.3	279	274
1436.2	7.2	35792	35783
89.3	96.4	336	138
91.0	68.1	531	112
103.9	65.0	976	904
114.4	74.0	1469	1387
114.6	74.0	1470	1401

Sheet1

114.7	74.0	1470	1415
115.6	74.0	1493	1466
114.9	74.0	1470	1429
115.0	74.0	1470	1442
115.2	74.0	1474	1454
115.4	74.0	1476	1467
88.9	51.6	237	201 2M
97.9	65.8	1022	299
1421.2	2.0	35527	35463
90.4	70.3	379	204
1434.9	10.8	36115	35411
93.3	65.0	444	425
88.9	51.8	249	198 2M
715.7	63.9	40052	201
717.2	67.2	35583	4742
90.2	72.9	372	191
105.9	83.0	1684	387
89.4	40.3	251	240 2M
90.4	70.4	382	205
89.2	72.9	267	197
103.6	64.8	941	911
88.9	51.6	259	192
90.3	70.4	366	206
100.7	74.1	798	781
89.1	51.6	270	192 2M
102.2	81.3	888	835
108.9	90.1	1183	1163
89.7	64.9	345	171
96.2	81.2	582	565
90.3	70.4	376	206
89.1	82.3	258	205
1436.4	6.5	35810	35775
1436.2	5.1	35804	35772
90.6	46.2	419	188
88.9	67.2	291	144
104.7	83.0	1004	953
715.5	63.2	40027	213
88.9	82.4	233	211
90.3	70.4	373	204
1458.6	6.4	36343	36109
1439.3	10.0	35945	35752
508.8	10.6	29240	227
719.0	67.0	37962	2452
101.7	98.9	847	828
708.6	63.9	39708	190
1437.0	10.5	35819	35787
90.2	70.4	364	206
89.3	82.3	280	206

Sheet1

90.4	72.8	389	193
96.5	97.9	612	574
97.6	97.9	661	626
89.5	64.9	332	170
88.6	82.4	242	169
88.7	82.3	237	178
1435.2	10.3	35776	35760
409.7	88.8	23322	468
97.8	90.0	1002	304
727.0	67.2	36086	4721
93.2	65.0	442	430
1460.4	8.9	36300	36221
115.7	74.0	1510	1462
115.5	74.0	1490	1462
114.7	74.0	1462	1424
114.9	74.0	1462	1439
115.1	74.0	1462	1456
115.3	74.0	1475	1461
114.6	74.0	1462	1407
114.4	74.0	1462	1390
101.6	81.2	881	789
1446.5	9.0	36039	35941
104.6	82.9	1007	944
89.7	67.1	354	167
90.1	72.8	360	194
89.4	64.8	328	170
103.9	65.1	962	926
96.7	82.5	609	589
89.2	82.3	258	212
100.5	74.0	796	771
92.3	97.0	526	244
90.2	70.4	363	208
103.6	82.9	972	889
263.7	63.7	13197	1288
90.4	65.0	424	168
90.4	72.9	390	194
104.7	82.9	1001	958
89.2	82.3	257	212
103.3	59.5	1598	232
103.5	59.4	1615	233
103.4	59.4	1608	232
105.8	82.5	1672	394
92.7	65.8	423	394
1436.2	5.2	35798	35776
94.3	82.9	513	462
115.9	82.6	1500	1488
89.4	70.4	286	203
91.3	97.6	337	335
92.0	97.6	374	372

Sheet1

88.9	82.3	223	209
1435.9	10.0	35823	35743
96.4	81.2	599	571
90.4	70.3	381	205
713.7	62.7	39183	971

3

719.0	68.3	34987	5425
89.8	67.1	353	172

3

89.0	38.0	231	222 2M
90.3	70.4	374	204
702.4	63.5	39457	134
1438.5	2.6	35852	35814
92.0	50.6	372	368
117.2	74.0	1632	1479
117.2	74.0	1629	1480
117.2	74.0	1626	1479
117.1	74.0	1622	1480
117.1	74.0	1617	1479
117.0	74.0	1614	1479
117.0	74.0	1609	1478
116.9	74.0	1601	1479
96.9	82.5	619	597
89.5	65.0	273	231
1436.1	4.1	35802	35770
118.4	83.0	1654	1562
119.6	83.0	1679	1649
119.4	83.0	1669	1641
119.3	83.0	1663	1632
119.1	83.0	1658	1620
118.6	83.0	1657	1578
89.9	70.4	376	164
1436.1	6.3	35801	35772
536.8	10.4	30744	259
718.0	63.8	38267	2097
100.4	74.1	795	757
89.0	82.3	251	207
104.9	82.9	1012	962
1446.0	1.9	35994	35964
89.3	72.9	286	191
91.2	97.3	527	137
94.5	74.1	513	476
89.7	70.3	352	170
1441.0	10.0	36010	35756
93.3	65.0	444	426
90.1	72.8	376	186

Sheet1

104.7	82.9	1012	946
96.6	81.2	604	590
1443.4	2.0	35943	35915
717.7	63.2	38895	1456
717.1	67.5	36092	4229
1436.1	4.1	35798	35776
89.4	72.9	297	191
1424.4	2.0	35598	35520
1461.5	9.7	36427	36139
89.3	72.8	284	194
89.4	38.0	249	241 2M
684.7	63.9	38589	121
104.8	82.9	1005	964
103.9	82.5	957	933
91.8	74.0	369	355
96.4	81.2	602	572
89.6	70.4	337	172
718.6	68.4	35126	5269
104.8	82.9	1007	963
1434.2	0.1	35936	35562
89.8	67.1	355	172
90.2	51.6	284	279 MS
91.4	51.6	345	336
91.6	51.6	356	349
93.6	50.7	548	348
90.1	70.4	364	204
89.0	82.4	238	207
100.7	74.0	798	783
90.2	65.0	295	277
96.7	81.2	612	587
114.6	74.0	1476	1399
114.8	74.0	1479	1413
115.0	74.0	1479	1429
115.1	74.0	1480	1443
115.3	74.0	1482	1458
115.5	74.0	1493	1464
115.7	74.0	1502	1472
115.9	74.0	1521	1472
88.9	96.4	262	177
98.9	96.0	707	701
88.7	51.6	231	190 2M
103.6	65.1	979	881
1436.2	9.4	35805	35771
718.8	67.9	35764	4640
89.9	70.4	338	204
89.0	51.6	263	186
89.3	82.3	265	210
89.2	64.9	273	195
716.9	64.3	40054	259

Sheet1

100.7	74.0	801	781
103.9	64.9	966	919
90.1	70.4	347	210
88.1	50.7	204	158
105.0	65.8	1003	986
89.0	82.3	242	212
89.9	64.9	363	173
1451.5	1.4	36157	36017
96.8	82.5	618	593
91.4	65.1	546	144
93.2	82.9	721	137
90.3	70.4	374	199
88.7	51.7	233	189 3M
717.3	68.0	34865	5465
90.3	28.5	302	295 2M
105.2	82.9	1023	983
89.7	67.2	353	168
88.6	82.3	232	181
104.6	83.0	1006	946
90.7	51.6	325	301
88.8	82.3	229	201
98.8	98.2	705	693
114.5	74.0	1472	1390
114.7	74.0	1473	1407
114.9	74.0	1473	1424
115.0	74.0	1473	1440
115.2	74.0	1473	1457
115.4	74.0	1480	1468
115.6	74.0	1494	1472
115.8	74.0	1514	1471
706.2	63.9	39618	160
89.4	72.9	294	193
93.4	50.7	539	343
88.9	82.4	231	211
89.7	64.9	344	171
96.3	81.2	590	575
90.3	51.6	299	289 3M
89.2	82.3	260	210
1438.3	2.3	35847	35811
718.9	63.9	38841	1567
89.6	65.0	266	250
90.1	70.4	353	205
90.0	72.8	354	196
107.2	44.6	1226	966
93.3	65.0	443	425
88.8	82.3	227	208
90.2	63.0	392	172
89.3	67.2	309	169
96.7	82.6	617	587

