REFERENCE TRAJECTORY 060323

RANGE (KM) ------> 290k 200k 140k 81k 81k 140k 200k 290k

Angular Diameter (degrees) 0.5 0.7 1.1 1.8 33-degrees @ 15 mins

Inbound to c/a (hours) -22 -21 -20 -19 -18 -17 -16 -15 -14 -13 -12 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1

Outbound from c/a (hours) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Flyby		REV	SEQ	Date	C/A Time	Hyd gms	Alt	Inbound to c/a (hours) / Outbound from c/a (hours)	O/B Lit?	In/Out	Occ	LST	Recover?	S/C North Lat	S/C Long	Flyby
									Ilum	Bound		Dec-Hr		(deg)		
T0	SOI Probe Release		S2	3-Jul-04			341500	ISS C I C C V I CIRS V DSN Pass Rings V CIRS ISS OpNav DSN 9-H		IN						T0
TA	SOI Probe Release	A	S5	26-Oct-04	300T15:20:33	1253	1174	CIRS I CIRS VIMS ISS RA V N RADAR UVIS DSN Pass		IN		11.00		38.8		TA
TB	SOI Probe Release	B	S6	13-Dec-04	348T11:38:13	140	1192	CIRS MidIR CIRS FarIR UVIS ISS U V UVIS CIRS VIMS DSN Pass		IN	U	10.47		59.1		TB
TC	SOI Probe Release	C	S7	13-Jan-05	XXXTXX:XX:XX		60003	Probe Delivery		IN		10.47		0.1		TC
T3	SOI Probe Release	3	S8	15-Feb-05	046T06:54:21	528	1579	CIRS I CIRS ISS DSN Pass I RADAR UVIS ISS CIRS DSN Pass		IN		10.33		29.9		T3
T4	Occultations	5	S9	1-Apr-05	091T19:55:12		2404	CIRS ISS RADAR I CIRS UVIS CIRS DSN Pass		Out		5.27		33.4		T4
T5	Occultations	6	S10	16-Apr-05	106T19:11:46	201	1027	CIRS I UVIS ISS M L MAPS DSN Pass		Out		5.27		74		T5
T6	Occultations	13	S13	22-Aug-05	234T08:53:37		3660	CIRS M DSN Pass 10 hr		Out		5.00		-59		T6
T7	Occultations	14	S14	7-Sep-05	250T07:50:26	223	1075	I VIMS ISS RA U RADAR CIRS M DSN Pass		Out	U	4.93		-67		T7
T8	Petal Rotations / Magnetotail Petals	17	S15	28-Oct-05	301T03:58:09	1263	1353	I VIMS I RADAR CIRS M DSN Pass 10 hr		IN		9.27		1.2		T8
T9	Petal Rotations / Magnetotail Petals	19	S17	26-Dec-05	360T18:54:15		10411	CIRS VIMS I UVIS G DSN Pass		Out		3.00		-0.2		T9
T10	Petal Rotations / Magnetotail Petals	20	S17	15-Jan-06	015T11:41:27		2043	CIRS I CIRS ISS UVIS C V UVIS ISS G DSN Pass		IN	UV	8.47		0.1		T10
T11	Petal Rotations / Magnetotail Petals	21	S18	27-Feb-06	058T08:25:19		1812	VIMS ISS Glob. RSS ISS RSS UVIS CIRS FP1 DSN Pass		Out		1.13		0		T11
T12	Petal Rotations / Magnetotail Petals	22	S19	19-Mar-06	078T00:05:57	230.3	1949	VIMS CIRS FP1 ISS Global V RSS RADAR VIMS Cloud Map CIRS M DSN Pass		IN	R	6.40		0.1	251	T12
T13	Petal Rotations / Magnetotail Petals	23	S20	30-Apr-06	120T20:53:31		1856	CIRS FP1 FP3 I CIRS ISS Reg V U RADAR UVIS CIRS FP1 M DSN Pass		Out	U	23.13		0.1	106	T13
