

# **NIMS GUIDE TO THE I31 ORBIT**

**Original: August 2001**

**Revised: November 2001**

**VERSION DATE: 011130**

**I31 Encounter starts 08/04/01,**

**I31 Playback starts 08/09/01**

## Foreword to the Revised Edition

This document was originally published by the NIMS team as a preview to data acquisition for one orbit. It has been revised and corrected after data receipt and systematic processing for inclusion on the CD-ROMs containing NIMS Experimental Data Records (EDRs) and Systematic Data Products (Cubes). It is also available on the NIMS website in both PostScript (PS) and Portable Document Format (PDF) form. Some material in the original document has been omitted, and a chapter added describing the data actually returned.

The aim of this guide is to provide detailed information on the various NIMS observations and calibrations. Also included in this document is background information on the orbit. A brief overview of the guide is given below. Please refer to the beginning of each chapter for a detailed list of contents.

Chapter 1 gives a brief introduction to the orbit. Chapter 2 gives an overview and summarizes the NIMS science objectives using tables, spreadsheets and timelines. Chapter 3 contains diagrams of various aspects of spacecraft geometry. Chapter 4 summarizes the NIMS observations in terms of a comprehensive sequence summary and a NIMS Observation Table (Obstab). Chapter 5 is a collection of the Detailed Observation Designs made up of OAPEL forms and POINTER plots. Chapter 6 contains plots of the NIMS wavelength edit tables used. Chapter 7 summarizes the NIMS data return from the orbit.

For more information, please refer to the Galileo Orbit Planning Guide (OPG) and the Galileo Orbit Activity Plan (OAP) for this orbit. Both of these documents are produced by the Galileo Project.

For more information on the NIMS instrument, please refer to the NIMS instrument paper: R.W. Carlson, P.R. Weissman, W.D. Smythe, J.C. Mahoney and the NIMS Science and Engineering Teams, "Near-infrared Mapping Spectrometer Experiment on Galileo", Space Science Reviews, Vol 60, pp 457-502, 1992.

## Acknowledgements

The NIMS observations in this guide were designed by the NIMS Science Coordinators: Kevin Baines, John Hui, Rosaly Lopes-Gautier, Adriana Ocampo and Marcia Segura. Materials were also provided by Elias Barbinis, Paul Herrera, Bob Mehlman, Jim Shirley, Al Stevenson and Bill Smythe. Some figures and plots produced by various members of the Galileo Project were incorporated into this guide. Frank Leader provided some materials and edited the guide under the direction of Bob Mehlman and Bill Smythe.

## Foreword

This document serves as a guide to the I31 Orbit for the NIMS Team. The aim of this guide is to provide detailed information on the various NIMS I31 observations and calibrations. Also included in this document is background information on the I31 orbit. This guide was produced before the start of the I31 orbit. After analysis of the NIMS I31 data is complete, it will be revised and corrected. A brief overview of the guide is given below. Please refer to the beginning of each chapter for a detailed list of contents.

Chapter 1 gives a brief introduction to the I31 orbit. Chapter 2 gives an overview of the I31 orbit and summarizes the NIMS science objectives for the I31 orbit using tables, spreadsheets and timelines. Chapter 3 contains diagrams of various aspects of spacecraft geometry for the I31 orbit. Chapter 4 summarizes the NIMS I31 observations in terms of a comprehensive sequence summary and a NIMS Observation Table (Obstab). Chapter 5 is a collection of the Detailed Observation Designs made up of OAPEL forms and POINTER plots. Chapter 6 contains plots of the NIMS wavelength edit tables used during the I31 orbit.

For more information on the I31 orbit, please refer to the Galileo Orbit Planning guide and the Galileo Orbit Activity Plan for the I31 Orbit. Both of these documents are produced by the Galileo Project.

For more information on the NIMS instrument, please refer to the NIMS instrument paper: R.W. Carlson, P.R. Weissman, W.D. Smythe, J.C. Mahoney and the NIMS Science and Engineering Teams, "Near-infrared Mapping Spectrometer Experiment on Galileo", Space Science Reviews, Vol 60, pp 457-502, 1992.

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# Chapter 1 - Introduction

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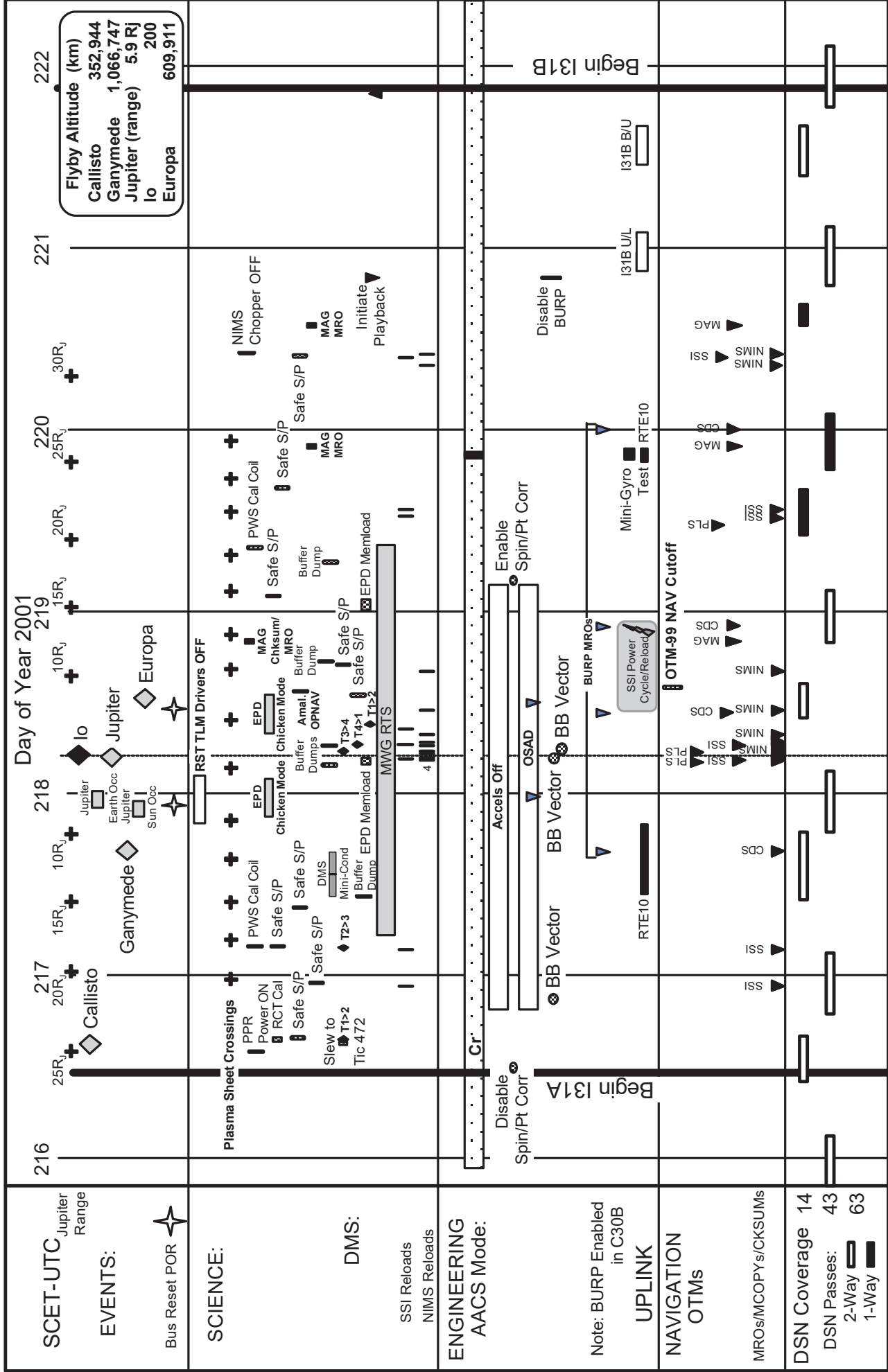
## Introduction

This I31 orbit is the thirty-first of thirty-one orbits in Galileo's Tour of the Jovian system and the fifth orbit in the Galileo Millennium Mission (GMM). I31 is an Io Flyby.

There are 12 autonomous reloads of the NIMS RAM code from CDS planned during the I31A encounter period, one just before each science observation. These reloads are in response to the on-going flight-anomalies where the NIMS RAM code takes some bit hits and halts the instrument during when the spacecraft is close to Jupiter. NIMS personnel will monitor the NIMS engineering telemetry data on a regular schedule to track the instrument's status.

The I31 orbit is divided into 2 sequence loads: one Encounter Load (I31A) and one Orbital Cruise Loads (I31B). The I31A load begins on D216 (08/04/01) and ends on D221 (08/09/01). This load contains flyby of Io. The Cruise Load runs from D221 to D287. Playback of the recorded data takes place during the Cruise phase, I31B. A high-level overview timeline of the I31 orbit can be found on the following three pages.

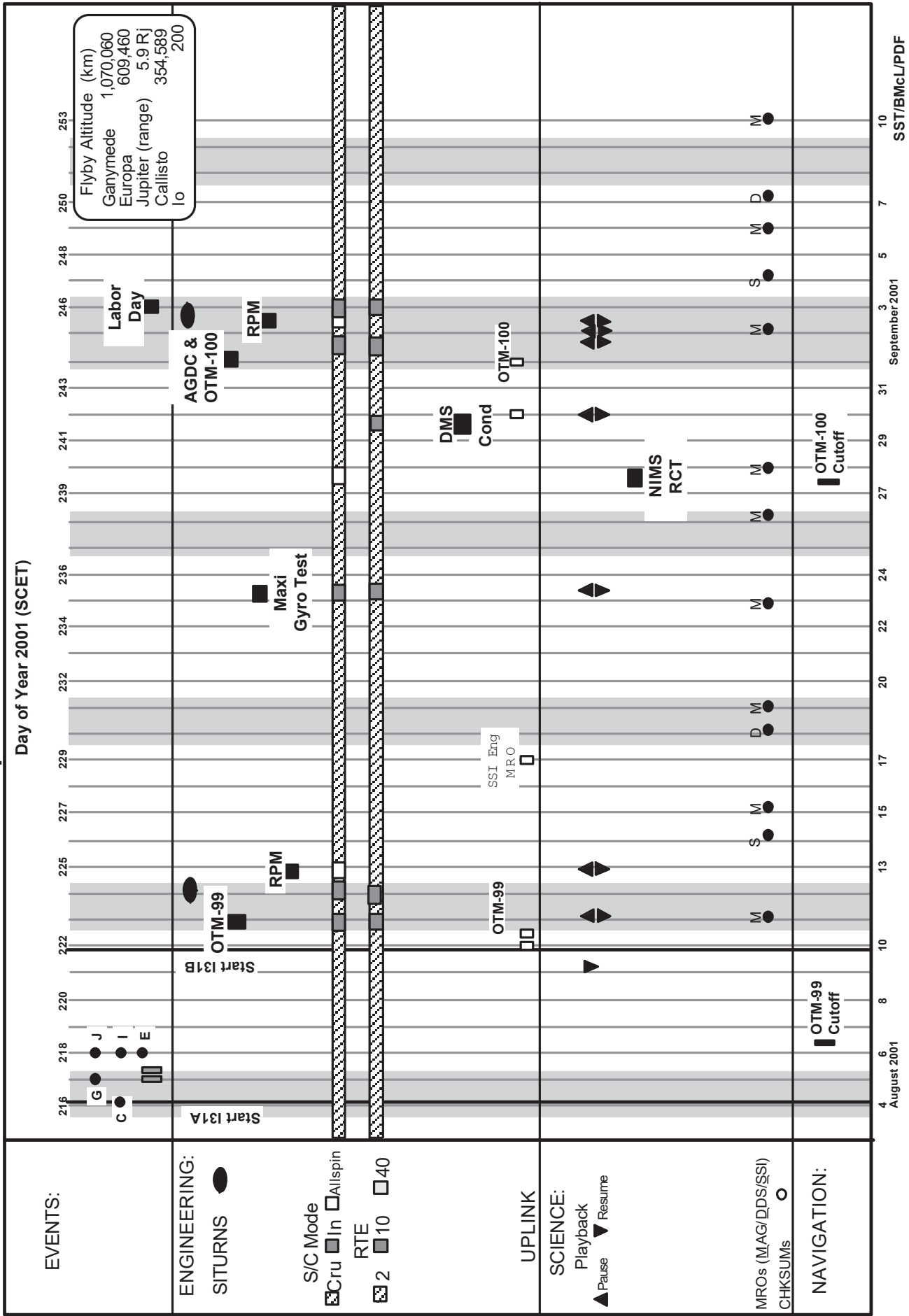
# I31A Encounter Overview



Note: DSS-63 is offline for an extended period of X-Band Uplink upgrades, and is unavailable for use.  
 Two Bus Reset PORs occurred during the encounter time period, both of which were properly handled by the on-board recovery routine.  
 The times were: 01-217/22:21-22:47 SCET (exact time is indeterminate) and 01-218/11:12:09 SCET.

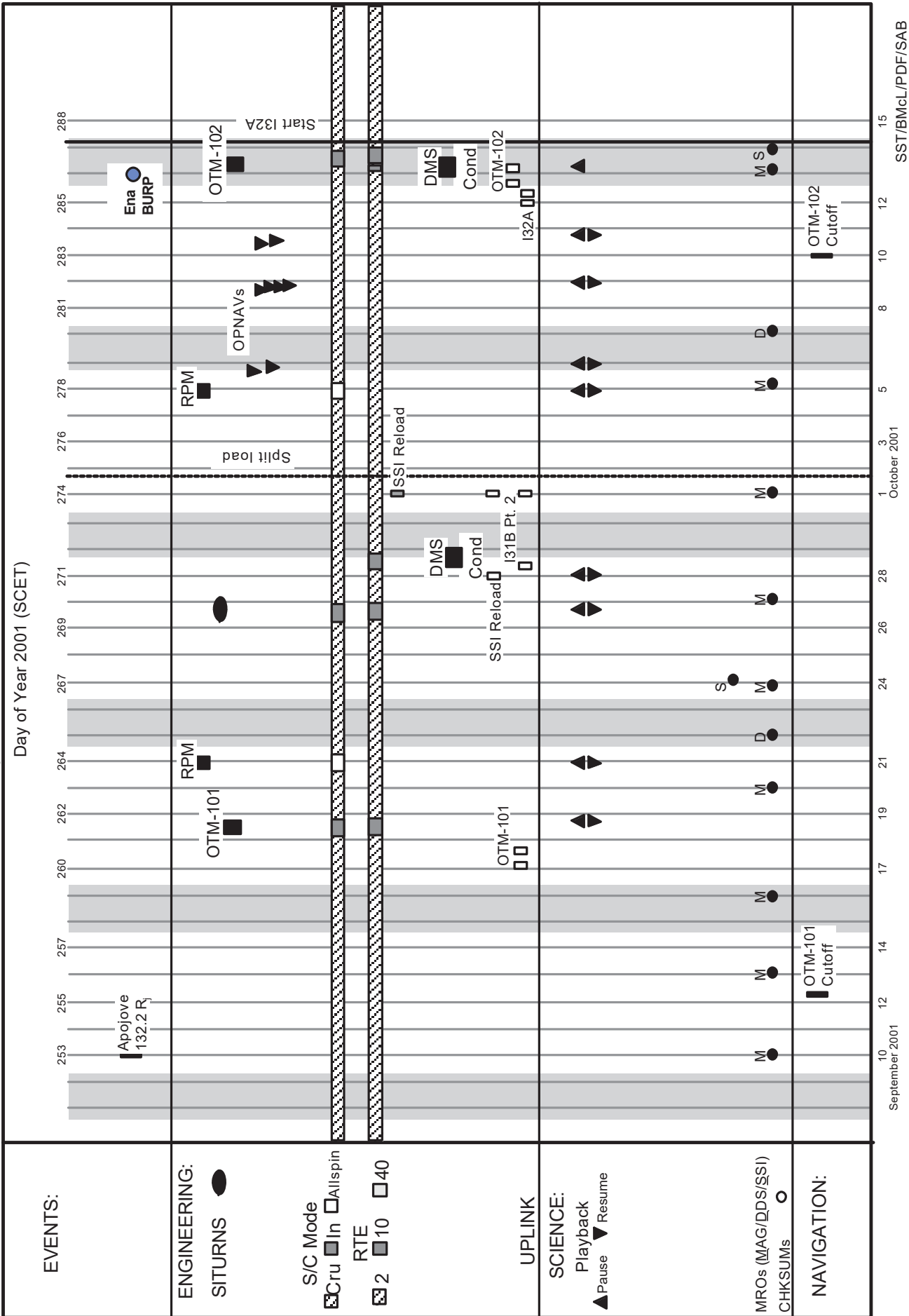
BMCL/SST  
08/20/01

# I31B Sequence Overview - Part 1





# I31B Sequence Overview - Part 2



## Introduction

The following table lists the major events during I31, including NIMS Real Time observations, in UTC.

08/04/01	01-216/12:00:00	I31 Encounter Start
08/06/01	01-218/04:26:37	NIMS RAM Reload 01
08/06/01	01-218/04:54:49	NIMS RAM Reload 02
08/06/01	01-218/04:53:14	PJ-31 Jupiter Closest Approach
08/06/01	01-218/05:00:21	I31 Io Closest Approach
08/06/01	01-218/05:09:11	NIMS RAM Reload 03
08/06/01	01-218/05:36:29	NIMS RAM Reload 04
08/06/01	01-218/06:15:55	NIMS RAM Reload 05
08/06/01	01-218/06:39:58	NIMS RAM Reload 06
08/06/01	01-218/08:03:53	NIMS RAM Reload 07
08/06/01	01-218/11:01:06	NIMS RAM Reload 08
08/06/01	01-218/16:03:26	NIMS RAM Reload 09
08/08/01	01-220/08:26:03	NIMS RAM Reload 10
08/08/01	01-220/09:59:21	NIMS RAM Reload 11
08/08/01	01-220/19:59:16	Start I31 Playback
08/27/01	01-239/10:14:15	NIMS RAM Reload 12
08/27/01	01-239/10:33:42	NIMS R/T RCT CAL
10/13/01	01-286/02:58:24	End I31 Playback

## Chapter 2 - Orbit Overview

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## Introduction to Chapter 2

This chapter gives an overview of the NIMS observations in the I31 Orbit.

The text on page 3 summarizes the NIMS science objectives for I31. The NIMS calibrations are discussed on page 3. Early data return and I31 playback are also discussed on page 3.

The table on page 4 is a time-ordered listing of the NIMS Oapels for I31.

The plot on page 5 shows the geometry of the NIMS I31 observations using a north trajectory pole view projection. The plot on page 6 shows the geometry of the NIMS I31 observations during the Io Flyby using a north trajectory pole view projection. The plot on page 7 shows the geometry of the NIMS I31 calibrations.

The spreadsheet on page 8 summarizes the various inputs for the NIMS I31 Observations. The spreadsheet on pages 9 and 10 summarizes the resource usage for the NIMS I31 observations.

The table on page 11 lists various NIMS I31 observing parameters: target latitude/longitude, range, cone angle, incidence angle (light), emission angle (view) and phase angle.

The timeline on pages 12 through 16 shows the placement of the I31 observations for all instruments during the I31 Encounter Period.

The tapemap on page 17 shows the placement of the I31 observations on the spacecraft's tape recorder.

The timeline on pages 18 through 27 shows the preliminary I31 playback schedule.

The NIMS I31 mosaic designs are summarized on pages 28 and 29 in time-order.

## NIMS I31 SCIENCE OVERVIEW

### Jupiter Science

There are two Jupiter observations in I31, both recorded. These two observations look at the Great Red Spot region (GRSPOT). Search for high altitude ammonia clouds in the turbulent wake region.

### Io Science

The I31 Io sequence design is similar to that used in I27 in response to the loss of spectral capability due to the stuck grating. The NIMS observations are mostly mapping instead of sit-and-stare spectrum building observations. NIMS and SSI did collaborate on some targets, and some ride-along behind SSI will be returned.

31INTHRMAL01 - nightside swath across the Pele vent region.  
31INHISISUM01 - high resolution nightside obs. of Isum.  
31INSO2MAP01 - high resolution dayside search for SO2 frost.  
31INTVASHT01 - dayside swath across the Tvashtar complex.  
31INGISHBR01 - dayside two-swath map of Gishbar region.  
31INAMRANI01 - dayside three-swath map of Amirani region.  
31INREGION01 - dayside seven-swath regional map, pole to pole.  
31INREGION02 - dayside three-swath global map, pole to pole.

### Europa Science

There are no Europa observations in I31.

### Ganymede Science

There are no Ganymede observations in I31.

### Callisto Science

There are no Callisto observations in I31.

### Calibration

There is one NIMS calibration observation planned for I31: an RCT cal.

### Early Data Return

There is one realtime observations in I31, the RCT calibration.

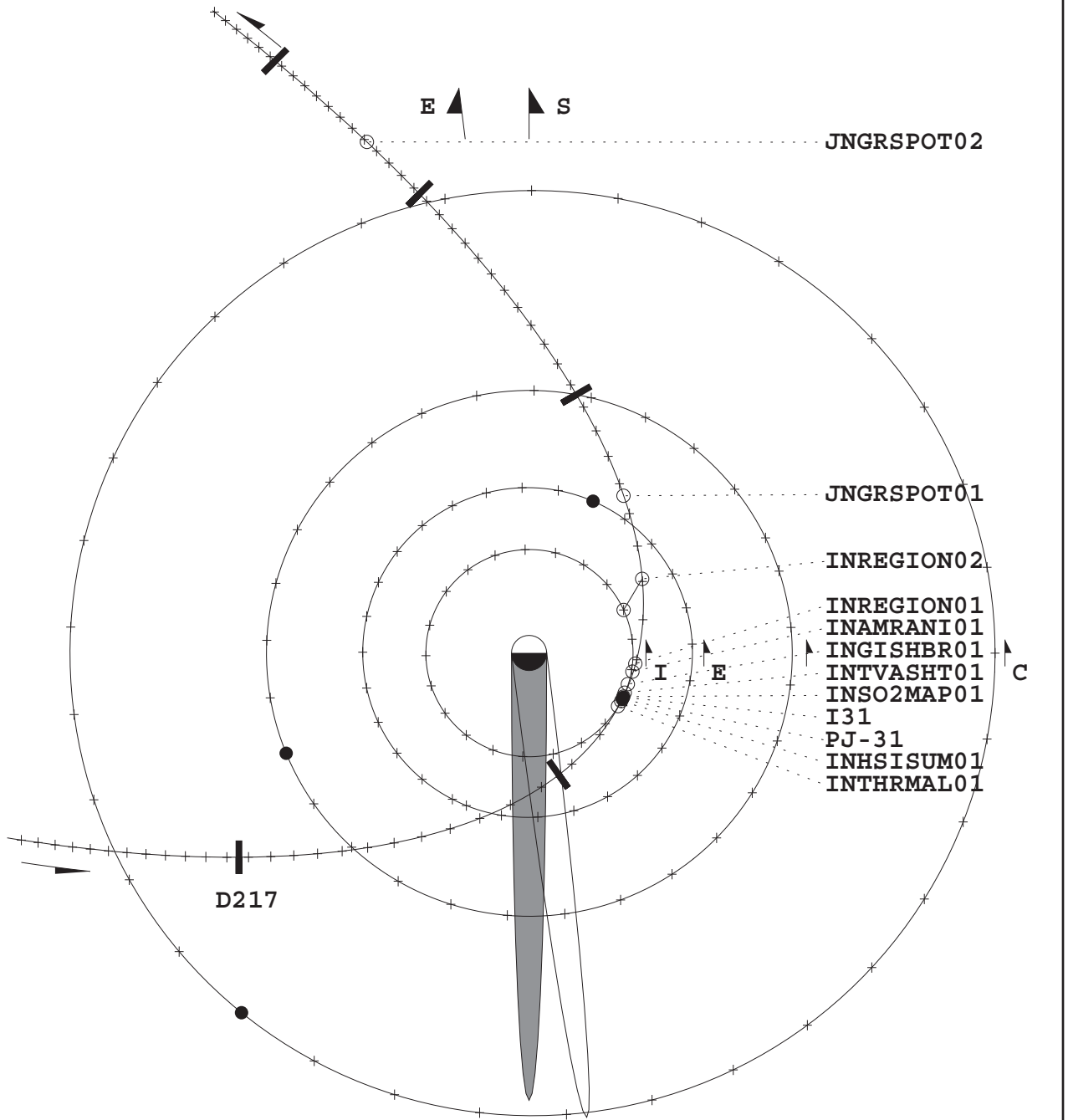
### I31 Playback

I31 playback is split into two passes through the tape.

### I31 Time-Ordered Listing

OAPEL	Start (UTC)	End (UTC)	Duration
31INTHRMAL01	01-218/04:33:31	01-218/04:47:40	0/00:14:09
31INHISISUM01	01-218/04:47:40	01-218/04:53:44	0/00:06:04
31INSO2MAP01	01-218/05:01:50	01-218/05:07:54	0/00:06:04
31INTVASHT01	01-218/05:13:58	01-218/05:25:05	0/00:11:07
31INGISHBR01	01-218/05:39:14	01-218/05:59:28	0/00:20:13
31INAMRANI01	01-218/06:19:41	01-218/06:36:52	0/00:17:11
31INREGION01	01-218/06:50:01	01-218/07:24:24	0/00:34:22
31INREGION02	01-218/07:24:24	01-218/07:58:46	0/00:34:22
31JNGRSPOT01	01-218/16:09:10	01-218/16:53:39	0/00:44:29
31JNGRSPOT02	01-220/08:31:47	01-220/09:16:16	0/00:44:29
31NNRCTRLT01	01-238/22:00:29	01-239/11:02:57	0/12:02:28

# NIMS I31 OBSERVATIONS



Time Ticks (Relative to PJ31)

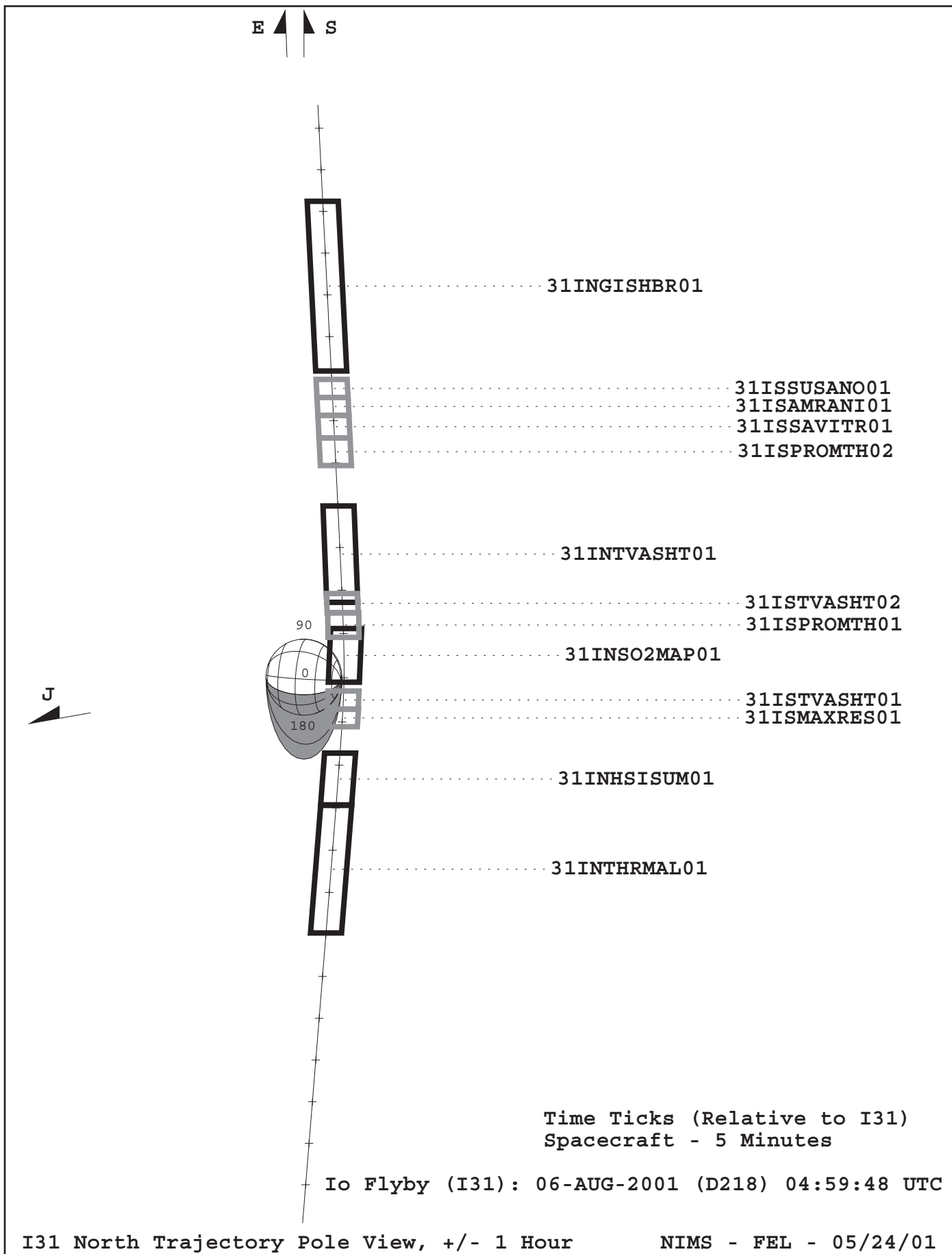
- Io - 2 Hrs
- Europa - 3 Hrs
- Ganymede - 6 Hrs
- Callisto - 12 Hrs
- Spacecraft - 2 Hrs

Io Flyby (I31): 06-AUG-2001 (D218) 05:00:21 UTC  
 Perijove (PJ31): 06-AUG-2001 (D218) 04:53:14 UTC

I31 North Trajectory Pole View

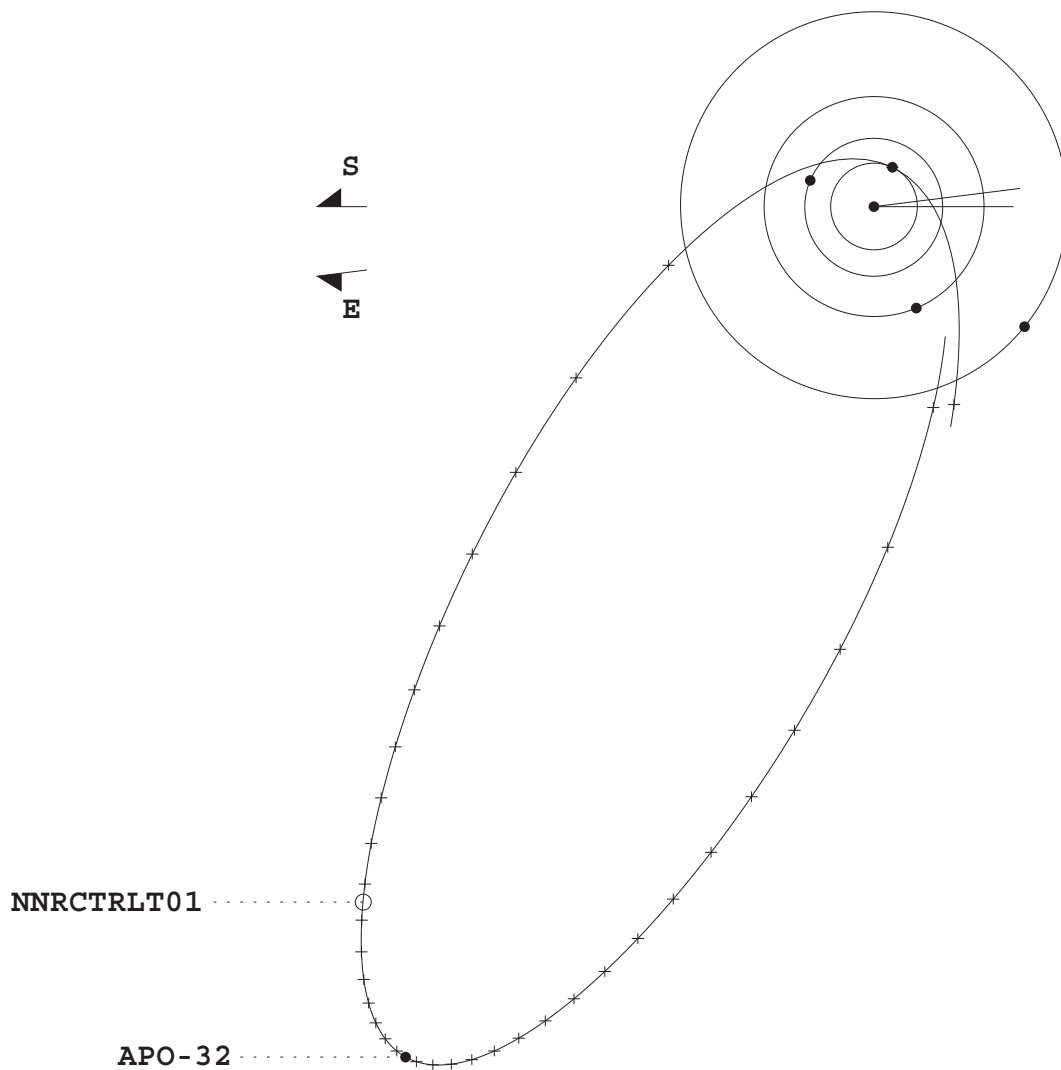
NIMS - FEL - 07/05/01

# NIMS & SSI I31 IO FLYBY OBSERVATIONS





# NIMS I31 CALIBRATIONS



Time Ticks (Relative to I31)  
Spacecraft - 2 Days

Io Flyby (I31): 06-AUG-2001 (D218) 05:00:21 UTC  
Perijove (PJ31): 06-AUG-2001 (D218) 04:53:14 UTC  
Apojove (A32): 10-SEP-2001 (D253) 14:54:07 UTC

I31 North Trajectory Pole View

NIMS - FEL - 10/31/01

## I31 NIMS INPUTS

Activity ID	Observation Title	NIMS Edit		NIMS PB		Mode	Gain	Grating	Record	PSID
		Table	Table	Table	Table					
31INTHERML01	Io Thermal Map	I31ILM442	I31ILM144	LM	1	0	4	MPW	DA	
31INHSISUM01	Io Isum Obs	I31ILM442	I31ILM144	LM	1	0	4	MPW	DB	
31INSO2MAP01	Io SO2 Map	I31ILM442	I31ILMFG96	LM	2	0	4	MPW	DC	
31INTVASHT03+	Io Tvashtar SSI ride-along	I31ILM442	I31ILMFG96	LM	2	0	4	IM8	IC	
31INTVASHT01	Io Tvashtar region	I31ILM442	I31ILM144	LM	2	0	4	MPW	DD	
31INGISHBR01	Io Gishbar Mosaic	I31ILM442	I31ILM144	LM	2	0	4	MPW	DE	
31INAMRANI01	Io Amirani Mosaic	I31ILM442	I31ILMFG36	LM	2	0	4	MPW	DF	
31INREGION01	Io Regional Map	I31ILMFG252	I31ILMFG36B	LM	2	0	4	LPU	DG	
31INREGION02	Io Regional Map	I31ILMFG252	I31ILMFG36B	LM	2	0	4	LPU	DH	
31JNGRSPT01	Jupiter Great Red Spot	I31JSMFG60	I31JSMFG54	SM	2	0	4	LPU	DK	
31JNGRSPT02	Jupiter Great Red Spot	I31JLMFG240	I31JLMFG54	LM	2	0	4	LPU	DL	

11/30/01

M. Segura

## I31 RESOURCES

Activity ID	Mode	Record Format	Obs.		Obs. Cost (tracks)	Obs. Cost (ticks)	Wavelengths Returned	Number	Obs Record	Observation		Selected		Bits to		Mode Cycle time (sec)
			Cost	Time (sec.)						PB	Time (sec.)	sBOT (MBITS)	Time (sec.)	TAPE (Mbit)		
31INTHERM101	LM	MPW	0.0915	533	144	604	600	6.91	6.96	8.667						
31INHISUM01	LM	MPW	0.0368	214	144	241	236	2.72	2.78	8.667						
31INSO2MAP01	LM	MPW	0.0458	267	96	301	40	0.46	3.47	8.667						
31INTVASHT03+	LM	MPW			96	50	44	0.51	0.58	8.667						
31INTVASHT01	LM	MPW	0.0899	526	144	596	593	6.83	6.87	8.667						
31INGISHBR01	LM	MPW	0.0758	852	144	967	500	5.76	11.14	8.667						
31INAMPANI01	LM	MPW	0.1372	811	36	920	907	10.45	10.60	8.667						
31INREGION01	LM	LPU	0.2772	1716	36	7311	6882	42.45	45.09	8.667						
31INREGION02	LM	LPU	0.0166	1026	36	4370	404	2.49	26.95	8.667						
31JNGRSPOT01	SM	LPU	0.0687	588	54	2500	1700	10.49	15.42	2.33						
31JNGRSPOT02	LM	LPU	0.1062	623	54	2650	2632	16.23	16.35	8.667						

## I31 RESOURCES

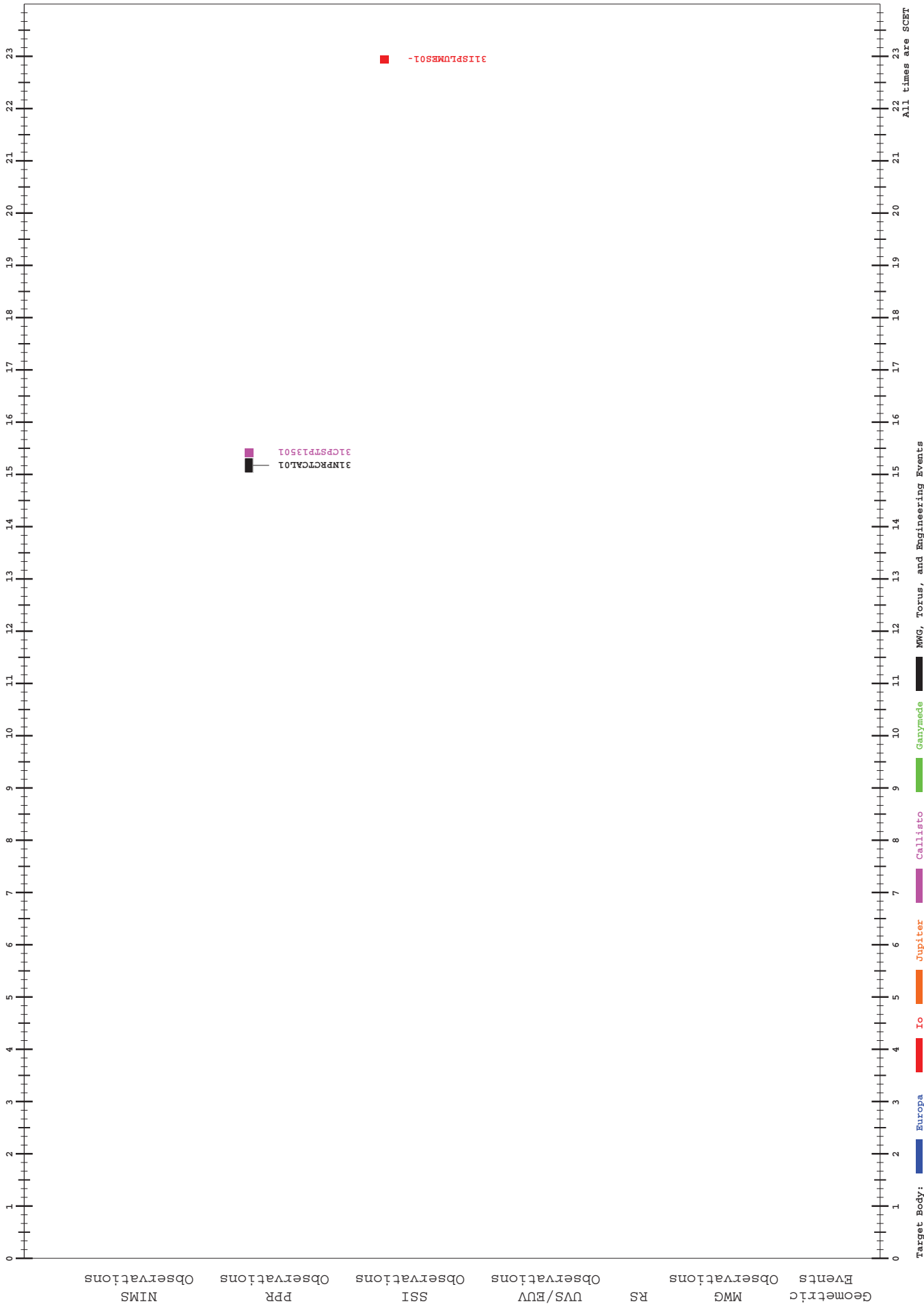
Activity ID	AACS Mbits	Comp	Thold	RT BTG	Total BTG (Mbits) (w/ 4% O'head)	Data Reduct. Factor (sBOT/BTG)	Pass
	c 2.5						
31INTHERML01	0.03	1.33			1.56	4.43	2
31INHSISUM01	0.01	1.36			0.60	4.53	2
31INSO2MAP01	0.00	1.35			0.07	6.75	2
31INTVASHTO3+	0.00	1.31			0.08	6.55	2
31INTVASHTO1	0.03	1.12			1.83	3.73	2
31INGISHBR01	0.03	1.18			1.46	3.93	2
31INAMRANI01	0.05	1.16			0.68	15.47	2
31INREGION01	0.40	1.16			5.13	8.28	2
31INREGION02	0.02	1.27			0.27	9.07	2
31JNGRSPOT01	0.10	1.42			5.77	1.82	2
31JNGRSPOT02	0.15	1.74			1.96	8.28	2

NIMS I31 OBSERVING GEOMETRY

OAPEL	Latitude (deg)	Longitude (deg)	Range (km)	Cone (deg)	Light (deg)	View (deg)	Phase (deg)
31INTHRMAL01	-18 to -16	253 to 258	4 to 8K	38 to 50	160	40 to 57	312 to 146
31INHISISUM01	32 to 34	203 to 207	2 to 4K	51 to 66	129	73 to 82	118 to 134
31INTVASHT02	60 to 64	119 to 125	310 to 522	97 to 131	70 to 75	12 to 28	46 to 82
31INSO2MAP01	70	100	1K	128	83	71	47
31INTVASHT03	60 to 64	112 to 126	5K	147	67 to 75	63 to 69	27
31INTVASHT01	58 to 66	118 to 130	6 to 10K	148	70 to 76	67 to 71	27
31INAMRANI02	17 to 33	112 to 121	14K	149	47 to 54	27 to 35	26
31INGISHBR01	12 to 21	84 to 94	15 to 21K	146	16 to 26	16 to 25	29
31INAMRANI01	12 to 40	109 to 126	31 to 37K	148	38 to 51	23 to 40	27
31INREGION01	-90 to +90	80 to 172	44 to 92K	146	7 to 86	2 to 90	27
31INREGION02	-90 to +90	69 to 251	145 to 174K	139	2 to 124	3 to 90	34
31JNGRSPOT01	-28 to -8	82 to 156	716K	145	13 to 65	10 to 67	27 to 33
31JNGRSPOT02	-32 to +8	64 to 151	2148K	167	5 to 80	1 to 63	16 to 19

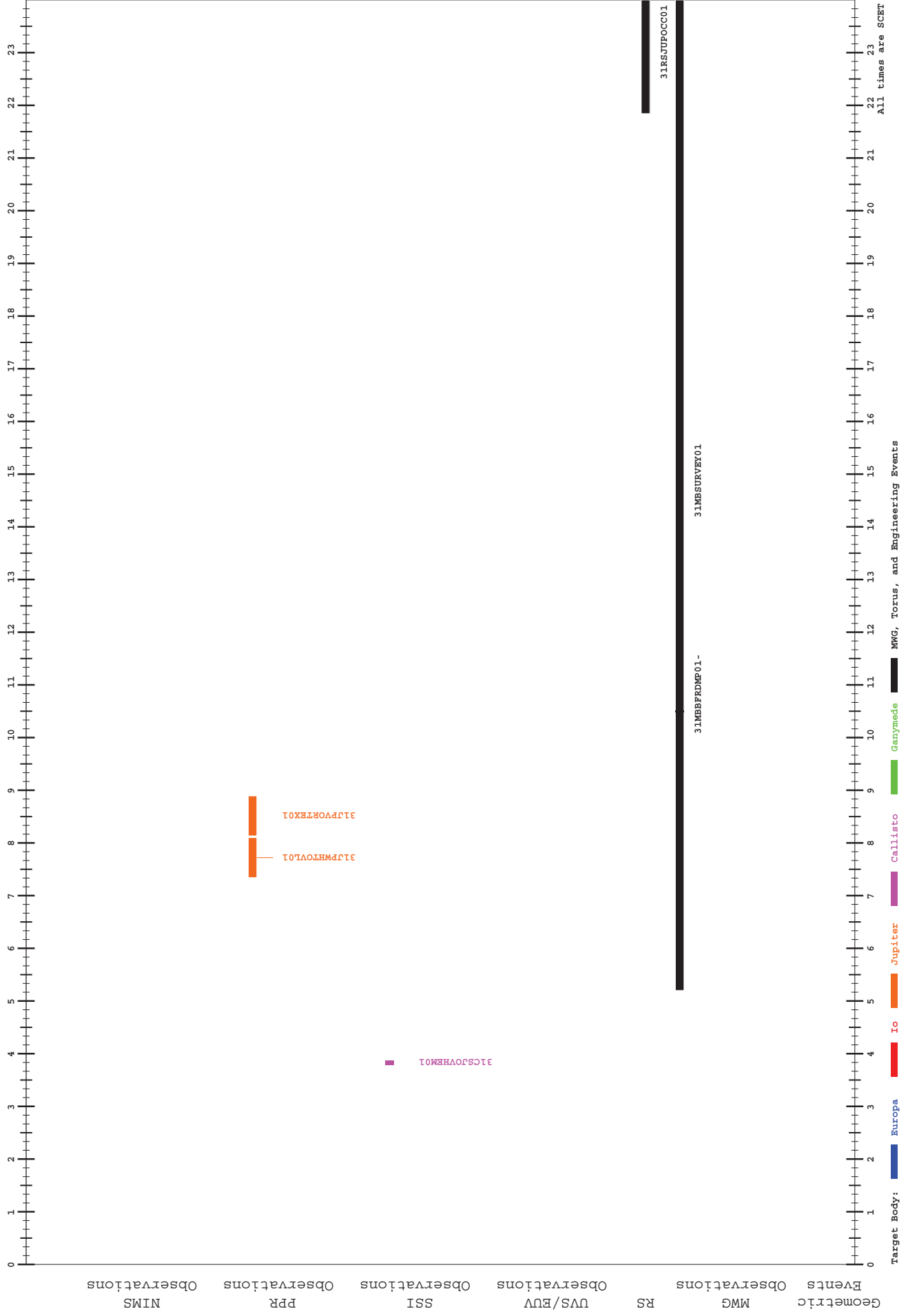
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Plot Time: 01-216/00:00:00.000 to 01-217/00:00:00.000  
Date of Plot: 18-Jul-101 13: 1:57



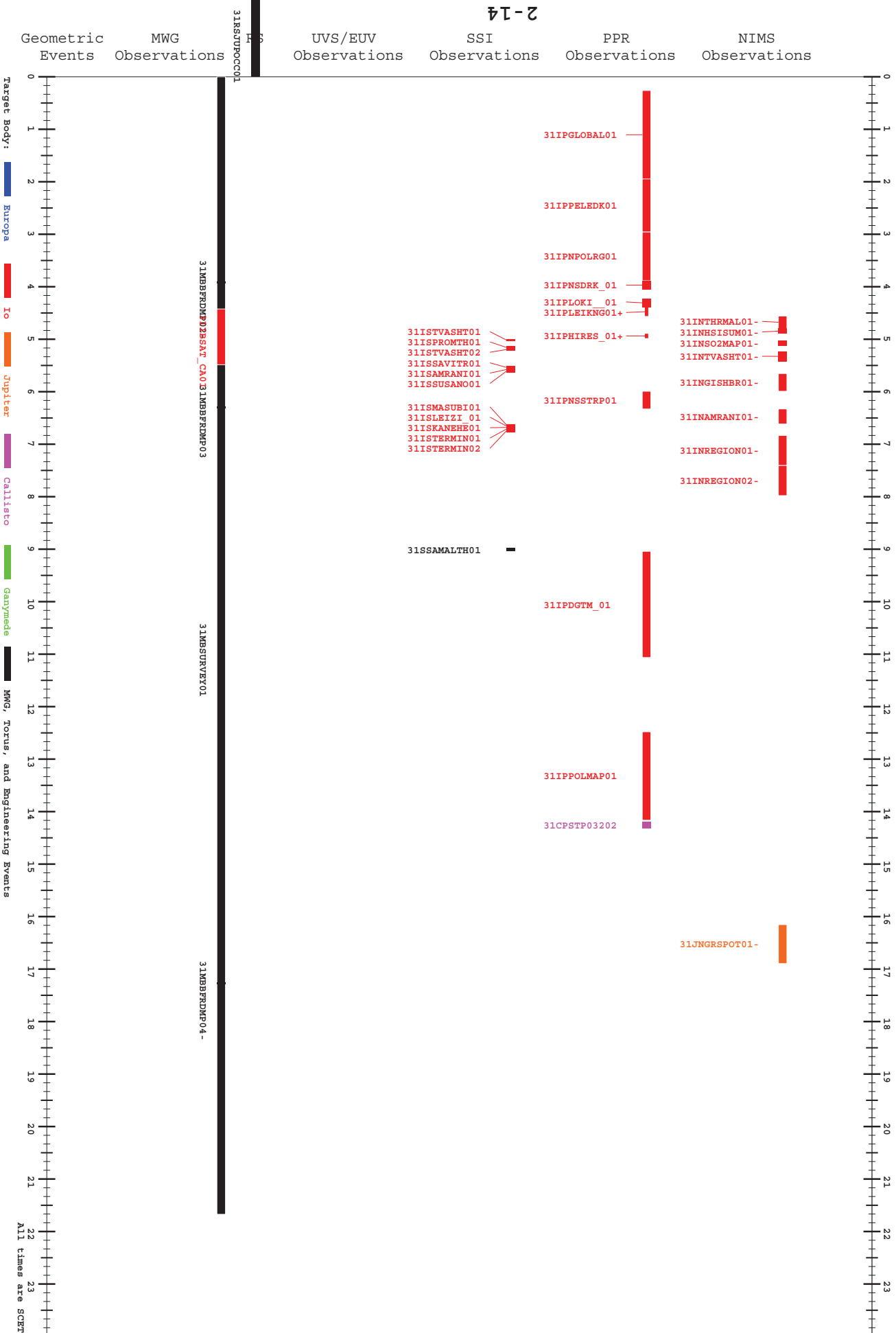
# GEM: I31

I31 ENCOUNTER  
Plot Time: 01-217/00:00:00.000 to 01-218/00:00:00.000  
Date of Plot: 18-Jul-101 13: 1:57



# GEM: B31

**I31 ENCOUNTER**  
 Plot Time: 01-218/00:00:00.000 to 01-219/00:00:00.000  
 Date of Plot: 18-Jul-101 13: 1:57



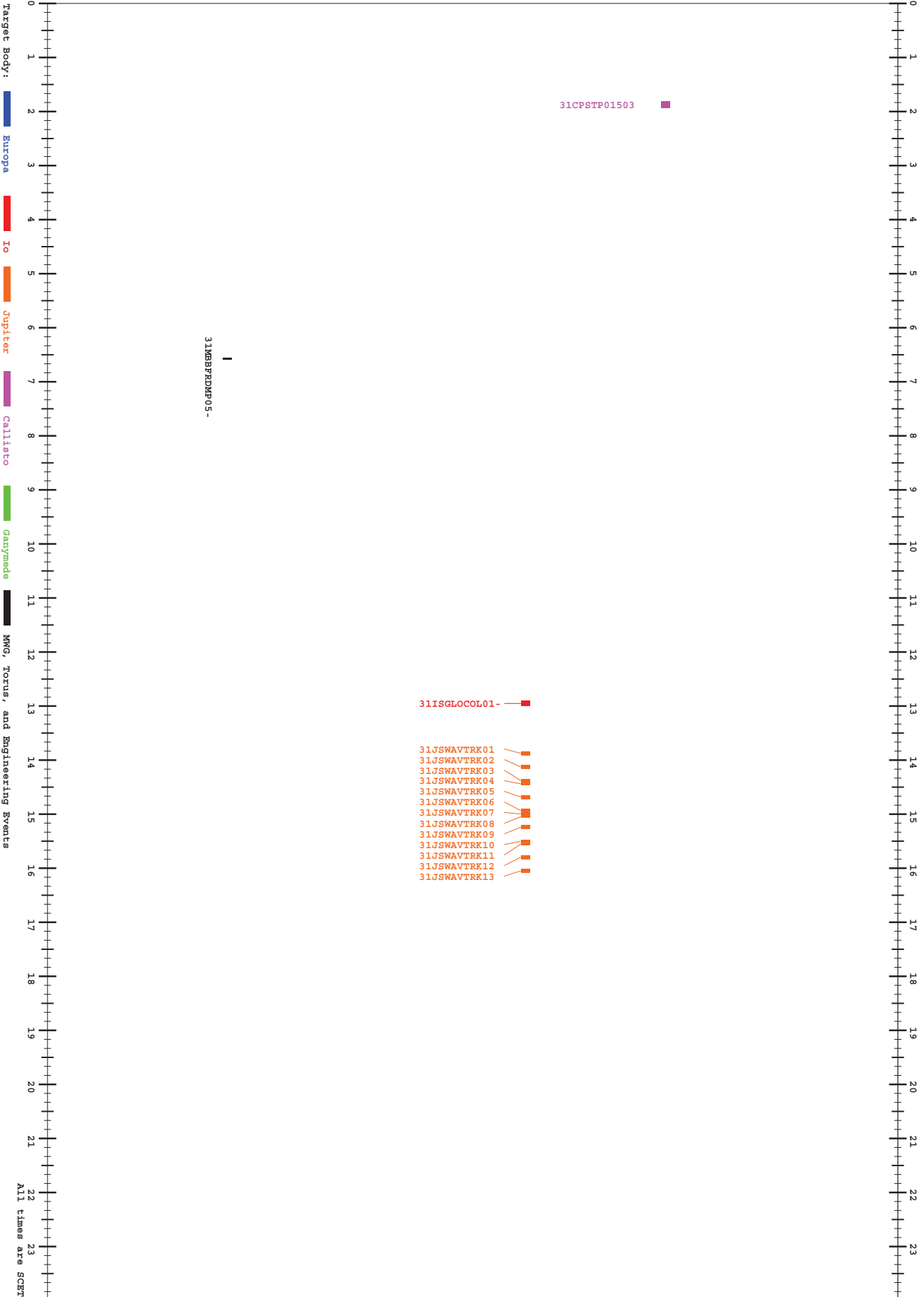


# GEM: B31

**I31 ENCOUNTER**  
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Date of Plot: 18-Jul-10 13: 1:57

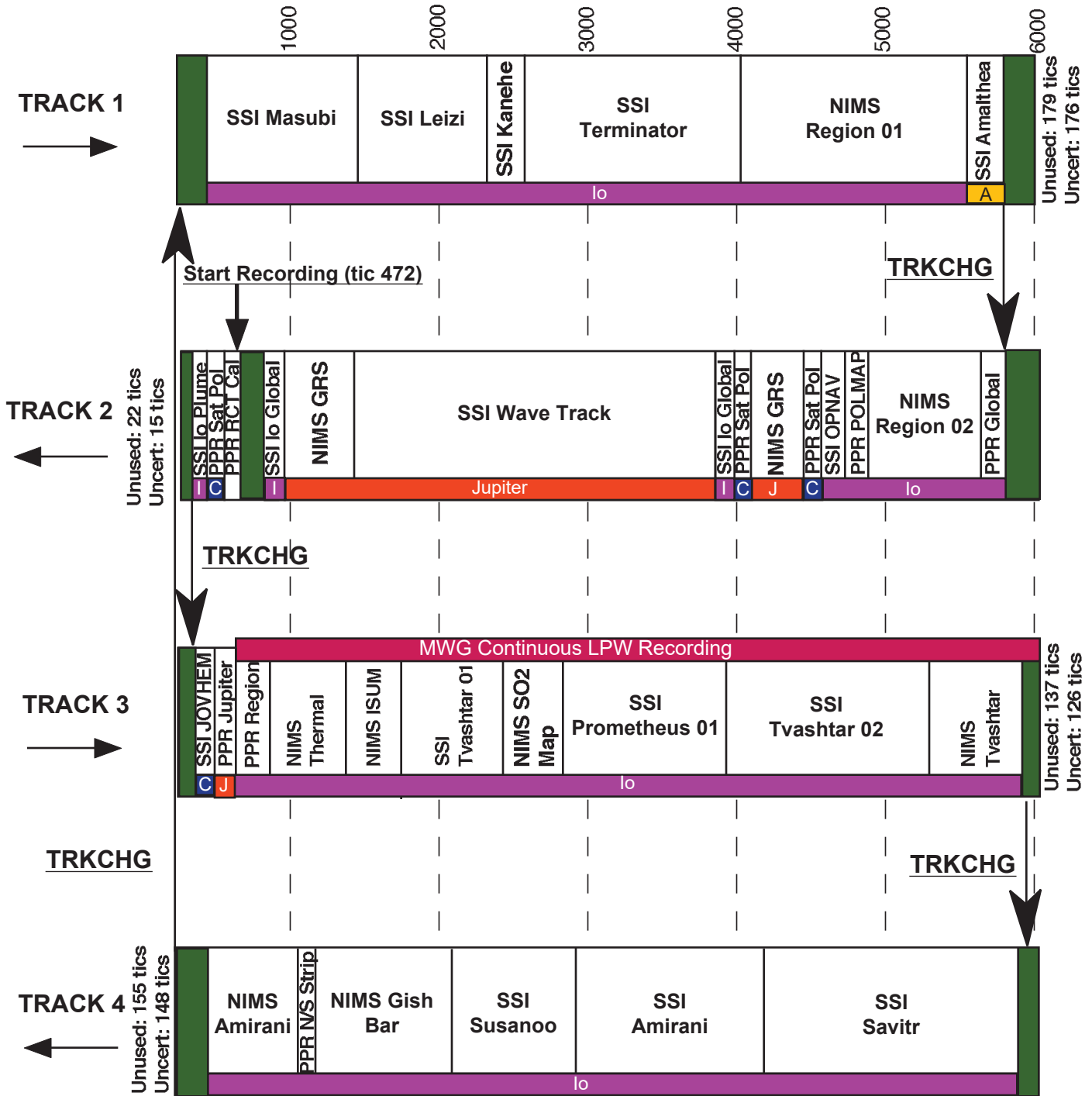
2-15

Geometric Events    MWG Observations    RS    UVS/EUV Observations    SSI Observations    PPR Observations    NIMS Observations





# 131 ENCOUNTER HIGH-LEVEL TAPEMAP

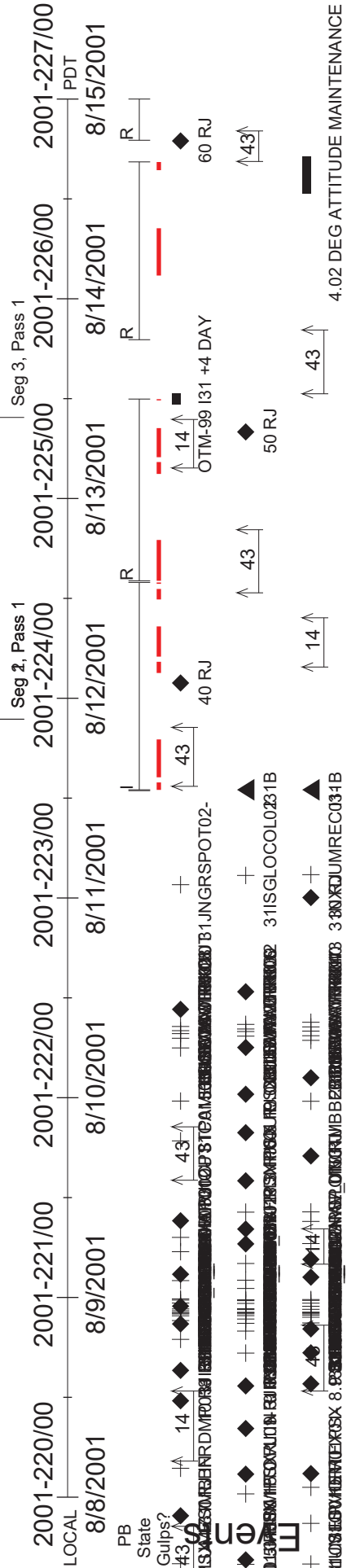


L. Barnard 7/13/01

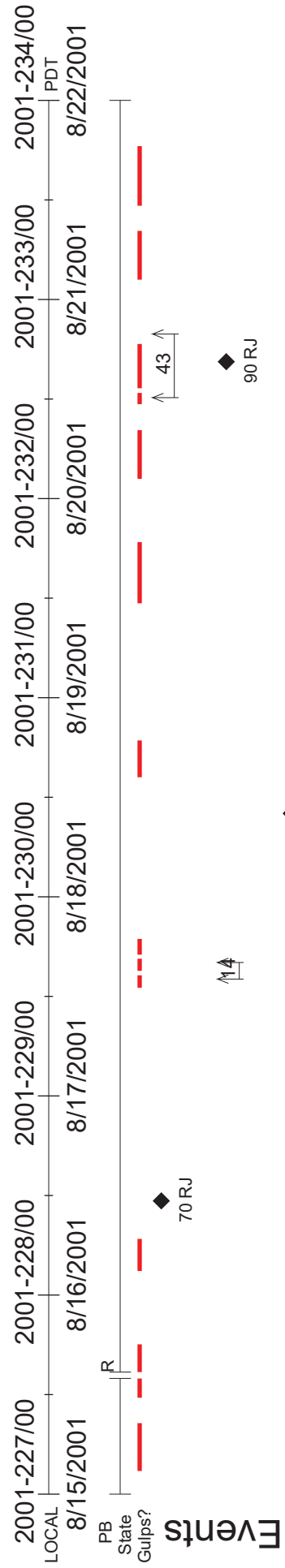
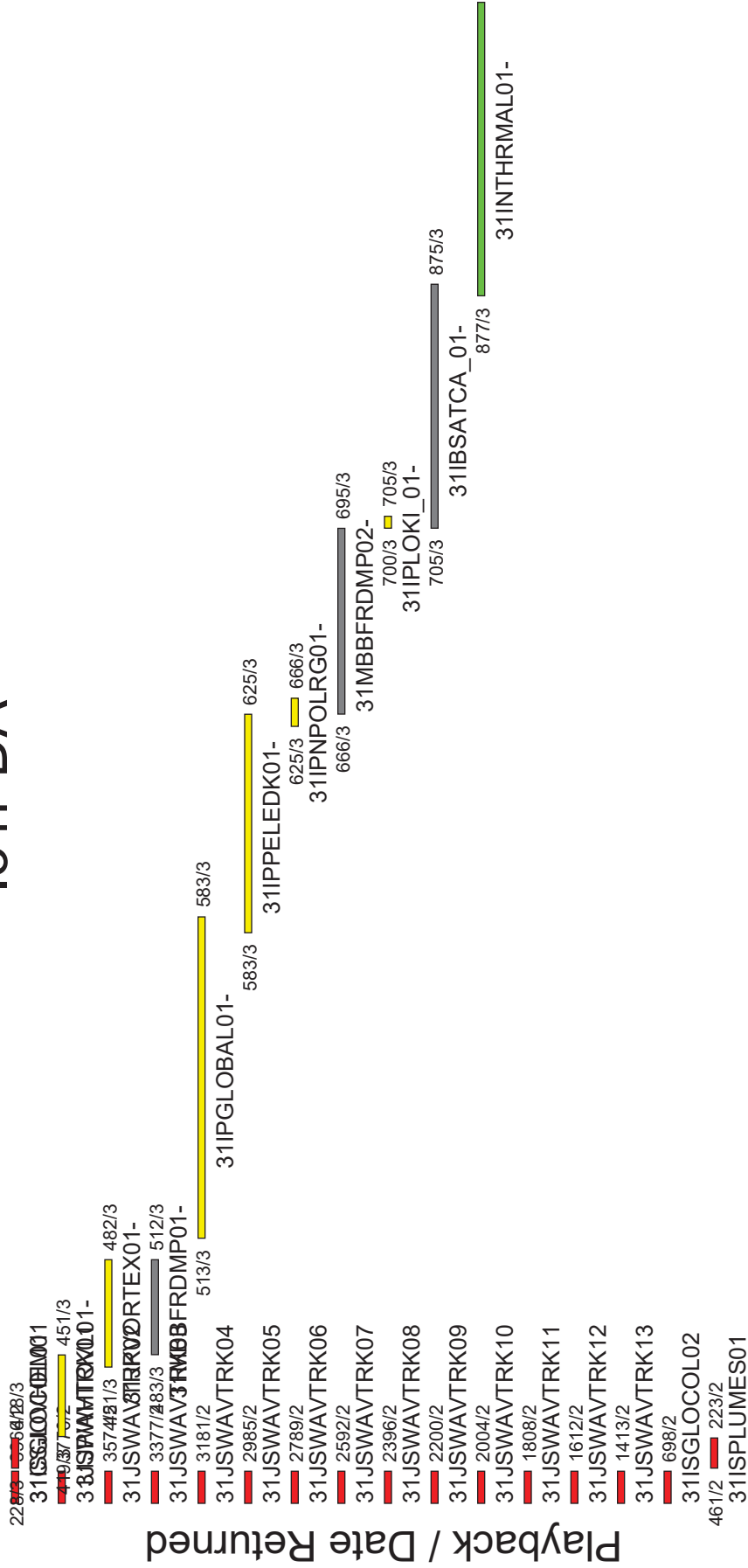
# I31PDA

461/2	223/2	3960/2
31ISPLUMES01	31ISPLUMES01	31JSWAVTRK01
228/3	418/3	3764/2
31CSJOVHEM01	31CSJOVHEM01	31JSWAVTRK02
1772/3	2391/3	3568/2
31ISTVASHT01	31ISTVASHT01	31JSWAVTRK03
2767/3	3937/3	3372/2
31ISPRMTH01	31ISPRMTH01	31JSWAVTRK04
4033/3	5269/3	3175/2
31ISTVASHT02	31ISTVASHT02	31JSWAVTRK05
5825/4	4262/4	2979/2
31ISSAVITR01	31ISSAVITR01	31JSWAVTRK06
4185/4	2950/4	2783/2
31ISAMRANI01	31ISAMRANI01	31JSWAVTRK07
2874/4	2065/4	2587/2
31ISSUSANO01	31ISSUSANO01	31JSWAVTRK08
421/1	421/1	12380/2
31ISMASUBI01	31ISMASUBI01	31JSWAVTRK09
1517/1	1517/1	23234/2
31ISLEIZI_01	31ISLEIZI_01	31JSWAVTRK10
2358/1	2358/1	25688/2
31ISKANEHE01	31ISKANEHE01	31JSWAVTRK11
2575/1	2575/1	31085/2
31ISTERMIN01	31ISTERMIN01	31JSWAVTRK12
3155/1	3155/1	38616/2
31ISTERMIN02	31ISTERMIN02	31JSWAVTRK13
5752/1	5752/1	38362/1
31SSAMALB11SGLOCOL02	31SSAMALB11SGLOCOL02	4806/2
4806/2	4719/2	31ASOPNAV_01
4053/2	4053/2	31ISGLCOL01

Playback / Date Returned



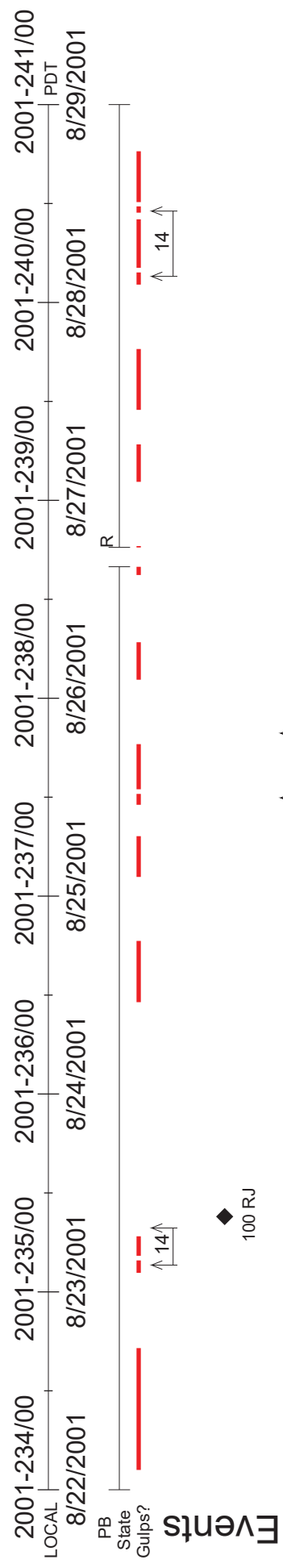
# I31PDA



# I31PDA



Playback / Date Returned

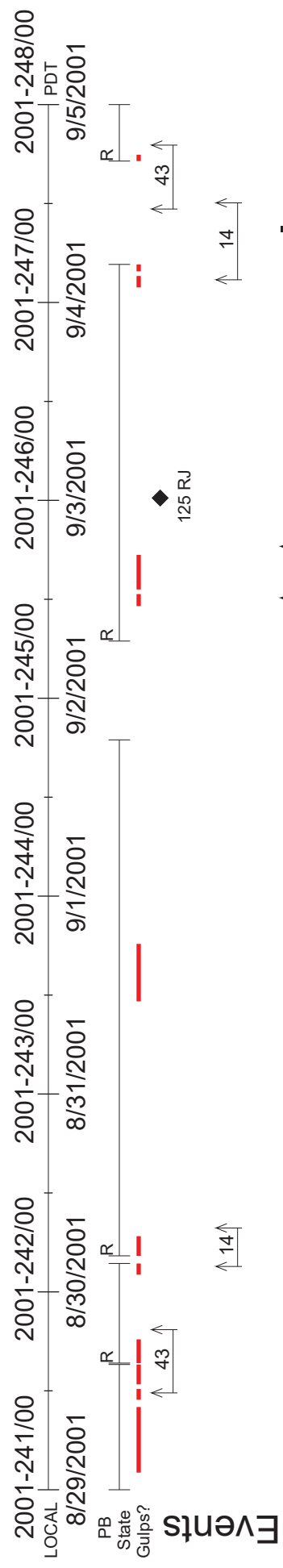


# I31PDA

- 3937/3
- 31ISPROMTH01
- 3967/3
- 31IBSATCA\_01-
- 4033/3

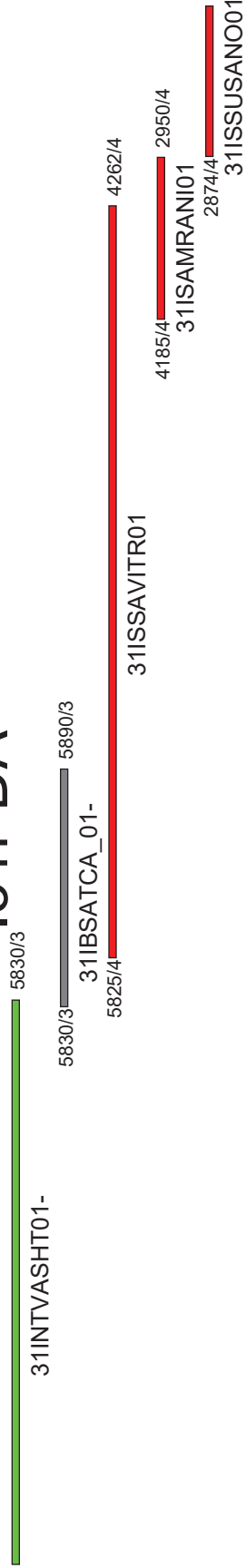


Playback / Date Returned

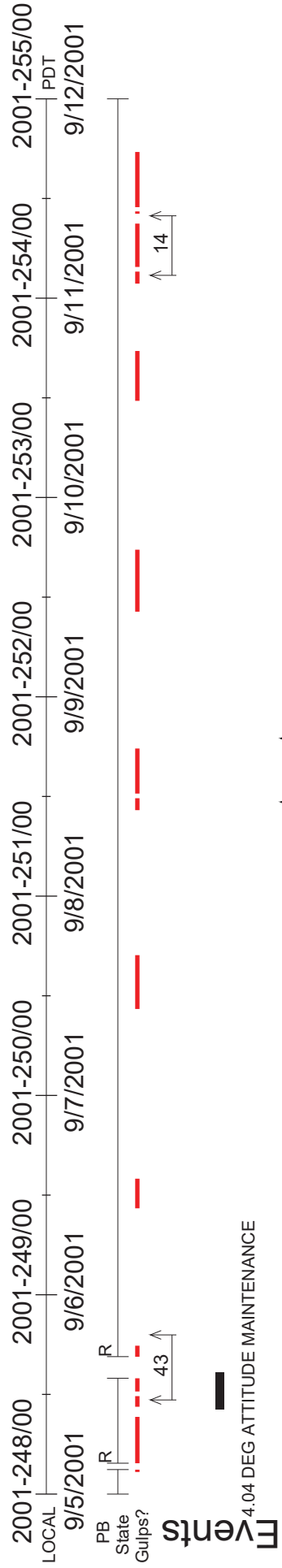


OTM-100 I31 APO

# I31PDA



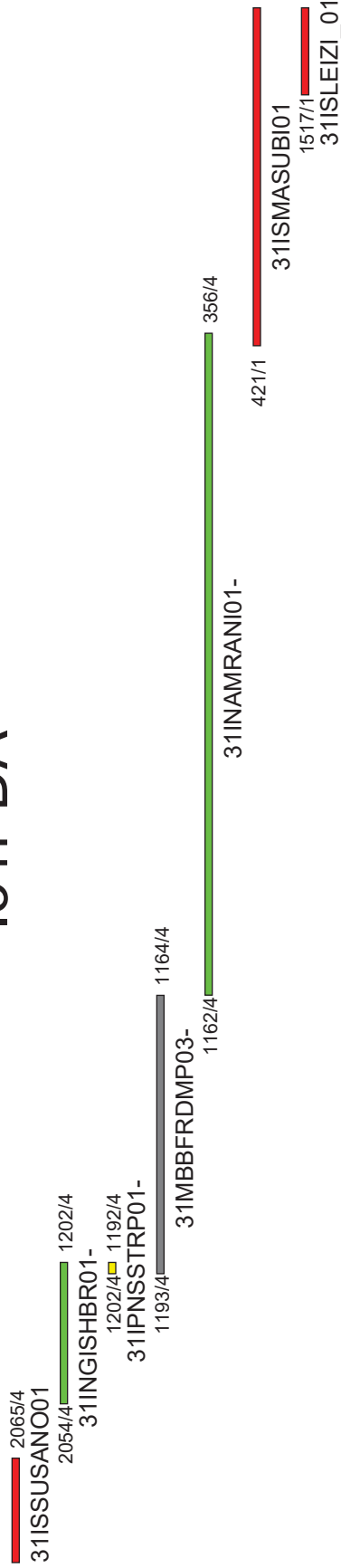
Playback / Date Returned



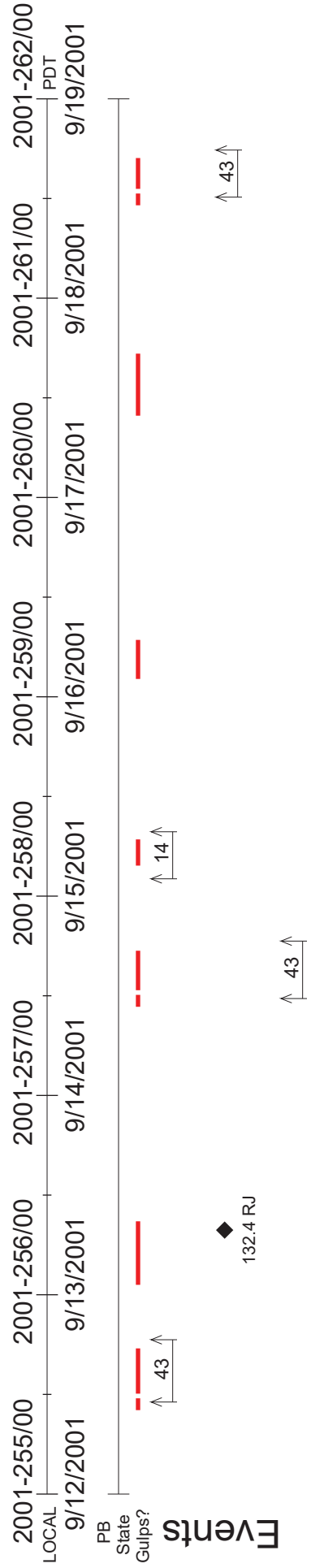
4.04 DEG ATTITUDE MAINTENANCE



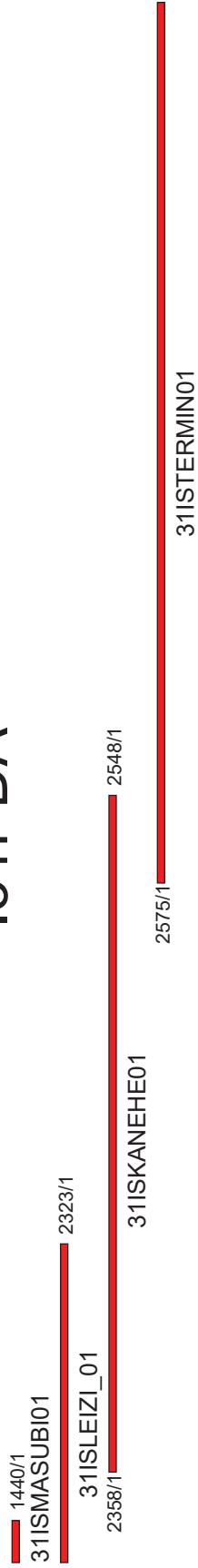
# I31PDA



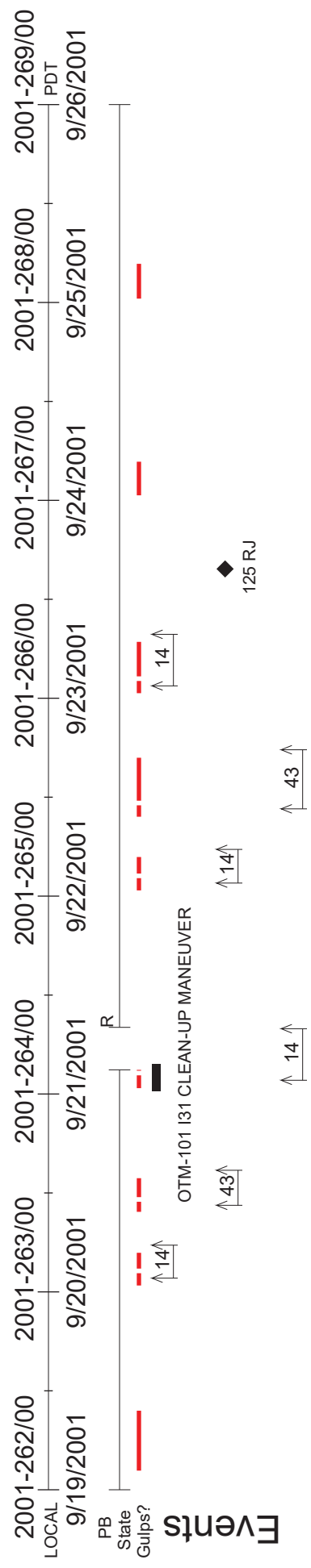
Playback / Date Returned



# I31PDA



Playback / Date Returned



# I31PDA

311STERMIN01 3085/1

3155/1 3961/1

311STERMIN02

3972/1 4997/1

311NREGION01-

5752/1 5836/1

311SSAMALTH01

5848/2 5774/2

311PDGTM\_01-

5775/2

311NREGION02- 4884/2

4884/2 4870/2

311PPOLMAP01-

4806/2 4719/2

311ASOPNAV\_01

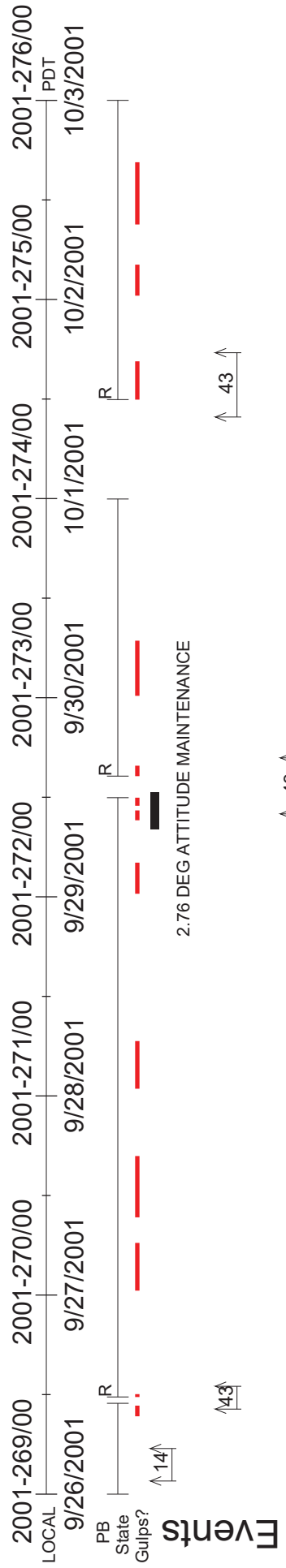
4707/2 4705/2

311CPSTP03002-

4706/2

311JNGRSPOT01-

Playback / Date Returned

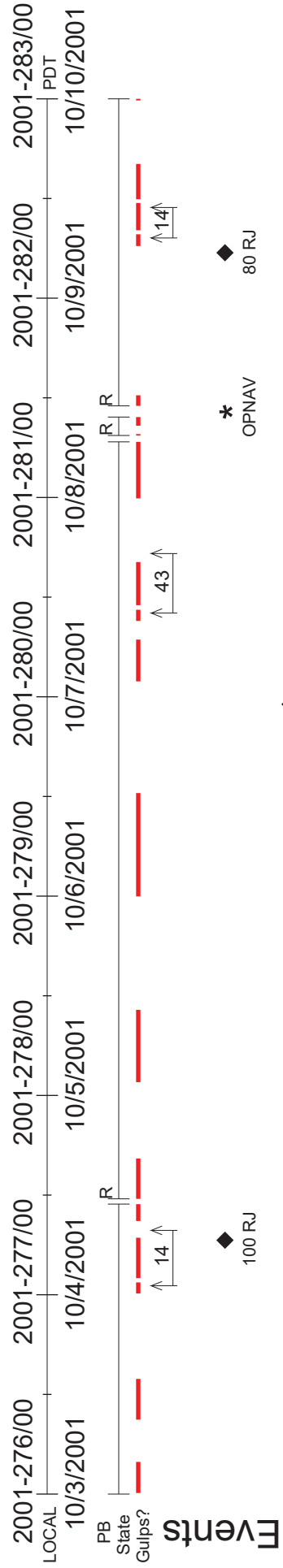


# I31PDA

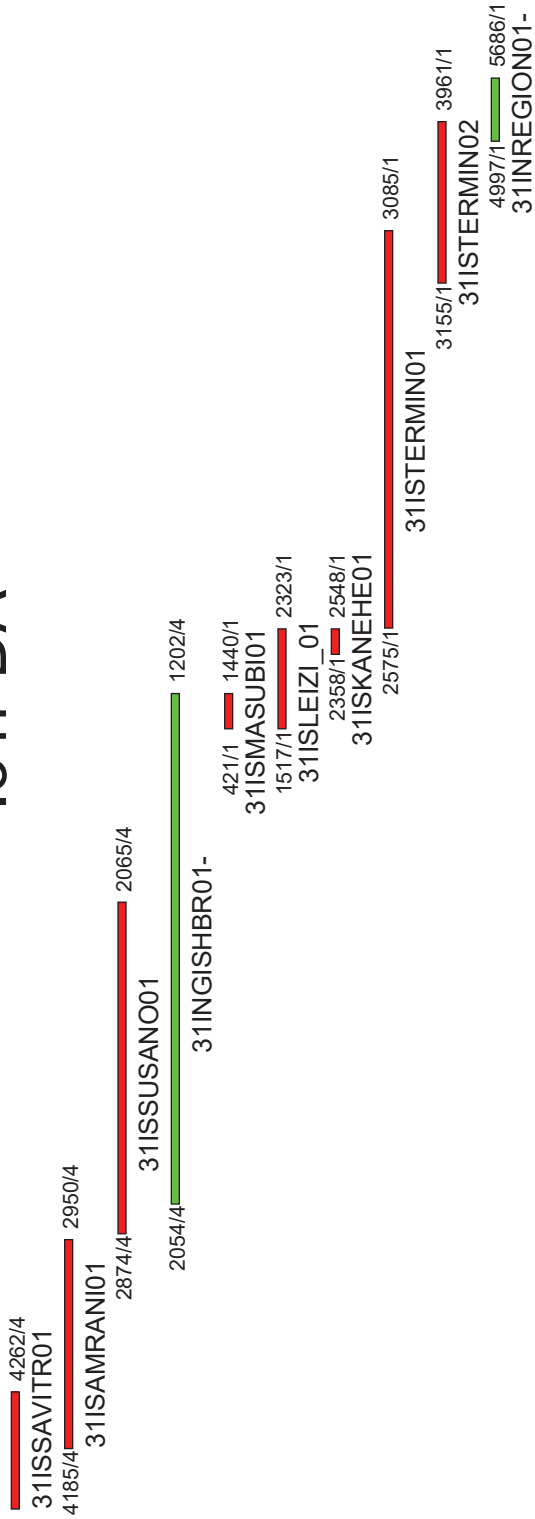
2767/3 3937/3  
 31ISPRMTH01  
 4033/3 5269/3  
 31ISTVASHT02  
 5825/4  
 31ISSAVITR01

4120/2  
 31JNGRSPOT01-  
 4121/2 4092/2  
 31MBBFRDMP04-  
 4090/2 4088/2  
 31CPSTP01503-  
 4089/2 4060/2  
 31MBBFRDMP05-  
 4053/2 3966/2  
 31ISGLOCOL01  
 3960/2 3770/2  
 31JSWAVTRK01  
 3372/2 3181/2  
 31JSWAVTRK04  
 3175/2 2985/2  
 31JSWAVTRK05  
 2979/2 2789/2  
 31JSWAVTRK06  
 2783/2 2592/2  
 31JSWAVTRK07  
 1413/2 792/2  
 31JNGRSPOT02-  
 787/2 698/2  
 31ISGLOCOL02  
 705/3 875/3  
 31IBSATCA\_01-  
 877/3 1408/3  
 31INTHRMAL01-  
 1436/3 1648/3  
 31INHISISUM01-  
 1772/3 2391/3  
 31ISTVASHT01

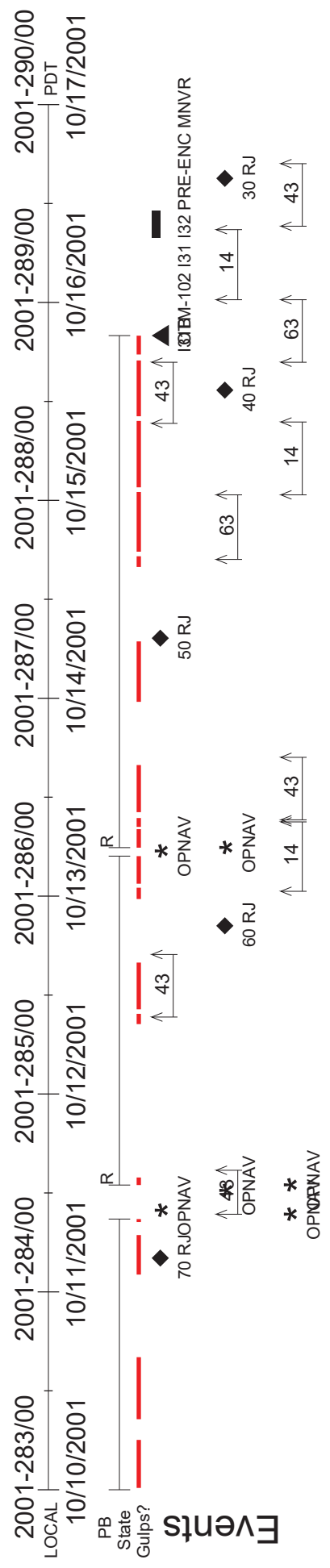
Playback / Date Returned



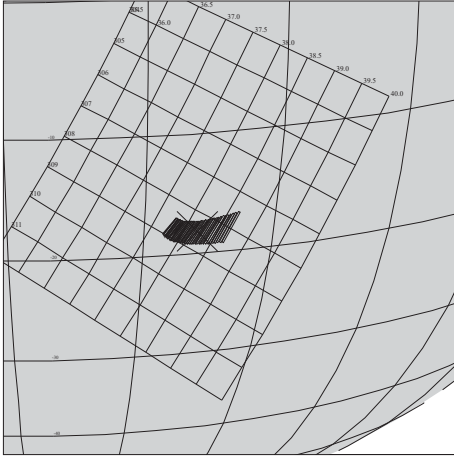
# I31PDA



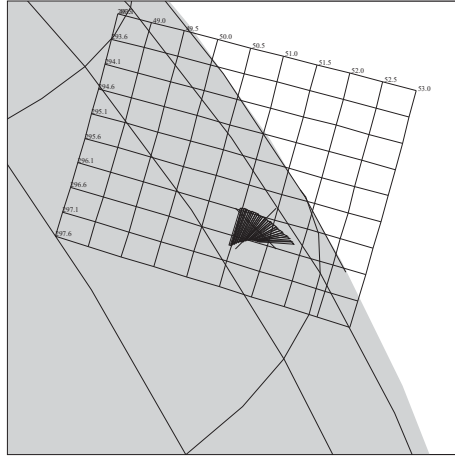
Playback / Date Returned



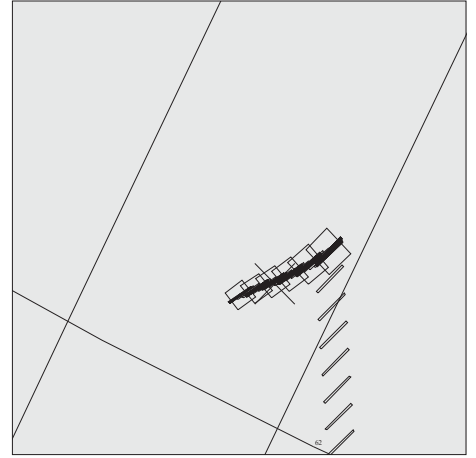
# I31 NIMS A



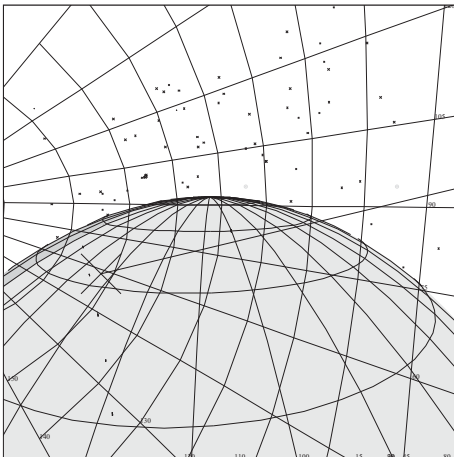
**31INTHRMAL01**  
**01-218/04:33:31**



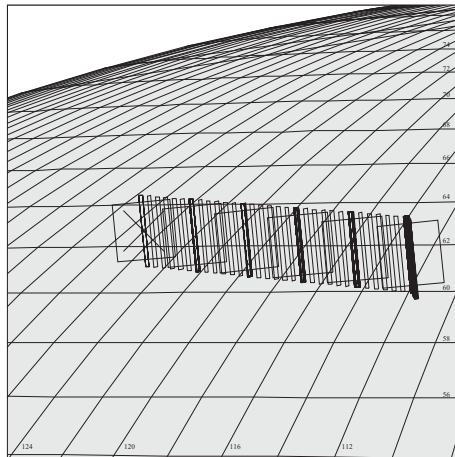
**31INHISISUM01**  
**01-218/04:47:40**



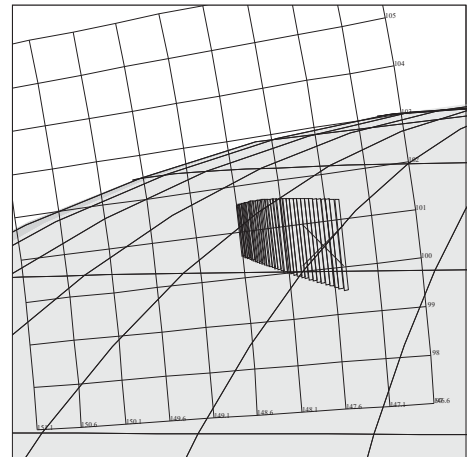
**31INTVASHT02**  
**01-218/04:59:48**



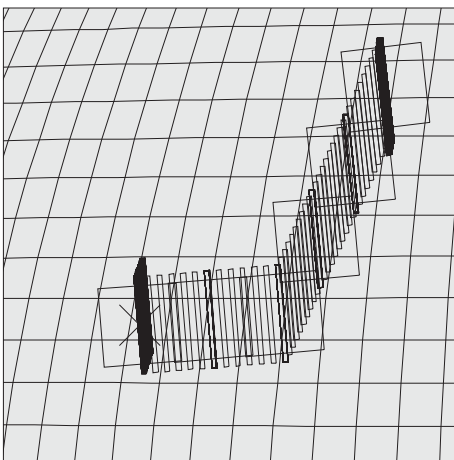
**31INSO2MAP01**  
**01-218/05:01:50**



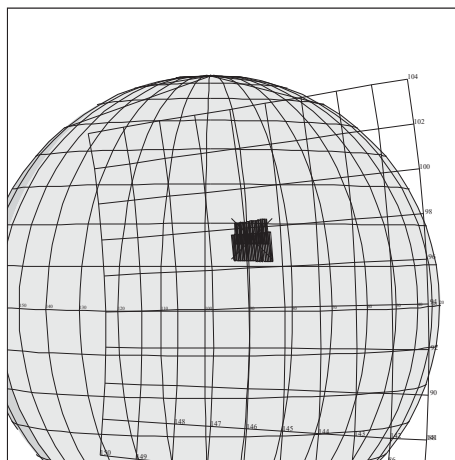
**31INTVASHT03**  
**01-218/05:10:42**



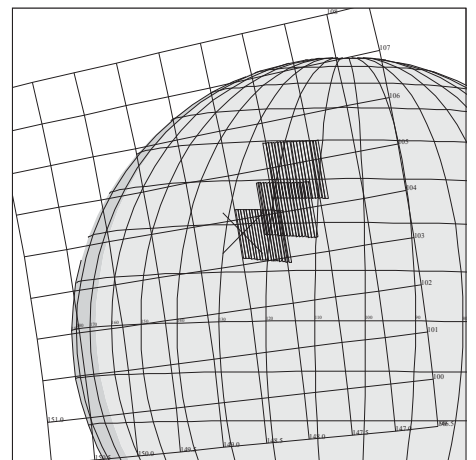
**31INTVASHT01**  
**01-218/05:13:58**



**31INAMRANI02**  
**01-218/05:33:57**

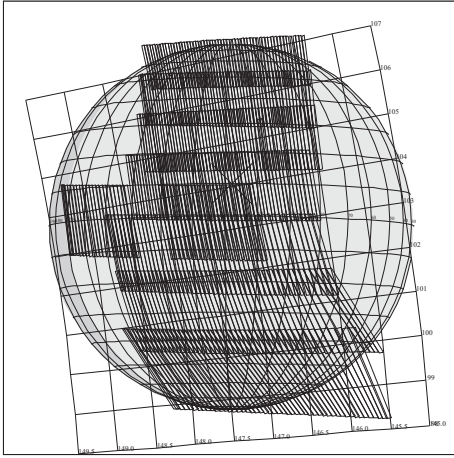


**31INGISHBR01**  
**01-218/05:39:14**

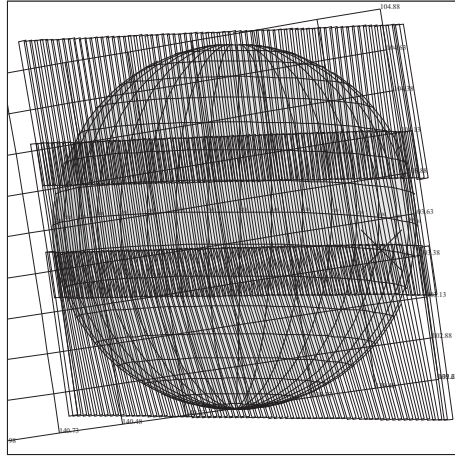


**31INAMRANI01**  
**01-218/06:19:41**

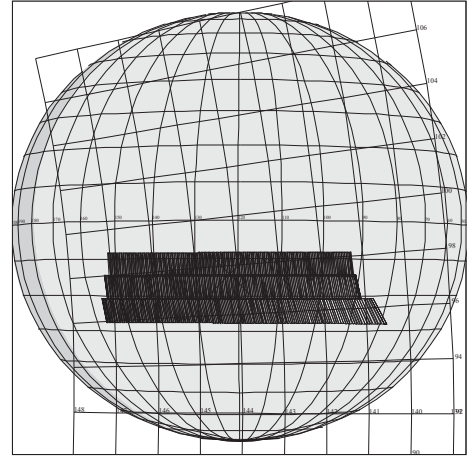
# I31 NIMS B



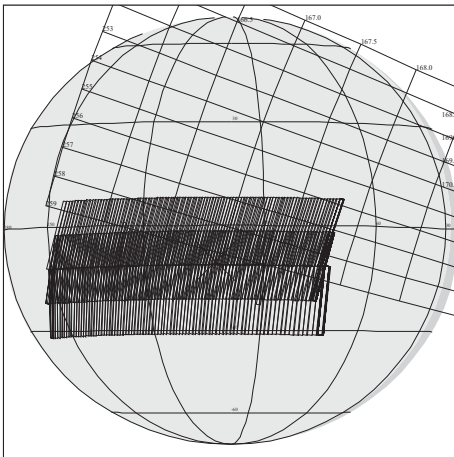
**31INREGION01**  
**01-218/06:50:01**



**31INREGION02**  
**01-218/07:24:24**



**31JNGRSPOT01**  
**01-218/16:09:10**



**31JNGRSPOT02**  
**01-220/08:31:47**

## Chapter 3 - Orbit Geometries

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3.7	Io North Trajectory Pole View (+/- 6 hours) ..	7
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3.10	Jupiter Groundtrack at Closest Approach .....	10



### Introduction to Chapter 3

This chapter contains diagrams of various aspects of geometry for the I31 Orbit.