Sheet1

1435.5	9.5	35885	35663
88.8	51.7	241	188
718.4	66.7	36670	3715
115.9	82.6	1499	1490
1436.0	3.6	35799	35771
90.0	72.9	354	194
103.9	64.8	998	886
673.3	64.8	19075	19061
675.7	64.8	19230	19028
673.5	64.8	19074	19071
89.6	70.4	278	231
104.7	83.0	1006	953
1434.6	8.8	35775	35738
92.4	50.7	414	370
1436.1	2.5	35793	35781
1435.9	6.5	36094	35468
1436.2	3.4	35797	35778
88.8	51.6	246	186
89.2	70.3	264	206
100.6	74.0	800	768
90.5	28.5	317	294 4M
1435.9	2.0	35790	35775
1436.1	2.1	35794	35779
92.6	97.0	520	280
89.2	70.3	259	206
1473.9	8.5	36708	36337
89.7	72.9	288	228
93.8	62.8	571	348
101.8	81.2	882	803
89.7	64.9	349	171
100.9	98.6	810	797
90.2	70.0	352	220
90.4	50.6	384	200
91.2	65.8	351	319
104.6	82.9	999	950
115.8	74.0	1515	1465
115.6	74.0	1496	1465
115.4	74.0	1480	1463
115.2	74.0	1466	1460
115.0	74.0	1466	1443
114.8	74.0	1465	1428
114.6	74.0	1465	1412
114.5	74.0	1464	1397
96.5	81.2	604	581
102.9	99.0	903	884
88.8	70.4	226	205
1448.7	5.8	36078	35987
89.6	70.4	344	168
107.8	63.4	1186	1063



Sheet1

89.3	82.4	272	208
96.3	81.1	587	578
93.3	31.5	438	431
89.6	67.1	339	169
89.0	51.6	261	194
90.3	72.9	384	189
718.4	63.9	38314	2069
1515.4	10.1	37483	37165
88.2	50.7	208	158
90.2	69.9	343	223
720.5	63.9	39043	1442
5931.7	34.7	175948	28386
104.7	82.9	1009	952
101.0	98.6	817	793
104.7	83.0	1000	955
90.2	72.7	372	197
717.8	63.9	39551	802
90.4	28.5	295	288 4M
1442.2	7.4	35976	35835
92.0	65.8	385	357
1435.8	8.4	35789	35772
88.6	82.4	232	178
1442.1	1.0	36016	35791
100.6	74.0	800	774
88.9	96.5	305	131
92.7	46.6	485	326
93.6	74.0	466	434
88.6	51.6	213	196 3M
89.7	67.1	345	167
96.8	82.5	617	592
717.4	66.6	38464	1871
89.7	70.4	354	164
89.0	82.3	243	208
1436.7	5.2	35834	35762
104.6	83.0	1011	940
90.0	70.3	344	207
98.5	65.0	803	574
89.5	82.4	297	205
93.1	82.8	602	254
1436.2	2.5	35805	35772
104.8	82.9	1004	961
93.5	50.7	541	349
89.7	64.9	315	166
5442.1	72.5	191878	340
90.1	72.9	361	194

3  
3

89.1	82.4	251	211
90.0	72.8	357	193
1434.8	3.8	35773	35748
699.5	27.2	35442	4007
90.6	28.3	307	299 5M
1436.2	2.0	35797	35778
1436.2	3.0	35792	35784
90.5	28.5	300	295
88.8	96.5	259	159
96.9	82.5	626	596
88.8	51.6	228	197 2M
100.6	82.0	818	754
89.7	67.1	343	170
1436.1	0.0	35794	35777
1464.3	7.9	36391	36281
88.6	82.3	387	180
114.4	74.0	1460	1392
114.6	74.0	1461	1409
114.7	74.0	1460	1427
114.9	74.0	1460	1444
115.1	74.0	1462	1459
115.3	74.0	1480	1460
115.5	74.0	1497	1460
115.8	74.0	1518	1460
707.3	67.3	36924	2912
90.1	70.0	350	207
718.0	64.0	20542	19821
448.1	63.5	25838	200
89.3	82.3	272	211
96.0	97.5	593	543
90.1	72.9	366	193
1436.2	0.2	35794	35780
100.6	74.1	794	775
89.3	82.3	392	209
1457.3	5.1	36210	36191
90.1	72.9	368	193
89.2	64.7	299	173
675.7	64.8	19165	19093
668.4	64.8	19057	18832
676.8	64.8	19221	19093

Sheet1

88.8	51.6	242	189
91.2	63.3	493	170
90.0	72.9	362	188
1466.8	8.0	36447	36323
90.7	28.5	313	306 5M
1437.7	3.6	35824	35811
716.9	64.4	38445	1864
91.8	50.7	413	309
88.8	82.3	221	205
89.6	67.2	338	167
1436.0	0.0	35801	35769
90.2	72.9	372	193
89.3	82.3	274	206
90.1	72.8	367	193
1436.2	0.1	35791	35785
96.9	82.5	621	596
1436.9	8.6	35815	35788 L
93.7	82.9	472	437
92.3	65.8	409	366
100.7	74.0	800	779
89.3	64.9	304	172
1436.1	3.0	35814	35759
88.8	51.6	242	185
89.8	72.9	337	193
104.6	82.9	1009	945
101.1	81.2	876	742
90.8	65.0	325	298
106.9	82.9	1774	390
89.2	72.9	280	194
101.1	98.4	818	801
719.1	64.2	38678	1742
116.0	73.6	1521	1478
89.5	57.0	254	241 6M
89.6	67.1	332	182
1465.4	7.4	36462	36254
90.3	72.8	380	192
104.8	82.9	1013	955
89.2	82.3	255	211
96.9	82.5	620	595
710.5	64.3	39819	176
89.2	64.9	274	194
88.8	50.7	217	212
713.9	66.9	38145	2019
675.7	66.5	19150	19108
675.7	66.5	19187	19071
673.4	66.5	19149	18992
115.4	74.0	1491	1458
114.4	74.0	1459	1394
114.6	74.0	1460	1409

Sheet1

114.7	74.0	1459	1425
114.9	74.0	1459	1440
115.1	74.0	1459	1456
115.3	74.0	1475	1458
115.6	74.0	1510	1458
90.0	72.9	362	189
104.9	82.9	1004	978
89.7	67.1	357	163
1453.8	4.9	36191	36072
90.3	70.4	354	222
90.9	65.8	334	305
162.0	36.1	6446	484
104.7	83.0	1012	951
90.8	28.5	316	307 5M
100.1	27.7	1220	307
90.2	28.5	288	279
99.5	28.2	1190	280