T14	Petal Rotations / Magnetotail Petals	24	S20	20-May-06	140T12:18:12	349	1879	CIRS FP1 FP3 UVIS FP1 RSS CIRS M DSN Pass 11 hr	LIT	IN	R	4.40		0.4	250	T14
T15	Petal Rotations / Magnetotail Petals	25	S21	2-Jul-06	183T09:12:19		1906	VIMS CIRS FP1 ISS Glo CIRS FPB RADAR MAPS FP1 UVIS I CIRS FP1 FPB M DSN Pass 10 hr	UN	Out		21.20		-0.4	106	T15
T16	Petal Rotations / Magnetotail Petals	26	S22	22-Jul-06	203T00:25:13	379	950	VIMS CIRS VIMS RADAR U CIRS VIMS G DSN Pass		IN	U	2.40		85.2	316	T16
T17	Petal Rotations / Magnetotail Petals	28	S23	7-Sep-06	250T20:12:04	406	1000	I CIRS I UVIS CIRS I VIMS ISS ISS VIMS G DSN Pass		IN	V	2.27	I	23	56.7	T17
T18	Petal Rotations / Magnetotail Petals	29	S24	23-Sep-06	266T18:58:49	323	960	CIRS I CIRS I UVIS I CIR INMS VIMS ISS CIRS DSN Pass		IN		2.27	I	71	357	T18
T19	Petal Rotations / Magnetotail Petals	30	S24	9-Oct-06	282T17:23:24	235	980	CIRS I CIRS RADAR CIRS I CIRS G-DSN Pass		IN		2.20	I	60.7	358	T19
T20	Petal Rotations / Magnetotail Petals	31	S25	25-Oct-06	298T15:58:07	235	1030	"ORS Option" VIMS Cloud Map RADAR V ISS CIRS I VIMS M-DSN Pass G-DSN Pass		IN		2.13	I	7.5	44.3	T20
T21	Petal Rotations / Magnetotail Petals	35	S26	12-Dec-06	346T11:41:31	235	1000	CIRS I CIRS UVIS I I U I RADAR ISS CIRS I DSN Pass		IN	U	2.00	I	43.9	265	T21
T22	180-degree Transfer	36	S26	28-Dec-06	362T10:05:22		1297	CIRS FP1 RSS CIRS RSS ISS Reg CIRS RSS CIRS M DSN Pass		IN		1.93	I	40.2	358	T22
T23	180-degree Transfer	37	S27	13-Jan-07	013T08:34:00	569	1000	CIRS I CIRS FP1 I CIRS RADAR U ISS CIRS ISS V CIRS ISS G-DSN Pass		IN	U	1.93	I	30.5	358	T23
T24	180-degree Transfer	38	S27	29-Jan-07	029T07:15:55		2631	CIRS I CIRS FP1 I UVIS I CIRS VIMS ISS CIRS G-DSN Pass		IN	V	1.87		32.8	330	T24
T25	180-degree Transfer	39	S28	22-Feb-07	053T03:10:59	239	1000	I CIRS FP1 I CIRS RADAR ISS CIRS ISS V CIRS G-DSN Pass 9 hr		Out		13.80	I	30.3	16.3	T25
T26	180-degree Transfer	40	S28	10-Mar-07	069T01:47:22	447	981	I CIRS FP1 I CIRS UVIS I CIRS ISS C UVIS I CIRS ISS VIMS M DSN Pass		Out	UV	13.80	I+M	31.7	358	T26
T27	180-degree Transfer	41	S28	26-Mar-07	085T00:21:52	573	1010	CIRS FP1 I CIRS I UVIS RSS CIRS UVIS I CIRS ISS VIMS G-DSN Pass 9 hr		Out	R	13.73	I	41.1	358	T27
T28	180-degree Transfer	42	S29	10-Apr-07	100T22:58:00	312	991	I CIRS FP1 VIMS UVIS RADAR V ISS C ISS CIRS G-DSN Pass 9 hr		Out		13.67	I+M	50.4	358	T28
T29	180-degree Transfer	43	S29	26-Apr-07	116T21:32:52	340	981	CIRS FP1 I VIMS CIRS RADAR VIMS I CIRS ISS M DSN Pass		Out		13.67	I	59.7	358	T29