The figure on page 3 is a North Trajectory Pole View of the I31 Orbit from apoapsis to apoapsis.

The figure on page 4 is a North Trajectory Pole View of the I31 Orbit from +/- 5 days of Jupiter closest approach.

The figure on page 5 is a North Trajectory Pole View of the I31 Orbit from +/- 2 days of Jupiter closest approach.

The figure on page 6 is a North Trajectory Pole View of the I31 Orbit from +/- 1 day of Jupiter closest approach.

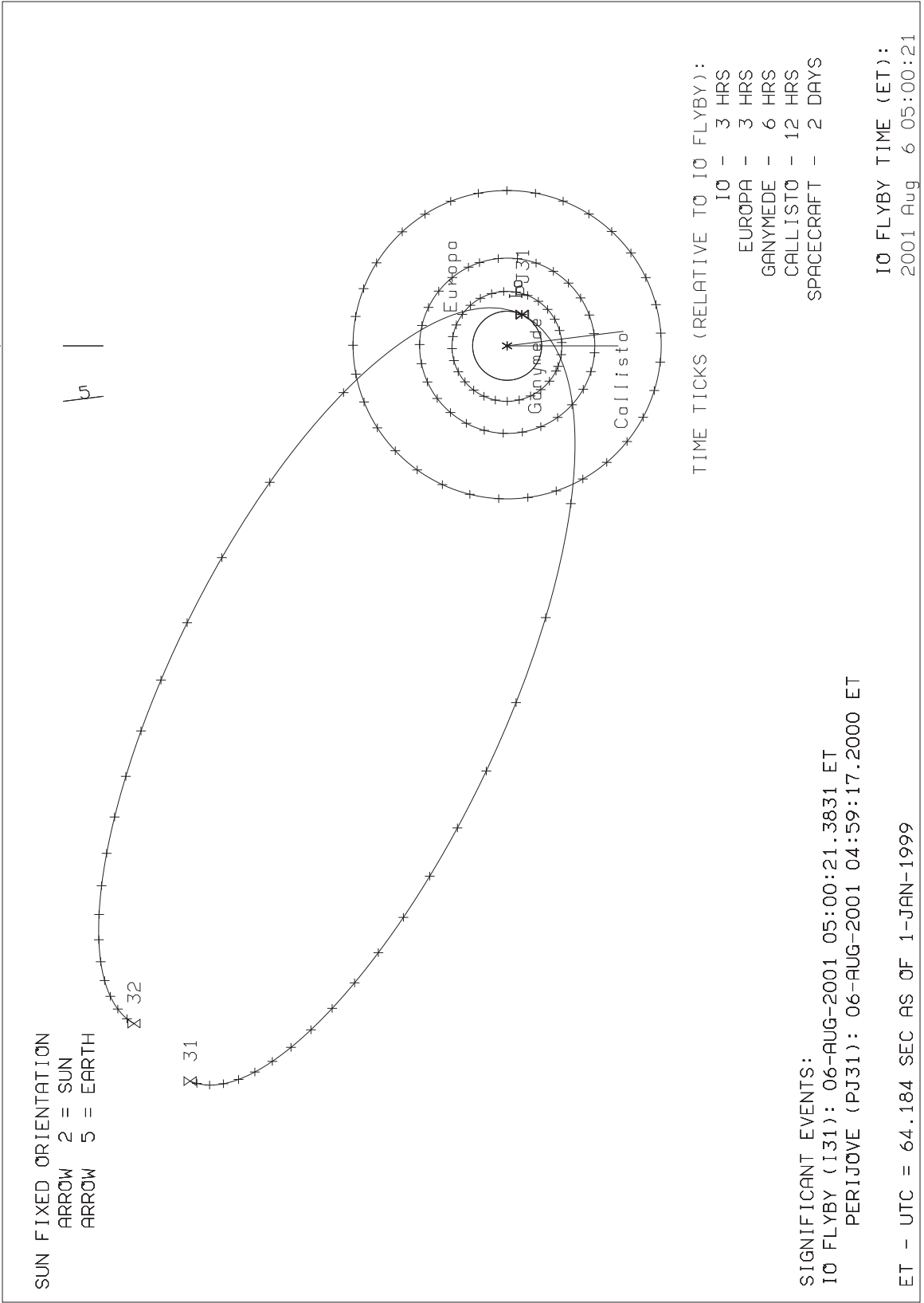
The figure on page 7 is a North Trajectory Pole View of the I31 Orbit from +/- 6 hours of Io closest approach.

The figure on page 8 is a North Trajectory Pole View of the I31 Orbit from +/- 1 hour of Io closest approach.

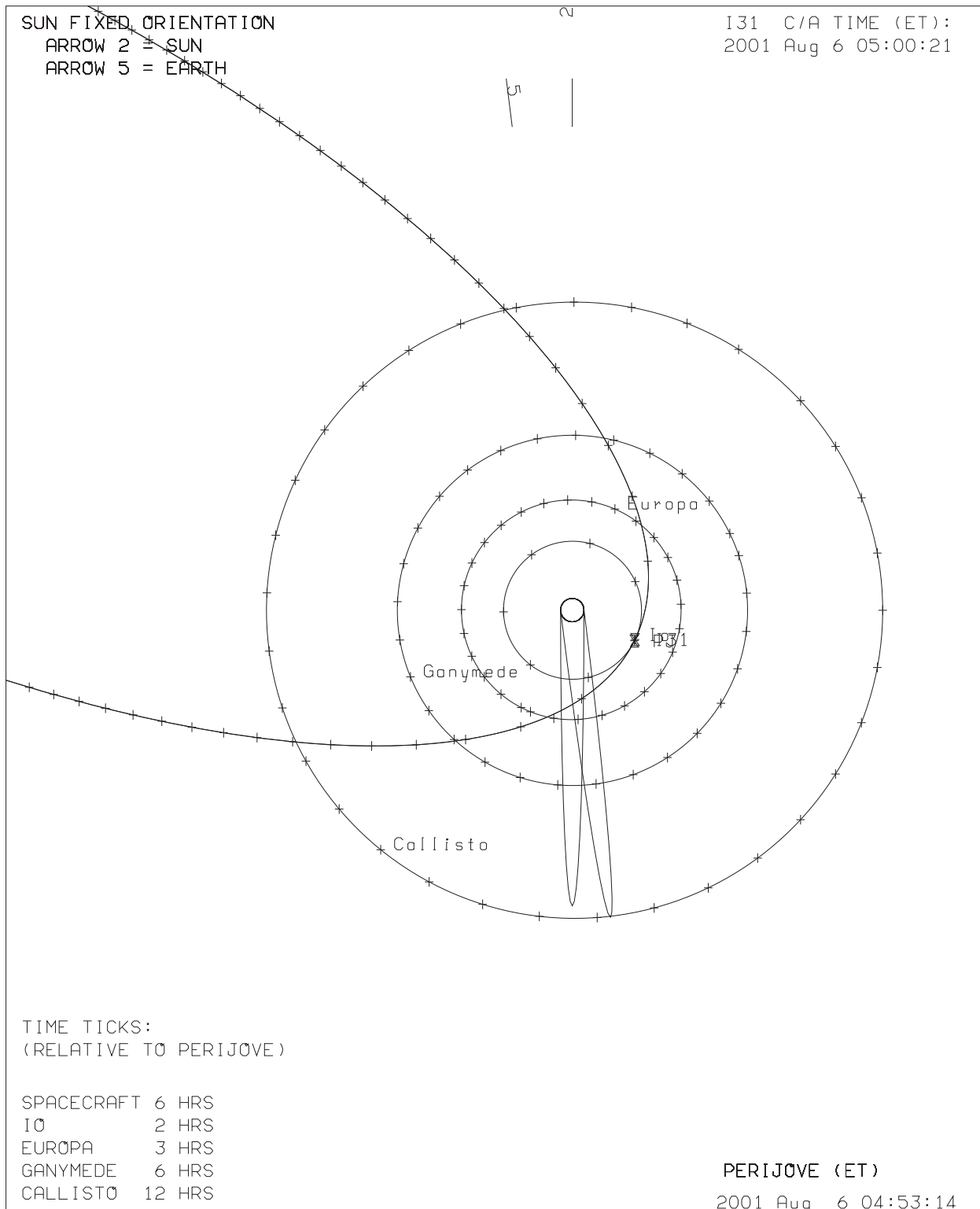
The figure on page 9 shows the spacecraft's groundtrack on Io at Io closest approach.

The figure on page 10 shows the spacecraft's groundtrack on Jupiter at Jupiter closest approach.

# Jupiter 31: North Traj Pole View (Io 31 Apo to Apo)



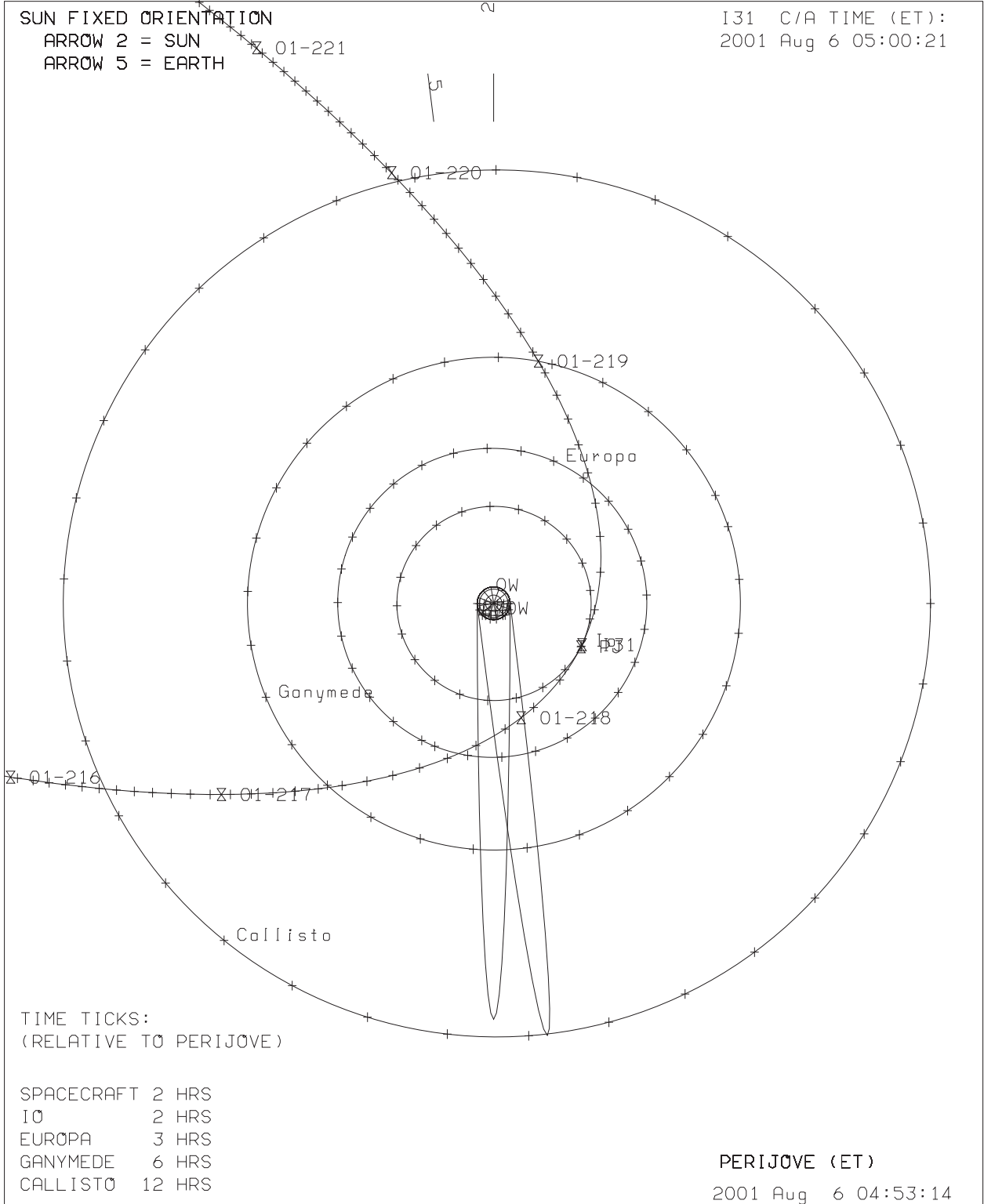
# JUPITER 31: N. TRAJ. POLE VIEW (+/- 5 DAYS)



GMM-010529

NAV Jun 04, 2001

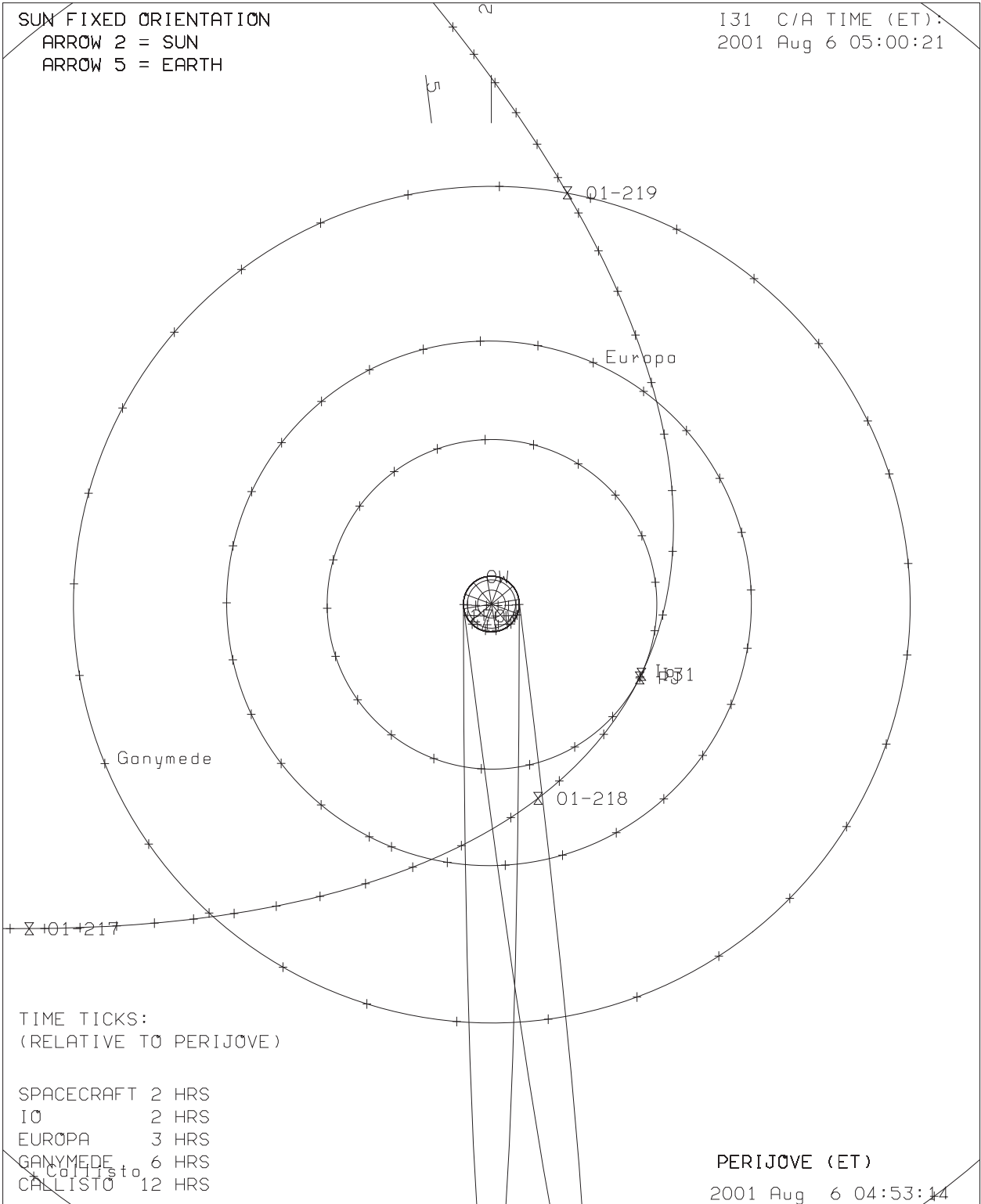
# JUPITER 31: N. TRAJ. POLE VIEW (+/- 2 DAYS)



GMM-010529

NAV Jun 04, 2001

# JUPITER 31: N. TRAJ. POLE VIEW (+/- 1 DAY)



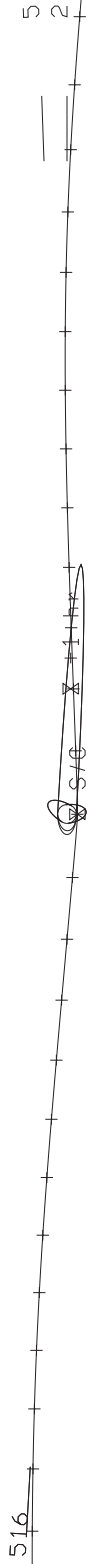
GMM-010529

NAV Jun 04, 2001

IO 31: N. TRAJ POLE VIEW (+/- 6 HRS)

SPACECRAFT TIME TICKS: 30 MINUTES

Per  
for



ARROWS:

- 2 VECTOR TO SUN
- 5 VECTOR TO EARTH
- 25 VECTOR TO JUPITER
- 516 VECTOR OPPOSITE TO WAKE
- 18,19 VECTORS OPPOSITE ALFVEN WINGS

ET - UTC = 64.184 SEC AS OF 1-JAN-1999

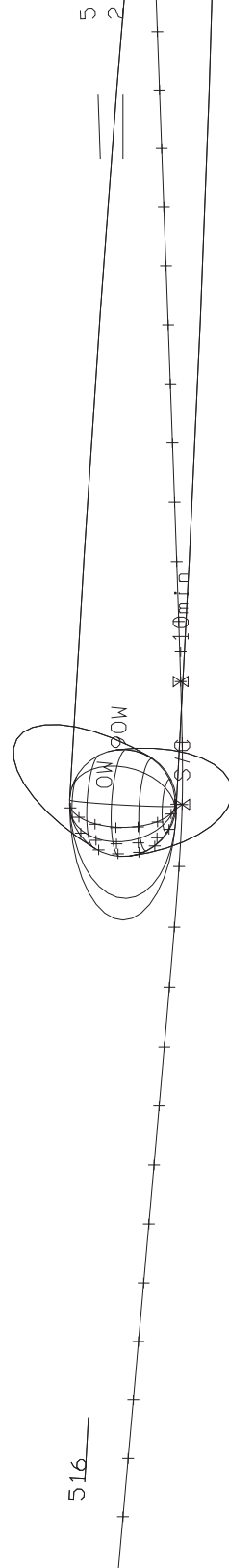
IO 31  
FLYBY TIME (ET):  
2001 Aug 6 05:00:21

NAV 6/04/01

I0 31: N. TRAJ POLE VIEW (+/- 1 HR)

SPACECRAFT TIME TICKS: 5 MINUTES

~~25~~



ARROWS:

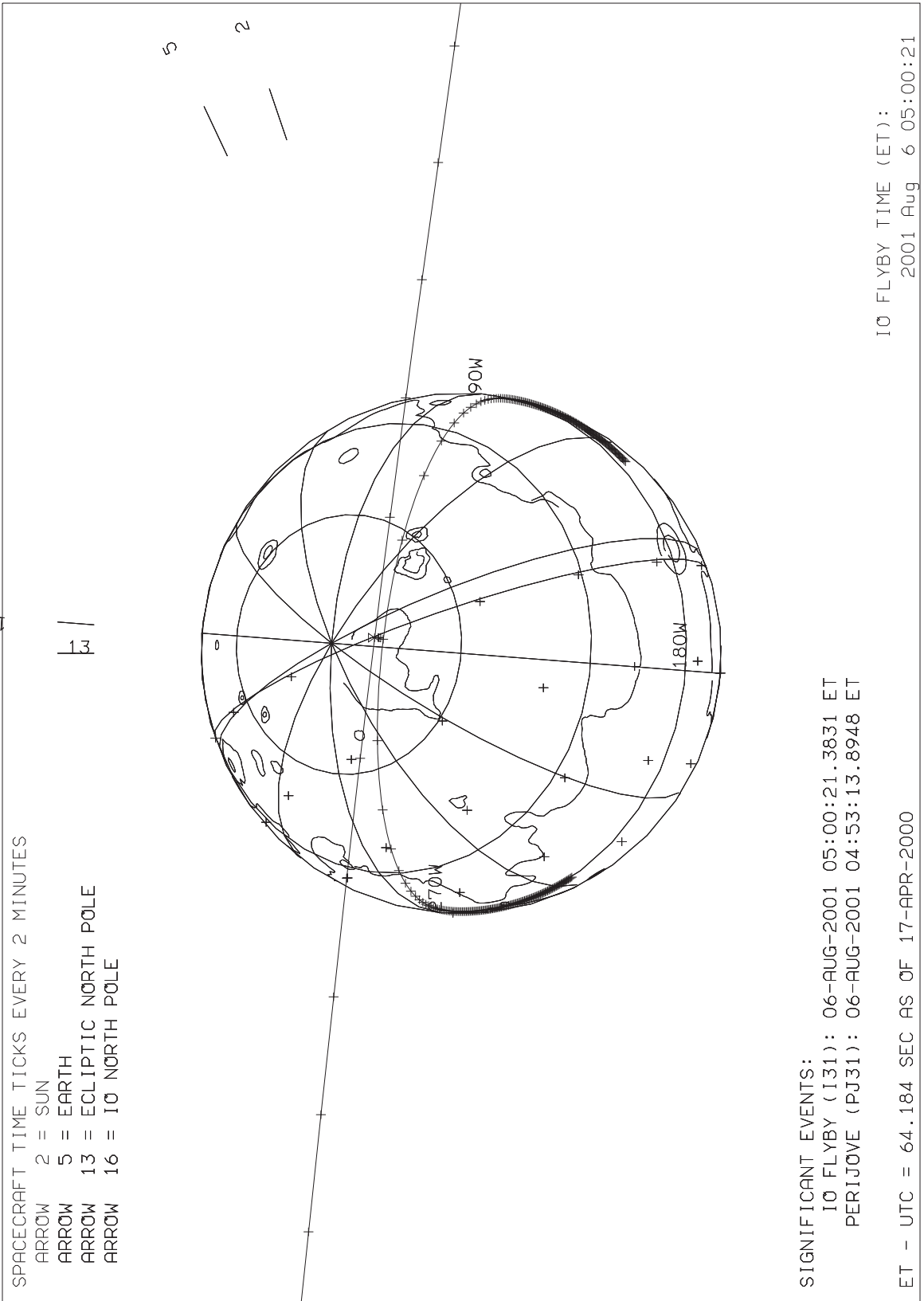
- 2 VECTOR TO SUN
- 5 VECTOR TO EARTH
- 25 VECTOR TO JUPITER
- 516 VECTOR OPPOSITE TO WAKE
- 18,19 VECTORS OPPOSITE ALFVEN WINGS

ET - UTC = 64.184 SEC AS OF 1-JAN-1999

I0 31  
 FLYBY TIME (ET):  
 2001 Aug 6 05:00:21

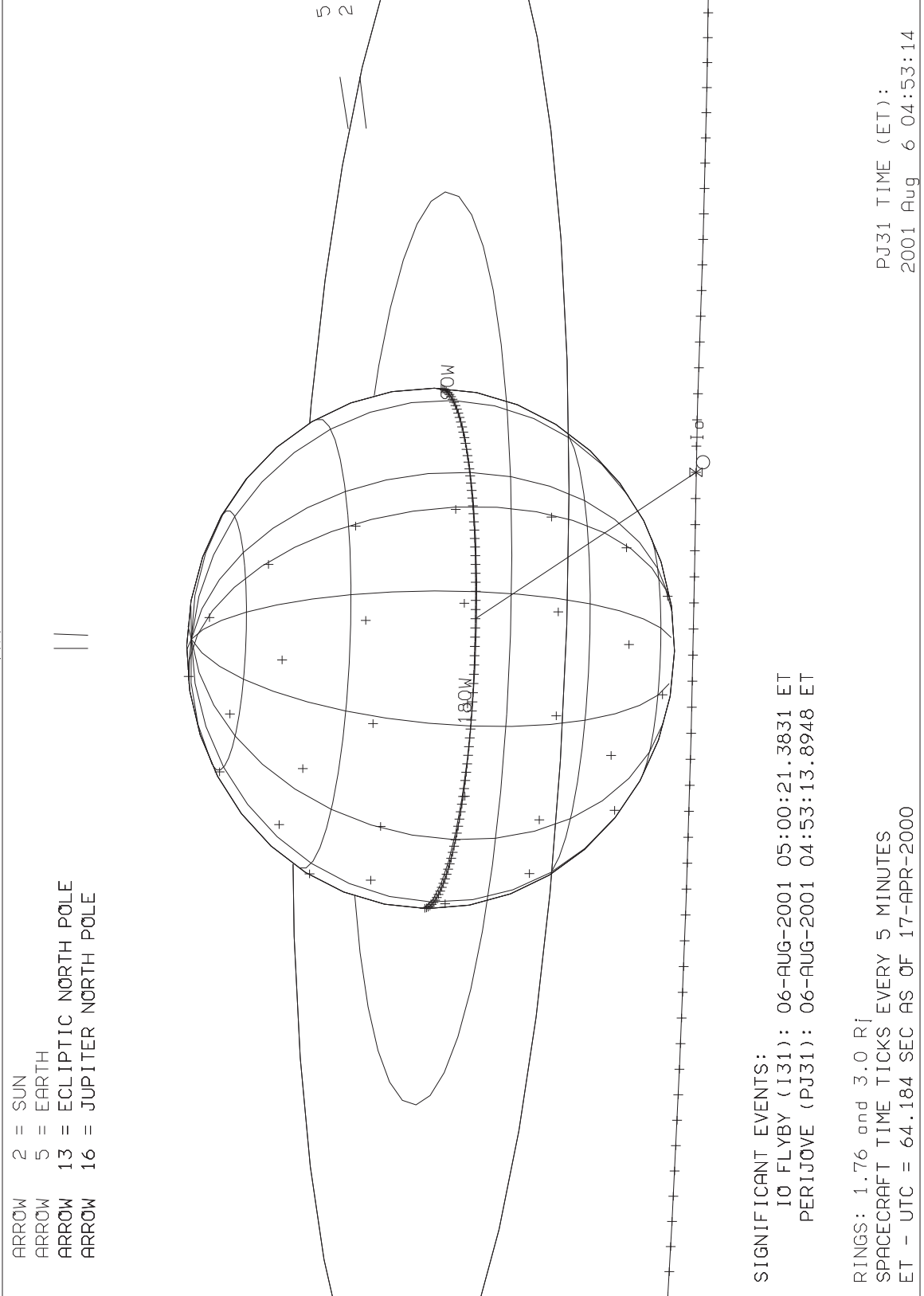
NAV 6/04/01

# IØ 31: GROUNDTRACK AT CLOSEST APPROACH





# JUPITER 31: GROUNDTRACK AT CLOSEST APPROACH



## Chapter 4 - NIMS Observation Summaries

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## Introduction to Chapter 4

This chapter summarizes the NIMS I31 observations in terms of a comprehensive sequence summary, Individual Obstab Summaries and a NIMS Obstab (Observation Table).

The NIMS Sequence Summary is a time-ordered listing of all spacecraft activity pertinent to NIMS operations for the I31 Sequence. The information in this summary is derived from the I31 SEFs (Spacecraft Event File) and PBTs (Playback Tables) with inputs from the NIMS Science Coordinators regarding the start time and duration of the NIMS observations. There are twelve columns of information in this table:

- 1) Line - Line Count.
- 2) YR - Year.
- 3) DOY - Day of Year.
- 4) Time - SCET Time (UTC).
- 5) PSID - Parameter Set ID of the SEF line.
- 6) Command - Command name from the SEF.
- 7) Parameters - Parameters from the above Command Line.
- 8) Description - Description of the above Command for NIMS.
- 9) GCM - NIMS Gain, Chopper mode, Instrument Mode.  
Gain = 1,2,3 or 4.  
Chopper Mode = R (Reference) or 6 (63Hz).  
Instrement Mode = 0-15
- 10) GO - NIMS Grating Offset.
- 11) GS - NIMS Grating Start Position.
- 12) RIM,MF,I - SCLK of the Command Line (RIM:MF:RTI)

An additional line is inserted into this table at the start and stop times of each NIMS Observation (Opel) to bracket the commands which affect each NIMS Observation. The NIMS Playback Select and DeSelect times are also inserted into this table to correlate the playback requests with the observations.

The Individual Obstab Summaries are expansions of the NIMS Obstab to one page per Obstab entry for ease in reading the NIMS Obstab.

The NIMS Obstab (Observation Table) is a time-ordered listing of the NIMS obsrvation parameters for use by downlink data processing of the NIMS I31 data. It is also derived from the I31 SEFs and PBTs. Each Obstab entry is 512 bytes long but is presented here as 4 lines of 128 characters per entry.

Sequence:		131A-AR		Created: 10/11/01		Begin: 01-216/11:00:00		Finish: 01-221/21:00:00				
Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1	1	216	11:00:00.000	20A3EW	37A	Initial Condition	NIMS Power ON	100	4	0	6,152,542:85:7	
2	1	216	11:00:00.000	20A3EX	37HR	Initial Condition	Replacement Heaters OFF	100	4	0	6,152,542:85:7	
3	1	216	11:00:00.000	20A3EY	37C1PR	Initial Condition	Optics Heater 1 OFF (primary relay)	100	4	0	6,152,542:85:7	
4	1	216	11:00:00.000	20A3FB	37F2PR	Initial Condition	Shield Flash Heater OFF (primary relay)	100	4	0	6,152,542:85:7	
5	1	216	11:00:00.000	20A3FE	40T1PR	Initial Condition	PCT Heater 1 OFF (primary relay)	100	4	0	6,152,542:85:7	
6	1	216	11:00:00.000	20A3FD	40HRPR	Initial Condition	RCT Heater OFF (primary relay)	100	4	0	6,152,542:85:7	
7	1	216	11:00:00.000	20A3FF	40T2R	Initial Condition	PCT Heater 2 OFF	100	4	0	6,152,542:85:7	
8	1	216	11:00:00.000	20A3EZ	37C2PR	Initial Condition	Optics Heater 2 OFF (primary relay)	100	4	0	6,152,542:85:7	
9	1	216	11:00:00.000	20A3FA	37F1PR	Initial Condition	Radiator Flash Heater OFF (primary relay)	100	4	0	6,152,542:85:7	
10	1	216	11:00:00.200		DMS:	: READY	RDY, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,152,542:86:0	
11	1	216	11:01:02.866	432JA6B	6RTDS2	NIMDSL,ACDLSL,RT	NIMS R/T DESELECTAACS DESELECT	100	4	0	6,152,543:89:0	
12	1	216	11:01:48.200	488AA6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,152,544:66:0	
13	1	216	11:27:24.200	488AA6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,152,570:04:0	
14	1	216	11:40:40.200	488AA6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,152,583:15:0	
15	1	216	12:14:19.533	488AA6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,152,616:41:0	
16	1	216	14:35:25.533		DMS:	: *E4-DELAY	RDY, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,152,756:00:0	
17	1	216	14:35:25.533		DMS:	: *SLEW-TIC	P7, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,152,756:00:0	
18	1	216	14:35:25.533		DMS:	: *TURNARND	P7, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,152,756:00:0	
19	1	216	14:35:25.533	465KA6A	6DMST		472 DMS Slew to TIC	100	4	0	6,152,756:00:0	
20	1	216	14:35:32.200		DMS:	: *RUNUP	P7, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,152,756:10:0	
21	1	216	14:35:33.600		DMS:	: *AT SPD	P7, TRACK 1, FWD, TIC * 202.24 +/-	100	4	0	6,152,756:12:1	
22	1	216	14:54:35.000		DMS:	: *RUNDOWN	P7, TRACK 1, FWD, TIC * 469.94 +/-	100	4	0	6,152,774:86:2	
23	1	216	14:54:36.200		DMS:	: *READY	RDY, TRACK 1, FWD, TIC * 470.00 +/-	100	4	0	6,152,774:88:0	
24	1	216	15:01:42.866	192GH4A	7CONE	9,0,0,0	Check S/P Position	100	4	0	6,152,782:00:0	
25	1	216	15:05:45.533		DMS:	: READY	RDY, TRACK *2, *REV, TIC 470.00 +/-	100	4	0	6,152,786:00:0	
26	1	216	15:05:45.533	465KB6A	6DMSC	RDY,2	DMS Control Tape stop	100	4	0	6,152,786:00:0	
27	1	216	15:08:47.533	176GH6A	6TMREC	BPT	7.68 KBPS PPR BURST TO TAPE Record Mode C	100	4	0	6,152,789:00:0	
28	1	216	15:11:02.200	176GH6B	6TMREC	NRC	NO RECORD Record Mode Change	100	4	0	6,152,791:20:0	
29	1	216	15:11:04.200	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,152,791:23:0	
30	1	216	15:11:04.200		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 470.00 +/-	100	4	0	6,152,791:23:0	
31	1	216	15:11:05.600		DMS:	: *US AT SP	P7, TRACK 1, FWD, TIC * 470.12 +/-	100	4	0	6,152,791:25:1	
32	1	216	15:11:10.866		DMS:	: *US RD	P7, TRACK 1, FWD, TIC * 471.35 +/-	100	4	0	6,152,791:33:0	
33	1	216	15:11:12.066		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC * 471.41 +/-	100	4	0	6,152,791:34:8	
34	1	216	15:11:13.466		DMS:	: *AT SPD	R7, TRACK 2, REV, TIC * 471.29 +/-	100	4	0	6,152,791:36:9	
35	1	216	15:11:14.200		DMS:	: *RECORD	R7, TRACK 2, REV, TIC * 471.12 +/-	100	4	0	6,152,791:38:0	
36	1	216	15:11:25.533	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,152,791:55:0	
37	1	216	15:11:25.533		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC * 468.47 +/-	100	4	0	6,152,791:55:0	
38	1	216	15:11:26.733		DMS:	: *READY	RDY, TRACK 2, REV, TIC * 468.41 +/-	100	4	0	6,152,791:56:8	
39	1	216	15:13:50.866	192GH4B	7CONE	9,0,90,0	Check S/P Position	100	4	0	6,152,794:00:0	
40	1	216	15:19:54.200	165GK4A	7SCAN	NORM,312.306999,	Check S/P Position	100	4	0	6,152,799:90:0	
41	1	216	15:22:56.866	176GK6A	6TMREC	BPT	7.68 KBPS PPR BURST TO TAPE Record Mode C	100	4	0	6,152,803:00:0	
42	1	216	15:23:48.200	117GK	CSMOS	GS	***** GROUP START CSMOS	100	4	0	6,152,803:77:0	
43	1	216	15:23:57.533	117GK105A106A4A	7STRP	0.002,-0.015003,	Slew = 0.48	100	4	0	6,152,804:00:0	
44	1	216	15:25:00.200	117GK105A106A4B	7STRP	0.0017,0.015003,	Slew = 12.01	100	4	0	6,152,805:03:0	
45	1	216	15:25:16.866	117GK105A106A4C	7STRP	0.002,-0.015003,	Slew = 0.48	100	4	0	6,152,805:28:0	
46	1	216	15:26:19.533	117GK105A106A4D	7STRP	0.0017,0.015003,	Slew = 12.01	100	4	0	6,152,806:31:0	
47	1	216	15:26:36.200	117GK105A106A4E	7STRP	0.002,-0.015003,	Slew = 0.48	100	4	0	6,152,806:56:0	
48	1	216	15:27:38.866	117GK105A106A4F	7STRP	0.0017,0.015003,	Slew = 12.01	100	4	0	6,152,807:59:0	
49	1	216	15:27:55.533	117GK105A106A4G	7STRP	0.002,-0.015003,	Slew = 0.48	100	4	0	6,152,807:84:0	
50	1	216	15:28:58.200	117GK11A	CSMOS	GE	***** GROUP END CSMOS	100	4	0	6,152,808:87:0	
51	1	216	15:30:31.533	176GK6B	6TMREC	NRC	NO RECORD Record Mode Change	100	4	0	6,152,810:45:0	
52	1	216	15:30:33.533	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,152,810:48:0	
53	1	216	15:30:33.533		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 468.41 +/-	100	4	0	6,152,810:48:0	

Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MF I
54	1	216	15:30:34.933		DMS: : *US_AT_SP	P7, TRACK 1, FWD, TIC * 468.53 +/-	100	4	0	6,152,810:50:1	
55	1	216	15:30:40.200		DMS: : *US_RD	P7, TRACK 1, FWD, TIC * 469.76 +/-	100	4	0	6,152,810:58:0	
56	1	216	15:30:41.400		DMS: : *RUNUP	R7, TRACK *2, REV, TIC * 469.82 +/-	100	4	0	6,152,810:59:8	
57	1	216	15:30:42.800		DMS: : *AT_SPD	R7, TRACK 2, REV, TIC * 469.70 +/-	100	4	0	6,152,810:61:9	
58	1	216	15:30:43.533		DMS: : *RECORD	R7, TRACK 2, REV, TIC * 469.53 +/-	100	4	0	6,152,810:65:0	
59	1	216	15:30:58.200	50ZZ6RE	6DMSC RDY,0	DMS Control Tape stop	100	4	0	6,152,810:85:0	
60	1	216	15:30:58.200		DMS: : *RUNDOWN	R7, TRACK 2, REV, TIC * 466.09 +/-	100	4	0	6,152,810:85:0	
61	1	216	15:30:59.400		DMS: : *READY	RDY, TRACK 2, REV, TIC * 466.03 +/-	100	4	0	6,152,810:86:8	
62	1	216	15:32:06.866	20UO4A	7SAFE UNSTOW	S/P TO 153 deg cone	100	4	0	6,152,812:06:0	
63	1	216	15:57:14.200	488AA6E	6TMSED FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,152,836:83:0	
64	1	216	16:04:44.200	488AB6A	6TMSED FILL,AL2	Sci, Eng, and D/L Chan	100	4	0	6,152,844:30:0	
65	1	216	19:06:42.866	488AB6B	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	100	4	0	6,153,024:28:0	
66	1	216	19:27:24.200	488AB6C	6TMSED NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,153,044:70:0	
67	1	216	19:30:00.200	20TO4A	7SAFE STOP	S/P NO MOVEMENT	100	4	0	6,153,047:31:0	
68	1	216	19:30:50.200	20TO4B	7SLEW DIS,POS,0.0	Stator movement	100	4	0	6,153,048:15:0	
69	1	216	19:30:56.200	20TO4E	7STAR 1,1307,23.9660,-	Star catalog update	100	4	0	6,153,048:24:0	
70	1	216	19:30:58.200	20TO4F	7STAR 2,9000,2.664,14.	Star catalog update	100	4	0	6,153,048:27:0	
71	1	216	19:31:00.200	20TO4G	7STAR 3,1307,23.9660,-	Star catalog update	100	4	0	6,153,048:30:0	
72	1	216	19:31:02.200	20TO4H	7STAR 4,9000,2.664,14.	Star catalog update	100	4	0	6,153,048:33:0	
73	1	216	19:31:04.200	20TO4I	7STAR 5,1307,23.9660,-	Star catalog update	100	4	0	6,153,048:36:0	
74	1	216	19:31:06.200	20TO4J	7STAR 6,9000,2.664,14.	Star catalog update	100	4	0	6,153,048:39:0	
75	1	216	20:33:33.533	488AB6D	6TMSED FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,153,110:18:0	
76	1	216	21:00:00.200	481UA4A	7VECT	Inert vect update UTC	100	4	0	6,153,136:32:0	
77	1	216	21:10:37.533	488AB6E	6TMSED NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,153,146:78:0	
78	1	216	21:46:04.200	488AC6A	6TMSED NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,153,181:83:0	
79	1	216	22:41:55.533	20IR6A	6MCOPI HLM1A,E415,B1A1A	HLM1A,E415,B1A1A,5000,506	100	4	0	6,153,237:14:0	
80	1	216	22:52:22.200	165IN4A	7SCAN NORM,217.953999,	Check S/P Position	100	4	0	6,153,247:44:0	
81	1	216	22:56:17.533		DMS: : *US-RUNUP	P7, TRACK *1, FWD, TIC 466.03 +/-	100	4	0	6,153,251:33:0	
82	1	216	22:56:17.533	175IN422A6A	6DMSC R115,0	DMS Control Tape runup 115.2kb	100	4	0	6,153,251:33:0	
83	1	216	22:56:18.933		DMS: : *US_AT_SP	P7, TRACK 1, FWD, TIC * 466.15 +/-	100	4	0	6,153,251:35:1	
84	1	216	22:56:24.200	165IN4B	7VECT	Inert vect update UTC	100	4	0	6,153,251:43:0	
85	1	216	22:56:24.200		DMS: : *US_RD	P7, TRACK 1, FWD, TIC * 467.39 +/-	100	4	0	6,153,251:43:0	
86	1	216	22:56:25.400		DMS: : *RUNUP	R115, TRACK *2, REV, TIC * 467.45 +/-	100	4	0	6,153,251:44:8	
87	1	216	22:56:28.866	175IN176A6A	6TMREC HMA	115.2 KBPS IMAGE(1-400)RECORD Record Mode	100	4	0	6,153,251:50:0	
88	1	216	22:56:29.400		DMS: : *AT_SPD	R115, TRACK 2, REV, TIC 467.15 +/-	100	4	0	6,153,251:50:8	
89	1	216	22:56:29.400		DMS: : *RECORD	R115, TRACK 2, REV, TIC * 467.15 +/-	100	4	0	6,153,251:50:8	
90	1	216	22:56:50.866	175IN422A6B	6DMSC RDY,0	DMS Control Tape stop	100	4	0	6,153,251:83:0	
91	1	216	22:56:50.866		DMS: : *RUNDOWN	R115, TRACK 2, REV, TIC * 385.68 +/-	100	4	0	6,153,251:83:0	
92	1	216	22:56:52.066		DMS: : *READY	RDY, TRACK 2, REV, TIC * 384.68 +/-	100	4	0	6,153,251:84:8	
93	1	216	22:58:18.866		DMS: : *US-RUNUP	P7, TRACK *1, FWD, TIC 384.68 +/-	100	4	0	6,153,253:33:0	
94	1	216	22:58:18.866	175JL422A6A	6DMSC R115,0	DMS Control Tape runup 115.2kb	100	4	0	6,153,253:33:0	
95	1	216	22:58:20.266		DMS: : *US_AT_SP	P7, TRACK 1, FWD, TIC * 384.80 +/-	100	4	0	6,153,253:35:1	
96	1	216	22:58:25.533		DMS: : *US_RD	P7, TRACK 1, FWD, TIC * 386.03 +/-	100	4	0	6,153,253:43:0	
97	1	216	22:58:26.733		DMS: : *RUNUP	R115, TRACK *2, REV, TIC * 386.09 +/-	100	4	0	6,153,253:44:8	
98	1	216	22:58:30.200	175JL176A6A	6TMREC HMA	115.2 KBPS IMAGE(1-400)RECORD Record Mode	100	4	0	6,153,253:50:0	
99	1	216	22:58:30.733		DMS: : *AT_SPD	R115, TRACK 2, REV, TIC 379.79 +/-	100	4	0	6,153,253:50:8	
100	1	216	22:58:30.733		DMS: : *RECORD	R115, TRACK 2, REV, TIC * 379.79 +/-	100	4	0	6,153,253:50:8	
101	1	216	22:58:52.200		DMS: : *RUNDOWN	R115, TRACK 2, REV, TIC * 304.32 +/-	100	4	0	6,153,253:83:0	
102	1	216	22:58:52.200	175JL422A6B	6DMSC RDY,0	DMS Control Tape stop	100	4	0	6,153,253:83:0	
103	1	216	22:58:53.400		DMS: : *READY	RDY, TRACK 2, REV, TIC * 303.32 +/-	100	4	0	6,153,253:84:8	
104	1	216	23:00:20.200	175JM422A6A	6DMSC R115,0	DMS Control Tape runup 115.2kb	100	4	0	6,153,255:33:0	
105	1	216	23:00:20.200		DMS: : *US-RUNUP	P7, TRACK *1, FWD, TIC 303.32 +/-	100	4	0	6,153,255:33:0	
106	1	216	23:00:21.600		DMS: : *US_AT_SP	P7, TRACK 1, FWD, TIC * 303.44 +/-	100	4	0	6,153,255:35:1	
107	1	216	23:00:26.866		DMS: : *US_RD	P7, TRACK 1, FWD, TIC * 304.68 +/-	100	4	0	6,153,255:43:0	
108	1	216	23:00:28.066		DMS: : *RUNUP	R115, TRACK *2, REV, TIC * 304.74 +/-	100	4	0	6,153,255:44:8	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
109	1	216	23:00:31.533	175JM176A6A	6TMREC	HMA	115.2 KBPS IMAGE(1-400)RECORD Record Mode	100	4	0	6,153,255:50:0	
110	1	216	23:00:32.066		DMS:	: *RECORD	R115, TRACK 2, REV, TIC * 298.44 +/-	100	4	0	6,153,255:50:8	
111	1	216	23:00:32.066		DMS:	: *AT SPD	R115, TRACK 2, REV, TIC 298.44 +/-	100	4	0	6,153,255:50:8	
112	1	216	23:00:53.533		DMS:	: *RUNDOWN	R115, TRACK 2, REV, TIC * 222.97 +/-	100	4	0	6,153,255:83:0	
113	1	216	23:00:53.533	175JM422A6B	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,153,255:83:0	
114	1	216	23:00:54.733		DMS:	: *READY	RDY, TRACK 2, REV, TIC * 221.97 +/-	100	4	0	6,153,255:84:8	
115	1	216	23:02:06.866	20UP4A	7SAFE	UNSTOW	S/P TO 153 deg cone	100	4	0	6,153,257:11:0	
116	1	216	23:24:12.200	488AC6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,153,278:88:0	
117	1	217	01:53:32.200	488AC6C	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	100	4	0	6,153,426:60:0	
118	1	217	02:15:52.866	488AC6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	100	4	0	6,153,448:69:0	
119	1	217	02:29:48.200	488AC6E	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	100	4	0	6,153,462:48:0	
120	1	217	03:06:04.200	488AD6A	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	100	4	0	6,153,498:36:0	
121	1	217	03:36:09.533	20IB6A	6MCOPI	HLM1A,E415,B1A1A	HLM1A,E415,B1A1A,5000,506	100	4	0	6,153,528:14:0	
122	1	217	03:47:06.866	165IX4A	7SCAN	NORM,2,82,2,85,1	Check S/P Position	100	4	0	6,153,538:90:0	
123	1	217	03:49:08.866		DMS:	: READY	RDY, TRACK *3, *FWD, TIC 221.97 +/-	100	4	0	6,153,541:00:0	
124	1	217	03:49:08.866	465KF6A	6DMSC	RDY,3	DMS Control Tape stop	100	4	0	6,153,541:00:0	
125	1	217	03:51:06.866	175IX422A6A	6DMSC	R115,3	DMS Control	100	4	0	6,153,542:86:0	
126	1	217	03:51:06.866		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 221.97 +/-	100	4	0	6,153,542:86:0	
127	1	217	03:51:08.866	165IX4B	7VECT		Inert vect update UTC	100	4	0	6,153,542:89:0	
128	1	217	03:51:13.533		DMS:	: *RUNUP	R115, TRACK *3, FWD, TIC 221.97 +/-	100	4	0	6,153,543:05:0	
129	1	217	03:51:16.866	175IX176A6A	6TMREC	HIM	115.2 KBPS SSI + NIMS RECORD Record Mode	100	4	0	6,153,543:11:0	
130	1	217	03:51:17.533		DMS:	: *AT SPD	R115, TRACK 3, FWD, TIC 228.27 +/-	100	4	0	6,153,543:11:0	
131	1	217	03:51:17.533		DMS:	: *RECORD	R115, TRACK 3, FWD, TIC * 228.27 +/-	100	4	0	6,153,543:11:0	
132	1	217	03:52:11.533	175IX422A6B	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,153,544:01:0	
133	1	217	03:52:11.533		DMS:	: *RUNDOWN	R115, TRACK 3, FWD, TIC * 418.11 +/-	100	4	0	6,153,544:01:0	
134	1	217	03:52:12.733		DMS:	: *READY	RDY, TRACK 3, FWD, TIC * 419.11 +/-	100	4	0	6,153,544:02:8	
135	1	217	03:55:06.866	20UQA4	7SAFE	UNSTOW	S/P TO 153 deg cone	100	4	0	6,153,546:82:0	
136	1	217	05:12:02.866	432JB431A6A	6RCDSL	DDSDSL,PLSDSL,EP	Record Deselect (DDS o	100	4	0	6,153,622:90:0	
137	1	217	05:12:03.533	432JB6B	6RTSL2	NIMCG,ACSEL,RT	AACS SELECT	100	4	0	6,153,623:00:0	
138	1	217	05:12:03.533	432JB6A	6RTSL1		R/T Select of DDS and	100	4	0	6,153,623:00:0	
139	1	217	05:14:08.866	20OB6A	6HICON			100	4	0	6,153,625:06:0	
140	1	217	07:20:27.533	165GA4A	7SCAN	NORM,220,036999,	Check S/P Position	100	4	0	6,153,749:90:0	
141	1	217	07:23:30.200	176GA6A	6TMREC	BPT	7.68 KBPS PPR BURST TO TAPE Record Mode C	100	4	0	6,153,753:00:0	
142	1	217	07:24:21.533	117GA	CSMOS	GS	***** GROUP START CSMOS	100	4	0	6,153,753:77:0	
143	1	217	07:24:30.866	117GA105A106A4A	7STRP	0.075141,-0.0056	Slew = 0.31	100	4	0	6,153,753:77:0	
144	1	217	07:28:44.866	117GA105A106A4B	7STRP	-0.075443,0.0046	Slew = 12.01	100	4	0	6,153,754:00:0	
145	1	217	07:29:01.533	117GA105A106A4C	7STRP	0.075141,-0.0056	Slew = 0.31	100	4	0	6,153,758:42:0	
146	1	217	07:33:15.533	117GA105A106A4D	7STRP	-0.075443,0.0046	Slew = 12.01	100	4	0	6,153,762:59:0	
147	1	217	07:33:32.200	117GA105A106A4E	7STRP	0.075141,-0.0056	Slew = 0.31	100	4	0	6,153,762:84:0	
148	1	217	07:36:04.866		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 419.11 +/-	100	4	0	6,153,765:40:0	
149	1	217	07:36:04.866	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,153,765:40:0	
150	1	217	07:36:11.533		DMS:	: *RUNUP	R7, TRACK *3, FWD, TIC 419.11 +/-	100	4	0	6,153,765:50:0	
151	1	217	07:36:12.933		DMS:	: *AT SPD	R7, TRACK 3, FWD, TIC * 419.23 +/-	100	4	0	6,153,765:52:1	
152	1	217	07:36:30.200		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC * 423.28 +/-	100	4	0	6,153,765:78:0	
153	1	217	07:36:52.866		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 428.59 +/-	100	4	0	6,153,766:21:0	
154	1	217	07:36:52.866	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,153,766:21:0	
155	1	217	07:36:54.066		DMS:	: *READY	RDY, TRACK 3, FWD, TIC * 428.65 +/-	100	4	0	6,153,766:22:8	
156	1	217	07:37:46.200	117GA105A106A4F	7STRP	-0.075443,0.0046	Slew = 12.01	100	4	0	6,153,767:10:0	
157	1	217	07:38:02.866	117GA105A106A4G	7STRP	0.075141,-0.0056	Slew = 0.31	100	4	0	6,153,767:35:0	
158	1	217	07:42:16.866	117GA105A106A4H	7STRP	-0.075443,0.0046	Slew = 12.01	100	4	0	6,153,771:52:0	
159	1	217	07:42:33.533	117GA105A106A4I	7STRP	0.075141,-0.0056	Slew = 0.31	100	4	0	6,153,771:77:0	
160	1	217	07:46:47.533	117GA105A106A4J	7STRP	-0.075443,0.0046	Slew = 12.01	100	4	0	6,153,776:03:0	
161	1	217	07:47:04.200	117GA105A106A4K	7STRP	0.075141,-0.0056	Slew = 0.31	100	4	0	6,153,776:28:0	
162	1	217	07:49:06.866		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 428.65 +/-	100	4	0	6,153,778:30:0	
163	1	217	07:49:06.866	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,153,778:30:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
164	1	217	07:49:13.533		DMS:	:*RUNUP	R7, TRACK *3, FWD, TIC 428.65 +/-	100	4	0	6,153,778:40:0	
165	1	217	07:49:14.933		DMS:	:*AT SPD	R7, TRACK 3, FWD, TIC * 428.77 +/-	100	4	0	6,153,778:42:1	
166	1	217	07:49:32.200		DMS:	:*RECORD	R7, TRACK 3, FWD, TIC * 432.82 +/-	100	4	0	6,153,778:68:0	
167	1	217	07:49:54.866		DMS:	:*RUNDOWN	R7, TRACK 3, FWD, TIC * 438.13 +/-	100	4	0	6,153,779:11:0	
168	1	217	07:49:54.866	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,153,779:11:0	
169	1	217	07:49:56.066		DMS:	:*READY	RDY, TRACK 3, FWD, TIC * 438.19 +/-	100	4	0	6,153,779:12:8	
170	1	217	07:51:18.200	117GA105A106A4L	7STRP	-0.075443,0.0046	Slew =12.01	100	4	0	6,153,780:45:0	
171	1	217	07:51:34.866	117GA105A106A4M	7STRP	0.075141,-0.0056	Slew =0.31	100	4	0	6,153,780:70:0	
172	1	217	07:55:48.866	117GA105A106A4N	7STRP	-0.075443,0.0046	Slew =12.01	100	4	0	6,153,784:87:0	
173	1	217	07:56:05.533	117GA105A106A4O	7STRP	0.075141,-0.0056	Slew =0.31	100	4	0	6,153,785:21:0	
174	1	217	08:00:19.533	117GA105A106A4P	7STRP	-0.075443,0.0046	Slew =12.01	100	4	0	6,153,789:38:0	
175	1	217	08:00:36.200	117GA105A106A4Q	7STRP	0.075141,-0.0056	Slew =0.31	100	4	0	6,153,789:63:0	
176	1	217	08:02:08.866	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,153,791:20:0	
177	1	217	08:02:08.866		DMS:	:*E4-DELAY	RDY, TRACK *1, FWD, TIC 438.19 +/-	100	4	0	6,153,791:20:0	
178	1	217	08:02:15.533		DMS:	:*RUNUP	R7, TRACK *3, FWD, TIC 438.19 +/-	100	4	0	6,153,791:30:0	
179	1	217	08:02:16.933		DMS:	:*AT SPD	R7, TRACK 3, FWD, TIC * 438.31 +/-	100	4	0	6,153,791:32:1	
180	1	217	08:02:34.200		DMS:	:*RECORD	R7, TRACK 3, FWD, TIC * 442.36 +/-	100	4	0	6,153,791:58:0	
181	1	217	08:02:56.866	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,153,792:01:0	
182	1	217	08:02:56.866		DMS:	:*RUNDOWN	R7, TRACK 3, FWD, TIC * 447.67 +/-	100	4	0	6,153,792:01:0	
183	1	217	08:02:58.066		DMS:	:*READY	RDY, TRACK 3, FWD, TIC * 447.73 +/-	100	4	0	6,153,792:02:8	
184	1	217	08:04:50.200	117GA11A	CSMOS	GE	***** GROUP END CSMOS	100	4	0	6,153,793:80:0	
185	1	217	08:06:28.200	176GA6B	6TMREC	NRC	NO RECORD Record Mode Change	100	4	0	6,153,795:45:0	
186	1	217	08:06:30.200	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,153,795:48:0	
187	1	217	08:06:30.200		DMS:	:*E4-DELAY	RDY, TRACK *1, FWD, TIC 447.73 +/-	100	4	0	6,153,795:48:0	
188	1	217	08:06:36.866		DMS:	:*RUNUP	R7, TRACK *3, FWD, TIC 447.73 +/-	100	4	0	6,153,795:58:0	
189	1	217	08:06:38.266		DMS:	:*AT SPD	R7, TRACK 3, FWD, TIC * 447.85 +/-	100	4	0	6,153,795:60:1	
190	1	217	08:06:40.200		DMS:	:*RECORD	R7, TRACK 3, FWD, TIC * 448.30 +/-	100	4	0	6,153,795:63:0	
191	1	217	08:06:53.533		DMS:	:*RUNDOWN	R7, TRACK 3, FWD, TIC * 451.43 +/-	100	4	0	6,153,795:83:0	
192	1	217	08:06:53.533	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,153,795:83:0	
193	1	217	08:06:54.733		DMS:	:*READY	RDY, TRACK 3, FWD, TIC * 451.49 +/-	100	4	0	6,153,795:84:8	
194	1	217	08:07:58.866	165GB4A	7SCAN	NORM,222.577,-15	Check S/P Position	100	4	0	6,153,796:90:0	
195	1	217	08:11:01.533	176GB6A	6TMREC	BPT	7.68 KBPS PPR BURST TO TAPE Record Mode C	100	4	0	6,153,800:00:0	
196	1	217	08:11:52.866	117GB	CSMOS	GS	***** GROUP START CSMOS	100	4	0	6,153,800:77:0	
197	1	217	08:12:02.200	117GB105A106A4A	7STRP	0.066096,0.0,0.0	Slew =0.31	100	4	0	6,153,801:00:0	
198	1	217	08:15:46.200	117GB105A106A4B	7STRP	-0.067904,-0.001	Slew =12.01	100	4	0	6,153,804:63:0	
199	1	217	08:16:02.200	117GB105A106A4C	7STRP	0.066096,0.0,0.0	Slew =0.31	100	4	0	6,153,804:87:0	
200	1	217	08:19:46.200	117GB105A106A4D	7STRP	-0.067904,-0.001	Slew =12.01	100	4	0	6,153,808:59:0	
201	1	217	08:20:02.200	117GB105A106A4E	7STRP	0.066096,0.0,0.0	Slew =0.31	100	4	0	6,153,808:83:0	
202	1	217	08:23:36.200		DMS:	:*E4-DELAY	RDY, TRACK *1, FWD, TIC 451.49 +/-	100	4	0	6,153,812:40:0	
203	1	217	08:23:42.866	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,153,812:50:0	
204	1	217	08:23:42.866		DMS:	:*RUNUP	R7, TRACK *3, FWD, TIC 451.49 +/-	100	4	0	6,153,812:50:0	
205	1	217	08:23:44.266		DMS:	:*AT SPD	R7, TRACK 3, FWD, TIC * 451.61 +/-	100	4	0	6,153,812:52:1	
206	1	217	08:23:46.200	117GB105A106A4F	7STRP	-0.067904,-0.001	Slew =12.01	100	4	0	6,153,812:55:0	
207	1	217	08:24:01.533		DMS:	:*RECORD	R7, TRACK 3, FWD, TIC * 455.65 +/-	100	4	0	6,153,812:78:0	
208	1	217	08:24:02.200	117GB105A106A4G	7STRP	0.066096,0.0,0.0	Slew =0.31	100	4	0	6,153,812:79:0	
209	1	217	08:24:24.200		DMS:	:*RUNDOWN	R7, TRACK 3, FWD, TIC * 460.97 +/-	100	4	0	6,153,813:21:0	
210	1	217	08:24:24.200	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,153,813:21:0	
211	1	217	08:24:25.400		DMS:	:*READY	RDY, TRACK 3, FWD, TIC * 461.03 +/-	100	4	0	6,153,813:22:8	
212	1	217	08:27:46.200	117GB105A106A4H	7STRP	-0.067904,-0.001	Slew =12.01	100	4	0	6,153,816:51:0	
213	1	217	08:28:02.200	117GB105A106A4I	7STRP	0.066096,0.0,0.0	Slew =0.31	100	4	0	6,153,816:75:0	
214	1	217	08:31:46.200	117GB105A106A4J	7STRP	-0.067904,-0.001	Slew =12.01	100	4	0	6,153,820:47:0	
215	1	217	08:32:02.200	117GB105A106A4K	7STRP	0.066096,0.0,0.0	Slew =0.31	100	4	0	6,153,820:71:0	
216	1	217	08:35:46.200	117GB105A106A4L	7STRP	-0.067904,-0.001	Slew =12.01	100	4	0	6,153,824:43:0	
217	1	217	08:36:02.200	117GB105A106A4M	7STRP	0.066096,0.0,0.0	Slew =0.31	100	4	0	6,153,824:67:0	
218	1	217	08:36:38.200	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,153,825:30:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
219	1	217	08:36:38.200		DMS:	:E4-DELAY	RDY, TRACK *1, FWD, TIC 461.03 +/-	100	4	0	6,153,825:30:0	
220	1	217	08:36:44.866		DMS:	:RUNUP	R7, TRACK *3, FWD, TIC 461.03 +/-	100	4	0	6,153,825:40:0	
221	1	217	08:36:46.266		DMS:	:AT SPD	R7, TRACK 3, FWD, TIC * 461.15 +/-	100	4	0	6,153,825:42:1	
222	1	217	08:37:03.533		DMS:	:RECORD	R7, TRACK 3, FWD, TIC * 465.19 +/-	100	4	0	6,153,825:68:0	
223	1	217	08:37:26.200		DMS:	:RUNDOWN	R7, TRACK 3, FWD, TIC * 470.51 +/-	100	4	0	6,153,826:11:0	
224	1	217	08:37:26.200	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,153,826:11:0	
225	1	217	08:37:27.400		DMS:	:READY	RDY, TRACK 3, FWD, TIC * 470.57 +/-	100	4	0	6,153,826:12:8	
226	1	217	08:39:46.200	117GB105A106A4N	7STRP	-0.067904,-0.001	Slew =12.01	100	4	0	6,153,828:39:0	
227	1	217	08:40:02.200	117GB105A106A4O	7STRP	0.066096,0.0,0.0	Slew = 0.31	100	4	0	6,153,828:63:0	
228	1	217	08:43:46.200	117GB105A106A4P	7STRP	-0.067904,-0.001	Slew =12.01	100	4	0	6,153,832:35:0	
229	1	217	08:44:02.200	117GB105A106A4Q	7STRP	0.066096,0.0,0.0	Slew = 0.31	100	4	0	6,153,832:59:0	
230	1	217	08:47:46.200	117GB105A106A4R	7STRP	-0.067904,-0.001	Slew =12.01	100	4	0	6,153,836:31:0	
231	1	217	08:48:02.200	117GB105A106A4S	7STRP	0.066096,0.0,0.0	Slew = 0.31	100	4	0	6,153,836:55:0	
232	1	217	08:49:40.200	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,153,838:20:0	
233	1	217	08:49:40.200		DMS:	:E4-DELAY	RDY, TRACK *1, FWD, TIC 470.57 +/-	100	4	0	6,153,838:20:0	
234	1	217	08:49:46.866		DMS:	:RUNUP	R7, TRACK *3, FWD, TIC 470.57 +/-	100	4	0	6,153,838:30:0	
235	1	217	08:49:48.266		DMS:	:AT SPD	R7, TRACK 3, FWD, TIC * 470.69 +/-	100	4	0	6,153,838:32:1	
236	1	217	08:50:05.533		DMS:	:RECORD	R7, TRACK 3, FWD, TIC * 474.73 +/-	100	4	0	6,153,838:58:0	
237	1	217	08:50:28.200	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,153,839:01:0	
238	1	217	08:50:29.400		DMS:	:RUNDOWN	R7, TRACK 3, FWD, TIC * 480.05 +/-	100	4	0	6,153,839:01:0	
239	1	217	08:50:29.400		DMS:	:READY	RDY, TRACK 3, FWD, TIC * 480.11 +/-	100	4	0	6,153,839:02:8	
240	1	217	08:51:46.200	117GB11A	CSMOS	GE	***** GROUP END CSMOS	100	4	0	6,153,840:27:0	
241	1	217	08:53:59.533	176GB6B	6TMREC	NRC	NO RECORD Record Mode Change	100	4	0	6,153,842:45:0	
242	1	217	08:54:01.533		DMS:	:E4-DELAY	RDY, TRACK *1, FWD, TIC 480.11 +/-	100	4	0	6,153,842:48:0	
243	1	217	08:54:01.533	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,153,842:48:0	
244	1	217	08:54:08.200		DMS:	:RUNUP	R7, TRACK *3, FWD, TIC 480.11 +/-	100	4	0	6,153,842:58:0	
245	1	217	08:54:09.600		DMS:	:AT SPD	R7, TRACK 3, FWD, TIC * 480.23 +/-	100	4	0	6,153,842:60:1	
246	1	217	08:54:11.533		DMS:	:RECORD	R7, TRACK 3, FWD, TIC * 480.68 +/-	100	4	0	6,153,842:63:0	
247	1	217	08:54:24.866	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,153,842:83:0	
248	1	217	08:54:24.866		DMS:	:RUNDOWN	R7, TRACK 3, FWD, TIC * 483.80 +/-	100	4	0	6,153,842:83:0	
249	1	217	08:54:26.066		DMS:	:READY	RDY, TRACK 3, FWD, TIC * 483.86 +/-	100	4	0	6,153,842:84:8	
250	1	217	09:00:06.866	20UR4A	7SAFE	UNSTOW	S/P TO 153 deg cone	100	4	0	6,153,848:50:0	
251	1	217	10:21:45.533	488AE6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	100	4	0	6,153,929:27:0	
252	1	217	10:28:32.200		DMS:	:E4-DELAY	RDY, TRACK *1, FWD, TIC 483.86 +/-	100	4	0	6,153,936:00:0	
253	1	217	10:28:32.200	411JA6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,153,936:00:0	
254	1	217	10:28:38.866		DMS:	:RUNUP	R7, TRACK *3, FWD, TIC 483.86 +/-	100	4	0	6,153,936:10:0	
255	1	217	10:28:40.266		DMS:	:RECORD	R7, TRACK 3, FWD, TIC * 483.98 +/-	100	4	0	6,153,936:12:1	
256	1	217	10:28:40.266		DMS:	:AT SPD	R7, TRACK 3, FWD, TIC 483.98 +/-	100	4	0	6,153,936:12:1	
257	1	217	10:28:42.200	411JA6B	6TMREC	BDT	7.68 KBPS BUFFER DUMP TO TAPE Record Mode	100	4	0	6,153,936:15:0	
258	1	217	10:30:43.533	411JA6C	6TMREC	NRC	NO RECORD Record Mode Change	100	4	0	6,153,938:15:0	
259	1	217	10:30:44.200		DMS:	:RUNDOWN	R7, TRACK 3, FWD, TIC * 513.03 +/-	100	4	0	6,153,938:16:0	
260	1	217	10:30:44.200	411JA6D	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,153,938:16:0	
261	1	217	10:30:45.400		DMS:	:READY	RDY, TRACK 3, FWD, TIC * 513.09 +/-	100	4	0	6,153,938:17:8	
262	1	217	10:36:12.200	488AE6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,153,943:53:0	
263	1	217	10:37:30.200		DMS:	:E4-DELAY	RDY, TRACK *1, FWD, TIC 513.09 +/-	100	4	0	6,153,944:79:0	
264	1	217	10:37:30.200	465KG6A	6DMSC	P7,3	DMS Control Tape P/B 7.68kps	100	4	0	6,153,944:79:0	
265	1	217	10:37:36.866		DMS:	:RUNUP	P7, TRACK *3, FWD, TIC 513.09 +/-	100	4	0	6,153,944:89:0	
266	1	217	10:37:38.266		DMS:	:AT SPD	P7, TRACK 3, FWD, TIC 513.21 +/-	100	4	0	6,153,945:00:1	
267	1	217	10:37:38.266		DMS:	:P_SLEW	P7, TRACK 3, FWD, TIC * 513.21 +/-	100	4	0	6,153,945:00:1	
268	1	217	11:48:31.533	488AE6C	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	100	4	0	6,154,015:10:0	
269	1	217	12:14:20.200	488AE6D	6TMSED	FILL,AH3	Sci, Eng, and D/L Chan	100	4	0	6,153,956:22:0	
270	1	217	12:14:20.200	488AE6E	6TMSED	FILL,AH4	Sci, Eng, and D/L Chan	100	4	0	6,154,040:58:0	
271	1	217	12:23:24.200	488AF6A	6TMSED	NORM,AH4	Sci, Eng, and D/L Chan	100	4	0	6,154,049:55:0	
272	1	217	13:20:28.866		DMS:	:RUNDOWN	P7, TRACK 3, FWD, TIC *2803.20 +/-	100	4	0	6,154,106:05:0	
273	1	217	13:20:28.866	465KG6B	6DMSC	RDY,3	DMS Control Tape stop	100	4	0	6,154,106:05:0	



Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
274	1	217	13:20:30.066		DMS:	:*READY	RDY, TRACK 3, FWD, TIC *2803.26 +/-	100	4	0	6,154,106:06:8	
275	1	217	13:22:26.866	465KH6A	6DMSC	RDY,4	DMS Control Tape stop	100	4	0	6,154,108:00:0	
276	1	217	13:22:26.866		DMS:	:*READY	RDY, TRACK *4, *REV, TIC 2803.26 +/-	100	4	0	6,154,108:00:0	
277	1	217	13:25:19.533		DMS:	:*US-RUNUP	P7, TRACK *1, *FWD, TIC 2803.26 +/-	100	4	0	6,154,110:77:0	
278	1	217	13:25:19.533	465KI6A	6DMSC	P7,4	DMS Control Tape P/B 7.68kpbs	100	4	0	6,154,110:77:0	
279	1	217	13:25:20.933		DMS:	:*US_AT_SP	P7, TRACK 1, FWD, TIC *2803.38 +/-	100	4	0	6,154,110:79:1	
280	1	217	13:25:26.200		DMS:	:*US_RD	P7, TRACK 1, FWD, TIC *2804.61 +/-	100	4	0	6,154,110:87:0	
281	1	217	13:25:27.400		DMS:	:*RUNUP	P7, TRACK *4, *REV, TIC *2804.67 +/-	100	4	0	6,154,110:88:8	
282	1	217	13:25:28.800		DMS:	:*P_SLEW	P7, TRACK 4, REV, TIC *2804.55 +/-	100	4	0	6,154,110:90:9	
283	1	217	13:25:28.800		DMS:	:*AT_SPD	P7, TRACK 4, REV, TIC *2804.55 +/-	100	4	0	6,154,110:90:9	
284	1	217	16:08:19.466		DMS:	:*RUNDOWN	P7, TRACK 4, REV, TIC *514.55 +/-	100	4	0	6,154,272:05:0	
285	1	217	16:08:19.466	465KI6B	6DMSC	RDY,4	DMS Control Tape stop	100	4	0	6,154,272:05:0	
286	1	217	16:08:20.666		DMS:	:*READY	RDY, TRACK 4, REV, TIC *514.49 +/-	100	4	0	6,154,272:06:8	
287	1	217	16:10:17.466		DMS:	:*READY	RDY, TRACK *3, *FWD, TIC 514.49 +/-	100	4	0	6,154,274:00:0	
288	1	217	16:10:17.466	465KJ6A	6DMSC	RDY,3	DMS Control Tape stop	100	4	0	6,154,274:00:0	
289	1	217	16:15:00.133	480SA6A	6MROH	44,23E8,0,A10	read from LLM2A44,23E8,0,A1	100	4	0	6,154,278:60:0	
290	1	217	16:16:20.133	480SA6B	6MROH	45,23E8,0,B10	read from LLM2B45,23E8,0,B1	100	4	0	6,154,279:89:0	
291	1	217	18:41:54.133	488AG6A	6TMSED	FILL,AH4	Sci, Eng, and D/L Chan	100	4	0	6,154,423:86:0	
292	1	217	18:49:00.133	488AG6B	6TMSED	FILL,AH2	Sci, Eng, and D/L Chan	100	4	0	6,154,430:88:0	
293	1	217	19:01:48.133	488AG6C	6TMSED	NORM,AH2	Sci, Eng, and D/L Chan	100	4	0	6,154,443:57:0	
294	1	217	19:42:20.133	488AG6D	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	100	4	0	6,154,483:65:0	
295	1	217	20:00:00.133	488AG6E	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,154,501:17:0	
296	1	217	20:18:29.466	488AH6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,154,519:43:0	
297	1	217	21:05:33.466	488AH6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,154,566:02:0	
298	1	217	21:38:09.466	488AH6C	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,154,598:24:0	
299	1	218	00:15:36.800	165GC4A	7SCAN	NORM,242.532,-23	Check S/P Position	100	4	0	6,154,753:90:0	
300	1	218	00:18:39.466	176GC6A	6TMREC	BPT	7.68 KBPS PPR BURST TO TAPE Record Mode C	100	4	0	6,154,757:00:0	
301	1	218	00:19:30.800	117GC	CSMOS	GS	***** GROUP START CSMOS	100	4	0	6,154,757:77:0	
302	1	218	00:19:40.133	117GC105A106A4A	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,758:00:0	
303	1	218	00:21:51.466	117GC105A106A4B	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,760:15:0	
304	1	218	00:22:04.133	117GC105A106A4C	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,760:34:0	
305	1	218	00:24:15.466	117GC105A106A4D	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,762:49:0	
306	1	218	00:24:28.133	117GC105A106A4E	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,762:68:0	
307	1	218	00:26:39.466	117GC105A106A4F	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,764:83:0	
308	1	218	00:26:52.133	117GC105A106A4G	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,765:11:0	
309	1	218	00:29:03.466	117GC105A106A4H	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,767:26:0	
310	1	218	00:29:16.133	117GC105A106A4I	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,767:45:0	
311	1	218	00:31:14.133	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kpbs	100	4	0	6,154,769:40:0	
312	1	218	00:31:14.133		DMS:	:*E4-DELAY	RDY, TRACK *1, FWD, TIC 514.49 +/-	100	4	0	6,154,769:40:0	
313	1	218	00:31:20.800		DMS:	:*RUNUP	R7, TRACK *3, FWD, TIC 514.49 +/-	100	4	0	6,154,769:50:0	
314	1	218	00:31:22.200		DMS:	:*AT_SPD	R7, TRACK 3, FWD, TIC *514.61 +/-	100	4	0	6,154,769:52:1	
315	1	218	00:31:27.466	117GC105A106A4J	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,769:60:0	
316	1	218	00:31:39.466		DMS:	:*RECORD	R7, TRACK 3, FWD, TIC *518.66 +/-	100	4	0	6,154,769:78:0	
317	1	218	00:31:40.133	117GC105A106A4K	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,769:79:0	
318	1	218	00:32:02.133	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,770:21:0	
319	1	218	00:32:02.133		DMS:	:*RUNDOWN	R7, TRACK 3, FWD, TIC *523.97 +/-	100	4	0	6,154,770:21:0	
320	1	218	00:32:03.333		DMS:	:*READY	RDY, TRACK 3, FWD, TIC *524.03 +/-	100	4	0	6,154,770:22:8	
321	1	218	00:33:04.800	488AH6D	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,154,771:24:0	
322	1	218	00:33:51.466	117GC105A106A4L	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,772:03:0	
323	1	218	00:34:04.133	117GC105A106A4M	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,772:22:0	
324	1	218	00:36:15.466	117GC105A106A4N	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,774:37:0	
325	1	218	00:36:28.133	117GC105A106A4O	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,774:56:0	
326	1	218	00:38:39.466	117GC105A106A4P	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,776:71:0	
327	1	218	00:38:52.133	117GC105A106A4Q	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,776:90:0	
328	1	218	00:41:03.466	117GC105A106A4R	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,779:14:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
329	1	218	00:41:16.133	117GC105A106A4S	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,779:33:0	
330	1	218	00:43:27.466	117GC105A106A4T	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,781:48:0	
331	1	218	00:43:40.133	117GC105A106A4U	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,781:67:0	
332	1	218	00:44:16.133		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 524.03 +/-	100	4	0	6,154,782:30:0	
333	1	218	00:44:16.133	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,154,782:30:0	
334	1	218	00:44:22.800		DMS:	: *RUNUP	R7, TRACK *3, FWD, TIC 524.03 +/-	100	4	0	6,154,782:40:0	
335	1	218	00:44:24.200		DMS:	: *AT SPD	R7, TRACK 3, FWD, TIC * 524.15 +/-	100	4	0	6,154,782:42:1	
336	1	218	00:44:41.466		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC * 528.20 +/-	100	4	0	6,154,782:68:0	
337	1	218	00:45:04.133		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 533.51 +/-	100	4	0	6,154,783:11:0	
338	1	218	00:45:04.133	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,783:11:0	
339	1	218	00:45:05.333		DMS:	: *READY	RDY, TRACK 3, FWD, TIC * 533.57 +/-	100	4	0	6,154,783:12:8	
340	1	218	00:45:51.466	117GC105A106A4V	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,783:82:0	
341	1	218	00:46:04.133	117GC105A106A4W	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,784:10:0	
342	1	218	00:48:15.466	117GC105A106A4X	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,786:25:0	
343	1	218	00:48:28.133	117GC105A106A4Y	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,786:44:0	
344	1	218	00:50:39.466	117GC105A106A4Z	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,788:59:0	
345	1	218	00:50:52.133	117GC105A106A4AA	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,788:78:0	
346	1	218	00:53:03.466	117GC105A106A4AB	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,791:02:0	
347	1	218	00:53:16.133	117GC105A106A4AC	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,791:21:0	
348	1	218	00:55:27.466	117GC105A106A4AD	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,793:36:0	
349	1	218	00:55:40.133	117GC105A106A4AE	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,793:55:0	
350	1	218	00:57:18.133		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 533.57 +/-	100	4	0	6,154,795:20:0	
351	1	218	00:57:18.133	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,154,795:20:0	
352	1	218	00:57:24.800		DMS:	: *RUNUP	R7, TRACK *3, FWD, TIC 533.57 +/-	100	4	0	6,154,795:30:0	
353	1	218	00:57:26.200		DMS:	: *AT SPD	R7, TRACK 3, FWD, TIC * 533.69 +/-	100	4	0	6,154,795:32:1	
354	1	218	00:57:43.466		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC * 537.74 +/-	100	4	0	6,154,795:58:0	
355	1	218	00:57:51.466	117GC105A106A4AF	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,795:70:0	
356	1	218	00:58:04.133	117GC105A106A4AG	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,795:89:0	
357	1	218	00:58:06.133		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 543.05 +/-	100	4	0	6,154,796:01:0	
358	1	218	00:58:06.133	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,796:01:0	
359	1	218	00:58:07.333		DMS:	: *READY	RDY, TRACK 3, FWD, TIC * 543.11 +/-	100	4	0	6,154,796:02:8	
360	1	218	01:00:14.133	432OI431A6A	6RCDSL	DDSNCG,PLSNCG,EP	Record Deselect (DDS o	100	4	0	6,154,798:11:0	
361	1	218	01:00:14.800	432OI6A	6RTSL1		R/T Select of DDS and	100	4	0	6,154,798:12:0	
362	1	218	01:00:15.466	117GC105A106A4AH	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,798:13:0	
363	1	218	01:00:28.133	117GC105A106A4AI	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,798:32:0	
364	1	218	01:02:39.466	117GC105A106A4AJ	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,800:47:0	
365	1	218	01:02:52.133	117GC105A106A4AK	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,800:66:0	
366	1	218	01:05:03.466	117GC105A106A4AL	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,802:81:0	
367	1	218	01:05:16.133	117GC105A106A4AM	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,803:09:0	
368	1	218	01:07:27.466	117GC105A106A4AN	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,805:24:0	
369	1	218	01:07:40.133	117GC105A106A4AO	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,805:43:0	
370	1	218	01:09:51.466	117GC105A106A4AP	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,807:58:0	
371	1	218	01:10:04.133	117GC105A106A4AQ	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,807:77:0	
372	1	218	01:10:20.800		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 543.11 +/-	100	4	0	6,154,808:11:0	
373	1	218	01:10:20.800	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,154,808:11:0	
374	1	218	01:10:27.466		DMS:	: *RUNUP	R7, TRACK *3, FWD, TIC 543.11 +/-	100	4	0	6,154,808:21:0	
375	1	218	01:10:28.866		DMS:	: *AT SPD	R7, TRACK 3, FWD, TIC * 543.23 +/-	100	4	0	6,154,808:23:1	
376	1	218	01:10:45.466		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC * 547.12 +/-	100	4	0	6,154,808:48:0	
377	1	218	01:11:08.133	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,808:82:0	
378	1	218	01:11:08.133		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 552.43 +/-	100	4	0	6,154,808:82:0	
379	1	218	01:11:09.333		DMS:	: *READY	RDY, TRACK 3, FWD, TIC * 552.49 +/-	100	4	0	6,154,808:83:8	
380	1	218	01:12:15.466	117GC105A106A4AR	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,810:01:0	
381	1	218	01:12:28.133	117GC105A106A4AS	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,810:20:0	
382	1	218	01:14:39.466	117GC105A106A4AT	7STRP	-0.037858,0.0030	Slew = 12.01	100	4	0	6,154,812:35:0	
383	1	218	01:14:52.133	117GC105A106A4AU	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,812:54:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
384	1	218	01:17:03.466	117GC105A106A4AV	7STRP	-0.037858,0.0030	Slew =12.01	100	4	0	6,154,814:69:0	
385	1	218	01:17:16.133	117GC105A106A4AW	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,814:88:0	
386	1	218	01:19:27.466	117GC105A106A4AX	7STRP	-0.037858,0.0030	Slew =12.01	100	4	0	6,154,817:12:0	
387	1	218	01:19:40.133	117GC105A106A4AY	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,817:31:0	
388	1	218	01:21:51.466	117GC105A106A4AZ	7STRP	-0.037858,0.0030	Slew =12.01	100	4	0	6,154,819:46:0	
389	1	218	01:22:04.133	117GC105A106A4BA	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,819:65:0	
390	1	218	01:23:22.800		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 552.49 +/-	100	4	0	6,154,821:01:0	
391	1	218	01:23:22.800	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,154,821:01:0	
392	1	218	01:23:29.466		DMS:	: *RUNUP	R7, TRACK *3, FWD, TIC 552.49 +/-	100	4	0	6,154,821:11:0	
393	1	218	01:23:30.866		DMS:	: *AT SPD	R7, TRACK 3, FWD, TIC * 552.61 +/-	100	4	0	6,154,821:13:1	
394	1	218	01:23:48.133		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC * 556.66 +/-	100	4	0	6,154,821:39:0	
395	1	218	01:24:10.800		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 561.97 +/-	100	4	0	6,154,821:73:0	
396	1	218	01:24:10.800	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,821:73:0	
397	1	218	01:24:12.000		DMS:	: *READY	RDY, TRACK 3, FWD, TIC * 562.03 +/-	100	4	0	6,154,821:74:8	
398	1	218	01:24:15.466	117GC105A106A4BB	7STRP	-0.037858,0.0030	Slew =12.01	100	4	0	6,154,821:80:0	
399	1	218	01:24:28.133	117GC105A106A4BC	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,822:08:0	
400	1	218	01:26:39.466	117GC105A106A4BD	7STRP	-0.037858,0.0030	Slew =12.01	100	4	0	6,154,824:23:0	
401	1	218	01:26:52.133	117GC105A106A4BE	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,824:42:0	
402	1	218	01:29:03.466	117GC105A106A4BF	7STRP	-0.037858,0.0030	Slew =12.01	100	4	0	6,154,826:57:0	
403	1	218	01:29:16.133	117GC105A106A4BG	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,826:76:0	
404	1	218	01:31:27.466	117GC105A106A4BH	7STRP	-0.037858,0.0030	Slew =12.01	100	4	0	6,154,829:00:0	
405	1	218	01:31:40.133	117GC105A106A4BI	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,829:19:0	
406	1	218	01:33:51.466	117GC105A106A4BJ	7STRP	-0.037858,0.0030	Slew =12.01	100	4	0	6,154,831:34:0	
407	1	218	01:34:04.133	117GC105A106A4BK	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,831:53:0	
408	1	218	01:34:20.133	488AH6E	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	100	4	0	6,154,831:77:0	
409	1	218	01:36:15.466	117GC105A106A4BL	7STRP	-0.037858,0.0030	Slew =12.01	100	4	0	6,154,833:68:0	
410	1	218	01:36:24.800	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,154,833:82:0	
411	1	218	01:36:24.800		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 562.03 +/-	100	4	0	6,154,833:82:0	
412	1	218	01:36:28.133	117GC105A106A4BM	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,833:87:0	
413	1	218	01:36:31.466		DMS:	: *RUNUP	R7, TRACK *3, FWD, TIC 562.03 +/-	100	4	0	6,154,834:01:0	
414	1	218	01:36:32.866		DMS:	: *AT SPD	R7, TRACK 3, FWD, TIC * 562.15 +/-	100	4	0	6,154,834:03:1	
415	1	218	01:36:50.133		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC * 566.20 +/-	100	4	0	6,154,834:29:0	
416	1	218	01:37:12.800	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,834:63:0	
417	1	218	01:37:12.800		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 571.51 +/-	100	4	0	6,154,834:63:0	
418	1	218	01:37:14.000		DMS:	: *READY	RDY, TRACK 3, FWD, TIC * 571.57 +/-	100	4	0	6,154,836:11:0	
419	1	218	01:38:39.466	117GC105A106A4BN	7STRP	-0.037858,0.0030	Slew =12.01	100	4	0	6,154,836:30:0	
420	1	218	01:38:52.133	117GC105A106A4BO	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,836:30:0	
421	1	218	01:41:03.466	117GC105A106A4BP	7STRP	-0.037858,0.0030	Slew =12.01	100	4	0	6,154,838:45:0	
422	1	218	01:41:16.133	117GC105A106A4BQ	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,838:64:0	
423	1	218	01:43:27.466	117GC105A106A4BR	7STRP	-0.037858,0.0030	Slew =12.01	100	4	0	6,154,840:79:0	
424	1	218	01:43:40.133	117GC105A106A4BS	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,841:07:0	
425	1	218	01:45:51.466	117GC105A106A4BT	7STRP	-0.037858,0.0030	Slew =12.01	100	4	0	6,154,843:22:0	
426	1	218	01:46:04.133	117GC105A106A4BU	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,843:41:0	
427	1	218	01:48:15.466	117GC105A106A4BV	7STRP	-0.037858,0.0030	Slew =12.01	100	4	0	6,154,845:56:0	
428	1	218	01:48:28.133	117GC105A106A4BW	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,845:75:0	
429	1	218	01:49:27.466		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 571.57 +/-	100	4	0	6,154,846:73:0	
430	1	218	01:49:27.466	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,154,846:73:0	
431	1	218	01:49:34.133		DMS:	: *RUNUP	R7, TRACK *3, FWD, TIC 571.57 +/-	100	4	0	6,154,846:83:0	
432	1	218	01:49:35.533		DMS:	: *AT SPD	R7, TRACK 3, FWD, TIC * 571.69 +/-	100	4	0	6,154,846:85:1	
433	1	218	01:49:52.133		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC * 575.58 +/-	100	4	0	6,154,847:19:0	
434	1	218	01:50:14.800		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 580.89 +/-	100	4	0	6,154,847:53:0	
435	1	218	01:50:14.800	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,847:53:0	
436	1	218	01:50:16.000		DMS:	: *READY	RDY, TRACK 3, FWD, TIC * 580.95 +/-	100	4	0	6,154,847:54:8	
437	1	218	01:50:39.466	117GC105A106A4BX	7STRP	-0.037858,0.0030	Slew =12.01	100	4	0	6,154,847:90:0	
438	1	218	01:50:52.133	117GC105A106A4BY	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,848:18:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
439	1	218	01:53:03.466	117GC105A106A4BZ	7STRP	-0.037858,0.00030	Slew =12.01	100	4	0	6,154,850.33:0	
440	1	218	01:53:16.133	117GC105A106A4CA	7STRP	0.03902,-0.004,0	Slew = 0.32	100	4	0	6,154,850.52:0	
441	1	218	01:55:27.466	117GC11A	CSMOS	GE	***** GROUP END CSMOS	100	4	0	6,154,852.67:0	
442	1	218	01:56:13.466	176GC6B	6TMREC	NRC	NO RECORD Record Mode Change	100	4	0	6,154,853.45:0	
443	1	218	01:56:15.466	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,154,853.48:0	
444	1	218	01:56:15.466		DMS:	:E4-DELAY	RDY, TRACK *1, FWD, TIC 580.95 +/-	100	4	0	6,154,853.48:0	
445	1	218	01:56:22.133		DMS:	:*RUNUP	R7, TRACK *3, FWD, TIC 580.95 +/-	100	4	0	6,154,853.58:0	
446	1	218	01:56:23.533		DMS:	:*AT SPD	R7, TRACK 3, FWD, TIC * 581.07 +/-	100	4	0	6,154,853.60:1	
447	1	218	01:56:25.466		DMS:	:*RECORD	R7, TRACK 3, FWD, TIC * 581.53 +/-	100	4	0	6,154,853.63:0	
448	1	218	01:56:40.800	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,853.86:0	
449	1	218	01:56:40.800		DMS:	:*RUNDOWN	R7, TRACK 3, FWD, TIC * 585.12 +/-	100	4	0	6,154,853.86:0	
450	1	218	01:56:42.000		DMS:	:*READY	RDY, TRACK 3, FWD, TIC * 585.18 +/-	100	4	0	6,154,853.87:8	
451	1	218	01:56:43.466	165GD4A	7SCAN	NORM,239.497999,	Check S/P Position	100	4	0	6,154,853.90:0	
452	1	218	01:57:43.466	432SA6A	6RTDS2	NIMCCG,AACNCG,RT	R/T ENG DESLECT	100	4	0	6,154,854.89:0	
453	1	218	01:57:44.800	176GD6A	6TMREC	BPT	7.68 KBPS PPR BURST TO TAPE Record Mode C	100	4	0	6,154,855.00:0	
454	1	218	01:58:36.133	117GD	CSMOS	GS	***** GROUP START CSMOS	100	4	0	6,154,855.77:0	
455	1	218	01:58:45.466	117GD105A106A4A	7STRP	0.033012,-0.00035	Slew = 0.31	100	4	0	6,154,856.00:0	
456	1	218	02:00:39.466	117GD105A106A4B	7STRP	-0.032511,0.00029	Slew =12.01	100	4	0	6,154,857.80:0	
457	1	218	02:00:53.466	117GD105A106A4C	7STRP	0.033012,-0.00035	Slew = 0.31	100	4	0	6,154,858.10:0	
458	1	218	02:02:47.466	117GD105A106A4D	7STRP	-0.032511,0.00029	Slew =12.01	100	4	0	6,154,859.90:0	
459	1	218	02:03:01.466	117GD105A106A4E	7STRP	0.033012,-0.00035	Slew = 0.31	100	4	0	6,154,860.20:0	
460	1	218	02:04:55.466	117GD105A106A4F	7STRP	-0.032511,0.00029	Slew =12.01	100	4	0	6,154,862.09:0	
461	1	218	02:05:09.466	117GD105A106A4G	7STRP	0.033012,-0.00035	Slew = 0.31	100	4	0	6,154,862.30:0	
462	1	218	02:07:03.466	117GD105A106A4H	7STRP	-0.032511,0.00029	Slew =12.01	100	4	0	6,154,864.19:0	
463	1	218	02:07:17.466	117GD105A106A4I	7STRP	0.033012,-0.00035	Slew = 0.31	100	4	0	6,154,864.40:0	
464	1	218	02:09:11.466	117GD105A106A4J	7STRP	-0.032511,0.00029	Slew =12.01	100	4	0	6,154,866.29:0	
465	1	218	02:09:25.466	117GD105A106A4K	7STRP	0.033012,-0.00035	Slew = 0.31	100	4	0	6,154,866.50:0	
466	1	218	02:10:19.466		DMS:	:*E4-DELAY	RDY, TRACK *1, FWD, TIC 585.18 +/-	100	4	0	6,154,867.40:0	
467	1	218	02:10:19.466	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,154,867.40:0	
468	1	218	02:10:26.133		DMS:	:*RUNUP	R7, TRACK *3, FWD, TIC 585.18 +/-	100	4	0	6,154,867.50:0	
469	1	218	02:10:27.533		DMS:	:*AT SPD	R7, TRACK 3, FWD, TIC * 585.30 +/-	100	4	0	6,154,867.52:1	
470	1	218	02:10:44.800		DMS:	:*RECORD	R7, TRACK 3, FWD, TIC * 589.35 +/-	100	4	0	6,154,867.78:0	
471	1	218	02:11:07.466	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,868.21:0	
472	1	218	02:11:07.466		DMS:	:*RUNDOWN	R7, TRACK 3, FWD, TIC * 594.66 +/-	100	4	0	6,154,868.21:0	
473	1	218	02:11:08.666		DMS:	:*READY	RDY, TRACK 3, FWD, TIC * 594.72 +/-	100	4	0	6,154,868.22:8	
474	1	218	02:11:19.466	117GD105A106A4L	7STRP	-0.032511,0.00029	Slew =12.01	100	4	0	6,154,868.39:0	
475	1	218	02:11:33.466	117GD105A106A4M	7STRP	0.033012,-0.00035	Slew = 0.31	100	4	0	6,154,868.60:0	
476	1	218	02:12:04.133	488AI6A	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	100	4	0	6,154,869.15:0	
477	1	218	02:13:27.466	117GD105A106A4N	7STRP	-0.032511,0.00029	Slew =12.01	100	4	0	6,154,870.49:0	
478	1	218	02:13:41.466	117GD105A106A4O	7STRP	0.033012,-0.00035	Slew = 0.31	100	4	0	6,154,870.70:0	
479	1	218	02:15:35.466	117GD105A106A4P	7STRP	-0.032511,0.00029	Slew =12.01	100	4	0	6,154,872.59:0	
480	1	218	02:15:49.466	117GD105A106A4Q	7STRP	0.033012,-0.00035	Slew = 0.31	100	4	0	6,154,872.80:0	
481	1	218	02:17:43.466	117GD105A106A4R	7STRP	-0.032511,0.00029	Slew =12.01	100	4	0	6,154,874.69:0	
482	1	218	02:17:57.466	117GD105A106A4S	7STRP	0.033012,-0.00035	Slew = 0.31	100	4	0	6,154,874.90:0	
483	1	218	02:19:51.466	117GD105A106A4T	7STRP	-0.032511,0.00029	Slew =12.01	100	4	0	6,154,876.79:0	
484	1	218	02:20:05.466	117GD105A106A4U	7STRP	0.033012,-0.00035	Slew = 0.31	100	4	0	6,154,877.09:0	
485	1	218	02:21:59.466	117GD105A106A4V	7STRP	-0.032511,0.00029	Slew =12.01	100	4	0	6,154,878.89:0	
486	1	218	02:22:13.466	117GD105A106A4W	7STRP	0.033012,-0.00035	Slew = 0.31	100	4	0	6,154,879.19:0	
487	1	218	02:23:21.466		DMS:	:*E4-DELAY	RDY, TRACK *1, FWD, TIC 594.72 +/-	100	4	0	6,154,880.30:0	
488	1	218	02:23:21.466	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,154,880.30:0	
489	1	218	02:23:24.133	488AI6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	100	4	0	6,154,880.34:0	
490	1	218	02:23:28.133		DMS:	:*RUNUP	R7, TRACK *3, FWD, TIC 594.72 +/-	100	4	0	6,154,880.40:0	
491	1	218	02:23:29.533		DMS:	:*AT SPD	R7, TRACK 3, FWD, TIC * 594.84 +/-	100	4	0	6,154,880.42:1	
492	1	218	02:23:46.800		DMS:	:*RECORD	R7, TRACK 3, FWD, TIC * 598.89 +/-	100	4	0	6,154,880.68:0	
493	1	218	02:24:07.466	117GD105A106A4X	7STRP	-0.032511,0.00029	Slew =12.01	100	4	0	6,154,881.08:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
494	1	218	02:24:09.466	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,881:11:0	
495	1	218	02:24:09.466		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 604.20 +/-	100	4	0	6,154,881:11:0	
496	1	218	02:24:10.666		DMS:	: *READY	RDY, TRACK 3, FWD, TIC * 604.26 +/-	100	4	0	6,154,881:12:8	
497	1	218	02:24:21.466	117GD105A106A4Y	7STRP	0.033012,-0.0035	Slew = 0.31	100	4	0	6,154,881:29:0	
498	1	218	02:26:15.466	117GD105A106A4Z	7STRP	-0.032511,0.0029	Slew = 12.01	100	4	0	6,154,883:18:0	
499	1	218	02:26:29.466	117GD105A106A4A	7STRP	-0.033012,-0.0035	Slew = 0.31	100	4	0	6,154,883:39:0	
500	1	218	02:28:23.466	117GD105A106A4AB	7STRP	-0.032511,0.0029	Slew = 12.01	100	4	0	6,154,885:28:0	
501	1	218	02:28:37.466	117GD105A106A4AC	7STRP	0.033012,-0.0035	Slew = 0.31	100	4	0	6,154,885:49:0	
502	1	218	02:30:31.466	117GD105A106A4AD	7STRP	-0.032511,0.0029	Slew = 12.01	100	4	0	6,154,887:38:0	
503	1	218	02:30:45.466	117GD105A106A4AE	7STRP	0.033012,-0.0035	Slew = 0.31	100	4	0	6,154,887:59:0	
504	1	218	02:32:39.466	117GD105A106A4AF	7STRP	-0.032511,0.0029	Slew = 12.01	100	4	0	6,154,889:48:0	
505	1	218	02:32:53.466	117GD105A106A4AG	7STRP	0.033012,-0.0035	Slew = 0.31	100	4	0	6,154,889:69:0	
506	1	218	02:34:47.466	117GD105A106A4AH	7STRP	-0.032511,0.0029	Slew = 12.01	100	4	0	6,154,891:58:0	
507	1	218	02:35:01.466	117GD105A106A4AI	7STRP	0.033012,-0.0035	Slew = 0.31	100	4	0	6,154,891:79:0	
508	1	218	02:36:23.466		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 604.26 +/-	100	4	0	6,154,893:20:0	
509	1	218	02:36:23.466	50ZZ6XX	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,893:20:0	
510	1	218	02:36:30.133		DMS:	: *RUNUP	R7, TRACK *3, FWD, TIC 604.26 +/-	100	4	0	6,154,893:30:0	
511	1	218	02:36:31.533		DMS:	: *AT SPD	R7, TRACK 3, FWD, TIC * 604.38 +/-	100	4	0	6,154,893:32:1	
512	1	218	02:36:48.800		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC * 604.38 +/-	100	4	0	6,154,893:58:0	
513	1	218	02:36:55.466	117GD105A106A4AJ	7STRP	-0.032511,0.0029	Slew = 12.01	100	4	0	6,154,893:68:0	
514	1	218	02:37:09.466	117GD105A106A4AK	7STRP	0.033012,-0.0035	Slew = 0.31	100	4	0	6,154,893:89:0	
515	1	218	02:37:11.466		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 613.74 +/-	100	4	0	6,154,894:01:0	
516	1	218	02:37:11.466	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,894:01:0	
517	1	218	02:37:12.666		DMS:	: *READY	RDY, TRACK 3, FWD, TIC * 613.80 +/-	100	4	0	6,154,894:02:8	
518	1	218	02:39:03.466	117GD105A106A4AL	7STRP	-0.032511,0.0029	Slew = 12.01	100	4	0	6,154,895:78:0	
519	1	218	02:39:17.466	117GD105A106A4AM	7STRP	0.033012,-0.0035	Slew = 0.31	100	4	0	6,154,896:08:0	
520	1	218	02:41:11.466	117GD105A106A4AN	7STRP	-0.032511,0.0029	Slew = 12.01	100	4	0	6,154,897:88:0	
521	1	218	02:41:25.466	117GD105A106A4AO	7STRP	0.033012,-0.0035	Slew = 0.31	100	4	0	6,154,898:18:0	
522	1	218	02:43:19.466	117GD105A106A4AP	7STRP	-0.032511,0.0029	Slew = 12.01	100	4	0	6,154,900:07:0	
523	1	218	02:43:33.466	117GD105A106A4AQ	7STRP	0.033012,-0.0035	Slew = 0.31	100	4	0	6,154,900:28:0	
524	1	218	02:45:27.466	117GD105A106A4AR	7STRP	-0.032511,0.0029	Slew = 12.01	100	4	0	6,154,902:17:0	
525	1	218	02:45:41.466	117GD105A106A4AS	7STRP	0.033012,-0.0035	Slew = 0.31	100	4	0	6,154,902:38:0	
526	1	218	02:47:35.466	117GD105A106A4AT	7STRP	-0.032511,0.0029	Slew = 12.01	100	4	0	6,154,904:27:0	
527	1	218	02:47:49.466	117GD105A106A4AU	7STRP	0.033012,-0.0035	Slew = 0.31	100	4	0	6,154,904:48:0	
528	1	218	02:49:26.133		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 613.80 +/-	100	4	0	6,154,906:11:0	
529	1	218	02:49:26.133	50ZZ6XX	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,906:11:0	
530	1	218	02:49:32.800		DMS:	: *RUNUP	R7, TRACK *3, FWD, TIC 613.80 +/-	100	4	0	6,154,906:21:0	
531	1	218	02:49:34.200		DMS:	: *AT SPD	R7, TRACK 3, FWD, TIC * 613.92 +/-	100	4	0	6,154,906:23:1	
532	1	218	02:49:43.466	117GD105A106A4AV	7STRP	-0.032511,0.0029	Slew = 12.01	100	4	0	6,154,906:37:0	
533	1	218	02:49:50.800		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC * 617.81 +/-	100	4	0	6,154,906:48:0	
534	1	218	02:49:57.466	117GD105A106A4AW	7STRP	0.033012,-0.0035	Slew = 0.31	100	4	0	6,154,906:58:0	
535	1	218	02:50:13.466	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,906:82:0	
536	1	218	02:50:13.466		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 623.12 +/-	100	4	0	6,154,906:82:0	
537	1	218	02:50:14.666		DMS:	: *READY	RDY, TRACK 3, FWD, TIC * 623.18 +/-	100	4	0	6,154,906:83:8	
538	1	218	02:51:51.466	117GD105A106A4AX	7STRP	-0.032511,0.0029	Slew = 12.01	100	4	0	6,154,908:47:0	
539	1	218	02:52:05.466	117GD105A106A4AY	7STRP	0.033012,-0.0035	Slew = 0.31	100	4	0	6,154,908:68:0	
540	1	218	02:53:59.466	117GD11A	CSMOS	GE	***** GROUP END CSMOS	100	4	0	6,154,910:57:0	
541	1	218	02:55:52.800	176GD6B	6TMREC	NRC	NO RECORD Record Mode Change	100	4	0	6,154,912:45:0	
542	1	218	02:55:54.800	50ZZ6XX	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,912:48:0	
543	1	218	02:55:54.800		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 623.18 +/-	100	4	0	6,154,912:48:0	
544	1	218	02:56:01.466		DMS:	: *RUNUP	R7, TRACK *3, FWD, TIC 623.18 +/-	100	4	0	6,154,912:58:0	
545	1	218	02:56:02.866		DMS:	: *AT SPD	R7, TRACK 3, FWD, TIC * 623.30 +/-	100	4	0	6,154,912:60:1	
546	1	218	02:56:04.800		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC * 623.75 +/-	100	4	0	6,154,912:63:0	
547	1	218	02:56:20.133	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,912:86:0	
548	1	218	02:56:20.133		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 627.35 +/-	100	4	0	6,154,912:86:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
549	1	218	02:56:21.333		DMS:	: *READY	RDY, TRACK 3, FWD, TIC * 627.41 +/-	100	4	0	6,154,912:87:8	
550	1	218	02:57:23.466	165GO4A	7SCAN	NORM,239.455,-22	Check S/P Position	100	4	0	6,154,913:90:0	
551	1	218	02:57:24.133	176GO6A	6TMREC	BPT	7.68 KBPS PPR BURST TO TAPE Record Mode C	100	4	0	6,154,914:00:0	
552	1	218	02:58:15.466	117GO	CSMOS	GS	***** GROUP START CSMOS	100	4	0	6,154,914:77:0	
553	1	218	02:58:24.800	117GO105A106A4A	7STRP	0.04503,-0.002,0	Slew = 0.15	100	4	0	6,154,915:00:0	
554	1	218	02:59:40.133	488A16C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	100	4	0	6,154,916:22:0	
555	1	218	03:03:34.133	117GO105A106A4B	7STRP	-0.04503,0.00155	Slew = 12.01	100	4	0	6,154,920:09:0	
556	1	218	03:03:47.466	117GO105A106A4C	7STRP	0.04503,-0.002,0	Slew = 0.15	100	4	0	6,154,920:29:0	
557	1	218	03:08:56.800	117GO105A106A4D	7STRP	-0.04503,0.00155	Slew = 12.01	100	4	0	6,154,925:38:0	
558	1	218	03:09:10.133	117GO105A106A4E	7STRP	0.04503,-0.002,0	Slew = 0.15	100	4	0	6,154,925:58:0	
559	1	218	03:09:58.800		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 627.41 +/-	100	4	0	6,154,926:40:0	
560	1	218	03:09:58.800	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,154,926:40:0	
561	1	218	03:10:05.466		DMS:	: *RUNUP	R7, TRACK *3, FWD, TIC 627.41 +/-	100	4	0	6,154,926:50:0	
562	1	218	03:10:06.866		DMS:	: *AT_SPD	R7, TRACK 3, FWD, TIC * 627.53 +/-	100	4	0	6,154,926:52:1	
563	1	218	03:10:24.133		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC * 631.57 +/-	100	4	0	6,154,926:78:0	
564	1	218	03:10:46.800		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 636.89 +/-	100	4	0	6,154,927:21:0	
565	1	218	03:10:46.800	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,927:21:0	
566	1	218	03:10:48.000		DMS:	: *READY	RDY, TRACK 3, FWD, TIC * 636.95 +/-	100	4	0	6,154,927:22:8	
567	1	218	03:14:19.466	117GO105A106A4F	7STRP	-0.04503,0.00155	Slew = 12.01	100	4	0	6,154,930:67:0	
568	1	218	03:14:32.800	117GO105A106A4G	7STRP	0.04503,-0.002,0	Slew = 0.15	100	4	0	6,154,930:87:0	
569	1	218	03:19:42.133	117GO105A106A4H	7STRP	-0.04503,0.00155	Slew = 12.01	100	4	0	6,154,936:05:0	
570	1	218	03:19:55.466	117GO105A106A4I	7STRP	0.04503,-0.002,0	Slew = 0.15	100	4	0	6,154,936:25:0	
571	1	218	03:23:00.800		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 636.95 +/-	100	4	0	6,154,939:30:0	
572	1	218	03:23:00.800	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,154,939:30:0	
573	1	218	03:23:07.466		DMS:	: *RUNUP	R7, TRACK *3, FWD, TIC 636.95 +/-	100	4	0	6,154,939:40:0	
574	1	218	03:23:08.866		DMS:	: *AT_SPD	R7, TRACK 3, FWD, TIC * 637.07 +/-	100	4	0	6,154,939:42:1	
575	1	218	03:23:26.133		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC * 641.11 +/-	100	4	0	6,154,939:68:0	
576	1	218	03:23:48.800	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,940:11:0	
577	1	218	03:23:48.800		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 646.43 +/-	100	4	0	6,154,940:11:0	
578	1	218	03:23:50.000		DMS:	: *READY	RDY, TRACK 3, FWD, TIC * 646.49 +/-	100	4	0	6,154,940:12:8	
579	1	218	03:25:04.800	117GO105A106A4J	7STRP	-0.04503,0.00155	Slew = 12.01	100	4	0	6,154,941:34:0	
580	1	218	03:25:18.133	117GO105A106A4K	7STRP	0.04503,-0.002,0	Slew = 0.15	100	4	0	6,154,941:54:0	
581	1	218	03:20:27.466	117GO105A106A4L	7STRP	-0.04503,0.00155	Slew = 12.01	100	4	0	6,154,946:63:0	
582	1	218	03:30:40.800	117GO105A106A4M	7STRP	0.04503,-0.002,0	Slew = 0.15	100	4	0	6,154,946:83:0	
583	1	218	03:35:50.133	117GO105A106A4N	7STRP	-0.04503,0.00155	Slew = 12.01	100	4	0	6,154,952:01:0	
584	1	218	03:36:02.800		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 646.49 +/-	100	4	0	6,154,952:20:0	
585	1	218	03:36:02.800	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,154,952:20:0	
586	1	218	03:36:03.466	117GO105A106A4O	7STRP	0.04503,-0.002,0	Slew = 0.15	100	4	0	6,154,952:21:0	
587	1	218	03:36:09.466		DMS:	: *RUNUP	R7, TRACK *3, FWD, TIC 646.49 +/-	100	4	0	6,154,952:30:0	
588	1	218	03:36:10.866		DMS:	: *AT_SPD	R7, TRACK 3, FWD, TIC * 646.61 +/-	100	4	0	6,154,952:32:1	
589	1	218	03:36:28.133		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC * 650.65 +/-	100	4	0	6,154,952:58:0	
590	1	218	03:36:50.800	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,953:01:0	
591	1	218	03:36:50.800		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 655.97 +/-	100	4	0	6,154,953:01:0	
592	1	218	03:36:52.000		DMS:	: *READY	RDY, TRACK 3, FWD, TIC * 656.03 +/-	100	4	0	6,154,953:02:8	
593	1	218	03:41:12.800	117GO105A106A4P	7STRP	-0.04503,0.00155	Slew = 12.01	100	4	0	6,154,957:30:0	
594	1	218	03:41:26.133	117GO105A106A4Q	7STRP	0.04503,-0.002,0	Slew = 0.15	100	4	0	6,154,957:50:0	
595	1	218	03:46:35.466	117GO105A106A4R	7STRP	-0.04503,0.00155	Slew = 12.01	100	4	0	6,154,962:59:0	
596	1	218	03:46:48.800	117GO105A106A4S	7STRP	0.04503,-0.002,0	Slew = 0.15	100	4	0	6,154,962:79:0	
597	1	218	03:49:05.466		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 656.03 +/-	100	4	0	6,154,965:11:0	
598	1	218	03:49:05.466	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,154,965:11:0	
599	1	218	03:49:12.133		DMS:	: *RUNUP	R7, TRACK *3, FWD, TIC 656.03 +/-	100	4	0	6,154,965:23:1	
600	1	218	03:49:13.533		DMS:	: *AT_SPD	R7, TRACK 3, FWD, TIC * 656.15 +/-	100	4	0	6,154,965:23:1	
601	1	218	03:49:30.133		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC * 660.04 +/-	100	4	0	6,154,965:48:0	
602	1	218	03:49:52.800		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 665.35 +/-	100	4	0	6,154,965:82:0	
603	1	218	03:49:52.800	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,965:82:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
604	1	218	03:49:54.000		DMS:	:*READY	RDY, TRACK 3, FWD, TIC * 665.41 +/-	100	4	0	6,154,965:83:8	
605	1	218	03:51:58.133	117GO11A	CSMOS	GE	***** GROUP END CSMOS	100	4	0	6,154,967:88:0	
606	1	218	03:52:30.133	176GO6B	6TMREC	NRC	NO RECORD Record Mode Change	100	4	0	6,154,968:45:0	
607	1	218	03:52:32.133	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,154,968:48:0	
608	1	218	03:52:32.133		DMS:	:*E4-DELAY	RDY, TRACK *1, FWD, TIC 665.41 +/-	100	4	0	6,154,968:48:0	
609	1	218	03:52:38.800		DMS:	:*RUNUP	R7, TRACK *3, FWD, TIC 665.41 +/-	100	4	0	6,154,968:58:0	
610	1	218	03:52:40.200		DMS:	:*AT SPD	R7, TRACK 3, FWD, TIC * 665.53 +/-	100	4	0	6,154,968:60:1	
611	1	218	03:52:42.133		DMS:	:*RECORD	R7, TRACK 3, FWD, TIC * 665.98 +/-	100	4	0	6,154,968:63:0	
612	1	218	03:52:54.133	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,968:81:0	
613	1	218	03:52:54.133		DMS:	:*RUNDOWN	R7, TRACK 3, FWD, TIC * 668.79 +/-	100	4	0	6,154,968:81:0	
614	1	218	03:52:55.333		DMS:	:*READY	RDY, TRACK 3, FWD, TIC * 668.85 +/-	100	4	0	6,154,968:82:8	
615	1	218	03:53:40.800	411JB6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,154,969:60:0	
616	1	218	03:53:40.800		DMS:	:*E4-DELAY	RDY, TRACK *1, FWD, TIC 668.85 +/-	100	4	0	6,154,969:60:0	
617	1	218	03:53:47.466		DMS:	:*RUNUP	R7, TRACK *3, FWD, TIC 668.85 +/-	100	4	0	6,154,969:70:0	
618	1	218	03:53:48.866		DMS:	:*RECORD	R7, TRACK 3, FWD, TIC * 668.97 +/-	100	4	0	6,154,969:72:1	
619	1	218	03:53:48.866		DMS:	:*AT SPD	R7, TRACK 3, FWD, TIC 668.97 +/-	100	4	0	6,154,969:72:1	
620	1	218	03:53:50.800	411JB6B	6TMREC	BDT	7.68 KBPS BUFFER DUMP TO TAPE Record Mode	100	4	0	6,154,969:75:0	
621	1	218	03:55:52.133	411JB6C	6TMREC	NRC	NO RECORD Record Mode Change	100	4	0	6,154,971:75:0	
622	1	218	03:55:52.800	411JB6D	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,971:76:0	
623	1	218	03:55:52.800		DMS:	:*RUNDOWN	R7, TRACK 3, FWD, TIC * 698.02 +/-	100	4	0	6,154,971:76:0	
624	1	218	03:55:54.000		DMS:	:*READY	RDY, TRACK 3, FWD, TIC * 698.08 +/-	100	4	0	6,154,971:77:8	
625	1	218	03:56:02.133	165GF4A	7SCAN	NORM,235.587,-25	Check S/P Position	100	4	0	6,154,971:90:0	
626	1	218	03:56:02.800	176GF6A	6TMREC	BPT	7.68 KBPS PPR BURST TO TAPE Record Mode C	100	4	0	6,154,972:00:0	
627	1	218	03:56:54.133	117GF	CSMOS	GS	***** GROUP START CSMOS	100	4	0	6,154,972:77:0	
628	1	218	03:57:03.466	117GF105A106A4A	7STRP	-0.015201,0.1000	Slew = 0.38	100	4	0	6,154,973:00:0	
629	1	218	04:05:08.133	117GF11A	CSMOS	GE	***** GROUP END CSMOS	100	4	0	6,154,980:90:0	
630	1	218	04:06:39.466	176GF6B	6TMREC	NRC	NO RECORD Record Mode Change	100	4	0	6,154,982:45:0	
631	1	218	04:06:41.466	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,154,982:48:0	
632	1	218	04:06:41.466		DMS:	:*E4-DELAY	RDY, TRACK *1, FWD, TIC 698.08 +/-	100	4	0	6,154,982:48:0	
633	1	218	04:06:48.133		DMS:	:*RUNUP	R7, TRACK *3, FWD, TIC 698.08 +/-	100	4	0	6,154,982:58:0	
634	1	218	04:06:49.533		DMS:	:*AT SPD	R7, TRACK 3, FWD, TIC * 698.20 +/-	100	4	0	6,154,982:60:1	
635	1	218	04:06:51.466		DMS:	:*RECORD	R7, TRACK 3, FWD, TIC * 698.65 +/-	100	4	0	6,154,982:63:0	
636	1	218	04:07:11.466	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,154,983:02:0	
637	1	218	04:07:11.466		DMS:	:*RUNDOWN	R7, TRACK 3, FWD, TIC * 703.34 +/-	100	4	0	6,154,983:02:0	
638	1	218	04:07:12.666		DMS:	:*READY	RDY, TRACK 3, FWD, TIC * 703.40 +/-	100	4	0	6,154,983:03:8	
639	1	218	04:13:13.466	165GE4A	7SCAN	NORM,242.5,-27.8	Check S/P Position	100	4	0	6,154,988:90:0	
640	1	218	04:13:14.133	176GE6A	6TMREC	BPT	7.68 KBPS PPR BURST TO TAPE Record Mode C	100	4	0	6,154,989:00:0	
641	1	218	04:14:05.466	117GE	CSMOS	GS	***** GROUP START CSMOS	100	4	0	6,154,989:77:0	
642	1	218	04:14:14.800	117GE105A106A4A	7STRP	0.015001,-0.0016	Slew = 0.0.7	100	4	0	6,154,990:00:0	
643	1	218	04:14:40.800	117GE105A106A4B	7STRP	-0.016401,0.0018	Slew = 3.01	100	4	0	6,154,990:39:0	
644	1	218	04:14:54.133	117GE105A106A4C	7STRP	0.015001,-0.0016	Slew = 0.0.7	100	4	0	6,154,990:59:0	
645	1	218	04:15:20.133	117GE105A106A4D	7STRP	-0.016401,0.0018	Slew = 3.01	100	4	0	6,154,991:07:0	
646	1	218	04:15:33.466	117GE105A106A4E	7STRP	0.015001,-0.0016	Slew = 0.0.7	100	4	0	6,154,991:27:0	
647	1	218	04:15:59.466	117GE105A106A4F	7STRP	-0.016401,0.0018	Slew = 3.01	100	4	0	6,154,991:66:0	
648	1	218	04:16:12.800	117GE105A106A4G	7STRP	0.015001,-0.0016	Slew = 0.0.7	100	4	0	6,154,991:86:0	
649	1	218	04:16:38.800	117GE105A106A4H	7STRP	-0.016401,0.0018	Slew = 3.01	100	4	0	6,154,992:34:0	
650	1	218	04:16:52.133	117GE105A106A4I	7STRP	0.015001,-0.0016	Slew = 0.0.7	100	4	0	6,154,992:54:0	
651	1	218	04:17:18.133	117GE105A106A4J	7STRP	-0.016401,0.0018	Slew = 3.01	100	4	0	6,154,993:02:0	
652	1	218	04:17:31.466	117GE105A106A4K	7STRP	0.015001,-0.0016	Slew = 0.0.7	100	4	0	6,154,993:22:0	
653	1	218	04:17:57.466	117GE105A106A4L	7STRP	-0.016401,0.0018	Slew = 3.01	100	4	0	6,154,993:61:0	
654	1	218	04:18:10.800	117GE105A106A4M	7STRP	0.015001,-0.0016	Slew = 0.0.7	100	4	0	6,154,993:81:0	
655	1	218	04:18:36.800	117GE105A106A4N	7STRP	-0.016401,0.0018	Slew = 3.01	100	4	0	6,154,994:29:0	
656	1	218	04:18:50.133	117GE105A106A4O	7STRP	0.015001,-0.0016	Slew = 0.0.7	100	4	0	6,154,994:49:0	
657	1	218	04:19:16.133	117GE105A106A4P	7STRP	-0.016401,0.0018	Slew = 3.01	100	4	0	6,154,994:88:0	
658	1	218	04:19:29.466	117GE105A106A4Q	7STRP	0.015001,-0.0016	Slew = 0.0.7	100	4	0	6,154,995:17:0	



Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
659	1	218	04:19:55.466	117GE105A106A4R	7STRP	-0.016401,0.0018	Slew = 3.01	100	4	0	6,154,995:56:0	
660	1	218	04:20:08.800	117GE105A106A4S	7STRP	0.015001,-0.0016	Slew = 0.0.7	100	4	0	6,154,995:76:0	
661	1	218	04:20:34.800	117GE105A106A4T	7STRP	-0.016401,0.0018	Slew = 3.01	100	4	0	6,154,996:24:0	
662	1	218	04:20:48.133	117GE105A106A4U	7STRP	0.015001,-0.0016	Slew = 0.0.7	100	4	0	6,154,996:44:0	
663	1	218	04:21:14.133	117GE105A106B4A	7STRP	-0.055056,0.0005,	Slew = 3.01	100	4	0	6,154,996:83:0	
664	1	218	04:21:42.133	117GE105A106B4B	7STRP	0.0,0.0,0.0,0.0,0,	Slew = 0.0.7	100	4	0	6,154,997:34:0	
665	1	218	04:22:16.133	117GE11A	CSMOS	GE	***** GROUP END CSMOS	100	4	0	6,154,997:85:0	
666	1	218	04:23:20.133	165GN4A	7SCAN	NORM,236.585999,	Check S/P Position	100	4	0	6,154,998:90:0	
667	1	218	04:23:50.800	176GE6B	6TMREC	<b>NRC</b>	NO RECORD Record Mode Change	100	4	0	6,154,999:45:0	
668	1	218	04:23:52.800	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	100	4	0	6,154,999:48:0	
669	1	218	04:23:52.800		DMS:	:*E4-DELAY	RDY, TRACK *1, FWD, TIC 703.40 +/-	100	4	0	6,154,999:48:0	
670	1	218	04:23:59.466		DMS:	:*RUNUP	R7, TRACK *3, FWD, TIC 703.40 +/-	100	4	0	6,154,999:58:0	
671	1	218	04:24:00.866		DMS:	:*AT SPD	R7, TRACK 3, FWD, TIC *703.52 +/-	100	4	0	6,154,999:60:1	
672	1	218	04:24:02.800		DMS:	:*RECORD	R7, TRACK 3, FWD, TIC *703.98 +/-	100	4	0	6,154,999:63:0	
673	1	218	04:24:12.133	117GN	CSMOS	GS	***** GROUP START CSMOS	100	4	0	6,154,999:77:0	
674	1	218	04:24:21.466	117GN105A106A4A	7STRP	0.033012,0.0011,	Slew = 0.17	100	4	0	6,155,000:00:0	
675	1	218	04:24:22.800	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	100	4	0	6,155,000:02:0	
676	1	218	04:24:22.800		DMS:	:*RUNDOWN	R7, TRACK 3, FWD, TIC *708.66 +/-	100	4	0	6,155,000:02:0	
677	1	218	04:24:24.000		DMS:	:*READY	RDY, TRACK 3, FWD, TIC *708.72 +/-	100	4	0	6,155,000:03:8	
678	1	218	04:25:11.466	175TA42A6A	6DMSC	R7,3	DMS Control	100	4	0	6,155,000:75:0	
679	1	218	04:25:11.466		DMS:	:*E4-DELAY	RDY, TRACK *1, FWD, TIC 708.72 +/-	100	4	0	6,155,000:75:0	
680	1	218	04:25:18.133		DMS:	:*RUNUP	R7, TRACK *3, FWD, TIC 708.72 +/-	100	4	0	6,155,000:85:0	
681	1	218	04:25:19.466	175TA176A6A	6TMREC	<b>LPW</b>	7.68 KBPS LOW RATE SCIPWS RECORD Record	100	4	0	6,155,000:87:0	
682	1	218	04:25:19.466	282NA431A6A	6RCSEL	DDSNCG,PLSSEL,EP	Record Select (DDS onl)	100	4	0	6,155,000:87:0	
683	1	218	04:25:19.533		DMS:	:*AT SPD	R7, TRACK 3, FWD, TIC 708.84 +/-	100	4	0	6,155,000:87:1	
684	1	218	04:25:19.533		DMS:	:*RECORD	R7, TRACK 3, FWD, TIC *708.84 +/-	100	4	0	6,155,000:87:1	
685	1	218	04:25:22.133	43TOA6A	6RCSEL	DDSNCG,PLSNCG,EP	Record Select (DDS onl)	100	4	0	6,155,001:00:0	
686	1	218	04:26:26.800	31NNTHRMAL01-		-----START-----		100	4	0	:	:
687	1	218	04:26:37.466	20DA5A	37PL		<b>Program Load (halts microprocessor &amp; unwri</b>	4	0	0	<b>6,155,002:22:0</b>	
688	1	218	04:26:38.800	20DA5B	37MRL		<b>Memory Realocate (software operates from R</b>	4	0	0	<b>6,155,002:24:0</b>	
689	1	218	04:26:40.800	20DA6A	6MCPY	<b>NIMS</b>	<b>NIMS,1000,LLM1A,7300,77F7</b>	4	0	0	<b>6,155,002:27:0</b>	
690	1	218	04:26:50.800	20DA6B	6MCPY	<b>NIMS</b>	<b>NIMS,1598,LLM1A,77F8,781D</b>	4	0	0	<b>6,155,002:42:0</b>	
691	1	218	04:27:04.133	20DA5C	37IRT		<b>Instrument Reset (goes into POR state)</b>	4	0	0	<b>6,155,002:62:0</b>	
692	1	218	04:27:07.466	20DA5D	37MN		<b>Memory Normal (software operates from ROM)</b>	260	4	0	<b>6,155,002:67:0</b>	
693	1	218	04:27:38.800	20DA4A	37IST	<b>1,2,0,OFF,0,0,0</b>	<b>Chopper ON, Sync, Chopper (Ref)</b>	2R0	4	0	<b>6,155,003:23:0</b>	
694	1	218	04:27:43.466	117GN105A106A4B	7STRP	-0.01,0.013503,0	Slew = 12.01	2R0	4	0	6,155,003:30:0	
695	1	218	04:28:00.133	117GN105A106A4C	7STRP	0.033012,0.0011,	Slew = 0.17	2R0	4	0	6,155,003:55:0	
696	1	218	04:29:23.466	43TOC6A	6RCDSL	DDSNCG,PLSNCG,EP	Record Deselect (DDS o	2R0	4	0	6,155,004:89:0	
697	1	218	04:29:24.800	432SB6A	6RTSL2	<b>NIMNCG,AACNCG,RT</b>	<b>R/T ENG SELECT</b>	2R0	4	0	<b>6,155,005:00:0</b>	
698	1	218	04:29:26.800	31NNTHRMAL01-		-----STOP-----		2R0	4	0	:	:
699	1	218	04:30:20.800	31NNTHRMAL01-		-----START-----		2R0	4	0	:	:
700	1	218	04:30:20.800	125DA4A	37IST	<b>0,2,0,OFF,0,1,3</b>	<b>Gain State 1</b>	1R0	4	0	<b>6,155,005:84:0</b>	
701	1	218	04:30:20.800	125DA	NIMSINIT	GS	##### GROUP START INIT	1R0	4	0	6,155,005:84:0	
702	1	218	04:30:28.800	428JA6A	6RCCLR			1R0	4	0	6,155,006:05:0	
703	1	218	04:30:29.466	428JA6B	6RCSET			1R0	4	0	6,155,006:06:0	
704	1	218	04:31:21.466	125DA11A	NIMSINIT	GE	##### GROUP END INIT	1R0	4	0	6,155,006:84:0	
705	1	218	04:31:21.466	125DA4B	37MIB	<b>0,0,0,0,0,0</b>	<b>Selects mirror (spatial) edit table</b>	1R0	4	0	<b>6,155,006:84:0</b>	
706	1	218	04:31:22.133	117GN105A106B4A	7STRP	0.01,-0.012002,0	Slew = 12.01	1R0	4	0	6,155,006:85:0	
707	1	218	04:31:48.800	117GN105A106B4B	7STRP	0.0,0.0,0.0,0.0,0,	Slew = 0.17	1R0	4	0	6,155,007:34:0	
708	1	218	04:32:22.800	117GN11A	CSMOS	GE	***** GROUP END CSMOS	1R0	4	0	6,155,007:85:0	
709	1	218	04:33:26.800	165DA4A	7SCAN	<b>NORM,231.474998,</b>	<b>Check S/P Position</b>	1R0	4	0	6,155,008:90:0	
710	1	218	04:34:23.466	127DA4A	37IOP	<b>3,0</b>	<b>Long Map, Grating Start Position =00</b>	1R3	4	0	<b>6,155,009:84:0</b>	
711	1	218	04:34:23.466	127DA	NIMSTAB	GS	%%%% GROUP START TAB	1R3	4	0	6,155,009:84:0	
712	1	218	04:34:24.133	127DA4B	37ETB	<b>04,C,4,35,FF,FF</b>	<b>Loads wavelength edit table</b>	1R3	4	0	<b>6,155,009:85:0</b>	
713	1	218	04:34:32.133	127DA11A	NIMSTAB	GE	%%%% GROUP END TAB	1R3	4	0	6,155,010:06:0	



Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
714	1	218	04:35:28.800	4310D6A	6RCSEL	DDSNCG,PLSNCG,EP	Record Select (DDS onl)	1R3	4	0	6,155,011:00:0	
715	1	218	04:37:20.800	117DA	CSMOS	GS	***** GROUP START CSMOS	1R3	4	0	6,155,012:77:0	
716	1	218	04:37:24.133		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 878.67 +/-	1R3	4	0	6,155,012:82:0	
717	1	218	04:37:24.133	175DA422A6A	6DMSC	R28,3	DMS Control	1R3	4	0	6,155,012:82:0	
718	1	218	04:37:25.333		DMS:	: *RUNUP	R28, TRACK 3, FWD, TIC * 878.73 +/-	1R3	4	0	6,155,012:83:8	
719	1	218	04:37:28.800	165DA4B	7VECT		Inert vect update UTC	1R3	4	0	6,155,012:89:0	
720	1	218	04:37:29.333		DMS:	: *RECORD	R28, TRACK 3, FWD, TIC * 880.23 +/-	1R3	4	0	6,155,012:89:8	
721	1	218	04:37:29.333		DMS:	: *AT_SPD	R28, TRACK 3, FWD, TIC 880.23 +/-	1R3	4	0	6,155,012:89:8	
722	1	218	04:37:29.466	175DA176A6A	6TMREC	MPW	28.8 KBPS PWS + NIMS RECORD Record Mode C	1R3	4	0	6,155,012:90:0	
723	1	218	04:37:30.133	117DA105A106A4A	7STRP	-0.017002,0.0146	Slew = 0.04	1R3	4	0	6,155,013:00:0	
724	1	218	04:37:30.133	31INHERML01-	NIMPBK	301DA	IO THERMAL OBSERVATION	1R3	4	0	:	
725	1	218	04:38:44.800	31INHERML01-	NIMPBK	301DN	IO THERMAL OBSERVATION	1R3	4	0	:	
726	1	218	04:42:34.133	428JB6A	6RCCLR			1R3	4	0	6,155,018:01:0	
727	1	218	04:42:34.800	428JB6B	6RCSET		8	1R3	4	0	6,155,018:02:0	
728	1	218	04:46:04.800	31INHERML01-	DESELC	300DN	IO THERMAL OBSERVATION	1R3	4	0	:	
729	1	218	04:46:45.466	20ID6A	6MOSCP	HLM1A,E415,B1A1A	HLM1A,E415,B1A1A,5000,506	1R3	4	0	:	
730	1	218	04:47:30.133	31INHERML01-	DESELC	300DA	IO THERMAL OBSERVATION	1R3	4	0	:	
731	1	218	04:47:32.800	117DA11A	CSMOS	GE	***** GROUP END CSMOS	1R3	4	0	6,155,022:85:0	
732	1	218	04:47:33.466		DMS:	: *RUNDOWN	R28, TRACK 3, FWD, TIC *1411.21 +/-	1R3	4	0	6,155,022:86:0	
733	1	218	04:47:33.466	175TB422A6A	6DMSC	R7,3	DMS Control	1R3	4	0	6,155,022:86:0	
734	1	218	04:47:34.666		DMS:	: *RUNUP	R7, TRACK 3, FWD, TIC *1411.51 +/-	1R3	4	0	6,155,022:87:8	
735	1	218	04:47:35.466	31INHSISUM01-	*****START	*****		1R3	4	0	:	
736	1	218	04:47:36.066		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC *1411.63 +/-	1R3	4	0	6,155,022:89:9	
737	1	218	04:47:36.066		DMS:	: *AT_SPD	R7, TRACK 3, FWD, TIC 1411.63 +/-	1R3	4	0	6,155,022:89:9	
738	1	218	04:47:36.133	175TB176A6A	6TMREC	LPW	7.68 KBPS LOW RATE SCIPWS RECORD Record	1R3	4	0	6,155,022:90:0	
739	1	218	04:47:36.133	165DB4A	7SCAN	NORM,215.369999,	Check S/P Position	1R3	4	0	6,155,022:90:0	
740	1	218	04:47:38.800	31INHRMAL01-	*****STOP	*****		1R3	4	0	:	
741	1	218	04:48:35.466	428JC6A	6RCCLR			1R3	4	0	6,155,023:88:0	
742	1	218	04:48:36.133	428JC6B	6RCSET		12	1R3	4	0	6,155,023:89:0	
743	1	218	04:49:28.800	117DB	CSMOS	GS	***** GROUP START CSMOS	1R3	4	0	6,155,024:77:0	
744	1	218	04:49:30.800	175DB422A6A	6DMSC	R28,3	DMS Control	1R3	4	0	6,155,024:80:0	
745	1	218	04:49:30.800		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC *1438.52 +/-	1R3	4	0	6,155,024:80:0	
746	1	218	04:49:32.000		DMS:	: *RUNUP	R28, TRACK 3, FWD, TIC *1438.58 +/-	1R3	4	0	6,155,024:81:8	
747	1	218	04:49:36.000		DMS:	: *RECORD	R28, TRACK 3, FWD, TIC *1440.08 +/-	1R3	4	0	6,155,024:87:8	
748	1	218	04:49:36.000		DMS:	: *AT_SPD	R28, TRACK 3, FWD, TIC 1440.08 +/-	1R3	4	0	6,155,024:87:8	
749	1	218	04:49:36.133	175DB176A6A	6TMREC	MPW	28.8 KBPS PWS + NIMS RECORD Record Mode C	1R3	4	0	6,155,024:88:0	
750	1	218	04:49:36.800	31INHSISUM01-	NIMPBK	301DB	IO ISUM OBSERVATION	1R3	4	0	:	
751	1	218	04:49:36.800	165DB4B	7VECT		Inert vect update UTC	1R3	4	0	6,155,024:89:0	
752	1	218	04:49:38.133	117DB105A106A4A	7STRP	0.0093,-0.0011,0	Slew = 0.04	1R3	4	0	6,155,025:00:0	
753	1	218	04:50:28.133	31INHSISUM01-	NIMPBK	301DO	IO ISUM OBSERVATION	1R3	4	0	:	
754	1	218	04:51:00.133	481UB4A	7VECT	BB2	Inert vect update UTC	1R3	4	0	6,155,026:32:0	
755	1	218	04:51:36.133	428JD6A	6RCCLR			1R3	4	0	6,155,026:86:0	
756	1	218	04:51:36.800	428JD6B	6RCSET		8	1R3	4	0	6,155,026:87:0	
757	1	218	04:53:32.800	31INHSISUM01-	DESELC	300DB	IO ISUM OBSERVATION	1R3	4	0	:	
758	1	218	04:53:32.800	31INHSISUM01-	DESELC	300DO	IO ISUM OBSERVATION	1R3	4	0	:	
759	1	218	04:53:36.800	117DB11A	CSMOS	GE	***** GROUP END CSMOS	1R3	4	0	6,155,028:85:0	
760	1	218	04:53:36.800		DMS:	: *RUNDOWN	R28, TRACK 3, FWD, TIC *1651.72 +/-	1R3	4	0	6,155,028:85:0	
761	1	218	04:53:36.800	175TC422A6A	6DMSC	R7,3	DMS Control	1R3	4	0	6,155,028:85:0	
762	1	218	04:53:38.000		DMS:	: *RUNUP	R7, TRACK 3, FWD, TIC *1652.02 +/-	1R3	4	0	6,155,028:86:8	
763	1	218	04:53:39.400		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC *1652.14 +/-	1R3	4	0	6,155,028:88:9	
764	1	218	04:53:39.400		DMS:	: *AT_SPD	R7, TRACK 3, FWD, TIC 1652.14 +/-	1R3	4	0	6,155,028:88:9	
765	1	218	04:53:39.466	175TC176A6A	6TMREC	LPW	7.68 KBPS LOW RATE SCIPWS RECORD Record	1R3	4	0	6,155,028:89:0	
766	1	218	04:53:40.133	165GG4A	7SCAN	NORM,209.953999,	Check S/P Position	1R3	4	0	6,155,028:90:0	
767	1	218	04:53:42.133	31INHSISUM01-	*****STOP	*****		1R3	4	0	:	
768	1	218	04:54:45.466	31INNSO2MAP01-	*****START	*****		1R3	4	0	:	

Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MF I
769	1	218	04:54:49.466	20DC5A	37PL	Program Load (halts microprocessor & unwri		4	0	6,155,030:12:0	
770	1	218	04:54:56.133	20DC5B	37MRL	Memory Realocate (software operates from R		4	0	6,155,030:22:0	
771	1	218	04:55:09.466	20DC6A	6MCPY NIMS	NIMS,1000,LLM1A,7300,77F7		4	0	6,155,030:42:0	
772	1	218	04:55:19.466	20DC6B	6MCPY NIMS	NIMS,1598,LLM1A,77F8,781D		4	0	6,155,030:57:0	
773	1	218	04:55:29.466	20DC5C	37IRT	Instrument Reset (goes into POR state)		4	0	6,155,030:72:0	
774	1	218	04:55:32.800	20DC5D	37MNN	Memory Normal (software operates from ROM)		260	4	0	6,155,030:77:0
775	1	218	04:55:57.466	20DC4A	37IST 1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)		2R0	4	0	6,155,031:23:0
776	1	218	04:56:54.133	428JE6A	6RCCLR			2R0	4	0	6,155,032:17:0
777	1	218	04:56:54.800	428JE6B	6RCSET			2R0	4	0	6,155,032:18:0
778	1	218	04:56:58.133	20DC4B	37IOP 3,0	Long Map, Grating Start Position =00		2R3	4	0	6,155,032:23:0
779	1	218	04:56:58.800	20DC4C	37ETB 04,C,4,35,FF,FF	Loads wavelength edit table		2R3	4	0	6,155,032:24:0
780	1	218	04:57:45.466	31NNSO2MAP01-	-----STOP-----			2R3	4	0	..
781	1	218	04:57:58.800	20DC4D	37IST 0,2,0,OFF,0,1,3	Gain State 1		1R3	4	0	6,155,033:23:0
782	1	218	04:59:45.466	31INTVASHOT02+	-----START-----			1R3	4	0	..
783	1	218	04:59:46.133	165IA4A	7SCAN NORM,81.535999,-	Check S/P Position		1R3	4	0	6,155,035:02:0
784	1	218	05:00:46.133	118IA	SMOS GS			1R3	4	0	6,155,036:01:0
785	1	218	05:00:50.800		DMS: : *RUNDOWN	R7, TRACK 3, FWD, TIC *1753.25 +/-		1R3	4	0	6,155,036:08:0
786	1	218	05:00:50.800	175IA422A6A	6DMSC R403.3	DMS Control		1R3	4	0	6,155,036:08:0
787	1	218	05:00:52.000		DMS: : *RUNUP	R403, TRACK 3, FWD, TIC *1753.31 +/-		1R3	4	0	6,155,036:09:8
788	1	218	05:00:52.800	165IA4B	7VECT	Inert vect update UTC		1R3	4	0	6,155,036:11:0
789	1	218	05:00:55.466	175IA176A6A	6TMREC IM4	403.2 KBPS IMAGE RECORD Record Mode Chang		1R3	4	0	6,155,036:15:0
790	1	218	05:00:55.866		DMS: : *RECORD	R403, TRACK 3, FWD, TIC *1776.31 +/-		1R3	4	0	6,155,036:15:6
791	1	218	05:00:55.866		DMS: : *AT SPD	R403, TRACK 3, FWD, TIC 1776.31 +/-		1R3	4	0	6,155,036:15:6
792	1	218	05:00:56.133	118IA110A11A4A	7STRP -0.002,0.0068,26	Slew =6,3.3		1R3	4	0	6,155,036:16:0
793	1	218	05:01:21.466	428JF6A	6RCCLR			1R3	4	0	6,155,036:54:0
794	1	218	05:01:22.133	428JF6B	6RCSET			1R3	4	0	6,155,036:55:0
795	1	218	05:01:33.466	31NNSO2MAP01-	-----START-----			1R3	4	0	..
796	1	218	05:01:38.800	20DC4E	37IST 0,2,0,OFF,0,1,0	Gain State 2		2R3	4	0	6,155,036:80:0
797	1	218	05:01:39.466	118IA11A	SMOS GE			2R3	4	0	6,155,036:81:0
798	1	218	05:01:42.133	165DC4A	7SCAN NORM,40.837,7.13	Check S/P Position		2R3	4	0	6,155,036:85:0
799	1	218	05:01:46.133		DMS: : *RUNDOWN	R403, TRACK 3, FWD, TIC *2394.82 +/-		2R3	4	0	6,155,037:00:0
800	1	218	05:01:46.133	175TD422A6A	6DMSC R7.3	DMS Control		2R3	4	0	6,155,037:00:0
801	1	218	05:01:48.866		DMS: : *RUNUP	R7, TRACK 3, FWD, TIC *2398.82 +/-		2R3	4	0	6,155,037:04:1
802	1	218	05:01:50.133	175TD176A6A	6TMREC LPW	7.68 KBPS LOW RATE SCIPWS RECORD Record		2R3	4	0	6,155,037:06:0
803	1	218	05:01:50.266		DMS: : *RECORD	R7, TRACK 3, FWD, TIC *2398.94 +/-		2R3	4	0	6,155,037:06:2
804	1	218	05:01:50.266		DMS: : *AT SPD	R7, TRACK 3, FWD, TIC 2398.94 +/-		2R3	4	0	6,155,037:06:2
805	1	218	05:01:51.466	31INTVASHOT02+	-----STOP-----			2R3	4	0	..
806	1	218	05:02:12.133	428JG6A	6RCCLR			2R3	4	0	6,155,037:39:0
807	1	218	05:02:12.800	428JG6B	6RCSET			2R3	4	0	6,155,037:40:0
808	1	218	05:02:37.466	117DC	CSMOS GS	***** GROUP START CSMOS		2R3	4	0	6,155,037:77:0
809	1	218	05:02:39.466	175DC422A6A	6DMSC R28.3	DMS Control		2R3	4	0	6,155,037:80:0
810	1	218	05:02:39.466		DMS: : *RUNDOWN	R7, TRACK 3, FWD, TIC *2410.47 +/-		2R3	4	0	6,155,037:80:0
811	1	218	05:02:40.666		DMS: : *RUNUP	R28, TRACK 3, FWD, TIC *2410.53 +/-		2R3	4	0	6,155,037:81:8
812	1	218	05:02:44.666		DMS: : *RECORD	R28, TRACK 3, FWD, TIC *2412.03 +/-		2R3	4	0	6,155,037:87:8
813	1	218	05:02:44.666		DMS: : *AT SPD	R28, TRACK 3, FWD, TIC 2412.03 +/-		2R3	4	0	6,155,037:87:8
814	1	218	05:02:44.800	175DC176A6A	6TMREC MPW	28.8 KBPS PWS + NIMS RECORD Record Mode C		2R3	4	0	6,155,037:88:0
815	1	218	05:02:45.466	165DC4B	7VECT	Inert vect update UTC		2R3	4	0	6,155,037:89:0
816	1	218	05:02:45.466	31NNSO2MAP01-	NIMPBK 301DC	IO SO2 MAP OBSERVATION		2R3	4	0	..
817	1	218	05:02:46.800	117DC105A106A4A	7STRP -0.002,0.0,0,0,0	Slew = 0.06		2R3	4	0	6,155,038:00:0
818	1	218	05:03:22.133	117DC11A	CSMOS GE	***** GROUP END CSMOS		2R3	4	0	6,155,038:53:0
819	1	218	05:03:22.133	165EC4A	7SCAN NORM,210.651999,	Check S/P Position		2R3	4	0	6,155,038:56:0
820	1	218	05:03:25.466	31NNSO2MAP01-	DESELC 300DC	IO SO2 MAP OBSERVATION		2R3	4	0	..
821	1	218	05:05:14.800	428JH6A	6RCCLR			2R3	4	0	6,155,040:40:0
822	1	218	05:05:15.466	428JH6B	6RCSET			2R3	4	0	6,155,040:41:0
823	1	218	05:06:00.133	481UC4A	7VECT	Inert vect update UTC		2R3	4	0	6,155,041:17:0

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
824	1	218	05:06:09.466	165ED4A	7SCAN	NORM,70.099999,-	Check S/P Position	2R3	4	0	6,155,041:31:0	
825	1	218	05:07:45.466	175TE422A6A	6DMSC	R7,3	DMS Control	2R3	4	0	6,155,042:84:0	
826	1	218	05:07:45.466		DMS:	:*RUNDOWN	R28, TRACK 3, FWD, TIC *2676.41 +/-	2R3	4	0	6,155,042:84:0	
827	1	218	05:07:46.666		DMS:	:*RUNUP	R7, TRACK 3, FWD, TIC *2676.71 +/-	2R3	4	0	6,155,042:85:8	
828	1	218	05:07:48.066		DMS:	:*AT SPD	R7, TRACK 3, FWD, TIC 2676.83 +/-	2R3	4	0	6,155,042:87:9	
829	1	218	05:07:48.066		DMS:	:*RECORD	R7, TRACK 3, FWD, TIC *2676.83 +/-	2R3	4	0	6,155,042:87:9	
830	1	218	05:07:48.133	175TE176A6A	6TMREC	LPW	7.68 KBPS LOW RATE SCIPWS RECORD	2R3	4	0	6,155,042:88:0	
831	1	218	05:07:50.800	31INSO2MAP01-		-----STOP-----		2R3	4	0	:	
832	1	218	05:07:56.800	165IB4A	7SCAN	NORM,79.599,0.13	Check S/P Position	2R3	4	0	6,155,043:10:0	
833	1	218	05:08:49.466	428J16A	6RCCLR			2R3	4	0	6,155,043:89:0	
834	1	218	05:08:50.133	428J16B	6RCSET		14	2R3	4	0	6,155,043:90:0	
835	1	218	05:09:06.800	31NNTVASHT01-		-----START-----		2R3	4	0	:	
836	1	218	05:09:11.466	20DD5A	37PL		Program Load (halts microprocessor & unwri	4	0	6,155,044:31:0		
837	1	218	05:09:14.800	20DD5B	37MRL		Memory Realocate (software operates from R	4	0	6,155,044:36:0		
838	1	218	05:09:18.133	20DD6A	6MCOPI	NIMS	NIMS,1090,LLM1A,7300,77F7	4	0	6,155,044:41:0		
839	1	218	05:09:28.133	20DD6B	6MCOPI	NIMS	NIMS,1598,LLM1A,77F8,781D	4	0	6,155,044:56:0		
840	1	218	05:09:38.133	20DD5C	37IRT		Instrument Reset (goes into POR state)	4	0	6,155,044:71:0		
841	1	218	05:09:41.466	20DD5D	37MN		Memory Normal (software operates from ROM)	260	4	0	6,155,044:76:0	
842	1	218	05:09:43.466	118IB	SMOS	GS		260	4	0	6,155,044:79:0	
843	1	218	05:09:44.800	20DD4A	37IST	1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)	2R0	4	0	6,155,044:81:0	
844	1	218	05:09:46.800		DMS:	:*RUNDOWN	R7, TRACK 3, FWD, TIC *2704.66 +/-	2R0	4	0	6,155,044:84:0	
845	1	218	05:09:46.800	175IB422A6A	6DMSC	R806.3	DMS Control	2R0	4	0	6,155,044:84:0	
846	1	218	05:09:48.000		DMS:	:*RUNUP	R806, TRACK 3, FWD, TIC *2704.72 +/-	2R0	4	0	6,155,044:85:8	
847	1	218	05:09:50.133	165IB4B	7VECT		Inert vect update UTC	2R0	4	0	6,155,044:89:0	
848	1	218	05:09:52.800	175IB176A6A	6TMREC	IM8	806.4 KBPS IMAGE RECORD Record Mode Chang	2R0	4	0	6,155,045:02:0	
849	1	218	05:09:53.266		DMS:	:*RECORD	R806, TRACK 3, FWD, TIC *2770.72 +/-	2R0	4	0	6,155,045:02:7	
850	1	218	05:09:53.266		DMS:	:*AT SPD	R806, TRACK 3, FWD, TIC 2770.72 +/-	2R0	4	0	6,155,045:02:7	
851	1	218	05:09:53.466	118IB110A11A4A	7STRP	0.007,0.0045,26,	Slew = -3.01	2R0	4	0	6,155,045:03:0	
852	1	218	05:10:18.800	428J16A	6RCCLR			2R0	4	0	6,155,045:41:0	
853	1	218	05:10:19.466	428J16B	6RCSET		11	2R0	4	0	6,155,045:42:0	
854	1	218	05:10:36.800	118IB11A	SMOS	GE		2R0	4	0	6,155,045:68:0	
855	1	218	05:10:40.800		DMS:	:*RUNDOWN	R806, TRACK 3, FWD, TIC *3940.48 +/-	2R0	4	0	6,155,045:74:0	
856	1	218	05:10:40.800	175TF422A6A	6DMSC	R7,3	DMS Control	2R0	4	0	6,155,045:74:0	
857	1	218	05:10:41.466	31INTVASHT03+		-----START-----		2R0	4	0	:	
858	1	218	05:10:42.133	165IC4A	7SCAN	NORM,58.619,23.3	Check S/P Position	2R0	4	0	6,155,045:76:0	
859	1	218	05:10:43.533		DMS:	:*RUNUP	R7, TRACK 3, FWD, TIC *3951.98 +/-	2R0	4	0	6,155,045:78:1	
860	1	218	05:10:44.800	175TF176A6A	6TMREC	LPW	7.68 KBPS LOW RATE SCIPWS RECORD Record	2R0	4	0	6,155,045:80:0	
861	1	218	05:10:44.933		DMS:	:*AT SPD	R7, TRACK 3, FWD, TIC 3952.10 +/-	2R0	4	0	6,155,045:80:2	
862	1	218	05:10:44.933		DMS:	:*RECORD	R7, TRACK 3, FWD, TIC *3952.10 +/-	2R0	4	0	6,155,045:80:2	
863	1	218	05:10:45.466	20DD4B	37IST	0,2,0,OFF,0,1,0	Gain State 2	2R0	4	0	6,155,045:81:0	
864	1	218	05:11:28.800	428JK6A	6RCCLR			2R0	4	0	6,155,046:55:0	
865	1	218	05:11:29.466	428JK6B	6RCSET		14	2R0	4	0	6,155,046:56:0	
866	1	218	05:11:45.466	20DD4C	37IOP	3,0	Long Map, Grating Start Position =00	2R3	4	0	6,155,046:80:0	
867	1	218	05:11:46.133	20DD4D	37ETB	04,C,4,35,FF,FF	Loads wavelength edit table	2R3	4	0	6,155,046:81:0	
868	1	218	05:11:56.800	118IC	SMOS	GS		2R3	4	0	6,155,047:06:0	
869	1	218	05:12:05.466		DMS:	:*RUNDOWN	R7, TRACK 3, FWD, TIC *3970.98 +/-	2R3	4	0	6,155,047:19:0	
870	1	218	05:12:05.466	175IC422A6A	6DMSC	R806.3	DMS Control	2R3	4	0	6,155,047:19:0	
871	1	218	05:12:06.666		DMS:	:*RUNUP	R806, TRACK 3, FWD, TIC *3971.04 +/-	2R3	4	0	6,155,047:20:8	
872	1	218	05:12:06.800	31NNTVASHT01-		-----STOP-----		2R3	4	0	:	
873	1	218	05:12:08.800	165IC4B	7VECT		Inert vect update UTC	2R3	4	0	6,155,047:24:0	
874	1	218	05:12:11.466	175IC176A6A	6TMREC	IM8	806.4 KBPS IMAGE RECORD Record Mode Chang	2R3	4	0	6,155,047:28:0	
875	1	218	05:12:11.933		DMS:	:*AT SPD	R806, TRACK 3, FWD, TIC 4037.04 +/-	2R3	4	0	6,155,047:28:7	
876	1	218	05:12:11.933		DMS:	:*RECORD	R806, TRACK 3, FWD, TIC *4037.04 +/-	2R3	4	0	6,155,047:28:7	
877	1	218	05:12:12.133	118IC110A11A4A	7STRP	-0.00694,-0.0013	Slew = 3.51	2R3	4	0	6,155,047:29:0	
878	1	218	05:12:16.133	31INTVASHT03+	NIMPBK	301DM	IO TVASHTAR R OBSERVATION	2R3	4	0	:	

Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MF I
879	1	218	05:12:37.466	428JL6A	6RCCLR		2R3	4	0	6,155,047:67:0	
880	1	218	05:12:38.133	428JL6B	6RCSET	11	2R3	4	0	6,155,047:68:0	
881	1	218	05:12:55.466	118IC11A	SMOS	GE	2R3	4	0	6,155,048:03:0	
882	1	218	05:13:00.133	31INTVASH03+	DESEL	300DM	2R3	4	0	6,155,048:03:0	
883	1	218	05:13:02.133	175TG422A6A	DMS:	: *RUNDOWN	2R3	4	0	6,155,048:13:0	
884	1	218	05:13:02.133	175TG422A6A	DMS:	R7,3	2R3	4	0	6,155,048:13:0	
885	1	218	05:13:04.866	175TG176A6A	DMS:	: *RUNUP	2R3	4	0	6,155,048:17:1	
886	1	218	05:13:06.133	175TG176A6A	6TMREC	LPW	2R3	4	0	6,155,048:19:0	
887	1	218	05:13:06.266	175TG176A6A	DMS:	: *AT_SPD	2R3	4	0	6,155,048:19:2	
888	1	218	05:13:06.266	175TG176A6A	DMS:	: *RECORD	2R3	4	0	6,155,048:19:2	
889	1	218	05:13:07.466	31INTVASH03+	-----STOP-----		2R3	4	0	6,155,048:19:2	
890	1	218	05:13:52.800	31INTVASH01-	-----START-----		2R3	4	0	6,155,048:19:2	
891	1	218	05:13:53.466	165DD4A	7SCAN	NORM,58.479,24.3	2R3	4	0	6,155,048:90:0	
892	1	218	05:13:58.133	428JM6A	6RCCLR		2R3	4	0	6,155,049:06:0	
893	1	218	05:13:58.800	428JM6B	6RCSET	12	2R3	4	0	6,155,049:07:0	
894	1	218	05:14:45.466	117DD	CSMOS	GS	2R3	4	0	6,155,049:77:0	
895	1	218	05:14:47.466	175DD422A6A	DMS:	: *RUNDOWN	2R3	4	0	6,155,049:80:0	
896	1	218	05:14:47.466	175DD422A6A	6DMSC	R28,3	2R3	4	0	6,155,049:80:0	
897	1	218	05:14:48.666	175DD422A6A	DMS:	: *RUNUP	2R3	4	0	6,155,049:81:8	
898	1	218	05:14:52.666	175DD422A6A	DMS:	: *AT_SPD	2R3	4	0	6,155,049:87:8	
899	1	218	05:14:52.666	175DD422A6A	DMS:	: *RECORD	2R3	4	0	6,155,049:87:8	
900	1	218	05:14:52.800	175DD176A6A	6TMREC	MPW	2R3	4	0	6,155,049:88:0	
901	1	218	05:14:53.466	165DD4B	7VECT		2R3	4	0	6,155,049:89:0	
902	1	218	05:14:53.466	31INTVASH01-	NIMPBK	301DD	2R3	4	0	6,155,049:89:0	
903	1	218	05:14:54.800	117DD105A106A4A	7STRP	-0.017902,-0.006	2R3	4	0	6,155,050:00:0	
904	1	218	05:16:36.800	31INTVASH01-	NIMPBK	301DX	2R3	4	0	6,155,050:00:0	
905	1	218	05:18:52.133	31INTVASH01-	DESEL	300DX	2R3	4	0	6,155,050:00:0	
906	1	218	05:19:30.133	31INTVASH01-	NIMPBK	301DI	2R3	4	0	6,155,050:00:0	
907	1	218	05:19:46.133	31INTVASH01-	DESEL	300DI	2R3	4	0	6,155,050:00:0	
908	1	218	05:19:50.800	428JN6A	6RCCLR		2R3	4	0	6,155,054:81:0	
909	1	218	05:19:51.466	428JN6B	6RCSET	8	2R3	4	0	6,155,054:81:0	
910	1	218	05:24:46.800	31INTVASH01-	DESEL	300DD	2R3	4	0	6,155,059:72:0	
911	1	218	05:24:48.800	175TH422A6A	6DMSC	R7,3	2R3	4	0	6,155,059:72:0	
912	1	218	05:24:48.800	175TH422A6A	DMS:	: *RUNDOWN	2R3	4	0	6,155,059:72:0	
913	1	218	05:24:50.000	31INTVASH01-	DMS:	: *RUNUP	2R3	4	0	6,155,059:73:8	
914	1	218	05:24:51.400	31INTVASH01-	DMS:	: *AT_SPD	2R3	4	0	6,155,059:75:9	
915	1	218	05:24:51.400	31INTVASH01-	DMS:	: *RECORD	2R3	4	0	6,155,059:75:9	
916	1	218	05:24:51.466	175TH176A6A	6TMREC	LPW	2R3	4	0	6,155,059:76:0	
917	1	218	05:24:57.466	31INTVASH01-	-----STOP-----		2R3	4	0	6,155,059:76:0	
918	1	218	05:28:03.466	117DD11A	CSMOS	GE	2R3	4	0	6,155,059:85:0	
919	1	218	05:28:03.466	432JD6A	6RTSL1		2R3	4	0	6,155,063:00:0	
920	1	218	05:29:06.133	432JD6A	DMS:	: *RUNDOWN	2R3	4	0	6,155,064:03:0	
921	1	218	05:29:06.133	432OA431A6A	6RCDSL	DDSNCG,PLSNCG,EP	2R3	4	0	6,155,064:03:0	
922	1	218	05:29:06.133	175TH422A6B	6DMSC	RDY,0	2R3	4	0	6,155,064:03:0	
923	1	218	05:29:06.800	432OA6A	6RTSL1		2R3	4	0	6,155,064:04:0	
924	1	218	05:29:07.333	282NB431A6A	DMS:	: *READY	2R3	4	0	6,155,064:04:8	
925	1	218	05:29:10.133	282NB431A6A	6RCDSL	DDSNCG,PLSDSL,EP	2R3	4	0	6,155,064:09:0	
926	1	218	05:29:58.800	282NB432A431A6A	6RCDSL	DDSNCG,PLSDSL,EP	2R3	4	0	6,155,064:82:0	
927	1	218	05:29:59.466	282NB432A6A	6RTSL1		2R3	4	0	6,155,064:83:0	
928	1	218	05:30:08.800	428JO6A	6RCCLR		2R3	4	0	6,155,065:06:0	
929	1	218	05:30:44.133	165ID4A	7SCAN	NORM,57.794,25.1	2R3	4	0	6,155,065:59:0	
930	1	218	05:31:05.466	465KC6A	DMS:	: READY	2R3	4	0	6,155,066:00:0	
931	1	218	05:31:05.466	465KC6A	6DMSC	RDY,4	2R3	4	0	6,155,066:00:0	
932	1	218	05:32:10.133	118ID	SMOS	GS	2R3	4	0	6,155,067:06:0	
933	1	218	05:32:20.800	175ID422A6A	6DMSC	R806,0	2R3	4	0	6,155,067:22:0	

Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MF I
934	1	218	05:32:20.800		DMS: : *US-RUNUP	P7, TRACK *1, *FWD, TIC 5893.46 +/- 1	2R3	4	0	6,155,067:22:0	
935	1	218	05:32:22.200		DMS: : *US_AT_SP	P7, TRACK 1, FWD, TIC *5893.58 +/- 1	2R3	4	0	6,155,067:24:1	
936	1	218	05:32:27.466		DMS: : *US_RD	P7, TRACK 1, FWD, TIC *5894.81 +/- 1	2R3	4	0	6,155,067:32:0	
937	1	218	05:32:28.666		DMS: : *RUNUP	R806, TRACK *4, *REV, TIC *5894.87 +/- 1	2R3	4	0	6,155,067:33:8	
938	1	218	05:32:30.800	165ID4B	7VECT	Inert vect update UTC	2R3	4	0	6,155,067:37:0	
939	1	218	05:32:33.466	175ID176A6A	6TMREC IM8	806.4 KBPS IMAGE RECORD Record Mode Chang	2R3	4	0	6,155,067:41:0	
940	1	218	05:32:33.933		DMS: : *RECORD	R806, TRACK 4, REV, TIC *5828.87 +/- 1	2R3	4	0	6,155,067:41:7	
941	1	218	05:32:33.933		DMS: : *AT_SPD	R806, TRACK 4, REV, TIC 5828.87 +/- 2	2R3	4	0	6,155,067:41:7	
942	1	218	05:32:34.133	118ID110A11A4A	7STRP	Slew =2,4.5	2R3	4	0	6,155,067:42:0	
943	1	218	05:32:42.800	118ID110A11A4B	7STRP	0.0073,-0.0073,0	2R3	4	0	6,155,067:55:0	
944	1	218	05:32:51.466	118ID110A11A4C	7STRP	Slew =2,4.5	2R3	4	0	6,155,067:68:0	
945	1	218	05:33:00.133	118ID110A11A4D	7STRP	0.0073,-0.0073,0	2R3	4	0	6,155,067:81:0	
946	1	218	05:33:08.800	118ID110A11A4E	7STRP	Slew =2,4.5	2R3	4	0	6,155,068:03:0	
947	1	218	05:33:17.466	118ID110A11A4F	7STRP	0.0073,-0.0073,0	2R3	4	0	6,155,068:16:0	
948	1	218	05:33:26.133	118ID110A11A4G	7STRP	Slew =2,4.5	2R3	4	0	6,155,068:29:0	
949	1	218	05:33:34.800	118ID11A	SMOS	GE	2R3	4	0	6,155,068:42:0	
950	1	218	05:33:37.466	31INAMRANI02+	-----START-----		2R3	4	0	:	
951	1	218	05:33:37.466	175ID422A6B	6DMSC	DMS Control Tape stop	2R3	4	0	6,155,068:46:0	
952	1	218	05:33:37.466		DMS: : *RUNDOWN	R806, TRACK 4, REV, TIC *4265.35 +/- 2	2R3	4	0	6,155,068:46:0	
953	1	218	05:33:38.133	165IE4A	7SCAN	NORM,60.218,22.5	2R3	4	0	6,155,068:47:0	
954	1	218	05:33:40.200		DMS: : *READY	RDY, TRACK 4, REV, TIC *4253.85 +/- 2	2R3	4	0	6,155,068:50:1	
955	1	218	05:34:11.466	118IE	SMOS	GS	2R3	4	0	6,155,069:06:0	
956	1	218	05:34:48.133		DMS: : *US-RUNUP	P7, TRACK *1, *FWD, TIC 4253.85 +/- 2	2R3	4	0	6,155,069:61:0	
957	1	218	05:34:48.133	175IE422A6A	6DMSC	DMS Control Tape runup 806.4kb	2R3	4	0	6,155,069:61:0	
958	1	218	05:34:49.533		DMS: : *US_AT_SP	P7, TRACK 1, FWD, TIC *4253.97 +/- 2	2R3	4	0	6,155,069:63:1	
959	1	218	05:34:54.800		DMS: : *US_RD	P7, TRACK 1, FWD, TIC *4255.21 +/- 2	2R3	4	0	6,155,069:71:0	
960	1	218	05:34:56.000		DMS: : *RUNUP	R806, TRACK *4, *REV, TIC *4255.27 +/- 2	2R3	4	0	6,155,069:72:8	
961	1	218	05:34:58.133	165IE4B	7VECT	Inert vect update UTC	2R3	4	0	6,155,069:76:0	
962	1	218	05:35:00.800	175IE176A6A	6TMREC IM8	806.4 KBPS IMAGE RECORD Record Mode Chang	2R3	4	0	6,155,069:80:0	
963	1	218	05:35:01.266		DMS: : *AT_SPD	R806, TRACK 4, REV, TIC 4189.27 +/- 2	2R3	4	0	6,155,069:80:7	
964	1	218	05:35:01.266		DMS: : *RECORD	R806, TRACK 4, REV, TIC *4189.27 +/- 2	2R3	4	0	6,155,069:80:7	
965	1	218	05:35:01.466	118IE110A11A4A	7STRP	-0.0073,0.0,26.0	2R3	4	0	6,155,069:81:0	
966	1	218	05:35:07.466	31INAMRANI02+	NIMPBK 301DW	Slew = 3.71	2R3	4	0	:	
967	1	218	05:35:18.800	118IE11A	SMOS	GE	2R3	4	0	:	
968	1	218	05:35:18.800	116IE4A	7STRP	-0.00406,0.0073,	2R3	4	0	6,155,070:16:0	
969	1	218	05:35:27.466	116JE4A	7STRP	-0.00406,0.0073,	2R3	4	0	6,155,070:16:0	
970	1	218	05:35:36.133	116JF4A	7STRP	-0.00406,0.0073,	2R3	4	0	6,155,070:29:0	
971	1	218	05:35:48.133	165IF4A	7SCAN	NORM,57.963,17.9	2R3	4	0	6,155,070:42:0	
972	1	218	05:35:50.800	31INAMRANI02+	DESEL 300DW	Check S/P Position	2R3	4	0	6,155,070:60:0	
973	1	218	05:35:51.466		DMS: : *RUNDOWN	IO AMIRANI R OBSERVATION	2R3	4	0	:	
974	1	218	05:35:51.466	175IE422A6B	6DMSC	RDY,0	2R3	4	0	6,155,070:65:0	
975	1	218	05:35:54.200		DMS: : *READY	DMS Control Tape stop	2R3	4	0	6,155,070:65:0	
976	1	218	05:35:56.800	31INAMRANI02+	-----STOP-----		2R3	4	0	:	
977	1	218	05:36:24.800	31NNGISHBR01-	-----START-----		2R3	4	0	:	
978	1	218	05:36:29.466	20DE5A	37PL	Program Load (halts microprocessor & unwri	4	0	6,155,071:31:0		
979	1	218	05:36:32.800	20DE5B	37MRL	Memory Realocate (software operates from R	4	0	6,155,071:36:0		
980	1	218	05:36:36.133	20DE6A	6MCOPY NIMS	NIMS,1000,LLM1A,7300,77F7	4	0	6,155,071:41:0		
981	1	218	05:36:46.133	20DE6B	6MCOPY NIMS	NIMS,1598,LLM1A,77F8,781D	4	0	6,155,071:56:0		
982	1	218	05:36:56.133	20DE5C	37IRT	Instrument Reset (goes into POR state)	4	0	6,155,071:71:0		
983	1	218	05:36:58.133	175IF422A6A	6DMSC	DMS Control Tape runup 806.4kb	4	0	6,155,071:74:0		
984	1	218	05:36:58.133		DMS: : *US-RUNUP	P7, TRACK *1, *FWD, TIC 2942.38 +/- 2	4	0	6,155,071:74:0		
985	1	218	05:36:59.466	20DE5D	37MN	Memory Normal (software operates from ROM)	4	0	6,155,071:76:0		
986	1	218	05:36:59.533		DMS: : *US_AT_SP	P7, TRACK 1, FWD, TIC *2942.50 +/- 2	260	4	0	6,155,071:76:1	
987	1	218	05:37:02.800	20DE4A	37IST	Chopper ON, Sync, Chopper (Ref)	2R0	4	0	6,155,071:81:0	
988	1	218	05:37:04.800		DMS: : *US_RD	P7, TRACK 1, FWD, TIC *2943.73 +/- 2	2R0	4	0	6,155,071:84:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
989	1	218	05:37:06.000		DMS:	: *RUNUP	R806, TRACK 4, *REV, TIC *2943.79 +/- 2	2R0	4	0	6,155,071:85:8	
990	1	218	05:37:08.133	165IF4B	7VECT		Inert vect update UTC	2R0	4	0	6,155,071:89:0	
991	1	218	05:37:10.800	175IF176A6A	6TMREC	IM8	806.4 KBPS IMAGE RECORD Record Mode Chang	2R0	4	0	6,155,072:02:0	
992	1	218	05:37:11.266		DMS:	: *AT_SPD	R806, TRACK 4, REV, TIC 2877.79 +/- 3	2R0	4	0	6,155,072:02:7	
993	1	218	05:37:11.266		DMS:	: *RECORD	R806, TRACK 4, REV, TIC *2877.79 +/- 2	2R0	4	0	6,155,072:02:7	
994	1	218	05:37:44.133	175IF422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R0	4	0	6,155,072:52:0	
995	1	218	05:37:44.133		DMS:	: *RUNDOWN	R806, TRACK 4, REV, TIC *2068.96 +/- 3	2R0	4	0	6,155,072:52:0	
996	1	218	05:37:46.866		DMS:	: *READY	RDY, TRACK 4, REV, TIC *2057.46 +/- 3	2R0	4	0	6,155,072:56:1	
997	1	218	05:38:38.133	165DE4A	7SCAN	NORM,56.165,22.3	Check S/P Position	2R0	4	0	6,155,073:42:0	
998	1	218	05:38:58.800		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 2057.46 +/- 3	2R0	4	0	6,155,073:73:0	
999	1	218	05:38:58.800	175DE422A6A	6DMSC	R28,0	DMS Control Tape runup 28.8kbp	2R0	4	0	6,155,073:73:0	
1000	1	218	05:39:00.200		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *2057.58 +/- 3	2R0	4	0	6,155,073:75:1	
1001	1	218	05:39:01.466	117DE	CSMOS	GS	***** GROUP START CSMOS	2R0	4	0	6,155,073:77:0	
1002	1	218	05:39:05.466		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *2058.82 +/- 3	2R0	4	0	6,155,073:83:0	
1003	1	218	05:39:06.133	31INGISHBR01-	*****START*****			2R0	4	0	6,155,073:83:0	
1004	1	218	05:39:06.133	127DE	NIMSTAB	GS	%%%%%%%%% GROUP START TAB	2R0	4	0	6,155,073:84:0	
1005	1	218	05:39:06.133	127DE4A	37IOP	3.0	Long Map, Grating Start Position =00	2R3	4	0	6,155,073:84:0	
1006	1	218	05:39:06.666		DMS:	: *RUNUP	R28, TRACK 4, *REV, TIC *2058.88 +/- 3	2R3	4	0	6,155,073:84:8	
1007	1	218	05:39:06.800	127DE4B	37ETB	04,C4,35,FF,FF	Loads wavelength edit table	2R3	4	0	6,155,073:85:0	
1008	1	218	05:39:09.466	165DE4B	7VECT		Inert vect update UTC	2R3	4	0	6,155,073:89:0	
1009	1	218	05:39:10.133	175DE176A6A	6TMREC	MPW	28.8 KBPS PWS + NIMS RECORD Record Mode C	2R3	4	0	6,155,073:90:0	
1010	1	218	05:39:10.666		DMS:	: *RECORD	R28, TRACK 4, REV, TIC *2057.38 +/- 3	2R3	4	0	6,155,073:90:0	
1011	1	218	05:39:10.666		DMS:	: *AT_SPD	R28, TRACK 4, REV, TIC 2057.38 +/- 3	2R3	4	0	6,155,073:90:8	
1012	1	218	05:39:10.800	117DE105A106A4A	7STRP	-0.014201,-0.001	Slew = 0.03	2R3	4	0	6,155,074:00:0	
1013	1	218	05:39:10.800	31INGISHBR01-	NIMPBK	301DE	IO GISHBR OBSERVATION	2R3	4	0	6,155,074:00:0	
1014	1	218	05:39:14.800	127DE11A	NIMSTAB	GE	%%%%%%%%% GROUP END TAB	2R3	4	0	6,155,074:06:0	
1015	1	218	05:39:24.800	31NNGISHBR01-	*****STOP*****			2R3	4	0	6,155,074:06:0	
1016	1	218	05:47:08.133	31INGISHBR01-	DESEL	300DE	IO GISHBR OBSERVATION	2R3	4	0	6,155,081:79:0	
1017	1	218	05:47:08.133	117DE105A106A4B	7STRP	0.014301,-0.005,	Slew =12.01	2R3	4	0	6,155,081:79:0	
1018	1	218	05:47:14.800	31INGISHBR01-	NIMPBK	301DQ	IO GISHBR OBSERVATION	2R3	4	0	6,155,082:07:0	
1019	1	218	05:47:20.800	117DE105A106A4C	7STRP	-0.014201,-0.001	Slew =,0.03	2R3	4	0	6,155,082:07:0	
1020	1	218	05:55:09.466	31INGISHBR01-	DESEL	300DQ	IO GISHBR OBSERVATION	2R3	4	0	6,155,089:86:0	
1021	1	218	05:55:18.133	117DE11A	CSMOS	GE	***** GROUP END CSMOS	2R3	4	0	6,155,089:88:0	
1022	1	218	05:55:19.466	175DE422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,089:88:0	
1023	1	218	05:55:19.466		DMS:	: *RUNDOWN	R28, TRACK 4, REV, TIC *1205.90 +/- 3	2R3	4	0	6,155,089:88:0	
1024	1	218	05:55:20.666		DMS:	: *READY	RDY, TRACK 4, REV, TIC *1205.60 +/- 3	2R3	4	0	6,155,089:89:8	
1025	1	218	05:56:21.466	165GI4A	7SCAN	NORM,56.209,27.3	Check S/P Position	2R3	4	0	6,155,090:90:0	
1026	1	218	05:56:22.133	176GI6A	6TMREC	BPT	7.68 KBPS PPR BURST TO TAPE Record Mode C	2R3	4	0	6,155,091:00:0	
1027	1	218	05:57:13.466	117GI	CSMOS	GS	***** GROUP START CSMOS	2R3	4	0	6,155,091:77:0	
1028	1	218	05:57:22.800	117GI105A106A4A	7STRP	0.028007,-0.1219	Slew = -0.24	2R3	4	0	6,155,092:00:0	
1029	1	218	05:59:24.800	31INGISHBR01-	*****STOP*****			2R3	4	0	6,155,103:40:0	
1030	1	218	06:08:56.800		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 1205.60 +/- 3	2R3	4	0	6,155,103:40:0	
1031	1	218	06:08:56.800	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	6,155,103:40:0	
1032	1	218	06:08:58.200		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *1205.72 +/- 3	2R3	4	0	6,155,103:42:1	
1033	1	218	06:09:03.466		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *1206.95 +/- 3	2R3	4	0	6,155,103:50:0	
1034	1	218	06:09:04.666		DMS:	: *RUNUP	R7, TRACK *4, *REV, TIC *1207.01 +/- 3	2R3	4	0	6,155,103:51:8	
1035	1	218	06:09:06.066		DMS:	: *AT_SPD	R7, TRACK 4, REV, TIC *1206.89 +/- 3	2R3	4	0	6,155,103:53:9	
1036	1	218	06:09:22.133		DMS:	: *RECORD	R7, TRACK 4, REV, TIC *1203.12 +/- 3	2R3	4	0	6,155,103:78:0	
1037	1	218	06:09:44.800		DMS:	: *RUNDOWN	R7, TRACK 4, REV, TIC *1197.81 +/- 3	2R3	4	0	6,155,104:21:0	
1038	1	218	06:09:44.800	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,104:21:0	
1039	1	218	06:09:46.000		DMS:	: *READY	RDY, TRACK 4, REV, TIC *1197.75 +/- 3	2R3	4	0	6,155,104:22:8	
1040	1	218	06:13:32.800	117GI11A	CSMOS	GE	***** GROUP END CSMOS	2R3	4	0	6,155,107:90:0	
1041	1	218	06:14:03.466	176GI6B	6TMREC	NRC	NO RECORD Record Mode Change	2R3	4	0	6,155,108:45:0	
1042	1	218	06:14:05.466		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 1197.75 +/- 3	2R3	4	0	6,155,108:48:0	
1043	1	218	06:14:05.466	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	6,155,108:48:0	



Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MF I
1044	1	218	06:14:06.866		DMS: : *US_AT_SP	P7, TRACK 1, FWD, TIC *1197.87 +/- 3	2R3	4	0	6,155,108:50:1	
1045	1	218	06:14:12.133		DMS: : *US_RD	P7, TRACK 1, FWD, TIC *1199.11 +/- 3	2R3	4	0	6,155,108:58:0	
1046	1	218	06:14:13.333		DMS: : *RUNUP	R7, TRACK *4, REV, TIC *1199.17 +/- 3	2R3	4	0	6,155,108:59:8	
1047	1	218	06:14:14.733		DMS: : *AT_SPD	R7, TRACK 4, REV, TIC *1199.05 +/- 3	2R3	4	0	6,155,108:61:9	
1048	1	218	06:14:15.466		DMS: : *RECORD	R7, TRACK 4, REV, TIC *1198.87 +/- 3	2R3	4	0	6,155,108:63:0	
1049	1	218	06:14:29.466	50ZZ6RE	6DMSC RDY,0	DMS Control Tape stop	2R3	4	0	6,155,108:84:0	
1050	1	218	06:14:29.466		DMS: : *RUNDOWN	R7, TRACK 4, REV, TIC *1195.59 +/- 3	2R3	4	0	6,155,108:84:0	
1051	1	218	06:14:30.666		DMS: : *READY	RDY, TRACK 4, REV, TIC *1195.53 +/- 3	2R3	4	0	6,155,108:85:8	
1052	1	218	06:15:50.800	31NNAMRANI01-	-----START-----		2R3	4	0	:	:
1053	1	218	06:15:50.800	37PL		Program Load (halts microprocessor & unwri	4	0	6,155,110:31:0		
1054	1	218	06:15:58.800	20DF5A	37MRL	Memory Realocate (software operates from R	4	0	6,155,110:36:0		
1055	1	218	06:16:02.133	20DF6A	6MCOPI NIMS	NIMS,1000,LLM1A,7300,77F7	4	0	6,155,110:41:0		
1056	1	218	06:16:12.133	20DF6B	6MCOPI NIMS	NIMS,1598,LLM1A,77F8,781D	4	0	6,155,110:56:0		
1057	1	218	06:16:22.133	20DF5C	37IRT	Instrument Reset (goes into POR state)	4	0	6,155,110:71:0		
1058	1	218	06:16:25.466	20DF5D	37MIN	Memory Normal (software operates from ROM)	260	4	0	6,155,110:81:0	
1059	1	218	06:16:28.800	20DF4A	37IST	Chopper ON, Sync, Chopper (Ref)	2R0	4	0	6,155,110:81:0	
1060	1	218	06:16:35.466		DMS: : *US-RUNUP	P7, TRACK *1, FWD, TIC 1195.53 +/- 3	2R0	4	0	6,155,111:00:0	
1061	1	218	06:16:35.466	411JC6A	6DMSC R7,0	DMS Control Tape runup 7.68kps	2R0	4	0	6,155,111:00:0	
1062	1	218	06:16:36.866		DMS: : *US_AT_SP	P7, TRACK 1, FWD, TIC *1195.65 +/- 3	2R0	4	0	6,155,111:02:1	
1063	1	218	06:16:42.133		DMS: : *US_RD	P7, TRACK 1, FWD, TIC *1196.89 +/- 3	2R0	4	0	6,155,111:10:0	
1064	1	218	06:16:43.333		DMS: : *RUNUP	R7, TRACK *4, REV, TIC *1196.95 +/- 3	2R0	4	0	6,155,111:11:8	
1065	1	218	06:16:44.733		DMS: : *AT_SPD	R7, TRACK 4, REV, TIC 1196.83 +/- 3	2R0	4	0	6,155,111:13:9	
1066	1	218	06:16:44.733		DMS: : *RECORD	R7, TRACK 4, REV, TIC *1196.83 +/- 3	2R0	4	0	6,155,111:13:9	
1067	1	218	06:16:45.466	411JC6B	6TMREC	7.68 KBPS BUFFER DUMP TO TAPE Record Mode	2R0	4	0	6,155,111:15:0	
1068	1	218	06:17:31.466	31INAMRANI01-	-----START-----		2R0	4	0	:	:
1069	1	218	06:17:31.466	127DF	NIMSTAB GS	%%%%%% GROUP START TAB	2R0	4	0	6,155,111:84:0	
1070	1	218	06:17:31.466	127DF4A	37IOP	Long Map, Grating Start Position =00	2R3	4	0	6,155,111:84:0	
1071	1	218	06:17:32.133	127DF4B	37ETB	Loads wavelength edit table	2R3	4	0	6,155,111:85:0	
1072	1	218	06:17:40.133	127DF11A	NIMSTAB GE	%%%%%% GROUP END TAB	2R3	4	0	6,155,112:06:0	
1073	1	218	06:18:36.133	165DF4A	7SCAN	NO RECORD Record Mode Change	2R3	4	0	6,155,112:90:0	
1074	1	218	06:18:46.800	411JC6C	6TMREC	7.68 KBPS LOW RATE SCIPWS RECORD	2R3	4	0	6,155,113:15:0	
1075	1	218	06:18:49.466	175T1176A6A	6TMREC LPW	DMS Control Tape runup 7.68kps	2R3	4	0	6,155,113:19:0	
1076	1	218	06:18:50.133	175T1422A6A	6DMSC R7,0		2R3	4	0	6,155,113:20:0	
1077	1	218	06:18:50.800	31NNAMRANI01-	-----STOP-----		2R3	4	0	:	:
1078	1	218	06:18:56.800	175T1422A6B	6DMSC RDY,0	DMS Control Tape stop	2R3	4	0	6,155,113:30:0	
1079	1	218	06:18:56.800		DMS: : *RUNDOWN	R7, TRACK 4, REV, TIC *1165.87 +/- 3	2R3	4	0	6,155,113:30:0	
1080	1	218	06:18:58.000		DMS: : *READY	RDY, TRACK 4, REV, TIC *1165.81 +/- 3	2R3	4	0	6,155,113:31:8	
1081	1	218	06:20:17.466		DMS: : *US-RUNUP	P7, TRACK *1, FWD, TIC 1165.81 +/- 3	2R3	4	0	6,155,114:60:0	
1082	1	218	06:20:17.466	175DF422A6A	6DMSC R28,0	DMS Control Tape runup 28.8kbp	2R3	4	0	6,155,114:60:0	
1083	1	218	06:20:18.866		DMS: : *US_AT_SP	P7, TRACK 1, FWD, TIC *1165.93 +/- 3	2R3	4	0	6,155,114:62:1	
1084	1	218	06:20:24.133		DMS: : *US_RD	R7, TRACK 1, FWD, TIC *1167.17 +/- 3	2R3	4	0	6,155,114:70:0	
1085	1	218	06:20:25.333		DMS: : *RUNUP	R28, TRACK *4, REV, TIC *1167.23 +/- 3	2R3	4	0	6,155,114:71:8	
1086	1	218	06:20:28.800	175DF176A6A	6TMREC MPW	28.8 KBPS PWS + NIMS RECORD Record Mode C	2R3	4	0	6,155,114:77:0	
1087	1	218	06:20:28.800	117DF	CSMOS GS	***** GROUP START CSMOS	2R3	4	0	6,155,114:77:0	
1088	1	218	06:20:29.333		DMS: : *AT_SPD	R28, TRACK 4, REV, TIC 1165.73 +/- 3	2R3	4	0	6,155,114:77:8	
1089	1	218	06:20:29.333		DMS: : *RECORD	R28, TRACK 4, REV, TIC *1165.73 +/- 3	2R3	4	0	6,155,114:77:8	
1090	1	218	06:20:36.800	165DF4B	7VECT	Inert vect update UTC	2R3	4	0	6,155,114:89:0	
1091	1	218	06:20:36.800	31INAMRANI01-	NIMPBK 301EG	IO AMIRANI OBSERVATION	2R3	4	0	:	:
1092	1	218	06:20:36.800	31INAMRANI01-	NIMPBK 301DF	IO AMIRANI OBSERVATION	2R3	4	0	:	:
1093	1	218	06:20:38.133	117DF105A106A4A	7STRP	Slew =0.03	2R3	4	0	6,155,115:00:0	
1094	1	218	06:21:48.133	20IH6A	6MCOPI	HLM1A,E415,B1A1A,5000,506	2R3	4	0	6,155,116:14:0	
1095	1	218	06:25:30.133	117DF105A106A4B	7STRP	Slew =12.01	2R3	4	0	6,155,119:74:0	
1096	1	218	06:25:44.800	117DF105A106A4C	7STRP	Slew =0.03	2R3	4	0	6,155,120:05:0	
1097	1	218	06:30:36.800	117DF105A106B4A	7STRP	Slew =12.01	2R3	4	0	6,155,124:79:0	
1098	1	218	06:30:52.133	117DF105A106B4B	7STRP	Slew =0.03	2R3	4	0	6,155,125:11:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1099	1	218	06:35:44.133	31INAMRANI01-	DESEL	300DF	IO AMIRANI OBSERVATION	2R3	4	0	:	:
1100	1	218	06:35:44.133	117DF11A	CSMOS	GE	**** GROUP END CSMOS	2R3	4	0	:	6,155,129:85:0
1101	1	218	06:35:44.133	31INAMRANI01-	DESEL	300EG	IO AMIRANI OBSERVATION	2R3	4	0	:	:
1102	1	218	06:35:46.800		DMS:	: *RUNDOWN	R28, TRACK 4, REV, TIC * 359.36 +/- 3	2R3	4	0	:	6,155,129:89:0
1103	1	218	06:35:46.800	175DF422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	:	6,155,129:89:0
1104	1	218	06:35:48.000		DMS:	: *READY	RDY, TRACK 4, REV, TIC * 359.06 +/- 3	2R3	4	0	:	6,155,129:90:8
1105	1	218	06:36:52.800	31INAMRANI01-		-----STOP-----		2R3	4	0	:	:
1106	1	218	06:36:52.800	118IG	SMOS	GS	DMS Control	2R3	4	0	:	6,155,131:06:0
1107	1	218	06:36:56.133	165IG4A	7SCAN	NORM,56.524,22.5	Check S/P Position	2R3	4	0	:	6,155,131:11:0
1108	1	218	06:36:56.800		DMS:	: READY	RDY, TRACK *1, *FWD, TIC 359.06 +/- 3	2R3	4	0	:	6,155,131:12:0
1109	1	218	06:36:56.800	465KD6A	6DMSC	RDY,1	DMS Control Tape stop	2R3	4	0	:	6,155,131:12:0
1110	1	218	06:37:13.466		DMS:	: *E4-DELAY	RDY, TRACK 1, FWD, TIC 359.06 +/- 3	2R3	4	0	:	6,155,131:37:0
1111	1	218	06:37:13.466	175IG422A6A	6DMSC	R806,1	DMS Control	2R3	4	0	:	6,155,131:37:0
1112	1	218	06:37:20.133		DMS:	: *RUNUP	R806, TRACK 1, FWD, TIC 359.06 +/- 3	2R3	4	0	:	6,155,131:47:0
1113	1	218	06:37:22.133	165IG4B	7VECT		Inert vect update UTC	2R3	4	0	:	6,155,131:50:0
1114	1	218	06:37:24.800	175IG176A6A	6TMREC	IM8	806.4 KBPS IMAGE RECORD Record Mode Chang	2R3	4	0	:	6,155,131:54:0
1115	1	218	06:37:25.400		DMS:	: *RECORD	R806, TRACK 1, FWD, TIC * 425.06 +/- 3	2R3	4	0	:	6,155,131:54:9
1116	1	218	06:37:25.400		DMS:	: *AT SPD	R806, TRACK 1, FWD, TIC 425.06 +/- 3	2R3	4	0	:	6,155,131:54:9
1117	1	218	06:37:25.466	118IG110A111A4A	7STRP	-0.0039,0.00285,	Slew =5,2.0	2R3	4	0	:	6,155,131:55:0
1118	1	218	06:38:00.133	118IG11A	SMOS	GE		2R3	4	0	:	6,155,132:16:0
1119	1	218	06:38:06.800		DMS:	: *RUNDOWN	R806, TRACK 1, FWD, TIC *1443.89 +/- 3	2R3	4	0	:	6,155,132:26:0
1120	1	218	06:38:06.800	175IG422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	:	6,155,132:26:0
1121	1	218	06:38:09.533		DMS:	: *READY	RDY, TRACK 1, FWD, TIC *1455.39 +/- 3	2R3	4	0	:	6,155,132:30:1
1122	1	218	06:38:13.466	165IH4A	7SCAN	NORM,54.365,24.6	Check S/P Position	2R3	4	0	:	6,155,132:36:0
1123	1	218	06:38:54.133	118IH	SMOS	GS		2R3	4	0	:	6,155,133:06:0
1124	1	218	06:39:14.800	175IH422A6A	6DMSC	R806,1	DMS Control	2R3	4	0	:	6,155,133:37:0
1125	1	218	06:39:14.800		DMS:	: *E4-DELAY	RDY, TRACK 1, FWD, TIC 1455.39 +/- 3	2R3	4	0	:	6,155,133:37:0
1126	1	218	06:39:21.466		DMS:	: *RUNUP	R806, TRACK 1, FWD, TIC 1455.39 +/- 3	2R3	4	0	:	6,155,133:47:0
1127	1	218	06:39:23.466	165IH4B	7VECT		Inert vect update UTC	2R3	4	0	:	6,155,133:50:0
1128	1	218	06:39:26.133	175IH176A6A	6TMREC	IM8	806.4 KBPS IMAGE RECORD Record Mode Chang	2R3	4	0	:	6,155,133:54:0
1129	1	218	06:39:26.733		DMS:	: *RECORD	R806, TRACK 1, FWD, TIC *1521.39 +/- 3	2R3	4	0	:	6,155,133:54:9
1130	1	218	06:39:26.733		DMS:	: *AT SPD	R806, TRACK 1, FWD, TIC 1521.39 +/- 4	2R3	4	0	:	6,155,133:54:9
1131	1	218	06:39:26.800	118IH10A111A4A	7STRP	0.00125,0.0073,2	Slew =4,2.8	2R3	4	0	:	6,155,133:55:0
1132	1	218	06:39:52.800	118IH11A	SMOS	GE		2R3	4	0	:	6,155,134:03:0
1133	1	218	06:39:54.800	31NREGION01-		-----START-----		2R3	4	0	:	:
1134	1	218	06:39:58.133	165IH4A	7SCAN	NORM,54.664,23.8	Check S/P Position	2R3	4	0	:	6,155,134:11:0
1135	1	218	06:39:58.133	20DG5A	37PL		Program Load (halts microprocessor & unwri	4	0	:	:	6,155,134:11:0
1136	1	218	06:39:59.466	175IH422A6B	6DMSC	RDY,0	DMS Control Tape stop	4	0	:	:	6,155,134:13:0
1137	1	218	06:39:59.466		DMS:	: *RUNDOWN	R806, TRACK 1, FWD, TIC *2326.94 +/- 4	4	0	:	:	6,155,134:13:0
1138	1	218	06:40:02.200		DMS:	: *READY	RDY, TRACK 1, FWD, TIC *2338.44 +/- 4	2R3	4	0	:	6,155,134:17:1
1139	1	218	06:40:08.133	20DG5B	37MRL		Memory Realocate (software operates from R	4	0	:	:	6,155,134:26:0
1140	1	218	06:40:18.133	20DG6A	6MCOPI	NIMS	NIMS,100,LLM1A,7300,77F7	4	0	:	:	6,155,134:41:0
1141	1	218	06:40:28.133	20DG6B	6MCOPI	NIMS	NIMS,1598,LLM1A,77F8,781D	4	0	:	:	6,155,134:56:0
1142	1	218	06:40:38.133	20DG5C	37IRT		Instrument Reset (goes into POR state)	4	0	:	:	6,155,134:71:0
1143	1	218	06:40:41.466	20DG5D	37MIN		Memory Normal (software operates from ROM)	260	4	0	:	6,155,134:76:0
1144	1	218	06:40:44.800	20DG4A	37IST	1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)	2R0	4	0	:	6,155,134:81:0
1145	1	218	06:40:55.466	118II	SMOS	GS		2R0	4	0	:	6,155,135:06:0
1146	1	218	06:41:17.466		DMS:	: *E4-DELAY	RDY, TRACK 1, FWD, TIC 2338.44 +/- 4	2R0	4	0	:	6,155,135:39:0
1147	1	218	06:41:17.466	175II422A6A	6DMSC	R403,1	DMS Control	2R0	4	0	:	6,155,135:39:0
1148	1	218	06:41:24.133		DMS:	: *RUNUP	R403, TRACK 1, FWD, TIC 2338.44 +/- 4	2R0	4	0	:	6,155,135:49:0
1149	1	218	06:41:24.800	165II4B	7VECT		Inert vect update UTC	2R0	4	0	:	6,155,135:50:0
1150	1	218	06:41:27.466	175II176A6A	6TMREC	IM4	403.2 KBPS IMAGE RECORD Record Mode Chang	2R0	4	0	:	6,155,135:54:0
1151	1	218	06:41:28.000		DMS:	: *AT SPD	R403, TRACK 1, FWD, TIC 2361.44 +/- 4	2R0	4	0	:	6,155,135:54:8
1152	1	218	06:41:28.000		DMS:	: *RECORD	R403, TRACK 1, FWD, TIC *2361.44 +/- 4	2R0	4	0	:	6,155,135:54:8
1153	1	218	06:41:28.133	118II10A111A4A	7STRP	-0.002,0.0073,26	Slew = 2.61	2R0	4	0	:	6,155,135:55:0



Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1154	1	218	06:41:36.800	1181I1A	SMOS	GE		2R0	4	0	6,155,135:68:0	
1155	1	218	06:41:39.466	165IJ4A	7SCAN	NORM,59.018,25.7	Check S/P Position	2R0	4	0	6,155,135:72:0	
1156	1	218	06:41:43.466	175II422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R0	4	0	6,155,135:78:0	
1157	1	218	06:41:43.466		DMS:	:*RUNDOWN	R403, TRACK 1, FWD, TIC *2551.75 +/- 4	2R0	4	0	6,155,135:78:0	
1158	1	218	06:41:46.200		DMS:	:*READY	RDY, TRACK 1, FWD, TIC *2555.75 +/- 4	2R0	4	0	6,155,135:82:1	
1159	1	218	06:41:47.466	127DG	NIMSTAB	GS	%%-%-% GROUP START TAB	2R0	4	0	6,155,135:84:0	
1160	1	218	06:41:47.466	31INREGION01-		*****START*****		2R0	4	0	:	:
1161	1	218	06:41:47.466	127DG4A	37IOP	3,0	Long Map, Grating Start Position =00	2R3	4	0	6,155,135:84:0	
1162	1	218	06:41:48.133	127DG4B	37ETB		Loads wavelength edit table	2R3	4	0	6,155,135:85:0	
1163	1	218	06:41:56.133	127DG11A	NIMSTAB	GE	%%-%-% GROUP END TAB	2R3	4	0	6,155,136:06:0	
1164	1	218	06:42:56.800	118IJ	SMOS	GS		2R3	4	0	6,155,137:06:0	
1165	1	218	06:43:18.800	175IJ422A6A	6DMSC	R403.1	DMS Control	2R3	4	0	6,155,137:39:0	
1166	1	218	06:43:18.800		DMS:	:*E4-DELAY	RDY, TRACK 1, FWD, TIC 2555.75 +/- 4	2R3	4	0	6,155,137:39:0	
1167	1	218	06:43:25.466		DMS:	:*RUNUP	R403, TRACK 1, FWD, TIC 2555.75 +/- 4	2R3	4	0	6,155,137:49:0	
1168	1	218	06:43:26.133	165IJ4B	7VECT		Inert vect update UTC	2R3	4	0	6,155,137:50:0	
1169	1	218	06:43:28.800	175IJ176A6A	6TMREC	IM4	403.2 KBPS IMAGE RECORD Record Mode Chang	2R3	4	0	6,155,137:54:0	
1170	1	218	06:43:29.333		DMS:	:*AT SPD	R403, TRACK 1, FWD, TIC 2578.75 +/- 4	2R3	4	0	6,155,137:54:8	
1171	1	218	06:43:29.333		DMS:	:*RECORD	R403, TRACK 1, FWD, TIC *2578.75 +/- 4	2R3	4	0	6,155,137:54:8	
1172	1	218	06:43:29.466	118IJ10A11A4A	7STRP	-0.004,0.0073,26	Slew =5,2.8	2R3	4	0	6,155,137:55:0	
1173	1	218	06:44:04.133	118IJ11A	SMOS	GE		2R3	4	0	6,155,138:16:0	
1174	1	218	06:44:07.466	165IK4A	7SCAN	NORM,58.81,24.06	Check S/P Position	2R3	4	0	6,155,138:21:0	
1175	1	218	06:44:10.800		DMS:	:*RUNDOWN	R403, TRACK 1, FWD, TIC *3088.98 +/- 4	2R3	4	0	6,155,138:26:0	
1176	1	218	06:44:10.800	175IJ422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,138:26:0	
1177	1	218	06:44:13.533		DMS:	:*READY	RDY, TRACK 1, FWD, TIC *3092.98 +/- 5	2R3	4	0	6,155,138:30:1	
1178	1	218	06:44:58.133	118IK	SMOS	GS		2R3	4	0	6,155,139:06:0	
1179	1	218	06:45:18.800		DMS:	:*E4-DELAY	RDY, TRACK 1, FWD, TIC 3092.98 +/- 5	2R3	4	0	6,155,139:37:0	
1180	1	218	06:45:18.800	175IK422A6A	6DMSC	R806.1	DMS Control	2R3	4	0	6,155,139:37:0	
1181	1	218	06:45:25.466		DMS:	:*RUNUP	R806, TRACK 1, FWD, TIC 3092.98 +/- 5	2R3	4	0	6,155,139:47:0	
1182	1	218	06:45:27.466	165IK4B	7VECT		Inert vect update UTC	2R3	4	0	6,155,139:50:0	
1183	1	218	06:45:30.133	175IK176A6A	6TMREC	IM8	806.4 KBPS IMAGE RECORD Record Mode Chang	2R3	4	0	6,155,139:54:0	
1184	1	218	06:45:30.733		DMS:	:*AT SPD	R806, TRACK 1, FWD, TIC 3158.98 +/- 5	2R3	4	0	6,155,139:54:9	
1185	1	218	06:45:30.733		DMS:	:*RECORD	R806, TRACK 1, FWD, TIC *3158.98 +/- 5	2R3	4	0	6,155,139:54:9	
1186	1	218	06:45:30.800	118IK10A11A4A	7STRP	0.00225,0.00731,	Slew =4,2.8	2R3	4	0	6,155,139:55:0	
1187	1	218	06:45:56.800	118IK11A	SMOS	GE		2R3	4	0	6,155,140:03:0	
1188	1	218	06:46:03.466		DMS:	:*RUNDOWN	R806, TRACK 1, FWD, TIC *3964.53 +/- 5	2R3	4	0	6,155,140:13:0	
1189	1	218	06:46:03.466	175IK422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,140:13:0	
1190	1	218	06:46:06.200		DMS:	:*READY	RDY, TRACK 1, FWD, TIC *3976.03 +/- 5	2R3	4	0	6,155,140:17:1	
1191	1	218	06:49:56.800	165DG4A	7SCAN	NORM,57.558,27.5	Check S/P Position	2R3	4	0	6,155,143:90:0	
1192	1	218	06:50:46.800	175DG422A6A	6DMSC	R7.1	DMS Control Tape runup 7.68kbp	2R3	4	0	6,155,144:74:0	
1193	1	218	06:50:46.800		DMS:	:*E4-DELAY	RDY, TRACK 1, FWD, TIC 3976.03 +/- 5	2R3	4	0	6,155,144:74:0	
1194	1	218	06:50:48.800	117DG	CSMOS	GS	**** GROUP START CSMOS	2R3	4	0	6,155,144:77:0	
1195	1	218	06:50:53.466		DMS:	:*RUNUP	R7, TRACK 1, FWD, TIC 3976.03 +/- 5	2R3	4	0	6,155,144:84:0	
1196	1	218	06:50:54.800	175DG176A6A	6TMREC	LPU	7.68 KBPS NIMS-UVS-PPR RECORD Record Mode	2R3	4	0	6,155,144:86:0	
1197	1	218	06:50:54.866		DMS:	:*RECORD	R7, TRACK 1, FWD, TIC *3976.15 +/- 5	2R3	4	0	6,155,144:86:1	
1198	1	218	06:50:54.866		DMS:	:*AT SPD	R7, TRACK 1, FWD, TIC 3976.15 +/- 5	2R3	4	0	6,155,144:86:1	
1199	1	218	06:50:56.800	165DG4B	7VECT		Inert vect update UTC	2R3	4	0	6,155,144:89:0	
1200	1	218	06:50:56.800	31INREGION01-	NIMPBK	301DT	IO REGIONAL OBSERVATION	2R3	4	0	:	:
1201	1	218	06:50:56.800	31INREGION01-	NIMPBK	301DG	IO REGIONAL OBSERVATION	2R3	4	0	:	:
1202	1	218	06:50:58.133	117DG105A106A4A	7STRP	-0.029258,-0.008	Slew =0.03	2R3	4	0	6,155,145:00:0	
1203	1	218	07:07:24.133	117DG105A106A4B	7STRP	0.032311,-0.0005	Slew =12.01	2R3	4	0	6,155,161:23:0	
1204	1	218	07:07:37.466	117DG105A106A4C	7STRP	-0.029258,-0.008	Slew =0.03	2R3	4	0	6,155,161:43:0	
1205	1	218	07:24:03.466	117DG105A106B4A	7STRP	0.029408,-0.0008	Slew =12.01	2R3	4	0	6,155,177:66:0	
1206	1	218	07:24:16.800	117DG105A106B4B	7STRP	-0.029158,-0.006	Slew =0.03	2R3	4	0	6,155,177:86:0	
1207	1	218	07:40:42.133	117DG105A106B4C	7STRP	0.029408,-0.0008	Slew =12.01	2R3	4	0	6,155,194:17:0	
1208	1	218	07:40:55.466	117DG105A106B4D	7STRP	-0.029158,-0.006	Slew =0.03	2R3	4	0	6,155,194:37:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1209	1	218	07:57:20.800	117DG11A	CSMOS	GE	**** GROUP END CSMOS	2R3	4	0	6,155,210:59:0	
1210	1	218	07:57:23.466	165EG4A	7SCAN	NORM,57.057,26.4	Check S/P Position	2R3	4	0	6,155,210:63:0	
1211	1	218	07:57:44.800	117EG	CSMOS	GS	**** GROUP START CSMOS	2R3	4	0	6,155,211:04:0	
1212	1	218	07:57:52.800	165EG4B	7VECT		Inert vect update UTC	2R3	4	0	6,155,211:16:0	
1213	1	218	07:57:54.133	117EG105A106A4A	7STRP	-0.026006,-0.004	Stew =0.03	2R3	4	0	6,155,211:18:0	
1214	1	218	08:01:46.800	31NREGION01-		-----STOP-----		2R3	4	0	:	:
1215	1	218	08:03:44.133	31NREGION01-	DESELC	300DG	IO REGIONAL OBSERVATION	2R3	4	0	:	:
1216	1	218	08:03:44.133	31NREGION01-	DESELC	300DT	IO REGIONAL OBSERVATION	2R3	4	0	:	:
1217	1	218	08:03:46.133	175DG6A	6TMREC	NRC	NO RECORD Record Mode Change	2R3	4	0	6,155,217:00:0	
1218	1	218	08:03:46.133	175DG422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,217:00:0	
1219	1	218	08:03:46.133		DMS:	:*RUNDOWN	R7, TRACK 1, FWD, TIC *5000.67 +/- 5	2R3	4	0	6,155,217:00:0	
1220	1	218	08:03:47.333		DMS:	:*READY	RDY, TRACK 1, FWD, TIC *5000.73 +/- 5	2R3	4	0	6,155,217:01:8	
1221	1	218	08:03:53.466	20EG5A	37PL		Program Load (halts microprocessor & unwri	4	0	6,155,217:11:0		
1222	1	218	08:04:03.466	20EG5B	37MRL		Memory Realocate (software operates from R	4	0	6,155,217:26:0		
1223	1	218	08:04:13.466	20EG6A	6MCOPI	NIMS	NIMS,1000,LLM1A,7300,77F7	4	0	6,155,217:41:0		
1224	1	218	08:04:23.466	20EG6B	6MCOPI	NIMS	NIMS,1598,LLM1A,77F8,781D	4	0	6,155,217:56:0		
1225	1	218	08:04:33.466	20EG5C	37IRT		Instrument Reset (goes into POR state)	4	0	6,155,217:71:0		
1226	1	218	08:04:36.800	20EG5D	37MIN		Memory Normal (software operates from ROM)	260	4	0	6,155,217:76:0	
1227	1	218	08:04:40.133	20EG4A	37IST	1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)	2R0	4	0	6,155,217:81:0	
1228	1	218	08:05:36.133		DMS:	:*E4-DELAY	RDY, TRACK 1, FWD, TIC 5000.73 +/- 5	2R0	4	0	6,155,218:74:0	
1229	1	218	08:05:36.133	175EG422A6A	6DMSC	R7,1	DMS Control Tape runup 7.68kbp	2R0	4	0	6,155,218:74:0	
1230	1	218	08:05:42.800	127EG4A	37IOP	3.0	Long Map, Grating Start Position =00	2R3	4	0	6,155,218:84:0	
1231	1	218	08:05:42.800		DMS:	:*RUNUP	R7, TRACK 1, FWD, TIC 5000.73 +/- 5	2R3	4	0	6,155,218:84:0	
1232	1	218	08:05:42.800	127EG	NIMSTAB	GS	%%%%%% GROUP START TAB	2R3	4	0	6,155,218:84:0	
1233	1	218	08:05:43.466	127EG4B	37ETB		Loads wavelength edit table	2R3	4	0	6,155,218:86:0	
1234	1	218	08:05:44.133	175EG176A6A	6TMREC	LPU	7.68 KBPS NIMS-JVS-PPR RECORD Record Mode	2R3	4	0	6,155,218:86:0	
1235	1	218	08:05:44.200		DMS:	:*RECORD	R7, TRACK 1, FWD, TIC *5000.85 +/- 5	2R3	4	0	6,155,218:86:1	
1236	1	218	08:05:44.200		DMS:	:*AT SPD	R7, TRACK 1, FWD, TIC 5000.85 +/- 5	2R3	4	0	6,155,218:86:1	
1237	1	218	08:05:51.466	127EG11A	NIMSTAB	GE	%%%%%% GROUP END TAB	2R3	4	0	6,155,219:06:0	
1238	1	218	08:12:26.800	117EG105A106B4A	7STRP	0.020003,0.0,0,0	Stew =12.01	2R3	4	0	6,155,225:53:0	
1239	1	218	08:12:34.133	31NREGION01-	NIMPBK	301DU	IO REGIONAL OBSERVATION	2R3	4	0	:	:
1240	1	218	08:12:34.133	31NREGION01-	NIMPBK	301DR	IO REGIONAL OBSERVATION	2R3	4	0	:	:
1241	1	218	08:12:40.133	117EG105A106B4B	7STRP	-0.024505,-0.004	Stew =0.03	2R3	4	0	6,155,225:73:0	
1242	1	218	08:26:26.133	117EG105A106C4A	7STRP	0.024505,-0.002,	Stew =12.01	2R3	4	0	6,155,239:38:0	
1243	1	218	08:26:39.466	117EG105A106C4B	7STRP	-0.024505,-0.004	Stew =0.03	2R3	4	0	6,155,239:58:0	
1244	1	218	08:40:25.466	117EG105A106C4C	7STRP	0.024505,-0.002,	Stew =12.01	2R3	4	0	6,155,253:23:0	
1245	1	218	08:40:38.800	117EG105A106C4D	7STRP	-0.024505,-0.004	Stew =0.03	2R3	4	0	6,155,253:43:0	
1246	1	218	08:47:24.133	20J6A	6MCOPI	HLM1A,E415,B1A1A	HLM1A,E415,B1A1A,5000,506	2R3	4	0	6,155,260:14:0	
1247	1	218	08:54:24.800	117EG11A	CSMOS	GE	**** GROUP END CSMOS	2R3	4	0	6,155,267:08:0	
1248	1	218	08:54:29.466	31NREGION01-	DESELC	300DR	IO REGIONAL OBSERVATION	2R3	4	0	:	:
1249	1	218	08:54:29.466	31NREGION01-	DESELC	300DU	IO REGIONAL OBSERVATION	2R3	4	0	:	:
1250	1	218	08:54:44.800		DMS:	:*RUNDOWN	R7, TRACK 1, FWD, TIC *5690.05 +/- 5	2R3	4	0	6,155,267:38:0	
1251	1	218	08:54:44.800	175EG422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,267:38:0	
1252	1	218	08:54:44.800	175EG6A	6TMREC	NRC	NO RECORD Record Mode Change	2R3	4	0	6,155,267:38:0	
1253	1	218	08:54:46.000		DMS:	:*READY	RDY, TRACK 1, FWD, TIC *5690.11 +/- 5	2R3	4	0	6,155,267:39:8	
1254	1	218	08:55:16.800	31NREGION01-		-----STOP-----		2R3	4	0	:	:
1255	1	218	08:58:56.133	165IY4A	7SCAN	NORM,23.041,12.3	Check S/P Position	2R3	4	0	6,155,271:51:0	
1256	1	218	09:01:48.800	175IY422A6A	6DMSC	R806,1	DMS Control	2R3	4	0	6,155,274:37:0	
1257	1	218	09:01:48.800		DMS:	:*E4-DELAY	RDY, TRACK 1, FWD, TIC 5690.11 +/- 5	2R3	4	0	6,155,274:37:0	
1258	1	218	09:01:55.466		DMS:	:*RUNUP	R806, TRACK 1, FWD, TIC 5690.11 +/- 5	2R3	4	0	6,155,274:47:0	
1259	1	218	09:01:57.466	165IY4B	7VECT		Inert vect update UTC	2R3	4	0	6,155,274:50:0	
1260	1	218	09:02:00.133	175IY176A6A	6TMREC	IM8	806.4 KBPS IMAGE RECORD Record Mode Chang	2R3	4	0	6,155,274:54:0	
1261	1	218	09:02:00.733		DMS:	:*AT SPD	R806, TRACK 1, FWD, TIC 5756.11 +/- 5	2R3	4	0	6,155,274:54:9	
1262	1	218	09:02:00.733		DMS:	:*RECORD	R806, TRACK 1, FWD, TIC *5756.11 +/- 5	2R3	4	0	6,155,274:54:9	
1263	1	218	09:02:04.133		DMS:	:*RUNDOWN	R806, TRACK 1, FWD, TIC *5839.78 +/- 5	2R3	4	0	6,155,274:60:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1264	1	218	09:02:04.133	1751Y422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,274:60:1	
1265	1	218	09:02:06.866		DMS:	: *READY	RDY, TRACK 1, FWD, TIC *5851.28 +/- 5	2R3	4	0	6,155,274:64:1	
1266	1	218	09:03:24.800	165GJ4A	7SCAN	NORM,54.916,25.2	Check S/P Position	2R3	4	0	6,155,275:90:0	
1267	1	218	09:03:25.466		DMS:	: *READY	RDY, TRACK *2, *REV, TIC 5851.28 +/- 5	2R3	4	0	6,155,276:00:0	
1268	1	218	09:04:26.133	176GJ6A	6TMREC	RDY,2	DMS Control Tape stop	2R3	4	0	6,155,276:00:0	
1269	1	218	09:05:17.466	117GJ	CSMOS	GS	7.68 KBPS PPR BURST TO TAPE Record Mode C	2R3	4	0	6,155,277:00:0	
1270	1	218	09:05:17.466	117GJ	CSMOS	GS	***** GROUP START CSMOS	2R3	4	0	6,155,277:77:0	
1271	1	218	09:05:26.800	117GJ105A106A4A	7STRP	-0.034013,-0.004	Slew = -0.19	2R3	4	0	6,155,278:00:0	
1272	1	218	09:08:31.466	117GJ105A106A4B	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,281:04:0	
1273	1	218	09:08:46.133	117GJ105A106A4C	7STRP	-0.034013,-0.004	Slew = -0.19	2R3	4	0	6,155,281:26:0	
1274	1	218	09:11:50.800	117GJ105A106A4D	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,284:30:0	
1275	1	218	09:12:05.466	117GJ105A106A4E	7STRP	-0.034013,-0.004	Slew = -0.19	2R3	4	0	6,155,284:52:0	
1276	1	218	09:15:10.133	117GJ105A106A4F	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,287:56:0	
1277	1	218	09:15:24.800	117GJ105A106A4G	7STRP	-0.034013,-0.004	Slew = -0.19	2R3	4	0	6,155,287:78:0	
1278	1	218	09:17:00.800	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	6,155,289:40:0	
1279	1	218	09:17:02.800		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 5851.28 +/- 5	2R3	4	0	6,155,289:40:0	
1280	1	218	09:17:02.800		DMS:	: *US AT SP	P7, TRACK 1, FWD, TIC *5851.40 +/- 5	2R3	4	0	6,155,289:42:1	
1281	1	218	09:17:07.466		DMS:	: *US RD	P7, TRACK 1, FWD, TIC *5852.63 +/- 5	2R3	4	0	6,155,289:50:0	
1282	1	218	09:17:08.666		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *5852.69 +/- 5	2R3	4	0	6,155,289:51:8	
1283	1	218	09:17:10.066		DMS:	: *AT SPD	R7, TRACK 2, REV, TIC *5852.57 +/- 5	2R3	4	0	6,155,289:53:9	
1284	1	218	09:17:26.133		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *5848.81 +/- 5	2R3	4	0	6,155,289:78:0	
1285	1	218	09:17:48.800		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *5843.50 +/- 5	2R3	4	0	6,155,290:21:0	
1286	1	218	09:17:48.800	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,290:21:0	
1287	1	218	09:17:50.000		DMS:	: *READY	RDY, TRACK 2, REV, TIC *5843.44 +/- 5	2R3	4	0	6,155,290:22:8	
1288	1	218	09:18:29.466	117GJ105A106A4H	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,290:82:0	
1289	1	218	09:18:44.133	117GJ105A106A4I	7STRP	-0.034013,-0.004	Slew = -0.19	2R3	4	0	6,155,291:13:0	
1290	1	218	09:21:48.800	117GJ105A106A4J	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,294:17:0	
1291	1	218	09:22:03.466	117GJ105A106A4K	7STRP	-0.034013,-0.004	Slew = -0.19	2R3	4	0	6,155,294:39:0	
1292	1	218	09:25:08.133	117GJ105A106A4L	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,297:43:0	
1293	1	218	09:25:22.800	117GJ105A106A4M	7STRP	-0.034013,-0.004	Slew = -0.19	2R3	4	0	6,155,297:65:0	
1294	1	218	09:28:27.466	117GJ105A106A4N	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,300:69:0	
1295	1	218	09:28:42.133	117GJ105A106A4O	7STRP	-0.034013,-0.004	Slew = -0.19	2R3	4	0	6,155,301:00:0	
1296	1	218	09:30:02.800	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	6,155,302:30:0	
1297	1	218	09:30:02.800		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 5843.44 +/- 5	2R3	4	0	6,155,302:30:0	
1298	1	218	09:30:04.200		DMS:	: *US AT SP	P7, TRACK 1, FWD, TIC *5843.56 +/- 5	2R3	4	0	6,155,302:32:1	
1299	1	218	09:30:09.466		DMS:	: *US RD	P7, TRACK 1, FWD, TIC *5844.79 +/- 5	2R3	4	0	6,155,302:40:0	
1300	1	218	09:30:10.666		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *5844.85 +/- 5	2R3	4	0	6,155,302:41:8	
1301	1	218	09:30:12.066		DMS:	: *AT SPD	R7, TRACK 2, REV, TIC *5844.73 +/- 5	2R3	4	0	6,155,302:43:9	
1302	1	218	09:30:28.133		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *5840.97 +/- 5	2R3	4	0	6,155,302:68:0	
1303	1	218	09:30:50.800	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,303:11:0	
1304	1	218	09:30:50.800		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *5835.65 +/- 5	2R3	4	0	6,155,303:11:0	
1305	1	218	09:30:52.000		DMS:	: *READY	RDY, TRACK 2, REV, TIC *5835.59 +/- 5	2R3	4	0	6,155,303:12:8	
1306	1	218	09:31:46.800	117GJ105A106A4P	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,304:04:0	
1307	1	218	09:32:01.466	117GJ105A106A4Q	7STRP	-0.034013,-0.004	Slew = -0.19	2R3	4	0	6,155,304:26:0	
1308	1	218	09:35:06.133	117GJ105A106A4R	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,307:30:0	
1309	1	218	09:35:20.800	117GJ105A106A4S	7STRP	-0.034013,-0.004	Slew = -0.19	2R3	4	0	6,155,307:52:0	
1310	1	218	09:38:25.466	117GJ105A106A4T	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,310:56:0	
1311	1	218	09:38:40.133	117GJ105A106A4U	7STRP	-0.034013,-0.004	Slew = -0.19	2R3	4	0	6,155,310:78:0	
1312	1	218	09:41:44.800	117GJ105A106A4V	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,313:82:0	
1313	1	218	09:41:59.466	117GJ105A106A4W	7STRP	-0.034013,-0.004	Slew = -0.19	2R3	4	0	6,155,314:13:0	
1314	1	218	09:43:04.800		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 5835.59 +/- 5	2R3	4	0	6,155,315:20:0	
1315	1	218	09:43:04.800	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	6,155,315:20:0	
1316	1	218	09:43:06.200		DMS:	: *US AT SP	P7, TRACK 1, FWD, TIC *5835.71 +/- 5	2R3	4	0	6,155,315:22:1	
1317	1	218	09:43:11.466		DMS:	: *US RD	P7, TRACK 1, FWD, TIC *5836.95 +/- 5	2R3	4	0	6,155,315:30:0	
1318	1	218	09:43:12.666		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *5837.01 +/- 5	2R3	4	0	6,155,315:31:8	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1319	1	218	09:43:14.066		DMS:	: *AT_SPD	R7, TRACK 2, REV, TIC *5836.89 +/- 5	2R3	4	0	6,155,315:33:9	
1320	1	218	09:43:30.133		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *5833.12 +/- 5	2R3	4	0	6,155,315:58:0	
1321	1	218	09:43:52.800	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,316:01:0	
1322	1	218	09:43:52.800		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *5827.81 +/- 5	2R3	4	0	6,155,316:01:0	
1323	1	218	09:43:54.000		DMS:	: *READY	RDY, TRACK 2, REV, TIC *5827.75 +/- 5	2R3	4	0	6,155,316:02:8	
1324	1	218	09:45:04.133	117GJ105A106A4X	7STRP	0.031911,0.00545	Slew =12.01	2R3	4	0	6,155,317:17:0	
1325	1	218	09:45:18.800	117GJ105A106A4Y	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,317:39:0	
1326	1	218	09:48:23.466	117GJ105A106A4Z	7STRP	0.031911,0.00545	Slew =12.01	2R3	4	0	6,155,320:43:0	
1327	1	218	09:48:38.133	117GJ105A106A4AA	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,320:65:0	
1328	1	218	09:51:42.800	117GJ105A106A4AB	7STRP	0.031911,0.00545	Slew =12.01	2R3	4	0	6,155,323:69:0	
1329	1	218	09:51:57.466	117GJ105A106A4AC	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,324:00:0	
1330	1	218	09:55:02.133	117GJ105A106A4AD	7STRP	0.031911,0.00545	Slew =12.01	2R3	4	0	6,155,327:04:0	
1331	1	218	09:55:16.800	117GJ105A106A4AE	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,327:26:0	
1332	1	218	09:56:07.466		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 5827.75 +/- 5	2R3	4	0	6,155,328:11:0	
1333	1	218	09:56:07.466	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	6,155,328:11:0	
1334	1	218	09:56:08.866		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *5827.87 +/- 5	2R3	4	0	6,155,328:13:1	
1335	1	218	09:56:14.133		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *5829.10 +/- 5	2R3	4	0	6,155,328:21:0	
1336	1	218	09:56:15.333		DMS:	: *RUNUP	R7, TRACK *2, REV, TIC *5829.16 +/- 5	2R3	4	0	6,155,328:22:8	
1337	1	218	09:56:16.733		DMS:	: *AT_SPD	R7, TRACK 2, REV, TIC *5829.04 +/- 5	2R3	4	0	6,155,328:24:9	
1338	1	218	09:56:32.133		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *5829.43 +/- 5	2R3	4	0	6,155,328:48:0	
1339	1	218	09:56:54.800		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *5820.12 +/- 5	2R3	4	0	6,155,328:82:0	
1340	1	218	09:56:54.800	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,328:82:0	
1341	1	218	09:56:56.000		DMS:	: *READY	RDY, TRACK 2, REV, TIC *5820.06 +/- 5	2R3	4	0	6,155,328:83:8	
1342	1	218	09:58:21.466	117GJ105A106A4AF	7STRP	0.031911,0.00545	Slew =12.01	2R3	4	0	6,155,330:30:0	
1343	1	218	09:58:36.133	117GJ105A106A4AG	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,330:52:0	
1344	1	218	10:01:40.800	117GJ105A106A4AH	7STRP	0.031911,0.00545	Slew =12.01	2R3	4	0	6,155,333:56:0	
1345	1	218	10:01:55.466	117GJ105A106A4AI	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,333:78:0	
1346	1	218	10:05:00.133	117GJ105A106A4AJ	7STRP	0.031911,0.00545	Slew =12.01	2R3	4	0	6,155,336:82:0	
1347	1	218	10:05:14.800	117GJ105A106A4AK	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,337:13:0	
1348	1	218	10:08:19.466	117GJ105A106A4AL	7STRP	0.031911,0.00545	Slew =12.01	2R3	4	0	6,155,340:17:0	
1349	1	218	10:08:34.133	117GJ105A106A4AM	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,340:39:0	
1350	1	218	10:09:09.466	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	6,155,341:01:0	
1351	1	218	10:09:09.466		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 5820.06 +/- 5	2R3	4	0	6,155,341:01:0	
1352	1	218	10:09:10.866		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *5820.18 +/- 5	2R3	4	0	6,155,341:03:1	
1353	1	218	10:09:16.133		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *5821.42 +/- 5	2R3	4	0	6,155,341:11:0	
1354	1	218	10:09:17.333		DMS:	: *RUNUP	R7, TRACK *2, REV, TIC *5821.48 +/- 5	2R3	4	0	6,155,341:12:8	
1355	1	218	10:09:18.733		DMS:	: *AT_SPD	R7, TRACK 2, REV, TIC *5821.36 +/- 5	2R3	4	0	6,155,341:14:9	
1356	1	218	10:09:34.800		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *5817.59 +/- 5	2R3	4	0	6,155,341:39:0	
1357	1	218	10:09:57.466		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *5812.28 +/- 5	2R3	4	0	6,155,341:73:0	
1358	1	218	10:09:57.466	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,341:73:0	
1359	1	218	10:09:58.666		DMS:	: *READY	RDY, TRACK 2, REV, TIC *5812.22 +/- 5	2R3	4	0	6,155,341:74:8	
1360	1	218	10:11:38.800	117GJ105A106A4AN	7STRP	0.031911,0.00545	Slew =12.01	2R3	4	0	6,155,343:43:0	
1361	1	218	10:11:52.800	488AJ6A	6TMSD	NORM,AL2	Sci, Eng, and D/L Chan	2R3	4	0	6,155,343:64:0	
1362	1	218	10:11:53.466	117GJ105A106A4AO	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,343:65:0	
1363	1	218	10:14:58.133	117GJ105A106A4AP	7STRP	0.031911,0.00545	Slew =12.01	2R3	4	0	6,155,346:69:0	
1364	1	218	10:15:12.800	117GJ105A106A4AQ	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,347:00:0	
1365	1	218	10:18:17.466	117GJ105A106A4AR	7STRP	0.031911,0.00545	Slew =12.01	2R3	4	0	6,155,350:04:0	
1366	1	218	10:18:32.133	117GJ105A106A4AS	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,350:26:0	
1367	1	218	10:21:36.800	117GJ105A106A4AT	7STRP	0.031911,0.00545	Slew =12.01	2R3	4	0	6,155,353:30:0	
1368	1	218	10:21:51.466	117GJ105A106A4AU	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,353:52:0	
1369	1	218	10:22:11.466	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	6,155,353:82:0	
1370	1	218	10:22:11.466		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 5812.22 +/- 5	2R3	4	0	6,155,353:82:0	
1371	1	218	10:22:12.866		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *5812.34 +/- 5	2R3	4	0	6,155,353:84:1	
1372	1	218	10:22:18.133		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *5813.57 +/- 5	2R3	4	0	6,155,354:01:0	
1373	1	218	10:22:19.333		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *5813.63 +/- 5	2R3	4	0	6,155,354:02:8	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1374	1	218	10:22:20.733		DMS:	: *AT_SPD	R7, TRACK 2, REV, TIC *5813.51 +/- 5	2R3	4	0	6,155,354:04:9	
1375	1	218	10:22:36.800		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *5809.75 +/- 5	2R3	4	0	6,155,354:29:0	
1376	1	218	10:22:59.466	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,354:63:0	
1377	1	218	10:22:59.466		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *5804.43 +/- 5	2R3	4	0	6,155,354:63:0	
1378	1	218	10:23:00.666		DMS:	: *READY	RDY, TRACK 2, REV, TIC *5804.37 +/- 5	2R3	4	0	6,155,354:64:8	
1379	1	218	10:24:56.133	117GJ105A106A4AV	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,356:56:0	
1380	1	218	10:25:10.800	117GJ105A106A4AW	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,356:78:0	
1381	1	218	10:28:15.466	117GJ105A106A4AX	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,359:82:0	
1382	1	218	10:28:30.133	117GJ105A106A4AY	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,360:13:0	
1383	1	218	10:31:34.800	117GJ105A106A4AZ	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,363:17:0	
1384	1	218	10:31:49.466	117GJ105A106A4BA	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,363:39:0	
1385	1	218	10:34:54.133	117GJ105A106A4BB	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,366:43:0	
1386	1	218	10:35:08.800	117GJ105A106A4BC	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,366:65:0	
1387	1	218	10:35:14.133		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 5804.37 +/- 5	2R3	4	0	6,155,366:73:0	
1388	1	218	10:35:14.133	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	6,155,366:73:0	
1389	1	218	10:35:15.533		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *5804.49 +/- 5	2R3	4	0	6,155,366:75:1	
1390	1	218	10:35:20.800		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *5805.73 +/- 5	2R3	4	0	6,155,366:83:0	
1391	1	218	10:35:22.000		DMS:	: *RUNUP	R7, TRACK *2, REV, TIC *5805.79 +/- 5	2R3	4	0	6,155,366:84:8	
1392	1	218	10:35:23.400		DMS:	: *AT_SPD	R7, TRACK 2, REV, TIC *5805.67 +/- 5	2R3	4	0	6,155,366:86:9	
1393	1	218	10:35:38.800		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *5802.06 +/- 5	2R3	4	0	6,155,367:19:0	
1394	1	218	10:36:01.466		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *5796.75 +/- 5	2R3	4	0	6,155,367:53:0	
1395	1	218	10:36:01.466	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,367:53:0	
1396	1	218	10:36:02.666		DMS:	: *READY	RDY, TRACK 2, REV, TIC *5796.69 +/- 5	2R3	4	0	6,155,367:54:8	
1397	1	218	10:38:13.466	117GJ105A106A4BD	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,369:69:0	
1398	1	218	10:38:28.133	117GJ105A106A4BE	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,370:00:0	
1399	1	218	10:41:32.800	117GJ105A106A4BF	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,373:04:0	
1400	1	218	10:41:47.466	117GJ105A106A4BG	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,373:26:0	
1401	1	218	10:42:36.133	488AJ6B	6TMSD	NORM,AL3	Sci, Eng, and D/I/L Chan	2R3	4	0	6,155,374:08:0	
1402	1	218	10:44:52.133	117GJ105A106A4BH	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,376:30:0	
1403	1	218	10:45:00.133	480SB6A	6MROH	44,23E8,0,A2	read from LLM2A44,23E8,0,A2	2R3	4	0	6,155,376:42:0	
1404	1	218	10:45:06.800	117GJ105A106A4BI	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,376:52:0	
1405	1	218	10:48:11.466	117GJ105A106A4BJ	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,379:56:0	
1406	1	218	10:48:16.133	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	6,155,379:63:0	
1407	1	218	10:48:16.133		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 5796.69 +/- 5	2R3	4	0	6,155,379:63:0	
1408	1	218	10:48:17.533		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *5796.81 +/- 5	2R3	4	0	6,155,379:65:1	
1409	1	218	10:48:22.800		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *5798.04 +/- 5	2R3	4	0	6,155,379:73:0	
1410	1	218	10:48:24.000		DMS:	: *RUNUP	R7, TRACK *2, REV, TIC *5798.10 +/- 5	2R3	4	0	6,155,379:74:8	
1411	1	218	10:48:25.400		DMS:	: *AT_SPD	R7, TRACK 2, REV, TIC *5797.98 +/- 5	2R3	4	0	6,155,379:76:9	
1412	1	218	10:48:26.133	117GJ105A106A4BK	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,379:78:0	
1413	1	218	10:48:41.466		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *5794.22 +/- 5	2R3	4	0	6,155,380:10:0	
1414	1	218	10:49:04.133		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *5788.90 +/- 5	2R3	4	0	6,155,380:44:0	
1415	1	218	10:49:04.133	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,380:44:0	
1416	1	218	10:49:05.333		DMS:	: *READY	RDY, TRACK 2, REV, TIC *5788.84 +/- 5	2R3	4	0	6,155,380:45:8	
1417	1	218	10:51:30.800	117GJ105A106A4BL	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,382:82:0	
1418	1	218	10:51:40.133	480SB6B	6MROH	45,23E8,0,B2	read from LLM2B45,23E8,0,B2	2R3	4	0	6,155,383:05:0	
1419	1	218	10:51:45.466	117GJ105A106A4BM	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,383:13:0	
1420	1	218	10:54:50.133	117GJ105A106A4BN	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,386:17:0	
1421	1	218	10:55:04.800	117GJ105A106A4BO	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,386:39:0	
1422	1	218	10:58:09.466	117GJ105A106A4BP	7STRP	0.031911,0.00545	Slew = 12.01	2R3	4	0	6,155,389:43:0	
1423	1	218	10:58:24.133	117GJ105A106A4BQ	7STRP	-0.034013,-0.004	Slew = 0.19	2R3	4	0	6,155,389:65:0	
1424	1	218	11:01:02.800	31NNREGION02-		-----START -----		2R3	4	0	:	:
1425	1	218	11:01:06.800	20DH5A	37PL		Program Load (halts microprocessor & unwri	4	0	6,155,392:36:0		
1426	1	218	11:01:10.133	20DH5B	37MRL		Memory Realocate (software operates from R	4	0	6,155,392:41:0		
1427	1	218	11:01:13.466	20DH6A	6MCOPI	NIMS	NIMS,1000,LLM1A,7300,77F7	4	0	6,155,392:46:0		
1428	1	218	11:01:18.133		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 5788.84 +/- 5	4	0	6,155,392:53:0		

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1429	1	218	11:01:18.133	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps			4	0	6,155,392:53:0
1430	1	218	11:01:19.533		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *5788.96 +/- 5			4	0	6,155,392:55:1
1431	1	218	11:01:23.466	20DH6B	6MCOPIY	NIMS	NIMS,1598,LLM1A,77F8,781D			4	0	6,155,392:61:0
1432	1	218	11:01:24.800		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *5790.20 +/- 5			4	0	6,155,392:63:0
1433	1	218	11:01:26.000		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *5790.26 +/- 5			4	0	6,155,392:64:8
1434	1	218	11:01:27.400		DMS:	: *AT_SPD	R7, TRACK 2, REV, TIC *5790.14 +/- 5			4	0	6,155,392:66:9
1435	1	218	11:01:28.800	117GJ11A	CSMOS	GE	***** GROUP END CSMOS			4	0	6,155,392:69:0
1436	1	218	11:01:33.466	20DH5C	37IRT		Instrument Reset (goes into POR state)			4	0	6,155,392:76:0
1437	1	218	11:01:36.800	20DH5D	37MN		Memory Normal (software operates from ROM)			260	4	0 6,155,392:81:0
1438	1	218	11:01:36.800	20DH4A	37IST	1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)			2R0	4	0 6,155,392:81:0
1439	1	218	11:01:43.466		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *5786.37 +/- 5			2R0	4	0 6,155,393:00:0
1440	1	218	11:02:06.133		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *5781.06 +/- 5			2R0	4	0 6,155,393:34:0
1441	1	218	11:02:06.133	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop			2R0	4	0 6,155,393:34:0
1442	1	218	11:02:07.333		DMS:	: *READY	RDY, TRACK 2, REV, TIC *5781.00 +/- 5			2R0	4	0 6,155,393:35:8
1443	1	218	11:02:39.466	31NREGION02-		-----START-----				2R0	4	0 : :
1444	1	218	11:02:39.466	127DH	NIMSTAB	GS	%%%%%%%%% GROUP START TAB			2R0	4	0 6,155,393:84:0
1445	1	218	11:02:39.466	127DH4A	37IOP	3,0	Long Map, Grating Start Position =00			2R3	4	0 6,155,393:84:0
1446	1	218	11:02:40.133	127DH4B	37ETB		Loads wavelength edit table			2R3	4	0 6,155,393:85:0
1447	1	218	11:02:48.133	127DH11A	NIMSTAB	GE	%%%%%%%%% GROUP END TAB			2R3	4	0 6,155,394:06:0
1448	1	218	11:03:14.133	176GJ6B	6TMREC	NRC	NO RECORD Record Mode Change			2R3	4	0 6,155,394:45:0
1449	1	218	11:03:16.133	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps			2R3	4	0 6,155,394:48:0
1450	1	218	11:03:16.133		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC *5781.00 +/- 5			2R3	4	0 6,155,394:48:0
1451	1	218	11:03:17.533		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *5781.12 +/- 5			2R3	4	0 6,155,394:50:1
1452	1	218	11:03:22.800		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *5782.35 +/- 5			2R3	4	0 6,155,394:58:0
1453	1	218	11:03:24.000		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *5782.41 +/- 5			2R3	4	0 6,155,394:59:8
1454	1	218	11:03:25.400		DMS:	: *AT_SPD	R7, TRACK 2, REV, TIC *5782.29 +/- 5			2R3	4	0 6,155,394:61:9
1455	1	218	11:03:26.133		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *5782.12 +/- 5			2R3	4	0 6,155,394:63:0
1456	1	218	11:03:36.800		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *5779.62 +/- 5			2R3	4	0 6,155,394:79:0
1457	1	218	11:03:36.800	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop			2R3	4	0 6,155,394:79:0
1458	1	218	11:03:38.000		DMS:	: *READY	RDY, TRACK 2, REV, TIC *5779.56 +/- 5			2R3	4	0 6,155,394:80:8
1459	1	218	11:03:39.000	31NN_DAC_1-		-----START-----				2R3	4	0 : :
1460	1	218	11:03:39.466	33A4A	37IST	1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)			2R3	4	0 6,155,394:83:0
1461	1	218	11:03:40.000	31NN_DAC_1-		-----STOP-----				2R3	4	0 : :
1462	1	218	11:04:02.800	31NREGION02-		-----STOP-----				2R3	4	0 : :
1463	1	218	11:04:44.800	165DH4A	7SCAN	NORM,49,484,25.6	Check SIP Position			2R3	4	0 6,155,395:90:0
1464	1	218	11:05:34.133		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC *5779.56 +/- 5			2R3	4	0 6,155,396:73:0
1465	1	218	11:05:34.133	175DH422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps			2R3	4	0 6,155,396:73:0
1466	1	218	11:05:35.533		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *5779.68 +/- 5			2R3	4	0 6,155,396:75:1
1467	1	218	11:05:36.800	117DH	CSMOS	GS	***** GROUP START CSMOS			2R3	4	0 6,155,396:77:0
1468	1	218	11:05:40.800		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *5780.92 +/- 5			2R3	4	0 6,155,396:83:0
1469	1	218	11:05:42.000		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *5780.98 +/- 5			2R3	4	0 6,155,396:84:8
1470	1	218	11:05:42.800	175DH176A6A	6TMREC	LPU	7.68 KBPS NIMS-UVS-PPR RECORD Record Mode			2R3	4	0 6,155,396:86:0
1471	1	218	11:05:43.400		DMS:	: *AT_SPD	R7, TRACK 2, REV, TIC *5780.86 +/- 5			2R3	4	0 6,155,396:86:9
1472	1	218	11:05:43.400		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *5780.86 +/- 5			2R3	4	0 6,155,396:86:9
1473	1	218	11:05:44.800	31NREGION02-	NIMPBK	301DH	IO REGIONAL OBSERVATION			2R3	4	0 : :
1474	1	218	11:05:44.800	165DH4B	7VECT		Inert vect update UTC			2R3	4	0 : :
1475	1	218	11:05:44.800	31NREGION02-	NIMPBK	301EL	IO REGIONAL OBSERVATION			2R3	4	0 : :
1476	1	218	11:05:46.133	117DH105A106A4A	7STRP	-0.023504,-0.003	Slew =,0.02			2R3	4	0 6,155,397:00:0
1477	1	218	11:12:34.133	31NREGION02-	DESEL	300DH	IO REGIONAL OBSERVATION			2R3	4	0 : :
1478	1	218	11:12:34.133	31NREGION02-	DESEL	300EL	IO REGIONAL OBSERVATION			2R3	4	0 : :
1479	1	218	11:25:32.800	117DH105A106A4B	7STRP	0.024405,-0.0037	Slew =12.01			2R3	4	0 6,155,416:51:0
1480	1	218	11:25:46.800	117DH105A106A4C	7STRP	-0.023504,-0.003	Slew =,0.02			2R3	4	0 6,155,416:72:0
1481	1	218	11:33:23.466	488AJ6C	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan			2R3	4	0 6,155,424:29:0
1482	1	218	11:45:33.466	117DH105A106B4A	7STRP	0.022604,-0.0037	Slew =12.01			2R3	4	0 6,155,436:32:0
1483	1	218	11:45:47.466	117DH105A106B4B	7STRP	-0.023504,-0.003	Slew =,0.02			2R3	4	0 6,155,436:53:0

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1484	1	218	12:05:34.133	117DH11A	CSMOS	GE	**** GROUP END CSMOS	2R3	4	0	6,155,456:13:0	
1485	1	218	12:09:04.800		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *4889.90 +/- 5	2R3	4	0	6,155,459:56:0	
1486	1	218	12:09:04.800	175DH6A	6TMREC	NRC	NO RECORD Record Mode Change	2R3	4	0	6,155,459:56:0	
1487	1	218	12:09:04.800	175DH422A6B	6DMSC	RDY, 0	DMS Control Tape stop	2R3	4	0	6,155,459:56:0	
1488	1	218	12:09:06.000		DMS:	: *READY	RDY, TRACK 2, REV, TIC *4889.84 +/- 5	2R3	4	0	6,155,459:57:8	
1489	1	218	12:10:27.466	488AJ6D	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	2R3	4	0	6,155,460:89:0	
1490	1	218	12:16:28.133	488AJ6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	2R3	4	0	6,155,466:84:0	
1491	1	218	12:25:37.466	31NREGION02-	*****STOP*****			2R3	4	0	:	
1492	1	218	12:28:40.133	165GP4A	7SCAN	NORM,45.959,23.4	Check S/P Position	2R3	4	0	6,155,478:90:0	
1493	1	218	12:29:41.466	176GP6A	6TMREC	BPT	7.68 KBPS PPR BURST TO TAPE Record Mode C	2R3	4	0	6,155,480:00:0	
1494	1	218	12:30:32.800	117GP	CSMOS	GS	**** GROUP START CSMOS	2R3	4	0	6,155,480:77:0	
1495	1	218	12:30:42.133	117GP105A106A4A	7STRP	-0.022304,-0.003	Slew = 0.31	2R3	4	0	6,155,481:00:0	
1496	1	218	12:32:00.800	117GP105A106A4B	7STRP	0.021203,0.0041,	Slew = 12.01	2R3	4	0	6,155,482:27:0	
1497	1	218	12:32:13.466	117GP105A106A4C	7STRP	-0.022304,-0.003	Slew = 0.31	2R3	4	0	6,155,482:46:0	
1498	1	218	12:33:32.133	117GP105A106A4D	7STRP	0.021203,0.0041,	Slew = 12.01	2R3	4	0	6,155,483:73:0	
1499	1	218	12:33:44.800	117GP105A106A4E	7STRP	-0.022304,-0.003	Slew = 0.31	2R3	4	0	6,155,484:01:0	
1500	1	218	12:35:03.466	117GP105A106A4F	7STRP	0.021203,0.0041,	Slew = 12.01	2R3	4	0	6,155,485:28:0	
1501	1	218	12:35:16.133	117GP105A106A4G	7STRP	-0.022304,-0.003	Slew = 0.31	2R3	4	0	6,155,485:47:0	
1502	1	218	12:36:34.800	117GP105A106A4H	7STRP	0.021203,0.0041,	Slew = 12.01	2R3	4	0	6,155,486:74:0	
1503	1	218	12:36:47.466	117GP105A106A4I	7STRP	-0.022304,-0.003	Slew = 0.31	2R3	4	0	6,155,487:02:0	
1504	1	218	12:38:06.133	117GP105A106A4J	7STRP	0.021203,0.0041,	Slew = 12.01	2R3	4	0	6,155,488:29:0	
1505	1	218	12:38:18.800	117GP105A106A4K	7STRP	-0.022304,-0.003	Slew = 0.31	2R3	4	0	6,155,488:48:0	
1506	1	218	12:39:37.466	117GP105A106A4L	7STRP	0.021203,0.0041,	Slew = 12.01	2R3	4	0	6,155,489:75:0	
1507	1	218	12:39:50.133	117GP105A106A4M	7STRP	-0.022304,-0.003	Slew = 0.31	2R3	4	0	6,155,490:03:0	
1508	1	218	12:41:08.800	117GP105A106A4N	7STRP	0.021203,0.0041,	Slew = 12.01	2R3	4	0	6,155,491:30:0	
1509	1	218	12:41:21.466	117GP105A106A4O	7STRP	-0.022304,-0.003	Slew = 0.31	2R3	4	0	6,155,491:49:0	
1510	1	218	12:42:40.133	117GP105A106A4P	7STRP	0.021203,0.0041,	Slew = 12.01	2R3	4	0	6,155,492:76:0	
1511	1	218	12:42:52.800	117GP105A106A4Q	7STRP	-0.022304,-0.003	Slew = 0.31	2R3	4	0	6,155,493:04:0	
1512	1	218	12:44:11.466	117GP105A106A4R	7STRP	0.021203,0.0041,	Slew = 12.01	2R3	4	0	6,155,494:31:0	
1513	1	218	12:44:24.133	117GP105A106A4S	7STRP	-0.022304,-0.003	Slew = 0.31	2R3	4	0	6,155,494:50:0	
1514	1	218	12:45:42.800	117GP105A106A4T	7STRP	0.021203,0.0041,	Slew = 12.01	2R3	4	0	6,155,495:77:0	
1515	1	218	12:45:55.466	117GP105A106A4U	7STRP	-0.022304,-0.003	Slew = 0.31	2R3	4	0	6,155,496:05:0	
1516	1	218	12:46:54.133	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	6,155,497:02:0	
1517	1	218	12:46:54.133		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 4889.84 +/- 5	2R3	4	0	6,155,497:02:0	
1518	1	218	12:46:55.533		DMS:	: *US AT SP	P7, TRACK 1, FWD, TIC *4889.96 +/- 5	2R3	4	0	6,155,497:04:1	
1519	1	218	12:47:00.800		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *4891.20 +/- 5	2R3	4	0	6,155,497:12:0	
1520	1	218	12:47:02.000		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *4891.26 +/- 5	2R3	4	0	6,155,497:13:8	
1521	1	218	12:47:03.400		DMS:	: *AT SPD	R7, TRACK 2, REV, TIC *4891.14 +/- 5	2R3	4	0	6,155,497:15:9	
1522	1	218	12:47:14.133	117GP105A106A4V	7STRP	0.021203,0.0041,	Slew = 12.01	2R3	4	0	6,155,497:32:0	
1523	1	218	12:47:26.800	117GP105A106A4W	7STRP	-0.022304,-0.003	Slew = 0.31	2R3	4	0	6,155,497:51:0	
1524	1	218	12:47:29.466		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *4885.03 +/- 5	2R3	4	0	6,155,497:55:0	
1525	1	218	12:47:52.133	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,497:89:0	
1526	1	218	12:47:52.133		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *4879.72 +/- 5	2R3	4	0	6,155,497:89:0	
1527	1	218	12:47:53.333		DMS:	: *READY	RDY, TRACK 2, REV, TIC *4879.66 +/- 5	2R3	4	0	6,155,497:90:8	
1528	1	218	12:48:45.466	117GP105A106A4X	7STRP	0.021203,0.0041,	Slew = 12.01	2R3	4	0	6,155,498:78:0	
1529	1	218	12:48:58.133	117GP105A106A4Y	7STRP	-0.022304,-0.003	Slew = 0.31	2R3	4	0	6,155,499:06:0	
1530	1	218	12:50:16.800	117GP105A106A4Z	7STRP	0.021203,0.0041,	Slew = 12.01	2R3	4	0	6,155,500:33:0	
1531	1	218	12:50:29.466	117GP105A106A4AA	7STRP	-0.022304,-0.003	Slew = 0.31	2R3	4	0	6,155,500:52:0	
1532	1	218	12:51:48.133	117GP105A106A4AB	7STRP	0.021203,0.0041,	Slew = 12.01	2R3	4	0	6,155,501:79:0	
1533	1	218	12:52:00.800	117GP105A106A4AC	7STRP	-0.022304,-0.003	Slew = 0.31	2R3	4	0	6,155,502:07:0	
1534	1	218	12:53:19.466	117GP105A106A4AD	7STRP	0.021203,0.0041,	Slew = 12.01	2R3	4	0	6,155,503:34:0	
1535	1	218	12:53:32.133	117GP105A106A4AE	7STRP	-0.022304,-0.003	Slew = 0.31	2R3	4	0	6,155,503:53:0	
1536	1	218	12:54:50.800	117GP105A106A4AF	7STRP	0.021203,0.0041,	Slew = 12.01	2R3	4	0	6,155,504:80:0	
1537	1	218	12:55:03.466	117GP105A106A4AG	7STRP	-0.022304,-0.003	Slew = 0.31	2R3	4	0	6,155,505:08:0	
1538	1	218	12:56:22.133	117GP105A106A4AH	7STRP	0.021203,0.0041,	Slew = 12.01	2R3	4	0	6,155,506:35:0	



Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1539	1	218	12:56:34.800	117GP105A106A4A1	7STRP	-0.022304,-0.003	Slew = 0.31	2R3	4	0	6,155,506	54:0
1540	1	218	12:57:53.466	117GP11A	CSMOS	GE	***** GROUP END CSMOS	2R3	4	0	6,155,507	81:0
1541	1	218	12:59:30.800	176GP6B	6TMREC	NRC	NO RECORD Record Mode Change	2R3	4	0	6,155,509	45:0
1542	1	218	12:59:32.800	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	6,155,509	48:0
1543	1	218	12:59:32.800		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC *4879.66 +/- 5	2R3	4	0	6,155,509	48:0
1544	1	218	12:59:34.200		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *4881.01 +/- 5	2R3	4	0	6,155,509	50:1
1545	1	218	12:59:39.466		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *4881.01 +/- 5	2R3	4	0	6,155,509	58:0
1546	1	218	12:59:40.666		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *4881.07 +/- 5	2R3	4	0	6,155,509	59:8
1547	1	218	12:59:42.066		DMS:	: *AT_SPD	R7, TRACK 2, REV, TIC *4880.95 +/- 5	2R3	4	0	6,155,509	61:9
1548	1	218	12:59:42.800		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *4880.78 +/- 5	2R3	4	0	6,155,509	63:0
1549	1	218	13:00:00.800	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,509	90:0
1550	1	218	13:00:00.800		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *4876.56 +/- 5	2R3	4	0	6,155,509	90:0
1551	1	218	13:00:02.000		DMS:	: *READY	RDY, TRACK 2, REV, TIC *4876.50 +/- 5	2R3	4	0	6,155,510	00:8
1552	1	218	13:00:02.800	432OG431A6A	6RCDL	DDSNCG,PLSNCG,EP	Record Deselect (DDS o	2R3	4	0	6,155,510	02:0
1553	1	218	13:00:03.466	432OG6A	6RTSL1		R/T Select of DDS and	2R3	4	0	6,155,510	03:0
1554	1	218	13:00:06.800	20US4A	7SAFE	UNSTOW	S/P TO 153 deg cone	2R3	4	0	6,155,510	08:0
1555	1	218	13:25:52.133	165IZ4A	7SCAN	NORM.53.478,23.2	Check S/P Position	2R3	4	0	6,155,535	51:0
1556	1	218	13:28:43.466		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 4876.50 +/- 5	2R3	4	0	6,155,538	35:0
1557	1	218	13:28:43.466	175IZ422A6A	6DMSC	R806,0	DMS Control Tape runup 806.4kb	2R3	4	0	6,155,538	35:0
1558	1	218	13:28:44.866		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *4876.62 +/- 5	2R3	4	0	6,155,538	37:1
1559	1	218	13:28:50.133		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *4877.85 +/- 5	2R3	4	0	6,155,538	45:0
1560	1	218	13:28:51.333		DMS:	: *RUNUP	R806, TRACK *2, *REV, TIC *4877.91 +/- 6	2R3	4	0	6,155,538	46:8
1561	1	218	13:28:53.466	165IZ4B	7VECT		Inert vect update UTC	2R3	4	0	6,155,538	50:0
1562	1	218	13:28:56.133	175IZ176A6A	6TMREC	IM8	806.4 KBPS IMAGE RECORD Record Mode Change	2R3	4	0	6,155,538	54:0
1563	1	218	13:28:56.600		DMS:	: *AT_SPD	R806, TRACK 2, REV, TIC 4811.91 +/- 6	2R3	4	0	6,155,538	54:7
1564	1	218	13:28:56.600		DMS:	: *RECORD	R806, TRACK 2, REV, TIC *4811.91 +/- 6	2R3	4	0	6,155,538	54:7
1565	1	218	13:29:00.133		DMS:	: *RUNDOWN	R806, TRACK 2, REV, TIC *4724.96 +/- 6	2R3	4	0	6,155,538	60:0
1566	1	218	13:29:00.133	175IZ422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,538	60:0
1567	1	218	13:29:02.866		DMS:	: *READY	RDY, TRACK 2, REV, TIC *4713.46 +/- 6	2R3	4	0	6,155,538	64:1
1568	1	218	14:09:46.800	165GL4A	7SCAN	NORM.51.94,21.41	Check S/P Position	2R3	4	0	6,155,578	90:0
1569	1	218	14:12:46.800	488AK6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	2R3	4	0	6,155,581	87:0
1570	1	218	14:12:49.466	176GL6A	6TMREC	BPT	7.68 KBPS PPR BURST TO TAPE Record Mode C	2R3	4	0	6,155,582	00:0
1571	1	218	14:13:40.800	117GL	CSMOS	GS	***** GROUP START CSMOS	2R3	4	0	6,155,582	77:0
1572	1	218	14:13:50.133	117GL105A106A4A	7STRP	0.0027,-0.00355,	Slew = 0.02	2R3	4	0	6,155,583	00:0
1573	1	218	14:18:49.466	117GL11A	CSMOS	GE	***** GROUP END CSMOS	2R3	4	0	6,155,587	85:0
1574	1	218	14:20:12.133	488AK6B	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	2R3	4	0	6,155,589	27:0
1575	1	218	14:20:24.133	176GL6B	6TMREC	NRC	NO RECORD Record Mode Change	2R3	4	0	6,155,589	45:0
1576	1	218	14:20:26.133		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 4713.46 +/- 6	2R3	4	0	6,155,589	48:0
1577	1	218	14:20:26.133	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	6,155,589	48:0
1578	1	218	14:20:27.533		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *4713.58 +/- 6	2R3	4	0	6,155,589	50:1
1579	1	218	14:20:32.800		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *4714.81 +/- 6	2R3	4	0	6,155,589	58:0
1580	1	218	14:20:34.000		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *4714.87 +/- 6	2R3	4	0	6,155,589	59:8
1581	1	218	14:20:35.400		DMS:	: *AT_SPD	R7, TRACK 2, REV, TIC *4714.75 +/- 6	2R3	4	0	6,155,589	61:9
1582	1	218	14:20:36.133		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *4714.58 +/- 6	2R3	4	0	6,155,589	63:0
1583	1	218	14:20:50.800	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,155,589	85:0
1584	1	218	14:20:50.800		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *4711.15 +/- 6	2R3	4	0	6,155,589	85:0
1585	1	218	14:20:52.000		DMS:	: *READY	RDY, TRACK 2, REV, TIC *4711.09 +/- 6	2R3	4	0	6,155,589	86:8
1586	1	218	16:03:22.133	31NNGRSPOT01-			-----START-----	2R3	4	0	:	:
1587	1	218	16:03:26.133	20DK5A	37PL		Program Load (halts microprocessor & unwri	4	0	6,155,691	36:0	
1588	1	218	16:03:29.466	20DK5B	37MRL		Memory Realocate (software operates from R	4	0	6,155,691	41:0	
1589	1	218	16:03:32.800	20DK6A	6MCPY	NIMS	NIMS,1000,LLM1A,7300,77F7	4	0	6,155,691	46:0	
1590	1	218	16:03:42.800	20DK6B	6MCPY	NIMS	NIMS,1598,LLM1A,77F8,781D	4	0	6,155,691	61:0	
1591	1	218	16:03:52.800	20DK5C	37IRT		Instrument Reset (goes into POR state)	4	0	6,155,691	76:0	
1592	1	218	16:03:56.133	20DK5D	37MNI		Memory Normal (software operates from ROM)	260	4	0	6,155,691	81:0
1593	1	218	16:04:56.800	20DK4A	37IST	1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)	2R0	4	0	6,155,692	81:0



Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1594	1	218	16:05:02.133	31JNGRSPOT01-		-----START-----		2R0	4	0	:	
1595	1	218	16:05:02.800	165DK4A	7SCAN	NORM,56.942,22.8	Check S/P Position	2R0	4	0	:	6,155,692:90:0
1596	1	218	16:05:59.466	127DK4A	37IOP	5,1	Short Map, Grating Start Position =01	2R5	4	1	:	6,155,693:84:0
1597	1	218	16:05:59.466	127DK	NIMSTAB	GS	%%%%%%%%GROUP START TAB	2R5	4	1	:	6,155,693:84:0
1598	1	218	16:06:00.133	127DK4B	37ETB	07:C7.0C:3C:D7,0	Loads wavelength edit table	2R5	4	1	:	6,155,693:85:0
1599	1	218	16:06:08.133	127DK11A	NIMSTAB	GE	%%%%%%%%GROUP END TAB	2R5	4	1	:	6,155,694:06:0
1600	1	218	16:06:22.133	31NNGRSPOT01-		-----STOP-----		2R5	4	1	:	
1601	1	218	16:08:54.133	175DK422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R5	4	1	:	6,155,696:73:0
1602	1	218	16:08:54.133		DMS:	:*US-RUNUP	P7, TRACK *1, FWD, TIC 4711.09 +/- 6	2R5	4	1	:	6,155,696:73:0
1603	1	218	16:08:55.533		DMS:	:*US_AT_SP	P7, TRACK 1, FWD, TIC *4711.21 +/- 6	2R5	4	1	:	6,155,696:75:1
1604	1	218	16:08:56.800	117DK	CSMOS	GS	**** GROUP START CSMOS	2R5	4	1	:	6,155,696:77:0
1605	1	218	16:09:00.800		DMS:	:*US_RD	P7, TRACK 1, FWD, TIC *4712.44 +/- 6	2R5	4	1	:	6,155,696:83:0
1606	1	218	16:09:02.000		DMS:	:*RUNUP	R7, TRACK *2, REV, TIC *4712.50 +/- 6	2R5	4	1	:	6,155,696:84:8
1607	1	218	16:09:02.800	175DK176A6A	6TMREC	LPU	7.68 KBPS NIMS-UVS-PPR RECORD Record Mode	2R5	4	1	:	6,155,696:86:0
1608	1	218	16:09:03.400		DMS:	:*RECORD	R7, TRACK 2, REV, TIC *4712.38 +/- 6	2R5	4	1	:	6,155,696:86:9
1609	1	218	16:09:03.400		DMS:	:*AT_SPD	R7, TRACK 2, REV, TIC 4712.38 +/- 6	2R5	4	1	:	6,155,696:86:9
1610	1	218	16:09:05.466	31JNGRSPOT01-	NIMPBK	301DS	JUPITER GRS OBSERVATION	2R5	4	1	:	
1611	1	218	16:09:06.133	117DK105A106A4A	7STRP	-0.096296,-0.008	Slew =,0.12	2R5	4	1	:	6,155,697:00:0
1612	1	218	16:22:41.466	117DK105A106A4B	7STRP	0.101345,-0.0005	Slew =12.01	2R5	4	1	:	6,155,710:40:0
1613	1	218	16:22:50.133	31JNGRSPOT01-	DESELC	300DS	JUPITER GRS OBSERVATION	2R5	4	1	:	
1614	1	218	16:22:58.133	31JNGRSPOT01-	NIMPBK	301DK	JUPITER GRS OBSERVATION	2R5	4	1	:	
1615	1	218	16:23:00.133	117DK105A106A4C	7STRP	-0.096296,-0.008	Slew =,0.12	2R5	4	1	:	6,155,710:68:0
1616	1	218	16:23:30.800	31JNGRSPOT01-	NIMPBK	301EH	JUPITER GRS OBSERVATION	2R5	4	1	:	
1617	1	218	16:23:46.133	31JNGRSPOT01-	DESELC	300EH	JUPITER GRS OBSERVATION	2R5	4	1	:	
1618	1	218	16:36:30.800	31JNGRSPOT01-	NIMPBK	301EI	JUPITER GRS OBSERVATION	2R5	4	1	:	
1619	1	218	16:36:35.466	117DK105A106A4D	7STRP	0.101345,-0.0005	Slew =12.01	2R5	4	1	:	6,155,724:17:0
1620	1	218	16:36:40.133	31JNGRSPOT01-	DESELC	300EI	JUPITER GRS OBSERVATION	2R5	4	1	:	
1621	1	218	16:36:54.133	117DK105A106A4E	7STRP	-0.096296,-0.008	Slew =,0.12	2R5	4	1	:	6,155,724:45:0
1622	1	218	16:39:32.800	31JNGRSPOT01-	NIMPBK	301EJ	JUPITER GRS OBSERVATION	2R5	4	1	:	
1623	1	218	16:39:44.800	31JNGRSPOT01-	DESELC	300EJ	JUPITER GRS OBSERVATION	2R5	4	1	:	
1624	1	218	16:46:46.133	31JNGRSPOT01-	NIMPBK	301EK	JUPITER GRS OBSERVATION	2R5	4	1	:	
1625	1	218	16:46:59.600	31JNGRSPOT01-	DESELC	300EK	JUPITER GRS OBSERVATION	2R5	4	1	:	
1626	1	218	16:50:29.466	117DK11A	CSMOS	GE	**** GROUP END CSMOS	2R5	4	1	:	6,155,737:85:0
1627	1	218	16:50:33.466	31JNGRSPOT01-	DESELC	300DK	JUPITER GRS OBSERVATION	2R5	4	1	:	
1628	1	218	16:50:43.466	175DK6A	6TMREC	NRC	NO RECORD Record Mode Change	2R5	4	1	:	6,155,738:15:0
1629	1	218	16:50:43.466	175DK422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R5	4	1	:	6,155,738:15:0
1630	1	218	16:50:43.466		DMS:	:*RUNDOWN	R7, TRACK 2, REV, TIC *4126.43 +/- 6	2R5	4	1	:	6,155,738:15:0
1631	1	218	16:50:44.666		DMS:	:*READY	RDY, TRACK 2, REV, TIC *4126.37 +/- 6	2R5	4	1	:	6,155,738:16:8
1632	1	218	16:55:08.800	31JNGRSPOT01-		-----STOP-----		2R5	4	1	:	
1633	1	218	16:58:06.800	20UT4A	7SAFE	UNSTOW	S/P TO 153 deg cone	2R5	4	1	:	6,155,745:43:0
1634	1	218	17:14:49.466		DMS:	:*US-RUNUP	P7, TRACK *1, FWD, TIC 4126.37 +/- 6	2R5	4	1	:	6,155,762:00:0
1635	1	218	17:14:49.466	411JD6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R5	4	1	:	6,155,762:00:0
1636	1	218	17:14:50.866		DMS:	:*US_AT_SP	P7, TRACK 1, FWD, TIC *4126.49 +/- 6	2R5	4	1	:	6,155,762:02:1
1637	1	218	17:14:56.133		DMS:	:*US_RD	P7, TRACK 1, FWD, TIC *4127.72 +/- 6	2R5	4	1	:	6,155,762:10:0
1638	1	218	17:14:57.333		DMS:	:*RUNUP	R7, TRACK *2, REV, TIC *4127.78 +/- 6	2R5	4	1	:	6,155,762:11:8
1639	1	218	17:14:58.733		DMS:	:*RECORD	R7, TRACK 2, REV, TIC *4127.66 +/- 6	2R5	4	1	:	6,155,762:13:9
1640	1	218	17:14:58.733		DMS:	:*AT_SPD	R7, TRACK 2, REV, TIC 4127.66 +/- 6	2R5	4	1	:	6,155,762:13:9
1641	1	218	17:14:59.466	411JD6B	6TMREC	BDT	7.68 KBPS BUFFER DUMP TO TAPE Record Mode	2R5	4	1	:	6,155,762:15:0
1642	1	218	17:17:00.800	411JD6C	6TMREC	NRC	NO RECORD Record Mode Change	2R5	4	1	:	6,155,764:15:0
1643	1	218	17:17:03.466	175TJ176A6A	6TMREC	LPW	7.68 KBPS LOW RATE SCIPWS RECORD Record	2R5	4	1	:	6,155,764:19:0
1644	1	218	17:17:04.133	175TJ422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R5	4	1	:	6,155,764:20:0
1645	1	218	17:17:10.800		DMS:	:*RUNDOWN	R7, TRACK 2, REV, TIC *4096.71 +/- 6	2R5	4	1	:	6,155,764:30:0
1646	1	218	17:17:10.800	175TJ422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R5	4	1	:	6,155,764:30:0
1647	1	218	17:17:12.000		DMS:	:*READY	RDY, TRACK 2, REV, TIC *4096.65 +/- 6	2R5	4	1	:	6,155,764:31:8
1648	1	218	20:02:57.466	488AK6C	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	2R5	4	1	:	6,155,928:26:0

Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MF I
1649	1	218	20:11:54.133	20MC6A	MAG,4040,46F0		2R5	4	1	6,155,937:12:0	
1650	1	218	20:12:50.800	480MB6		12 read from LLM1A12,2282.0,A2	2R5	4	1	6,155,938:06:0	
1651	1	218	20:12:50.800	480MB6A	12,2282.0,A2	read from LLM1A12,2282.0,A2	2R5	4	1	6,155,938:06:0	
1652	1	218	21:33:19.466	488AL6A	FILL_AL3	Sci, Eng, and D/L Chan	2R5	4	1	6,156,017:60:0	
1653	1	218	22:00:00.133	480SC6A	44,23E8,0,A2	read from LLM2A44,23E8,0,A2	2R5	4	1	6,156,044:04:0	
1654	1	218	22:06:40.133	480SC6B	45,23E8,0,B2	read from LLM2B45,23E8,0,B2	2R5	4	1	6,156,050:58:0	
1655	1	218	22:10:23.466	488AL6B	NORM,AL3	Sci, Eng, and D/L Chan	2R5	4	1	6,156,054:29:0	
1656	1	218	22:53:58.133	20MH6A	HLM1A,E476,B1A1A	HLM1A,E476,B1A1A,50C2,523	2R5	4	1	6,156,097:38:0	
1657	1	218	22:54:58.800	20MH6C	HLM1A,E476,B1A1A	HLM1A,E476,B1A1A,5234,53F	2R5	4	1	6,156,098:38:0	
1658	1	218	22:55:59.466	20MH6E	HLM1A,E476,B1A1A	HLM1A,E476,B1A1A,53F5,572	2R5	4	1	6,156,099:38:0	
1659	1	218	22:57:00.133	20MH6G	HLM1A,E476,B1A1A	HLM1A,E476,B1A1A,5728,5A9	2R5	4	1	6,156,100:38:0	
1660	1	219	01:24:55.400	432OU431A6A	DDSNCG,PLSNCG,EP	Record Deselect (DDS o	2R5	4	1	6,156,246:65:0	
1661	1	219	01:24:56.066	432OU6A	6RTSL1	R/T Select of DDS and	2R5	4	1	6,156,246:66:0	
1662	1	219	01:30:04.066	488AL6C	NORM,AL2	Sci, Eng, and D/L Chan	2R5	4	1	6,156,251:73:0	
1663	1	219	01:45:25.400	165GM4A	7SCAN	Check S/P Position	2R5	4	1	6,156,266:90:0	
1664	1	219	01:48:28.066	176GM6A	BPT	7.68 KBPS PPR BURST TO TAPE Record Mode C	2R5	4	1	6,156,270:00:0	
1665	1	219	01:49:19.400	117GM	CSMOS GS	***** GROUP START CSMOS	2R5	4	1	6,156,270:77:0	
1666	1	219	01:49:28.733	117GM105A106A4A	7STRP	Slew = -0.03	2R5	4	1	6,156,271:00:0	
1667	1	219	01:54:28.066	117GM11A	GE	***** GROUP END CSMOS	2R5	4	1	6,156,275:85:0	
1668	1	219	01:56:02.733	176GM6B	6TMREC NRC	NO RECORD Record Mode Change	2R5	4	1	6,156,277:45:0	
1669	1	219	01:56:04.733	50ZZ6XX	6DMSC R7,0	DMS Control Tape runup 7.68kps	2R5	4	1	6,156,277:48:0	
1670	1	219	01:56:04.733		DMS: : *US-RUNUP	P7, TRACK *1, *FWD, TIC 4096.65 +/- 6	2R5	4	1	6,156,277:48:0	
1671	1	219	01:56:06.133		DMS: : *US AT_SP	P7, TRACK 1, FWD, TIC *4096.77 +/- 6	2R5	4	1	6,156,277:50:1	
1672	1	219	01:56:11.400		DMS: : *US_RD	P7, TRACK 1, FWD, TIC *4098.00 +/- 6	2R5	4	1	6,156,277:58:0	
1673	1	219	01:56:12.600		DMS: : *RUNUP	R7, TRACK *2, *REV, TIC *4098.06 +/- 6	2R5	4	1	6,156,277:59:8	
1674	1	219	01:56:14.000		DMS: : *AT_SPD	R7, TRACK 2, REV, TIC *4097.94 +/- 6	2R5	4	1	6,156,277:61:9	
1675	1	219	01:56:14.733		DMS: : *RECORD	R7, TRACK 2, REV, TIC *4097.77 +/- 6	2R5	4	1	6,156,277:63:0	
1676	1	219	01:56:29.400		DMS: : *RUNDOWN	R7, TRACK 2, REV, TIC *4094.33 +/- 6	2R5	4	1	6,156,277:85:0	
1677	1	219	01:56:29.400	50ZZ6RE	6DMSC RDY,0	DMS Control Tape stop	2R5	4	1	6,156,277:85:0	
1678	1	219	01:56:30.600		DMS: : *READY	RDY, TRACK 2, REV, TIC *4094.27 +/- 6	2R5	4	1	6,156,281:47:0	
1679	1	219	02:00:06.733	20U4A	7SAFE UNSTOW	S/P TO 153 deg cone	2R5	4	1	6,156,281:47:0	
1680	1	219	02:11:25.400	488AL6D	6TMSED FILL_AL2	Sci, Eng, and D/L Chan	2R5	4	1	6,156,292:64:0	
1681	1	219	02:25:32.066	488AL6E	6TMSED FILL_AL1	Sci, Eng, and D/L Chan	2R5	4	1	6,156,306:60:0	
1682	1	219	03:01:48.066	488AM6A	6TMSED FILL_AL4	Sci, Eng, and D/L Chan	2R5	4	1	6,156,342:48:0	
1683	1	219	03:30:00.066	20TS4A	7SAFE STOP	S/P NO MOVEMENT	2R5	4	1	6,156,370:38:0	
1684	1	219	03:30:50.066	20TS4B	7SLEW DIS,POS,0.0	Stator movement	2R5	4	1	6,156,371:22:0	
1685	1	219	03:30:58.066	20TS4F	7STAR 1,1307,23.9660,-	Star catalog update	2R5	4	1	6,156,371:34:0	
1686	1	219	03:31:00.066	20TS4G	7STAR 2,333,138.16	Star catalog update	2R5	4	1	6,156,371:37:0	
1687	1	219	03:31:02.066	20TS4H	7STAR 3,104,189.77	Star catalog update	2R5	4	1	6,156,371:40:0	
1688	1	219	03:31:04.066	20TS4I	7STAR 4,167,345.57	Star catalog update	2R5	4	1	6,156,371:43:0	
1689	1	219	03:31:06.066	20TS4J	7STAR 5,0,0,0,0,0	Star catalog update	2R5	4	1	6,156,371:46:0	
1690	1	219	03:31:08.066	20TS4K	7STAR 6,0,0,0,0,0	Star catalog update	2R5	4	1	6,156,371:49:0	
1691	1	219	03:35:02.733	432OE431A6A	6RCDL	Record Deselect (DDS o	2R5	4	1	6,156,375:37:0	
1692	1	219	03:35:03.400	432OE6A	6RTSL1	R/T Select of DDS and	2R5	4	1	6,156,375:38:0	
1693	1	219	04:14:02.733	432SC6A	6RTDS2	R/T ENG DESLECT	2R5	4	1	6,156,413:89:0	
1694	1	219	06:33:36.066	411JE6A	6DMSC R7,0	DMS Control Tape runup 7.68kps	2R5	4	1	6,156,552:00:0	
1695	1	219	06:33:36.066		DMS: : *US-RUNUP	P7, TRACK *1, *FWD, TIC 4094.27 +/- 6	2R5	4	1	6,156,552:00:0	
1696	1	219	06:33:37.466		DMS: : *US AT_SP	P7, TRACK 1, FWD, TIC *4094.39 +/- 6	2R5	4	1	6,156,552:02:1	
1697	1	219	06:33:42.733		DMS: : *US_RD	P7, TRACK 1, FWD, TIC *4095.63 +/- 6	2R5	4	1	6,156,552:10:0	
1698	1	219	06:33:43.933		DMS: : *RUNUP	R7, TRACK *2, *REV, TIC *4095.69 +/- 6	2R5	4	1	6,156,552:11:8	
1699	1	219	06:33:45.333		DMS: : *RECORD	R7, TRACK 2, REV, TIC *4095.57 +/- 6	2R5	4	1	6,156,552:13:9	
1700	1	219	06:33:45.333		DMS: : *AT_SPD	R7, TRACK 2, REV, TIC 4095.57 +/- 6	2R5	4	1	6,156,552:13:9	
1701	1	219	06:33:46.066	411JE6B	6TMREC BDT	7.68 KBPS BUFFER DUMP TO TAPE Record Mode	2R5	4	1	6,156,552:15:0	
1702	1	219	06:35:47.400	411JE6C	6TMREC NRC	NO RECORD Record Mode Change	2R5	4	1	6,156,554:15:0	
1703	1	219	06:35:50.066	175TK176A6A	6TMREC LPW	7.68 KBPS LOW RATE SCIPWS RECORD Record	2R5	4	1	6,156,554:19:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1704	1	219	06:35:50.733	175TK422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R5	4	1	6,156,554:20:0	
1705	1	219	06:35:57.400		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *4064.61 +/- 6	2R5	4	1	6,156,554:30:0	
1706	1	219	06:35:57.400	175TK422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R5	4	1	6,156,554:30:0	
1707	1	219	06:35:58.600		DMS:	: *READY	RDY, TRACK 2, REV, TIC *4064.55 +/- 6	2R5	4	1	6,156,554:31:8	
1708	1	219	11:59:10.733	432SD6A	6RTSL2	NIMNCG,AACNCG,RT	R/L ENG SELECT	2R5	4	1	6,156,874:00:0	
1709	1	219	12:42:48.733	20IL6A	6MCOPI	HLM1A,E415,B1A1A	HLM1A,E415,B1A1A,5000,506	2R5	4	1	6,156,917:14:0	
1710	1	219	12:54:16.066	165IL4A	7SCAN	NORM,86.960999,2	Check S/P Position	2R5	4	1	6,156,928:44:0	
1711	1	219	12:57:53.400	118IL	SMOS	GS		2R5	4	1	6,156,932:06:0	
1712	1	219	12:58:18.066	165IL4B	7VECT		Inert vect update UTC	2R5	4	1	6,156,932:43:0	
1713	1	219	12:58:23.400	118IL110A111A4A	7STRP	-0.00255:-0.0005	Slew = -1.31	2R5	4	1	6,156,932:51:0	
1714	1	219	12:58:54.066	118IL110A111A4B	7STRP	-0.00255:0.0005	Slew = -1.31	2R5	4	1	6,156,933:06:0	
1715	1	219	12:59:12.066		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 4064.55 +/- 6	2R5	4	1	6,156,933:33:0	
1716	1	219	12:59:12.066	175IL422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R5	4	1	6,156,933:33:0	
1717	1	219	12:59:13.466		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *4064.67 +/- 6	2R5	4	1	6,156,933:35:1	
1718	1	219	12:59:18.733		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *4065.91 +/- 6	2R5	4	1	6,156,933:43:0	
1719	1	219	12:59:19.933		DMS:	: *RUNUP	R115, TRACK *2, *REV, TIC *4065.97 +/- 6	2R5	4	1	6,156,933:44:8	
1720	1	219	12:59:23.400	175IL176A6A	6TMREC	HMA	115.2 KBPS IMAGE(1-400)RECORD Record Mode	2R5	4	1	6,156,933:50:0	
1721	1	219	12:59:23.933		DMS:	: *AT_SPD	R115, TRACK 2, REV, TIC 4059.67 +/- 6	2R5	4	1	6,156,933:50:8	
1722	1	219	12:59:23.933		DMS:	: *RECORD	R115, TRACK 2, REV, TIC *4059.67 +/- 6	2R5	4	1	6,156,933:50:8	
1723	1	219	12:59:24.733	118IL110A111A4C	7STRP	-0.00255:-0.0005	Slew = -1.31	2R5	4	1	6,156,933:52:0	
1724	1	219	12:59:48.733		DMS:	: *RUNDOWN	R115, TRACK 2, REV, TIC *3972.48 +/- 6	2R5	4	1	6,156,933:88:0	
1725	1	219	12:59:48.733	175IL422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R5	4	1	6,156,933:88:0	
1726	1	219	12:59:49.933		DMS:	: *READY	RDY, TRACK 2, REV, TIC *3971.48 +/- 6	2R5	4	1	6,156,933:89:8	
1727	1	219	12:59:55.400	118IL11A	SMOS	GE		2R5	4	1	6,156,934:07:0	
1728	1	219	13:31:43.400	488AN6A	6TMSEC	NORM,AL4	Sci. Eng. and D/L Chan	2R5	4	1	6,156,965:48:0	
1729	1	219	13:38:25.400	20IN6A	6MCOPI	HLM1A,E415,B1A1A	HLM1A,E415,B1A1A,5000,506	2R5	4	1	6,156,972:14:0	
1730	1	219	13:50:23.400	165IO4A	7SCAN	NORM,95.976999,2	Check S/P Position	2R5	4	1	6,156,983:90:0	
1731	1	219	13:53:21.400		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 3971.48 +/- 6	2R5	4	1	6,156,986:84:0	
1732	1	219	13:53:21.400	175IO422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R5	4	1	6,156,986:84:0	
1733	1	219	13:53:22.800		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *3971.60 +/- 6	2R5	4	1	6,156,986:86:1	
1734	1	219	13:53:24.733	165IO4B	7VECT		Inert vect update UTC	2R5	4	1	6,156,986:89:0	
1735	1	219	13:53:28.066		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *3972.84 +/- 6	2R5	4	1	6,156,987:03:0	
1736	1	219	13:53:29.266		DMS:	: *RUNUP	R115, TRACK *2, *REV, TIC *3972.90 +/- 6	2R5	4	1	6,156,987:04:8	
1737	1	219	13:53:32.733	175IO176A6A	6TMREC	HIM	115.2 KBPS SSI + NIMS RECORD Record Mode	2R5	4	1	6,156,987:10:0	
1738	1	219	13:53:33.266		DMS:	: *AT_SPD	R115, TRACK 2, REV, TIC 3966.60 +/- 6	2R5	4	1	6,156,987:10:8	
1739	1	219	13:53:33.266		DMS:	: *RECORD	R115, TRACK 2, REV, TIC *3966.60 +/- 6	2R5	4	1	6,156,987:10:8	
1740	1	219	13:54:27.400		DMS:	: *RUNDOWN	R115, TRACK 2, REV, TIC *3776.28 +/- 6	2R5	4	1	6,156,988:01:0	
1741	1	219	13:54:27.400	175IO422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R5	4	1	6,156,988:01:0	
1742	1	219	13:54:28.600		DMS:	: *READY	RDY, TRACK 2, REV, TIC *3775.28 +/- 6	2R5	4	1	6,156,988:02:8	
1743	1	219	14:05:33.400	165IP4A	7SCAN	NORM,96.202,26.8	Check S/P Position	2R5	4	1	6,156,998:90:0	
1744	1	219	14:08:31.400		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 3775.28 +/- 6	2R5	4	1	6,157,001:84:0	
1745	1	219	14:08:31.400	175IP422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R5	4	1	6,157,001:84:0	
1746	1	219	14:08:32.800		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *3775.40 +/- 6	2R5	4	1	6,157,001:86:1	
1747	1	219	14:08:34.733	165IP4B	7VECT		Inert vect update UTC	2R5	4	1	6,157,001:89:0	
1748	1	219	14:08:38.066		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *3776.64 +/- 6	2R5	4	1	6,157,002:03:0	
1749	1	219	14:08:39.266		DMS:	: *RUNUP	R115, TRACK *2, *REV, TIC *3776.70 +/- 6	2R5	4	1	6,157,002:04:8	
1750	1	219	14:08:42.733	175IP176A6A	6TMREC	HIM	115.2 KBPS SSI + NIMS RECORD Record Mode	2R5	4	1	6,157,002:10:0	
1751	1	219	14:08:43.266		DMS:	: *RECORD	R115, TRACK 2, REV, TIC *3770.40 +/- 6	2R5	4	1	6,157,002:10:8	
1752	1	219	14:08:43.266		DMS:	: *AT_SPD	R115, TRACK 2, REV, TIC 3770.40 +/- 6	2R5	4	1	6,157,002:10:8	
1753	1	219	14:09:37.400	175IP422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R5	4	1	6,157,003:01:0	
1754	1	219	14:09:37.400		DMS:	: *RUNDOWN	R115, TRACK 2, REV, TIC *3580.08 +/- 6	2R5	4	1	6,157,003:02:8	
1755	1	219	14:09:38.600		DMS:	: *READY	RDY, TRACK 2, REV, TIC *3579.08 +/- 6	2R5	4	1	6,157,003:02:8	
1756	1	219	14:20:43.400	165IQ4A	7SCAN	NORM,96.424,26.8	Check S/P Position	2R5	4	1	6,157,013:90:0	
1757	1	219	14:23:41.400		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 3579.08 +/- 6	2R5	4	1	6,157,016:84:0	
1758	1	219	14:23:41.400	175IQ422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R5	4	1	6,157,016:84:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1759	1	219	14:23:42.800		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *3579.20 +/- 6	2R5	4	1	6,157,016:86:1	
1760	1	219	14:23:44.733	165IQ4B	7VECT		Inert vect update UTC	2R5	4	1	6,157,016:89:0	
1761	1	219	14:23:48.066		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *3580.44 +/- 6	2R5	4	1	6,157,017:03:0	
1762	1	219	14:23:49.266		DMS:	: *RUNUP	R115, TRACK *2, *REV, TIC *3580.50 +/- 6	2R5	4	1	6,157,017:04:8	
1763	1	219	14:23:52.733	175IQ176A6A	6TMREC	HIM	115.2 KBPS SSI + NIMS RECORD Record Mode	2R5	4	1	6,157,017:10:0	
1764	1	219	14:23:53.266		DMS:	: *AT_SPD	R115, TRACK 2, REV, TIC 3574.20 +/- 6	2R5	4	1	6,157,017:10:8	
1765	1	219	14:23:53.266		DMS:	: *RECORD	R115, TRACK 2, REV, TIC *3574.20 +/- 6	2R5	4	1	6,157,017:10:8	
1766	1	219	14:24:46.066	165IR4A	7SCAN	NORM,95.516999,2	Check S/P Position	2R5	4	1	6,157,017:90:0	
1767	1	219	14:24:47.400	175IQ422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R5	4	1	6,157,018:01:0	
1768	1	219	14:24:47.400		DMS:	: *RUNDOWN	R115, TRACK 2, REV, TIC *3383.89 +/- 6	2R5	4	1	6,157,018:01:0	
1769	1	219	14:24:48.600		DMS:	: *READY	RDY, TRACK 2, REV, TIC *3382.89 +/- 6	2R5	4	1	6,157,018:02:8	
1770	1	219	14:26:43.400	175IR422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R5	4	1	6,157,019:84:0	
1771	1	219	14:26:43.400		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 3382.89 +/- 6	2R5	4	1	6,157,019:84:0	
1772	1	219	14:26:44.800		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *3383.01 +/- 6	2R5	4	1	6,157,019:86:1	
1773	1	219	14:26:46.733	165IR4B	7VECT		Inert vect update UTC	2R5	4	1	6,157,019:89:0	
1774	1	219	14:26:50.066		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *3384.24 +/- 6	2R5	4	1	6,157,020:03:0	
1775	1	219	14:26:51.266		DMS:	: *RUNUP	R115, TRACK *2, *REV, TIC *3384.30 +/- 6	2R5	4	1	6,157,020:04:8	
1776	1	219	14:26:54.733	175IR176A6A	6TMREC	HIM	115.2 KBPS SSI + NIMS RECORD Record Mode	2R5	4	1	6,157,020:10:0	
1777	1	219	14:26:55.266		DMS:	: *AT_SPD	R115, TRACK 2, REV, TIC 3378.00 +/- 6	2R5	4	1	6,157,020:10:8	
1778	1	219	14:26:55.266		DMS:	: *RECORD	R115, TRACK 2, REV, TIC *3378.00 +/- 6	2R5	4	1	6,157,020:10:8	
1779	1	219	14:27:49.400		DMS:	: *RUNDOWN	R115, TRACK 2, REV, TIC *3187.69 +/- 6	2R5	4	1	6,157,021:01:0	
1780	1	219	14:27:49.400	175IR422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R5	4	1	6,157,021:01:0	
1781	1	219	14:27:50.600		DMS:	: *READY	RDY, TRACK 2, REV, TIC *3186.69 +/- 6	2R5	4	1	6,157,021:02:8	
1782	1	219	14:38:55.400	165IS4A	7SCAN	NORM,95.742,26.9	Check S/P Position	2R5	4	1	6,157,031:90:0	
1783	1	219	14:41:53.400	175IS422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R5	4	1	6,157,034:84:0	
1784	1	219	14:41:53.400		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 3186.69 +/- 6	2R5	4	1	6,157,034:84:0	
1785	1	219	14:41:54.800		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *3186.81 +/- 6	2R5	4	1	6,157,034:86:1	
1786	1	219	14:41:56.733	165IS4B	7VECT		Inert vect update UTC	2R5	4	1	6,157,034:89:0	
1787	1	219	14:42:00.066		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *3188.04 +/- 6	2R5	4	1	6,157,035:03:0	
1788	1	219	14:42:01.266		DMS:	: *RUNUP	R115, TRACK *2, *REV, TIC *3188.10 +/- 6	2R5	4	1	6,157,035:04:8	
1789	1	219	14:42:04.733	175IS176A6A	6TMREC	HIM	115.2 KBPS SSI + NIMS RECORD Record Mode	2R5	4	1	6,157,035:10:0	
1790	1	219	14:42:05.266		DMS:	: *RECORD	R115, TRACK 2, REV, TIC *3181.80 +/- 6	2R5	4	1	6,157,035:10:8	
1791	1	219	14:42:05.266		DMS:	: *AT_SPD	R115, TRACK 2, REV, TIC 3181.80 +/- 6	2R5	4	1	6,157,035:10:8	
1792	1	219	14:42:59.400		DMS:	: *RUNDOWN	R115, TRACK 2, REV, TIC *2991.49 +/- 6	2R5	4	1	6,157,036:01:0	
1793	1	219	14:42:59.400	175IS422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R5	4	1	6,157,036:01:0	
1794	1	219	14:43:00.600		DMS:	: *READY	RDY, TRACK 2, REV, TIC *2990.49 +/- 6	2R5	4	1	6,157,036:02:8	
1795	1	219	14:54:05.400	165IT4A	7SCAN	NORM,95.964,26.9	Check S/P Position	2R5	4	1	6,157,046:90:0	
1796	1	219	14:57:03.400		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 2990.49 +/- 6	2R5	4	1	6,157,049:84:0	
1797	1	219	14:57:03.400	175IT422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R5	4	1	6,157,049:84:0	
1798	1	219	14:57:04.800		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *2990.61 +/- 6	2R5	4	1	6,157,049:86:1	
1799	1	219	14:57:06.733	165IT4B	7VECT		Inert vect update UTC	2R5	4	1	6,157,049:89:0	
1800	1	219	14:57:10.066		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *2991.84 +/- 6	2R5	4	1	6,157,050:03:0	
1801	1	219	14:57:11.266		DMS:	: *RUNUP	R115, TRACK *2, *REV, TIC *2991.90 +/- 6	2R5	4	1	6,157,050:04:8	
1802	1	219	14:57:14.733	175IT176A6A	6TMREC	HIM	115.2 KBPS SSI + NIMS RECORD Record Mode	2R5	4	1	6,157,050:10:0	
1803	1	219	14:57:15.266		DMS:	: *AT_SPD	R115, TRACK 2, REV, TIC 2985.60 +/- 6	2R5	4	1	6,157,050:10:8	
1804	1	219	14:57:15.266		DMS:	: *RECORD	R115, TRACK 2, REV, TIC *2985.60 +/- 6	2R5	4	1	6,157,050:10:8	
1805	1	219	14:58:08.066	165IU4A	7SCAN	NORM,95.026,957	Check S/P Position	2R5	4	1	6,157,050:90:0	
1806	1	219	14:58:09.400		DMS:	: *RUNDOWN	R115, TRACK 2, REV, TIC *2795.29 +/- 6	2R5	4	1	6,157,051:01:0	
1807	1	219	14:58:09.400	175IT422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R5	4	1	6,157,051:01:0	
1808	1	219	14:58:10.600		DMS:	: *READY	RDY, TRACK 2, REV, TIC *2794.29 +/- 6	2R5	4	1	6,157,051:02:8	
1809	1	219	15:00:05.400		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 2794.29 +/- 6	2R5	4	1	6,157,052:84:0	
1810	1	219	15:00:05.400	175IU422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R5	4	1	6,157,052:84:0	
1811	1	219	15:00:06.800		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *2794.41 +/- 6	2R5	4	1	6,157,052:86:1	
1812	1	219	15:00:08.733	165IU4B	7VECT		Inert vect update UTC	2R5	4	1	6,157,052:89:0	
1813	1	219	15:00:12.066		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *2795.65 +/- 6	2R5	4	1	6,157,053:03:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1814	1	219	15:00:13.266		DMS:	:*RUNUP	R115, TRACK *2, *REV, TIC *2795.71 +/- 6	2R5	4	1	6,157,053:04:8	
1815	1	219	15:00:16.733	175IU176A6A	6TMREC	HIM	115.2 KBPS SSI + NIMS RECORD Record Mode	2R5	4	1	6,157,053:10:0	
1816	1	219	15:00:17.266		DMS:	:*RECORD	R115, TRACK 2, REV, TIC *2789.41 +/- 6	2R5	4	1	6,157,053:10:8	
1817	1	219	15:00:17.266		DMS:	:*AT_SPD	R115, TRACK 2, REV, TIC *2789.41 +/- 7	2R5	4	1	6,157,053:10:8	
1818	1	219	15:01:10.066	165JO4A	7SCAN	NORM,94.955,26.9	Check S/P Position	2R5	4	1	6,157,053:90:0	
1819	1	219	15:01:11.400		DMS:	:*RUNDOWN	R115, TRACK 2, REV, TIC *2599.09 +/- 7	2R5	4	1	6,157,054:01:0	
1820	1	219	15:01:11.400	175IU422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R5	4	1	6,157,054:01:0	
1821	1	219	15:01:12.600		DMS:	:*READY	RDY, TRACK 2, REV, TIC *2598.09 +/- 7	2R5	4	1	6,157,054:02:8	
1822	1	219	15:03:07.400	175JO422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R5	4	1	6,157,055:84:0	
1823	1	219	15:03:07.400		DMS:	:*US-RUNUP	P7, TRACK *1, *FWD, TIC *2598.09 +/- 7	2R5	4	1	6,157,055:84:0	
1824	1	219	15:03:08.800		DMS:	:*US_AT_SP	P7, TRACK 1, *FWD, TIC *2598.21 +/- 7	2R5	4	1	6,157,055:86:1	
1825	1	219	15:03:10.733	165JO4B	7VECT		Inert vect update UTC	2R5	4	1	6,157,055:89:0	
1826	1	219	15:03:14.066		DMS:	:*US_RD	P7, TRACK 1, *FWD, TIC *2599.45 +/- 7	2R5	4	1	6,157,056:03:0	
1827	1	219	15:03:15.266		DMS:	:*RUNUP	R115, TRACK *2, *REV, TIC *2599.51 +/- 7	2R5	4	1	6,157,056:04:8	
1828	1	219	15:03:18.733	175JO176A6A	6TMREC	HIM	115.2 KBPS SSI + NIMS RECORD Record Mode	2R5	4	1	6,157,056:10:0	
1829	1	219	15:03:19.266		DMS:	:*AT_SPD	R115, TRACK 2, REV, TIC *2593.21 +/- 7	2R5	4	1	6,157,056:10:8	
1830	1	219	15:03:19.266		DMS:	:*RECORD	R115, TRACK 2, REV, TIC *2593.21 +/- 7	2R5	4	1	6,157,056:10:8	
1831	1	219	15:04:13.400	175JO422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R5	4	1	6,157,057:01:0	
1832	1	219	15:04:13.400		DMS:	:*RUNDOWN	R115, TRACK 2, REV, TIC *2402.90 +/- 7	2R5	4	1	6,157,057:01:0	
1833	1	219	15:04:14.600		DMS:	:*READY	RDY, TRACK 2, REV, TIC *2401.90 +/- 7	2R5	4	1	6,157,057:02:8	
1834	1	219	15:12:17.400	165JP4A	7SCAN	NORM,95.224999,2	Check S/P Position	2R5	4	1	6,157,064:90:0	
1835	1	219	15:15:15.400		DMS:	:*US-RUNUP	P7, TRACK *1, *FWD, TIC *2401.90 +/- 7	2R5	4	1	6,157,067:84:0	
1836	1	219	15:15:15.400	175JP422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R5	4	1	6,157,067:84:0	
1837	1	219	15:15:16.800		DMS:	:*US_AT_SP	P7, TRACK 1, *FWD, TIC *2402.02 +/- 7	2R5	4	1	6,157,067:86:1	
1838	1	219	15:15:18.733	165JP4B	7VECT		Inert vect update UTC	2R5	4	1	6,157,067:89:0	
1839	1	219	15:15:22.066		DMS:	:*US_RD	P7, TRACK 1, *FWD, TIC *2403.25 +/- 7	2R5	4	1	6,157,068:03:0	
1840	1	219	15:15:23.266		DMS:	:*RUNUP	R115, TRACK *2, *REV, TIC *2403.31 +/- 7	2R5	4	1	6,157,068:04:8	
1841	1	219	15:15:26.733	175JP176A6A	6TMREC	HIM	115.2 KBPS SSI + NIMS RECORD Record Mode	2R5	4	1	6,157,068:10:0	
1842	1	219	15:15:27.266		DMS:	:*AT_SPD	R115, TRACK 2, REV, TIC *2397.01 +/- 7	2R5	4	1	6,157,068:10:8	
1843	1	219	15:15:27.266		DMS:	:*RECORD	R115, TRACK 2, REV, TIC *2397.01 +/- 7	2R5	4	1	6,157,068:10:8	
1844	1	219	15:16:21.400		DMS:	:*RUNDOWN	R115, TRACK 2, REV, TIC *2206.70 +/- 7	2R5	4	1	6,157,069:01:0	
1845	1	219	15:16:21.400	175JP422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R5	4	1	6,157,069:01:0	
1846	1	219	15:16:22.600		DMS:	:*READY	RDY, TRACK 2, REV, TIC *2205.70 +/- 7	2R5	4	1	6,157,069:02:8	
1847	1	219	15:28:28.066	165JR4A	7SCAN	NORM,95.447,26.9	Check S/P Position	2R5	4	1	6,157,080:90:0	
1848	1	219	15:30:25.400		DMS:	:*US-RUNUP	P7, TRACK *1, *FWD, TIC *2205.70 +/- 7	2R5	4	1	6,157,082:84:0	
1849	1	219	15:30:25.400	175JR422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R5	4	1	6,157,082:84:0	
1850	1	219	15:30:26.800		DMS:	:*US_AT_SP	P7, TRACK 1, *FWD, TIC *2205.82 +/- 7	2R5	4	1	6,157,082:86:1	
1851	1	219	15:30:28.733	165JR4B	7VECT		Inert vect update UTC	2R5	4	1	6,157,082:89:0	
1852	1	219	15:30:32.066		DMS:	:*US_RD	P7, TRACK 1, *FWD, TIC *2207.05 +/- 7	2R5	4	1	6,157,083:03:0	
1853	1	219	15:30:33.266		DMS:	:*RUNUP	R115, TRACK *2, *REV, TIC *2207.11 +/- 7	2R5	4	1	6,157,083:04:8	
1854	1	219	15:30:36.733	175JR176A6A	6TMREC	HIM	115.2 KBPS SSI + NIMS RECORD Record Mode	2R5	4	1	6,157,083:10:0	
1855	1	219	15:30:37.266		DMS:	:*AT_SPD	R115, TRACK 2, REV, TIC *2200.81 +/- 7	2R5	4	1	6,157,083:10:8	
1856	1	219	15:30:37.266		DMS:	:*RECORD	R115, TRACK 2, REV, TIC *2200.81 +/- 7	2R5	4	1	6,157,083:10:8	
1857	1	219	15:31:30.066	165JS4A	7SCAN	NORM,94.558999,2	Check S/P Position	2R5	4	1	6,157,083:90:0	
1858	1	219	15:31:31.400	175JR422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R5	4	1	6,157,084:01:0	
1859	1	219	15:31:31.400		DMS:	:*RUNDOWN	R115, TRACK 2, REV, TIC *2010.50 +/- 7	2R5	4	1	6,157,084:01:0	
1860	1	219	15:31:32.600		DMS:	:*READY	RDY, TRACK 2, REV, TIC *2009.50 +/- 7	2R5	4	1	6,157,084:02:8	
1861	1	219	15:33:27.400	175JS422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R5	4	1	6,157,085:84:0	
1862	1	219	15:33:27.400		DMS:	:*US-RUNUP	P7, TRACK *1, *FWD, TIC *2009.50 +/- 7	2R5	4	1	6,157,085:84:0	
1863	1	219	15:33:28.800		DMS:	:*US_AT_SP	P7, TRACK 1, *FWD, TIC *2009.62 +/- 7	2R5	4	1	6,157,085:86:1	
1864	1	219	15:33:30.733	165JS4B	7VECT		Inert vect update UTC	2R5	4	1	6,157,085:89:0	
1865	1	219	15:33:34.066		DMS:	:*US_RD	P7, TRACK 1, *FWD, TIC *2010.85 +/- 7	2R5	4	1	6,157,086:03:0	
1866	1	219	15:33:35.266		DMS:	:*RUNUP	R115, TRACK *2, *REV, TIC *2010.91 +/- 7	2R5	4	1	6,157,086:04:8	
1867	1	219	15:33:38.733	175JS176A6A	6TMREC	HIM	115.2 KBPS SSI + NIMS RECORD Record Mode	2R5	4	1	6,157,086:10:0	
1868	1	219	15:33:39.266		DMS:	:*AT_SPD	R115, TRACK 2, REV, TIC *2004.61 +/- 7	2R5	4	1	6,157,086:10:8	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1869	1	219	15:33:39.266		DMS:	:*RECORD	R115, TRACK 2, REV, TIC *2004.61 +/- 7	2R5	4	1	6,157,086:10:8	
1870	1	219	15:34:33.400	175JU422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R5	4	1	6,157,087:01:0	
1871	1	219	15:34:33.400		DMS:	:*RUNDOWN	R115, TRACK 2, REV, TIC *1814.30 +/- 7	2R5	4	1	6,157,087:01:0	
1872	1	219	15:34:34.600		DMS:	:*READY	RDY, TRACK 2, REV, TIC *1813.30 +/- 7	2R5	4	1	6,157,087:02:8	
1873	1	219	15:37:58.066	488AN6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	2R5	4	1	6,157,090:35:0	
1874	1	219	15:45:32.066	488AN6C	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	2R5	4	1	6,157,097:79:0	
1875	1	219	15:45:39.400	165JT4A	7SCAN	NORM,94.783999,2	Check S/P Position	2R5	4	1	6,157,097:90:0	
1876	1	219	15:48:37.400		DMS:	:*US-RUNUP	P7, TRACK *1, *FWD, TIC 1813.30 +/- 7	2R5	4	1	6,157,100:84:0	
1877	1	219	15:48:37.400	175JT422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R5	4	1	6,157,100:84:0	
1878	1	219	15:48:38.800		DMS:	:*US_AT_SP	P7, TRACK 1, FWD, TIC *1813.42 +/- 7	2R5	4	1	6,157,100:86:1	
1879	1	219	15:48:40.733	165JT4B	7VECT		Inert vect update UTC	2R5	4	1	6,157,100:89:0	
1880	1	219	15:48:44.066		DMS:	:*US_RD	P7, TRACK 1, FWD, TIC *1814.66 +/- 7	2R5	4	1	6,157,101:03:0	
1881	1	219	15:48:45.266		DMS:	:*RUNUP	R115, TRACK *2, *REV, TIC *1814.72 +/- 7	2R5	4	1	6,157,101:04:8	
1882	1	219	15:48:48.733	175JT176A6A	6TMREC	HIM	115.2 KBPS SSI + NIMS RECORD Record Mode	2R5	4	1	6,157,101:10:0	
1883	1	219	15:48:49.266		DMS:	:*AT_SPD	R115, TRACK 2, REV, TIC 1808.42 +/- 7	2R5	4	1	6,157,101:10:8	
1884	1	219	15:48:49.266		DMS:	:*RECORD	R115, TRACK 2, REV, TIC *1808.42 +/- 7	2R5	4	1	6,157,101:10:8	
1885	1	219	15:49:43.400		DMS:	:*RUNDOWN	R115, TRACK 2, REV, TIC *1618.10 +/- 7	2R5	4	1	6,157,102:01:0	
1886	1	219	15:49:43.400	175JT422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R5	4	1	6,157,102:01:0	
1887	1	219	15:49:44.600		DMS:	:*READY	RDY, TRACK 2, REV, TIC *1617.10 +/- 7	2R5	4	1	6,157,102:02:8	
1888	1	219	16:00:49.400	165JU4A	7SCAN	NORM,95.006,26.9	Check S/P Position	2R5	4	1	6,157,112:90:0	
1889	1	219	16:03:47.400		DMS:	:*US-RUNUP	P7, TRACK *1, *FWD, TIC 1617.10 +/- 7	2R5	4	1	6,157,115:84:0	
1890	1	219	16:03:47.400	175JU422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R5	4	1	6,157,115:84:0	
1891	1	219	16:03:48.800		DMS:	:*US_AT_SP	P7, TRACK 1, FWD, TIC *1617.22 +/- 7	2R5	4	1	6,157,115:86:1	
1892	1	219	16:03:50.733	165JU4B	7VECT		Inert vect update UTC	2R5	4	1	6,157,115:89:0	
1893	1	219	16:03:55.266		DMS:	:*US_RD	P7, TRACK 1, FWD, TIC *1618.46 +/- 7	2R5	4	1	6,157,116:03:0	
1894	1	219	16:03:55.266		DMS:	:*RUNUP	R115, TRACK *2, *REV, TIC *1618.52 +/- 7	2R5	4	1	6,157,116:04:8	
1895	1	219	16:03:58.733	175JU176A6A	6TMREC	HIM	115.2 KBPS SSI + NIMS RECORD Record Mode	2R5	4	1	6,157,116:10:0	
1896	1	219	16:03:59.266		DMS:	:*AT_SPD	R115, TRACK 2, REV, TIC 1612.22 +/- 7	2R5	4	1	6,157,116:10:8	
1897	1	219	16:03:59.266		DMS:	:*RECORD	R115, TRACK 2, REV, TIC *1612.22 +/- 7	2R5	4	1	6,157,116:10:8	
1898	1	219	16:04:54.066		DMS:	:*RUNDOWN	R115, TRACK 2, REV, TIC *1419.56 +/- 7	2R5	4	1	6,157,117:02:0	
1899	1	219	16:04:54.066	175JU422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R5	4	1	6,157,117:02:0	
1900	1	219	16:04:55.266		DMS:	:*READY	RDY, TRACK 2, REV, TIC *1418.56 +/- 7	2R5	4	1	6,157,117:03:8	
1901	1	219	16:10:06.733	20KA4B	7SAFE	UNSTOW	S/P TO 153 deg cone	2R5	4	1	6,157,122:16:0	
1902	1	219	16:28:06.733	432JE6B	6RTDS2	NIMNCG,AACDSL,RT	AACS DESELECT	2R5	4	1	6,157,139:89:0	
1903	1	219	16:30:09.400	431MA6A	6RCSEL	DRSSEL,PLSNCG,EP	Record Select (DDS onl)	2R5	4	1	6,157,142:00:0	
1904	1	219	18:53:04.733	488AN6D	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	2R5	4	1	6,157,283:32:0	
1905	1	219	19:16:44.066	488AN6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	2R5	4	1	6,157,306:68:0	
1906	1	219	19:52:58.066	488AO6A	6TMSED	NORM,AH4	Sci, Eng, and D/L Chan	2R5	4	1	6,157,342:53:0	
1907	1	219	19:55:04.066	20UC4A	7SAFE	STOP	S/P NO MOVEMENT	2R5	4	1	6,157,344:60:0	
1908	1	219	19:55:54.066	20UC4B	7SLEW	DIS,POS,0.0	Stator movement	2R5	4	1	6,157,345:44:0	
1909	1	219	20:27:00.066	20RM41	7MODE	INT	AACS INERTIAL MODE	2R5	4	1	6,157,376:22:0	
1910	1	219	20:42:00.066	20RM4K	7SLEW	INIT_POS,17.45	Stator movement	2R5	4	1	6,157,391:07:0	
1911	1	219	20:54:00.066	20RM4L	7SLEW	DIS,POS,0.0	Stator movement	2R5	4	1	6,157,402:86:0	
1912	1	219	21:01:00.066	20RM4M	7SLEW	INIT_NEG,17.45	Stator movement	2R5	4	1	6,157,409:79:0	
1913	1	219	21:13:00.066	20RM4N	7SLEW	DIS,POS,0.0	Stator movement	2R5	4	1	6,157,421:67:0	
1914	1	219	21:25:00.066	20RM4AH	7MODE	CRU	AACS CRUISE MODE	2R5	4	1	6,157,433:55:0	
1915	1	219	22:26:00.066	488AO6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	2R5	4	1	6,157,493:85:0	
1916	1	220	00:00:00.066	480SD6A	6MROH	44,23E8,0,A2	read from LLM2A44,23E8,0,A2	2R5	4	1	6,157,586:82:0	
1917	1	220	00:06:40.066	480SD6B	6MROH	45,23E8,0,B2	read from LLM2B45,23E8,0,B2	2R5	4	1	6,157,593:45:0	
1918	1	220	01:29:03.400	432SE6A	6RTDS2	NIMNCG,AACNCG,RT	R/T ENG DESLECT	2R5	4	1	6,157,674:89:0	
1919	1	220	01:46:45.400	488AO6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	2R5	4	1	6,157,692:44:0	
1920	1	220	01:49:16.066	488AO6D	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	2R5	4	1	6,157,694:88:0	
1921	1	220	01:59:56.066	488AP6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	2R5	4	1	6,157,705:47:0	
1922	1	220	08:19:35.400	432SF6A	6RTSL2	NIMNCG,AACNCG,RT	R/T ENG SELECT	2R5	4	1	6,158,081:00:0	
1923	1	220	08:25:59.400	31NNGRSPOT02-		-----START -----		2R5	4	1	:	



Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MF I
1924	1	220	08:26:03.400	20DL5A	37PL	Program Load (halts microprocessor & unwri	4	1	6,158,087:36:0		
1925	1	220	08:26:06.733	20DL5B	37MRL	Memory Realocate (software operates from R	4	1	6,158,087:41:0		
1926	1	220	08:26:10.066	20DL6A	6MCOPI	NIMS,1000,LLM1A,7300,77F7	4	1	6,158,087:46:0		
1927	1	220	08:26:20.066	20DL6B	6MCOPI	NIMS,1598,LLM1A,77F8,781D	4	1	6,158,087:51:0		
1928	1	220	08:26:30.066	20DL5C	37IRT	Instrument Reset (goes into POR state)	4	0	6,158,087:76:0		
1929	1	220	08:26:33.400	20DL5D	37MNI	Memory Normal (software operates from ROM)	260	4	0	6,158,087:81:0	
1930	1	220	08:28:22.733	31JNGRSPOT02-		-----START-----	260	4	0	:	:
1931	1	220	08:28:34.733	20DL4A	37IST	Chopper ON, Sync, Chopper (Ref)	2R0	4	0	6,158,089:81:0	
1932	1	220	08:28:59.400	31NNGRSPOT02-		-----STOP-----	2R0	4	0	:	:
1933	1	220	08:29:37.400	127DL4A	37IOP	Long Map, Grating Start Position =00	2R3	4	0	6,158,090:84:0	
1934	1	220	08:29:37.400	127DL4B	NIMSTAB	%%%%% GROUP START TAB	2R3	4	0	6,158,090:84:0	
1935	1	220	08:29:38.066	127DL4B	37ETB	Loads wavelength edit table	2R3	4	0	6,158,090:85:0	
1936	1	220	08:29:46.066	127DL11A	NIMSTAB	%%%%%% GROUP END TAB	2R3	4	0	6,158,091:06:0	
1937	1	220	08:31:42.733	165DL4A	7SCAN	CHECK S/P Position	2R3	4	0	6,158,092:90:0	
1938	1	220	08:35:36.733	175DL422A6A	DMS:	P7, TRACK *1, *FWD, TIC 1418.56 +/- 7	2R3	4	0	6,158,096:77:0	
1939	1	220	08:35:36.733	175DL422A6A	6DMSC	DMS Control Tape runup 7.68kps	2R3	4	0	6,158,096:77:0	
1940	1	220	08:35:36.733	117DL	CSMOS	***** GROUP START CSMOS	2R3	4	0	6,158,096:77:0	
1941	1	220	08:35:38.133		DMS:	P7, TRACK 1, FWD, TIC *1418.68 +/- 7	2R3	4	0	6,158,096:79:1	
1942	1	220	08:35:43.400		DMS:	P7, TRACK 1, FWD, TIC *1419.92 +/- 7	2R3	4	0	6,158,096:87:0	
1943	1	220	08:35:44.600		DMS:	R7, TRACK *2, *REV, TIC *1419.98 +/- 7	2R3	4	0	6,158,096:88:8	
1944	1	220	08:35:45.400	175DL176A6A	6TMREC	7.68 KBPS NIMS-JVS-PPR RECORD Record Mode	2R3	4	0	6,158,096:90:0	
1945	1	220	08:35:46.000		DMS:	R7, TRACK 2, REV, TIC *1419.86 +/- 7	2R3	4	0	6,158,096:90:0	
1946	1	220	08:35:46.000		DMS:	R7, TRACK 2, REV, TIC 1419.86 +/- 7	2R3	4	0	6,158,096:90:9	
1947	1	220	08:35:46.066	117DL105A106A4A	7STRP	Slew = 0.06	2R3	4	0	6,158,097:00:0	
1948	1	220	08:35:54.066	31JNGRSPOT02-	NIMPBK	JUPITER GRS OBSERVATION	2R3	4	0	:	:
1949	1	220	08:50:16.733	117DL105A106A4B	7STRP	Slew =12.01	2R3	4	0	6,158,111:32:0	
1950	1	220	08:50:42.066	117DL105A106A4C	7STRP	Slew = 0.06	2R3	4	0	6,158,111:70:0	
1951	1	220	09:05:12.733	117DL105A106A4D	7STRP	Slew =12.01	2R3	4	0	6,158,126:11:0	
1952	1	220	09:05:38.066	117DL105A106A4E	7STRP	Slew = 0.06	2R3	4	0	6,158,126:49:0	
1953	1	220	09:19:46.066	31JNGRSPOT02-	DESELC	JUPITER GRS OBSERVATION	2R3	4	0	:	:
1954	1	220	09:19:56.066	175DL422A6B	6DMSC	DMS Control Tape stop	2R3	4	0	6,158,140:62:0	
1955	1	220	09:19:56.066	175DL6A	6TMREC	NO RECORD Record Mode Change	2R3	4	0	6,158,140:62:0	
1956	1	220	09:19:56.066		DMS:	R7, TRACK 2, REV, TIC * 798.75 +/- 7	2R3	4	0	6,158,140:62:0	
1957	1	220	09:19:57.266		DMS:	RDY, TRACK 2, REV, TIC * 798.69 +/- 7	2R3	4	0	6,158,140:63:8	
1958	1	220	09:20:08.733	117DL11A	CSMOS	***** GROUP END CSMOS	2R3	4	0	6,158,140:81:0	
1959	1	220	09:20:11.400	31JNGRSPOT02-		-----STOP-----	2R3	4	0	:	:
1960	1	220	09:26:28.733	20IP6A	6MCOPI	HLM1A,E415,B1A1A	2R3	4	0	6,158,147:14:0	
1961	1	220	09:37:56.066	165IM4A	7SCAN	Check S/P Position	2R3	4	0	6,158,158:44:0	
1962	1	220	09:41:33.400	118IM	SMOS	GS	2R3	4	0	6,158,162:06:0	
1963	1	220	09:41:58.066	165IM4B	7VECT	Inert vect update UTC	2R3	4	0	6,158,162:43:0	
1964	1	220	09:42:03.400	118IM10A11A4A	7STRP	Slew = 1.31	2R3	4	0	6,158,162:51:0	
1965	1	220	09:42:34.066	118IM10A11A4B	7STRP	Slew = 1.31	2R3	4	0	6,158,163:06:0	
1966	1	220	09:42:52.066		DMS:	P7, TRACK *1, *FWD, TIC 798.69 +/- 7	2R3	4	0	6,158,163:33:0	
1967	1	220	09:42:52.066	175IM422A6A	6DMSC	DMS Control Tape runup 115.2kb	2R3	4	0	6,158,163:33:0	
1968	1	220	09:42:53.466		DMS:	P7, TRACK 1, FWD, TIC * 798.81 +/- 7	2R3	4	0	6,158,163:35:1	
1969	1	220	09:42:58.733		DMS:	P7, TRACK 1, FWD, TIC * 800.04 +/- 7	2R3	4	0	6,158,163:43:0	
1970	1	220	09:42:59.933		DMS:	R115, TRACK *2, *REV, TIC * 800.10 +/- 7	2R3	4	0	6,158,163:44:8	
1971	1	220	09:43:03.400	175IM176A6A	6TMREC	115.2 KBPS IMAGE(1-400)RECORD Record Mode	2R3	4	0	6,158,163:50:0	
1972	1	220	09:43:03.933		DMS:	R115, TRACK 2, REV, TIC * 793.80 +/- 7	2R3	4	0	6,158,163:50:8	
1973	1	220	09:43:03.933		DMS:	R115, TRACK 2, REV, TIC * 793.80 +/- 7	2R3	4	0	6,158,163:50:8	
1974	1	220	09:43:04.733	118IM10A11A4C	7STRP	Slew = 1.31	2R3	4	0	6,158,163:52:0	
1975	1	220	09:43:29.400	175IM422A6B	6DMSC	DMS Control Tape stop	2R3	4	0	6,158,163:89:0	
1976	1	220	09:43:29.400		DMS:	R115, TRACK 2, REV, TIC * 704.27 +/- 7	2R3	4	0	6,158,163:89:0	
1977	1	220	09:43:30.600		DMS:	RDY, TRACK 2, REV, TIC * 703.27 +/- 7	2R3	4	0	6,158,163:90:8	
1978	1	220	09:43:35.400	118IM11A	SMOS	GE	2R3	4	0	6,158,164:07:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1979	1	220	09:47:24.066		DMS:	:*US-RUNUP	P7, TRACK *1, *FWD, TIC 703.27 +/- 7	2R3	4	0	6,158,167:77:0	
1980	1	220	09:47:24.066	175KA422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	6,158,167:77:0	
1981	1	220	09:47:25.466		DMS:	:*US_AT_SP	P7, TRACK 1, FWD, TIC *703.39 +/- 7	2R3	4	0	6,158,167:79:1	
1982	1	220	09:47:30.733		DMS:	:*US_RD	P7, TRACK 1, FWD, TIC *704.62 +/- 7	2R3	4	0	6,158,167:87:0	
1983	1	220	09:47:31.933		DMS:	:*RUNUP	R7, TRACK *2, *REV, TIC *704.68 +/- 7	2R3	4	0	6,158,167:88:8	
1984	1	220	09:47:32.733	175KA176A6A	6TMREC	LPWREC	7.68 KBPS LOW RATE SCIPVRS RECORD Record	2R3	4	0	6,158,167:90:9	
1985	1	220	09:47:33.333		DMS:	:*RECORD	R7, TRACK 2, REV, TIC *704.56 +/- 7	2R3	4	0	6,158,167:90:9	
1986	1	220	09:47:33.333		DMS:	:*AT_SPD	R7, TRACK 2, REV, TIC 704.56 +/- 7	2R3	4	0	6,158,167:90:9	
1987	1	220	09:47:40.066	175KA422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	6,158,168:10:0	
1988	1	220	09:47:40.066		DMS:	:*RUNDOWN	R7, TRACK 2, REV, TIC *702.99 +/- 7	2R3	4	0	6,158,168:10:0	
1989	1	220	09:47:41.266		DMS:	:*READY	RDY, TRACK 2, REV, TIC *702.93 +/- 7	2R3	4	0	6,158,168:11:8	
1990	1	220	09:49:41.400	20KB4B	7SAFE	UNSTOW	S/P TO 153 deg cone	2R3	4	0	6,158,170:10:0	
1991	1	220	09:59:16.066	31NNRELOAD01-		-----START-----		2R3	4	0	:	:
1992	1	220	09:59:21.400	20FN5A	37PL		Program Load (halts microprocessor & unwri	4	0	6,158,179:61:0		
1993	1	220	09:59:24.733	20FN5B	37MRL		Memory Realocate (software operates from R	4	0	6,158,179:66:0		
1994	1	220	09:59:28.066	20FN6A	6MCOPI	NIMS	NIMS,1000,LLM1A,7300,77F7	4	0	6,158,179:71:0		
1995	1	220	09:59:38.066	20FN6B	6MCOPI	NIMS	NIMS,1598,LLM1A,77F8,781D	4	0	6,158,179:86:0		
1996	1	220	09:59:52.066	20FN5C	37IRT		Instrument Reset (goes into POR state)	4	0	6,158,180:16:0		
1997	1	220	09:59:55.400	20FN5D	37MN		Memory Normal (software operates from ROM)	260	4	0	6,158,180:21:0	
1998	1	220	10:00:35.400	20FN4A	37IST	1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)	2R0	4	0	6,158,180:81:0	
1999	1	220	10:01:38.066	127FN	NIMSTAB	GS	%%/%%/%% GROUP START TAB	2R0	4	0	6,158,181:84:0	
2000	1	220	10:01:38.066	127FN4A	37IOP	3,0	Long Map, Grating Start Position =00	2R3	4	0	6,158,181:84:0	
2001	1	220	10:01:38.733	127FN4B	37ETB	04,C4,35,FF,FF	Loads wavelength edit table	2R3	4	0	6,158,181:85:0	
2002	1	220	10:01:46.733	127FN1A	NIMSTAB	GE	%%/%%/%% GROUP END TAB	2R3	4	0	6,158,182:06:0	
2003	1	220	10:02:16.066	31NNRELOAD01-		-----STOP-----		2R3	4	0	:	:
2004	1	220	10:04:40.066	127FO4A	37IOP	0,0	Safe, Grating Start Position =00	2R0	4	0	6,158,184:84:0	
2005	1	220	10:04:40.066	127FO	NIMSTAB	GS	%%/%%/%% GROUP START TAB	2R0	4	0	6,158,184:84:0	
2006	1	220	10:04:40.066	31NNCHOPOF01-		-----START-----		2R0	4	0	:	:
2007	1	220	10:04:40.733	127FO4B	37ETB	04,C4,02,00,00	Loads wavelength edit table	2R0	4	0	6,158,184:85:0	
2008	1	220	10:04:48.733	127FO11A	NIMSTAB	GE	%%/%%/%% GROUP END TAB	2R0	4	0	6,158,185:06:0	
2009	1	220	10:06:41.400	125FN4A	37IST	1,0,0,OFF,0,0,0	Chopper ON, Sync, 63Hz (Ref)	260	4	0	6,158,186:84:0	
2010	1	220	10:06:41.400	125FN	NIMSINIT	GS	##### GROUP START INIT	260	4	0	6,158,186:84:0	
2011	1	220	10:07:42.066	125FN4B	37IST	1,1,0,OFF,0,0,0	Chopper OFF, N/A, 63Hz (Ref)	200	4	0	6,158,187:84:0	
2012	1	220	10:08:42.733	31NNCHOPOF01-		-----STOP-----		200	4	0	:	:
2013	1	220	10:08:42.733	125FN1A	NIMSINIT	GE	##### GROUP END INIT	200	4	0	6,158,188:84:0	
2014	1	220	10:08:42.733	125FN4C	37MB	0,0,0,0,0,0	Selects mirror (spatial) edit table	200	4	0	6,158,188:84:0	
2015	1	220	13:41:50.666	488AQ6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,158,399:65:0	
2016	1	220	16:12:26.666	488AQ6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,158,548:60:0	
2017	1	220	16:19:40.000	488AQ6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	6,158,555:73:0	
2018	1	220	19:27:12.000	488AQ6D	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	6,158,741:25:0	
2019	1	220	19:38:04.000	488AQ6E	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,158,752:02:0	
2020	1	220	19:54:04.000	20UD4A	7SAFE	STOP	S/P NO MOVEMENT	200	4	0	6,158,767:77:0	
2021	1	220	19:54:54.000	20UD4B	7SLEW	DIS,POS,0.0	Stator movement	200	4	0	6,158,768:61:0	
2022	1	220	19:59:16.666	176UA6A	6TMREC	IPB	INITIATE PLAYBACK (PB CONTROL) Record Mod	200	4	0	6,158,773:00:0	
2023	1	220	20:53:04.666	488AR6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	6,158,826:19:0	
2024	1	220	21:30:08.666	488AR6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,158,862:79:0	
2025	1	221	01:25:48.000	488AR6C	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	6,159,095:85:0	
2026	1	221	02:03:06.666	488AR6D	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	6,159,132:76:0	
2027	1	221	02:14:52.000	488AR6E	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	6,159,144:42:0	
2028	1	221	02:51:08.000	488AS6A	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	6,159,180:30:0	
2029	1	221	10:02:16.000	488AT6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	6,159,606:66:0	
2030	1	221	10:31:56.000	488AT6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,159,636:06:0	
2031	1	221	11:23:00.666	488AT6C	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	6,159,686:53:0	
2032	1	221	12:00:04.666	488AT6D	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,159,723:22:0	
2033	1	221	12:03:40.000	488AT6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,159,726:72:0	



Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
2034	1	221	15:37:55.333	488AU6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,159,938:63:0	
2035	1	221	15:45:32.000	488AU6B	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	6,159,946:20:0	
2036	1	221	18:52:18.666	488AU6C	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	6,160,130:86:0	
2037	1	221	19:27:24.000	488AU6D	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,160,165:59:0	
2038	1	221	20:07:58.666	488AU6E	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	6,160,205:71:0	
2039	1	221	20:45:02.600	488AV6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,160,242:40:0	
2040	1	221	20:54:42.600	176UB6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	200	4	0	6,160,252:00:0	
2041	1	221	20:59:59.933		DMS:	: READY	RDY, TRACK 2, REV, TIC 702.93 +/- 7	200	4	0	6,160,257:21:0	
2042	1	221	21:00:00.000	20A3EX	37HR	Final Condition	Replacement Heaters OFF	200	4	0	6,160,257:21:1	
2043	1	221	21:00:00.000	20A3EY	37C1PR	Final Condition	Optics Heater 1 OFF (primary relay)	200	4	0	6,160,257:21:1	
2044	1	221	21:00:00.000	20A3EZ	37C2PR	Final Condition	Optics Heater 2 OFF (primary relay)	200	4	0	6,160,257:21:1	
2045	1	221	21:00:00.000	20A3FA	37F1PR	Final Condition	Radiator Flash Heater OFF (primary relay)	200	4	0	6,160,257:21:1	
2046	1	221	21:00:00.000	20A3FB	37F2PR	Final Condition	Shield Flash Heater OFF (primary relay)	200	4	0	6,160,257:21:1	
2047	1	221	21:00:00.000	20A3FD	40HRPR	Final Condition	RCT Heater OFF (primary relay)	200	4	0	6,160,257:21:1	
2048	1	221	21:00:00.000	20A3FE	40T1PR	Final Condition	PCT Heater 1 OFF (primary relay)	200	4	0	6,160,257:21:1	
2049	1	221	21:00:00.000	20A3FF	40T2R	Final Condition	PCT Heater 2 OFF	200	4	0	6,160,257:21:1	
2050	1	221	21:00:00.000	20A3EW	37A	Final Condition	NIMS Power ON	200	4	0	6,160,257:21:1	

Sequence:		I31B-AR		Created: 11/19/01		Begin: 01-22/21:00:00		Finish: 01-28/02:00:00			
Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MF I
1	1	221	20:59:59.933		DMS: : READY	RDY, TRACK 2, REV, TIC 702.93 +/- 7	200	4	0	6,160,257:21:0	
2	1	221	21:00:00.000	20A3FD	40HRPR	RCT Heater OFF (primary relay)	200	4	0	6,160,257:21:1	
3	1	221	21:00:00.000	20A3FB	37F2PR	Shield Flash Heater OFF (primary relay)	200	4	0	6,160,257:21:1	
4	1	221	21:00:00.000	20A3FA	37F1PR	Radiator Flash Heater OFF (primary relay)	200	4	0	6,160,257:21:1	
5	1	221	21:00:00.000	20A3EZ	37C2PR	Optics Heater 2 OFF (primary relay)	200	4	0	6,160,257:21:1	
6	1	221	21:00:00.000	20A3EY	37C1PR	Optics Heater 1 OFF (primary relay)	200	4	0	6,160,257:21:1	
7	1	221	21:00:00.000	20A3EX	37HR	Replacement Heaters OFF	200	4	0	6,160,257:21:1	
8	1	221	21:00:00.000	20A3FF	40T2R	PCT Heater 2 OFF	200	4	0	6,160,257:21:1	
9	1	221	21:00:00.000	20A3FE	40T1PR	PCT Heater 1 OFF (primary relay)	200	4	0	6,160,257:21:1	
10	1	221	21:00:00.000	20A3EW	37A	NIMS Power ON	200	4	0	6,160,257:21:1	
11	1	221	21:01:15.933	488AA6A	6TMSED	NORM,AL3 Sci, Eng, and D/L Chan	200	4	0	6,160,258:44:0	
12	1	221	21:02:46.600	432JA6B	6RTDS2	NIMDSL, AACDSL, RT NIMS RT DESELECTAACS DESELECT	200	4	0	6,160,259:89:0	
13	1	221	21:04:03.933	20SG4A	7SAFE	STOP S/P NO MOVEMENT	200	4	0	6,160,261:23:0	
14	1	221	21:04:53.933	20SG4B	7SLEW	DIS, POS, 0.0 Stator movement	200	4	0	6,160,262:07:0	
15	1	221	21:06:50.600	176SA6A	6TMREC	RPB RESUME PLAYBACK (PB CONTROL) Record Mode	200	4	0	6,160,264:00:0	
16	1	222	01:30:03.933	488AA6B	6TMSED	NORM,AL2 Sci, Eng, and D/L Chan	200	4	0	6,160,524:30:0	
17	1	222	02:01:09.266	488AA6C	6TMSED	FILL, AL2 Sci, Eng, and D/L Chan	200	4	0	6,160,555:07:0	
18	1	222	02:14:51.933	488AA6D	6TMSED	FILL, AL1 Sci, Eng, and D/L Chan	200	4	0	6,160,568:58:0	
19	1	222	02:51:07.933	488AA6E	6TMSED	FILL, AL2 Sci, Eng, and D/L Chan	200	4	0	6,160,604:46:0	
20	1	222	09:57:22.600	488AB6A	6TMSED	NORM,AL2 Sci, Eng, and D/L Chan	200	4	0	6,161,026:06:0	
21	1	222	10:23:23.933	488AB6B	6TMSED	NORM,AL3 Sci, Eng, and D/L Chan	200	4	0	6,161,051:73:0	
22	1	222	11:22:54.600	488AB6C	6TMSED	FILL, AL3 Sci, Eng, and D/L Chan	200	4	0	6,161,110:60:0	
23	1	222	11:48:43.933	488AB6D	6TMSED	FILL, AL4 Sci, Eng, and D/L Chan	200	4	0	6,161,136:18:0	
24	1	222	11:57:47.933	488AB6E	6TMSED	NORM,AL4 Sci, Eng, and D/L Chan	200	4	0	6,161,145:15:0	
25	1	222	15:27:38.600	488AC6A	6TMSED	FILL, AL4 Sci, Eng, and D/L Chan	200	4	0	6,161,352:64:0	
26	1	222	15:34:51.933	488AC6B	6TMSED	FILL, AL2 Sci, Eng, and D/L Chan	200	4	0	6,161,359:77:0	
27	1	222	18:47:24.600	488AC6C	6TMSED	NORM,AL2 Sci, Eng, and D/L Chan	200	4	0	6,161,550:25:0	
28	1	222	18:52:59.933	488AC6D	6TMSED	NORM, AH2 Sci, Eng, and D/L Chan	200	4	0	6,161,555:73:0	
29	1	222	18:56:13.933	176SP6A	6TMREC	PPB PAUSE PLAYBACK (PB CONTROL) Record Mode C	200	4	0	6,161,559:00:0	
30	1	222	19:18:51.933	488AC6E	6TMSED	NORM, AH3 Sci, Eng, and D/L Chan	200	4	0	6,161,581:35:0	
31	1	222	19:23:59.933	20AA4AA	7STAT	10.00, 132.3468,- Stator inertial point	200	4	0	6,161,586:42:0	
32	1	222	19:24:11.933	20AA6AA	6MROH	7,6744,0,A10 read from AACSA7,6744,0,A10	200	4	0	6,161,586:60:0	
33	1	222	19:29:59.933	474AA416A4B	7MODE	INT AACCS INERTIAL MODE	200	4	0	6,161,592:36:0	
34	1	222	19:31:59.933	474AA416A4D	7SAFE	UNSTOW S/P TO 153 deg cone	200	4	0	6,161,594:34:0	
35	1	222	19:32:19.933	20AA4AD	7STAT	17.45, 132.3468,- Stator inertial point	200	4	0	6,161,594:64:0	
36	1	222	19:36:13.933	474AA416A4E	7BURN	,132.3468,-60.99 ALERT -- Thruster fire	200	4	0	6,161,598:51:0	
37	1	222	19:58:45.266	20AA4AI	7SLEW	DIS, POS, 0.0 Stator movement	200	4	0	6,161,620:76:0	
38	1	222	20:02:51.266	488AD6A	6TMSED	FILL, AH3 Sci, Eng, and D/L Chan	200	4	0	6,161,624:81:0	
39	1	222	20:03:37.266	20AA4AJ	7MODE	CRU AACCS CRUISE MODE	200	4	0	6,161,625:59:0	
40	1	222	20:39:55.266	488AD6B	6TMSED	NORM, AH3 Sci, Eng, and D/L Chan	200	4	0	6,161,661:50:0	
41	1	222	21:11:09.266	20AB4A	7SAFE	STOP S/P NO MOVEMENT	200	4	0	6,161,692:40:0	
42	1	222	21:11:59.266	20AB4B	7SLEW	DIS, POS, 0.0 Stator movement	200	4	0	6,161,693:24:0	
43	1	222	21:12:43.933	176AA6A	6TMREC	RPB RESUME PLAYBACK (PB CONTROL) Record Mode	200	4	0	6,161,694:00:0	
44	1	223	01:30:03.933	488AD6C	6TMSED	NORM, AH2 Sci, Eng, and D/L Chan	200	4	0	6,161,948:46:0	
45	1	223	01:58:38.600	488AD6D	6TMSED	FILL, AH2 Sci, Eng, and D/L Chan	200	4	0	6,161,976:70:0	
46	1	223	02:00:59.933	488AD6E	6TMSED	FILL, AL2 Sci, Eng, and D/L Chan	200	4	0	6,161,979:09:0	
47	1	223	02:04:56.600	176SQ6A	6TMREC	RPB RESUME PLAYBACK (PB CONTROL) Record Mode	200	4	0	6,161,983:00:0	
48	1	223	02:10:35.933	488AE6A	6TMSED	FILL, AL1 Sci, Eng, and D/L Chan	200	4	0	6,161,988:54:0	
49	1	223	02:46:51.933	488AE6B	6TMSED	FILL, AL2 Sci, Eng, and D/L Chan	200	4	0	6,162,024:42:0	
50	1	223	09:47:29.200	488AF6A	6TMSED	NORM,AL2 Sci, Eng, and D/L Chan	200	4	0	6,162,440:42:0	
51	1	223	09:53:31.866	488AF6B	6TMSED	NORM,AL3 Sci, Eng, and D/L Chan	200	4	0	6,162,446:40:0	
52	1	223	10:27:39.866	488AF6C	6TMSED	NORM,AL4 Sci, Eng, and D/L Chan	200	4	0	6,162,480:18:0	
53	1	223	15:28:31.200	488AF6D	6TMSED	FILL, AL4 Sci, Eng, and D/L Chan	200	4	0	6,162,777:68:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
54	1	223	22:27:11.200	488AG6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,163,191:74:0	
55	1	223	23:04:59.866	488AG6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,163,229:19:0	
56	1	223	23:22:59.866	488AG6C	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	200	4	0	6,163,247:01:0	
57	1	223	23:26:01.200	176SE6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	200	4	0	6,163,250:00:0	
58	1	223	23:35:59.866	20RA4C	7STAT	10.00,277.19,-23	Stator inertial point	200	4	0	6,163,259:79:0	
59	1	223	23:36:11.866	20RA6D	6MROH	7,6744,0,A10	read from AACSA7,6744,0,A10	200	4	0	6,163,260:06:0	
60	1	223	23:55:01.866	490UA412A4B	7MODE	INT	AACS INERTIAL MODE	200	4	0	6,163,278:63:0	
61	1	223	23:57:44.533	488AG6D	6TMSED	FILL,AH3	Sci, Eng, and D/L Chan	200	4	0	6,163,281:34:0	
62	1	223	23:59:59.866	490UA412A4D	7SAFE	UNSTOW	S/P TO 153 deg cone	200	4	0	6,163,283:55:0	
63	1	224	00:00:19.866	20RA4D	7STAT	17.45,277.19,-23	Stator inertial point	200	4	0	6,163,283:85:0	
64	1	224	00:04:09.866	490UA412A4E	7VECT		Inert vect update UTC	200	4	0	6,163,287:66:0	
65	1	224	00:04:13.866	490UA412A4F	7TURN	2,RTH	ALERT Thruster	200	4	0	6,163,287:72:0	
66	1	224	00:08:01.866	490UA412A406A4A	7STAR	1,1307,23.966,-5	Star catalog update	200	4	0	6,163,291:50:0	
67	1	224	00:08:03.866	490UA412A406A4B	7STAR	2,333,138.16	Star catalog update	200	4	0	6,163,291:53:0	
68	1	224	00:08:05.866	490UA412A406A4C	7STAR	3,110,186.82	Star catalog update	200	4	0	6,163,291:56:0	
69	1	224	00:08:07.866	490UA412A406A4D	7STAR	4,167,345.57	Star catalog update	200	4	0	6,163,291:59:0	
70	1	224	00:08:09.866	490UA412A406A4E	7STAR	5,0,0,0,0,0,0	Star catalog update	200	4	0	6,163,291:62:0	
71	1	224	00:08:11.866	490UA412A406A4F	7STAR	6,0,0,0,0,0,0	Star catalog update	200	4	0	6,163,291:65:0	
72	1	224	00:18:05.866	20RA4F	7SLEW	DIS,POS,0,0	Stator movement	200	4	0	6,163,301:46:0	
73	1	224	00:26:09.866	490UA412A4G	7MODE	CRU	AACS CRUISE MODE	200	4	0	6,163,309:44:0	
74	1	224	00:34:48.533	488AG6E	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	200	4	0	6,163,318:03:0	
75	1	224	01:30:03.866	488AH6A	6TMSED	NORM,AH2	Sci, Eng, and D/L Chan	200	4	0	6,163,372:62:0	
76	1	224	01:56:41.200	488AH6B	6TMSED	FILL,AH2	Sci, Eng, and D/L Chan	200	4	0	6,163,399:01:0	
77	1	224	01:59:59.866	481UA4A	7VECT		Inert vect update UTC	200	4	0	6,163,402:26:0	
78	1	224	02:00:53.866	20UA4A	7SAFE	STOP	S/P NO MOVEMENT	200	4	0	6,163,402:32:0	
79	1	224	02:00:53.866	20UA4B	7SLEW	DIS,POS,0,0	Stator movement	200	4	0	6,163,403:16:0	
80	1	224	02:00:59.866	488AH6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	6,163,403:25:0	
81	1	224	02:02:44.533	176SK6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	200	4	0	6,163,405:00:0	
82	1	224	02:10:35.866	488AH6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	6,163,412:70:0	
83	1	224	02:46:51.866	488AH6E	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	6,163,448:58:0	
84	1	224	09:47:35.200	488AI6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	6,163,864:67:0	
85	1	224	09:53:31.866	488AI6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,163,870:56:0	
86	1	224	10:23:23.866	488AI6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,163,900:14:0	
87	1	224	15:33:37.200	488AI6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,164,206:88:0	
88	1	224	18:37:17.133	488AJ6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,164,388:56:0	
89	1	224	20:03:39.800	488AJ6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,164,474:04:0	
90	1	224	20:56:11.800	176UW6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	200	4	0	6,164,526:00:0	
91	1	224	21:01:59.800	20UQ4B	7SLEW	DIS,POS,0,0	Stator movement	200	4	0	6,164,531:67:0	
92	1	224	21:02:59.800	20UQ4D	7MODE	SPNL	AACS ALL-SPIN LOW	200	4	0	6,164,532:66:0	
93	1	224	21:04:59.800	20UQ4E	7SAFE	UNSTOW	S/P TO 153 deg cone	200	4	0	6,164,534:64:0	
94	1	224	21:10:29.800	20UQ4G	7VENT	0.611,1,333.8	ALERT -- Thruster fire	200	4	0	6,164,540:13:0	
95	1	224	21:10:30.466	20UQ4H	7VENT	0.611,10.989,8	ALERT -- Thruster fire	200	4	0	6,164,540:14:0	
96	1	224	21:10:50.466	20UQ4I	7VENT	0.611,1,333.6	ALERT -- Thruster fire	200	4	0	6,164,540:44:0	
97	1	224	21:10:51.133	20UQ4J	7VENT	0.611,10.989,6	ALERT -- Thruster fire	200	4	0	6,164,540:45:0	
98	1	224	21:11:11.133	20UQ4K	7VENT	0.611,1,333.4	ALERT -- Thruster fire	200	4	0	6,164,540:75:0	
99	1	224	21:11:11.800	20UQ4L	7VENT	0.611,0.666,5	ALERT -- Thruster fire	200	4	0	6,164,540:76:0	
100	1	224	21:11:21.800	20UQ4M	7VENT	0.611,1,333.4	ALERT -- Thruster fire	200	4	0	6,164,541:00:0	
101	1	224	21:11:22.466	20UQ4N	7VENT	0.611,0.666,5	ALERT -- Thruster fire	200	4	0	6,164,541:01:0	
102	1	224	21:11:32.466	20UQ4O	7VENT	1.211,1,333,10	ALERT -- Thruster fire	200	4	0	6,164,541:16:0	
103	1	224	21:11:33.133	20UQ4P	7VENT	1.211,0.666,12	ALERT -- Thruster fire	200	4	0	6,164,541:17:0	
104	1	224	21:13:19.800	20UQ4S	7VENT	0.611,1,333,7	ALERT -- Thruster fire	200	4	0	6,164,542:86:0	
105	1	224	21:13:20.466	20UQ4T	7VENT	0.611,10.989,7	ALERT -- Thruster fire	200	4	0	6,164,542:87:0	
106	1	224	21:13:40.466	20UQ4U	7VENT	0.611,1,333,1	ALERT -- Thruster fire	200	4	0	6,164,543:26:0	
107	1	224	21:13:41.133	20UQ4V	7VENT	0.611,10.989,1	ALERT -- Thruster fire	200	4	0	6,164,543:27:0	
108	1	224	21:14:01.133	20UQ4AC	7VENT	0.611,1,333,2	ALERT -- Thruster fire	200	4	0	6,164,543:57:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
109	1	224	21:14:01.800	20UQ4AD	7VENT	0.611,0.666,3	ALERT -- Thruster fire	200	4	0	6,164,543:58:0	
110	1	224	21:14:11.800	20UQ4AE	7VENT	0.611,1.333,2	ALERT -- Thruster fire	200	4	0	6,164,543:73:0	
111	1	224	21:14:12.466	20UQ4AF	7VENT	0.611,0.666,3	ALERT -- Thruster fire	200	4	0	6,164,543:74:0	
112	1	224	21:14:22.466	20UQ4W	7VENT	1.211,1.333,9	ALERT -- Thruster fire	200	4	0	6,164,543:89:0	
113	1	224	21:14:23.133	20UQ4X	7VENT	1.211,0.666,11	ALERT -- Thruster fire	200	4	0	6,164,543:90:0	
114	1	224	21:15:19.800	20UQ4Z	7MODE	CRU	AACS CRUISE MODE	200	4	0	6,164,544:84:0	
115	1	224	21:40:03.800	20UW4A	7SAFE	STOP	S/P NO MOVEMENT	200	4	0	6,164,569:35:0	
116	1	224	21:40:53.800	20UW4B	7SLEW	DIS_POS,0.0	Stator movement	200	4	0	6,164,570:19:0	
117	1	224	21:42:42.466	176UX6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	200	4	0	6,164,572:00:0	
118	1	225	00:34:35.800	488AJ6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,164,742:00:0	
119	1	225	01:03:29.800	488AK6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,164,770:53:0	
120	1	225	01:10:51.800	488AK6B	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	6,164,777:79:0	
121	1	225	09:53:41.800	488AL6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,165,294:87:0	
122	1	225	10:02:03.800	488AL6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,165,303:21:0	
123	1	225	11:48:43.800	488AL6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,165,408:66:0	
124	1	225	13:46:01.800	488AL6D	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	200	4	0	6,165,524:67:0	
125	1	225	13:50:19.800	488AL6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,165,528:90:0	
126	1	226	20:02:29.733	488AM6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,167,321:22:0	
127	1	226	21:31:07.733	488AM6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,167,408:82:0	
128	1	226	21:32:26.400	488AM6C	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	6,167,410:18:0	
129	1	226	21:58:51.733	488AM6D	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	200	4	0	6,167,436:30:0	
130	1	226	22:04:41.733	488AM6E	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,167,442:09:0	
131	1	226	23:32:17.733	488AN6A	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	200	4	0	6,167,528:67:0	
132	1	227	00:01:23.733	488AN6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,167,557:47:0	
133	1	227	00:40:59.733	488AN6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,167,596:62:0	
134	1	227	01:55:24.400	488AN6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,167,670:25:0	
135	1	227	01:59:55.733	488AN6E	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	6,167,674:68:0	
136	1	227	02:14:51.733	488AO6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,167,689:47:0	
137	1	227	19:33:47.666	488AP6A	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	200	4	0	6,168,717:03:0	
138	1	227	21:24:33.666	488AP6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,168,826:53:0	
139	1	228	00:45:15.666	488AP6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,169,025:07:0	
140	1	228	01:50:49.666	488AQ6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,169,089:84:0	
141	1	228	01:55:39.666	488AQ6B	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	6,169,094:64:0	
142	1	228	02:10:35.666	488AQ6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,169,109:43:0	
143	1	228	18:22:41.666	488AR6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,170,070:81:0	
144	1	228	19:27:23.666	488AR6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,170,134:80:0	
145	1	229	00:45:15.600	488AS6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,170,449:23:0	
146	1	229	01:45:32.933	488AS6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,170,508:80:0	
147	1	229	01:51:23.600	488AS6C	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	6,170,514:60:0	
148	1	229	02:27:39.600	488AS6D	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	6,170,550:48:0	
149	1	229	09:23:05.600	488AT6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	6,170,961:36:0	
150	1	229	09:27:55.600	488AT6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,170,966:16:0	
151	1	229	09:38:35.600	488AT6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,170,976:66:0	
152	1	229	11:12:27.600	488AT6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,171,069:51:0	
153	1	229	15:15:26.266	488AT6E	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	200	4	0	6,171,309:79:0	
154	1	229	15:19:55.600	488AU6A	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	6,171,314:28:0	
155	1	229	18:23:07.600	488AU6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	6,171,495:45:0	
156	1	229	18:27:39.600	488AU6C	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,171,499:89:0	
157	1	229	19:08:11.600	488AU6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,171,540:06:0	
158	1	229	19:44:12.933	488AU6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,171,575:63:0	
159	1	229	20:17:52.266	488AV6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,171,608:89:0	
160	1	230	00:55:55.600	488AV6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,171,883:89:0	
161	1	230	01:37:58.266	488AV6C	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	6,171,925:51:0	
162	1	230	01:44:59.600	488AV6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	6,171,932:46:0	
163	1	230	02:21:15.600	488AW6A	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	6,171,968:34:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
164	1	230	09:23:12.200	488AX6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	6,172,385:62:0	
165	1	230	09:27:55.533	488AX6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,172,390:32:0	
166	1	230	09:38:35.533	488AX6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,172,400:82:0	
167	1	230	11:08:11.533	488AX6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,172,489:47:0	
168	1	230	15:16:14.866	488AX6E	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	200	4	0	6,172,734:77:0	
169	1	230	15:19:55.533	488AY6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,172,738:44:0	
170	1	230	18:17:53.533	488AY6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,172,914:45:0	
171	1	230	19:18:51.533	488AY6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,172,974:72:0	
172	1	231	00:40:59.533	488AZ6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,173,293:35:0	
173	1	231	01:29:06.866	488AZ6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,173,340:89:0	
174	1	231	01:36:27.533	488AZ6C	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	6,173,348:22:0	
175	1	231	09:24:17.533	488BA6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,173,810:85:0	
176	1	231	09:34:19.533	488BA6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,173,820:78:0	
177	1	231	11:03:55.533	488BA6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,173,909:43:0	
178	1	231	18:06:19.533	488BB6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,174,327:21:0	
179	1	231	19:14:35.466	488BB6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,174,394:68:0	
180	1	232	00:10:50.133	488BC6A	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	200	4	0	6,174,687:67:0	
181	1	232	00:15:23.466	488BC6B	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	6,174,692:22:0	
182	1	232	09:18:24.133	488BD6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	6,175,229:26:0	
183	1	232	09:23:39.466	488BD6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,175,234:44:0	
184	1	232	09:53:31.466	488BD6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,175,264:02:0	
185	1	232	10:48:57.466	488BD6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,175,318:77:0	
186	1	232	11:22:36.133	488BD6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,175,352:11:0	
187	1	232	13:44:26.133	488BE6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,175,492:36:0	
188	1	233	18:08:12.733	488BF6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,177,177:41:0	
189	1	233	19:03:55.400	488BF6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,177,232:50:0	
190	1	234	00:36:43.400	488BG6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,177,561:63:0	
191	1	234	01:34:02.066	488BG6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,177,618:34:0	
192	1	234	01:36:27.400	488BG6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	6,177,620:70:0	
193	1	234	01:51:23.400	488BG6D	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	6,177,635:49:0	
194	1	234	09:19:36.733	488BH6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,178,078:76:0	
195	1	234	09:30:03.400	488BH6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,178,089:15:0	
196	1	234	10:48:59.400	488BH6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,178,167:21:0	
197	1	234	14:16:16.733	488BH6D	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	200	4	0	6,178,372:22:0	
198	1	234	14:20:11.400	488BH6E	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	6,178,376:10:0	
199	1	234	18:04:38.666	488BI6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,178,598:09:0	
200	1	234	18:44:43.333	488BI6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,178,637:67:0	
201	1	234	19:23:43.333	488BI6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,178,676:28:0	
202	1	234	19:57:22.666	488BI6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,178,709:54:0	
203	1	235	00:51:39.333	488BJ6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,179,000:58:0	
204	1	235	01:26:00.000	488BJ6B	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	6,179,034:55:0	
205	1	235	01:32:11.333	488BJ6C	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	6,179,040:66:0	
206	1	235	02:08:27.333	488BJ6D	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	6,179,076:54:0	
207	1	235	09:14:42.666	488BK6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,179,498:15:0	
208	1	235	09:23:39.333	488BK6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,179,507:01:0	
209	1	235	10:44:43.333	488BK6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,179,587:17:0	
210	1	235	13:47:30.666	488BK6D	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	200	4	0	6,179,767:88:0	
211	1	235	21:56:38.666	488BL6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,180,251:66:0	
212	1	235	22:53:00.000	488BL6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,180,307:42:0	
213	1	235	22:56:34.666	176UE6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	200	4	0	6,180,311:00:0	
214	1	235	23:23:30.000	20SP4I	7MODE	INT	PAUSE INERTIAL MODE	200	4	0	6,180,337:57:0	
215	1	235	23:36:30.000	20SP4K	7SLEW	INIT,POS,17.45	Stator movement	200	4	0	6,180,352:42:0	
216	1	235	23:50:30.000	20SP4L	7SLEW	DIS,POS,0.0	Stator movement	200	4	0	6,180,364:30:0	
217	1	235	23:57:30.000	20SP4M	7SLEW	INIT,NEG,17.45	Stator movement	200	4	0	6,180,371:23:0	
218	1	236	00:09:30.000	20SP4N	7SLEW	DIS,POS,0.0	Stator movement	200	4	0	6,180,383:11:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
219	1	236	00:16:30.000	20SP40	7SLEW	INIT,POS,4.36	Stator movement	200	4	0	6,180,390:04:0	
220	1	236	00:28:30.000	20SP4P	7SLEW	DIS,POS,0.0	Stator movement	200	4	0	6,180,401:83:0	
221	1	236	00:30:19.333	488BL6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,180,403:65:0	
222	1	236	00:35:30.000	20SP4Q	7SLEW	INIT,NEG,4.36	Stator movement	200	4	0	6,180,408:76:0	
223	1	236	00:47:30.000	20SP4R	7SLEW	DIS,POS,0.0	Stator movement	200	4	0	6,180,420:64:0	
224	1	236	00:59:30.000	20SP4AH	7MODE	CRU	AACS CRUISE MODE	200	4	0	6,180,432:52:0	
225	1	236	01:14:59.933	488BL6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,180,447:82:0	
226	1	236	01:15:03.933	20UP4A	7SAFE	STOP	S/P NO MOVEMENT	200	4	0	6,180,447:88:0	
227	1	236	01:15:53.933	20UP4B	7SLEW	DIS,POS,0.0	Stator movement	200	4	0	6,180,448:72:0	
228	1	236	01:17:07.266	176UF6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	200	4	0	6,180,450:00:0	
229	1	236	01:27:19.266	488BL6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,180,460:08:0	
230	1	236	01:32:11.266	488BM6A	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	6,180,464:82:0	
231	1	236	02:08:27.266	488BM6B	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	6,180,500:70:0	
232	1	236	09:14:48.600	488BN6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,180,922:40:0	
233	1	236	09:23:39.266	488BN6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,180,931:17:0	
234	1	236	10:38:19.266	488BN6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,181,005:03:0	
235	1	236	13:47:29.266	488BN6D	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	200	4	0	6,181,192:11:0	
236	1	236	13:52:27.266	488BN6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,181,197:03:0	
237	1	236	17:58:31.266	488BO6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,181,440:36:0	
238	1	236	18:48:59.266	488BO6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,181,490:28:0	
239	1	237	00:32:27.266	488BP6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,181,830:00:0	
240	1	237	01:21:13.266	488BP6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,181,878:21:0	
241	1	237	01:25:47.266	488BP6C	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	6,181,882:68:0	
242	1	237	02:02:03.266	488BP6D	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	6,181,918:56:0	
243	1	237	09:09:55.266	488BQ6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,182,341:71:0	
244	1	237	09:34:19.266	488BQ6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,182,365:83:0	
245	1	237	10:36:25.933	488BQ6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,182,429:29:0	
246	1	237	11:12:05.200	488BQ6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,182,462:55:0	
247	1	237	17:04:58.533	488BR6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,182,811:56:0	
248	1	237	17:53:37.200	488BR6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,182,859:66:0	
249	1	237	18:39:13.866	488BR6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,182,904:76:0	
250	1	237	18:44:43.200	488BR6D	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	200	4	0	6,182,910:24:0	
251	1	237	19:10:16.533	488BR6E	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,182,935:49:0	
252	1	238	00:26:03.200	488BS6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,183,247:77:0	
253	1	238	01:20:14.533	488BS6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,183,301:40:0	
254	1	238	01:25:47.200	488BS6C	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	6,183,306:84:0	
255	1	238	02:02:03.200	488BS6D	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	6,183,342:72:0	
256	1	238	09:05:01.866	488BT6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,183,761:11:0	
257	1	238	09:15:07.200	488BT6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,183,771:09:0	
258	1	238	10:29:47.200	488BT6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	6,183,844:86:0	
259	1	238	17:02:09.200	488BU6A	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	200	4	0	6,184,233:00:0	
260	1	238	17:06:35.200	488BU6B	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	6,184,237:35:0	
261	1	238	17:55:03.866	488BU6C	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,184,285:30:0	
262	1	238	18:29:47.200	488BU6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,184,319:61:0	
263	1	238	19:13:17.200	488BU6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	6,184,362:63:0	
264	1	238	19:46:56.533	488BV6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,184,395:89:0	
265	1	238	22:00:29.700	31NNCTRLT01-	-----START-----			200	4	0	:	
266	1	238	22:11:33.133	176XU6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	200	4	0	6,184,539:00:0	
267	1	238	22:14:39.133	20XE4A	7SAFE	UNSTOP	S/P TO 153 deg cone	200	4	0	6,184,542:06:0	
268	1	238	22:18:45.800	20DE4A	7SAFE	STOP	S/P NO MOVEMENT	200	4	0	6,184,546:12:0	
269	1	238	22:19:35.800	20DE4B	7SLEW	DIS,POS,0.0	Stator movement	200	4	0	6,184,546:87:0	
270	1	238	22:21:39.800	176XV6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	200	4	0	6,184,549:00:0	
271	1	238	22:22:40.466	185XE10A3A	40HRP		1 RCT Heater ON (primary relay)	200	4	0	6,184,550:00:0	
272	1	238	22:22:45.800	185XE10B3A	40HRP		2 RCT Heater ON (primary relay)	200	4	0	6,184,550:08:0	
273	1	239	00:40:59.133	488BV6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,184,686:72:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I	
274	1	239	01:14:21.133	488BV6C	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	6,184,719:72:0		
275	1	239	01:21:31.133	488BV6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	6,184,726:80:0		
276	1	239	01:57:47.133	488BW6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	6,184,762:68:0		
277	1	239	09:05:07.800	488BX6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	6,185,185:36:0		
278	1	239	09:30:03.133	488BX6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	6,185,210:04:0		
279	1	239	10:14:15.133	20DC5A	37PL		Program Load (halts microprocessor & unwri	4	0	0	6,185,253:69:0		
280	1	239	10:14:22.466	20DC5B	37MRL		Memory Realocate (software operates from R	4	0	0	6,185,253:80:0		
281	1	239	10:14:30.466	20DC6A	6MCOPY	NIMS	NIMS,1000,LLM1A,7300,77F7	4	0	0	6,185,254:01:0		
282	1	239	10:14:40.466	20DC6B	6MCOPY	NIMS	NIMS,1598,LLM1A,77F8,781D	4	0	0	6,185,254:16:0		
283	1	239	10:14:50.466	20DC5C	37IRT		Instrument Reset (goes into POR state)	4	0	0	6,185,254:31:0		
284	1	239	10:14:51.800	20DC5D	37MN		Memory Normal (software operates from ROM)	260	4	0	6,185,254:33:0		
285	1	239	10:17:27.133	125XE	NIMSNIT	GS	##### GROUP START INIT	260	4	0	6,185,256:84:0		
286	1	239	10:17:27.133	125XE4A	37IST	1,0,0,OFF,0,0,0	Chopper ON, Sync, 63Hz (Ref)	260	4	0	6,185,256:84:0		
287	1	239	10:18:27.800	125XE4B	37IST	1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)	2R0	4	0	6,185,257:84:0		
288	1	239	10:19:28.466	125XE4C	37IST	0,2,0,OFF,0,1,3	Gain State 1	1R0	4	0	6,185,258:84:0		
289	1	239	10:20:29.133	125XE11A	NIMSNIT	GE	##### GROUP END INIT	1R0	4	0	6,185,259:84:0		
290	1	239	10:20:29.133	125XE4D	37MB	1B,1B,0,0,0,0	Selects mirror (spatial) edit table	1R0	4	0	6,185,259:84:0		
291	1	239	10:22:30.466	127XE	NIMSTAB	GS	##### GROUP START TAB	1R0	4	0	6,185,261:84:0		
292	1	239	10:22:30.466	127XE4A	37IOP	3,0	Long Map, Grating Start Position =00	1R3	4	0	6,185,261:84:0		
293	1	239	10:22:31.133	127XE4B	37ETB	0A,CA,18,03,FF,1	Loads wavelength edit table	1R3	4	0	6,185,261:85:0		
294	1	239	10:22:39.133	127XE11A	NIMSTAB	GE	##### GROUP END TAB	1R3	4	0	6,185,262:06:0		
295	1	239	10:26:37.800	176XE6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	1R3	4	0	6,185,266:00:0		
296	1	239	10:28:15.800	185XE10C3A	40HRPR		1 RCT Heater OFF (primary relay)	1R3	4	0	6,185,267:56:0		
297	1	239	10:28:21.133	185XE10D3A	40HRPR		2 RCT Heater OFF (primary relay)	1R3	4	0	6,185,267:64:0		
298	1	239	10:28:39.800	20SX4A	7SCAN	NORM,89,74,23,22	Check S/P Position	1R3	4	0	6,185,268:01:0		
299	1	239	10:32:41.800	192XE4A	7CONE	17,0,0,0	Check S/P Position	1R3	4	0	6,185,272:00:0		
300	1	239	10:33:01.800	432XE6A	6RTSL2	NIMSEL,AACNCG,RT	NIMS RT SELECT	1R3	4	0	6,185,272:30:0		
301	1	239	10:33:13.133	488BX6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	1R3	4	0	6,185,272:47:0		
302	1	239	10:41:05.800	432XF6A	6RTDS2	NIMDSL,AACNCG,RT	NIMS R/T DESELECT	1R3	4	0	6,185,280:28:0		
303	1	239	10:44:49.800	192XE4B	7CONE	17,0,119,7	Check S/P Position	1R3	4	0	6,185,284:00:0		
304	1	239	10:47:11.133	432XU6A	6RTSL2	NIMSEL,AACNCG,RT	NIMS R/T SELECT	1R3	4	0	6,185,286:30:0		
305	1	239	10:49:11.133	432XV6A	6RTDS2	NIMDSL,AACNCG,RT	NIMS R/T DESELECT	1R3	4	0	6,185,288:28:0		
306	1	239	10:50:53.800	192XE4C	7CONE	17,0,153,0	Check S/P Position	1R3	4	0	6,185,290:00:0		
307	1	239	10:57:53.800	127XF	NIMSTAB	GS	##### GROUP START TAB	1R3	4	0	6,185,296:84:0		
308	1	239	10:57:53.800	127XF4A	37IOP	0,0	Safe, Grating Start Position =00	1R0	4	0	6,185,296:84:0		
309	1	239	10:57:54.466	127XF4B	37ETB	04,C4,02,00,00	Loads wavelength edit table	1R0	4	0	6,185,296:85:0		
310	1	239	10:58:02.466	127XF11A	NIMSTAB	GE	##### GROUP END TAB	1R0	4	0	6,185,297:06:0		
311	1	239	11:00:55.800	125XF4A	37MB	0,0,0,0,0,0	Selects mirror (spatial) edit table	1R0	4	0	6,185,299:84:0		
312	1	239	11:00:55.800	125XF	NIMSNIT	GS	##### GROUP START INIT	1R0	4	0	6,185,299:84:0		
313	1	239	11:01:56.466	125XF4B	37IST	1,0,0,OFF,0,0,0	Chopper ON, Sync, 63Hz (Ref)	160	4	0	6,185,300:84:0		
314	1	239	11:02:57.133	125XF11A	NIMSNIT	GE	##### GROUP END INIT	160	4	0	6,185,301:84:0		
315	1	239	11:02:57.133	125XF4C	37IST	1,1,0,OFF,0,0,0	Chopper OFF, N/A, 63Hz (Ref)	100	4	0	6,185,301:84:0		
316	1	239	11:02:57.200	31NNRCTRLT01-		-----STOP-----		100	4	0	0		
317	1	239	11:06:52.466	488BX6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,185,305:73:0		
318	1	239	11:19:20.466	20DB4A	7SAFE	STOP	S/P NO MOVEMENT	100	4	0	6,185,318:12:0		
319	1	239	11:20:10.466	20DB4B	7SLEW	DIS,POS,0,0	S/P movement	100	4	0	6,185,318:87:0		
320	1	239	11:22:14.466	176XF6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	100	4	0	6,185,321:00:0		
321	1	239	13:45:10.466	488BX6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,185,462:33:0		
322	1	240	18:13:56.400	488BY6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,187,152:32:0		
323	1	240	18:40:27.066	488BY6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,187,178:52:0		
324	1	241	00:17:31.066	488BZ6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,187,511:85:0		
325	1	241	01:12:17.733	488BZ6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,187,566:10:0		
326	1	241	01:17:15.066	488BZ6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	100	4	0	6,187,571:01:0		
327	1	241	01:32:11.066	488BZ6D	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,187,585:71:0		
328	1	242	01:56:29.666	176TA6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	100	4	0	6,189,034:00:0		

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
329	1	242	02:02:33.666		DMS:	:*E4-DELAY	RDY, TRACK 1, FWD, TIC 702.93 +/- 7	100	4	0	6,189,040:00:0	
330	1	242	02:02:33.666		DMS:	:*SLEW-TIC	P7, TRACK *1, *FWD, TIC 702.93 +/- 7	100	4	0	6,189,040:00:0	
331	1	242	02:02:33.666	465WK6A	6DMST		5000 DMS Slew to TIC	100	4	0	6,189,040:00:0	
332	1	242	02:02:40.333		DMS:	:*RUNUP	P7, TRACK 1, FWD, TIC 702.93 +/- 7	100	4	0	6,189,040:10:0	
333	1	242	02:02:41.733		DMS:	:*AT SPD	P7, TRACK 1, FWD, TIC *703.05 +/- 7	100	4	0	6,189,040:12:1	
334	1	242	07:08:05.800		DMS:	:*RUNDOWN	P7, TRACK 1, FWD, TIC *4997.94 +/- 7	100	4	0	6,189,342:16:2	
335	1	242	07:08:07.000		DMS:	:*READY	RDY, TRACK 1, FWD, TIC *4998.00 +/- 7	100	4	0	6,189,342:18:0	
336	1	242	07:56:15.000		DMS:	:*US-RUNUP	P7, TRACK 1, FWD, TIC 4998.00 +/- 7	100	4	0	6,189,389:73:0	
337	1	242	07:56:15.000	465WL6A	6DMSC	P100.4	DMS Control Tape P/B 100.8kbps	100	4	0	6,189,389:73:0	
338	1	242	07:56:16.400		DMS:	:*US_AT SP	P7, TRACK 1, FWD, TIC *4999.12 +/- 7	100	4	0	6,189,389:75:1	
339	1	242	07:56:21.666		DMS:	:*US_RD	P7, TRACK 1, FWD, TIC *4999.35 +/- 7	100	4	0	6,189,389:83:0	
340	1	242	07:56:22.866		DMS:	:*RUNUP	P100, TRACK *4, *REV, TIC *4999.41 +/- 7	100	4	0	6,189,389:84:8	
341	1	242	07:56:26.733		DMS:	:*P_SLEW	P100, TRACK 4, REV, TIC *4993.91 +/- 7	100	4	0	6,189,389:90:6	
342	1	242	07:56:26.733		DMS:	:*AT SPD	P100, TRACK 4, REV, TIC 4993.91 +/- 7	100	4	0	6,189,389:90:6	
343	1	242	08:22:07.000		DMS:	:*RUNDOWN	P100, TRACK 4, REV, TIC *255.79 +/- 7	100	4	0	6,189,415:35:0	
344	1	242	08:22:07.000	465WL6B	6DMSC	RDY.4	DMS Control Tape stop	100	4	0	6,189,415:35:0	
345	1	242	08:22:08.200		DMS:	:*READY	RDY, TRACK 4, REV, TIC *254.99 +/- 7	100	4	0	6,189,415:36:8	
346	1	242	08:55:27.666	488CA6A	6TMSED	NORM,AL3	Sci, Eng. and D/L Chan	100	4	0	6,189,448:33:0	
347	1	242	09:04:27.000	488CA6B	6TMSED	NORM,AL4	Sci, Eng. and D/L Chan	100	4	0	6,189,457:23:0	
348	1	242	10:20:55.666	465WM6A	6DTRN	CMD:6DTRN,465WM6	DMS TRACK TURNAROUND	100	4	0	6,189,532:81:0	
349	1	242	10:20:55.666		DMS:	:*DMS-TURN	P7, TRACK 4, REV, TIC 254.99 +/- 7	100	4	0	6,189,532:81:0	
350	1	242	10:20:55.666		DMS:	:*US-RUNUP	P7, TRACK *1, *FWD, TIC 254.99 +/- 7	100	4	0	6,189,532:81:0	
351	1	242	10:20:57.066		DMS:	:*US_AT SP	P7, TRACK 1, FWD, TIC *255.11 +/- 7	100	4	0	6,189,532:83:1	
352	1	242	10:21:02.333		DMS:	:*US_RD	P7, TRACK 1, FWD, TIC *256.34 +/- 7	100	4	0	6,189,533:00:0	
353	1	242	10:21:03.533		DMS:	:*RUNUP	P7, TRACK *4, *REV, TIC *256.40 +/- 7	100	4	0	6,189,533:01:8	
354	1	242	10:21:04.933		DMS:	:*AT SPD	P7, TRACK 4, REV, TIC *256.28 +/- 7	100	4	0	6,189,533:03:9	
355	1	242	10:25:05.600		DMS:	:*REVERSE	P7, TRACK 4, REV, TIC *199.87 +/- 7	100	4	0	6,189,537:00:9	
356	1	242	10:25:06.800		DMS:	:*TURNARND	P7, TRACK *1, *FWD, TIC *199.81 +/- 7	100	4	0	6,189,537:02:7	
357	1	242	10:25:06.800		DMS:	:*RUNUP	P7, TRACK 1, FWD, TIC 199.81 +/- 7	100	4	0	6,189,537:02:7	
358	1	242	10:25:08.200		DMS:	:*AT SPD	P7, TRACK 1, FWD, TIC *199.93 +/-	100	4	0	6,189,537:04:8	
359	1	242	10:25:09.666	488CA6C	6TMSED	NORM,AH4	Sci, Eng. and D/L Chan	100	4	0	6,189,537:07:0	
360	1	242	10:25:20.200		DMS:	:*AUTOSTOP	P7, TRACK 1, FWD, TIC *202.06 +/-	100	4	0	6,189,537:22:8	
361	1	242	10:25:21.400		DMS:	:*READY	RDY, TRACK 1, FWD, TIC *202.12 +/-	100	4	0	6,189,537:24:6	
362	1	242	10:25:31.000	488CA6D	6TMSED	NORM,AH5	Sci, Eng. and D/L Chan	100	4	0	6,189,537:39:0	
363	1	242	10:31:59.000	465WN6A	6DMSC	P100.1	DMS Control Tape P/B 100.8kbps	100	4	0	6,189,543:75:0	
364	1	242	10:31:59.000		DMS:	:*E4-DELAY	RDY, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,189,543:75:0	
365	1	242	10:32:05.666		DMS:	:*RUNUP	P100, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,189,543:85:0	
366	1	242	10:32:09.533		DMS:	:*AT SPD	P100, TRACK 1, FWD, TIC 207.62 +/-	100	4	0	6,189,543:90:8	
367	1	242	10:32:09.533		DMS:	:*P_SLEW	P100, TRACK 1, FWD, TIC *207.62 +/-	100	4	0	6,189,543:90:8	
368	1	242	11:03:53.000	465WN6B	6DMSC	RDY.1	DMS Control Tape stop	100	4	0	6,189,575:34:0	
369	1	242	11:03:53.000		DMS:	:*RUNDOWN	P100, TRACK 1, FWD, TIC *6063.01 +/-	100	4	0	6,189,575:34:0	
370	1	242	11:03:54.200		DMS:	:*READY	RDY, TRACK 1, FWD, TIC *6063.81 +/-	100	4	0	6,189,575:35:8	
371	1	242	11:19:29.000	465WO6A	6DMSC	P100.2	DMS Control Tape P/B 100.8kbps	100	4	0	6,189,590:73:0	
372	1	242	11:19:29.000		DMS:	:*US-RUNUP	P7, TRACK 1, FWD, TIC 6063.81 +/-	100	4	0	6,189,590:73:0	
373	1	242	11:19:30.400		DMS:	:*US_AT SP	P7, TRACK 1, FWD, TIC *6063.93 +/-	100	4	0	6,189,590:75:1	
374	1	242	11:19:35.666		DMS:	:*US_RD	P7, TRACK 1, FWD, TIC *6065.17 +/-	100	4	0	6,189,590:83:0	
375	1	242	11:19:36.866		DMS:	:*RUNUP	P100, TRACK *2, *REV, TIC *6065.23 +/-	100	4	0	6,189,590:84:8	
376	1	242	11:19:40.733		DMS:	:*AT SPD	P100, TRACK 2, REV, TIC 6059.73 +/-	100	4	0	6,189,590:90:6	
377	1	242	11:19:40.733		DMS:	:*P_SLEW	P100, TRACK 2, REV, TIC *6059.73 +/-	100	4	0	6,189,590:90:6	
378	1	242	11:51:37.000	465WP6A	6DMSC	P100.3	DMS Control Tape P/B 100.8kbps	100	4	0	6,189,622:53:0	
379	1	242	11:51:37.000		DMS:	:*RUNDOWN	P100, TRACK 2, REV, TIC *164.96 +/-	100	4	0	6,189,622:53:0	
380	1	242	11:51:38.200		DMS:	:*RUNUP	P100, TRACK *3, *FWD, TIC *164.16 +/-	100	4	0	6,189,622:54:8	
381	1	242	11:51:42.066		DMS:	:*AT SPD	P100, TRACK 3, FWD, TIC 169.66 +/-	100	4	0	6,189,622:60:6	
382	1	242	11:51:42.066		DMS:	:*P_SLEW	P100, TRACK 3, FWD, TIC *169.66 +/-	100	4	0	6,189,622:60:6	
383	1	242	12:23:37.666	465WP6B	6DMSC	RDY.3	DMS Control Tape stop	100	4	0	6,189,654:22:0	



Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
384	1	242	12:23:37.666		DMS:	: *RUNDOWN	P100, TRACK 3, FWD, TIC *6062.38 +/-	100	4	0	6,189,654:22:0	
385	1	242	12:23:38.866		DMS:	: *READY	RDY, TRACK 3, FWD, TIC *6063.18 +/-	100	4	0	6,189,654:23:8	
386	1	242	12:38:21.000	465WQ6A	6DMSC	P100.4	DMS Control Tape P/B 100.8kbps	100	4	0	6,189,668:73:0	
387	1	242	12:38:21.000		DMS:	: *US-RUNUP	P7, TRACK *1, FWD, TIC 6063.18 +/-	100	4	0	6,189,668:73:0	
388	1	242	12:38:22.400		DMS:	: *US_AT SP	P7, TRACK 1, FWD, TIC *6063.30 +/-	100	4	0	6,189,668:75:1	
389	1	242	12:38:27.666		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *6064.53 +/-	100	4	0	6,189,668:83:0	
390	1	242	12:38:28.866		DMS:	: *RUNUP	P100, TRACK *4, *REV, TIC *6064.59 +/-	100	4	0	6,189,668:84:8	
391	1	242	12:38:32.733		DMS:	: *P_SLEW	P100, TRACK 4, REV, TIC *6059.09 +/-	100	4	0	6,189,668:90:6	
392	1	242	12:38:32.733		DMS:	: *AT SPD	P100, TRACK 4, REV, TIC 6059.09 +/-	100	4	0	6,189,668:90:6	
393	1	242	13:10:28.333	465WR6A	6DMSC	P100.3	DMS Control Tape P/B 100.8kbps	100	4	0	6,189,700:52:0	
394	1	242	13:10:28.333		DMS:	: *RUNDOWN	P100, TRACK 4, REV, TIC *166.38 +/-	100	4	0	6,189,700:52:0	
395	1	242	13:10:29.533		DMS:	: *RUNUP	P100, TRACK *3, *FWD, TIC *165.58 +/-	100	4	0	6,189,700:53:8	
396	1	242	13:10:33.400		DMS:	: *P_SLEW	P100, TRACK 3, FWD, TIC *171.08 +/-	100	4	0	6,189,700:59:6	
397	1	242	13:10:33.400		DMS:	: *AT SPD	P100, TRACK 3, FWD, TIC 171.08 +/-	100	4	0	6,189,700:59:6	
398	1	242	13:11:34.333		DMS:	: *RUNDOWN	P100, TRACK 3, FWD, TIC *358.52 +/-	100	4	0	6,189,701:60:0	
399	1	242	13:11:34.333	465WR6B	6DMSC	RDY.3	DMS Control Tape stop	100	4	0	6,189,701:60:0	
400	1	242	13:11:35.533		DMS:	: *READY	RDY, TRACK 3, FWD, TIC *359.32 +/-	100	4	0	6,189,701:61:8	
401	1	242	13:11:59.666	488CA6E	6TMSED	NORM,AL5	Sci, Eng. and D/L Chan	100	4	0	6,189,702:07:0	
402	1	242	13:26:04.333		DMS:	: READY	RDY, TRACK *4, *REV, TIC 359.32 +/-	100	4	0	6,189,716:00:0	
403	1	242	13:26:04.333	465WS6A	6DMSC	RDY.4	DMS Control Tape stop	100	4	0	6,189,716:00:0	
404	1	242	13:26:58.333		DMS:	: *DMS-TURN	P7, TRACK 4, REV, TIC 359.32 +/-	100	4	0	6,189,716:81:0	
405	1	242	13:26:58.333		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 359.32 +/-	100	4	0	6,189,716:81:0	
406	1	242	13:26:58.333	465WT6A	6DTRN	CMD,6DTRN,465WT6	DMS TRACK TURNAROUND	100	4	0	6,189,716:81:0	
407	1	242	13:26:59.733		DMS:	: *US_AT SP	P7, TRACK 1, FWD, TIC *359.44 +/-	100	4	0	6,189,716:83:1	
408	1	242	13:27:05.000		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *360.67 +/-	100	4	0	6,189,717:00:0	
409	1	242	13:27:06.200		DMS:	: *RUNUP	P7, TRACK *4, *REV, TIC *360.73 +/-	100	4	0	6,189,717:01:8	
410	1	242	13:27:07.600		DMS:	: *AT SPD	P7, TRACK 4, REV, TIC *360.61 +/-	100	4	0	6,189,717:03:9	
411	1	242	13:38:33.400		DMS:	: *REVERSE	P7, TRACK 4, REV, TIC *199.87 +/-	100	4	0	6,189,728:31:6	
412	1	242	13:38:34.600		DMS:	: *RUNUP	P7, TRACK 1, FWD, TIC 199.81 +/-	100	4	0	6,189,728:33:4	
413	1	242	13:38:34.600		DMS:	: *TURNARND	P7, TRACK *1, *FWD, TIC *199.81 +/-	100	4	0	6,189,728:33:4	
414	1	242	13:38:36.000		DMS:	: *AT SPD	P7, TRACK 1, FWD, TIC *199.93 +/-	100	4	0	6,189,728:35:5	
415	1	242	13:38:48.000		DMS:	: *AUTOSTOP	P7, TRACK 1, FWD, TIC *202.06 +/-	100	4	0	6,189,728:53:5	
416	1	242	13:38:49.200		DMS:	: *READY	RDY, TRACK 1, FWD, TIC *202.12 +/-	100	4	0	6,189,728:55:3	
417	1	242	13:47:47.000	488CB6A	6TMSED	FILL,AL5	Sci, Eng. and D/L Chan	100	4	0	6,189,737:43:0	
418	1	242	13:52:27.000	488CB6B	6TMSED	FILL,AL3	Sci, Eng. and D/L Chan	100	4	0	6,189,742:08:0	
419	1	242	13:53:04.333	20UJ4A	<b>7SAFE STOP</b>		S/P NO MOVEMENT	100	4	0	6,189,742:64:0	
420	1	242	13:53:54.333	20UJ4B	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,189,743:48:0	
421	1	242	13:55:23.666	176SD6A	6TMREC	<b>RPB</b>	RESUME PLAYBACK (PB CONTROL) Record Mode	100	4	0	6,189,745:00:0	
422	1	242	18:10:29.666	488CB6C	6TMSED	NORM,AL3	Sci, Eng. and D/L Chan	100	4	0	6,189,997:27:0	
423	1	242	18:19:07.000	488CB6D	6TMSED	NORM,AL4	Sci, Eng. and D/L Chan	100	4	0	6,190,005:75:0	
424	1	242	19:37:51.000	488CB6E	6TMSED	FILL,AL4	Sci, Eng. and D/L Chan	100	4	0	6,190,083:63:0	
425	1	242	20:11:30.333	488CC6A	6TMSED	NORM,AL4	Sci, Eng. and D/L Chan	100	4	0	6,190,116:89:0	
426	1	243	00:21:47.000	488CC6B	6TMSED	NORM,AL3	Sci, Eng. and D/L Chan	100	4	0	6,190,364:46:0	
427	1	243	00:23:03.666	488CC6C	6TMSED	FILL,AL3	Sci, Eng. and D/L Chan	100	4	0	6,190,365:70:0	
428	1	243	00:32:27.000	488CC6D	6TMSED	FILL,AL2	Sci, Eng. and D/L Chan	100	4	0	6,190,375:05:0	
429	1	244	08:49:40.933	488CD6A	6TMSED	NORM,AL2	Sci, Eng. and D/L Chan	100	4	0	6,192,291:00:0	
430	1	244	08:55:54.933	488CD6B	6TMSED	NORM,AL3	Sci, Eng. and D/L Chan	100	4	0	6,192,297:15:0	
431	1	244	09:19:22.933	488CD6C	6TMSED	NORM,AL4	Sci, Eng. and D/L Chan	100	4	0	6,192,320:34:0	
432	1	244	10:12:40.933	488CD6D	6TMSED	FILL,AL4	Sci, Eng. and D/L Chan	100	4	0	6,192,373:08:0	
433	1	244	10:46:20.266	488CD6E	6TMSED	NORM,AL4	Sci, Eng. and D/L Chan	100	4	0	6,192,406:34:0	
434	1	244	11:36:30.933	176SG6A	6TMREC	<b>PPB</b>	PAUSE PLAYBACK (PB CONTROL) Record Mode C	100	4	0	6,192,456:00:0	
435	1	244	11:41:20.266	20RL4B	<b>7SAFE UNSTOW</b>		S/P TO 153 deg cone	100	4	0	6,192,460:70:0	
436	1	244	12:00:20.266	20RL4D	<b>7MODE INT</b>		AACS INERTIAL MODE	100	4	0	6,192,479:51:0	
437	1	244	14:47:00.200	20RL4F	<b>7MODE CRU</b>		AACS CRUISE MODE	100	4	0	6,192,644:36:0	
438	1	244	14:53:00.200	488CE6A	6TMSED	NORM,AL4	Sci, Eng. and D/L Chan	100	4	0	6,192,650:30:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
439	1	244	15:24:00.200	20BA4AA	7STAT	10.00,16.441,-20	Stator inertial point	100	4	0	6,192,680:90:0	
440	1	244	15:24:12.200	20BA6AA	6MROH	7.6744,0,A10	read from AACSA7.6744,0,A10	100	4	0	6,192,681:17:0	
441	1	244	15:30:00.200	474BA416A4B	7MODE	INT	AACS INERTIAL MODE	100	4	0	6,192,686:84:0	
442	1	244	15:32:00.200	474BA416A4D	7SAFE	UNSTOW	S/P TO 153 deg cone	100	4	0	6,192,688:82:0	
443	1	244	15:32:20.200	20BA4AD	7STAT	17.45,16.441,-20	Stator inertial point	100	4	0	6,192,689:21:0	
444	1	244	15:36:14.200	474BA416A4E	7BURN	SZ,16.441,-20.70	ALERT -- Thruster fire	100	4	0	6,192,693:08:0	
445	1	244	15:45:00.866	20BA4AF	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,192,701:70:0	
446	1	244	15:50:52.866	20BA4AG	7MODE	CRU	AACS CRUISE MODE	100	4	0	6,192,707:52:0	
447	1	244	16:12:08.866	20BA4AK	7STAT	10.00,16.441,-20	Stator inertial point	100	4	0	6,192,728:55:0	
448	1	244	16:12:20.866	20BA6AB	6MROH	7.6744,0,A10	read from AACSA7.6744,0,A10	100	4	0	6,192,728:73:0	
449	1	244	16:18:08.866	20BA4AM	7MODE	INT	AACS INERTIAL MODE	100	4	0	6,192,734:49:0	
450	1	244	16:20:09.533	474BA416A4G	7BURN	T,16.441,-20.709	ALERT -- Thruster fire	100	4	0	6,192,736:48:0	
451	1	244	17:07:36.866	20BA4AO	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,192,783:42:0	
452	1	244	17:12:28.866	20BA4AP	7MODE	CRU	AACS CRUISE MODE	100	4	0	6,192,788:25:0	
453	1	244	18:10:34.866	488CE6B	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	100	4	0	6,192,845:67:0	
454	1	244	18:21:14.866	488CE6C	6TMSED	NORM,AH4	Sci, Eng, and D/L Chan	100	4	0	6,192,856:26:0	
455	1	244	18:31:44.866	20BA4AV	7STAT	10.00,16.441,-20	Stator inertial point	100	4	0	6,192,866:61:0	
456	1	244	18:31:56.866	20BA6AC	6MROH	7.6744,0,A10	read from AACSA7.6744,0,A10	100	4	0	6,192,866:79:0	
457	1	244	18:37:44.866	20BA4AX	7MODE	INT	AACS INERTIAL MODE	100	4	0	6,192,872:55:0	
458	1	244	18:39:45.533	474BA416A4M	7BURN	T,16.441,-20.709	ALERT -- Thruster fire	100	4	0	6,192,874:54:0	
459	1	244	18:47:39.533	488CE6D	6TMSED	FILL,AH4	Sci, Eng, and D/L Chan	100	4	0	6,192,882:37:0	
460	1	244	19:26:18.200	488CE6E	6TMSED	NORM,AH4	Sci, Eng, and D/L Chan	100	4	0	6,192,920:57:0	
461	1	244	19:26:54.200	20BA4AZ	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,192,921:20:0	
462	1	244	19:31:46.200	20BA4BA	7MODE	CRU	AACS CRUISE MODE	100	4	0	6,192,926:03:0	
463	1	244	21:15:18.200	20BB4A	7SAFE	STOP	S/P NO MOVEMENT	100	4	0	6,193,028:39:0	
464	1	244	21:16:08.200	20BB4B	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,193,029:23:0	
465	1	244	21:16:53.533	176BA6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	100	4	0	6,193,030:00:0	
466	1	244	23:59:40.866	176S26A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	100	4	0	6,193,191:00:0	
467	1	245	00:01:00.200	444SA443A4A	7MODE	CRU	AACS CRUISE MODE	100	4	0	6,193,192:28:0	
468	1	245	00:01:00.200	488CF6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,193,192:28:0	
469	1	245	00:06:04.200	20UI4A	7SAFE	STOP	S/P NO MOVEMENT	100	4	0	6,193,197:29:0	
470	1	245	00:06:54.200	20UI4B	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,193,198:13:0	
471	1	245	00:08:46.866	176SH6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	100	4	0	6,193,200:00:0	
472	1	245	00:13:14.866	488CF6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,193,204:38:0	
473	1	245	00:55:06.866	488CF6C	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,193,245:75:0	
474	1	245	01:02:18.866	488CF6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	100	4	0	6,193,252:86:0	
475	1	245	01:38:34.866	488CF6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,193,288:74:0	
476	1	245	09:39:26.200	488CG6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,193,764:35:0	
477	1	245	09:56:14.200	176UP6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	100	4	0	6,193,781:00:0	
478	1	245	10:02:00.200	20UE4B	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,193,786:64:0	
479	1	245	10:03:00.200	20UE4D	7MODE	UNSTOW	AACS ALL-SPIN LOW	100	4	0	6,193,787:63:0	
480	1	245	10:05:00.200	20UE4E	7SAFE	STOP	S/P TO 153 deg cone	100	4	0	6,193,789:61:0	
481	1	245	10:10:30.200	20UE4G	7VENT	0.611,1.333,8	ALERT -- Thruster fire	100	4	0	6,193,795:10:0	
482	1	245	10:10:30.866	20UE4H	7VENT	0.611,10.989,8	ALERT -- Thruster fire	100	4	0	6,193,795:11:0	
483	1	245	10:10:50.866	20UE4I	7VENT	0.611,1.333,6	ALERT -- Thruster fire	100	4	0	6,193,795:41:0	
484	1	245	10:10:51.533	20UE4J	7VENT	0.611,10.989,6	ALERT -- Thruster fire	100	4	0	6,193,795:42:0	
485	1	245	10:11:11.533	20UE4K	7VENT	0.611,1.333,4	ALERT -- Thruster fire	100	4	0	6,193,795:72:0	
486	1	245	10:11:12.200	20UE4L	7VENT	0.611,0.666,5	ALERT -- Thruster fire	100	4	0	6,193,795:73:0	
487	1	245	10:11:22.200	20UE4M	7VENT	0.611,1.333,4	ALERT -- Thruster fire	100	4	0	6,193,795:88:0	
488	1	245	10:11:22.866	20UE4N	7VENT	0.611,0.666,5	ALERT -- Thruster fire	100	4	0	6,193,795:89:0	
489	1	245	10:11:32.866	20UE4O	7VENT	1.211,1.333,10	ALERT -- Thruster fire	100	4	0	6,193,796:13:0	
490	1	245	10:11:33.533	20UE4P	7VENT	1.211,0.666,12	ALERT -- Thruster fire	100	4	0	6,193,796:14:0	
491	1	245	10:13:20.200	20UE4S	7VENT	0.611,1.333,7	ALERT -- Thruster fire	100	4	0	6,193,797:83:0	
492	1	245	10:13:20.866	20UE4T	7VENT	0.611,10.989,7	ALERT -- Thruster fire	100	4	0	6,193,797:84:0	
493	1	245	10:13:40.866	20UE4U	7VENT	0.611,1.333,1	ALERT -- Thruster fire	100	4	0	6,193,798:23:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
494	1	245	10:13:41.533	20UE4V	7VENT	0.611,10.989,1	ALERT -- Thruster fire	100	4	0	6,193,798:24:0	
495	1	245	10:14:01.533	20UE4AC	7VENT	0.611,1.333,2	ALERT -- Thruster fire	100	4	0	6,193,798:54:0	
496	1	245	10:14:02.200	20UE4AD	7VENT	0.611,0.666,3	ALERT -- Thruster fire	100	4	0	6,193,798:55:0	
497	1	245	10:14:12.200	20UE4AE	7VENT	0.611,1.333,2	ALERT -- Thruster fire	100	4	0	6,193,798:70:0	
498	1	245	10:14:12.866	20UE4AF	7VENT	0.611,0.666,3	ALERT -- Thruster fire	100	4	0	6,193,798:71:0	
499	1	245	10:14:22.866	20UE4W	7VENT	1.211,1.333,9	ALERT -- Thruster fire	100	4	0	6,193,798:86:0	
500	1	245	10:14:23.533	20UE4X	7VENT	1.211,0.666,11	ALERT -- Thruster fire	100	4	0	6,193,798:87:0	
501	1	245	10:15:20.200	20UE4Z	7MODE	CRU	AACS CRUISE MODE	100	4	0	6,193,799:81:0	
502	1	245	10:21:14.866	488CG6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,193,805:67:0	
503	1	245	10:40:04.200	20UF4A	7SAFE	STOP	S/P NO MOVEMENT	100	4	0	6,193,824:32:0	
504	1	245	10:40:54.200	20UF4B	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,193,825:16:0	
505	1	245	10:42:44.866	176US6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	100	4	0	6,193,827:00:0	
506	1	245	16:17:38.866	488CH6A	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,194,158:20:0	
507	1	245	16:21:46.866	488CH6B	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,194,162:28:0	
508	1	245	17:30:49.533	488CH6C	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,194,230:54:0	
509	1	245	18:14:50.866	488CH6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,194,274:12:0	
510	1	245	18:47:32.200	488CH6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,194,306:42:0	
511	1	245	19:21:11.533	488CI6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,194,339:68:0	
512	1	245	20:53:00.200	488CI6B	6TMSED	NORM,AH4	Sci, Eng, and D/L Chan	100	4	0	6,194,430:50:0	
513	1	245	20:56:29.533	176UQ6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	100	4	0	6,194,434:00:0	
514	1	245	21:06:00.200	20RB4C	7STAR	10.00,281.57,-22	Stator inertial point	100	4	0	6,194,443:37:0	
515	1	245	21:06:12.200	20RB6D	6MROH	7.6744,0,A10	read from AACSA7.6744,0,A10	100	4	0	6,194,443:55:0	
516	1	245	21:25:02.200	490UB412A4B	7MODE	INT	AACS INERTIAL MODE	100	4	0	6,194,462:21:0	
517	1	245	21:30:00.200	490UB412A4D	7SAFE	UNSTOP	S/P TO 153 deg cone	100	4	0	6,194,467:13:0	
518	1	245	21:30:20.200	20RB4D	7STAR	17.45,281.57,-22	Stator inertial point	100	4	0	6,194,467:43:0	
519	1	245	21:34:10.200	490UB412A4E	7VECT		Inert vect update UTC	100	4	0	6,194,471:24:0	
520	1	245	21:34:14.200	490UB412A4F	7TURN	2,RTH	ALERT Thruster	100	4	0	6,194,471:30:0	
521	1	245	21:38:02.200	490UB412A406A4A	7STAR	1,1307,23.966,-5	Star catalog update	100	4	0	6,194,475:08:0	
522	1	245	21:38:04.200	490UB412A406A4B	7STAR	2,333,138.16	Star catalog update	100	4	0	6,194,475:11:0	
523	1	245	21:38:06.200	490UB412A406A4C	7STAR	3,946,200.64	Star catalog update	100	4	0	6,194,475:14:0	
524	1	245	21:38:08.200	490UB412A406A4D	7STAR	4,770,213.3312,1	Star catalog update	100	4	0	6,194,475:17:0	
525	1	245	21:38:10.200	490UB412A406A4E	7STAR	5,112,10.2729,-1	Star catalog update	100	4	0	6,194,475:20:0	
526	1	245	21:38:12.200	490UB412A406A4F	7STAR	6,0,0,0,0,0	Star catalog update	100	4	0	6,194,475:23:0	
527	1	245	21:48:06.200	20RB4F	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,194,485:04:0	
528	1	245	21:56:10.200	490UB412A4G	7MODE	CRU	AACS CRUISE MODE	100	4	0	6,194,493:02:0	
529	1	245	23:30:04.133	20UH4A	7SAFE	STOP	S/P NO MOVEMENT	100	4	0	6,194,585:81:0	
530	1	245	23:30:54.133	20UH4B	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,194,586:65:0	
531	1	245	23:31:00.133	488CI6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,194,586:74:0	
532	1	245	23:32:12.133	176UB6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	100	4	0	6,194,588:00:0	
533	1	246	00:06:50.800	488CI6D	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,194,622:24:0	
534	1	246	00:51:56.133	488CI6E	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,194,666:78:0	
535	1	246	00:58:02.800	488CI6A	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	100	4	0	6,194,672:82:0	
536	1	246	01:34:18.800	488CI6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,194,708:70:0	
537	1	246	17:24:35.466	488CK6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,195,648:55:0	
538	1	246	18:10:34.800	488CK6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,195,694:08:0	
539	1	246	20:58:32.133	488CK6C	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,195,860:18:0	
540	1	246	21:03:22.800	488CK6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,195,864:90:0	
541	1	247	17:24:42.733	488CL6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,197,072:82:0	
542	1	247	17:59:54.733	488CL6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,197,107:65:0	
543	1	247	23:53:30.066	488CM6A	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,197,457:38:0	
544	1	247	23:58:18.733	488CM6B	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,197,462:16:0	
545	1	248	17:21:08.733	488CN6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,198,493:50:0	
546	1	248	17:40:42.733	488CN6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,198,512:82:0	
547	1	248	18:47:12.066	488CN6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,198,578:60:0	
548	1	248	19:20:51.400	488CN6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,198,611:86:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
549	1	249	00:28:10.666	488CO6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,198,915:81:0	
550	1	249	00:46:19.333	488CO6B	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,198,933:76:0	
551	1	249	00:53:46.666	488CO6C	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	100	4	0	6,198,941:19:0	
552	1	249	01:30:02.666	488CO6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,198,977:07:0	
553	1	249	17:14:55.333	488CP6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,199,911:52:0	
554	1	249	17:51:22.666	488CP6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,199,947:57:0	
555	1	249	20:05:42.666	488CP6C	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,200,080:50:0	
556	1	249	21:52:26.666	488CP6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,200,186:04:0	
557	1	250	00:06:50.666	488CO6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,200,318:88:0	
558	1	250	00:42:46.666	488CO6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,200,354:46:0	
559	1	250	00:47:22.666	488CO6C	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	100	4	0	6,200,359:05:0	
560	1	250	01:23:38.666	488CO6D	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,200,394:84:0	
561	1	250	18:38:15.933	488CR6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,201,418:16:0	
562	1	250	19:55:06.600	488CR6B	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,201,494:16:0	
563	1	250	21:58:50.600	488CR6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,201,616:50:0	
564	1	251	00:02:34.600	488CR6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,201,738:84:0	
565	1	251	00:38:23.266	488CS6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,201,774:31:0	
566	1	251	00:43:06.600	488CS6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	100	4	0	6,201,779:01:0	
567	1	251	01:19:22.600	488CS6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,201,814:80:0	
568	1	251	08:45:06.600	488CT6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,202,255:65:0	
569	1	251	10:11:53.933	488CT6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,202,341:50:0	
570	1	251	10:45:33.266	488CT6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,202,374:76:0	
571	1	251	11:25:14.600	488CT6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,202,414:08:0	
572	1	251	15:58:37.866	488CU6A	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,202,684:43:0	
573	1	251	16:02:34.533	488CU6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,202,688:34:0	
574	1	251	17:10:09.200	488CU6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,202,755:19:0	
575	1	251	17:26:52.533	488CU6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,202,771:68:0	
576	1	251	17:51:22.533	488CU6E	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,202,795:89:0	
577	1	251	17:57:35.200	488CV6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,202,802:11:0	
578	1	251	19:46:34.533	488CV6B	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,202,909:83:0	
579	1	251	21:58:50.533	488CV6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,203,040:66:0	
580	1	252	00:02:34.533	488CW6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,203,163:09:0	
581	1	252	00:36:15.200	488CW6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,203,196:37:0	
582	1	252	00:43:06.533	488CW6C	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,203,203:17:0	
583	1	252	17:06:35.866	488CX6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,204,175:79:0	
584	1	252	17:21:30.533	488CX6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,204,190:56:0	
585	1	252	18:31:45.200	488CX6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,204,260:08:0	
586	1	252	19:05:24.533	488CX6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,204,293:34:0	
587	1	253	00:17:30.533	488CY6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,204,602:04:0	
588	1	253	00:32:23.866	488CY6B	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,204,616:70:0	
589	1	253	00:38:50.533	488CY6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	100	4	0	6,204,623:13:0	
590	1	253	00:53:46.533	488CY6D	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,204,637:83:0	
591	1	253	08:11:40.466	488CZ6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,205,071:00:0	
592	1	253	08:21:46.466	488CZ6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,205,080:90:0	
593	1	253	09:15:06.466	488CZ6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,205,133:67:0	
594	1	253	12:42:02.466	488CZ6D	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,205,338:36:0	
595	1	253	15:50:33.133	488DA6A	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,205,524:76:0	
596	1	253	15:54:02.466	488DA6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,205,528:26:0	
597	1	254	17:40:29.733	488DB6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,207,057:68:0	
598	1	254	19:06:31.066	488DB6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,207,142:75:0	
599	1	254	19:40:10.400	488DB6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,207,176:10:0	
600	1	255	00:13:14.400	488DC6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,207,446:16:0	
601	1	255	00:25:29.066	488DC6B	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,207,458:26:0	
602	1	255	00:32:26.400	488DC6C	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	100	4	0	6,207,465:15:0	
603	1	255	01:08:42.400	488DC6D	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,207,501:03:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
604	1	255	08:21:46.400	488DD6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,207,929:31:0	
605	1	255	10:40:20.400	488DD6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,208,066:35:0	
606	1	255	10:51:06.400	488DD6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,208,077:03:0	
607	1	255	13:49:42.400	488DD6D	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,208,253:61:0	
608	1	256	09:08:54.333	488DE6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,209,400:12:0	
609	1	256	11:46:34.333	488DE6B	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,209,556:06:0	
610	1	256	13:50:59.000	488DE6C	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,209,679:10:0	
611	1	256	13:54:34.333	488DE6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,209,682:60:0	
612	1	257	16:50:50.266	488DF6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,211,281:15:0	
613	1	257	17:17:14.266	488DF6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,211,307:25:0	
614	1	257	19:01:46.266	488DF6C	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,211,410:60:0	
615	1	257	22:09:30.266	488DF6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,211,596:30:0	
616	1	257	23:49:46.266	488DG6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,211,695:45:0	
617	1	258	00:19:10.933	488DG6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,211,724:53:0	
618	1	258	00:23:54.266	488DG6C	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	100	4	0	6,211,729:23:0	
619	1	258	01:00:10.266	488DG6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,211,765:11:0	
620	1	258	18:10:57.533	488DH6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,212,784:53:0	
621	1	258	19:36:04.200	488DH6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,212,868:69:0	
622	1	258	20:09:43.533	488DH6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,212,902:04:0	
623	1	258	23:52:20.200	488DH6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,213,122:19:0	
624	1	259	00:02:34.200	488DH6E	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,213,132:30:0	
625	1	259	09:19:14.866	488DI6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,213,682:81:0	
626	1	259	11:12:26.200	488DI6B	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,213,794:76:0	
627	1	259	16:35:24.200	488DJ6A	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,214,114:23:0	
628	1	259	16:38:50.200	488DJ6B	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	100	4	0	6,214,117:59:0	
629	1	260	07:46:28.800	488DK6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	100	4	0	6,215,015:29:0	
630	1	260	07:51:54.133	488DK6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,215,020:62:0	
631	1	260	08:02:34.133	488DK6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,215,031:21:0	
632	1	260	09:15:53.466	488DK6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,215,103:68:0	
633	1	260	09:49:32.133	488DK6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,215,137:02:0	
634	1	260	10:12:42.133	488DL6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,215,159:85:0	
635	1	260	11:44:26.800	488DL6B	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,215,250:61:0	
636	1	260	11:48:42.133	488DL6C	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,215,254:80:0	
637	1	260	16:42:30.800	488DM6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,215,545:42:0	
638	1	260	16:51:38.133	488DM6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,215,554:44:0	
639	1	260	17:55:50.133	488DM6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,215,617:89:0	
640	1	260	18:29:29.466	488DM6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,215,651:24:0	
641	1	260	20:47:24.800	488DM6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,215,787:61:0	
642	1	260	20:54:50.133	488DN6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,215,795:01:0	
643	1	261	07:42:35.466	488DO6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,216,435:59:0	
644	1	261	08:02:34.133	488DO6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,216,455:37:0	
645	1	261	09:15:46.133	488DO6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,216,527:73:0	
646	1	261	09:49:25.466	488DO6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,216,561:08:0	
647	1	261	09:53:00.133	488DO6E	6TMSED	NORM,AH4	Sci, Eng, and D/L Chan	100	4	0	6,216,564:57:0	
648	1	261	09:55:24.133	176SC6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	100	4	0	6,216,567:00:0	
649	1	261	10:02:02.133	488DP6A	6TMSED	NORM,AH5	Sci, Eng, and D/L Chan	100	4	0	6,216,573:51:0	
650	1	261	10:24:00.133	20CA4AA	7STAT	10.00.60.0073,-6	Stator inertial point	100	4	0	6,216,595:26:0	
651	1	261	10:24:12.133	20CA6AA	6MROH	7.6744,0,A10	read from AACSA7.6744,0,A10	100	4	0	6,216,595:44:0	
652	1	261	10:30:00.133	474CA416A4B	7MODE	INT	AACS INERTIAL MODE	100	4	0	6,216,601:20:0	
653	1	261	10:32:00.133	474CA416A4D	7SAFE	UNSTOW	S/P TO 153 deg cone	100	4	0	6,216,603:18:0	
654	1	261	10:32:20.133	20CA4AD	7STAT	17.45.60.0073,-6	Stator inertial point	100	4	0	6,216,603:48:0	
655	1	261	10:36:14.133	474CA416A4E	7BURN	ULZ.60.0073,-60.	Stator inertial point	100	4	0	6,216,607:35:0	
656	1	261	10:42:04.800	20CA4AF	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,216,613:15:0	
657	1	261	10:47:56.800	20CA4AG	7MODE	CRU	AACS CRUISE MODE	100	4	0	6,216,618:88:0	
658	1	261	11:04:42.800	20CA4AJ	7STAT	10.00.60.0073,-6	Stator inertial point	100	4	0	6,216,635:50:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
659	1	261	11:04:54.800	20CA6AB	6MROH	7,6744,0,A10	read from AACSA7,6744,0,A10	100	4	0	6,216,635:68:0	
660	1	261	11:15:12.800	20CA4AK	7MODE	INT	AACS INERTIAL MODE	100	4	0	6,216,645:85:0	
661	1	261	11:17:13.466	474CA416A4G	7BURN	LAT,60.0073,-60.	ALERT -- Thruster fire	100	4	0	6,216,647:84:0	
662	1	261	11:23:30.133	20CA4AM	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,216,654:12:0	
663	1	261	11:28:22.133	20CA4AN	7MODE	CRU	AACS CRUISE MODE	100	4	0	6,216,658:86:0	
664	1	261	12:35:54.133	20CB4A	7SAFE	STOP	S/P NO MOVEMENT	100	4	0	6,216,725:67:0	
665	1	261	12:36:44.133	20CB4B	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,216,726:51:0	
666	1	261	12:38:11.466	176CA6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	100	4	0	6,216,728:00:0	
667	1	261	14:00:09.400	488DP6B	6TMSED	FILL,AH5	Sci, Eng, and D/L Chan	100	4	0	6,216,809:06:0	
668	1	261	14:05:14.066	488DP6C	6TMSED	FILL,AH2	Sci, Eng, and D/L Chan	100	4	0	6,216,814:08:0	
669	1	261	15:01:00.066	488DP6D	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	100	4	0	6,216,869:22:0	
670	1	261	15:04:48.066	176SY6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	100	4	0	6,216,873:00:0	
671	1	262	07:41:42.733	488DQ6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	100	4	0	6,217,858:87:0	
672	1	262	07:56:10.066	488DQ6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,217,873:23:0	
673	1	262	09:10:39.400	488DQ6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,217,946:84:0	
674	1	262	09:44:18.733	488DQ6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,217,980:19:0	
675	1	262	09:57:46.066	488DQ6E	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,217,993:47:0	
676	1	262	11:44:34.066	488DR6A	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,218,099:13:0	
677	1	262	11:48:42.066	488DR6B	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,218,103:21:0	
678	1	262	16:37:44.733	488DR6C	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,218,389:09:0	
679	1	262	16:47:22.066	488DR6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,218,398:56:0	
680	1	262	18:00:36.066	488DS6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,218,471:04:0	
681	1	262	18:34:15.400	488DS6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,218,504:30:0	
682	1	262	23:46:55.400	488DS6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,218,813:51:0	
683	1	262	23:54:02.066	488DS6D	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	100	4	0	6,218,820:54:0	
684	1	263	07:36:50.000	488DT6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	100	4	0	6,219,278:28:0	
685	1	263	07:41:14.000	488DT6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,219,282:60:0	
686	1	263	07:51:54.000	488DT6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,219,293:19:0	
687	1	263	09:05:32.000	488DT6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,219,366:03:0	
688	1	263	09:39:11.333	488DT6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,219,399:29:0	
689	1	263	09:47:06.000	488DU6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,219,407:13:0	
690	1	263	13:50:12.666	488DU6B	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,219,647:53:0	
691	1	263	13:54:34.000	488DU6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,219,651:81:0	
692	1	264	07:36:36.666	488DV6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,220,702:24:0	
693	1	264	08:28:10.000	488DV6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,220,753:23:0	
694	1	264	10:27:37.933	488DV6C	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,220,871:37:0	
695	1	264	11:41:13.266	488DV6D	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,220,944:17:0	
696	1	264	11:44:25.933	488DV6E	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,220,947:33:0	
697	1	265	07:28:03.266	488DW6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,222,117:89:0	
698	1	265	07:36:57.933	488DW6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,222,126:72:0	
699	1	265	08:21:45.933	488DW6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,222,171:09:0	
700	1	265	10:23:21.933	488DW6D	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,222,291:33:0	
701	1	265	11:41:15.933	488DW6E	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,222,368:37:0	
702	1	265	11:44:25.933	488DX6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,222,371:49:0	
703	1	266	16:23:12.533	488DY6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,224,071:39:0	
704	1	266	16:32:25.866	488DY6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,224,080:50:0	
705	1	266	17:40:08.533	488DY6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,224,147:47:0	
706	1	266	17:56:48.533	176UG6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	100	4	0	6,224,164:00:0	
707	1	266	18:01:59.866	20UU4B	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,224,169:12:0	
708	1	266	18:02:59.866	20UU4D	7MODE	SPNL	AACS ALL-SPIN LOW	100	4	0	6,224,170:11:0	
709	1	266	18:04:59.866	20UU4E	7SAFE	UNSTOP	S/P TO 153 deg cone	100	4	0	6,224,172:09:0	
710	1	266	18:10:29.866	20UU4G	7VENT	0.611,1.333,8	ALERT -- Thruster fire	100	4	0	6,224,177:49:0	
711	1	266	18:10:30.533	20UU4H	7VENT	0.611,10.989,8	ALERT -- Thruster fire	100	4	0	6,224,177:50:0	
712	1	266	18:10:50.533	20UU4I	7VENT	0.611,1.333,6	ALERT -- Thruster fire	100	4	0	6,224,177:80:0	
713	1	266	18:10:51.200	20UU4J	7VENT	0.611,10.989,6	ALERT -- Thruster fire	100	4	0	6,224,177:81:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
714	1	266	18:11:11.200	20UU4K	7VENT	0.611,1.333,4	ALERT -- Thruster fire	100	4	0	6,224,178:20:0	
715	1	266	18:11:11.866	20UU4L	7VENT	0.611,0.666,5	ALERT -- Thruster fire	100	4	0	6,224,178:21:0	
716	1	266	18:11:21.866	20UU4M	7VENT	0.611,1.333,4	ALERT -- Thruster fire	100	4	0	6,224,178:36:0	
717	1	266	18:11:22.533	20UU4N	7VENT	0.611,0.666,5	ALERT -- Thruster fire	100	4	0	6,224,178:37:0	
718	1	266	18:11:32.533	20UU4O	7VENT	1.211,1.333,10	ALERT -- Thruster fire	100	4	0	6,224,178:52:0	
719	1	266	18:11:33.200	20UU4P	7VENT	1.211,0.666,12	ALERT -- Thruster fire	100	4	0	6,224,178:53:0	
720	1	266	18:13:19.866	20UU4S	7VENT	0.611,1.333,7	ALERT -- Thruster fire	100	4	0	6,224,180:31:0	
721	1	266	18:13:20.533	20UU4T	7VENT	0.611,10.989,7	ALERT -- Thruster fire	100	4	0	6,224,180:32:0	
722	1	266	18:13:40.533	20UU4U	7VENT	0.611,1.333,1	ALERT -- Thruster fire	100	4	0	6,224,180:62:0	
723	1	266	18:13:41.200	20UU4V	7VENT	0.611,10.989,1	ALERT -- Thruster fire	100	4	0	6,224,180:63:0	
724	1	266	18:13:47.200	488DY6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,224,180:72:0	
725	1	266	18:14:01.200	20UU4AC	7VENT	0.611,1.333,2	ALERT -- Thruster fire	100	4	0	6,224,181:02:0	
726	1	266	18:14:01.866	20UU4AD	7VENT	0.611,0.666,3	ALERT -- Thruster fire	100	4	0	6,224,181:03:0	
727	1	266	18:14:11.866	20UU4AE	7VENT	0.611,1.333,2	ALERT -- Thruster fire	100	4	0	6,224,181:18:0	
728	1	266	18:14:12.533	20UU4AF	7VENT	0.611,0.666,3	ALERT -- Thruster fire	100	4	0	6,224,181:19:0	
729	1	266	18:14:22.533	20UU4AW	7VENT	1.211,1.333,9	ALERT -- Thruster fire	100	4	0	6,224,181:34:0	
730	1	266	18:14:23.200	20UU4X	7VENT	1.211,0.666,11	ALERT -- Thruster fire	100	4	0	6,224,181:35:0	
731	1	266	18:15:19.866	20UU4Z	7MODE	CRU	AACS CRUISE MODE	100	4	0	6,224,182:29:0	
732	1	266	18:40:03.866	20UG4A	7SAFE	STOP	S/P NO MOVEMENT	100	4	0	6,224,206:71:0	
733	1	266	18:40:53.866	20UG4B	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,224,207:55:0	
734	1	266	18:42:18.533	176UH6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	100	4	0	6,224,209:00:0	
735	1	266	19:03:14.533	488DY6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,224,229:64:0	
736	1	267	07:31:57.133	488DZ6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,224,970:17:0	
737	1	267	08:17:29.800	488DZ6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,225,015:21:0	
738	1	267	10:16:57.800	488DZ6C	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,225,133:35:0	
739	1	267	13:17:03.133	488DZ6D	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,225,311:45:0	
740	1	267	13:20:25.800	488DZ6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,225,314:76:0	
741	1	267	16:21:59.133	488EA6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,225,494:36:0	
742	1	267	16:36:41.800	488EA6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,225,508:86:0	
743	1	267	18:02:01.800	488EA6C	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,225,593:31:0	
744	1	267	22:00:57.800	488EA6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,225,829:59:0	
745	1	267	23:24:09.800	488EB6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,225,911:85:0	
746	1	267	23:45:06.466	488EB6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,225,932:59:0	
747	1	267	23:49:45.800	488EB6C	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	100	4	0	6,225,937:23:0	
748	1	268	00:26:01.800	488EB6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,225,973:11:0	
749	1	268	07:52:04.466	488EC6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,226,414:24:0	
750	1	268	08:13:13.800	488EC6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,226,435:17:0	
751	1	268	10:12:41.800	488EC6C	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,226,553:31:0	
752	1	268	13:36:42.466	488EC6D	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,226,755:10:0	
753	1	268	13:39:37.800	488EC6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,226,758:00:0	
754	1	269	07:22:11.733	488ED6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,227,808:81:0	
755	1	269	08:13:13.733	488ED6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,227,859:33:0	
756	1	269	10:12:41.733	488ED6C	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,227,977:47:0	
757	1	269	11:06:57.733	488ED6D	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,228,031:17:0	
758	1	269	11:10:17.733	488ED6E	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,228,034:44:0	
759	1	269	16:13:33.733	488EE6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,228,334:38:0	
760	1	269	16:23:53.733	488EE6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,228,344:58:0	
761	1	269	17:24:47.066	488EE6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,228,404:78:0	
762	1	269	17:58:26.400	488EE6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,228,438:13:0	
763	1	269	18:52:59.733	488EE6E	6TMSED	NORM,AH4	Sci, Eng, and D/L Chan	100	4	0	6,228,492:09:0	
764	1	269	18:56:56.400	176SU6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	100	4	0	6,228,496:00:0	
765	1	269	19:05:59.733	20RC4C	7STAT	10.00,284.55,-22	Stator inertial point	100	4	0	6,228,504:87:0	
766	1	269	19:06:11.733	20RC6D	6MROH	7.6744,0,A10	read from AACS7.6744,0,A10	100	4	0	6,228,505:14:0	
767	1	269	19:25:01.733	490UC412A4B	7MODE	INT	AACS INERTIAL MODE	100	4	0	6,228,523:71:0	
768	1	269	19:29:59.733	490UC412A4D	7SAFE	UNSTOW	S/P TO 153 deg cone	100	4	0	6,228,528:63:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
769	1	269	19:30:19.733	20RC4D	7STAT	17,45,284,55,-22	Stator inertial point	100	4	0	6,228,529:02:0	
770	1	269	19:34:09.733	490UC412A4E	7VECT		Inert vect update UTC	100	4	0	6,228,532:74:0	
771	1	269	19:34:13.733	490UC412A4F	7TURN	2,RTH	ALERT Thruster	100	4	0	6,228,532:80:0	
772	1	269	19:38:01.733	490UC412A406A4A	7STAR	1,946,200,64	Star catalog update	100	4	0	6,228,536:58:0	
773	1	269	19:38:03.733	490UC412A406A4B	7STAR	2,770,213,3312,1	Star catalog update	100	4	0	6,228,536:61:0	
774	1	269	19:38:05.733	490UC412A406A4C	7STAR	3,112,10,2729,-1	Star catalog update	100	4	0	6,228,536:64:0	
775	1	269	19:38:07.733	490UC412A406A4D	7STAR	4,1307,23,966,-5	Star catalog update	100	4	0	6,228,536:67:0	
776	1	269	19:38:09.733	490UC412A406A4E	7STAR	5,333,138,16	Star catalog update	100	4	0	6,228,536:70:0	
777	1	269	19:38:11.733	490UC412A406A4F	7STAR	6,0,0,0,0,0,0	Star catalog update	100	4	0	6,228,536:73:0	
778	1	269	19:48:05.733	20RC4F	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,228,546:54:0	
779	1	269	19:56:09.733	490UC412A4G	7MODE	CRU	AACS CRUISE MODE	100	4	0	6,228,554:52:0	
780	1	269	21:30:03.733	20UB4A	7SAFE	STOP	S/P NO MOVEMENT	100	4	0	6,228,647:40:0	
781	1	269	21:30:53.733	20UB4B	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,228,648:24:0	
782	1	269	21:30:59.733	488EF6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,228,648:33:0	
783	1	269	21:32:39.066	176SL6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	100	4	0	6,228,650:00:0	
784	1	269	22:48:09.066	488EF6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,228,724:61:0	
785	1	269	22:54:17.733	488EF6C	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,228,730:68:0	
786	1	270	07:13:38.333	488EG6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,229,224:55:0	
787	1	270	07:22:01.666	488EG6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,229,232:82:0	
788	1	270	08:08:57.666	488EG6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,229,279:29:0	
789	1	270	10:08:25.666	488EG6D	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,229,397:43:0	
790	1	270	13:52:19.000	488EH6A	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,229,618:82:0	
791	1	270	13:54:33.666	488EH6B	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,229,621:11:0	
792	1	271	06:56:40.333	176TC6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	100	4	0	6,230,632:00:0	
793	1	271	07:02:44.333	DMS:		: *SLEW-TIC	P7, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,230,638:00:0	
794	1	271	07:02:44.333	465VA6A	6DMST		5000 DMS Slew to TIC	100	4	0	6,230,638:00:0	
795	1	271	07:02:44.333	DMS:		: *E4-DELAY	RDY, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,230,638:00:0	
796	1	271	07:02:44.333	DMS:		: *TURNARND	P7, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,230,638:00:0	
797	1	271	07:02:51.000	DMS:		: *RUNUP	P7, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,230,638:10:0	
798	1	271	07:02:52.400	DMS:		: *AT SPD	P7, TRACK 1, FWD, TIC *202.24 +/-	100	4	0	6,230,638:12:1	
799	1	271	08:50:38.333	488EI6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,230,744:65:0	
800	1	271	09:32:09.666	488EI6B	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,230,785:71:0	
801	1	271	12:43:53.066	DMS:		: *RUNDOWN	P7, TRACK 1, FWD, TIC *4997.94 +/-	100	4	0	6,230,975:36:2	
802	1	271	12:43:54.266	DMS:		: *READY	RDY, TRACK 1, FWD, TIC *4998.00 +/-	100	4	0	6,230,975:38:0	
803	1	271	12:56:25.600	465VB6A	6DMSC	P100,4	DMS Control Tape P/B 100.8kbps	100	4	0	6,230,987:73:0	
804	1	271	12:56:25.600	DMS:		: *US-RUNUP	P7, TRACK 1, FWD, TIC 4998.00 +/-	100	4	0	6,230,987:73:0	
805	1	271	12:56:27.000	DMS:		: *US AT SP	P7, TRACK 1, FWD, TIC *4998.12 +/-	100	4	0	6,230,987:75:1	
806	1	271	12:56:32.266	DMS:		: *US RD	P7, TRACK 1, FWD, TIC *4999.35 +/-	100	4	0	6,230,987:83:0	
807	1	271	12:56:33.466	DMS:		: *RUNUP	P100, TRACK *4, *REV, TIC *4999.41 +/-	100	4	0	6,230,987:84:8	
808	1	271	12:56:37.333	DMS:		: *AT SPD	P100, TRACK 4, REV, TIC 4993.91 +/-	100	4	0	6,230,987:90:6	
809	1	271	12:56:37.333	DMS:		: *P SLEW	P100, TRACK 4, REV, TIC *4993.91 +/-	100	4	0	6,230,987:90:6	
810	1	271	13:22:17.600	DMS:		: *RUNDOWN	P100, TRACK 4, REV, TIC *255.79 +/-	100	4	0	6,231,013:35:0	
811	1	271	13:22:17.600	465VB6B	6DMSC	RDY,4	DMS Control Tape stop	100	4	0	6,231,013:35:0	
812	1	271	13:22:18.800	DMS:		: *READY	RDY, TRACK 4, REV, TIC *254.99 +/-	100	4	0	6,231,013:36:8	
813	1	271	13:51:37.600	488EI6C	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,231,042:36:0	
814	1	271	13:54:33.600	488EI6D	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,231,045:27:0	
815	1	271	15:21:06.266	465VC6A	6DTRN	CMD 6DTRN,465VC6	DMS TRACK TURNAROUND	100	4	0	6,231,130:81:0	
816	1	271	15:21:06.266	DMS:		: *US-RUNUP	P7, TRACK *1, *FWD, TIC 254.99 +/-	100	4	0	6,231,130:81:0	
817	1	271	15:21:06.266	DMS:		: *DMS-TURN	P7, TRACK 4, REV, TIC 254.99 +/-	100	4	0	6,231,130:81:0	
818	1	271	15:21:07.666	DMS:		: *US AT SP	P7, TRACK 1, FWD, TIC *255.11 +/-	100	4	0	6,231,130:83:1	
819	1	271	15:21:12.933	DMS:		: *US RD	P7, TRACK 1, FWD, TIC *256.34 +/-	100	4	0	6,231,131:00:0	
820	1	271	15:21:14.133	DMS:		: *RUNUP	P7, TRACK *4, *REV, TIC *256.40 +/-	100	4	0	6,231,131:01:8	
821	1	271	15:21:15.533	DMS:		: *AT SPD	P7, TRACK 4, REV, TIC *256.28 +/-	100	4	0	6,231,131:03:9	
822	1	271	15:25:09.600	488EJ6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,231,134:82:0	
823	1	271	15:25:16.200	DMS:		: *REVERSE	P7, TRACK 4, REV, TIC *199.87 +/-	100	4	0	6,231,135:00:9	



Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
824	1	271	15:25:17.400		DMS:	:*RUNUP	P7, TRACK 1, FWD, TIC 199.81 +/-	100	4	0	6,231,135:02:7	
825	1	271	15:25:17.400		DMS:	:*TURNARND	P7, TRACK *1, *FWD, TIC *199.81 +/-	100	4	0	6,231,135:02:7	
826	1	271	15:25:18.800		DMS:	:*AT SPD	P7, TRACK 1, FWD, TIC *199.93 +/-	100	4	0	6,231,135:04:8	
827	1	271	15:25:30.800		DMS:	:*AUTOSTOP	P7, TRACK 1, FWD, TIC *202.06 +/-	100	4	0	6,231,135:22:8	
828	1	271	15:25:32.000		DMS:	:*READY	RDY, TRACK 1, FWD, TIC *202.12 +/-	100	4	0	6,231,135:24:6	
829	1	271	15:31:08.933		DMS:	:*E4-DELAY	RDY, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,231,140:75:0	
830	1	271	15:31:08.933	465VD6A	6DMSC	P100.1	DMS Control Tape P/B 100.8kbps	100	4	0	6,231,140:75:0	
831	1	271	15:31:15.600		DMS:	:*RUNUP	P100, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,231,140:85:0	
832	1	271	15:31:19.466		DMS:	:*AT SPD	P100, TRACK 1, FWD, TIC 207.62 +/-	100	4	0	6,231,140:90:8	
833	1	271	15:31:19.466		DMS:	:*P SLEW	P100, TRACK 1, FWD, TIC *207.62 +/-	100	4	0	6,231,140:90:8	
834	1	271	16:03:02.933	465VD6B	6DMSC	RDY,1	DMS Control Tape stop	100	4	0	6,231,172:34:0	
835	1	271	16:03:02.933		DMS:	:*RUNDOWN	P100, TRACK 1, FWD, TIC *6063.01 +/-	100	4	0	6,231,172:34:0	
836	1	271	16:03:04.133		DMS:	:*READY	RDY, TRACK 1, FWD, TIC *6063.81 +/-	100	4	0	6,231,172:35:8	
837	1	271	16:03:47.600	488EJ6B	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	100	4	0	6,231,173:10:0	
838	1	271	16:13:13.600	488EJ6C	6TMSED	NORM,AH4	Sci, Eng, and D/L Chan	100	4	0	6,231,182:40:0	
839	1	271	16:18:38.933	465VE6A	6DMSC	P100.2	DMS Control Tape P/B 100.8kbps	100	4	0	6,231,187:73:0	
840	1	271	16:18:38.933		DMS:	:*US-RUNUP	P7, TRACK 1, FWD, TIC 6063.81 +/-	100	4	0	6,231,187:73:0	
841	1	271	16:18:40.333		DMS:	:*US AT SP	P7, TRACK 1, FWD, TIC *6063.93 +/-	100	4	0	6,231,187:75:1	
842	1	271	16:18:45.600		DMS:	:*US RD	P7, TRACK 1, FWD, TIC *6065.17 +/-	100	4	0	6,231,187:83:0	
843	1	271	16:18:46.800		DMS:	:*RUNUP	P100, TRACK *2, *REV, TIC *6065.23 +/-	100	4	0	6,231,187:84:8	
844	1	271	16:18:50.666		DMS:	:*AT SPD	P100, TRACK 2, REV, TIC 6059.73 +/-	100	4	0	6,231,187:90:6	
845	1	271	16:18:50.666		DMS:	:*P SLEW	P100, TRACK 2, REV, TIC *6059.73 +/-	100	4	0	6,231,187:90:6	
846	1	271	16:50:46.933	465VF6A	6DMSC	P100.3	DMS Control Tape P/B 100.8kbps	100	4	0	6,231,219:53:0	
847	1	271	16:50:46.933		DMS:	:*RUNDOWN	P100, TRACK 2, REV, TIC *164.96 +/-	100	4	0	6,231,219:53:0	
848	1	271	16:50:48.133		DMS:	:*RUNUP	P100, TRACK *3, *FWD, TIC *164.16 +/-	100	4	0	6,231,219:54:8	
849	1	271	16:50:52.000		DMS:	:*AT SPD	P100, TRACK 3, FWD, TIC 169.66 +/-	100	4	0	6,231,219:60:6	
850	1	271	16:50:52.000		DMS:	:*P SLEW	P100, TRACK 3, FWD, TIC *169.66 +/-	100	4	0	6,231,219:60:6	
851	1	271	17:14:32.933	488EJ6D	6TMSED	FILL,AH4	Sci, Eng, and D/L Chan	100	4	0	6,231,243:08:0	
852	1	271	17:22:47.600		DMS:	:*RUNDOWN	P100, TRACK 3, FWD, TIC *6062.38 +/-	100	4	0	6,231,251:22:0	
853	1	271	17:22:47.600	465VF6B	6DMSC	RDY,3	DMS Control Tape stop	100	4	0	6,231,251:22:0	
854	1	271	17:22:48.800		DMS:	:*READY	RDY, TRACK 3, FWD, TIC *6063.18 +/-	100	4	0	6,231,251:23:8	
855	1	271	17:37:30.933		DMS:	:*US-RUNUP	P7, TRACK *1, FWD, TIC 6063.18 +/-	100	4	0	6,231,265:73:0	
856	1	271	17:37:30.933	465VG6A	6DMSC	P100.4	DMS Control Tape P/B 100.8kbps	100	4	0	6,231,265:73:0	
857	1	271	17:37:32.333		DMS:	:*US AT SP	P7, TRACK 1, FWD, TIC *6063.30 +/-	100	4	0	6,231,265:75:1	
858	1	271	17:37:37.600		DMS:	:*US RD	P7, TRACK 1, FWD, TIC *6064.53 +/-	100	4	0	6,231,265:83:0	
859	1	271	17:37:38.800		DMS:	:*RUNUP	P100, TRACK *4, *REV, TIC *6064.59 +/-	100	4	0	6,231,265:84:8	
860	1	271	17:37:42.666		DMS:	:*AT SPD	P100, TRACK 4, REV, TIC 6059.09 +/-	100	4	0	6,231,265:90:6	
861	1	271	17:37:42.666		DMS:	:*P SLEW	P100, TRACK 4, REV, TIC *6059.09 +/-	100	4	0	6,231,265:90:6	
862	1	271	17:48:12.266	488EJ6E	6TMSED	NORM,AH4	Sci, Eng, and D/L Chan	100	4	0	6,231,276:34:0	
863	1	271	18:09:38.266		DMS:	:*RUNDOWN	P100, TRACK 4, REV, TIC *166.38 +/-	100	4	0	6,231,297:52:0	
864	1	271	18:09:38.266	465VH6A	6DMSC	P100.3	DMS Control Tape P/B 100.8kbps	100	4	0	6,231,297:52:0	
865	1	271	18:09:39.466		DMS:	:*RUNUP	P100, TRACK *3, *FWD, TIC *165.58 +/-	100	4	0	6,231,297:53:8	
866	1	271	18:09:43.333		DMS:	:*AT SPD	P100, TRACK 3, FWD, TIC 171.08 +/-	100	4	0	6,231,297:59:6	
867	1	271	18:09:43.333		DMS:	:*P SLEW	P100, TRACK 3, FWD, TIC *171.08 +/-	100	4	0	6,231,297:59:6	
868	1	271	18:10:44.266	465VH6B	6DMSC	RDY,3	DMS Control Tape stop	100	4	0	6,231,298:60:0	
869	1	271	18:10:44.266		DMS:	:*RUNDOWN	P100, TRACK 3, FWD, TIC *358.52 +/-	100	4	0	6,231,298:60:0	
870	1	271	18:10:45.466		DMS:	:*READY	RDY, TRACK 3, FWD, TIC *359.32 +/-	100	4	0	6,231,298:61:8	
871	1	271	18:11:59.600	488EK6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,231,299:82:0	
872	1	271	18:25:14.266	465VI6A	6DMSC	RDY,4	DMS Control Tape stop	100	4	0	6,231,313:00:0	
873	1	271	18:25:14.266		DMS:	:*READY	RDY, TRACK *4, *REV, TIC 359.32 +/-	100	4	0	6,231,313:00:0	
874	1	271	18:26:08.266	465VJ6A	6DTRN	CMD,6DTRN,465VJ6	DMS TRACK TURNAROUND	100	4	0	6,231,313:81:0	
875	1	271	18:26:08.266		DMS:	:*DMS-TURN	P7, TRACK 4, REV, TIC 359.32 +/-	100	4	0	6,231,313:81:0	
876	1	271	18:26:08.266		DMS:	:*US-RUNUP	P7, TRACK *1, *FWD, TIC 359.32 +/-	100	4	0	6,231,313:81:0	
877	1	271	18:26:09.666		DMS:	:*US AT SP	P7, TRACK 1, FWD, TIC *359.44 +/-	100	4	0	6,231,313:83:1	
878	1	271	18:26:14.933		DMS:	:*US RD	P7, TRACK 1, FWD, TIC *360.67 +/-	100	4	0	6,231,314:00:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
879	1	271	18:26:16.133		DMS:	: *RUNUP	P7, TRACK 4, *REV, TIC * 360.73 +/-	100	4	0	6,231,314:01:8	
880	1	271	18:26:17.533		DMS:	: *AT SPD	P7, TRACK 4, REV, TIC * 360.61 +/-	100	4	0	6,231,314:03:9	
881	1	271	18:37:43.333		DMS:	: *REVERSE	P7, TRACK 4, REV, TIC * 199.87 +/-	100	4	0	6,231,325:31:6	
882	1	271	18:37:44.533		DMS:	: *TURNARND	P7, TRACK *1, *FWD, TIC * 199.81 +/-	100	4	0	6,231,325:33:4	
883	1	271	18:37:44.533		DMS:	: *RUNUP	P7, TRACK 1, FWD, TIC 199.81 +/-	100	4	0	6,231,325:33:4	
884	1	271	18:37:45.933		DMS:	: *AT SPD	P7, TRACK 1, FWD, TIC * 199.93 +/-	100	4	0	6,231,325:35:5	
885	1	271	18:37:57.933		DMS:	: *AUTOSTOP	P7, TRACK 1, FWD, TIC * 202.06 +/-	100	4	0	6,231,325:53:5	
886	1	271	18:37:59.133		DMS:	: *READY	RDY, TRACK 1, FWD, TIC * 202.12 +/-	100	4	0	6,231,325:55:3	
887	1	271	18:53:04.266	20UZ4A	<b>7SAFE STOP</b>		S/P NO MOVEMENT	100	4	0	6,231,340:48:0	
888	1	271	18:53:54.266	20UZ4B	7SLEW DIS,POS,0.0		Stator movement	100	4	0	6,231,341:32:0	
889	1	271	18:55:34.266	176SF6A	6TMREC <b>RPB</b>		RESUME PLAYBACK (PB CONTROL) Record Mode	100	4	0	6,231,343:00:0	
890	1	271	19:12:25.600	488EK6B	6TMREC NORM,AL5		Sci, Eng, and D/L Chan	100	4	0	6,231,359:61:0	
891	1	271	20:20:41.600	488EK6C	6TMSED NORM,AL4		Sci, Eng, and D/L Chan	100	4	0	6,231,427:17:0	
892	1	271	23:32:50.933	488EK6D	6TMSED FILL,AL4		Sci, Eng, and D/L Chan	100	4	0	6,231,617:21:0	
893	1	271	23:34:49.600	488EK6E	6TMSED FILL,AL2		Sci, Eng, and D/L Chan	100	4	0	6,231,619:17:0	
894	1	271	23:49:45.600	488EL6A	6TMSED FILL,AL4		Sci, Eng, and D/L Chan	100	4	0	6,231,633:87:0	
895	1	272	07:27:32.266	488EM6A	6TMSED NORM,AL4		Sci, Eng, and D/L Chan	100	4	0	6,232,086:64:0	
896	1	272	07:54:01.600	488EM6B	6TMSED NORM,AL5		Sci, Eng, and D/L Chan	100	4	0	6,232,112:82:0	
897	1	272	09:27:53.600	488EM6C	6TMSED NORM,AL6		Sci, Eng, and D/L Chan	100	4	0	6,232,205:67:0	
898	1	272	11:11:53.600	488EM6D	6TMSED FILL,AL6		Sci, Eng, and D/L Chan	100	4	0	6,232,308:54:0	
899	1	272	11:14:33.600	488EM6E	6TMSED FILL,AL4		Sci, Eng, and D/L Chan	100	4	0	6,232,311:21:0	
900	1	272	16:02:34.266	488EN6A	6TMSED NORM,AL4		Sci, Eng, and D/L Chan	100	4	0	6,232,596:07:0	
901	1	272	16:13:13.600	488EN6B	6TMSED NORM,AL5		Sci, Eng, and D/L Chan	100	4	0	6,232,606:56:0	
902	1	272	17:23:37.600	488EN6C	6TMSED NORM,AL6		Sci, Eng, and D/L Chan	100	4	0	6,232,676:22:0	
903	1	272	22:05:13.600	488EO6A	6TMSED NORM,AL5		Sci, Eng, and D/L Chan	100	4	0	6,232,954:68:0	
904	1	272	23:15:37.533	488EO6B	6TMSED NORM,AL4		Sci, Eng, and D/L Chan	100	4	0	6,233,024:34:0	
905	1	272	23:32:32.200	488EO6C	6TMSED FILL,AL4		Sci, Eng, and D/L Chan	100	4	0	6,233,041:09:0	
906	1	272	23:34:49.533	488EO6D	6TMSED FILL,AL3		Sci, Eng, and D/L Chan	100	4	0	6,233,043:33:0	
907	1	272	23:45:29.533	488EO6E	6TMSED FILL,AL4		Sci, Eng, and D/L Chan	100	4	0	6,233,053:83:0	
908	1	273	07:07:39.533	488EP6A	6TMSED NORM,AL4		Sci, Eng, and D/L Chan	100	4	0	6,233,491:20:0	
909	1	273	07:47:37.533	488EP6B	6TMSED NORM,AL5		Sci, Eng, and D/L Chan	100	4	0	6,233,530:68:0	
910	1	273	09:23:37.533	488EP6C	6TMSED NORM,AL6		Sci, Eng, and D/L Chan	100	4	0	6,233,625:63:0	
911	1	273	10:52:21.533	488EP6D	6TMSED FILL,AL6		Sci, Eng, and D/L Chan	100	4	0	6,233,713:41:0	
912	1	273	10:55:21.533	488EP6E	6TMSED FILL,AL4		Sci, Eng, and D/L Chan	100	4	0	6,233,716:38:0	
913	1	273	15:57:41.533	488EQ6A	6TMSED NORM,AL4		Sci, Eng, and D/L Chan	100	4	0	6,234,015:39:0	
914	1	273	16:08:57.533	488EQ6B	6TMSED NORM,AL5		Sci, Eng, and D/L Chan	100	4	0	6,234,026:52:0	
915	1	273	17:19:21.533	488EQ6C	6TMSED NORM,AL6		Sci, Eng, and D/L Chan	100	4	0	6,234,096:18:0	
916	1	273	20:51:53.533	488EQ6D	6TMSED FILL,AL6		Sci, Eng, and D/L Chan	100	4	0	6,234,306:36:0	
917	1	273	20:54:49.533	488EQ6E	6TMSED FILL,AL3		Sci, Eng, and D/L Chan	100	4	0	6,234,309:27:0	
918	1	274	07:09:06.866	488ER6A	6TMSED NORM,AL3		Sci, Eng, and D/L Chan	100	4	0	6,234,916:76:0	
919	1	274	07:17:45.533	488ER6B	6TMSED NORM,AL4		Sci, Eng, and D/L Chan	100	4	0	6,234,925:35:0	
920	1	274	08:29:15.466	488ER6C	6TMSED FILL,AL4		Sci, Eng, and D/L Chan	100	4	0	6,234,996:09:0	
921	1	274	08:53:45.466	488ER6D	6TMSED FILL,AL5		Sci, Eng, and D/L Chan	100	4	0	6,235,020:30:0	
922	1	274	08:59:58.133	488ER6E	6TMSED NORM,AL5		Sci, Eng, and D/L Chan	100	4	0	6,235,026:43:0	
923	1	274	13:51:46.800	488ES6A	6TMSED FILL,AL5		Sci, Eng, and D/L Chan	100	4	0	6,235,315:07:0	
924	1	274	13:56:41.466	488ES6B	6TMSED FILL,AL4		Sci, Eng, and D/L Chan	100	4	0	6,235,319:85:0	
925	1	274	15:52:48.133	488ES6C	6TMSED NORM,AL4		Sci, Eng, and D/L Chan	100	4	0	6,235,434:70:0	
926	1	274	16:02:33.466	488ES6D	6TMSED NORM,AL5		Sci, Eng, and D/L Chan	100	4	0	6,235,444:38:0	
927	1	274	17:12:57.466	488ES6E	6TMSED NORM,AL6		Sci, Eng, and D/L Chan	100	4	0	6,235,514:04:0	
928	1	274	17:54:22.133	176PT6A	6TMREC <b>PPB</b>		PAUSE PLAYBACK (PB CONTROL) Record Mode C	100	4	0	6,235,555:00:0	
929	1	274	18:30:04.133	20UK4A	<b>7SAFE STOP</b>		S/P NO MOVEMENT	100	4	0	6,235,590:28:0	
930	1	274	18:30:54.133	20UK4B	7SLEW DIS,POS,0.0		Stator movement	100	4	0	6,235,591:12:0	
931	1	274	18:32:47.466	176UD6A	6TMREC <b>RPB</b>		RESUME PLAYBACK (PB CONTROL) Record Mode	100	4	0	6,235,593:00:0	
932	1	274	20:52:45.466	488GR6A	6TMSED FILL,AL6		Sci, Eng, and D/L Chan	100	4	0	6,235,731:39:0	
933	1	274	20:54:49.466	488GR6B	6TMSED FILL,AL5		Sci, Eng, and D/L Chan	100	4	0	6,235,733:43:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
934	1	275	08:36:06.800	488GS6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,236,427:05:0	
935	1	275	09:08:41.466	488GS6B	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,236,459:25:0	
936	1	275	17:18:02.800	488ET6A	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,236,943:23:0	
937	1	275	17:21:29.466	488ET6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,236,946:60:0	
938	1	276	06:57:59.400	488EU6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,237,754:17:0	
939	1	276	07:32:41.400	488EU6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,237,788:46:0	
940	1	276	09:04:25.400	488EU6C	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,237,879:21:0	
941	1	276	17:30:01.400	488EV6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,238,379:25:0	
942	1	276	18:55:21.400	488EV6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,238,463:61:0	
943	1	276	19:24:24.066	488EV6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,238,492:36:0	
944	1	276	19:33:45.400	488EV6D	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,238,501:59:0	
945	1	277	08:51:20.666	488EW6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,239,290:43:0	
946	1	277	09:04:25.333	488EW6B	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,239,303:37:0	
947	1	277	13:53:15.333	488EW6C	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,239,589:06:0	
948	1	277	13:56:41.333	488EW6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,239,592:42:0	
949	1	277	16:08:09.333	488EX6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,239,722:44:0	
950	1	277	17:28:52.000	488EX6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,239,802:28:0	
951	1	277	17:59:53.333	488EX6C	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,239,832:90:0	
952	1	277	18:01:45.333	488EX6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,239,834:76:0	
953	1	277	20:56:57.333	488EX6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,240,008:10:0	
954	1	277	23:13:35.333	488EY6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,240,143:22:0	
955	1	277	23:15:37.333	488EY6B	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	100	4	0	6,240,145:23:0	
956	1	277	23:30:33.333	488EY6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,240,160:02:0	
957	1	278	06:53:13.333	488EZ6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,240,597:75:0	
958	1	278	07:24:09.333	488EZ6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,240,628:38:0	
959	1	278	07:52:02.666	432JC6A	6RTSL1		R/T Select of DDS and	100	4	0	6,240,656:00:0	
960	1	278	08:49:29.333	488EZ6C	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,240,712:74:0	
961	1	278	13:41:53.333	176UT6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	100	4	0	6,241,002:00:0	
962	1	278	13:47:00.000	20UV4B	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,241,007:05:0	
963	1	278	13:48:00.000	20UV4D	7MODE	SPNL	AACS ALL-SPIN LOW	100	4	0	6,241,008:04:0	
964	1	278	13:50:00.000	20UV4E	7SAFE	UNSTOW	S/P TO 153 deg cone	100	4	0	6,241,010:02:0	
965	1	278	13:55:30.000	20UV4G	7VENT	0.611,1.333,8	ALERT -- Thruster fire	100	4	0	6,241,015:42:0	
966	1	278	13:55:30.666	20UV4H	7VENT	0.611,10.989,8	ALERT -- Thruster fire	100	4	0	6,241,015:43:0	
967	1	278	13:55:50.666	20UV4I	7VENT	0.611,1.333,6	ALERT -- Thruster fire	100	4	0	6,241,015:73:0	
968	1	278	13:55:51.333	20UV4J	7VENT	0.611,10.989,6	ALERT -- Thruster fire	100	4	0	6,241,015:74:0	
969	1	278	13:56:11.333	20UV4K	7VENT	0.611,1.333,4	ALERT -- Thruster fire	100	4	0	6,241,016:13:0	
970	1	278	13:56:12.000	20UV4L	7VENT	0.611,0.666,5	ALERT -- Thruster fire	100	4	0	6,241,016:14:0	
971	1	278	13:56:22.000	20UV4M	7VENT	0.611,1.333,4	ALERT -- Thruster fire	100	4	0	6,241,016:29:0	
972	1	278	13:56:22.666	20UV4N	7VENT	0.611,0.666,5	ALERT -- Thruster fire	100	4	0	6,241,016:30:0	
973	1	278	13:56:32.666	20UV4O	7VENT	1.211,1.333,10	ALERT -- Thruster fire	100	4	0	6,241,016:45:0	
974	1	278	13:56:33.333	20UV4P	7VENT	1.211,0.666,12	ALERT -- Thruster fire	100	4	0	6,241,016:46:0	
975	1	278	13:58:20.000	20UV4S	7VENT	0.611,1.333,7	ALERT -- Thruster fire	100	4	0	6,241,018:24:0	
976	1	278	13:58:20.666	20UV4T	7VENT	0.611,10.989,7	ALERT -- Thruster fire	100	4	0	6,241,018:25:0	
977	1	278	13:58:40.666	20UV4U	7VENT	0.611,1.333,1	ALERT -- Thruster fire	100	4	0	6,241,018:55:0	
978	1	278	13:58:41.333	20UV4V	7VENT	0.611,10.989,1	ALERT -- Thruster fire	100	4	0	6,241,018:56:0	
979	1	278	13:59:01.333	20UV4AC	7VENT	0.611,1.333,2	ALERT -- Thruster fire	100	4	0	6,241,018:86:0	
980	1	278	13:59:02.000	20UV4AD	7VENT	0.611,0.666,3	ALERT -- Thruster fire	100	4	0	6,241,018:87:0	
981	1	278	13:59:12.000	20UV4AE	7VENT	0.611,1.333,2	ALERT -- Thruster fire	100	4	0	6,241,019:11:0	
982	1	278	13:59:12.666	20UV4AF	7VENT	0.611,0.666,3	ALERT -- Thruster fire	100	4	0	6,241,019:12:0	
983	1	278	13:59:22.666	20UV4AW	7VENT	1.211,1.333,9	ALERT -- Thruster fire	100	4	0	6,241,019:27:0	
984	1	278	13:59:23.333	20UV4X	7VENT	1.211,0.666,11	ALERT -- Thruster fire	100	4	0	6,241,019:28:0	
985	1	278	14:00:20.000	20UV4Z	7MODE	CRU	AACS CRUISE MODE	100	4	0	6,241,020:22:0	
986	1	278	14:25:03.933	20UX4A	7SAFE	STOP	S/P NO MOVEMENT	100	4	0	6,241,044:64:0	
987	1	278	14:25:53.933	20UX4B	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,241,045:48:0	
988	1	278	14:27:23.266	176UU6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	100	4	0	6,241,047:00:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
989	1	278	14:38:12.600	488FA6A	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,241,057.64:0	
990	1	278	14:41:29.266	488FA6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,241,060.86:0	
991	1	278	15:38:16.600	488FA6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,241,117.10:0	
992	1	278	15:49:45.266	488FA6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,241,128.42:0	
993	1	278	16:35:47.933	176SN6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	100	4	0	6,241,174:00:0	
994	1	278	16:38:49.933	176KA6A	6TMREC	ORT	OPNAV - REAL TIME Record Mode Change	100	4	0	6,241,177:00:0	
995	1	278	16:39:49.933	165IA4A	7SCAN	NORM,187.23,-4.7	Check S/P Position	100	4	0	6,241,177:00:0	
996	1	278	16:44:00.600	488FA6E	6TMSED	NORM,AH5	Sci, Eng, and D/L Chan	100	4	0	6,241,182.11:0	
997	1	278	16:49:29.266	488FB6A	6TMSED	NORM,AH6	Sci, Eng, and D/L Chan	100	4	0	6,241,187.49:0	
998	1	278	17:31:23.933	165IB4A	7SCAN	NORM,187.289,-4.	Check S/P Position	100	4	0	6,241,228:90:0	
999	1	278	17:55:05.933	20KB4B	7SAFE	UNSTOW	S/P TO 153 deg cone	100	4	0	6,241,252:39:0	
1000	1	278	17:59:04.600	20SF4A	7SAFE	STOP	S/P NO MOVEMENT	100	4	0	6,241,256:33:0	
1001	1	278	17:59:54.600	20SF4B	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,241,257:17:0	
1002	1	278	18:01:44.600	176SO6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	100	4	0	6,241,259:00:0	
1003	1	278	18:50:59.933	488FB6B	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,241,307:65:0	
1004	1	278	19:18:22.600	488FB6C	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,241,334:72:0	
1005	1	278	19:20:57.266	488FB6D	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,241,337:31:0	
1006	1	279	13:16:35.933	488FC6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,242,401:15:0	
1007	1	279	14:41:25.266	488FC6B	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,242,485:05:0	
1008	1	279	15:10:31.933	488FC6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,242,513:77:0	
1009	1	279	16:55:53.266	488FC6D	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,242,618:04:0	
1010	1	279	18:27:47.933	488FC6E	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,242,708:86:0	
1011	1	279	18:54:37.266	488FD6A	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,242,735:43:0	
1012	1	279	21:56:41.266	488FD6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,242,915:49:0	
1013	1	279	22:56:25.266	488FD6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,242,974:56:0	
1014	1	279	23:09:45.933	488FD6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,242,987:74:0	
1015	1	280	06:48:27.200	488FE6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,243,441:42:0	
1016	1	280	07:13:29.200	488FE6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,243,466:20:0	
1017	1	280	08:38:49.200	488FE6C	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,243,550:56:0	
1018	1	280	13:02:49.200	488FF6A	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,243,811:65:0	
1019	1	280	13:05:29.200	488FF6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,243,814:32:0	
1020	1	280	15:33:29.200	488FF6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,243,960:66:0	
1021	1	280	15:43:21.200	488FF6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,243,970:44:0	
1022	1	280	16:38:49.200	488FF6E	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,244,025:31:0	
1023	1	280	21:56:41.200	488FG6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,244,339:65:0	
1024	1	280	22:56:25.200	488FG6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,244,398:72:0	
1025	1	280	23:04:52.533	488FG6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,244,407:14:0	
1026	1	280	23:13:29.200	488FG6D	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,244,415:61:0	
1027	1	281	09:05:54.533	488FH6A	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,245,001:53:0	
1028	1	281	13:53:28.466	488FH6B	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,245,285:90:0	
1029	1	281	13:56:41.133	488FH6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,245,289:15:0	
1030	1	281	15:28:36.466	488FH6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,245,380:07:0	
1031	1	281	15:49:45.800	176SW6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	100	4	0	6,245,401:00:0	
1032	1	281	15:51:47.133	176KB6A	6TMREC	ORT	OPNAV - REAL TIME Record Mode Change	100	4	0	6,245,403:00:0	
1033	1	281	15:52:47.133	165IC4A	7SCAN	NORM,184.764999,	Check S/P Position	100	4	0	6,245,403:90:0	
1034	1	281	16:21:05.800	165ID4A	7SCAN	NORM,184.705,-4.	Check S/P Position	100	4	0	6,245,431:90:0	
1035	1	281	16:48:25.133	488FI6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,245,459:01:0	
1036	1	281	17:22:04.466	488FI6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,245,492:27:0	
1037	1	281	17:23:37.133	488FI6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,245,493:75:0	
1038	1	281	17:29:59.800	488FI6E	6TMSED	NORM,AH5	Sci, Eng, and D/L Chan	100	4	0	6,245,500:12:0	
1039	1	281	18:45:41.133	165IE4A	7SCAN	NORM,183.950998,	Check S/P Position	100	4	0	6,245,574:90:0	
1040	1	281	19:26:07.800	165IF4A	7SCAN	NORM,183.869999,	Check S/P Position	100	4	0	6,245,614:90:0	
1041	1	281	19:54:34.466	20SA4A	7SAFE	STOP	S/P NO MOVEMENT	100	4	0	6,245,643:11:0	
1042	1	281	19:55:24.466	20SA4B	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,245,643:86:0	
1043	1	281	19:57:29.133	176SX6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	100	4	0	6,245,646:00:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1044	1	281	19:58:30.466	488FJ6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,245,647:01:0	
1045	1	281	20:52:24.466	488FJ6B	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,245,700:29:0	
1046	1	281	20:56:57.133	488FJ6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,245,704:74:0	
1047	1	283	06:38:47.733	488FK6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,247,704:40:0	
1048	1	283	07:49:45.066	488FK6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,247,774:56:0	
1049	1	283	08:01:00.400	488FK6C	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,247,785:68:0	
1050	1	283	08:30:06.400	488FK6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,247,814:48:0	
1051	1	283	11:50:47.066	176SM6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	100	4	0	6,248,013:00:0	
1052	1	283	11:54:49.733	176KC6A	6TMREC	ORT	OPNAV - REAL TIME Record Mode Change	100	4	0	6,248,017:00:0	
1053	1	283	11:54:59.733	488FK6E	6TMSED	NORM,AH5	Sci, Eng, and D/L Chan	100	4	0	6,248,017:15:0	
1054	1	283	11:55:49.733	165IG4A	7SCAN	NORM,166.896999,	Check S/P Position	100	4	0	6,248,017:90:0	
1055	1	283	12:21:06.400	165IH4A	7SCAN	NORM,166.786999,	Check S/P Position	100	4	0	6,248,042:90:0	
1056	1	283	12:50:05.733	20UN4A	7SAFE	UNSTOW	S/P TO 153 deg cone	100	4	0	6,248,071:60:0	
1057	1	283	12:55:04.400	20SB4A	7SAFE	STOP	S/P NO MOVEMENT	100	4	0	6,248,076:53:0	
1058	1	283	12:55:54.400	20SB4B	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,248,077:37:0	
1059	1	283	12:57:31.066	176SI6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	100	4	0	6,248,079:00:0	
1060	1	283	14:04:00.400	488FL6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,248,144:69:0	
1061	1	283	14:52:21.733	488FL6B	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,248,192:53:0	
1062	1	283	14:56:25.066	488FL6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,248,196:54:0	
1063	1	283	15:23:49.733	488FL6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,248,223:64:0	
1064	1	283	16:13:12.400	488FL6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,248,272:49:0	
1065	1	283	17:08:41.066	488FM6A	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,248,327:37:0	
1066	1	283	17:10:53.733	488FM6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,248,329:54:0	
1067	1	283	21:07:37.066	488FM6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,248,563:65:0	
1068	1	283	22:53:51.066	488FM6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,248,668:71:0	
1069	1	283	22:56:25.066	488FM6E	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	100	4	0	6,248,671:29:0	
1070	1	283	23:07:05.066	488FM6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,248,681:79:0	
1071	1	284	06:33:53.666	488FO6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,249,123:70:0	
1072	1	284	07:00:41.000	488FO6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,249,150:24:0	
1073	1	284	08:15:21.000	488FO6C	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	100	4	0	6,249,224:10:0	
1074	1	284	13:53:38.333	488FP6A	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	100	4	0	6,249,558:62:0	
1075	1	284	13:56:41.000	488FP6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,249,561:63:0	
1076	1	284	15:23:56.333	488FP6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,249,647:90:0	
1077	1	284	16:43:05.000	488FP6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,249,726:24:0	
1078	1	284	17:06:33.000	488FP6E	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,249,749:43:0	
1079	1	284	17:13:27.000	488FQ6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,249,756:27:0	
1080	1	284	21:07:37.000	488FQ6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,249,987:81:0	
1081	1	284	22:47:53.000	488FQ6C	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	100	4	0	6,250,087:05:0	
1082	1	284	23:04:57.000	488FQ6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,250,103:85:0	
1083	1	285	00:03:03.000	488FR6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,250,161:36:0	
1084	1	285	00:45:13.000	488FR6B	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,250,203:09:0	
1085	1	285	00:46:19.000	488FR6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,250,204:17:0	
1086	1	285	06:37:13.000	488FS6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,250,551:21:0	
1087	1	285	07:39:05.000	488FS6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,250,612:38:0	
1088	1	285	08:00:47.666	488FS6C	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,250,633:81:0	
1089	1	285	08:34:53.666	488FS6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,250,667:56:0	
1090	1	285	11:00:00.333	481UC4A	7VECT	BB1	Inert vect update UTC	100	4	0	6,250,811:12:0	
1091	1	285	11:00:02.333	481UC4B	7STAR	1,1307,23.966,-5	Star catalog update	100	4	0	6,250,811:15:0	
1092	1	285	11:00:04.333	481UC4C	7STAR	2,333,138.16	Star catalog update	100	4	0	6,250,811:18:0	
1093	1	285	11:00:06.333	481UC4D	7STAR	3,112,10.2729,-1	Star catalog update	100	4	0	6,250,811:21:0	
1094	1	285	11:00:08.333	481UC4E	7STAR	4,0,0,0,0.0	Star catalog update	100	4	0	6,250,811:24:0	
1095	1	285	11:00:10.333	481UC4F	7STAR	5,0,0,0,0.0	Star catalog update	100	4	0	6,250,811:27:0	
1096	1	285	11:00:12.333	481UC4G	7STAR	6,0,0,0,0.0	Star catalog update	100	4	0	6,250,811:30:0	
1097	1	285	15:39:05.000	488FT6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,251,087:13:0	
1098	1	285	16:37:58.266	488FT6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,251,145:35:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1099	1	285	17:02:16.933	488FT6C	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,251,169:39:0	
1100	1	285	17:11:57.600	488FT6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,251,179:00:0	
1101	1	285	21:01:12.933	488FT6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,251,405:67:0	
1102	1	285	23:57:56.266	488FU6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,251,580:47:0	
1103	1	286	00:41:35.600	488FU6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,251,623:63:0	
1104	1	286	00:45:12.933	488FU6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,251,627:25:0	
1105	1	286	02:58:24.266	176SJ6A	6TMREC	TPB	TERMINATE PLAYBACK (PB CONTROL) Record Mo	100	4	0	6,251,759:00:0	
1106	1	286	03:11:32.933		DMS:	:*E4-DELAY	RDY, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,251,772:00:0	
1107	1	286	03:11:32.933		DMS:	:*SLEW-TIC	P7, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,251,772:00:0	
1108	1	286	03:11:32.933		DMS:	:*TURNARND	P7, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,251,772:00:0	
1109	1	286	03:11:32.933	465WA6A	6DMST		5000 DMS Slew to TIC	100	4	0	6,251,772:00:0	
1110	1	286	03:11:39.600		DMS:	:*RUNUP	P7, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,251,772:10:0	
1111	1	286	03:11:41.000		DMS:	:*AT SPD	P7, TRACK 1, FWD, TIC *202.24 +/-	100	4	0	6,251,772:12:1	
1112	1	286	06:22:16.933	488FV6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,251,960:58:0	
1113	1	286	07:39:04.933	488FV6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,252,036:54:0	
1114	1	286	07:45:40.266	488FV6C	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,252,043:10:0	
1115	1	286	08:19:46.933	488FV6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,252,076:77:0	
1116	1	286	08:52:41.733		DMS:	:*RUNDOWN	P7, TRACK 1, FWD, TIC *4997.94 +/-	100	4	0	6,252,109:36:2	
1117	1	286	08:52:42.933		DMS:	:*READY	RDY, TRACK 1, FWD, TIC *4998.00 +/-	100	4	0	6,252,109:38:0	
1118	1	286	09:05:14.266	465WB6A	6DMSC	P100.4	DMS Control Tape P/B 100.8kbps	100	4	0	6,252,121:73:0	
1119	1	286	09:05:14.266		DMS:	:*US-RUNUP	P7, TRACK 1, FWD, TIC 4998.00 +/-	100	4	0	6,252,121:73:0	
1120	1	286	09:05:15.666		DMS:	:*US AT SP	P7, TRACK 1, FWD, TIC *4998.12 +/-	100	4	0	6,252,121:75:1	
1121	1	286	09:05:20.933		DMS:	:*US RD	P7, TRACK 1, FWD, TIC *4999.35 +/-	100	4	0	6,252,121:83:0	
1122	1	286	09:05:22.133		DMS:	:*RUNUP	P100, TRACK *4, *REV, TIC *4999.41 +/-	100	4	0	6,252,121:84:8	
1123	1	286	09:05:26.000		DMS:	:*AT SPD	P100, TRACK 4, REV, TIC 4993.91 +/-	100	4	0	6,252,121:90:6	
1124	1	286	09:05:26.000		DMS:	:*P_SLEW	P100, TRACK 4, REV, TIC *4993.91 +/-	100	4	0	6,252,121:90:6	
1125	1	286	09:31:06.266		DMS:	:*RUNDOWN	P100, TRACK 4, REV, TIC *255.79 +/-	100	4	0	6,252,147:35:0	
1126	1	286	09:31:06.266	465WB6B	6DMSC	RDY.4	DMS Control Tape stop	100	4	0	6,252,147:35:0	
1127	1	286	09:31:07.466		DMS:	:*READY	RDY, TRACK 4, REV, TIC *254.99 +/-	100	4	0	6,252,147:36:8	
1128	1	286	11:29:54.933	465WC6A	6DTRN	CMD:6DTRN,465WC6	DMS TRACK TURNAROUND	100	4	0	6,252,264:81:0	
1129	1	286	11:29:54.933		DMS:	:*US-RUNUP	P7, TRACK *1, *FWD, TIC 254.99 +/-	100	4	0	6,252,264:81:0	
1130	1	286	11:29:54.933		DMS:	:*DMS-TURN	P7, TRACK 4, REV, TIC 254.99 +/-	100	4	0	6,252,264:81:0	
1131	1	286	11:29:56.333		DMS:	:*US AT SP	P7, TRACK 1, FWD, TIC *255.11 +/-	100	4	0	6,252,264:83:1	
1132	1	286	11:30:01.600		DMS:	:*US RD	P7, TRACK 1, FWD, TIC *256.34 +/-	100	4	0	6,252,265:00:0	
1133	1	286	11:30:02.800		DMS:	:*RUNUP	P7, TRACK *4, *REV, TIC *256.40 +/-	100	4	0	6,252,265:01:8	
1134	1	286	11:30:04.200		DMS:	:*AT SPD	P7, TRACK 4, REV, TIC *256.28 +/-	100	4	0	6,252,265:03:9	
1135	1	286	11:34:04.866		DMS:	:*REVERSE	P7, TRACK 4, REV, TIC *199.87 +/-	100	4	0	6,252,269:00:9	
1136	1	286	11:34:06.066		DMS:	:*TURNARND	P7, TRACK *1, *FWD, TIC *199.81 +/-	100	4	0	6,252,269:02:7	
1137	1	286	11:34:06.066		DMS:	:*RUNUP	P7, TRACK 1, FWD, TIC 199.81 +/-	100	4	0	6,252,269:02:7	
1138	1	286	11:34:07.466		DMS:	:*AT SPD	P7, TRACK 1, FWD, TIC *199.93 +/-	100	4	0	6,252,269:04:8	
1139	1	286	11:34:09.600	488FV6E	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,252,269:08:0	
1140	1	286	11:34:19.466		DMS:	:*AUTOSTOP	P7, TRACK 1, FWD, TIC *202.06 +/-	100	4	0	6,252,269:22:8	
1141	1	286	11:34:20.666		DMS:	:*READY	RDY, TRACK 1, FWD, TIC *202.12 +/-	100	4	0	6,252,269:24:6	
1142	1	286	11:40:58.266	465WD6A	6DMSC	P100.1	DMS Control Tape P/B 100.8kbps	100	4	0	6,252,275:75:0	
1143	1	286	11:40:58.266		DMS:	:*E4-DELAY	RDY, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,252,275:75:0	
1144	1	286	11:41:04.933		DMS:	:*RUNUP	P100, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,252,275:85:0	
1145	1	286	11:41:08.800		DMS:	:*AT SPD	P100, TRACK 1, FWD, TIC 207.62 +/-	100	4	0	6,252,275:90:8	
1146	1	286	11:41:08.800		DMS:	:*P_SLEW	P100, TRACK 1, FWD, TIC *207.62 +/-	100	4	0	6,252,275:90:8	
1147	1	286	12:12:52.266		DMS:	:*RUNDOWN	P100, TRACK 1, FWD, TIC *6063.01 +/-	100	4	0	6,252,307:34:0	
1148	1	286	12:12:52.266	465WD6B	6DMSC	RDY.1	DMS Control Tape stop	100	4	0	6,252,307:34:0	
1149	1	286	12:12:53.466		DMS:	:*READY	RDY, TRACK 1, FWD, TIC *6063.81 +/-	100	4	0	6,252,307:35:8	
1150	1	286	12:28:28.266	465WE6A	6DMSC	P100.2	DMS Control Tape P/B 100.8kbps	100	4	0	6,252,322:73:0	
1151	1	286	12:28:28.266		DMS:	:*US-RUNUP	P7, TRACK 1, FWD, TIC 6063.81 +/-	100	4	0	6,252,322:73:0	
1152	1	286	12:28:29.666		DMS:	:*US AT SP	P7, TRACK 1, FWD, TIC *6063.93 +/-	100	4	0	6,252,322:75:1	
1153	1	286	12:28:34.933		DMS:	:*US RD	P7, TRACK 1, FWD, TIC *6065.17 +/-	100	4	0	6,252,322:83:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1154	1	286	12:28:36.133		DMS:	:*RUNUP	P100, TRACK *2, *REV, TIC *6065.23 +/-	100	4	0	6,252,322:84:8	
1155	1	286	12:28:40.000		DMS:	:*AT SPD	P100, TRACK 2, REV, TIC 6059.73 +/-	100	4	0	6,252,322:90:6	
1156	1	286	12:28:40.000		DMS:	:*P_SLEW	P100, TRACK 2, REV, TIC *6059.73 +/-	100	4	0	6,252,322:90:6	
1157	1	286	13:00:36.266	465WF6A	6DMSC	P100.3	DMS Control Tape P/B 100.8kbps	100	4	0	6,252,354:53:0	
1158	1	286	13:00:36.266		DMS:	:*RUNDOWN	P100, TRACK 2, REV, TIC *164.96 +/-	100	4	0	6,252,354:53:0	
1159	1	286	13:00:37.466		DMS:	:*RUNUP	P100, TRACK *3, *FWD, TIC *164.16 +/-	100	4	0	6,252,354:54:8	
1160	1	286	13:00:41.333		DMS:	:*AT SPD	P100, TRACK 3, FWD, TIC 169.66 +/-	100	4	0	6,252,354:60:6	
1161	1	286	13:00:41.333		DMS:	:*P_SLEW	P100, TRACK 3, FWD, TIC *169.66 +/-	100	4	0	6,252,354:60:6	
1162	1	286	13:32:36.933	465WF6B	6DMSC	RDY,3	DMS Control Tape stop	100	4	0	6,252,386:22:0	
1163	1	286	13:32:36.933		DMS:	:*RUNDOWN	P100, TRACK 3, FWD, TIC *6063.38 +/-	100	4	0	6,252,386:22:0	
1164	1	286	13:32:38.133		DMS:	:*READY	RDY, TRACK 3, FWD, TIC *6063.18 +/-	100	4	0	6,252,386:23:8	
1165	1	286	13:47:20.266	465WG6A	6DMSC	P100.4	DMS Control Tape P/B 100.8kbps	100	4	0	6,252,400:73:0	
1166	1	286	13:47:20.266		DMS:	:*US-RUNUP	P7, TRACK *1, FWD, TIC *6063.18 +/-	100	4	0	6,252,400:73:0	
1167	1	286	13:47:21.666		DMS:	:*US AT SP	P7, TRACK 1, FWD, TIC *6063.30 +/-	100	4	0	6,252,400:75:1	
1168	1	286	13:47:26.933		DMS:	:*US RD	P7, TRACK 1, FWD, TIC *6064.53 +/-	100	4	0	6,252,400:83:0	
1169	1	286	13:47:28.133		DMS:	:*RUNUP	P100, TRACK *4, *REV, TIC *6064.59 +/-	100	4	0	6,252,400:84:8	
1170	1	286	13:47:32.000		DMS:	:*P_SLEW	P100, TRACK 4, REV, TIC *6059.09 +/-	100	4	0	6,252,400:90:6	
1171	1	286	13:47:32.000		DMS:	:*AT SPD	P100, TRACK 4, REV, TIC 6059.09 +/-	100	4	0	6,252,400:90:6	
1172	1	286	14:19:27.600	465WH6A	6DMSC	P100.3	DMS Control Tape P/B 100.8kbps	100	4	0	6,252,432:52:0	
1173	1	286	14:19:27.600		DMS:	:*RUNDOWN	P100, TRACK 4, REV, TIC *166.38 +/-	100	4	0	6,252,432:52:0	
1174	1	286	14:19:28.800		DMS:	:*RUNUP	P100, TRACK *3, *FWD, TIC *165.58 +/-	100	4	0	6,252,432:53:8	
1175	1	286	14:19:32.666		DMS:	:*AT SPD	P100, TRACK 3, FWD, TIC 171.08 +/-	100	4	0	6,252,432:59:6	
1176	1	286	14:19:32.666		DMS:	:*P_SLEW	P100, TRACK 3, FWD, TIC *171.08 +/-	100	4	0	6,252,432:59:6	
1177	1	286	14:20:33.600	465WH6B	6DMSC	RDY,3	DMS Control Tape stop	100	4	0	6,252,433:60:0	
1178	1	286	14:20:33.600		DMS:	:*RUNDOWN	P100, TRACK 3, FWD, TIC *358.52 +/-	100	4	0	6,252,433:60:0	
1179	1	286	14:20:34.800		DMS:	:*READY	RDY, TRACK 3, FWD, TIC *359.32 +/-	100	4	0	6,252,433:61:8	
1180	1	286	14:20:59.600	488FW6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,252,434:08:0	
1181	1	286	14:35:03.600	465WI6A	6DMSC	RDY,4	DMS Control Tape stop	100	4	0	6,252,448:00:0	
1182	1	286	14:35:03.600		DMS:	:*READY	RDY, TRACK *4, *REV, TIC 359.32 +/-	100	4	0	6,252,448:00:0	
1183	1	286	14:35:57.600		DMS:	:*DMS-TURN	P7, TRACK 4, REV, TIC 359.32 +/-	100	4	0	6,252,448:81:0	
1184	1	286	14:35:57.600		DMS:	:*US-RUNUP	P7, TRACK *1, *FWD, TIC 359.32 +/-	100	4	0	6,252,448:81:0	
1185	1	286	14:35:57.600	465WJ6A	6DTRN	CMD,6DTRN,465WJ6	DMS TRACK TURNAROUND	100	4	0	6,252,448:81:0	
1186	1	286	14:35:59.000		DMS:	:*US AT SP	P7, TRACK 1, FWD, TIC *359.44 +/-	100	4	0	6,252,448:83:1	
1187	1	286	14:36:04.266		DMS:	:*US RD	P7, TRACK 1, FWD, TIC *360.67 +/-	100	4	0	6,252,449:00:0	
1188	1	286	14:36:05.466		DMS:	:*RUNUP	P7, TRACK *4, *REV, TIC *360.73 +/-	100	4	0	6,252,449:01:8	
1189	1	286	14:36:06.866		DMS:	:*AT SPD	P7, TRACK 4, REV, TIC *360.61 +/-	100	4	0	6,252,449:03:9	
1190	1	286	14:47:32.666		DMS:	:*REVERSE	P7, TRACK 4, REV, TIC *199.87 +/-	100	4	0	6,252,460:31:6	
1191	1	286	14:47:33.866		DMS:	:*TURNARND	P7, TRACK *1, *FWD, TIC *199.81 +/-	100	4	0	6,252,460:33:4	
1192	1	286	14:47:33.866		DMS:	:*RUNUP	P7, TRACK 1, FWD, TIC 199.81 +/-	100	4	0	6,252,460:33:4	
1193	1	286	14:47:35.266		DMS:	:*AT SPD	P7, TRACK 1, FWD, TIC *199.93 +/-	100	4	0	6,252,460:35:5	
1194	1	286	14:47:47.266		DMS:	:*AUTOSTOP	P7, TRACK 1, FWD, TIC *202.06 +/-	100	4	0	6,252,460:53:5	
1195	1	286	14:47:48.466		DMS:	:*READY	RDY, TRACK 1, FWD, TIC *202.12 +/-	100	4	0	6,252,460:55:3	
1196	1	286	14:58:02.933	488FW6B	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,252,470:67:0	
1197	1	286	15:02:48.933	488FW6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,252,475:41:0	
1198	1	286	15:19:09.600	488FW6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,252,491:56:0	
1199	1	286	16:17:52.266	488FW6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,252,549:62:0	
1200	1	286	17:10:48.933	488FX6A	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,252,602:04:0	
1201	1	286	17:11:24.266	488FX6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,252,602:57:0	
1202	1	286	17:23:00.266	488FX6C	6TMSED	NORM,AH5	Sci, Eng, and D/L Chan	100	4	0	6,252,614:09:0	
1203	1	286	17:54:00.933	20DA4AA	7STAT	10.00,227.0709.5	Stator inertial point	100	4	0	6,252,644:70:0	
1204	1	286	17:54:12.933	20DA6AA	6MROH	7,6744,0,A10	read from AACSA7,6744,0,A10	100	4	0	6,252,644:88:0	
1205	1	286	18:00:00.933	474DA416A4B	7MODE	INT	AACS INERTIAL MODE	100	4	0	6,252,650:64:0	
1206	1	286	18:02:00.933	474DA416A4D	7SAFE	UNSTOW	S/P TO 153 deg cone	100	4	0	6,252,652:62:0	
1207	1	286	18:02:20.933	20DA4AD	7STAT	17.45,227.0709.5	Stator inertial point	100	4	0	6,252,653:01:0	
1208	1	286	18:06:14.933	474DA416A4E	7BURN	OSZ,227.0709,52.	ALERT -- Thruster fire	100	4	0	6,252,656:79:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1209	1	286	18:13:04.933	20DA4AF	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,252,663:57:0	
1210	1	286	18:18:56.933	20DA4AG	7MODE	CRU	AACS CRUISE MODE	100	4	0	6,252,669:39:0	
1211	1	286	18:40:12.933	20DA4AJ	7STAT	10.00,227.0709,5	Stator inertial point	100	4	0	6,252,690:42:0	
1212	1	286	18:40:24.933	20DA6AB	6MROH	7,6744,0,A10	read from AACSA7,6744,0,A10	100	4	0	6,252,690:60:0	
1213	1	286	18:46:12.933	20DA4AK	7MODE	INT	AACS INERTIAL MODE	100	4	0	6,252,696:36:0	
1214	1	286	18:48:12.933	474DA416A4G	7BURN	LAT,227.0709,52.	ALERT -- Thruster fire	100	4	0	6,252,698:34:0	
1215	1	286	18:55:48.933	20DA4AM	7SLEW	DIS,POS,0.0	Stator movement	100	4	0	6,252,705:81:0	
1216	1	286	19:00:40.933	20DA4AN	7MODE	CRU	AACS CRUISE MODE	100	4	0	6,252,710:64:0	
1217	1	286	20:42:00.933	488FX6D	6TMSED	NORM,AH4	Sci, Eng, and D/L Chan	100	4	0	6,252,810:84:0	
1218	1	286	22:31:00.266	488FX6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	100	4	0	6,252,918:65:0	
1219	1	286	22:43:01.600	488FY6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	100	4	0	6,252,930:55:0	
1220	1	286	22:47:52.933	488FY6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	100	4	0	6,252,935:37:0	
1221	1	286	23:24:08.933	488FY6C	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,252,971:25:0	
1222	1	286	23:42:24.933	488FY6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,252,989:31:0	
1223	1	287	00:00:36.266	488FY6E	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	100	4	0	6,253,007:30:0	
1224	1	287	00:29:42.933	488FZ6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	100	4	0	6,253,036:11:0	
1225	1	287	01:00:00.266	481UB4A	7VECT		Inert vect update UTC	100	4	0	6,253,066:07:0	
1226	1	287	02:00:00.000	20A3FD	40HRPR	Final Condition	RCT Heater OFF (primary relay)	100	4	0	6,253,125:37:6	
1227	1	287	02:00:00.000	20A3FB	37F2PR	Final Condition	Shield Flash Heater OFF (primary relay)	100	4	0	6,253,125:37:6	
1228	1	287	02:00:00.000	20A3FA	37F1PR	Final Condition	Radiator Flash Heater OFF (primary relay)	100	4	0	6,253,125:37:6	
1229	1	287	02:00:00.000	20A3EZ	37C2PR	Final Condition	Optics Heater 2 OFF (primary relay)	100	4	0	6,253,125:37:6	
1230	1	287	02:00:00.000	20A3EY	37C1PR	Final Condition	Optics Heater 1 OFF (primary relay)	100	4	0	6,253,125:37:6	
1231	1	287	02:00:00.000	20A3EX	37HR	Final Condition	Replacement Heaters OFF	100	4	0	6,253,125:37:6	
1232	1	287	02:00:00.000	20A3EW	37A	Final Condition	NIMS Power ON	100	4	0	6,253,125:37:6	
1233	1	287	02:00:00.000	20A3FE	40T1PR	Final Condition	PCT Heater 1 OFF (primary relay)	100	4	0	6,253,125:37:6	
1234	1	287	02:00:00.000	20A3FF	40T2R	Final Condition	PCT Heater 2 OFF	100	4	0	6,253,125:37:6	
1235	1	287	02:00:00.266		DMS:	: READY	RDY, TRACK 1, FWD, TIC 202.12 +/-	100	4	0	6,253,125:38:0	