97.0	82.5	631	602
88.7	51.6	219	199 3M
90.3	74.6	331	247
1436.2	7.4	35818	35758
89.4	82.4	285	204
88.8	51.6	245	186
100.6	74.0	800	769
89.6	67.2	338	167
98.8	98.2	703	695
98.0	97.8	670	651
1436.0	8.1	35807	35761
1436.1	2.4	35800	35773
717.5	67.3	36014	4325
90.2	70.3	346	223
90.7	62.8	401	214
96.8	82.5	618	591
1499.1	9.1	37048	36973
716.5	64.2	40011	277
90.1	72.9	367	193
1436.3	7.2	35912	35668
88.7	51.6	224	195 3M
717.2	67.5	36507	3819
91.4	28.5	468	222 5M
91.5	28.5	348	344
1435.0	6.1	35796	35733
89.5	67.2	331	165

Sheet1

89.0	51.6	260	186
88.9	96.4	311	127
90.1	72.8	364	194
1435.4	7.2	35836	35710
88.8	51.6	246	187
104.9	83.0	1007	971
89.2	72.9	276	193
89.5	64.9	320	180
104.7	82.9	1003	957
675.7	66.6	19171	19088
675.7	66.5	19158	19100
676.3	66.5	19162	19126
89.0	82.3	245	208
1436.2	0.0	35791	35785
89.1	67.1	293	163
88.8	51.6	244	188
115.7	74.0	1507	1468
115.5	74.0	1489	1469
115.4	74.0	1483	1459
115.2	74.0	1475	1450
115.0	74.0	1475	1435
114.8	74.0	1474	1421
114.7	74.0	1474	1405
114.5	74.0	1472	1391
91.8	65.0	369	353
90.1	72.9	365	193
716.8	66.1	37578	2729
100.7	74.1	800	782
98.9	29.2	1227	180
90.3	69.9	362	213
718.0	63.9	20333	20031
89.3	82.4	265	211
89.3	72.9	287	194
104.8	83.0	1003	964
1435.1	7.2	35782	35750
89.3	82.3	264	212
88.5	96.5	230	170
98.8	96.1	710	690
89.7	67.1	348	167
104.7	83.0	1006	953
93.5	50.7	639	255
103.9	65.1	970	914
90.4	62.8	345	241 L
721.0	67.8	36014	4498
104.0	82.5	955	937
88.6	51.6	218	192 3M
89.3	82.3	266	216
90.1	72.9	359	195
88.7	82.3	245	178

Sheet1

89.2	64.7	300	172
1436.9	6.8	35810	35793
717.9	66.4	36751	3607
1436.0	4.7	35789	35781
1457.6	3.0	36248	36165
1463.4	2.9	36462	36176
90.1	72.9	365	194
91.3	65.0	347	331
115.9	82.6	1500	1490
716.0	64.2	38330	1935
88.9	51.6	250	186
89.2	82.4	262	207
939.5	4.8	49671	1121
2653.4	27.0	113818	402
2659.6	26.9	113417	1002
735.2	63.9	40372	836
1499.7	8.2	37087	36957
717.8	63.3	39975	380
89.3	82.3	268	206
90.6	28.5	307	300 6M
1436.2	0.9	35817	35758
1436.0	4.8	35788	35780
1436.2	0.0	35795	35780
90.0	72.9	352	193
675.7	64.9	19174	19084
677.2	64.8	19188	19145
675.7	64.8	19178	19079
718.9	67.8	35908	4503
718.0	63.5	20411	19952
90.2	67.9	398	172
89.0	82.3	241	208
104.9	82.9	1011	965
1436.2	0.0	35794	35781
88.6	67.1	247	164
90.3	70.0	377	201
92.6	65.8	414	387
97.0	82.5	628	597
101.9	71.0	865	828
718.9	67.9	36050	4359
92.0	51.7	390	350 7M
96.3	57.0	589	576
104.7	82.9	1013	947
108.9	89.9	1199	1149
96.9	82.5	623	592
104.1	65.0	994	908
90.4	28.4	297	289 5M
1436.0	0.6	35978	35589
1461.3	3.1	36413	36144
1436.2	0.0	35792	35784

Sheet1

1436.2	4.2	35803	35772
1436.2	2.2	35796	35779
88.9	70.0	248	195
90.0	72.9	354	195
104.8	82.9	1010	961
89.2	64.7	299	172
98.3	82.6	1227	132
90.0	72.8	353	194

101.8	99.1	855	833
717.2	64.0	38722	1605

3

88.5	50.7	223	174
91.4	65.8	362	328

3

3

89.8	64.9	356	171
114.0	82.6	1413	1408
114.0	82.6	1411	1404
113.7	82.6	1412	1379
113.8	82.6	1411	1387
113.8	82.6	1411	1392
113.9	82.6	1412	1397
717.9	64.8	39732	626
90.4	70.0	387	198
100.6	74.0	797	777
1435.3	6.3	35790	35750
89.6	65.0	390	118
96.8	82.5	618	590
91.3	28.4	341	332 5M

104.8	82.9	1013	953
90.2	72.9	378	191
103.9	82.5	956	931
717.8	63.0	39775	400
1434.1	2.5	35774	35722
1436.2	0.0	35795	35781
1434.5	6.5	35773	35738
89.6	64.9	332	173
91.8	65.8	376	349
88.7	72.9	233	190
96.8	82.5	613	595
100.4	108.1	779	775
104.7	82.9	1007	954

Sheet1

115.8	74.1	1510	1472
115.6	74.1	1492	1472
115.4	74.1	1485	1463
115.2	74.1	1478	1454
115.1	74.1	1478	1438
114.9	74.1	1477	1424
114.7	74.1	1478	1409
114.6	74.1	1476	1396
1519.1	7.8	37464	37326
1436.1	1.3	35802	35771
89.1	64.8	276	182
90.3	70.3	335	206
94.4	28.5	535	445 7M
1436.2	0.0	35792	35783
1436.1	4.1	35802	35771
90.5	62.8	388	214
92.3	65.0	399	378
89.4	67.1	321	167
88.6	82.3	234	179
5783.7	76.8	194734	5975
91.5	57.0	353	346 7M
91.5	57.0	354	345
1436.1	0.1	35791	35783
1435.5	5.4	35784	35764
90.1	72.9	366	193
675.7	64.9	19177	19081
675.6	64.9	19143	19111
675.8	64.9	19155	19109
89.5	82.3	290	206
89.6	64.9	341	170
717.6	64.1	38895	1449
105.0	82.9	1011	973
101.4	71.1	852	802
88.7	51.6	222	198 2M
89.1	82.3	282	177
716.7	65.6	36933	3366
90.0	72.9	350	196
116.0	73.6	1522	1480
91.8	28.5	369	358 7M
1436.1	0.0	35795	35779
1433.8	1.9	35746	35737
1436.1	0.0	35792	35781
92.1	28.5	395	359
718.7	67.4	36253	4148
92.5	65.8	410	386
88.9	51.6	251	189
89.2	82.3	256	210
89.9	64.4	338	197
90.2	72.8	376	193