T30	180-degree Transfer	44	S30	12-May-07	132T20:08:14	340	959	CIRS FP1 VIMS UVIS RADAR ISS CIRS ISS V M DSN Pass		Out		13.60	I+M	68.9	359	T30
T31	180-degree Transfer	45	S30	28-May-07	148T18:51:27		2299	CIRS FP1 I UVIS I RSS V ISS VIMS ISS CIRS M DSN Pass		Out	R	13.60		76.8	360	T31
T32	180-degree Transfer	46	S31	13-Jun-07	164T17:47:57	500	965	"INMS Option" C VIMS CIRS UVIS I UVIS I C V CIRS VIMS I CIRS ISS V CIRS G-DSN Pass		Out	UV	13.53	I+M	84.5	0.9	T32
T33	180-degree Transfer	47	S31	29-Jun-07	180T16:59:46		1932	CIRS FP1 I RSS UVIS RSS V ISS C RSS CIRS VIMS M - DSN G-DSN Pass 10 hr		Out		13.53		8.1	295	T33
T34	Icy Sats	48	S32	19-Jul-07	200T00:39:58	250	1332	CIRS I CIRS VIMS UVIS I RSS VIMS ISS C ISS CIRS G-DSN Pass		IN		18.80	I	1.3	245	T34
T35	Icy Sats	49	S33	31-Aug-07	243T06:34:25		3324	CIRS I CIRS U VIMS ISS C ISS CIRS M DSN Pass 12 hr		Out	UV	11.53		63.5	111	T35
T36	High Inclination Sequences	50	S34	2-Oct-07	275T04:49:50	299	973	CIRS I UVIS RADAR I RADAR VIMS I CIRS ISS V CIRS M DSN Pass 10 hr		Out		11.47		-60	109	T36
T37	High Inclination Sequences	52	S35	19-Nov-07	323T00:52:51	341.6	999	VIMS CIRS I VIMS ISS C ISS CIRS M DSN Pass 9 hr		Out		11.40		-22	117	T37
T38	High Inclination Sequences	53	S35	5-Dec-07	339T00:07:37		1298	CIRS I UVIS CIRS V ISS C CIRS ISS V CIRS M DSN 9 hr		Out		11.40		-79	175	T38
T39	High Inclination Sequences	54	S36	20-Dec-07	354T22:56:41	334	970	VIMS CIRS RADAR RADAR CIRS ISS V I Rhea VIMS M DSN 9 hr		Out		11.33		-70	177	T39
T40	High Inclination Sequences	55	S36	5-Jan-08	005T21:26:24	329.9	1014	CIRS I UVIS I C U L VIMS ISS C VIMS ISS CIRS M DSN 9 hr		Out	UV	11.33		-12	130	T40
T41	High Inclination Sequences	59	S38	22-Feb-08	053T17:39:08	850.3	1000	CIRS I VIMS RADAR UVIS ISS CIRS ISS V DSN CIRS UVIS		Out	U	11.20		-35	152	T41
T42	High Inclination Sequences	62	S39	25-Mar-08	085T14:36:12	379.2	999	VIMS CIRS I VIMS ISS CIRS ISS VIMS M DSN 9 hr		Out		11.13		-27	156	T42
T43	High Inclination Sequences	67	S40	12-May-08	133T10:09:59	257.5	1001	C I VIMS RADAR CIRS G DSN M70 - 9H		Out		11.00		17.1	137	T43
T44	High Inclination Sequences	69	S40	28-May-08	149T08:33:21	891.3	1400	CIRS I CIRS VIMS UVIS I RADAR ISS CIRS ISS VIMS G70 VIMS M70 - 9		Out		10.93		12.4	150	T44

Total Hydrazine Usa 14628.03 U/D Predict

Average hydrazine use : 428 As-flown

Please direct questions or comments regarding this Summary to **Kim Steadman (x3-2403)**

Earth	R	INMS	I		Flank
Solar	UV	+MAG	I+M		Tail
Stellar	U	Hi-Res			Flank Out