Sheet1

1436.1	0.7	35799	35773
3			
89.2	72.9	280	193
96.9	82.5	622	595
89.2	82.4	262	206
89.3	70.4	271	206
713.3	64.7	38334	1797
88.8	51.6	247	187
89.9	49.5	337	203 7M
90.9	49.5	321	311
104.1	64.9	1007	893
89.3	72.9	281	195
107.9	89.9	1254	1000
107.9	89.9	1255	999
88.9	82.3	255	183
89.2	64.8	271	195
96.8	82.5	620	594
1434.9	6.1	35768	35757
717.3	67.4	36967	3363
89.5	67.1	332	169
3			
717.8	64.7	38370	1987
103.9	64.7	1001	880
91.7	28.5	364	351 5M
1443.6	0.8	35950	35914
1436.1	0.0	35796	35778
1437.8	4.0	35829	35809
89.1	82.3	280	178
89.6	64.9	341	172
100.6	74.1	798	774
88.8	82.3	225	206
88.7	51.6	223	196 3M
92.4	65.0	446	341
90.1	72.9	370	193
718.6	66.3	36160	4233
90.0	72.9	350	194
90.2	51.6	284	280
1436.1	0.3	35802	35771
717.7	67.7	36187	4160
92.1	50.7	434	320
95.1	97.6	545	496
718.4	64.6	38722	1660
94.2	28.5	486	476 5M
718.0	64.6	20529	19834
113.7	82.6	1414	1378
114.0	82.6	1414	1408
113.8	82.6	1414	1385

Sheet1

113.8	82.6	1414	1390
113.9	82.6	1415	1395
114.0	82.6	1415	1401
89.3	70.4	270	205
90.2	63.0	393	171
101.9	71.0	853	843
717.6	67.2	36297	4050
717.6	64.5	39239	1104
109.3	82.5	1209	1177
89.5	67.1	335	166
1436.1	5.9	35794	35777
717.8	64.1	38699	1656
91.0	57.0	331	319 8M
91.0	57.0	332	317
717.7	67.2	36974	3375
90.1	72.9	370	192
1438.0	5.8	35873	35774
96.9	82.5	621	596
91.9	28.5	370	361 7M
1436.1	0.0	35792	35782
1436.1	0.6	35797	35776
1436.2	0.0	35790	35786
92.1	28.4	386	373
104.7	82.9	1005	959
90.0	72.9	358	193
89.5	67.1	323	175
96.9	82.5	623	596
94.6	37.1	691	311
91.9	37.1	450	284
89.1	82.3	281	179
104.8	82.9	1010	956
712.8	64.5	38555	1554
675.7	66.3	19146	19112
675.7	66.3	19150	19108
676.3	66.3	19157	19130
103.9	82.5	955	933
90.6	62.8	397	215
94.7	71.0	850	160
89.3	72.8	288	192
115.5	74.0	1489	1462
115.8	74.0	1512	1472
115.6	74.0	1494	1472
115.3	74.0	1482	1453
115.1	74.0	1481	1438
114.9	74.0	1481	1425
114.8	74.0	1481	1410
114.6	74.0	1479	1398
91.2	28.5	338	331 7M
1436.2	0.0	35792	35783

Sheet1

89.5	67.1	330	167
104.8	82.9	1000	965
96.8	82.5	618	590
1457.3	5.8	36493	35909
104.8	82.9	1013	955
89.3	70.0	278	204
1436.3	4.7	35807	35773
717.6	65.7	36460	3887
89.5	72.9	303	191
89.5	64.7	263	233

116.0	73.6	1522	1478
1450.4	2.7	36135	35996
92.4	51.6	395	387 MS
92.2	51.6	389	377
92.5	51.6	398	394
96.8	82.5	618	594
101.3	98.7	823	821
261.6	98.8	13531	808
89.6	67.1	343	165
93.2	65.0	442	419
91.5	51.6	366	331 2M
88.8	51.7	251	183
104.4	65.0	995	936
93.0	73.4	426	414
1436.1	0.0	35794	35778
1436.2	0.0	35795	35780
1435.7	5.6	35847	35712
89.5	64.9	326	171
90.1	72.9	362	193
100.6	74.0	801	773
717.7	64.7	39095	1255
88.9	51.6	257	184
90.0	72.8	358	194
96.9	82.6	623	594
88.7	51.6	225	192
90.4	62.8	371	217
104.8	83.0	1008	959
1491.6	6.7	36927	36803
103.9	82.5	954	935
89.0	82.4	277	176
90.5	70.3	389	204
115.1	74.0	1468	1451
114.4	74.0	1467	1391
114.6	74.0	1468	1406
115.6	74.0	1502	1466

Sheet1

115.4	74.0	1484	1466
115.3	74.0	1475	1460
114.9	74.0	1468	1435
114.8	74.0	1468	1421
88.9	64.9	268	172
1435.1	5.1	35796	35736
88.5	82.3	220	176
97.1	82.5	636	603
104.7	82.9	999	963
92.2	70.0	412	348
718.6	64.7	38815	1581
718.5	67.1	36468	3922
88.9	82.5	263	177
100.3	74.0	794	749
89.6	64.9	339	171
90.1	72.9	367	189
97.0	82.5	631	601
88.5	64.9	205	194
717.9	64.7	38765	1595
89.0	82.6	273	180
91.2	65.0	383	287
89.8	64.7	292	234
115.7	50.0	1497	1479
115.7	50.0	1497	1479
104.2	65.0	1000	909
89.9	72.9	338	195
89.6	64.9	339	171
718.8	65.0	36998	3405
92.1	70.4	412	345
92.8	74.0	417	403
717.8	64.6	38643	1710
94.2	39.1	748	213
100.6	74.0	803	768
675.7	64.9	19139	19119
675.7	64.9	19133	19125
675.7	64.9	19151	19107
90.4	70.4	379	203
101.0	98.5	816	795
97.0	82.5	628	605
358.0	64.0	19280	1365
89.6	57.0	337	169
89.2	64.8	283	190
719.1	67.0	37013	3408
716.9	64.9	38570	1742
96.7	64.8	1054	149
89.2	70.0	262	211
1462.6	5.1	36353	36252
89.8	65.8	263	262
89.0	82.6	272	178

Sheet1

89.3	72.9	286	191
104.7	82.9	1008	949
89.4	64.9	309	184
104.8	89.6	1013	955
717.3	64.0	38824	1506
1488.8	4.9	36880	36743
718.2	67.2	36922	3455
115.6	74.0	1497	1464
115.4	74.0	1480	1463
115.2	74.0	1477	1451
115.0	74.0	1470	1441
114.8	74.0	1470	1426
114.7	74.0	1470	1412
114.5	74.0	1470	1396
114.4	74.0	1468	1383
104.9	82.9	1020	958
115.9	82.6	1500	1494
90.7	70.0	421	198
1436.1	0.9	35832	35740
96.9	82.5	622	598
718.3	65.4	36479	3899
89.8	67.1	366	165
104.9	82.9	1016	967
104.1	82.5	960	939
89.5	64.7	275	224
717.8	64.2	39283	1070
104.0	82.5	954	936
89.7	64.9	345	169
96.9	82.5	622	598
92.0	72.8	397	347
89.0	51.6	263	183
100.5	74.1	799	763
93.0	50.7	507	336
717.8	64.1	39069	1285
104.8	82.9	1008	958
88.3	51.6	208	173
100.6	65.0	803	774
93.0	31.0	450	395
91.6	51.6	365	341 2M
88.7	72.8	227	188
88.8	64.8	250	178
104.8	82.9	1012	958
103.2	99.1	909	907
89.4	72.9	303	190
116.0	73.6	1522	1476
89.7	67.2	352	162
1436.2	1.2	35797	35777
88.9	51.6	254	185

Sheet1

96.8	82.5	621	594
90.2	72.9	374	191
113.8	82.6	1408	1393
113.7	82.6	1409	1381
114.0	82.6	1412	1408
113.9	82.6	1409	1404
113.8	82.6	1408	1388
113.9	82.6	1409	1397
101.9	70.9	854	844
1500.6	5.1	37159	36922
1436.2	0.1	35792	35785
92.3	51.6	393	385
92.7	65.0	415	402
89.6	64.8	343	170
89.8	64.8	289	236
88.8	51.6	237	189
88.5	82.2	227	174
208.5	64.8	10401	140
199.1	64.7	9694	137
132.8	64.5	4362	125
90.5	62.9	380	217
97.0	82.5	628	602
89.4	70.4	285	202
1474.6	6.6	36658	36416
101.9	70.9	851	844
90.3	70.4	373	205

91.6	51.6	365	341
89.1	82.3	283	178
89.4	67.1	315	175
90.1	72.9	368	191
719.0	67.1	37311	3104
100.6	74.0	797	776
718.4	65.0	36915	3471
115.6	74.0	1498	1470
115.4	74.0	1481	1469
115.3	74.0	1479	1456
115.1	74.0	1475	1444
114.9	74.0	1475	1429
114.8	74.0	1474	1415
114.6	74.0	1475	1400
114.4	74.0	1474	1385
104.0	65.0	992	900
101.7	98.8	848	828
104.9	82.9	997	978
97.1	82.5	636	602

Sheet1

92.3	72.9	417	358
104.6	82.9	999	951
89.4	64.8	297	192
94.5	67.2	769	223
100.7	65.0	803	776
94.1	74.0	669	279
97.1	82.5	632	602
91.0	51.6	353	297 3M
89.9	71.9	278	263
88.1	97.0	188	168
88.9	51.6	250	187
89.9	63.0	366	169
104.0	82.6	955	938
89.6	72.9	299	196
1436.2	2.2	35805	35770
88.7	64.8	241	175
89.6	72.9	284	223
1492.5	5.1	36895	36871
113.7	82.6	1407	1383
114.0	82.6	1413	1406
113.9	82.6	1407	1405
113.9	82.6	1407	1399
113.8	82.6	1406	1394
113.8	82.6	1407	1390
88.5	63.0	222	181
89.7	64.7	294	228
89.7	82.3	269	253
1436.2	0.0	35794	35781
1436.1	0.4	35812	35759
675.7	66.0	19140	19118
675.7	66.0	19157	19101
675.7	66.0	19156	19101
107.1	90.4	1177	1011
107.2	90.4	1180	1010
89.4	67.1	321	170
91.0	51.6	355	295
90.5	62.8	382	214
1436.2	4.0	35804	35772
90.3	70.0	371	204
92.7	65.0	415	402
104.8	82.9	1023	948
96.9	82.5	623	595
89.4	67.2	323	162
1436.2	4.1	35802	35776
89.6	70.4	283	224
89.2	64.8	263	206
91.2	51.6	343	326
1452.6	4.3	36151	36066

Sheet1

1435.6	3.8	35790	35763
100.6	74.0	800	770
89.5	70.4	277	225
1436.4	3.9	35793	35789
99.2	66.1	750	688
89.7	64.9	343	172
92.3	65.8	408	364
91.5	51.6	357	337 3M
717.7	63.5	37478	2873
104.8	82.9	1003	964
89.5	70.4	277	226
89.8	82.6	273	253
1501.9	3.6	37239	36890
92.2	72.8	412	353
97.0	82.5	626	600
114.0	82.6	1410	1408
113.9	82.6	1409	1403
113.9	82.6	1410	1396
113.8	82.6	1409	1391
113.7	82.6	1409	1386
113.7	82.6	1409	1380
91.3	51.6	347	329
90.2	73.0	372	190
103.9	82.5	955	932
101.1	98.5	817	807
89.7	64.9	352	168
90.2	28.6	342	225
87.3	64.8	152	134
88.7	82.6	232	185
90.3	70.0	375	202
1436.2	0.0	35788	35787
717.7	65.6	36878	3470
1436.2	0.5	35789	35786
89.4	72.9	302	190
115.7	74.0	1512	1458
115.5	74.0	1494	1457
115.3	74.0	1477	1458
115.1	74.0	1464	1453
114.9	74.0	1459	1442
114.7	74.0	1458	1427
114.6	74.0	1458	1412
114.4	74.0	1458	1396
717.7	63.8	39149	1199
1436.2	0.0	35806	35770
1436.1	0.0	35790	35783
104.4	65.1	1008	920
97.1	82.5	629	605
103.1	98.8	912	894



Sheet1

717.7	64.8	38228	2121
104.6	83.0	1006	945
89.0	51.6	262	185
89.5	67.2	330	166
93.5	3.0	625	268
89.0	64.8	266	182
1472.0	3.7	36630	36343
100.4	74.0	797	761
89.3	72.9	287	194
90.4	62.8	372	215
96.4	97.7	602	570
108.5	90.3	1301	1013
108.5	90.3	1299	1014
1430.4	3.5	35779	35571
89.2	70.3	266	205
1513.4	4.5	37337	37236
89.7	67.1	356	166
88.8	51.7	246	185
101.8	71.0	853	836
1436.2	0.1	35800	35776
89.3	64.8	288	196
90.2	70.4	364	204
675.7	65.0	19149	19109
675.7	65.0	19141	19117
675.7	65.0	19139	19119
714.1	64.6	38104	2066
92.7	65.0	415	402
116.0	73.6	1520	1481
88.6	82.3	241	173
88.6	51.6	216	196 2M
89.2	70.0	269	204
97.1	82.5	637	604
1436.0	1.2	35799	35771
686.6	57.9	37995	809
1436.2	0.1	35792	35784
108.9	90.0	1198	1150
100.5	74.0	796	772
89.8	64.8	357	171
88.6	82.3	234	180
97.1	82.5	633	606
88.5	82.6	225	179
3			
T			
92.3	65.8	411	360
89.0	51.6	256	189
104.6	83.0	1003	951
1435.8	3.7	35806	35754
1436.1	0.0	35793	35779
109.3	82.5	1205	1181

Sheet1

92.0	65.8	379	369
1436.3	3.2	35803	35778
89.7	63.0	311	204
89.2	70.0	265	205
717.8	64.8	38629	1726
89.8	64.8	350	176
1440.3	3.2	35919	35816
89.3	70.0	271	206
88.6	82.3	228	179
107.3	89.9	1176	1029
107.3	89.9	1173	1030
88.7	51.6	228	195 3M
718.8	67.2	37970	2436

90.2	72.9	380	191
102.7	99.2	936	833
1436.2	5.3	35806	35769
1436.2	0.1	35788	35786
88.6	82.3	230	177
88.9	51.6	248	187
89.6	67.1	344	165
675.7	65.7	19159	19099
675.7	65.7	19157	19101
675.7	65.7	19145	19113
1436.2	0.0	35790	35787
98.8	142.9	1149	250
90.0	72.8	359	192
101.9	99.2	854	838
716.3	65.0	38414	1867
90.6	28.5	306	301 5M
1436.1	0.5	35796	35774
718.6	64.1	37320	3074
97.1	82.5	636	604
90.1	72.9	366	190
1436.4	2.9	35798	35784
717.7	64.7	37085	3263
90.1	72.9	364	190
1436.2	0.1	35792	35784

89.5	51.6	256	247
92.7	65.0	415	402
101.8	71.0	849	841
90.4	62.8	353	237
88.8	51.6	235	194 3M
90.3	70.0	377	204
93.4	57.0	447	437 5M
89.5	62.8	256	243

Sheet1

1436.3	2.9	35804	35778
1435.5	1.3	35792	35756
1436.1	0.0	35831	35741
89.6	62.8	323	186
1436.2	0.1	35791	35787 LS
718.3	63.9	39481	899
88.8	73.5	220	206
88.8	51.6	238	187
717.9	64.9	39002	1358
89.3	64.8	289	193
675.7	64.9	19143	19116
675.7	65.0	19147	19111
675.5	64.9	19152	19097
88.5	82.6	227	177
90.3	70.0	375	204
1436.1	2.8	35788	35783
100.5	74.1	798	764
1436.2	0.0	35801	35773
89.7	64.8	347	171
88.8	51.6	244	187
113.9	82.6	1413	1393
114.1	82.6	1414	1410
114.0	82.6	1413	1405
113.9	82.6	1413	1398
113.8	82.6	1413	1389
113.7	82.6	1412	1382
88.7	82.3	243	175
719.0	66.5	37977	2437
102.0	65.8	1525	179
718.0	55.1	20276	20087
717.9	63.5	38249	2111
89.5	62.8	255	244
185.9	75.1	8554	272
104.9	82.9	1015	968
104.0	82.5	956	935
89.6	62.8	324	188
1436.2	0.0	35794	35781
1436.1	0.3	35796	35776
90.6	28.5	308	297 5M
1436.2	0.0	35807	35768
90.7	62.8	380	240
88.8	51.6	243	187
89.4	64.7	262	224
114.4	74.0	1469	1391
114.6	74.0	1470	1406
114.8	74.0	1469	1422
115.0	74.0	1470	1437
115.1	74.0	1469	1454
115.3	74.0	1477	1463

Sheet1

115.5	74.0	1488	1468
115.7	74.0	1508	1467
90.7	47.7	312	307
1436.1	0.0	35807	35765
104.7	83.0	1011	951
89.6	62.8	260	244
1436.0	2.6	35789	35781
89.6	62.9	327	185
90.5	62.8	377	220
91.8	28.9	366	361 5M
89.5	62.9	256	241
89.1	64.8	280	178
89.4	69.9	280	204
88.6	82.3	232	174
675.7	65.5	19142	19116
675.7	65.5	19170	19087
675.4	65.5	19146	19095
89.4	62.8	256	236
1443.8	2.5	35944	35931
1436.1	0.0	35889	35683
104.6	82.9	1007	947
717.8	64.8	38918	1436
718.0	54.8	20514	19849
92.8	65.8	427	394
89.0	70.0	243	204
1436.2	2.5	35796	35781
89.8	82.6	269	255
104.8	83.0	1011	954
88.7	82.3	238	178
1436.3	2.4	35798	35782
1436.2	1.2	35817	35758
89.6	67.2	349	162
88.4	82.6	214	178
89.3	50.4	264	211
88.7	82.3	241	179
89.7	65.0	322	196
104.8	82.9	1011	962
88.6	82.6	236	176
90.5	57.0	306	289 5M
1436.2	0.0	35807	35767
638.7	6.7	35836	542
88.5	82.3	226	178
718.0	54.9	20201	20164
89.5	62.8	259	244

Sheet1

88.5	51.6	217	187
1436.2	0.1	35795	35782
116.0	73.6	1522	1482
1436.3	0.0	35792	35787
92.4	51.6	392	390 2M
88.6	82.3	229	176
113.8	82.6	1408	1389
113.7	82.6	1408	1382
114.0	82.6	1412	1408
113.8	82.6	1409	1393
113.9	82.6	1408	1399
113.9	82.6	1408	1405
89.2	82.3	264	203
89.5	70.0	295	205
1436.3	2.6	35810	35768
717.8	64.8	39572	783
92.7	65.0	415	402
115.4	82.6	2449	498
115.3	82.6	2441	498
1436.1	2.3	35788	35785
89.5	67.1	330	165
89.7	62.6	269	253
90.6	34.3	307	298 5M
718.0	53.7	20198	20166
110.3	82.5	1246	1237
1436.6	0.1	35900	35691
89.3	64.8	251	232
102.5	99.0	886	872
88.7	28.5	214	207 5M
718.4	62.7	38112	2273
90.6	64.9	310	293
92.4	51.6	397	388
717.8	64.8	39655	698
89.5	67.1	320	174
5899.9	86.6	149862	53697
718.0	55.4	20371	19992
1436.8	1.9	35813	35786
92.4	51.6	392	390
92.7	73.5	410	405
1436.1	1.8	35796	35775
1436.2	1.8	35802	35773
1436.2	0.0	35795	35781
91.1	28.5	361	296 5M
1436.1	2.8	35878	35694

Sheet1

89.6	62.8	260	248
100.6	74.0	804	768
101.3	98.7	823	821
100.7	98.6	797	781
100.7	98.6	798	784
100.6	98.6	797	781
100.6	98.6	796	780
100.6	98.6	797	780
100.6	98.6	797	779
717.7	64.9	39367	982

3

718.0	54.1	20319	20045
89.6	62.8	330	183
97.3	82.5	645	616
1436.3	0.0	35795	35783
102.7	65.8	1585	184
103.2	99.1	909	908
112.2	99.0	1742	908
112.2	99.0	1742	908
92.2	51.6	387	373 2M
94.0	43.1	480	463
89.9	43.1	281	261
1436.1	1.7	35795	35779
104.8	83.0	1017	951
97.4	82.5	646	617
88.5	62.0	204	198 5M

88.5	51.6	218	183
1436.2	0.0	35790	35786
92.8	65.0	418	402
104.9	82.9	1015	967
88.5	82.3	221	178
718.0	55.1	20290	20073
717.5	63.8	38633	1706
88.5	143.2	251	149
93.7	94.1	507	401
95.9	94.1	642	477
115.4	74.0	1487	1461
115.2	74.0	1472	1460
114.3	74.0	1461	1384
114.4	74.0	1461	1398
114.6	74.0	1461	1412
114.8	74.0	1461	1426
114.9	74.0	1462	1440
115.1	74.0	1461	1456
1436.2	0.1	35804	35774

Sheet1

90.4	62.8	374	216
89.5	64.7	270	232
1436.3	0.0	35795	35784
88.6	82.4	239	173
104.7	82.9	1002	962
96.7	28.5	615	585 5M
96.5	28.5	596	590
93.2	74.0	439	418
717.7	64.4	39625	724
717.1	63.1	38648	1673
88.8	51.6	243	188
89.6	62.9	328	182
98.3	89.9	753	602
98.3	89.9	749	600
89.3	70.0	280	196
675.7	65.3	19195	19062
675.7	65.3	19145	19113
675.7	65.4	19164	19094
101.9	71.0	857	837
88.6	82.4	231	175
92.4	51.6	397	388
95.6	53.0	554	539

1436.0	0.1	36972	34598
717.7	63.5	39778	571
88.5	82.6	220	175
1436.1	1.5	35801	35771
97.7	62.8	747	551
1436.1	0.0	35792	35780
104.0	82.5	956	935
92.3	51.6	387	382
96.7	28.5	988	208
88.6	82.3	236	177
1436.2	1.5	35790	35785
88.5	82.3	220	178
1436.2	0.1	35803	35772
1436.0	0.0	36078	35491
717.0	65.5	38206	2108
613.4	18.0	34739	335
116.0	73.6	1522	1481
88.7	51.6	219	198 2M
718.0	54.7	20468	19896
89.6	62.8	320	187
113.8	82.6	1411	1387
114.0	82.6	1412	1409

Sheet1

114.0	82.6	1412	1403
113.9	82.6	1412	1396
113.8	82.6	1411	1391
113.7	82.6	1411	1380
717.7	63.8	39251	1099
88.5	51.6	219	184
88.5	82.3	229	176
1436.1	0.0	35794	35779
92.7	65.0	415	402
717.8	64.8	38828	1528
1436.2	0.0	35800	35775
108.1	83.0	1885	391
1436.1	2.0	35793	35781
1436.2	0.1	35806	35769
88.5	82.3	226	175
102.7	98.8	897	875
100.9	99.0	811	789
97.0	99.0	629	596
88.7	82.5	238	177
104.8	82.9	1010	957
717.7	63.2	39142	1209
88.7	51.6	229	186
104.0	82.5	958	938
89.2	64.8	304	162
718.0	55.4	20363	20002
89.7	57.0	312	208
90.6	28.5	307	300 5M

3

1436.2	0.0	35807	35767
1436.2	0.0	35793	35783
89.8	62.9	340	184
1436.2	1.7	35800	35775
1436.0	1.3	35788	35780
92.7	65.0	415	402
87.5	28.5	226	78 5M
90.6	62.8	364	240
717.0	65.3	38803	1513
1436.1	0.1	35794	35777
1436.1	0.0	35790	35785
717.6	64.6	39247	1100
1436.2	1.2	35794	35781
717.9	54.9	20384	19978
93.9	82.5	469	458
100.5	98.7	837	724
91.7	28.5	362	352 7M
92.2	51.6	400	367 3M
92.8	65.0	416	402



Sheet1

89.0	62.8	289	164
675.7	64.9	19283	18975
675.7	64.9	19225	19033
675.7	64.9	19148	19110
100.6	74.0	807	764
1436.9	1.0	35826	35777
89.4	64.8	261	225
114.0	82.6	1411	1407
113.9	82.6	1408	1404
113.9	82.6	1408	1398
113.8	82.6	1408	1393
113.7	82.6	1408	1388
113.7	82.6	1408	1382
90.2	82.6	336	231
88.3	82.6	194	181
1436.3	1.0	35798	35781
1436.1	2.6	35800	35775
88.4	51.6	205	188
1436.0	0.1	35999	35569
1435.9	0.1	36646	34919
88.6	82.6	247	165
92.7	65.0	415	401
104.7	82.9	1006	954
104.7	82.9	1003	961
89.5	62.8	316	186
115.2	74.0	1470	1455
115.5	74.0	1494	1464
115.3	74.0	1475	1465
115.0	74.0	1466	1443
114.8	74.0	1467	1427
114.5	74.0	1467	1398
114.3	74.0	1466	1384
114.7	74.0	1467	1413
1436.1	0.5	35795	35777
89.5	64.7	306	190
717.8	63.2	38619	1738
104.5	82.8	1016	921
1436.1	1.1	35800	35773
1436.1	0.0	35811	35760
1434.9	0.3	35765	35758
90.2	62.8	314	250
1436.1	2.2	35793	35780
104.8	82.9	1014	953
88.5	51.6	213	186
91.7	65.8	364	356
717.7	63.2	38574	1777
89.6	67.1	343	161
91.4	72.7	351	337

Sheet1

675.7	65.1	19160	19098
675.7	65.1	19161	19097
675.7	65.1	19149	19109
1436.1	0.1	35798	35776
93.7	28.5	462	450 5M
93.6	28.5	453	448
1436.2	0.0	35794	35780
104.9	83.0	1017	958
109.3	82.5	1204	1186
89.6	57.0	263	248 7M
89.5	57.0	255	245
101.2	98.6	824	805
113.9	82.6	1413	1396
114.0	82.6	1413	1409
114.0	82.6	1413	1403
113.8	82.6	1413	1391
113.8	82.6	1413	1386
113.7	82.6	1413	1380
92.4	51.6	397	389 3M
88.7	82.3	242	178
89.1	67.1	285	173
1436.2	0.1	35797	35778
92.4	51.6	396	390
97.5	82.5	656	621
90.4	39.0	296	287 7M
100.7	74.0	805	778
97.5	82.5	653	625
717.8	63.4	38875	1478
89.7	82.3	268	253
101.3	89.6	869	766
1455.9	0.5	36198	36148
717.9	55.6	20319	20043
92.8	40.0	417	405
88.6	82.4	234	174
89.0	64.9	267	182
100.3	98.5	775	774
100.2	98.5	772	759
100.2	98.5	771	764
100.2	98.5	772	762
100.0	98.5	764	756
92.7	82.0	454	356
92.7	82.0	454	355
92.7	82.0	454	355
92.7	82.0	454	355
92.7	82.0	455	355
92.7	82.0	454	355
92.7	82.0	452	358
88.6	82.4	230	178

Sheet1

717.8	64.5	39591	763
90.6	28.5	306	301 5M
1436.1	0.0	35790	35783
1436.2	0.1	35793	35782
109.3	82.6	1203	1184
88.7	51.6	230	186
88.7	82.3	240	178
104.8	82.9	1006	967
1436.3	0.0	35802	35777
103.1	99.1	917	890
97.4	31.3	754	516
96.2	57.0	580	575 5M
96.2	57.0	582	574
1437.0	0.4	35825	35781
717.8	63.1	39145	1209
89.6	67.1	345	160
1436.1	0.0	35797	35777
114.0	82.6	1412	1403
113.9	82.6	1407	1401
113.7	82.6	1405	1387
113.8	82.6	1407	1396
113.8	82.6	1406	1393
114.0	82.6	1418	1404
88.8	51.7	232	195 3M
90.6	62.8	394	214
89.3	64.8	308	169
92.5	74.0	541	256
88.5	51.7	217	185
1436.1	0.3	35802	35771
1436.2	0.0	35791	35784

113.8	82.6	1411	1391
113.9	82.6	1411	1403
113.9	82.6	1411	1396
113.8	82.6	1411	1386
113.7	82.6	1411	1379
114.0	82.6	1411	1409
89.6	62.8	321	187
1436.2	0.3	35798	35776
91.9	28.5	371	363 6M

104.7	83.0	1015	943
101.8	99.0	852	835
1436.1	0.0	35880	35692
1436.1	0.1	35801	35773
1436.1	1.4	35795	35778

Sheet1

89.5	64.9	306	193
121.4	82.6	3048	435
121.3	82.6	3045	435
1436.3	0.1	35798	35783
632.6	31.5	34047	2017
89.6	67.1	347	158
90.5	57.0	307	291 7M
717.7	65.0	39136	1213
88.6	51.6	227	185
675.7	64.8	19146	19112
675.7	64.9	19171	19087
675.7	64.9	19148	19111
96.0	97.7	568	567
104.8	82.9	1012	958
718.0	54.2	20332	20032
1436.2	0.0	35804	35771
1436.1	0.0	35814	35759
717.8	63.2	39530	823
104.9	82.9	1010	970
1436.1	0.0	35790	35782
92.2	51.6	394	373 3M
90.3	57.0	294	282 7M
89.0	67.1	284	166
1436.0	0.2	35787	35783
89.8	64.9	289	237
718.0	55.6	20338	20026
104.9	82.9	1013	962
1436.1	0.0	35804	35769
1436.1	2.4	35801	35771
92.2	51.6	394	373
89.1	82.1	230	225
89.3	70.0	274	209
90.6	28.3	341	268 5M
1436.2	0.0	35790	35785
91.4	46.0	436	251
89.7	62.8	327	187
114.6	74.0	1478	1399
114.5	74.0	1477	1385
114.8	74.0	1478	1414
115.0	74.0	1478	1428
115.7	74.0	1499	1472
115.5	74.0	1483	1470
115.1	74.0	1478	1444
115.3	74.0	1482	1456
95.0	28.4	524	510
1436.1	0.1	35793	35781
88.5	82.3	226	177

Sheet1

90.6	28.5	309	302 7M
88.6	51.6	226	185
104.7	82.9	1008	954

96.5	81.7	670	506
718.0	54.9	20400	19962
717.4	64.1	39380	956
1436.1	0.1	35807	35767
1436.1	0.0	35826	35747
113.9	82.6	1412	1395
114.0	82.6	1413	1407
114.2	82.6	1424	1409
114.0	82.6	1412	1403
114.1	82.6	1419	1409
114.0	82.6	1414	1406
1436.2	0.5	35799	35777
24750.6	22.4	508542	41363

89.5	62.8	311	189
88.6	51.6	216	196 3M
675.7	64.9	19148	19110
675.7	64.9	19148	19110
675.7	64.9	19157	19101

88.6	82.4	233	180
93.2	28.5	437	425 7M
94.6	28.5	509	484

717.8	63.0	39294	1060
89.5	63.1	332	171
112.4	66.0	1342	1330
111.9	66.1	1320	1308
111.9	66.1	1320	1306
100.8	74.0	803	785
1436.1	0.0	35800	35774
88.6	51.5	221	187
88.6	82.6	226	178
89.0	82.6	229	219
89.0	82.6	229	218

1436.2	0.1	35789	35786
718.0	54.5	20453	19909
1436.2	0.4	35790	35787
1436.2	0.1	35794	35784
1436.1	0.1	35789	35784
90.6	57.0	310	297 7M
89.6	67.2	353	160

3

108.9	63.0	1763	590
89.7	63.0	309	213
90.3	62.8	359	218
1436.1	0.0	35801	35770

Sheet1

113.9	82.6	1411	1397
114.0	82.6	1412	1405
114.0	82.6	1412	1408
114.1	82.6	1420	1409
114.2	82.6	1426	1409
114.0	82.6	1414	1406
718.0	63.7	39193	1174
90.6	28.5	307	304 7M
222.5	52.6	5952	5615
88.8	28.5	219	212
88.4	51.6	205	187
1436.2	0.0	35796	35779
104.9	82.9	1012	964
1436.3	0.7	35803	35778
88.6	82.6	237	177
101.9	71.0	854	845
89.6	67.2	341	164
91.1	96.7	366	289
97.7	82.5	662	630
718.1	62.9	39195	1172
1436.0	0.6	35794	35774
1436.1	0.0	35800	35774
717.6	63.3	39989	356
92.0	57.0	376	365 5M
89.6	64.6	271	238
1436.2	1.6	35865	35710
718.0	54.7	20324	20038
94.9	28.1	816	206
89.3	64.9	313	169
116.0	73.6	1522	1477
101.9	71.0	855	841
97.7	82.5	666	628
90.4	62.8	372	216
104.8	82.9	1006	968
717.7	63.4	39822	528
90.6	28.5	309	302 5M
1436.1	0.7	35792	35779
89.6	67.2	342	163
92.4	51.6	394	393 2M
717.6	62.9	39557	786
718.0	54.8	20359	20006
104.7	82.9	1008	949
100.1	25.0	794	731
100.1	25.0	793	729
675.7	64.9	19152	19106
675.7	64.9	19147	19111

Sheet1

675.7	64.9	19165	19093
96.5	31.1	646	539
88.7	51.7	234	189
1436.3	1.0	35802	35778
101.4	75.8	968	680
1451.0	27.1	36111	36042
101.9	71.0	853	844
718.0	55.0	20293	20072
92.7	65.0	416	402
91.8	51.6	365	362
104.7	82.9	995	963
89.6	62.8	320	188
717.7	63.6	39520	832
90.4	57.0	299	291 5M
90.4	57.0	298	291
97.7	82.5	665	629
717.7	62.9	39603	744
90.7	28.5	312	304 7M
88.7	70.4	233	189
92.8	65.0	416	402
113.9	82.6	1414	1395
113.9	82.6	1414	1398
114.0	82.6	1414	1401
113.9	82.6	1414	1399
114.0	82.6	1414	1401
114.0	82.6	1415	1400
1436.1	0.0	35798	35777
1012.8	1.4	36834	17222
718.0	55.1	20345	20017
88.8	82.6	255	176
88.8	51.6	240	188
717.8	62.9	39672	681
100.7	74.0	803	778
93.3	28.5	471	402 6M
114.0	82.6	1413	1402
114.1	82.6	1422	1407
113.8	82.6	1411	1391
113.9	82.6	1412	1402
113.9	82.6	1411	1398
114.0	82.6	1417	1406
1437.1	0.1	35911	35700
88.6	82.6	240	173
101.3	89.6	884	751
717.9	54.6	20250	20112
92.4	51.6	397	388
92.8	65.0	417	400
89.7	67.1	349	168

Sheet1

88.5	82.3	224	177
1432.8	0.1	35785	35659
1436.2	0.1	35802	35774
717.7	62.8	39841	511
102.0	98.9	861	845
718.0	63.0	39674	690
88.5	51.8	223	179
88.6	82.6	236	174
718.0	54.9	20255	20110
104.1	82.5	966	934
104.0	82.5	967	932
1436.1	5.0	35805	35767
88.9	64.9	261	182
90.6	28.5	308	300 5M
1437.8	0.2	35929	35709
90.9	28.5	331	301
101.9	71.0	856	842
92.8	65.0	417	401
101.3	98.7	823	821
100.8	98.7	803	793
100.8	98.7	803	790
100.8	98.7	803	789
100.8	98.7	802	789
100.8	98.7	802	789
100.8	98.7	802	788
1436.0	1.3	35816	35754
116.5	56.6	2860	181
88.6	51.8	226	187
90.3	39.0	294	284 7M
1436.3	0.0	35910	35669
103.5	82.9	1557	290
718.0	55.1	20260	20104
1435.3	1.5	35789	35752
104.7	83.0	1017	945
89.6	70.4	281	228
1432.4	1.5	35872	35554
1233.3	0.4	35690	27744
1432.5	1.2	35757	35674
93.3	28.5	576	291 7M
644.5	23.3	35914	762
631.2	23.9	35804	188
638.4	4.0	36146	215
638.9	3.6	36206	180
703.1	62.8	39188	437