# 31INTHRMAL01

```

OAPEL: 31INTHRMAL01          ALIAS: 31INTHRMAL01
EXT: A                        PSID: DA
SCLK1: 06155013:00:0        SCLK2: 06155022:81:0
SCET1: 01-218/04:37:30.133  SCET2: 01-218/04:47:30.133
TARGET: IO                    PARTITION: 1
  
```

```

MODE: 3                      GAIN: 1
CHOP: 1                      GRAT_OFF: 4
PTAB_A: 1 1 0 0 124         PTAB_B: 1 1 0 0 124
ECAL: 0                     OPCAL: 0
R/T: 0                      RECORD: 1
  
```

```

MB_DOWN: 00000              MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0              EST_COMPV: 0.3
RATE_CON1: 00000          RATE_CON2: 65525
NWAVETOT: 144             TLMFMT: MPW
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326144001         03 26 144 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	039FF	0,0011,1001,1111,1111
1	00000	0,0000,0000,0000,0000
2	039FF	0,0011,1001,1111,1111
3	00000	0,0000,0000,0000,0000
4	039FF	0,0011,1001,1111,1111
5	00000	0,0000,0000,0000,0000
6	039FF	0,0011,1001,1111,1111
7	00000	0,0000,0000,0000,0000
8	039FF	0,0011,1001,1111,1111
9	00000	0,0000,0000,0000,0000
10	039FF	0,0011,1001,1111,1111
11	00000	0,0000,0000,0000,0000
12	039FF	0,0011,1001,1111,1111
13	00000	0,0000,0000,0000,0000
14	039FF	0,0011,1001,1111,1111
15	00000	0,0000,0000,0000,0000
16	039FF	0,0011,1001,1111,1111
17	00000	0,0000,0000,0000,0000
18	039FF	0,0011,1001,1111,1111
19	00000	0,0000,0000,0000,0000
20	039FF	0,0011,1001,1111,1111
21	00000	0,0000,0000,0000,0000
22	039FF	0,0011,1001,1111,1111
23	00000	0,0000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INTHRMAL01

```

OAPEL: 31INTHRMAL01      ALIAS: 31INTHRMAL01
EXT: B                    PSID: DA
SCLK1: 06155014:21:0     SCLK2: 06155021:44:0
SCET1: 01-218/04:38:44.800 SCET2: 01-218/04:46:04.800
TARGET: IO                PARTITION: 1
  
```

```

MODE: 3                   GAIN: 1
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0            EST_COMPV: 0.3
RATE_CON1: 00000        RATE_CON2: 65525
NWAVETOT: 144           TLMFMT: MPW
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326144001      03 26 144 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	00000	0,0000,0000,0000,0000
1	039FF	0,0011,1001,1111,1111
2	00000	0,0000,0000,0000,0000
3	039FF	0,0011,1001,1111,1111
4	00000	0,0000,0000,0000,0000
5	039FF	0,0011,1001,1111,1111
6	00000	0,0000,0000,0000,0000
7	039FF	0,0011,1001,1111,1111
8	00000	0,0000,0000,0000,0000
9	039FF	0,0011,1001,1111,1111
10	00000	0,0000,0000,0000,0000
11	039FF	0,0011,1001,1111,1111
12	00000	0,0000,0000,0000,0000
13	039FF	0,0011,1001,1111,1111
14	00000	0,0000,0000,0000,0000
15	039FF	0,0011,1001,1111,1111
16	00000	0,0000,0000,0000,0000
17	039FF	0,0011,1001,1111,1111
18	00000	0,0000,0000,0000,0000
19	039FF	0,0011,1001,1111,1111
20	00000	0,0000,0000,0000,0000
21	039FF	0,0011,1001,1111,1111
22	00000	0,0000,0000,0000,0000
23	039FF	0,0011,1001,1111,1111
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INTHRMAL01

```

OAPEL: 31INTHRMAL01      ALIAS: 31INTHRMAL01
EXT: C                    PSID: DA
SCLK1: 06155013:00:0     SCLK2: 06155022:81:0
SCET1: 01-218/04:37:30.133 SCET2: 01-218/04:47:30.133
TARGET: IO                PARTITION: 1
  
```

```

MODE: 3                   GAIN: 1
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0            EST_COMPV: 0.3
RATE_CON1: 00000        RATE_CON2: 65525
NWAVETOT: 288           TLMFMT: MPW
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326144001      03 26 144 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	039FF	0,0011,1001,1111,1111
1	039FF	0,0011,1001,1111,1111
2	039FF	0,0011,1001,1111,1111
3	039FF	0,0011,1001,1111,1111
4	039FF	0,0011,1001,1111,1111
5	039FF	0,0011,1001,1111,1111
6	039FF	0,0011,1001,1111,1111
7	039FF	0,0011,1001,1111,1111
8	039FF	0,0011,1001,1111,1111
9	039FF	0,0011,1001,1111,1111
10	039FF	0,0011,1001,1111,1111
11	039FF	0,0011,1001,1111,1111
12	039FF	0,0011,1001,1111,1111
13	039FF	0,0011,1001,1111,1111
14	039FF	0,0011,1001,1111,1111
15	039FF	0,0011,1001,1111,1111
16	039FF	0,0011,1001,1111,1111
17	039FF	0,0011,1001,1111,1111
18	039FF	0,0011,1001,1111,1111
19	039FF	0,0011,1001,1111,1111
20	039FF	0,0011,1001,1111,1111
21	039FF	0,0011,1001,1111,1111
22	039FF	0,0011,1001,1111,1111
23	039FF	0,0011,1001,1111,1111
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INHSISUM01

```

OAPEL: 31INHSISUM01      ALIAS: 31INHSISUM01
EXT: A                    PSID: DB
SCLK1: 06155024:89:0     SCLK2: 06155028:78:0
SCET1: 01-218/04:49:36.800 SCET2: 01-218/04:53:32.800
TARGET: IO                PARTITION: 1
  
```

```

MODE: 3                   GAIN: 1
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0            EST_COMPV: 0.3
RATE_CON1: 00000         RATE_CON2: 65525
NWAVETOT: 144           TLMFMT: MPW
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326144001      03 26 144 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	039FF	0,0011,1001,1111,1111
1	00000	0,0000,0000,0000,0000
2	039FF	0,0011,1001,1111,1111
3	00000	0,0000,0000,0000,0000
4	039FF	0,0011,1001,1111,1111
5	00000	0,0000,0000,0000,0000
6	039FF	0,0011,1001,1111,1111
7	00000	0,0000,0000,0000,0000
8	039FF	0,0011,1001,1111,1111
9	00000	0,0000,0000,0000,0000
10	039FF	0,0011,1001,1111,1111
11	00000	0,0000,0000,0000,0000
12	039FF	0,0011,1001,1111,1111
13	00000	0,0000,0000,0000,0000
14	039FF	0,0011,1001,1111,1111
15	00000	0,0000,0000,0000,0000
16	039FF	0,0011,1001,1111,1111
17	00000	0,0000,0000,0000,0000
18	039FF	0,0011,1001,1111,1111
19	00000	0,0000,0000,0000,0000
20	039FF	0,0011,1001,1111,1111
21	00000	0,0000,0000,0000,0000
22	039FF	0,0011,1001,1111,1111
23	00000	0,0000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INHSISUM01

```

OAPEL: 31INHSISUM01      ALIAS: 31INHSISUM01
EXT: B                    PSID: DB
SCLK1: 06155025:75:0     SCLK2: 06155028:78:0
SCET1: 01-218/04:50:28.133 SCET2: 01-218/04:53:32.800
TARGET: IO                PARTITION: 1
    
```

```

MODE: 3                   GAIN: 1
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
    
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0            EST_COMPV: 0.3
RATE_CON1: 00000        RATE_CON2: 65525
NWAVETOT: 144           TLMFMT: MPW
    
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
    
```

```

WETGID: 0326144001      03 26 144 001
WTGRP_SIZ: 26
    
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	00000	0,0000,0000,0000,0000
1	039FF	0,0011,1001,1111,1111
2	00000	0,0000,0000,0000,0000
3	039FF	0,0011,1001,1111,1111
4	00000	0,0000,0000,0000,0000
5	039FF	0,0011,1001,1111,1111
6	00000	0,0000,0000,0000,0000
7	039FF	0,0011,1001,1111,1111
8	00000	0,0000,0000,0000,0000
9	039FF	0,0011,1001,1111,1111
10	00000	0,0000,0000,0000,0000
11	039FF	0,0011,1001,1111,1111
12	00000	0,0000,0000,0000,0000
13	039FF	0,0011,1001,1111,1111
14	00000	0,0000,0000,0000,0000
15	039FF	0,0011,1001,1111,1111
16	00000	0,0000,0000,0000,0000
17	039FF	0,0011,1001,1111,1111
18	00000	0,0000,0000,0000,0000
19	039FF	0,0011,1001,1111,1111
20	00000	0,0000,0000,0000,0000
21	039FF	0,0011,1001,1111,1111
22	00000	0,0000,0000,0000,0000
23	039FF	0,0011,1001,1111,1111
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INHSISUM01

```

OAPEL: 31INHSISUM01      ALIAS: 31INHSISUM01
EXT: C                    PSID: DB
SCLK1: 06155024:89:0     SCLK2: 06155028:78:0
SCET1: 01-218/04:49:36.800 SCET2: 01-218/04:53:32.800
TARGET: IO                PARTITION: 1
  
```

```

MODE: 3                   GAIN: 1
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0            EST_COMPV: 0.3
RATE_CON1: 00000        RATE_CON2: 65525
NWAVETOT: 288           TLMFMT: MPW
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326144001      03 26 144 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	039FF	0,0011,1001,1111,1111
1	039FF	0,0011,1001,1111,1111
2	039FF	0,0011,1001,1111,1111
3	039FF	0,0011,1001,1111,1111
4	039FF	0,0011,1001,1111,1111
5	039FF	0,0011,1001,1111,1111
6	039FF	0,0011,1001,1111,1111
7	039FF	0,0011,1001,1111,1111
8	039FF	0,0011,1001,1111,1111
9	039FF	0,0011,1001,1111,1111
10	039FF	0,0011,1001,1111,1111
11	039FF	0,0011,1001,1111,1111
12	039FF	0,0011,1001,1111,1111
13	039FF	0,0011,1001,1111,1111
14	039FF	0,0011,1001,1111,1111
15	039FF	0,0011,1001,1111,1111
16	039FF	0,0011,1001,1111,1111
17	039FF	0,0011,1001,1111,1111
18	039FF	0,0011,1001,1111,1111
19	039FF	0,0011,1001,1111,1111
20	039FF	0,0011,1001,1111,1111
21	039FF	0,0011,1001,1111,1111
22	039FF	0,0011,1001,1111,1111
23	039FF	0,0011,1001,1111,1111
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INSO2MAP01

```

OAPEL: 31INSO2MAP01      ALIAS: 31INSO2MAP01
EXT: A                    PSID: DC
SCLK1: 06155037:88:0     SCLK2: 06155038:58:0
SCET1: 01-218/05:02:45.466 SCET2: 01-218/05:03:25.466
TARGET: IO                PARTITION: 1
  
```

```

MODE: 3                   GAIN: 2
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0            EST_COMPV: 0.3
RATE_CON1: 00000        RATE_CON2: 65525
NWAVETOT: 96            TLMFMT: MPW
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326096001      03 26 096 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	039FF	0,0011,1001,1111,1111
1	00000	0,0000,0000,0000,0000
2	00000	0,0000,0000,0000,0000
3	039FF	0,0011,1001,1111,1111
4	00000	0,0000,0000,0000,0000
5	00000	0,0000,0000,0000,0000
6	039FF	0,0011,1001,1111,1111
7	00000	0,0000,0000,0000,0000
8	00000	0,0000,0000,0000,0000
9	039FF	0,0011,1001,1111,1111
10	00000	0,0000,0000,0000,0000
11	00000	0,0000,0000,0000,0000
12	039FF	0,0011,1001,1111,1111
13	00000	0,0000,0000,0000,0000
14	00000	0,0000,0000,0000,0000
15	039FF	0,0011,1001,1111,1111
16	00000	0,0000,0000,0000,0000
17	00000	0,0000,0000,0000,0000
18	039FF	0,0011,1001,1111,1111
19	00000	0,0000,0000,0000,0000
20	00000	0,0000,0000,0000,0000
21	039FF	0,0011,1001,1111,1111
22	00000	0,0000,0000,0000,0000
23	00000	0,0000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INTVASHT03

```

OAPEL: 31INTVASHT03          ALIAS: 31ISTVASHT02
EXT: A                        PSID: IC
SCLK1: 06155047:34:0        SCLK2: 06155048:10:0
SCET1: 01-218/05:12:16.133  SCET2: 01-218/05:13:00.133
TARGET: IO                    PARTITION: 1
  
```

```

MODE: 3                      GAIN: 2
CHOP: 1                      GRAT_OFF: 4
PTAB_A: 1 1 0 0 124         PTAB_B: 1 1 0 0 124
ECAL: 0                      OPCAL: 0
R/T: 0                       RECORD: 1
  
```

```

MB_DOWN: 00000              MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0              EST_COMPV: 0.3
RATE_CON1: 00000          RATE_CON2: 65525
NWAVETOT: 96              TLMFMT: IM8
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326096001        03 26 096 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	039FF	0,0011,1001,1111,1111
1	00000	0,0000,0000,0000,0000
2	00000	0,0000,0000,0000,0000
3	039FF	0,0011,1001,1111,1111
4	00000	0,0000,0000,0000,0000
5	00000	0,0000,0000,0000,0000
6	039FF	0,0011,1001,1111,1111
7	00000	0,0000,0000,0000,0000
8	00000	0,0000,0000,0000,0000
9	039FF	0,0011,1001,1111,1111
10	00000	0,0000,0000,0000,0000
11	00000	0,0000,0000,0000,0000
12	039FF	0,0011,1001,1111,1111
13	00000	0,0000,0000,0000,0000
14	00000	0,0000,0000,0000,0000
15	039FF	0,0011,1001,1111,1111
16	00000	0,0000,0000,0000,0000
17	00000	0,0000,0000,0000,0000
18	039FF	0,0011,1001,1111,1111
19	00000	0,0000,0000,0000,0000
20	00000	0,0000,0000,0000,0000
21	039FF	0,0011,1001,1111,1111
22	00000	0,0000,0000,0000,0000
23	00000	0,0000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000



# 31INTVASHT01

```

OAPEL: 31INTVASHT01      ALIAS: 31INTVASHT01
EXT: A                    PSID: DD
SCLK1: 06155049:88:0     SCLK2: 06155059:68:0
SCET1: 01-218/05:14:53.466 SCET2: 01-218/05:24:46.800
TARGET: IO                PARTITION: 1
  
```

```

MODE: 3                   GAIN: 2
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0            EST_COMPV: 0.3
RATE_CON1: 00000         RATE_CON2: 65525
NWAVETOT: 144           TLMFMT: MPW
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                   000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326144001      03 26 144 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	039FF	0,0011,1001,1111,1111
1	00000	0,0000,0000,0000,0000
2	039FF	0,0011,1001,1111,1111
3	00000	0,0000,0000,0000,0000
4	039FF	0,0011,1001,1111,1111
5	00000	0,0000,0000,0000,0000
6	039FF	0,0011,1001,1111,1111
7	00000	0,0000,0000,0000,0000
8	039FF	0,0011,1001,1111,1111
9	00000	0,0000,0000,0000,0000
10	039FF	0,0011,1001,1111,1111
11	00000	0,0000,0000,0000,0000
12	039FF	0,0011,1001,1111,1111
13	00000	0,0000,0000,0000,0000
14	039FF	0,0011,1001,1111,1111
15	00000	0,0000,0000,0000,0000
16	039FF	0,0011,1001,1111,1111
17	00000	0,0000,0000,0000,0000
18	039FF	0,0011,1001,1111,1111
19	00000	0,0000,0000,0000,0000
20	039FF	0,0011,1001,1111,1111
21	00000	0,0000,0000,0000,0000
22	039FF	0,0011,1001,1111,1111
23	00000	0,0000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INAMRANI02

```

OAPEL: 31INAMRANI02          ALIAS: 31ISAMRANI01
EXT: A                        PSID: IE
SCLK1: 06155069:90:0        SCLK2: 06155070:64:0
SCET1: 01-218/05:35:07.466  SCET2: 01-218/05:35:50.800
TARGET: IO                    PARTITION: 1
  
```

```

MODE: 3                      GAIN: 2
CHOP: 1                      GRAT_OFF: 4
PTAB_A: 1 1 0 0 124        PTAB_B: 1 1 0 0 124
ECAL: 0                     OPCAL: 0
R/T: 0                      RECORD: 1
  
```

```

MB_DOWN: 00000              MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0              EST_COMPV: 0.3
RATE_CON1: 00000          RATE_CON2: 65525
NWAVETOT: 144             TLMFMT: IM8
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326144001        03 26 144 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	039FF	0,0011,1001,1111,1111
1	00000	0,0000,0000,0000,0000
2	039FF	0,0011,1001,1111,1111
3	00000	0,0000,0000,0000,0000
4	039FF	0,0011,1001,1111,1111
5	00000	0,0000,0000,0000,0000
6	039FF	0,0011,1001,1111,1111
7	00000	0,0000,0000,0000,0000
8	039FF	0,0011,1001,1111,1111
9	00000	0,0000,0000,0000,0000
10	039FF	0,0011,1001,1111,1111
11	00000	0,0000,0000,0000,0000
12	039FF	0,0011,1001,1111,1111
13	00000	0,0000,0000,0000,0000
14	039FF	0,0011,1001,1111,1111
15	00000	0,0000,0000,0000,0000
16	039FF	0,0011,1001,1111,1111
17	00000	0,0000,0000,0000,0000
18	039FF	0,0011,1001,1111,1111
19	00000	0,0000,0000,0000,0000
20	039FF	0,0011,1001,1111,1111
21	00000	0,0000,0000,0000,0000
22	039FF	0,0011,1001,1111,1111
23	00000	0,0000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INGISHBR01

```

OAPEL: 31INGISHBR01      ALIAS: 31INGISHBR01
EXT: A                    PSID: DE
SCLK1: 06155074:00:0     SCLK2: 06155089:73:0
SCET1: 01-218/05:39:10.800 SCET2: 01-218/05:55:09.466
TARGET: IO                PARTITION: 1
  
```

```

MODE: 3                   GAIN: 2
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0           EST_COMPV: 0.3
RATE_CON1: 00000        RATE_CON2: 65525
NWAVETOT: 144           TLMFMT: MPW
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326144001      03 26 144 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	039FF	0,0011,1001,1111,1111
1	00000	0,0000,0000,0000,0000
2	039FF	0,0011,1001,1111,1111
3	00000	0,0000,0000,0000,0000
4	039FF	0,0011,1001,1111,1111
5	00000	0,0000,0000,0000,0000
6	039FF	0,0011,1001,1111,1111
7	00000	0,0000,0000,0000,0000
8	039FF	0,0011,1001,1111,1111
9	00000	0,0000,0000,0000,0000
10	039FF	0,0011,1001,1111,1111
11	00000	0,0000,0000,0000,0000
12	039FF	0,0011,1001,1111,1111
13	00000	0,0000,0000,0000,0000
14	039FF	0,0011,1001,1111,1111
15	00000	0,0000,0000,0000,0000
16	039FF	0,0011,1001,1111,1111
17	00000	0,0000,0000,0000,0000
18	039FF	0,0011,1001,1111,1111
19	00000	0,0000,0000,0000,0000
20	039FF	0,0011,1001,1111,1111
21	00000	0,0000,0000,0000,0000
22	039FF	0,0011,1001,1111,1111
23	00000	0,0000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INAMRANI01

```

OAPEL: 31INAMRANI01      ALIAS: 31INAMRANI01
EXT: A                    PSID: DF
SCLK1: 06155114:89:0     SCLK2: 06155129:84:0
SCET1: 01-218/06:20:36.800 SCET2: 01-218/06:35:44.133
TARGET: IO                PARTITION: 1
  
```

```

MODE: 3                   GAIN: 2
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0            EST_COMPV: 0.3
RATE_CON1: 00000        RATE_CON2: 65525
NWAVETOT: 36            TLMFMT: MPW
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326036001      03 26 036 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	00000	0,0000,0000,0000,0000
1	00000	0,0000,0000,0000,0000
2	00000	0,0000,0000,0000,0000
3	00000	0,0000,0000,0000,0000
4	039FF	0,0011,1001,1111,1111
5	00000	0,0000,0000,0000,0000
6	00000	0,0000,0000,0000,0000
7	00000	0,0000,0000,0000,0000
8	00000	0,0000,0000,0000,0000
9	00000	0,0000,0000,0000,0000
10	00000	0,0000,0000,0000,0000
11	00000	0,0000,0000,0000,0000
12	039FF	0,0011,1001,1111,1111
13	00000	0,0000,0000,0000,0000
14	00000	0,0000,0000,0000,0000
15	00000	0,0000,0000,0000,0000
16	00000	0,0000,0000,0000,0000
17	00000	0,0000,0000,0000,0000
18	00000	0,0000,0000,0000,0000
19	00000	0,0000,0000,0000,0000
20	039FF	0,0011,1001,1111,1111
21	00000	0,0000,0000,0000,0000
22	00000	0,0000,0000,0000,0000
23	00000	0,0000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INAMRANI01

```

OAPEL: 31INAMRANI01      ALIAS: 31INAMRANI01
EXT: B                    PSID: DF
SCLK1: 06155114:89:0     SCLK2: 06155129:84:0
SCET1: 01-218/06:20:36.800 SCET2: 01-218/06:35:44.133
TARGET: IO                PARTITION: 1
  
```

```

MODE: 3                   GAIN: 2
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0            EST_COMPV: 0.3
RATE_CON1: 00000        RATE_CON2: 65525
NWAVETOT: 108           TLMFMT: MPW
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326108001      03 26 108 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	039FF	0,0011,1001,1111,1111
1	00000	0,0000,0000,0000,0000
2	039FF	0,0011,1001,1111,1111
3	00000	0,0000,0000,0000,0000
4	00000	0,0000,0000,0000,0000
5	00000	0,0000,0000,0000,0000
6	039FF	0,0011,1001,1111,1111
7	00000	0,0000,0000,0000,0000
8	039FF	0,0011,1001,1111,1111
9	00000	0,0000,0000,0000,0000
10	039FF	0,0011,1001,1111,1111
11	00000	0,0000,0000,0000,0000
12	00000	0,0000,0000,0000,0000
13	00000	0,0000,0000,0000,0000
14	039FF	0,0011,1001,1111,1111
15	00000	0,0000,0000,0000,0000
16	039FF	0,0011,1001,1111,1111
17	00000	0,0000,0000,0000,0000
18	039FF	0,0011,1001,1111,1111
19	00000	0,0000,0000,0000,0000
20	00000	0,0000,0000,0000,0000
21	00000	0,0000,0000,0000,0000
22	039FF	0,0011,1001,1111,1111
23	00000	0,0000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INAMRANI01

```

OAPEL: 31INAMRANI01      ALIAS: 31INAMRANI01
EXT: C                    PSID: DC
SCLK1: 06155114:89:0     SCLK2: 06155129:84:0
SCET1: 01-218/06:20:36.800 SCET2: 01-218/06:35:44.133
TARGET: IO                PARTITION: 1
  
```

```

MODE: 3                   GAIN: 2
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0            EST_COMPV: 0.3
RATE_CON1: 00000        RATE_CON2: 65525
NWAVETOT: 144           TLMFMT: MPW
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326144001      03 26 144 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	039FF	0,0011,1001,1111,1111
1	00000	0,0000,0000,0000,0000
2	039FF	0,0011,1001,1111,1111
3	00000	0,0000,0000,0000,0000
4	039FF	0,0011,1001,1111,1111
5	00000	0,0000,0000,0000,0000
6	039FF	0,0011,1001,1111,1111
7	00000	0,0000,0000,0000,0000
8	039FF	0,0011,1001,1111,1111
9	00000	0,0000,0000,0000,0000
10	039FF	0,0011,1001,1111,1111
11	00000	0,0000,0000,0000,0000
12	039FF	0,0011,1001,1111,1111
13	00000	0,0000,0000,0000,0000
14	039FF	0,0011,1001,1111,1111
15	00000	0,0000,0000,0000,0000
16	039FF	0,0011,1001,1111,1111
17	00000	0,0000,0000,0000,0000
18	039FF	0,0011,1001,1111,1111
19	00000	0,0000,0000,0000,0000
20	039FF	0,0011,1001,1111,1111
21	00000	0,0000,0000,0000,0000
22	039FF	0,0011,1001,1111,1111
23	00000	0,0000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INREGION01

```

OAPEL: 31INREGION01      ALIAS: 31INREGION01
EXT: A                    PSID: DG
SCLK1: 06155144:89:0     SCLK2: 06155216:87:0
SCET1: 01-218/06:50:56.800 SCET2: 01-218/08:03:44.133
TARGET: IO                PARTITION: 1
  
```

```

MODE: 3                   GAIN: 2
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0            EST_COMPV: 0.3
RATE_CON1: 00000        RATE_CON2: 65525
NWAVETOT: 36            TLMFMT: LPU
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326036001      03 26 036 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	039FF	0,0011,1001,1111,1111
1	00000	0,0000,0000,0000,0000
2	00000	0,0000,0000,0000,0000
3	00000	0,0000,0000,0000,0000
4	00000	0,0000,0000,0000,0000
5	00000	0,0000,0000,0000,0000
6	00000	0,0000,0000,0000,0000
7	00000	0,0000,0000,0000,0000
8	039FF	0,0011,1001,1111,1111
9	00000	0,0000,0000,0000,0000
10	00000	0,0000,0000,0000,0000
11	00000	0,0000,0000,0000,0000
12	00000	0,0000,0000,0000,0000
13	00000	0,0000,0000,0000,0000
14	00000	0,0000,0000,0000,0000
15	00000	0,0000,0000,0000,0000
16	039FF	0,0011,1001,1111,1111
17	00000	0,0000,0000,0000,0000
18	00000	0,0000,0000,0000,0000
19	00000	0,0000,0000,0000,0000
20	00000	0,0000,0000,0000,0000
21	00000	0,0000,0000,0000,0000
22	00000	0,0000,0000,0000,0000
23	00000	0,0000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INREGION01

```

OAPEL: 31INREGION01      ALIAS: 31INREGION01
EXT: C                    PSID: DG
SCLK1: 06155144:89:0     SCLK2: 06155216:87:0
SCET1: 01-218/06:50:56.800 SCET2: 01-218/08:03:44.133
TARGET: IO                PARTITION: 1
  
```

```

MODE: 3                   GAIN: 2
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0            EST_COMPV: 0.3
RATE_CON1: 00000        RATE_CON2: 65525
NWAVETOT: 48            TLMFMT: LPU
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326048001      03 26 048 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	00000	0,0000,0000,0000,0000
1	00000	0,0000,0000,0000,0000
2	00000	0,0000,0000,0000,0000
3	00000	0,0000,0000,0000,0000
4	039FF	0,0011,1001,1111,1111
5	00000	0,0000,0000,0000,0000
6	00000	0,0000,0000,0000,0000
7	00000	0,0000,0000,0000,0000
8	00000	0,0000,0000,0000,0000
9	00000	0,0000,0000,0000,0000
10	00000	0,0000,0000,0000,0000
11	00000	0,0000,0000,0000,0000
12	00000	0,0000,0000,0000,0000
13	039FF	0,0011,1001,1111,1111
14	00000	0,0000,0000,0000,0000
15	00000	0,0000,0000,0000,0000
16	00000	0,0000,0000,0000,0000
17	00000	0,0000,0000,0000,0000
18	00000	0,0000,0000,0000,0000
19	039FF	0,0011,1001,1111,1111
20	00000	0,0000,0000,0000,0000
21	00000	0,0000,0000,0000,0000
22	00000	0,0000,0000,0000,0000
23	039FF	0,0011,1001,1111,1111
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000



# 31INREGION01

```

OAPEL: 31INREGION01      ALIAS: 31INREGION01
EXT: I                    PSID: DG
SCLK1: 06155144:89:0     SCLK2: 06155216:87:0
SCET1: 01-218/06:50:56.800 SCET2: 01-218/08:03:44.133
TARGET: IO                PARTITION: 1
  
```

```

MODE: 3                   GAIN: 2
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0            EST_COMPV: 0.3
RATE_CON1: 00000        RATE_CON2: 65525
NWAVETOT: 84            TLMFMT: LPU
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326036001      03 26 036 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	039FF	0,0011,1001,1111,1111
1	00000	0,0000,0000,0000,0000
2	00000	0,0000,0000,0000,0000
3	00000	0,0000,0000,0000,0000
4	039FF	0,0011,1001,1111,1111
5	00000	0,0000,0000,0000,0000
6	00000	0,0000,0000,0000,0000
7	00000	0,0000,0000,0000,0000
8	039FF	0,0011,1001,1111,1111
9	00000	0,0000,0000,0000,0000
10	00000	0,0000,0000,0000,0000
11	00000	0,0000,0000,0000,0000
12	00000	0,0000,0000,0000,0000
13	039FF	0,0011,1001,1111,1111
14	00000	0,0000,0000,0000,0000
15	00000	0,0000,0000,0000,0000
16	039FF	0,0011,1001,1111,1111
17	00000	0,0000,0000,0000,0000
18	00000	0,0000,0000,0000,0000
19	039FF	0,0011,1001,1111,1111
20	00000	0,0000,0000,0000,0000
21	00000	0,0000,0000,0000,0000
22	00000	0,0000,0000,0000,0000
23	039FF	0,0011,1001,1111,1111
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INREGION01

```

OAPEL: 31INREGION01      ALIAS: 31INREGION01
EXT: B                    PSID: DG
SCLK1: 06155225:63:0     SCLK2: 06155267:14:0
SCET1: 01-218/08:12:34.133 SCET2: 01-218/08:54:29.466
TARGET: IO                PARTITION: 1
  
```

```

MODE: 3                   GAIN: 2
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0            EST_COMPV: 0.3
RATE_CON1: 00000        RATE_CON2: 65525
NWAVETOT: 36            TLMFMT: LPU
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326036001      03 26 036 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	039FF	0,0011,1001,1111,1111
1	00000	0,0000,0000,0000,0000
2	00000	0,0000,0000,0000,0000
3	00000	0,0000,0000,0000,0000
4	00000	0,0000,0000,0000,0000
5	00000	0,0000,0000,0000,0000
6	00000	0,0000,0000,0000,0000
7	00000	0,0000,0000,0000,0000
8	039FF	0,0011,1001,1111,1111
9	00000	0,0000,0000,0000,0000
10	00000	0,0000,0000,0000,0000
11	00000	0,0000,0000,0000,0000
12	00000	0,0000,0000,0000,0000
13	00000	0,0000,0000,0000,0000
14	00000	0,0000,0000,0000,0000
15	00000	0,0000,0000,0000,0000
16	039FF	0,0011,1001,1111,1111
17	00000	0,0000,0000,0000,0000
18	00000	0,0000,0000,0000,0000
19	00000	0,0000,0000,0000,0000
20	00000	0,0000,0000,0000,0000
21	00000	0,0000,0000,0000,0000
22	00000	0,0000,0000,0000,0000
23	00000	0,0000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INREGION01

```

OAPEL: 31INREGION01          ALIAS: 31INREGION01
EXT: D                       PSID: DG
SCLK1: 06155225:63:0        SCLK2: 06155267:14:0
SCET1: 01-218/08:12:34.133  SCET2: 01-218/08:54:29.466
TARGET: IO                   PARTITION: 1
  
```

```

MODE: 3                      GAIN: 2
CHOP: 1                      GRAT_OFF: 4
PTAB_A: 1 1 0 0 124         PTAB_B: 1 1 0 0 124
ECAL: 0                      OPCAL: 0
R/T: 0                       RECORD: 1
  
```

```

MB_DOWN: 00000              MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0              EST_COMPV: 0.3
RATE_CON1: 00000          RATE_CON2: 65525
NWAVETOT: 48              TLMFMT: LPU
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326048001        03 26 048 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	00000	0,0000,0000,0000,0000
1	00000	0,0000,0000,0000,0000
2	00000	0,0000,0000,0000,0000
3	00000	0,0000,0000,0000,0000
4	039FF	0,0011,1001,1111,1111
5	00000	0,0000,0000,0000,0000
6	00000	0,0000,0000,0000,0000
7	00000	0,0000,0000,0000,0000
8	00000	0,0000,0000,0000,0000
9	00000	0,0000,0000,0000,0000
10	00000	0,0000,0000,0000,0000
11	00000	0,0000,0000,0000,0000
12	00000	0,0000,0000,0000,0000
13	039FF	0,0011,1001,1111,1111
14	00000	0,0000,0000,0000,0000
15	00000	0,0000,0000,0000,0000
16	00000	0,0000,0000,0000,0000
17	00000	0,0000,0000,0000,0000
18	00000	0,0000,0000,0000,0000
19	039FF	0,0011,1001,1111,1111
20	00000	0,0000,0000,0000,0000
21	00000	0,0000,0000,0000,0000
22	00000	0,0000,0000,0000,0000
23	039FF	0,0011,1001,1111,1111
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INREGION01

```

OAPEL: 31INREGION01      ALIAS: 31INREGION01
EXT: J                    PSID: DG
SCLK1: 06155225:63:0     SCLK2: 06155267:14:0
SCET1: 01-218/08:12:34.133 SCET2: 01-218/08:54:29.466
TARGET: IO                PARTITION: 1
  
```

```

MODE: 3                   GAIN: 2
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0            EST_COMPV: 0.3
RATE_CON1: 00000        RATE_CON2: 65525
NWAVETOT: 84            TLMFMT: LPU
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326036001      03 26 036 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	039FF	0,0011,1001,1111,1111
1	00000	0,0000,0000,0000,0000
2	00000	0,0000,0000,0000,0000
3	00000	0,0000,0000,0000,0000
4	039FF	0,0011,1001,1111,1111
5	00000	0,0000,0000,0000,0000
6	00000	0,0000,0000,0000,0000
7	00000	0,0000,0000,0000,0000
8	039FF	0,0011,1001,1111,1111
9	00000	0,0000,0000,0000,0000
10	00000	0,0000,0000,0000,0000
11	00000	0,0000,0000,0000,0000
12	00000	0,0000,0000,0000,0000
13	039FF	0,0011,1001,1111,1111
14	00000	0,0000,0000,0000,0000
15	00000	0,0000,0000,0000,0000
16	039FF	0,0011,1001,1111,1111
17	00000	0,0000,0000,0000,0000
18	00000	0,0000,0000,0000,0000
19	039FF	0,0011,1001,1111,1111
20	00000	0,0000,0000,0000,0000
21	00000	0,0000,0000,0000,0000
22	00000	0,0000,0000,0000,0000
23	039FF	0,0011,1001,1111,1111
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INREGION02

```

OAPEL: 31INREGION02      ALIAS: 31INREGION02
EXT: A                    PSID: DH
SCLK1: 06155396:88:0     SCLK2: 06155403:65:0
SCET1: 01-218/11:05:44.800 SCET2: 01-218/11:12:34.133
TARGET: IO                PARTITION: 1
  
```

```

MODE: 3                   GAIN: 2
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0           EST_COMPV: 0.3
RATE_CON1: 00000        RATE_CON2: 65525
NWAVETOT: 36           TLMFMT: LPU
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                   000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326036001      03 26 036 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	039FF	0,0011,1001,1111,1111
1	00000	0,0000,0000,0000,0000
2	00000	0,0000,0000,0000,0000
3	00000	0,0000,0000,0000,0000
4	00000	0,0000,0000,0000,0000
5	00000	0,0000,0000,0000,0000
6	00000	0,0000,0000,0000,0000
7	00000	0,0000,0000,0000,0000
8	039FF	0,0011,1001,1111,1111
9	00000	0,0000,0000,0000,0000
10	00000	0,0000,0000,0000,0000
11	00000	0,0000,0000,0000,0000
12	00000	0,0000,0000,0000,0000
13	00000	0,0000,0000,0000,0000
14	00000	0,0000,0000,0000,0000
15	00000	0,0000,0000,0000,0000
16	039FF	0,0011,1001,1111,1111
17	00000	0,0000,0000,0000,0000
18	00000	0,0000,0000,0000,0000
19	00000	0,0000,0000,0000,0000
20	00000	0,0000,0000,0000,0000
21	00000	0,0000,0000,0000,0000
22	00000	0,0000,0000,0000,0000
23	00000	0,0000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INREGION02

```

OAPEL: 31INREGION02      ALIAS: 31INREGION02
EXT: B                    PSID: DH
SCLK1: 06155396:88:0     SCLK2: 06155403:65:0
SCET1: 01-218/11:05:44.800 SCET2: 01-218/11:12:34.133
TARGET: IO                PARTITION: 1
  
```

```

MODE: 3                   GAIN: 2
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0            EST_COMPV: 0.3
RATE_CON1: 00000        RATE_CON2: 65525
NWAVETOT: 36            TLMFMT: LPU
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326036001      03 26 036 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	00000	0,0000,0000,0000,0000
1	00000	0,0000,0000,0000,0000
2	00000	0,0000,0000,0000,0000
3	00000	0,0000,0000,0000,0000
4	039FF	0,0011,1001,1111,1111
5	00000	0,0000,0000,0000,0000
6	00000	0,0000,0000,0000,0000
7	00000	0,0000,0000,0000,0000
8	00000	0,0000,0000,0000,0000
9	00000	0,0000,0000,0000,0000
10	00000	0,0000,0000,0000,0000
11	00000	0,0000,0000,0000,0000
12	00000	0,0000,0000,0000,0000
13	039FF	0,0011,1001,1111,1111
14	00000	0,0000,0000,0000,0000
15	00000	0,0000,0000,0000,0000
16	00000	0,0000,0000,0000,0000
17	00000	0,0000,0000,0000,0000
18	00000	0,0000,0000,0000,0000
19	00000	0,0000,0000,0000,0000
20	039FF	0,0011,1001,1111,1111
21	00000	0,0000,0000,0000,0000
22	00000	0,0000,0000,0000,0000
23	00000	0,0000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31INREGION02

```

OAPEL: 31INREGION02      ALIAS: 31INREGION02
EXT: C                    PSID: DH
SCLK1: 06155396:88:0     SCLK2: 06155403:65:0
SCET1: 01-218/11:05:44.800 SCET2: 01-218/11:12:34.133
TARGET: IO                PARTITION: 1
  
```

```

MODE: 3                   GAIN: 2
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124     PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0            EST_COMPV: 0.3
RATE_CON1: 00000        RATE_CON2: 65525
NWAVETOT: 72            TLMFMT: LPU
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326036001      03 26 036 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	039FF	0,0011,1001,1111,1111
1	00000	0,0000,0000,0000,0000
2	00000	0,0000,0000,0000,0000
3	00000	0,0000,0000,0000,0000
4	039FF	0,0011,1001,1111,1111
5	00000	0,0000,0000,0000,0000
6	00000	0,0000,0000,0000,0000
7	00000	0,0000,0000,0000,0000
8	039FF	0,0011,1001,1111,1111
9	00000	0,0000,0000,0000,0000
10	00000	0,0000,0000,0000,0000
11	00000	0,0000,0000,0000,0000
12	00000	0,0000,0000,0000,0000
13	039FF	0,0011,1001,1111,1111
14	00000	0,0000,0000,0000,0000
15	00000	0,0000,0000,0000,0000
16	039FF	0,0011,1001,1111,1111
17	00000	0,0000,0000,0000,0000
18	00000	0,0000,0000,0000,0000
19	00000	0,0000,0000,0000,0000
20	039FF	0,0011,1001,1111,1111
21	00000	0,0000,0000,0000,0000
22	00000	0,0000,0000,0000,0000
23	00000	0,0000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31JNGRSPOT01

```

OAPEL: 31JNGRSPOT01      ALIAS: 31JNGRSPOT01
EXT: A                    PSID: DK
SCLK1: 06155696:87:0     SCLK2: 06155738:00:0
SCET1: 01-218/16:09:04.133 SCET2: 01-218/16:50:33.466
TARGET: JUPITER          PARTITION: 1
  
```

```

MODE: 5                   GAIN: 2
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 1 4 6     PTAB_B: 1 1 0 1 4 6
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0           EST_COMPV: 0.3
RATE_CON1: 00000       RATE_CON2: 65525
NWAVETOT: 54           TLMFMT: LPU
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0507054001      05 07 054 001
WTGRP_SIZ: 7
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	038D7	0,0011,1000,1101,0111
1	038D7	0,0011,1000,1101,0111
2	038D7	0,0011,1000,1101,0111
3	038D7	0,0011,1000,1101,0111
4	038D7	0,0011,1000,1101,0111
5	038D7	0,0011,1000,1101,0111
6	00000	0,0000,0000,0000,0000



# 31JNGRSPOT02

```

OAPEL: 31JNGRSPOT02      ALIAS: 31JNGRSPOT02
EXT: A                    PSID: DL
SCLK1: 06158097:11:0     SCLK2: 06158140:47:0
SCET1: 01-220/08:35:54.066 SCET2: 01-220/09:19:46.066
TARGET: JUPITER          PARTITION: 1
  
```

```

MODE: 3                   GAIN: 2
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 124      PTAB_B: 1 1 0 0 124
ECAL: 0                   OPCAL: 0
R/T: 0                    RECORD: 1
  
```

```

MB_DOWN: 00000           MB_UP: 00000
COMP_FLAG: 1
EST_COMP: 2.0            EST_COMPV: 0.3
RATE_CON1: 00000        RATE_CON2: 65525
NWAVETOT: 54            TLMFMT: LPU
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0326054001      03 26 054 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	038D7	0,0011,1000,1101,0111
1	00000	0,0000,0000,0000,0000
2	00000	0,0000,0000,0000,0000
3	00000	0,0000,0000,0000,0000
4	038D7	0,0011,1000,1101,0111
5	00000	0,0000,0000,0000,0000
6	00000	0,0000,0000,0000,0000
7	00000	0,0000,0000,0000,0000
8	038D7	0,0011,1000,1101,0111
9	00000	0,0000,0000,0000,0000
10	00000	0,0000,0000,0000,0000
11	00000	0,0000,0000,0000,0000
12	038D7	0,0011,1000,1101,0111
13	00000	0,0000,0000,0000,0000
14	00000	0,0000,0000,0000,0000
15	00000	0,0000,0000,0000,0000
16	038D7	0,0011,1000,1101,0111
17	00000	0,0000,0000,0000,0000
18	00000	0,0000,0000,0000,0000
19	00000	0,0000,0000,0000,0000
20	038D7	0,0011,1000,1101,0111
21	00000	0,0000,0000,0000,0000
22	00000	0,0000,0000,0000,0000
23	00000	0,0000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31NNRCTRLT01

```

OAPEL: 31NNRCTRLT01      ALIAS: LSNNRCTRTA01
EXT: R                    PSID: XU
SCLK1: 06185273:00:0     SCLK2: 06185280:12:0
SCET1: 2001-239/10:33:42.466 SCET2: 2001-239/10:40:55.133
TARGET: CAL              PARTITION: 1
  
```

```

MODE: 3                  GAIN: 1
CHOP: 1                  GRAT_OFF: 4
PTAB_A: 1 1 0 0 124     PTAB_B: 1 1 0 0 124
ECAL: 0                  OPCAL: 0
R/T: 1                   RECORD: 0
  
```

```

MB_DOWN: 11011          MB_UP: 11011
COMP_FLAG: 0
EST_COMP: 0.0           EST_COMPV: 0.0
RATE_CON1: 00000        RATE_CON2: 00000
NWAVETOT: 252           TLMFMT: RT
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0303252000      03 03 252 000
WTGRP_SIZ: 3
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	003FF	0,0000,0011,1111,1111
1	003FF	0,0000,0011,1111,1111
2	003FF	0,0000,0011,1111,1111
3	003FF	0,0000,0011,1111,1111
4	003FF	0,0000,0011,1111,1111
5	003FF	0,0000,0011,1111,1111
6	003FF	0,0000,0011,1111,1111
7	003FF	0,0000,0011,1111,1111
8	003FF	0,0000,0011,1111,1111
9	003FF	0,0000,0011,1111,1111
10	003FF	0,0000,0011,1111,1111
11	003FF	0,0000,0011,1111,1111
12	007FF	0,0000,0111,1111,1111
13	007FF	0,0000,0111,1111,1111
14	007FF	0,0000,0111,1111,1111
15	007FF	0,0000,0111,1111,1111
16	007FF	0,0000,0111,1111,1111
17	007FF	0,0000,0111,1111,1111
18	007FF	0,0000,0111,1111,1111
19	007FF	0,0000,0111,1111,1111
20	007FF	0,0000,0111,1111,1111
21	007FF	0,0000,0111,1111,1111
22	007FF	0,0000,0111,1111,1111
23	007FF	0,0000,0111,1111,1111
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 31NNRCTRLT01

```

OAPEL: 31NNRCTRLT01      ALIAS: LSNNRCTRTA01
EXT: S                    PSID: XU
SCLK1: 06185287:00:0     SCLK2: 06185288:12:0
SCET1: 2001-239/10:47:51.800 SCET2: 2001-239/10:49:00.466
TARGET: CAL              PARTITION: 1
  
```

```

MODE: 3                  GAIN: 1
CHOP: 1                 GRAT_OFF: 4
PTAB_A: 1 1 0 0 124    PTAB_B: 1 1 0 0 124
ECAL: 0                 OPCAL: 0
R/T: 1                  RECORD: 0
  
```

```

MB_DOWN: 11011          MB_UP: 11011
COMP_FLAG: 0
EST_COMP: 0.0          EST_COMPV: 0.0
RATE_CON1: 00000       RATE_CON2: 00000
NWAVETOT: 252          TLMFMT: RT
  
```

```

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000, 000
                  000, 000, 000, 000, 000, 000, 000, 000, 000
  
```

```

WETGID: 0303252000      03 03 252 000
WTGRP_SIZ: 3
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	003FF	0,0000,0011,1111,1111
1	003FF	0,0000,0011,1111,1111
2	003FF	0,0000,0011,1111,1111
3	003FF	0,0000,0011,1111,1111
4	003FF	0,0000,0011,1111,1111
5	003FF	0,0000,0011,1111,1111
6	003FF	0,0000,0011,1111,1111
7	003FF	0,0000,0011,1111,1111
8	003FF	0,0000,0011,1111,1111
9	003FF	0,0000,0011,1111,1111
10	003FF	0,0000,0011,1111,1111
11	003FF	0,0000,0011,1111,1111
12	007FF	0,0000,0111,1111,1111
13	007FF	0,0000,0111,1111,1111
14	007FF	0,0000,0111,1111,1111
15	007FF	0,0000,0111,1111,1111
16	007FF	0,0000,0111,1111,1111
17	007FF	0,0000,0111,1111,1111
18	007FF	0,0000,0111,1111,1111
19	007FF	0,0000,0111,1111,1111
20	007FF	0,0000,0111,1111,1111
21	007FF	0,0000,0111,1111,1111
22	007FF	0,0000,0111,1111,1111
23	007FF	0,0000,0111,1111,1111
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

NIMS I31 OBSTAB

This is a time-ordered ASCII TABLE (listing) of GALILEO NIMS observation parameters for use by downlink data processing of the NIMS C30 data. Each Obstab entry is 512 bytes long but is presented here as 4 lines of 128 characters per entry. Included items come from NIMS commands in (1) the Standard Sequence Data File (SSDF) and (2) the Playback Table Update Process (PTUP), plus some items from (3) the NIMS/CDS software load.

Note that SCLK1, SCLK2, SCET1 and SCET2 of non-realtime observations reflect the amount of data actually played back, rather than the amount recorded on tape. Likewise, the wavelength edit table pointers of non-realtime observations point to the playback edit table masks, rather than the ones used during recording.

Some of these items are needed for MIPS realtime processing of NIMS data, others for NIMSMERGE generation of the EDR and still others by NIMS/ISIS and MIPS systematic processing of EDRs into cubes. Missing non-required items will not interfere with a processing step. For completeness, almost all uplinked parameters are included in the table. (Only those items which will almost certainly remain constant have been omitted; e.g. Rice decision tables.)

The source below is one of:

- SEF for the Standard Sequence Data File (SSDF), specifying parameters of one of the NIMS (37) commands
- PBK for the Playback Table Update Process (PTUP), specifying parameters of the NIMPBK SINGLE command
- S/W for the NIMS/CDS software load process
- NIMS for NIMS team systematic processing requests to MIPS

\* indicates item absolutely required for UDR generation (decompression, wavelength edit processing)  
 # indicates item useful for UDR generation (for checking)  
 unmarked items needed for cube generation or useful for general information  
 <tbdb> indicates more details will be forthcoming

name	nchar	columns	.description	.source
OAPEL	12	1 - 12	.Oapel Name from SEF (no aliases yet)	SEF: activity ID, 1st 12 chars should be unique
ALIAS	12	13 - 24	.NIMS alias name for OAPEL	NIMS:
EXT	1	25 - 25	.Extension, for split OAPELS, A,B,C... for playback, R,S,T... for realtime. Required for realtime.	NIMS: if breaking activity into several cubes
PSID	2	26 - 27	.Parameter Set Identification	SEF: <tbdb>
* SCLK1	13	28 - 40	.Start time of played-back OBS in SCLK	PBK (except realtime data: SEF)
* SCLK2	13	41 - 53	.Stop time of played-back OBS in SCLK	PBK (except realtime data: SEF)
* PARTITION	1	54 - 54	.Partition for SCLK1 and SCLK2.	
<spare>	9	55 - 63		
TARGET	8	64 - 71	.Primary Target of OBS	SEF: translate from 3rd char in OAPEL (activity ID)

```

-----
MODE      2 72 - 73      .NIMS Instrument MODE (0-15)
GAIN      1 74 - 74      .Gain State (true value)
CHOP      1 75 - 75      .Chopper State (1=Ref,2=63Hz,3=FreeRun,4=Off)
GRAT_OFF  1 76 - 76      .Grating Offset (0-7, default 4)
PTAB_A(6) 12 77 - 88      .First PTAB |repeat count,mirror op,autobias...SEF: functions of MODE (from 37IOP) as modified by
PTAB_B(6) 12 89 - 100   .Second PTAB |...grating start, grating delta... 37MPT, unless special sequence (modes 12-15)
.          |...number of grating positions)          in which case values come from 37SS
                                           parameters <tbd>
ECAL      1 101 - 101   .Electronics Calibration Active (1=yes)
OPCAL     1 102 - 102   .Optics Calibration active (1=yes)
# REAL_TIME 1 103 - 103   .NIMS in Real-Time Telemetry (1=yes)
# RECORD   1 104 - 104   .NIMS in Record Telemetry (1=yes)
RECORD, REVERSE, RESUME, RUNDOWN <tbd>

* THRESHSEL 1 105 - 105   .Threshold value select (>0 = yes)
<spare>    1 106 - 106   .
# RTISELDN  5 107 - 111  .RTI select, 5 binary bits (for mirror
                    position blocking, down scan)
# RTISELUP  5 112 - 116  .RTI select, 5 binary bits (for mirror
                    position blocking, up scan)
<spare>    1 117 - 117   .
* RICEFLAG  1 118 - 118   .Rice compression flag
                    PBK: 0 no compression
                    1 Rice compression, ref vals each mirror scan
                    3 Rice compression, ref vals each RIM rollover

<spare>    1 119 - 119   .
ESTCOMP    3 120 - 122   .Rice estimated compression ratio (m.n)
ESTCOMPV   3 123 - 125   .Rice estimated error in compression ratio (m.n)PBK: CMPR_DVSR <tbd>
# RATECON1  5 126 - 130   .Rate control lower limit
# RATECON2  5 131 - 135   .Rate control upper limit
                    PBK: | S/W table entry indexed by LOSSY_COMP (1-7)
                    PBK: | or 0 if LOSSY_COMP = 0 (no rate control)
<spare>    17 136 - 152   .
NWAVERTOT  3 153 - 155   .Total number of wavelengths selected
TLMFMT     3 156 - 158   .Telemetry format (MPW et al, LPU or LNR)
SCET1      21 159 - 179   .Start time of played-back OBS in UTC
SCET2      21 180 - 200   .Stop time of played-back OBS in UTC
<spares>   67 201 - 267   .Start time of played-back OBS in UTC
* THRESH    51 268 - 318 .Threshold values (17 3-digit values, 0-999)
                    Compute from relevant Wavelength Edit Table group
                    SEF: 6TMREC command
                    PBK (except realtime data: SEF)
                    PBK (except realtime data: SEF)
                    PBK (except realtime data: SEF)
                    PBK: S/W table indexed by THRESH_TBL > 0, else 0s
-----

```

```

-----
# WETGID      10 319 - 328      .Wavelength selection group ID (unique)      PBK: WET_GID      (realtime <tbd>)
Rule of formation: mmeelll1nnn where
mm = instrument mode (0-15)
ee = # entries in group
lll = number of wavelengths selected
nnn = sequence number

* WETGRPSIZ      2 329 - 330      .# Wavelength Edit entries (1-26)      PBK: ED_GRP_LEN      (realtime SEF: 37ETB <tbd>)
* WETGRP      182 331 - 512      .Wavelength Edit Table group: WETGRPSIZ      PBK: ED_GRP      (realtime SEF: 37ETB data bytes 2..)
entries, each one has 7 characters. The
first 2 characters are the repeat count
(01-26). The other 5 characters contain
5 hex digits, representing the detector
mask in the form BHHH where B is 0 or 1
and H has range 0-15. (These entries are
from the 37ETB instrument edit group for
realtime data and from the logical AND of
corresponding entries in the instrument
and playback edit groups for playback data.)

```

-----  
.The TARGET names used are:

```

CAL      - N - non-science targets, usually calibration targets
EARTH    - W - Earth
MOON     - L - Moon
SKY      - H - Stellar Space (space and stars)
VENUS    - V - Venus
GASPRA   - P - Gaspra
IDA      - U - Ida
JUPITER  - J - Jupiter
IO       - I - Io
EUROPA   - E - Europa
GANYMEDE - G - Ganymede
CALLISTO - C - Callisto
J_RING   - R - Jupiter rings
(the single letter abbreviation appears as the third character in the OAPEL name ).

```









# Chapter 5 - Detailed Observation Designs

## Contents

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## Introduction to Chapter 5

### Detailed Observation Designs

Each NIMS Detailed Observation Design consists of an OAPEL form and a Pointer plot. The OAPEL form is a brief description of the design of the observation. The Pointer plot is a plot of the target body with the NIMS footprint incorporated in the mosaic design superimposed on the target body. The size and orientation of the target body is plotted as it appears at the time of the first NIMS footprint plotted. For long observations, the target body may rotate or move relative to the spacecraft during the observation. Some observations, such as calibrations, do not have Pointer plots.

The Pointer plots and OAPEL forms in this chapter have been updated to report the actual data returned.

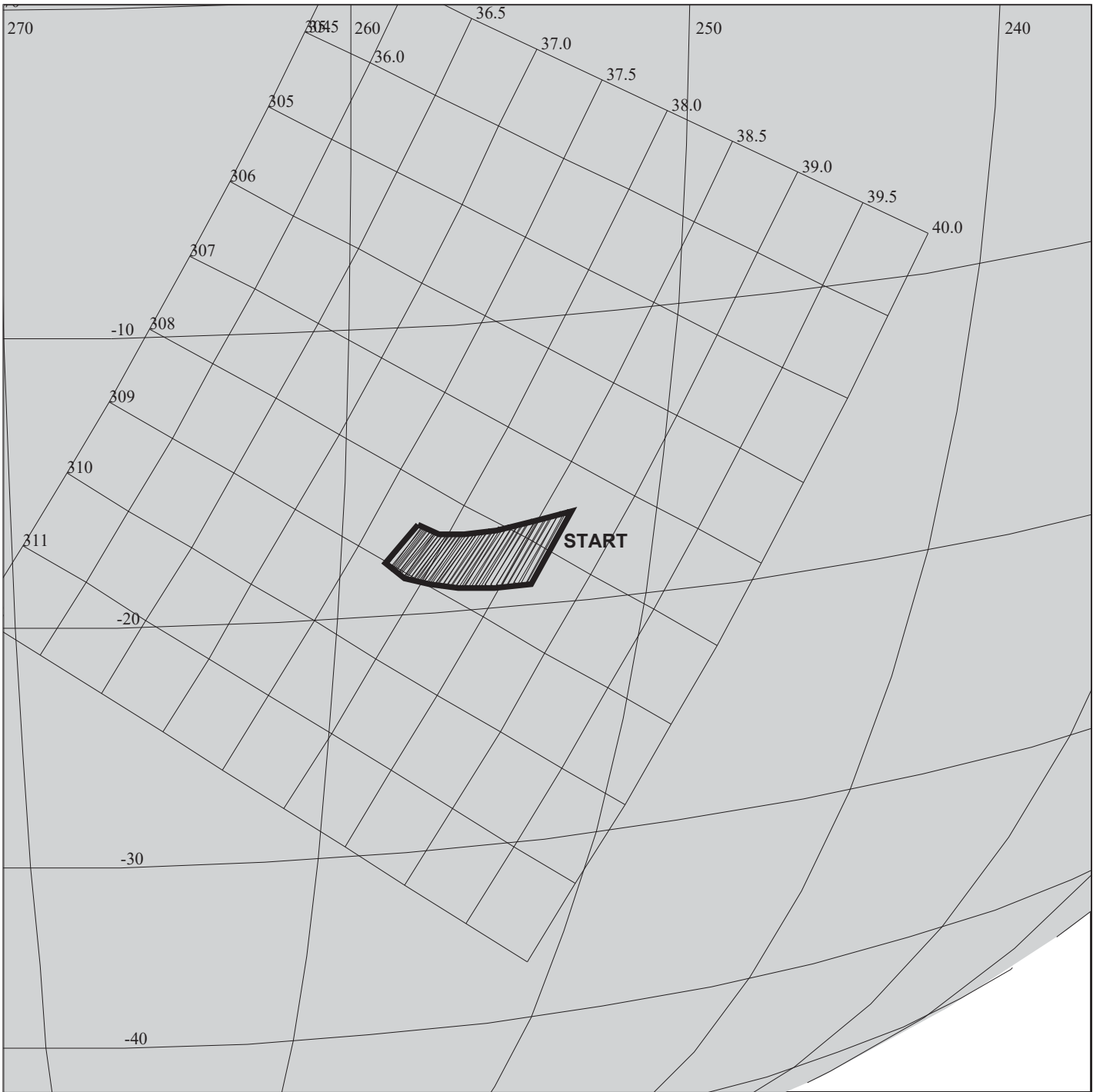
The Pointer plots have the spatial extent of the actual data returned outlined with a thick line. When no data were returned for a particular observation, its Pointer plot has a single slash across the plot with the text "NO DATA RETURNED" printed in the upper left corner of the plot.

The text of the OAPEL forms have been modified to reflect the actual NIMS instrument parameters for playback. An extra line containing one or some of the following statements has been added to the Observation Objective section of the OAPEL form to report the data return status:

"Data Returned" == Data from this observation returned  
"No Data Returned" == NO Data from this observation returned  
"Processor Halted" == The NIMS Processor had halted at this time.

More information regarding NIMS data return can be found in Chapter 7 of this guide.

NIMS Software Reload		ACTIVITY ID: 31NNTHRMAL01-	
		START TIME: 01-218/04:26:26.800	
Activity ID: Orbit 31 Target N Inst N OAPEL THRMAL SeqNo 01 -			
Title	NIMS Software Reload	Instrument	
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS Working Group
			NIMS SWG
Time System	CDS	Load ID	Calendar Date 08/06/01 Week 32
Start	IEE-CDS 00000000:00:0	01-218/04:26:26.800	IEE-000/00:00:00.000
End	IEE-CDS 00000000:00:0	01-218/04:29:26.800	IEE-000/00:00:00.000
Duration	00000000:00:0	000/00:03:00.000	000/00:00:00.000
Top Label	31NNTHRMAL01-		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	0	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
		Scan Platform	No
		DMS	No
Observation Objective			
<p>NIMS reload</p> <p>Each NIMS GMM observation will have an instrument reload before the start of each observation. Each reload has its own OAPEL form, but only this first is included in the NIMSGUIDE. The NIMS I31 reload OAPELs are:</p> <p style="padding-left: 40px;">31NNTHRMAL01, 31NNSO2MAP01, 31NNTVASHT01, 31NNGISHBR01, 31NNAMRANI01, 31NNREGION01, 31NNREGION02, 31NNGRSPOT01, 31NNGRSPOT02, 31NNRELOAD01.</p> <p>31INHSISUM01 does not have a software reload.</p>			
Design Detail			
<p>Use a standard set of commands to halt the instrument, load the software and reinitialize the instrument.</p> <p>37PL - Halt NIMS Processor  37MRL - Memory Reallocate  6MCPY - Copy flight software from CDS to NIMS 1000  6MCPY - Copy flight software from CDS to NIMS 1598  37IRT - Instrument Reset  37MN - Memory Normal  37IST - Chopper Reference.</p>			
Galileo Activity Plan Form		12/31/00 10:48:23	rev 1/99



## 31INTHRMAL01

165DA:TT= 0 TMC=1 C= 8.00 XC= -6.00 BS= 0/1150 TC= 1(-18.0 256.0 )  
 A= 728 pD= 1808 SR=17.450 RA50=231.47 DEC50=-40.22 cone= 38.65 clock=307.95  
 117DA:#SB= 1 OR= 0.040 RR=12.000 BM=F RC= 1 BS= 0/1150  
 1:#s= 1 Cs= -17.00 XCs= 14.60 Cr= 0.00 XCr= 8.00 sD= 1808 rD= 2

DESIGN G3.2 yande: 6/ 4/2001 14: 1:10

FILE:P.31INTHRMAL01

TARGET BODY : IO

MINI:m.31INTHRMAL01

S/C EPH:/DATA/NAVIO/010529-tour.NS

PERIAPSIS:

START:IEE 01-218/04:58:48.133 -CDS 21:00:0

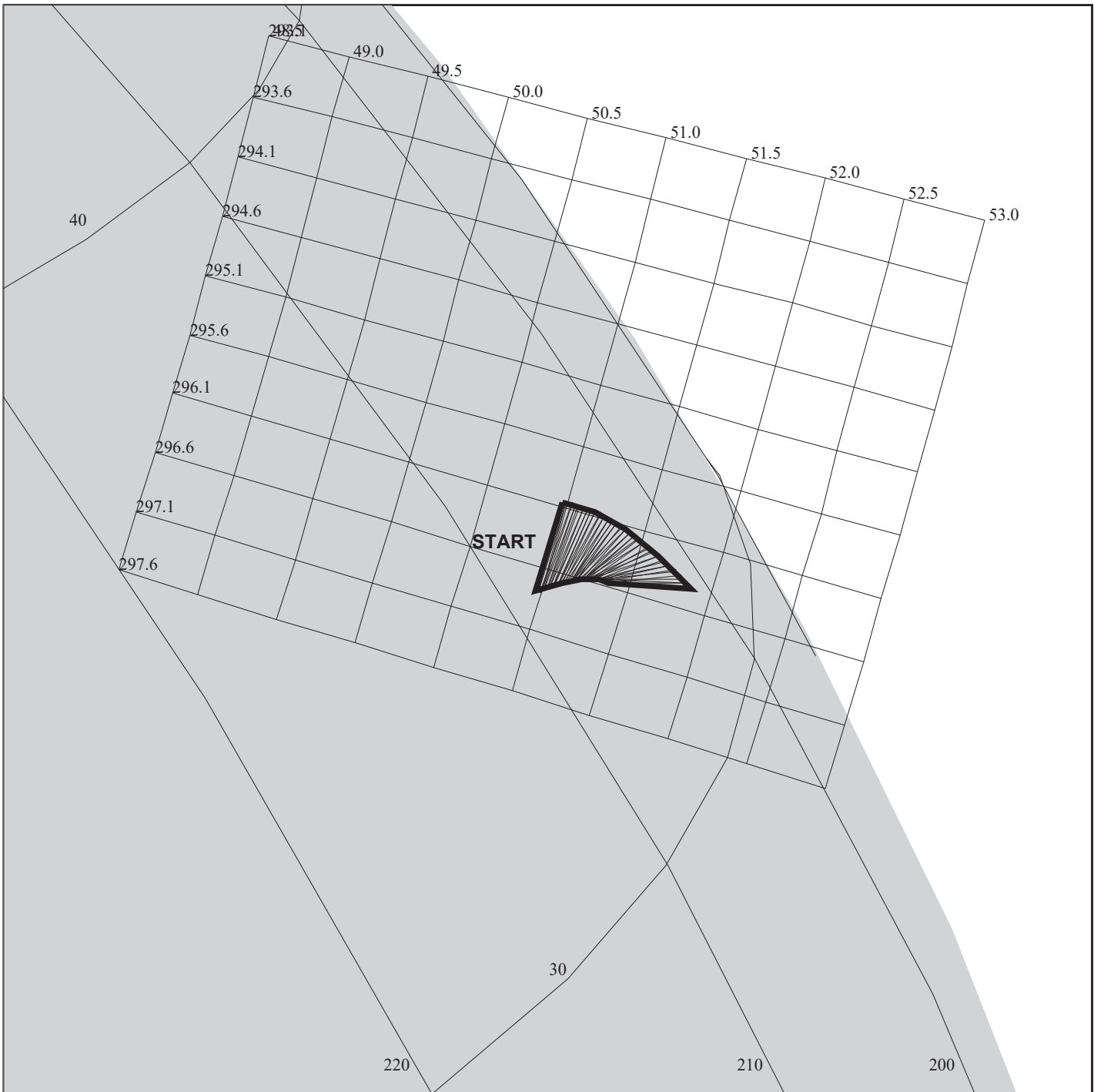
OBSERVATION:31INTHRMAL01

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 1808 S= 3.000

DESCRIP:IO\_THERMAL

Io Thermal Map		ACTIVITY ID: 31INTHRMAL01-	
		START TIME: 01-218/04:33:31.467	
Activity ID: Orbit 31 Target I Inst N OAPEL THRMAL SeqNo 01 -			
Title	Io Thermal Map	Instrument	
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS Working Group
			NIMS SWG
Time System	CDS	Load ID	Calendar Date 08/06/01 Week 32
Start	IEE-CDS 00000025:00:0	01-218/04:33:31.467	IEE-000/00:25:16.666
End	IEE-CDS 00000011:00:0	01-218/04:47:40.800	IEE-000/00:11:07.333
Duration	00000014:00:0	000/00:14:09.333	000/00:14:09.333
Top Label	31INTHRMAL01-		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	300	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
		Scan Platform	No
		DMS	No
Observation Objective			
A nightside view of the Pele and Pillan region to search for thermal anomalies and volcanic activity.			
Data Returned			
Design Detail			
BTG=3.46 MB, TICS=530, FMT=MPW, LM, Gain State 1			
-18 degrees South latitude, 256 degrees West longitude.			
Single swath across Pele's hotspot.			
Gain state 1 to avoid high temperature saturation.			
BOOMS - cone angle = 38 degrees.			
SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT			
Fixed Long Map (XLM), Gain 1, Grating Start 0, MPW, ILM408, ILM144A			
Fixed Long Map (XLM), Gain 1, Grating Start 0, MPW, ILM408, ILM144B			
Fixed Long Map (XLM), Gain 1, Grating Start 0, MPW, ILM408, ILM288			
Galileo Activity Plan Form		12/01/00 00:00:00	rev 6/95



**31INHSISUM01**

165DB:TT= 0 TMC=1 C= -5.30 XC= 1.00 BS= 0/3334 TC= 1(33. 205 )  
 A= 364 pD= 716 SR=17.450 RA50=215.37 DEC50=-33.01 cone= 51.02 clock=296.40  
 117DB:#SB= 1 OR= 0.040 RR=12.000 BM=F RC= 1 BS= 0/3334  
 1:#s= 1 Cs= 9.30 XCs= -1.10 Cr= 0.00 XCr= 0.00 sD= 716 rD= 34

DESIGN G3.2 yande: 6/ 7/2001 8:36:24

FILE:P.31INHSISUM01

TARGET BODY : IO

MINI:m.31INHSISUM01

S/C EPH:/DATA/NAVIO/010529-tour.NS

PERIAPSIS:

START:IEE 01-218/04:58:48.133 -CDS 09:00:0

OBSERVATION:31INHSISUM01

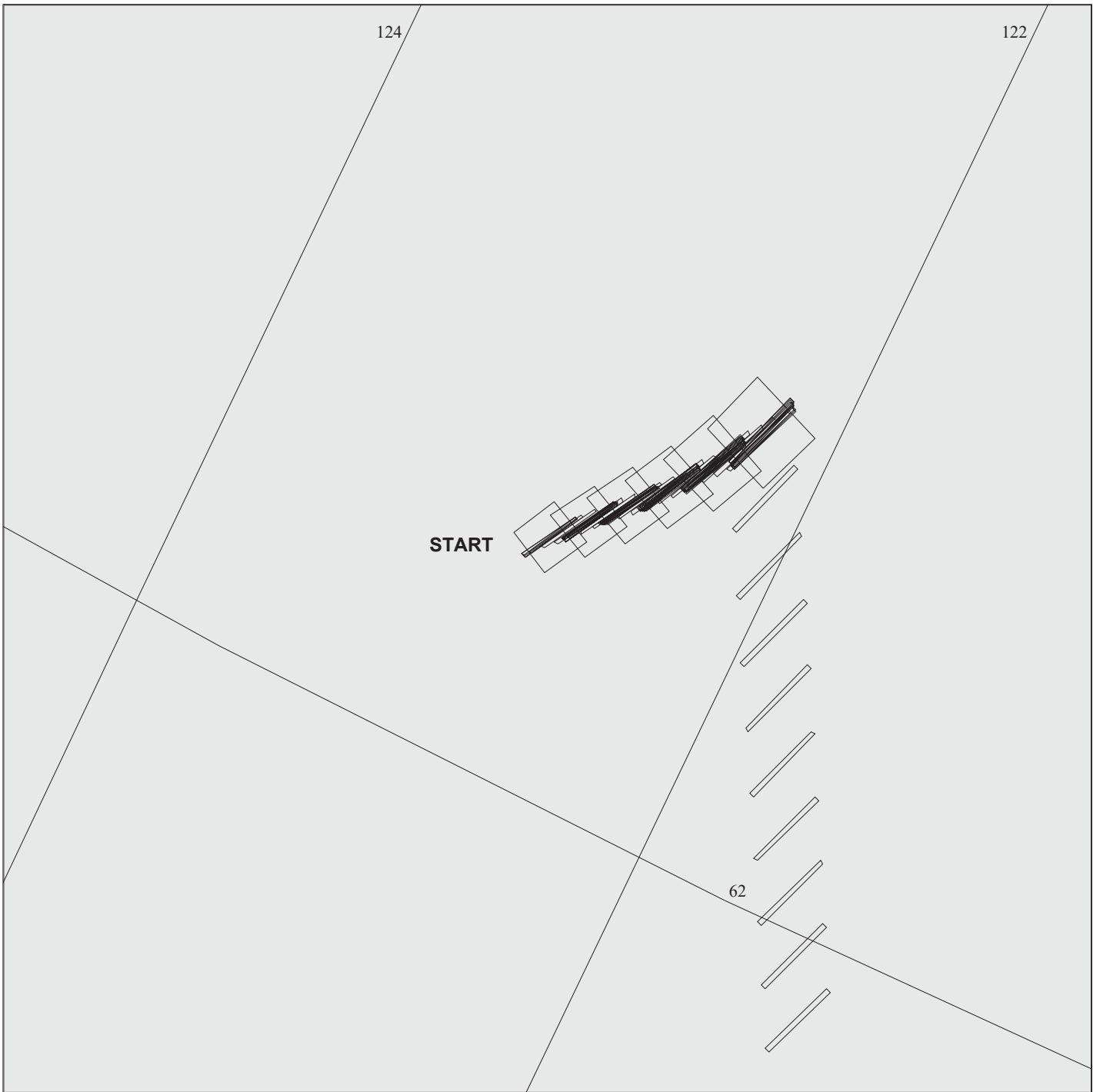
THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 716 S= 7.000

DESCRIP:IO-ISUM

Io Isum Obs		ACTIVITY ID: 31INHSISUM01-	
		START TIME: 01-218/04:47:40.800	
Activity ID: Orbit 31 Target I Inst N OAPEL HSISUM SeqNo 01 -			
Title Requestor	Io Isum Obs NIMS-SWG/M. SEGURA	Team	Instrument NIMS Working Group
			NIMS SWG
Time System	CDS	Load ID	Calendar Date 08/06/01 Week 32
Start	IEE-CDS 00000011:00:0	01-218/04:47:40.800	IEE-000/00:11:07.333
End	IEE-CDS 00000005:00:0	01-218/04:53:44.800	IEE-000/00:05:03.333
Duration	00000006:00:0	000/00:06:04.000	000/00:06:04.000
Top Label	31INHSISUM01-		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	300	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
			Scan Platform
			DMS
			No
			No
Observation Objective			
A nightside view of the Isum region to search for thermal anomalies and volcanic activity.			
Data Returned			
Design Detail			
BTG=1.73 MB, TICS=266, FMT=MPW, LM, Gain State 1			
33 degrees North latitude, 203 degrees West longitude.			
Single swath across Isum's hotspot.			
Gain state 1 to avoid high temperature saturation.			
SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT			
Fixed Long Map (XLM), Gain 1, Grating Start 0, MPW, ILM408, ILM144A			
Fixed Long Map (XLM), Gain 1, Grating Start 0, MPW, ILM408, ILM144B			
Fixed Long Map (XLM), Gain 1, Grating Start 0, MPW, ILM408, ILM288			
Galileo Activity Plan Form		12/01/00 00:00:00	rev 6/95





**31INTVASHT02**

165IA:TT= 0 TMC= 1 C= 4.00 XC= -13.00 BS=13/5336 TC= 1(62.55 122.55 )  
 A= 202 pD= 136 SR=17.450 RA50= 81.54 DEC50=-58.86 cone= 97.44 clock= 7.66  
 118IA:#SB= 1 Cs= -2.00 XCs= 6.80 TPP= 26 SR= 3.300 RR=12.000 BM=F RC= 1 BS=16/5336  
 1:#s= 6 #p= 1 Cr= 0.00 XCr= 0.00

DESIGN G3.2 frank: 6/29/2001 14:41:12

FILE:P.31ISTVASHT01

TARGET BODY : IO

MINI:m.31ISTVASHT01

S/C EPH:/DATA/NAVIO/010529-tour.NS

PERIAPSIS:

START:IEE 01-218/04:58:48.133 +CDS 02:00:0

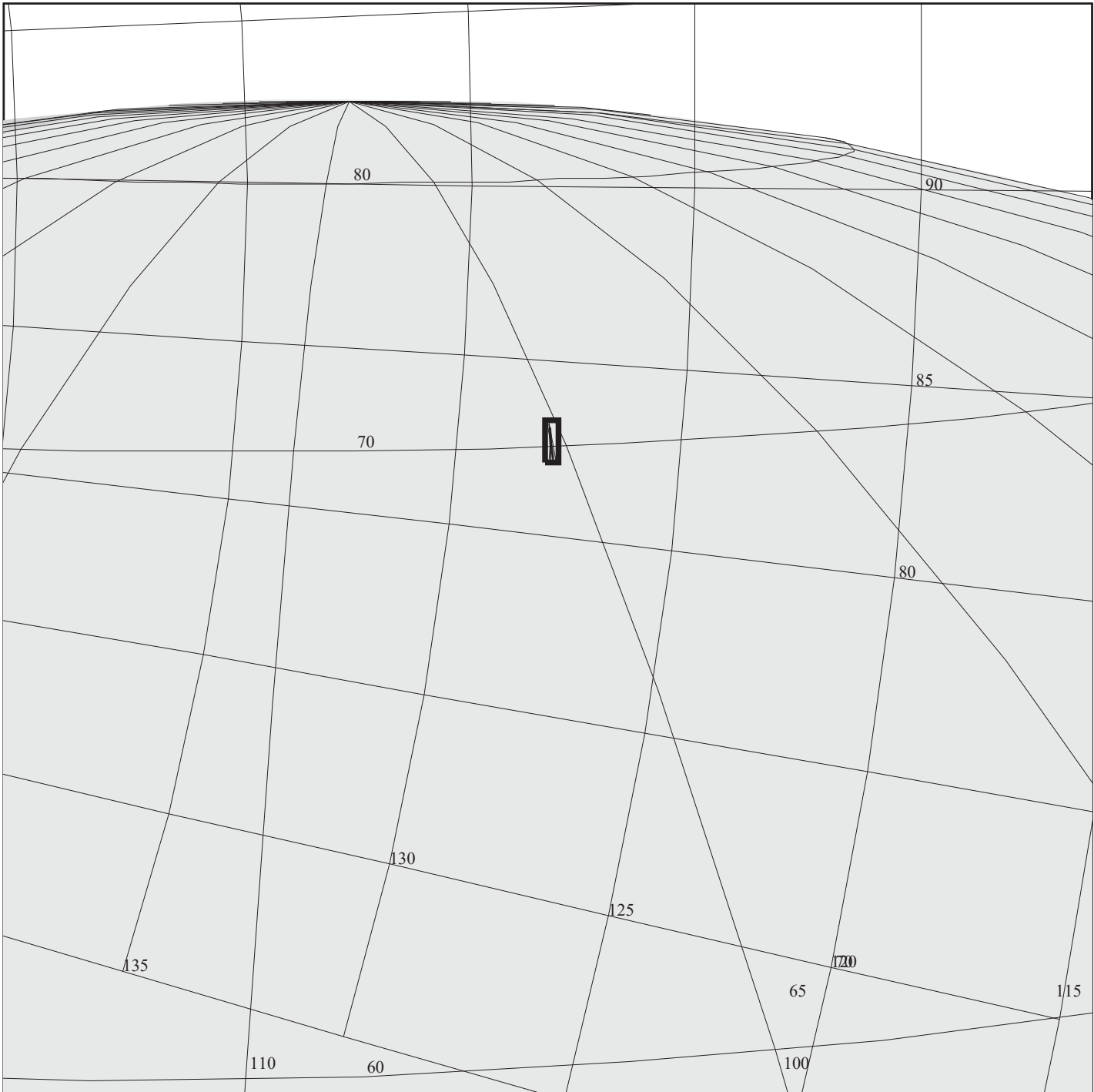
OBSERVATION:31ISTVASHT01

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 136 S= 10.000

DESCRIP:TVASHTAR LAVA FLOWS

Tvashtar Lava Flows		ACTIVITY ID: 31INTVASHT02+	
		START TIME: 01-218/04:59:48.799	
Activity ID: Orbit 31 Target I Inst N OAPEL TVASHT SeqNo 02 +			
Title	Tvashtar Lava Flows	Instrument NIMS	
Requestor	NIMS-SWG/M. SEGURA	Team NIMS	Working Group SWG
Time System	CDS	Load ID	Calendar Date 08/06/01 Week 32
Start	IEE+CDS 00000001:00:0	01-218/04:59:48.799	IEE+000/00:01:00.666
End	IEE+CDS 00000003:00:0	01-218/05:01:50.133	IEE+000/00:03:02.000
Duration	00000002:00:0	000/00:02:01.334	000/00:02:01.334
Top Label	31INTVASHT02+		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	300	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
		Scan Platform	No
		DMS	No
Observation Objective			
High spatial resolution scan across the Tvashtar lava flows. Ride-along behind SSI.			
No Data Returned			
Design Detail			
Alias: 31ISTVASHT01- High spatial resolution SSI mosaic across the Tvashtar lava flow region. Single swath across the Tvashtar caldera complex.			
Fixed Long Map (XLM), Gain 1, Grating Start 0, IM4, ILM408			
Galileo Activity Plan Form		12/01/00 00:00:00	rev 6/95



165DC:TT= 0 TMC=1 C= 6.00 XC= -2.10 BS= 0/5700 TC= 1(70 100 )  
 A= 192 pD= 898 SR=17.450 RA50= 41.15 DEC50= 7.14 cone=127.93 clock= 82.49  
 117DC:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/5700  
 1:#s= 1 Cs= -8.90 XCs= 1.00 Cr= 0.00 XCr= 8.00 sD= 898 rD= 2

**31INSO2MAP01**

DESIGN G3.2 yande: 6/15/2001 13:25: 7

FILE:P.31INSO2MAP01

TARGET BODY : IO

MINI:m.31INSO2MAP01

S/C EPH:/DATA/NAVIO/010529-tour.NS

PERIAPSIS:

START:IEE 01-218/04:58:48.133 +CDS 04:00:0

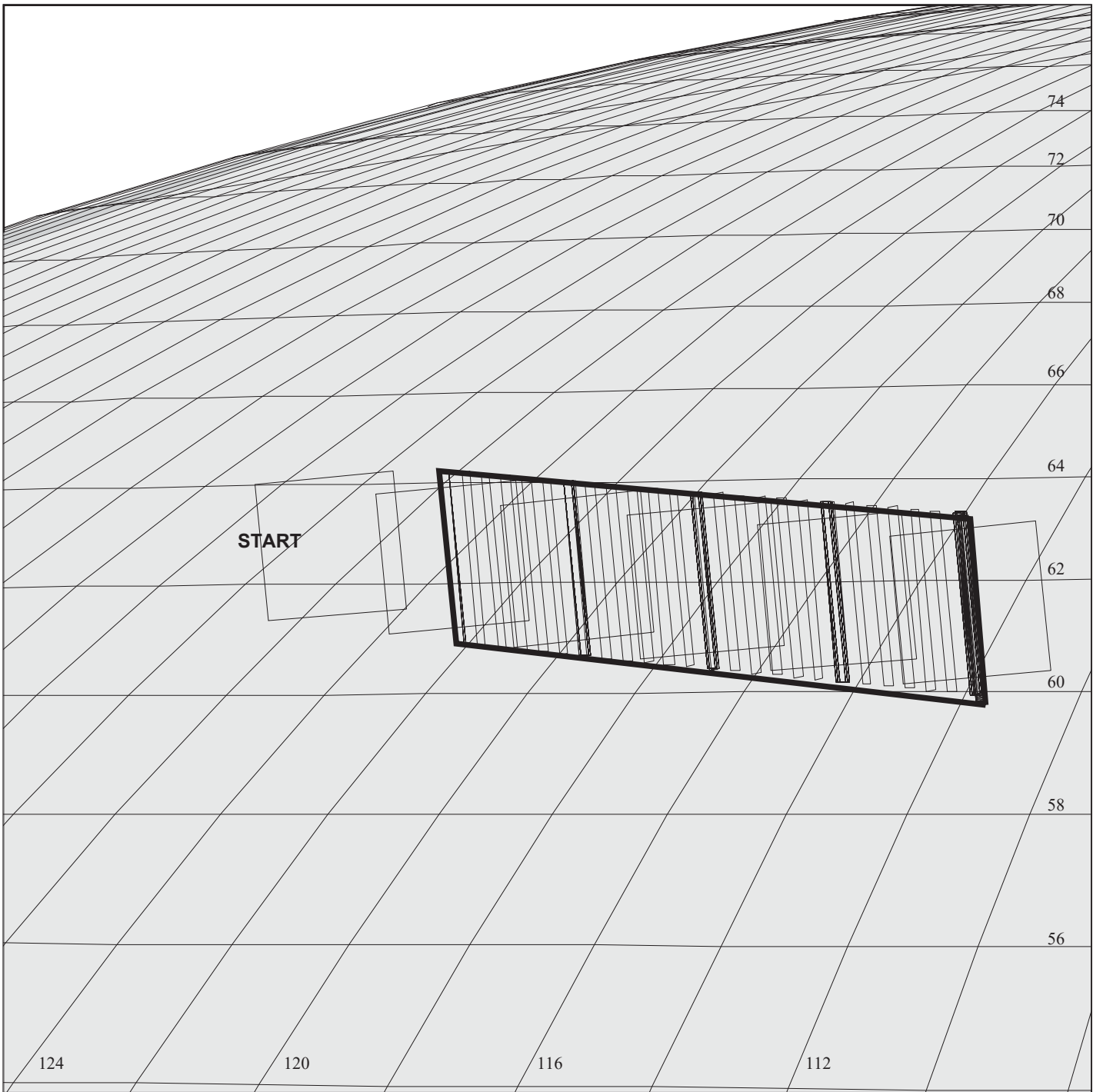
OBSERVATION:31INSO2MAP01

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 898 S= 3.400

DESCRIP:IO\_SO2\_MAP

Io SO2 Map		ACTIVITY ID: 31INSO2MAP01-	
		START TIME: 01-218/05:01:50.133	
Activity ID: Orbit 31 Target I Inst N OAPEL SO2MAP SeqNo 01 -			
Title	Io SO2 Map	Instrument	
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS Working Group
			NIMS SWG
Time System	CDS	Load ID	Calendar Date 08/06/01 Week 32
Start	IEE+CDS	00000003:00:0	01-218/05:01:50.133 IEE+000/00:03:02.000
End	IEE+CDS	00000009:00:0	01-218/05:07:54.133 IEE+000/00:09:06.000
Duration		00000006:00:0	000/00:06:04.000 000/00:06:04.000
Top Label	31INSO2MAP01-		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	300	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
		Scan Platform	No
		DMS	No
Observation Objective			
To provide a means of SO2 mapping over high northern latitude terrain.			
Data Returned			
Design Detail			
BTG=1.73 MB, TICS=266, FMT=MPW, LM, Gain State 2			
70 degrees North latitude, 100 degrees West longitude.			
Single compressed swath across a region of high SO2 concentration.			
SCAN PLATFORM MOVED TO A SAFE CONE/CLOCK POSITION 60 MF AFTER START OF MOSAIC. ONLY FIRST 60 MF ON TARGET REGION. THE REST IS SMEARED ACROSS THE DISK OF IO.			
SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT			
Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM408, ILM96			
Galileo Activity Plan Form		12/01/00 00:00:00	rev 6/95



### 31INTVASHT03

165I:TT= 0 TMC= 1 C= 0.00 XC= 0.00 BS=26/7338 TC= 1(62.74 127.03 )  
 A= 262 pD= 136 SR=17.450 RA50= 58.62 DEC50= 23.39 cone=148.66 clock= 99.16  
 118I:#SB= 1 Cs= -6.94 XCs= -1.35 TPP= 26 SR= 3.500 RR=12.000 BM=F RC= 1 BS=29/7338  
 1:#s= 6 #p= 1 Cr= 0.00 XCr= 0.00

DESIGN G3.2 frank: 6/29/2001 13:48: 4

FILE:P.31ISTVASHT02

TARGET BODY : IO

MINI:m.31ISTVASHT02

S/C EPH:/DATA/NAVIO/010529-tour.NS

PERIAPSIS:

START:IEE 01-218/04:58:48.133 +CDS 13:00:0

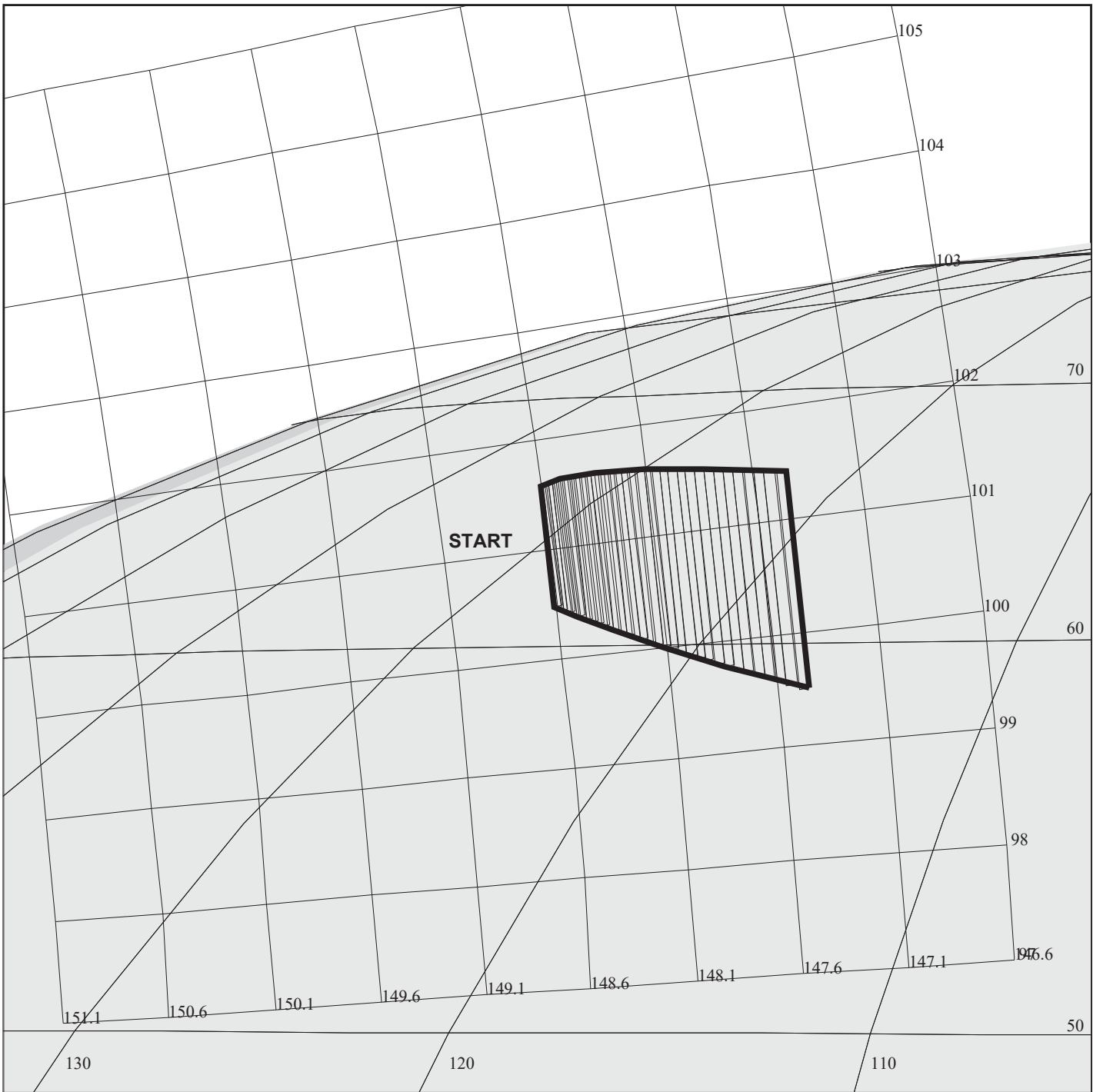
OBSERVATION:31ISTVASHT02

THINNING:NIM 1

BODY PLOT TIME:TARGET-TIME D= 136 S= 10.000

DESCRIP:TVASHTAR CONTEXT

Tvashtar Context		ACTIVITY ID: 31INTVASHT03+	
		START TIME: 01-218/05:10:42.133	
Activity ID: Orbit 31 Target I Inst N OAPEL TVASHT SeqNo 03 +			
Title	Tvashtar Context	Instrument	
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS Working Group
			NIMS SWG
Time System	CDS	Load ID	Calendar Date 08/06/01 Week 32
Start	IEE+CDS 00000011:70:0	01-218/05:10:42.133	IEE+000/00:11:54.000
End	IEE+CDS 00000014:00:0	01-218/05:12:57.466	IEE+000/00:14:09.333
Duration	00000002:21:0	000/00:02:15.333	000/00:02:15.333
Top Label	31INTVASHT03+		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	300	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
		Scan Platform	No
		DMS	No
Observation Objective			
<p>Medium spatial resolution scan across the Tvashtar caldera complex for context for higher resolution obs. Ride-along behind SSI.</p>			
Data Returned			
Design Detail			
<p>Alias: 31ISTVASHT02- Moderate spatial resolution SSI mosaic across the Tvashtar calder complex for context. Single swath across the Tvashtar caldera complex.</p>			
SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT			
Fixed Long Map (XLM), Gain 2, Grating Start 0, IM8, ILM408, ILM96			
Galileo Activity Plan Form		12/01/00 00:00:00	rev 6/95



165DD:TT= 0 TMC=1 C= 16.00 XC= 5.00 BS= 0/7884 TC= 1(62 120 )  
 A= 182 pD= 1808 SR=17.450 RA50= 58.48 DEC50= 24.36 cone=148.63 clock=101.03  
 117DD:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/7884  
 1:#s= 1 Cs= -17.90 XCs= -6.00 Cr= 0.00 XCr= 0.00 sD= 1808 rD= 2

### 31INTVASHT01

DESIGN G3.2 yande: 6/19/2001 13:54:23

FILE:P.31INTVASHT01

TARGET BODY : IO

MINI:m.31INTVASHT01

S/C EPH:/DATA/NAVIO/010529-tour.NS

PERIAPSIS:

START:IEE 01-218/04:58:48.133 +CDS 16:00:0

OBSERVATION:31INTVASHT01

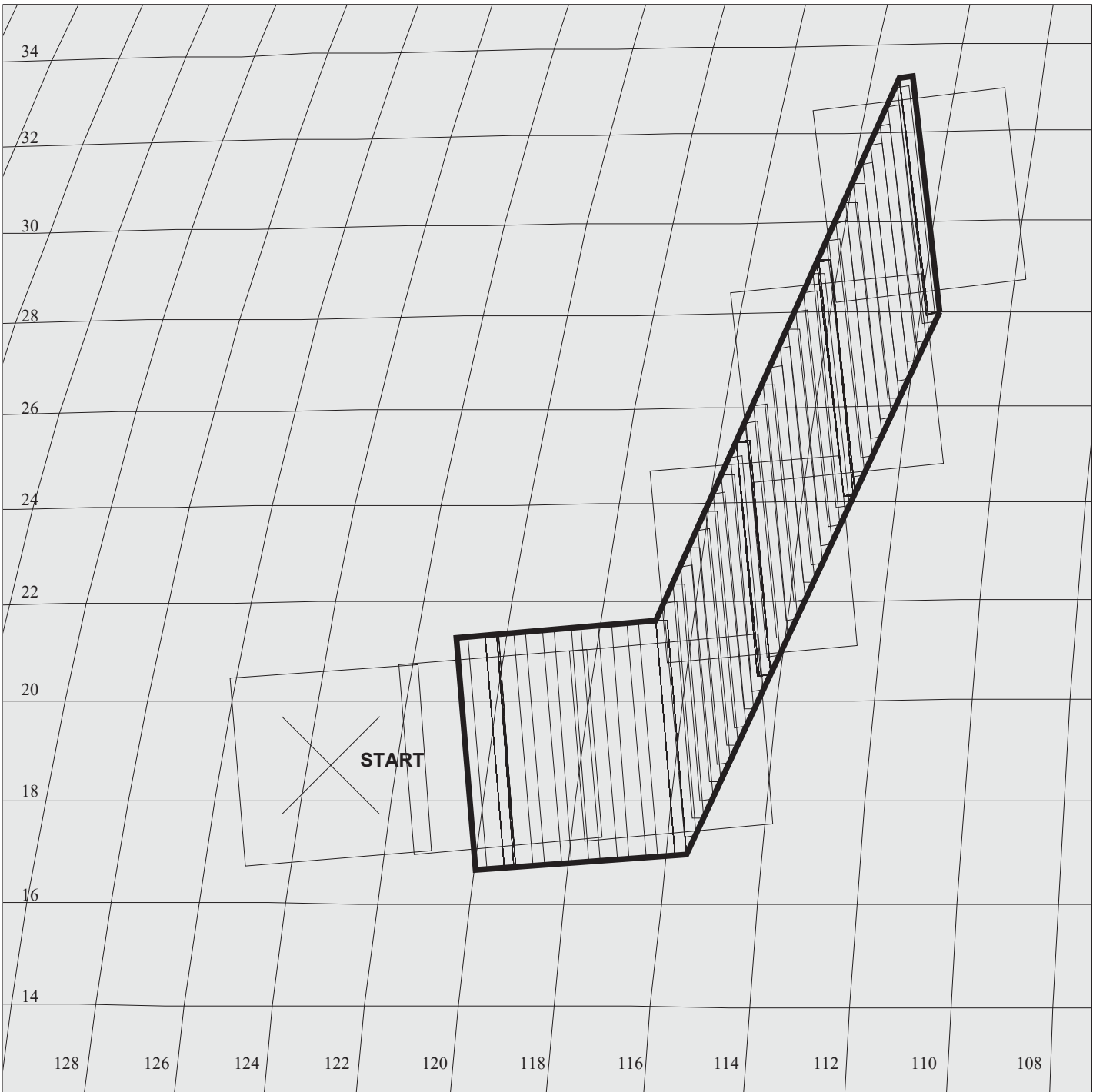
THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 1808 S= 6.000

DESCRIP:PROMETHEUS\_PLUME

Io Tvashtar Map		ACTIVITY ID: 31INTVASHT01-	
		START TIME: 01-218/05:13:58.133	
Activity ID: Orbit 31 Target I Inst N OAPEL TVASHT SeqNo 01 -			
Title	Io Tvashtar Observation		Instrument
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS Working Group
			NIMS SWG
Time System	CDS	Load ID	Calendar Date 08/06/01 Week 32
Start	IEE+CDS 00000015:00:0	01-218/05:13:58.133	IEE+000/00:15:10.000
End	IEE+CDS 00000026:00:0	01-218/05:25:05.466	IEE+000/00:26:17.333
Duration	00000011:00:0	000/00:11:07.333	000/00:11:07.333
Top Label	31INTVASHT01-		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	300	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
		Scan Platform	No
		DMS	No
Observation Objective			
Compositional and thermal mapping of the Tvashtar region.			
Data Returned			
Design Detail			
BTG=3.46 MB, TICS=530, FMT=MPW, LM, Gain State 2			
62 degrees North latitude, 120 degrees West longitude.			
Single swath across the Tvashtar caldera complex.			
SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT			
Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM408, ILM144			
Galileo Activity Plan Form		12/01/00 00:00:00	rev 6/95





**31INAMRANI02**

**DESIGN G3.2 frank:10/12/2001 13:37:50**

**FILE:P.31ISAMRANI01**

**TARGET BODY : IO**

**MINI:m.31ISAMRANI01**

**S/C EPH:/DATA/NAVIO/010529-tour.NS**

**PERIAPSIS:**

**START:IEE 01-218/04:58:48.133 +CDS 37:00:0**

**OBSERVATION:31ISAMRANI01**

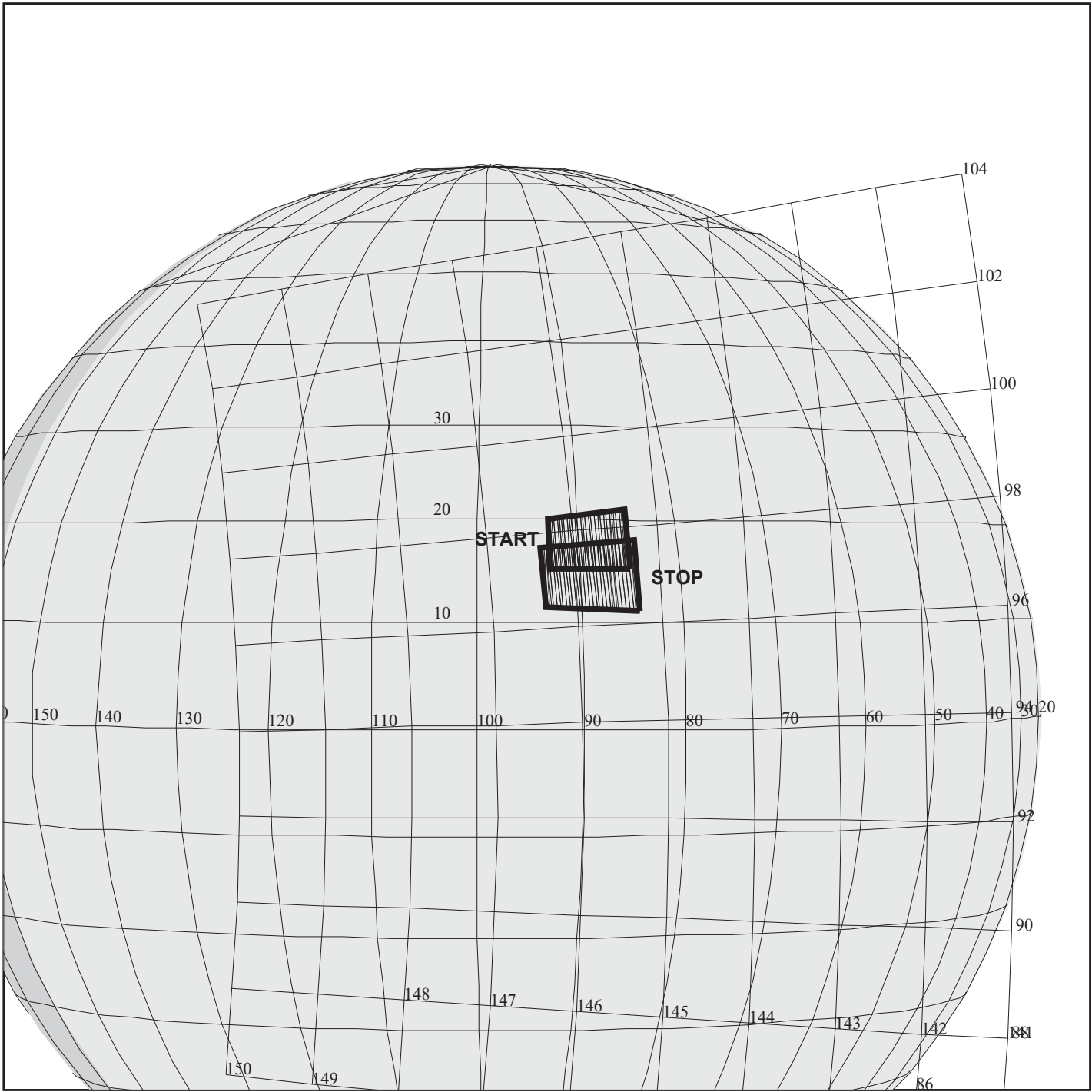
165IE:TT= 0 TMC= 1 C= 0.00 XC= 0.00 BS=65/1706 TC=1(18.72 123.46 )  
 A= 242 pD= 136 SR=17.450 RA50= 60.03 DEC50= 22.89 cone=149.89 clock= 97.87  
 118IE:#SB= 1 Cs= -7.30 XCs= 0.00 TPP= 26 SR= 3.700 RR=12.000 BM=F RC= 1 BS=68/1706  
 1:#s= 3 #p= 1 Cr= 0.00 XCr= 0.00  
 116IE:OR= 4.400 Cs= -4.06 XCs= 7.30 sD= 20 BS= 3/1888 TF=N  
 116JE:OR= 4.400 Cs= -4.06 XCs= 7.30 sD= 20 BS=16/1888 TF=N  
 116JF:OR= 4.400 Cs= -4.06 XCs= 7.30 sD= 20 BS=29/1888 TF=N

**THINNING:NIM 1**

**BODY PLOT TIME:TARGET-TIME D= 136 S= 5.000**

**DESCRIP:AMIRANI**

SSI Io Amirani Mosaic		ACTIVITY ID: 31INAMRANI02-	
		START TIME: 01-218/05:33:57.466	
Activity ID: Orbit 31 Target I Inst N OAPEL AMRANI SeqNo 02 -			
Title	SSI Io Amirani Mosaic	Instrument	SSI
Requestor	NIMS-SWG/M. SEGURA	Team NIMS Working Group	SWG
Time System	CDS	Load ID	Calendar Date 08/06/01 Week 32
Start	IEE+CDS 00000034:70:0	01-218/05:33:57.466	IEE+000/00:35:09.333
End	IEE+CDS 00000036:80:0	01-218/05:36:05.466	IEE+000/00:37:17.333
Duration	00000002:10:0	000/00:02:08.000	000/00:02:08.000
Top Label	31INAMRANI02-		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	300	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
		Scan Platform	No
		DMS	No
Observation Objective			
Ride-along with the SSI Amirani observation.			
Data Returned			
Design Detail			
ALIAS: 31ISAMRANI01			
Ride-along with SSi Amirani mosaic.			
Similar territory to 31INAMRANI01.			
SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT			
Fixed Long Map (XLM), Gain 2, Grating Start 0, IM8, ILM408, ILM144			
Galileo Activity Plan Form		12/01/00 00:00:00	rev 6/95



**31INGISHBR01**

165DE:TT= 0 TMC= 1 C= 8.00 XC= 3.00 BS= 0/2252 TC= 1(16.5 89 )  
 A= 96 pD= 2902 SR=17.450 RA50= 56.17 DEC50= 22.34 cone=146.28 clock= 97.77  
 117DE:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/2252  
 1:#s= 2 Cs= -14.20 XCs= -1.00 Cr= 14.30 XCr= -5.00 sD= 1432 rD= 38

DESIGN G3.2 yande: 7/10/2001 16: 0: 2

FILE:P.31INGISHBR01

TARGET BODY : IO

MINI:m.31INGISHBR01

S/C EPH:/DATA/NAVIO/010529-tour.NS

PERIAPSIS:

START:IEE 01-218/04:58:48.133 +CDS 40:00:0

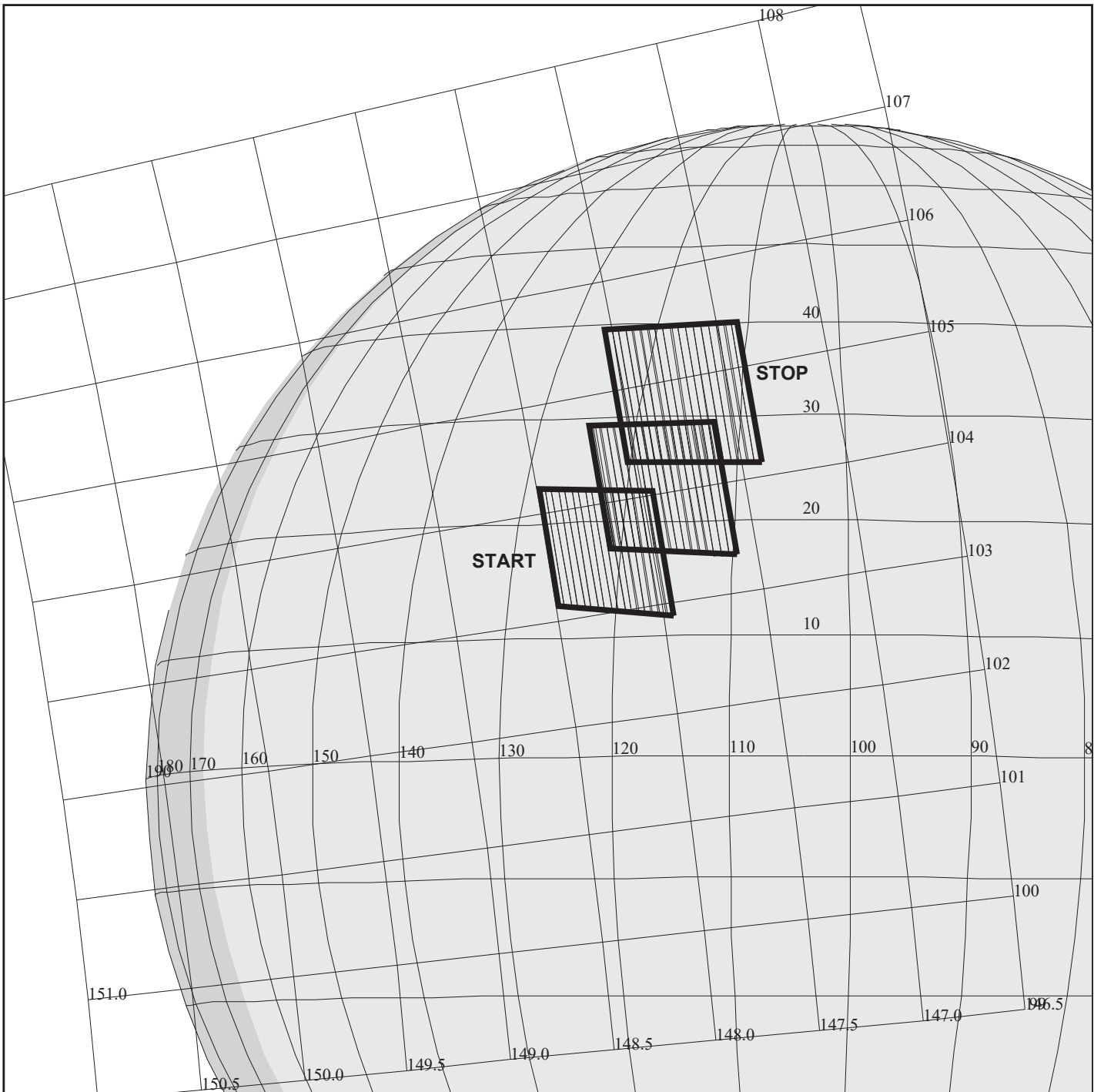
OBSERVATION:31INGISHBR01

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 2902 S= 1.000

DESCRIP:IO\_GISHBAR

Io Gish Bar Mosaic		ACTIVITY ID: 31INGISHBR01-	
		START TIME: 01-218/05:39:14.799	
Activity ID: Orbit 31 Target I Inst N OAPEL GISHBR SeqNo 01 -			
Title Requestor	Io Gish Bar Mosaic NIMS-SWG/M. SEGURA	Instrument Working Group	NIMS SWG
Team	NIMS		
Time System	CDS	Load ID	Calendar Date 08/06/01 Week 32
Start	IEE+CDS 00000040:00:0	01-218/05:39:14.799	IEE+000/00:40:26.666
End	IEE+CDS 00000060:00:0	01-218/05:59:28.133	IEE+000/01:00:40.000
Duration	00000020:00:0	000/00:20:13.334	000/00:20:13.334
Top Label	31INGISHBR01-		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	300	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
		Scan Platform	No
		DMS	No
Observation Objective			
To observe the Gish Bar hot spot for thermal, SO2 and 1-micron band mapping.			
Data Returned			
Design Detail			
BTG=4.57 MB, TICS=794, FMT=MPW, LM, Gain State 2			
16 degrees North latitude, 91 degrees West longitude.			
Two swath mosaic across the Gish Bar hot spot and surrounding terrain.			
SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT			
Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM408, ILM144			
Galileo Activity Plan Form		12/01/00 00:00:00	rev 6/95



**31INAMRANI01**

DESIGN G3.2 yande: 6/14/2001 8:51:54

FILE:P.31INAMRANI01

TARGET BODY : IO

MINI:m.31INAMRANI01

S/C EPH:/DATA/NAVIO/010529-tour.NS

PERIAPSIS:

START:IEE 01-218/04:58:48.133 +CDS 81:00:0

OBSERVATION:31INAMRANI01

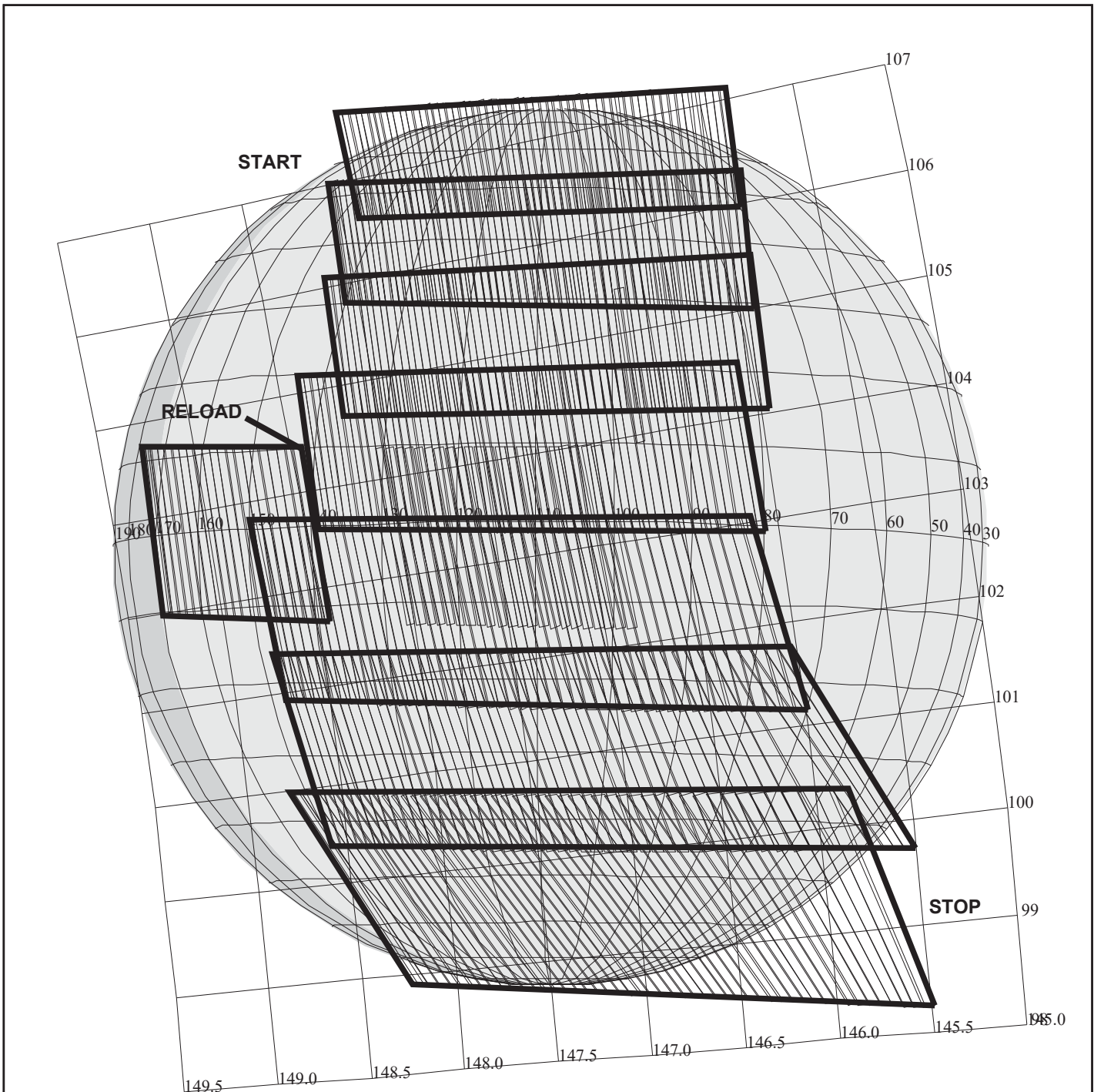
165DF:TT= 0 TMC= 1 C= 0.50 XC= 0.00 BS= 0/9714 TC= 1(18 126 )  
 A= 364 pD= 2718 SR=17.450 RA50= 58.20 DEC50= 25.73 cone=148.47 clock=103.69  
 117DF:#SB= 2 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/9714  
 1:#s= 2 Cs= -8.68 XCs= -2.00 Cr= 3.90 XCr= 6.00 sD= 876 rD= 44  
 2:#s= 1 Cs= -8.70 XCs= -2.00 Cr= 6.60 XCr= 8.30 sD= 876 rD= 46

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 2718 S= 1.200

DESCRIP:IO\_AMIRANI

Io Amirani Mosaic		ACTIVITY ID: 31INAMRANI01-	
		START TIME: 01-218/06:19:41.466	
Activity ID: Orbit 31 Target I Inst N OAPEL AMRANI SeqNo 01 -			
Title Requestor	Io Amirani Mosaic NIMS-SWG/M. SEGURA	Instrument Working Group	NIMS SWG
Time System	CDS	Load ID	Calendar Date 08/06/01 Week 32
Start	IEE+CDS 00000080:00:0	01-218/06:19:41.466	IEE+000/01:20:53.333
End	IEE+CDS 00000097:00:0	01-218/06:36:52.799	IEE+000/01:38:04.666
Duration	00000017:00:0	000/00:17:11.333	000/00:17:11.333
Top Label	31INAMRANI01-		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	300	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
		Scan Platform	No
		DMS	No
Observation Objective			
To observe the Amirani hot spot and the Maui region for thermal, SO2 and 1-micron band mapping to look for changes since I27.			
Data Returned			
Design Detail			
BTG=4.57 MB, TICS=794, FMT=MPW, LM, Gain State 2			
25 degrees North latitude, 115 degrees West longitude.			
Three swath mosaic across the Amirani hot spot and surrounding terrain. Maui and Dusura hot spots also observed.			
SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT			
Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM408, ILM36			
Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM408, ILM108			
Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM408, ILM144			
Galileo Activity Plan Form		12/01/00 00:00:00	rev 6/95



### 31INREGION01

DESIGN G3.2 yande: 6/14/2001 14:32:47

FILE:P.31INREGION01

TARGET BODY : IO

MINI:m.31INREGION01

S/C EPH:/DATA/NAVIO/010529-tour.NS

PERIAPSIS:

START:IEE 01-218/04:58:48.133 +CDS 111:00:0

OBSERVATION:31INREGION01

165DG:TT= 0 TMC=1 C= 21.00 XC= 31.00 BS= 0/5174 TC= 1(10 97.5 )  
 A= 182 pD= 11948 SR=17.450 RA50= 57.56 DEC50= 27.55 cone=147.94 clock=107.16  
 117DG:#SB= 2 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/5174  
 1:#s= 2 Cs= -29.25 XCs= -8.50 Cr= 32.30 XCr= -0.50 sD= 2958 rD= 40  
 2:#s= 2 Cs= -29.15 XCs= -6.70 Cr= 29.40 XCr= -0.80 sD= 2956 rD= 40  
 165EG:TT= 0 TMC=1 C= 22.00 XC= -1.00 BS=18/7186 TC= 1(10 117.5 )  
 A= 90 pD= 10312 SR=17.450 RA50= 57.06 DEC50= 26.48 cone=147.47 clock=105.17  
 117EG:#SB= 3 OR= 0.030 RR=12.000 BM=F RC= 1 BS=18/7186  
 1:#s= 1 Cs= -26.00 XCs= -4.80 Cr= 28.40 XCr= -0.50 sD= 2618 rD= 40  
 2:#s= 1 Cs= -24.50 XCs= -4.50 Cr= 20.00 XCr= 0.00 sD= 2478 rD= 40  
 3:#s= 2 Cs= -24.50 XCs= -4.00 Cr= 24.50 XCr= -2.00 sD= 2478 rD= 40

THINNING:NIM 2

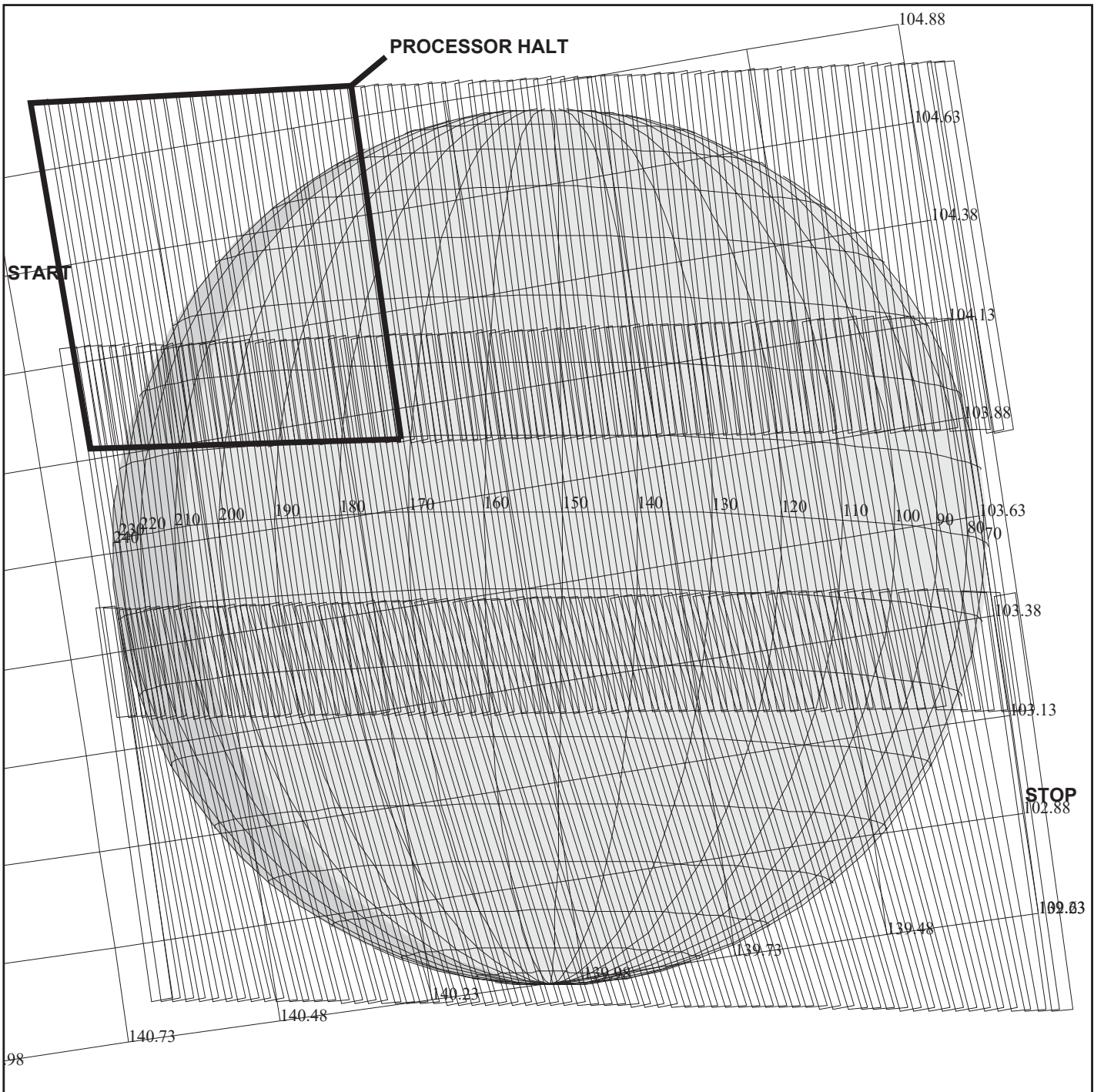
BODY PLOT TIME:TARGET-TIME D=10312 S= 0.800

DESCRIP:IO\_REGION\_01



Io Regional Map		ACTIVITY ID:	31INREGION01-		
		START TIME:	01-218/06:50:01.466		
Activity ID: Orbit 31 Target I Inst N OAPEL REGION SeqNo 01 -					
Title	Io Regional Map		Instrument		NIMS
Requestor	NIMS-SWG/M. SEGURA		Team	NIMS Working Group	SWG
Time System	CDS	Load ID	Calendar Date	08/06/01	Week 32
Start	IEE+CDS	00000110:00:0	01-218/06:50:01.466	IEE+000/01:51:13.333	
End	IEE+CDS	00000144:00:0	01-218/07:24:24.133	IEE+000/02:25:36.000	
Duration		00000034:00:0	000/00:34:22.667	000/00:34:22.667	
Top Label	31INREGION01-				
Bottom Label					
Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH		
CDS Source	OAP	Spin State	DUAL	Scan Platform	No
			DMS		No
Observation Objective					
<p>Thermal, SO2 and 1-micron band mapping on a regional scale. This observaion encompasses the Prometheus/Emakong region as well as some new territory to assess changes since I27 and investigate the new active region detected in observations in the previous orbit.</p>					
Data Returned					
Design Detail					
BTG=10.66 MB, TICS=1628, FMT=LPU, LM, Gain State 2					
Disk centered at 0 North latitude, 108 degrees West longitude.					
<p>Eight swath mosaic across the central portion of the disk from pole to pole. The fifth swath was shifted to the West to map the Prometheus region. A second software reload was inserted in the middle of the fifth swath to protect the second half of the obseration from a software halt. The reload was placed in a mosaic overlap region so that no spatial coverage would be lost. Record mode changed from MPW to LPU to maximize spatial coverage.</p>					
SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT					
Fixed Long Map (XLM), Gain 2, Grating Start 0, LPU, ILM252, ILM36 A, C					
Fixed Long Map (XLM), Gain 2, Grating Start 0, LPU, ILM252, ILM48 B, D					
Fixed Long Map (XLM), Gain 2, Grating Start 0, LPU, ILM252, ILM84 I, J					
Galileo Activity Plan Form			12/01/00	00:00:00	rev 6/95





## 31INREGION02

DESIGN G3.2 yande: 6/25/2001 12: 2:23

FILE:P.31INREGION02

TARGET BODY : IO

MINI:m.31INREGION02

S/C EPH:/DATA/NAVIO/010529-tour.NS

PERIAPSIS:

START:IEE 01-218/04:58:48.133 +CDS 363:00:0

OBSERVATION:31INREGION02

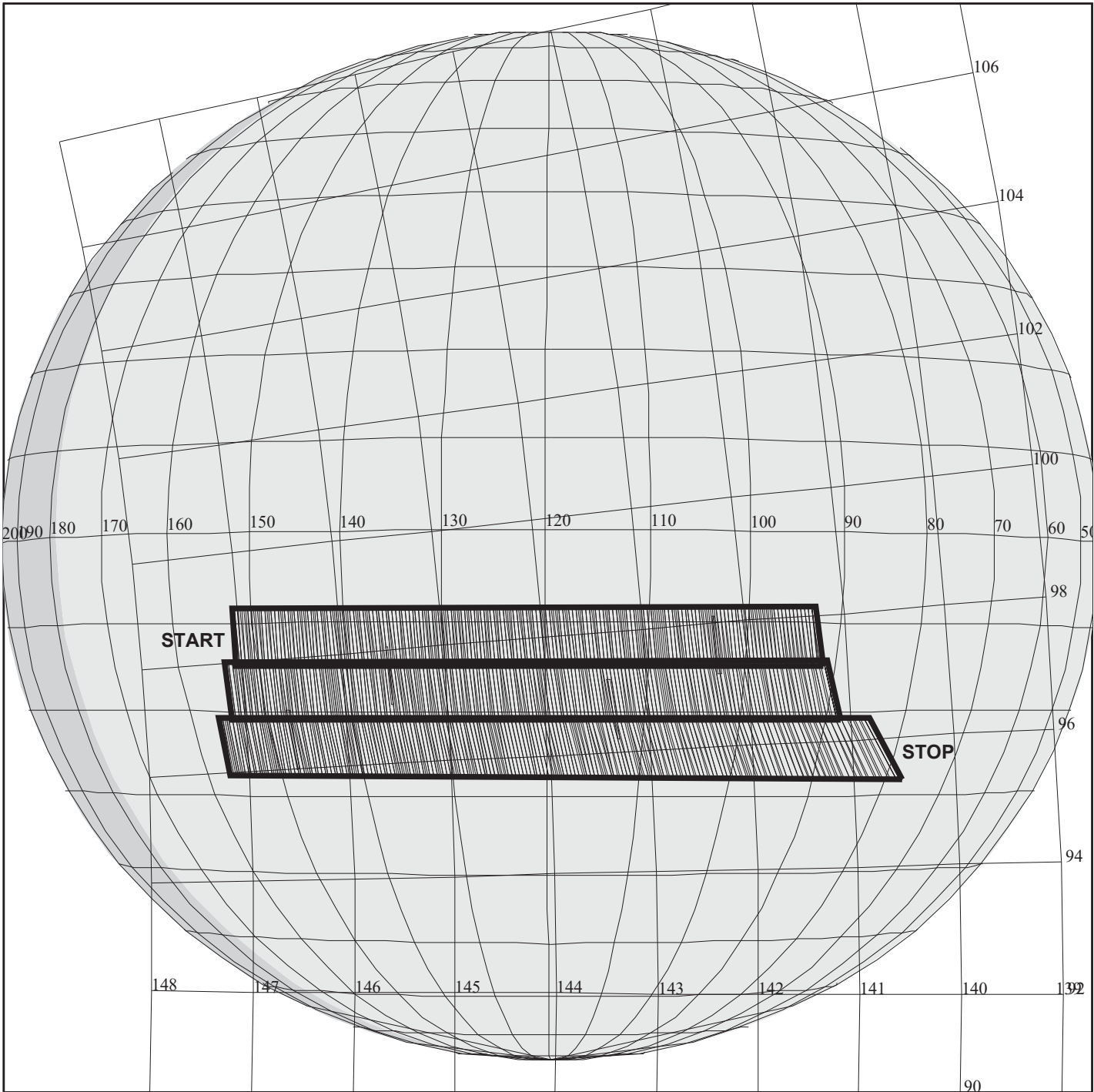
165DH:TT= 0 TMC=1 C= 22.00 XC= 13.20 BS= 0/1038 TC= 1(-10 97.5 )  
 A= 182 pD= 10806 SR=17.450 RA50= 49.48 DEC50= 25.68 cone=140.63 clock=104.61  
 117DH:#SB= 2 OR= 0.020 RR=12.000 BM=F RC= 1 BS= 0/1038  
 1:#s= 2 Cs= -23.50 XCs= -3.30 Cr= 24.40 XCr= -3.70 sD= 3560 rD= 42  
 2:#s= 1 Cs= -23.50 XCs= -3.40 Cr= 22.60 XCr= -3.70 sD= 3560 rD= 42

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D=10806 S= 0.800

DESCRIP:IO\_REGION\_02

Io Regional Map		ACTIVITY ID: 31INREGION02-	
		START TIME: 01-218/07:24:24.133	
Activity ID: Orbit 31 Target I Inst N OAPEL REGION SeqNo 02 -			
Title	Io Regional Map	Instrument	
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS Working Group
		NIMS SWG	
Time System	CDS	Load ID	Calendar Date 08/06/01 Week 32
Start	IEE+CDS 00000144:00:0	01-218/06:50:01.466	IEE+000/01:51:13.333
End	IEE+CDS 00000178:00:0	01-218/07:24:24.133	IEE+000/02:25:36.000
Duration	00000034:00:0	000/00:34:22.667	000/00:34:22.667
Top Label	31INREGION02-		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	300	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
		Scan Platform	No
		DMS	No
Observation Objective			
<p>Regional map for thermal, SO2 and 1-micron band mapping.  This observaion will be used to asses surface changes from data obtained  in previous orbits and search for new activity.</p>			
Data Returned until Processor Halt			
Design Detail			
BTG=10.66 MB, TICS=1628, FMT=LPU, LM, Gain State 2			
Disk centered at 0 North latitude, 151 degrees West longitude.			
Three swath mosaic across the entire disk. This observation is actually a 3-swath global mosaic. Prometheus is in the center of the disk.			
CDS BUS RESET RESULTING IN NIMS PROCESSOR HALT OCCURRED 6:28 INTO THE OBSERVATION. ONLY UPPER LEFT CORNER OF MOSAIC RETURNED. ISUM REGION VISIBLE IN NIGHTSIDE PORTION. SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT			
Fixed Long Map (XLM), Gain 2, Grating Start 0, LPU, ILM252, ILM36A			
Fixed Long Map (XLM), Gain 2, Grating Start 0, LPU, ILM252, ILM36B			
Fixed Long Map (XLM), Gain 2, Grating Start 0, LPU, ILM252, ILM72			
Galileo Activity Plan Form		12/01/00 00:00:00	rev 6/95



## 31JNGRSPOT01

165DK:TT= 0 TMC=1 C= 50.00 XC= 8.00 BS= 0/5638 TC= 1(-14 122 )  
 A= 728 pD= 0 SR=17.450 RA50= 56.94 DEC50= 22.83 cone=147.06 clock= 98.46  
 117DK:#SB= 1 OR= 0.110 RR=12.000 BM=F RC= 1 BS= 0/5638  
 1:#s= 3 Cs= -96.00 XCs= -8.00 Cr= 101.00 XCr= -0.50 sD= 2446 rD= 56

DESIGN G3.2 yande: 6/ 7/2001 15:58:13

FILE:P.31JNGRSPOT01

CENTRAL BODY:JUPITER III

MINI:m.31JNGRSPOT01

S/C EPH:/DATA/NAVIO/010529-tour.NS

PERIAPSIS:

START:JEE 01-218/04:51:43.466 +CDS 670:00:0

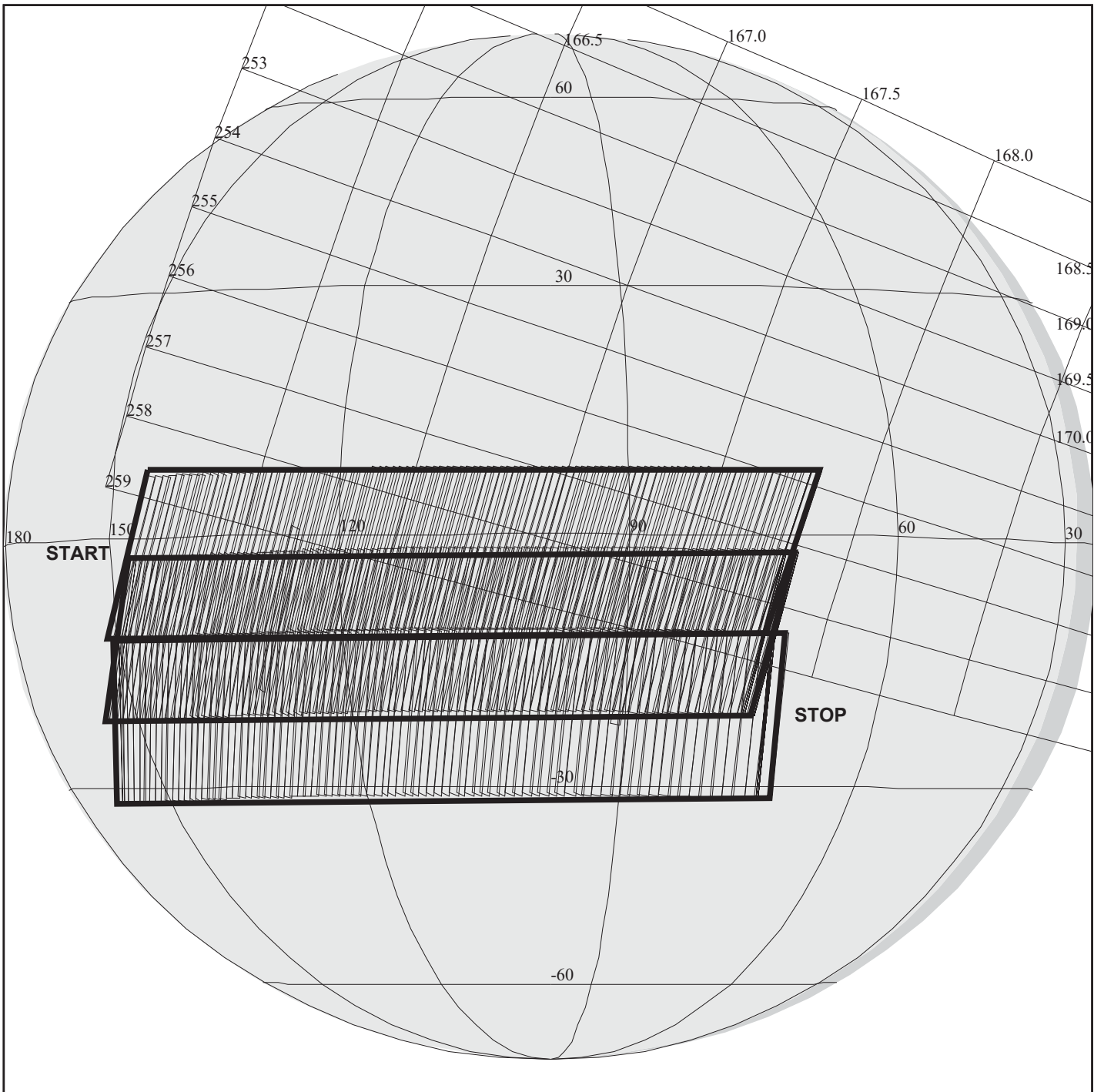
OBSERVATION:31JNGRSPOT01

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 0 S= 1.000

DESCRIP:JUPITER\_GRS\_01

Jupiter GRS Obs		ACTIVITY ID: 31JNGRSPOT01-	
		START TIME: 01-218/16:09:10.132	
Activity ID: Orbit 31 Target J Inst N OAPEL GRSPOT SeqNo 01 -			
Title	Jupiter GRS Obs	Instrument	
Requestor	NIMS-AWG/M. SEGURA	Team	NIMS Working Group
			NIMS AWG
Time System	CDS	Load ID	Calendar Date 08/06/01 Week 32
Start	JEE+CDS	00000670:00:0	01-218/16:09:10.132 JEE+000/11:17:26.666
End	JEE+CDS	00000714:00:0	01-218/16:53:39.466 JEE+000/12:01:56.000
Duration		00000044:00:0	000/00:44:29.334 000/00:44:29.334
Top Label	31JNGRSPOT01-		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	300	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
			Scan Platform
			DMS
			No
			No
Observation Objective			
To determine compositional variations and to continue the study of cloud dynamics of the Great Red Spot turbulent wake region.			
Data Returned			
Design Detail			
BTG=3.64 MB, TICS=213, FMT=LPU, SM, Gain State 2			
Three swath mosaic across the Great Red Spot region.			
Latitude coverage from -28 to -8 degrees.			
Longitude coverage 90 to 150 degrees West.			
SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT			
Fixed Short Map (XSM), Gain 2, Grating Start 0, LPU, JSM60, JSM54			
Galileo Activity Plan Form		12/01/00 00:00:00	rev 6/95



**31JNGRSPOT02**

165DL:TT= 0 TMC= 1 C= -23.00 XC= 2.00 BS= 0/2438 TC= 1(-10 102 )  
 A= 728 pD= 0 SR=17.450 RA50=108.43 DEC50= 25.36 cone=165.60 clock=259.85  
 117DL:#SB= 1 OR= 0.060 RR=12.000 BM=F RC= 1 BS= 0/2438  
 1:#s= 3 Cs= 40.30 XCs= -10.50 Cr= -38.30 XCr= 15.00 sD= 2612 rD= 76

DESIGN G3.2 yande: 6/27/2001 11: 5:54

FILE:P.31JNGRSPOT02

CENTRAL BODY:JUPITER III

MINI:m.31JNGRSPOT02

S/C EPH:/DATA/NAVIO/010529-tour.NS

PERIAPSIS:

THINNING:NIM 2

START:JEE 01-218/04:51:43.466 +CDS 3070:00:0

BODY PLOT TIME:TARGET-TIME D= 0 S= 1.000

OBSERVATION:31JNGRSPOT02

DESCRIP:JUPITER\_GRS\_02



Jupiter GRS Obs		ACTIVITY ID: 31JNGRSPOT02-	
		START TIME: 01-220/08:31:47.466	
Activity ID: Orbit 31 Target J Inst N OAPEL GRSPOT SeqNo 02 -			
Title	Jupiter GRS Obs	Instrument	
Requestor	NIMS-AWG/M. SEGURA	Team	NIMS Working Group
			NIMS AWG
Time System	CDS	Load ID	Calendar Date 08/08/01 Week 32
Start	JEE+CDS	00003066:00:0	01-220/08:31:47.466 JEE+002/03:40:04.000
End	JEE+CDS	00003110:00:0	01-220/09:16:17.799 JEE+002/04:24:33.333
Duration		00000044:00:0	000/00:44:29.333 000/00:44:29.333
Top Label	31JNGRSPOT02-		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	300	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
			Scan Platform
			DMS
			No
			No
Observation Objective			
To determine compositional variations and to continue the study of cloud dynamics of the Great Red Spot turbulent wake region.			
Data Returned			
Design Detail			
BTG=3.64 MB, TICS=213, FMT=LPU, LM, Gain State 2			
Three swath mosaic across the Great Red Spot region.			
Latitude coverage from -32 to +8 degrees.			
Longitude coverage 70 to 140 degrees West.			
SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT			
Fixed Long Map (XLM), Gain 2, Grating Start 0, LPU, JLM240, JLM54			
Galileo Activity Plan Form		12/01/00 00:00:00	rev 6/95

NIMS Chopper Off		ACTIVITY ID: 31NNCHOPOF01-	
		START TIME: 01-220/10:04:40.066	
Activity ID: Orbit 31 Target N Inst N OAPEL CHOPOF SeqNo 01 -			
Title	NIMS Chopper Off		Instrument
Requestor	NIMS-SWG/M. SEGURA		NIMS
	Team	NIMS	Working Group
Time System	CDS	Load ID	Calendar Date 08/08/01 Week 32
Start	JEE+CDS	00000000:00:0	01-220/10:04:40.066 JEE+000/00:00:00.000
End	JEE+CDS	00000000:00:0	01-220/10:08:42.733 JEE+000/00:00:00.000
Duration		00000000:00:0	000/00:04:02.666 000/00:00:00.000
Top Label	31NNCHOPOF01-		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	300	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
		Scan Platform	No
		DMS	No
Observation Objective			
Turn off NIMS Chopper.			
Design Detail			
Galileo Activity Plan Form			
		12/01/00	00:00:00 rev 6/95

NIMS RCT Real Time Calibration		ACTIVITY ID:	31NNRCTRLT01-		
		START TIME:	01-238/22:00:29.700		
Activity ID: Orbit 31 Target N Inst N OAPEL RCTRLT SeqNo 01 -					
Title	NIMS RCT Real Time Calibration		Instrument		NIMS
Requestor	NIMS-AWG/K. BAINES		Team	NIMS Working Group	AWG
Time System	CDS	Load ID	Calendar Date	07/10/00	Week 28
Start	RTA+CDS	00000000:00:0	00-238/22:00:29.700	RTA+000/00:00:00.000	
End	RTA+CDS	00000000:00:0	00-239/11:02:57.200	RTA+000/00:00:00.000	
Duration		00000000:00:0	000/12:02:27.500	000/00:00:00.000	
Top Label	31NNRCTRLT01-				
Bottom Label					
Plot Key	NIMS	Type	SCI		
CDS Bytes	450	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No
Observation Objective					
<p>This observation is a NIMS radiometric calibration using the RCT target. The data will be used to calibrate the NIMS thermal detectors. The calibration data will be returned using Real-time Telemetry</p> <p>The RCT Heaters cannot be on while that scan platform is in use. The RCT calibration Library Sequence has been modified to turn off the RCT heaters before slewing to zero cone to observe. Hence the RCT is observed as it cools, instead of at a steady temperature.</p> <p>This is a GMM Library Sequence The Dark cone angle must be selected using Pointer.</p> <p>Data Returned</p>					
Design Detail					
<ol style="list-style-type: none"> <li>1) Turn on RCT Heaters for 12 hours.</li> <li>2) Set Engineering Variable Map to return NIMS Temps more frequently.</li> <li>3) Set NIMS to Long Map Mode, Gain state 1, Chopper Reference, Mirror Blocking (11011,11011), ETB=RCT252.</li> <li>4) Pause playback before using scan platform.</li> <li>5) Turn off RCT Heaters.</li> <li>6) Slew to RCT (cone = 0.0), return 8 grating cycles (12 mf) in R/T</li> <li>7) Slew to Dark (cone = 119.7), return 2 grating cycle (12 mf) in R/T</li> <li>8) Slew to Safe (cone = 153.0)</li> <li>9) Set NIMS to Safe Mode and turn off Chopper.</li> <li>10) Resume Playback after using scan platform.</li> </ol>					
Fixed Long Map (XLM), Gain 1, Grating Start 0, R/T, RCT252					
Galileo Activity Plan Form			05/31/00	10:48:23	rev 1/99



## Chapter 6 - Edit Tables

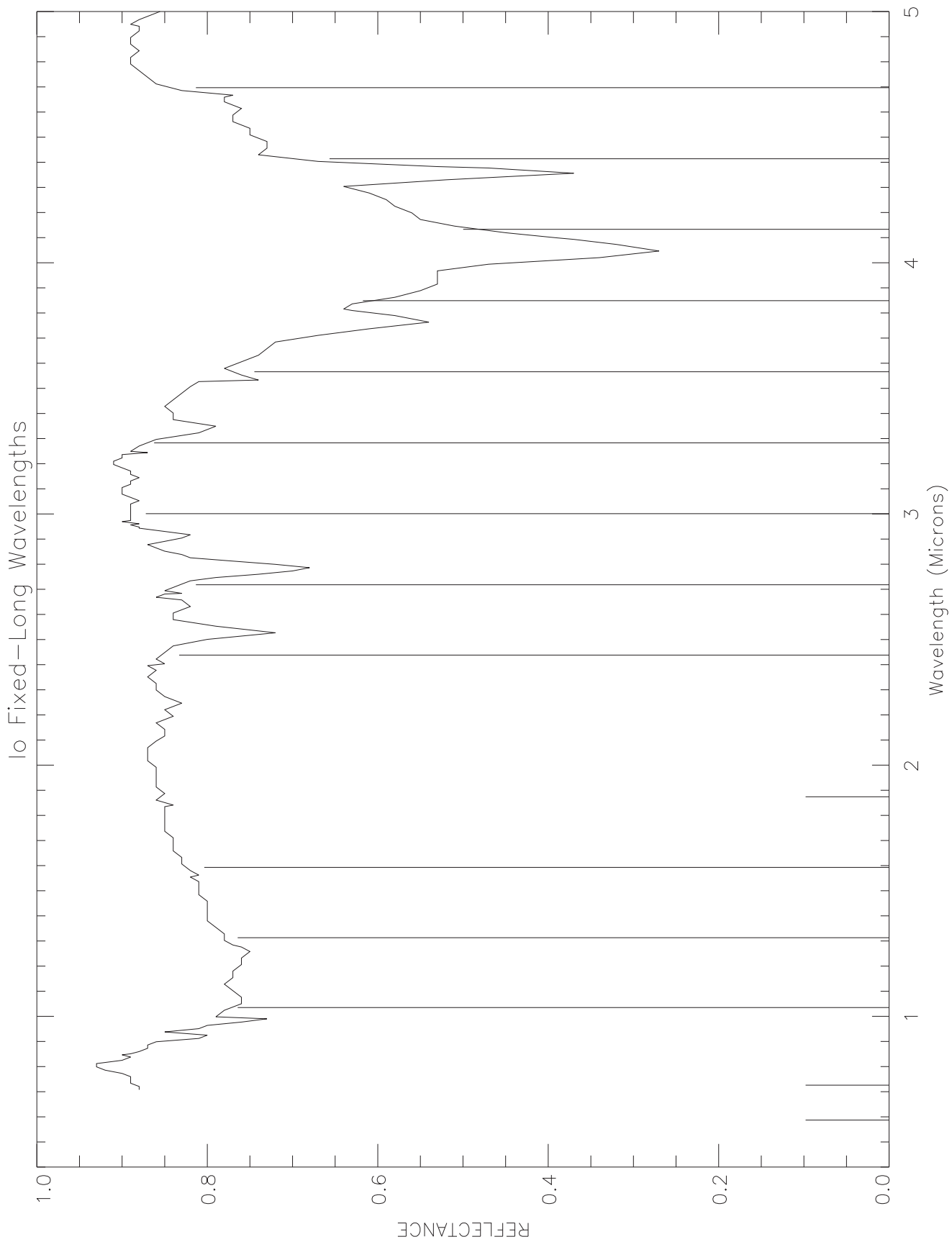
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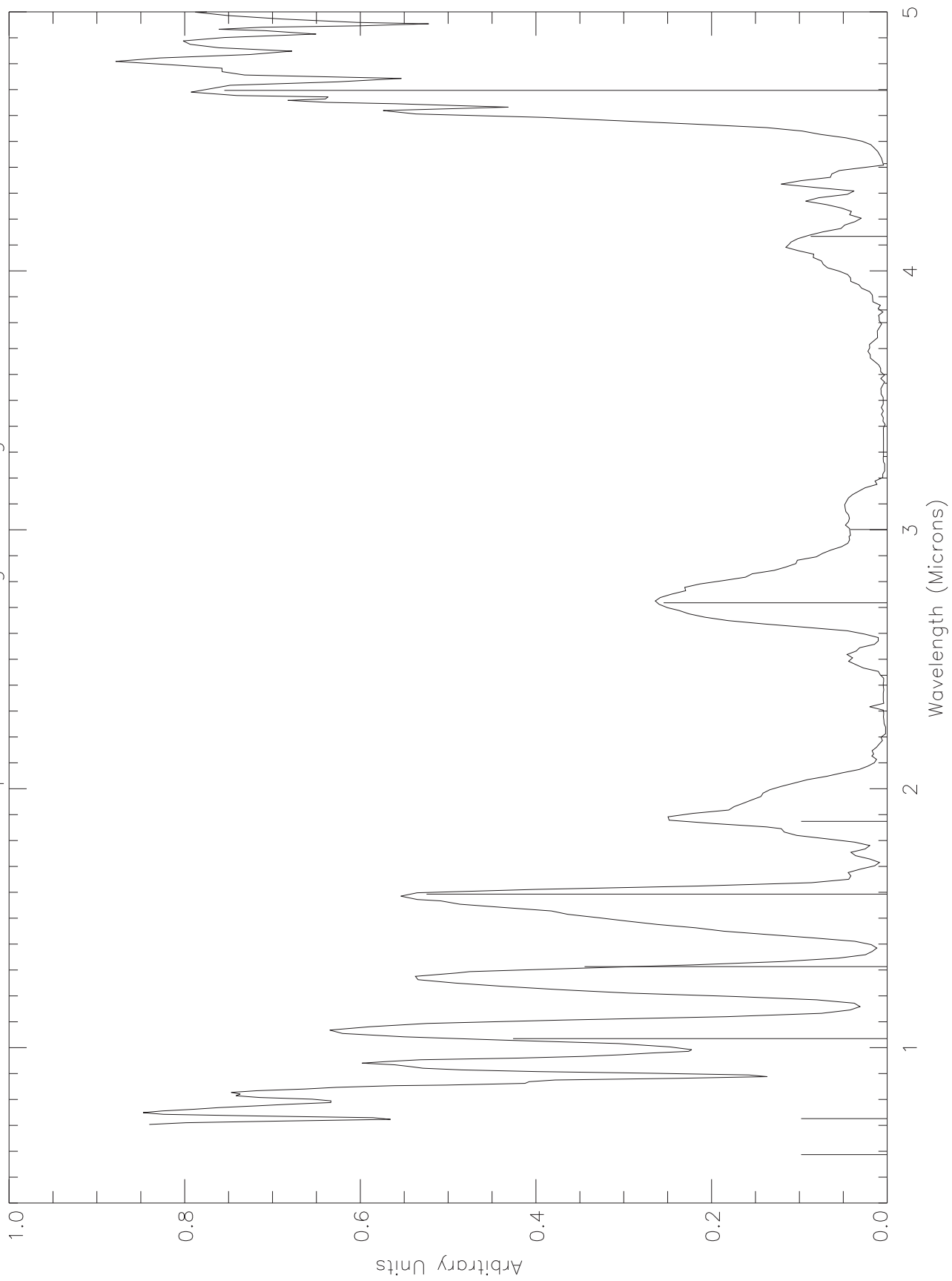
## Introduction to Chapter 6

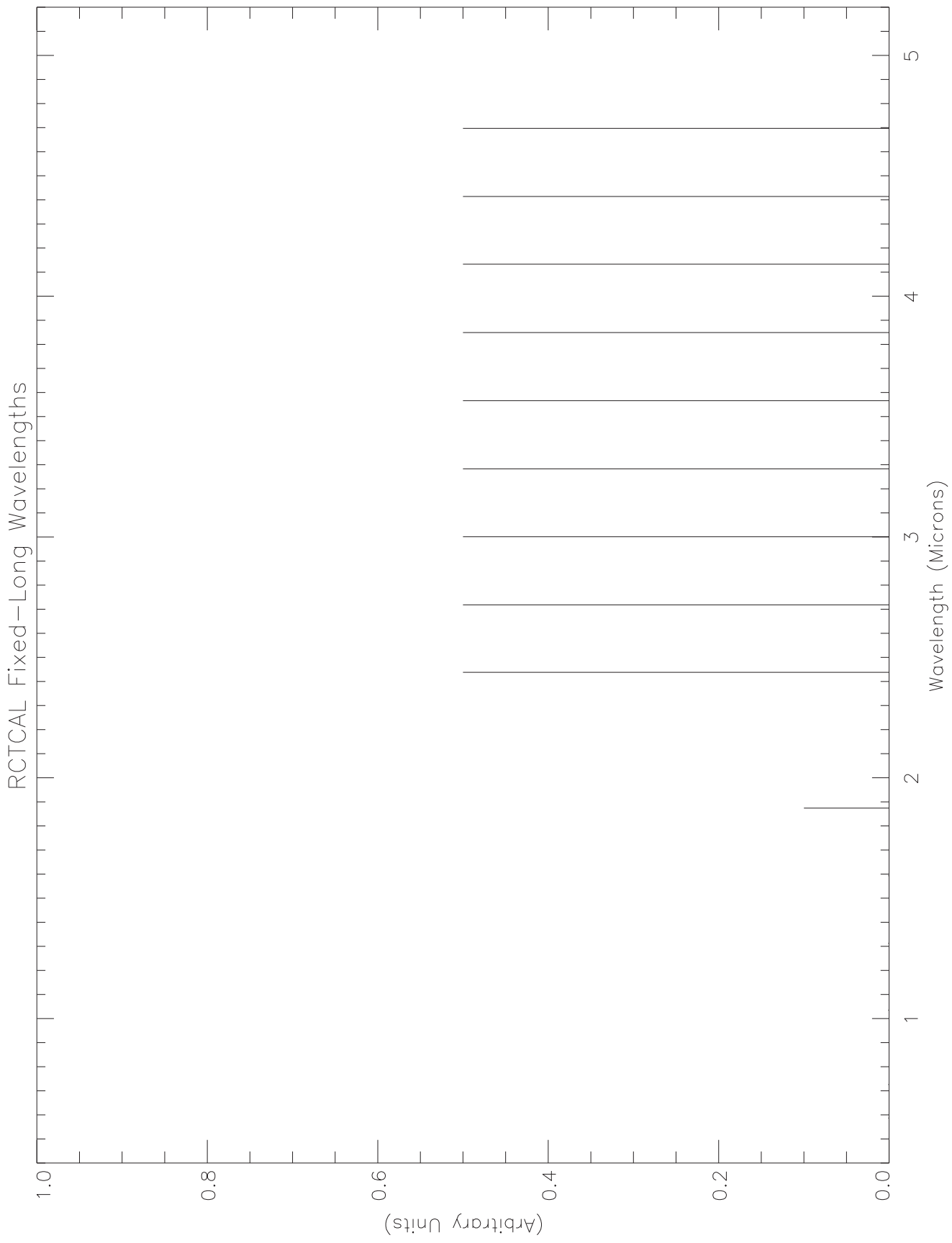
### NIMS Edit Table Plots

This chapter contains plots of the NIMS Edit Tables used in I31. The representative spectra used in these plots are observational reference spectra for the target body as obtained from telescopic observations from the Earth. Each reference spectrum is a composite of multiple published sources. Vertical lines below the reference curves mark the wavelengths selected for return. Where no spectral information is available, the selected wavelengths are shown as lines with amplitude equal to .05 on the vertical axis.



Jupiter Fixed—Long Wavelengths





## Chapter 7 - Data Return

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## Introduction to Chapter 7

This chapter is a report on the NIMS data return for the I31 orbit. Due to the low downlink data rates available for Galileo Jupiter Operations and other unforeseen and unpredictable events during the I31 Encounter and Cruise, not all NIMS data recorded on the tape recorder or selected in real-time were returned. The previous 6 chapters nominally describe the planning and intention of the NIMS observations for this orbit, except the obstab section in chapter 4 which was updated to give the latest parameters for the data that were actually returned.

There were twelve autonomous reloads of the NIMS RAM code from CDS during the I31 encounter, one just before each science observation. Two software halts were detected during I31. The approach that we are taking to avoid data loss due to processor halts has proven to be very successful.

The NIMS grating became stuck some time between C22 and I24. NIMS can now return only 17 (of 408) wavelengths. This has caused a drastic change in NIMS science capabilities. Detectors 1, 2 and 7 now have very low sensitivity. Detectors 3 and 8 are still not functioning. NIMS now returns only 12 useful wavelengths. Interesting science can still be carried out given the current condition of the instrument.

The plots on the pages 3 through 5 show the geometry of the NIMS I31 observations using a north trajectory pole projection. The 'returned' observations are in Bold characters and the 'non-returned' in gray. The observations with an asterix were taken with the NIMS software halted.

The spreadsheets on pages 6 and 7 summarize the 'final' playback model for the I31 data returned.

The text on page 8 gives a 'recap' of the I31 playback events which affected which observations were returned.

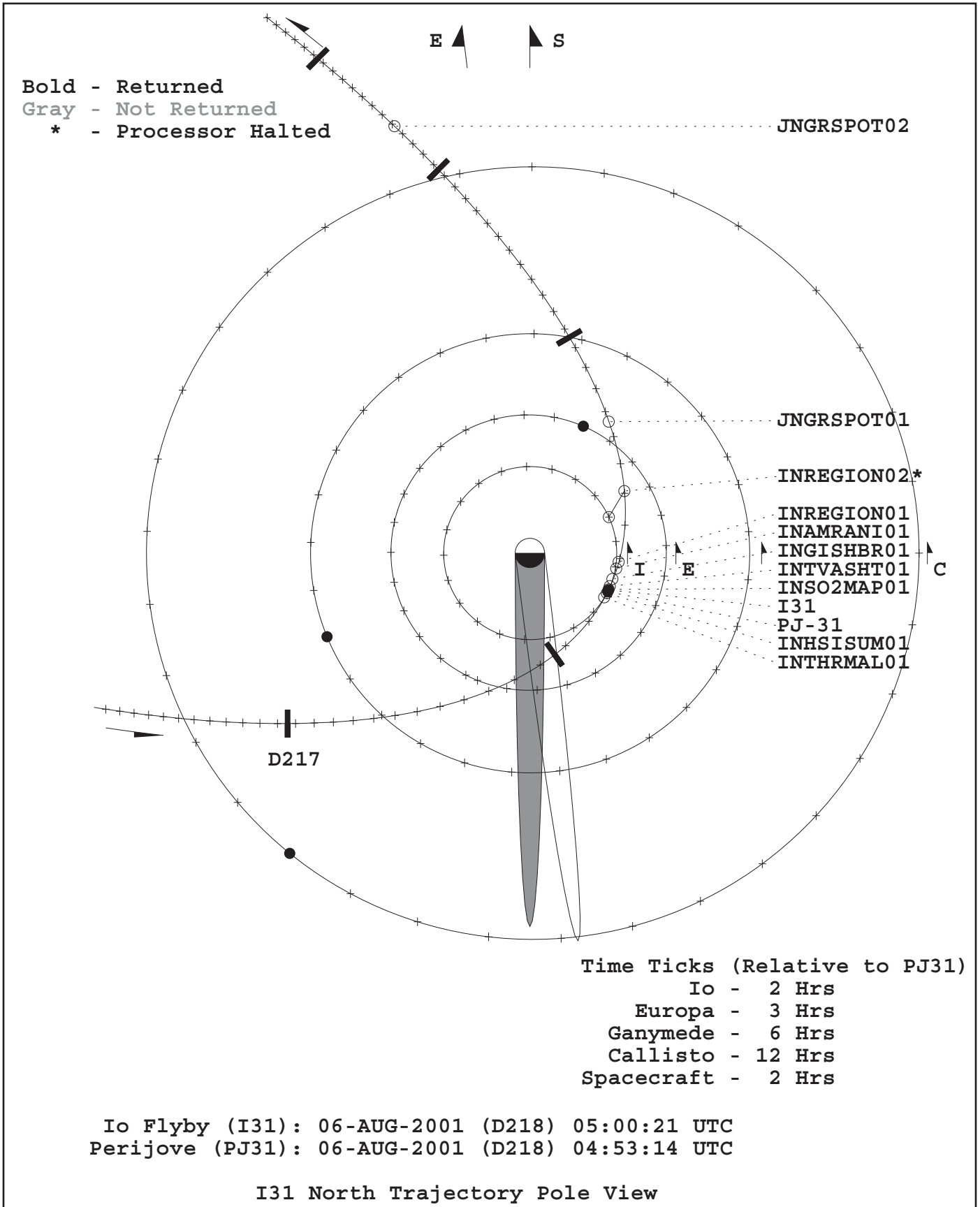
A Timeline of I31 playback events is on pages 8 through 25.

The text on pages 26 and 27 describes the I31 NIMS and Spacecraft Anomalies.

The text on page 28 gives a brief discussion of the NIMS data files. Additional information about NIMS data formats, data types, data labels and data access is given on pages 29 and 30.

The text on page 31 is a guide to understanding the NIMS MASK.

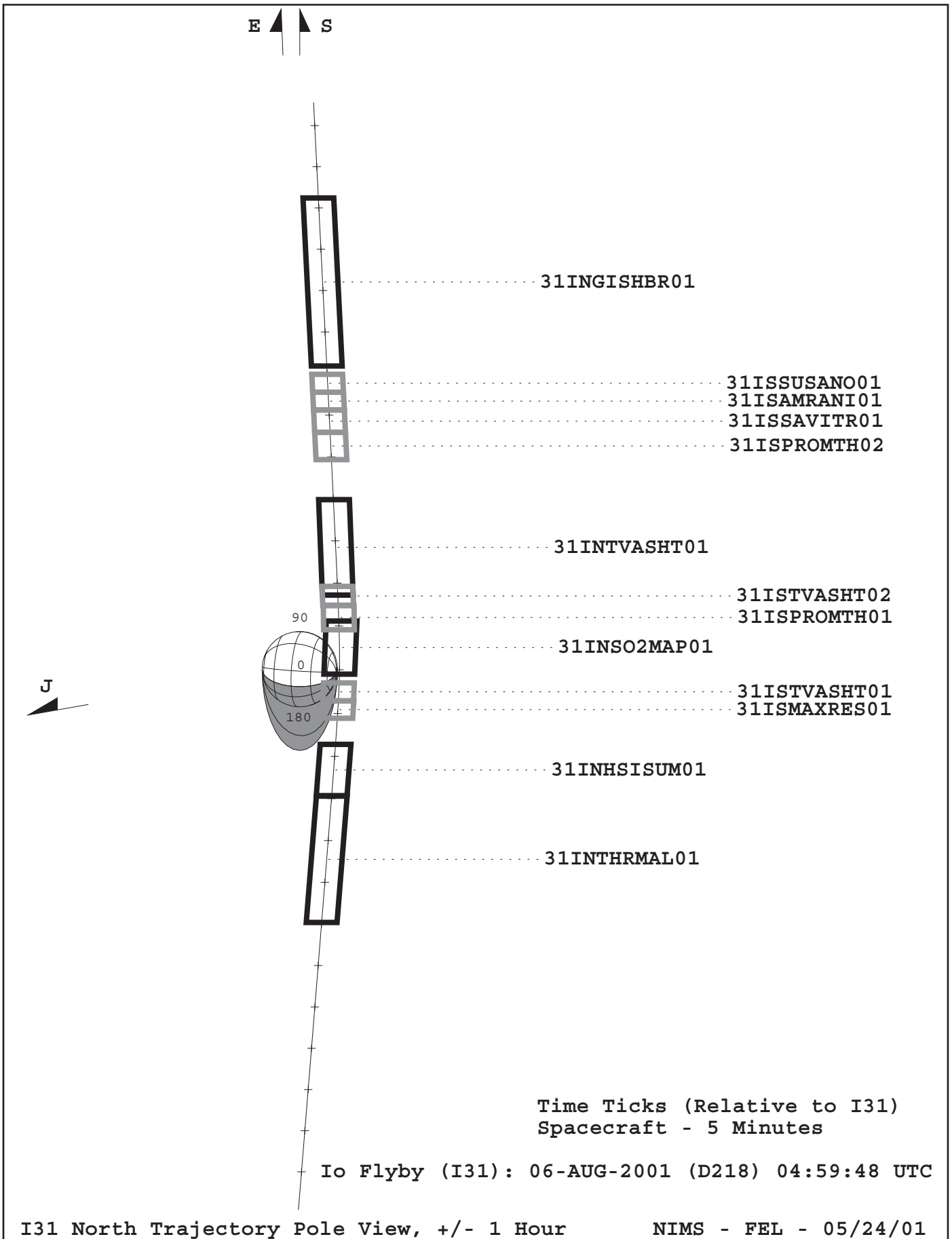
# NIMS I31 OBSERVATIONS



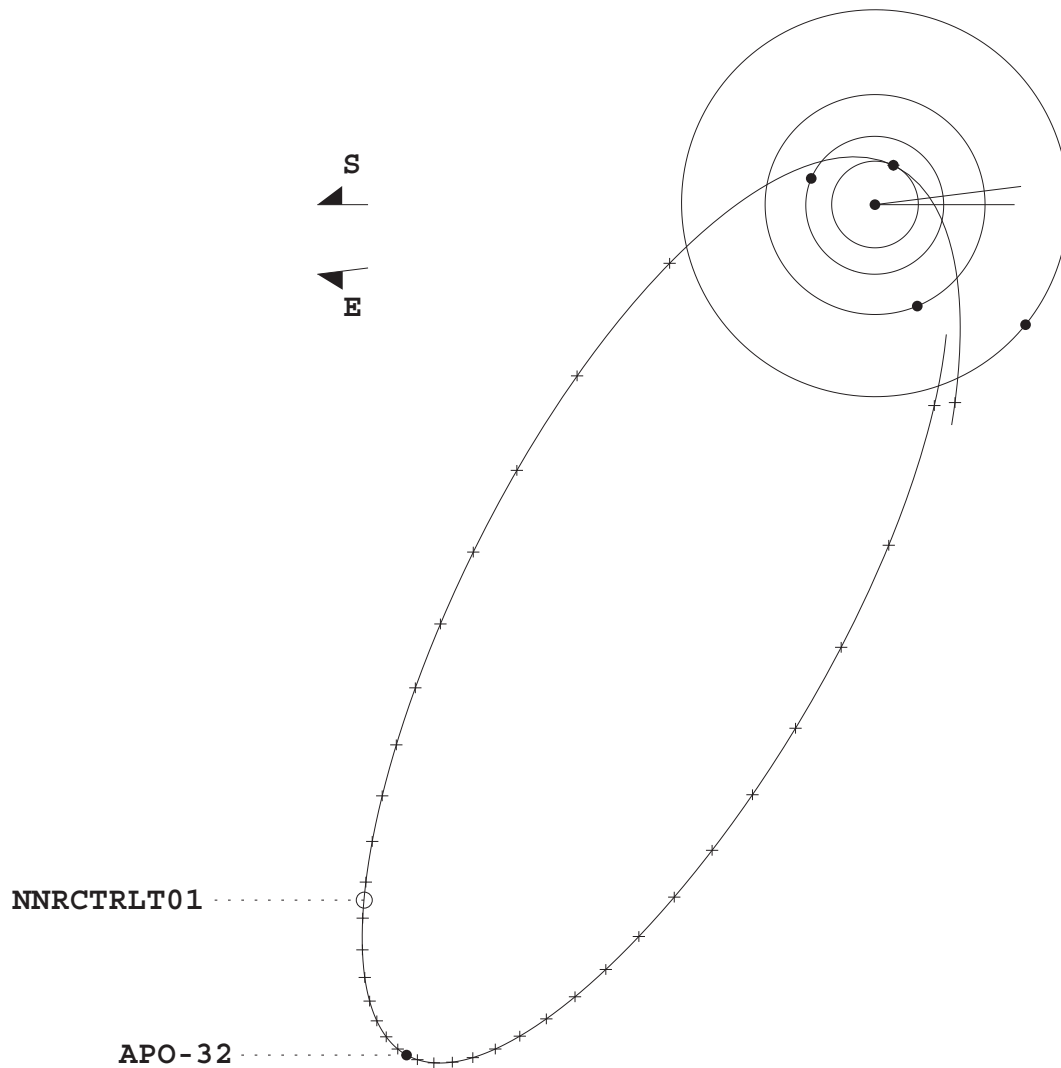
NIMS - FEL - 01/18/02



# NIMS & SSI I31 IO FLYBY OBSERVATIONS



# NIMS I31 CALIBRATIONS



Time Ticks (Relative to I31)  
Spacecraft - 2 Days

Io Flyby (I31): 06-AUG-2001 (D218) 05:00:21 UTC  
Perijove (PJ31): 06-AUG-2001 (D218) 04:53:14 UTC  
Apojove (A32): 09-SEP-2001 (D252) 23:46:40 UTC

I31 North Trajectory Pole View

NIMS - FEL - 10/31/01



# NIMS I31 DATA RETURN

Activity ID	Mode	Record Format	Wave-lengths Returned	Record Time (sec)	PB Time (sec)	Selected Bits to Tape (MBITS)	Bits to Tape (sec)	Bits to Tape (sec)	Mode Cycle (sec)	AACS Mbits	Comp (w/ 4% O'head)	Total BTG (Mbits)	Data Reduct. Factor	Pass
31INTHERML01	LM	MPW	144	604	600	6.91	6.96	8.667	0.03	1.33	1.56	4.43	2	
31INHISISUM01	LM	MPW	144	241	236	2.72	2.78	8.667	0.01	1.36	0.60	4.53	2	
31INSO2MAP01	LM	MPW	96	301	40	0.46	3.47	8.667	0.00	1.35	0.07	6.75	2	
31INTVASHOT03+	LM	IM8	96	50	44	0.00	0.00	8.667	0.00	1.31	0.08	0.00	2	
31INTVASHOT01	LM	MPW	144	596	593	6.83	6.87	8.667	0.03	1.12	1.83	3.73	2	
31INGISHBR01	LM	MPW	144	967	500	5.76	11.14	8.667	0.03	1.18	1.46	3.93	2	
31INAMRANI01	LM	MPW	36	920	907	10.45	10.60	8.667	0.05	1.16	0.68	15.47	2	
31INREGION01	LM	LPU	36	7311	6882	42.45	45.09	8.667	0.40	1.16	5.13	8.28	2	
31INREGION02	LM	LPU	36	4370	404	2.49	26.95	8.667	0.02	1.27	0.27	9.07	2	
31JNGRSPOT01	SM	LPU	54	2500	1700	10.49	15.42	2.33	0.10	1.42	5.77	1.82	2	
31JNGRSPOT02	LM	LPU	54	2650	2632	16.23	16.35	8.667	0.15	1.74	1.96	8.28	2	
31INTHERML01	LM	MPW	144	604	443	5.10	6.96	8.667	0.03	1.22	1.25	4.07	3	
31INHISISUM01	LM	MPW	144	241	180	2.07	2.78	8.667	0.01	1.31	0.47	4.37	3	
31INTVASHOT01-gf	LM	MPW	144	596	153	1.76	6.87	8.667	0.01	1.2	0.44	4.00	3	
31INAMRANI02+	LM	IM8	144	50	43	0.00	0.00	8.667	0.00	1.2	0.12	0.00	3	
31INGISHBR01	LM	MPW	144	967	475	5.47	11.14	8.667	0.03	1.18	1.39	3.93	3	
31INAMRANI01	LM	MPW	108	920	907	10.45	10.60	8.667	0.05	1.16	2.03	5.16	3	
31INREGION01	LM	LPU	48	7311	6882	42.45	45.09	8.667	0.40	1.16	6.83	6.21	3	
31INREGION02	LM	LPU	36	4370	404	2.49	26.95	8.667	0.02	1.28	0.27	9.14	3	
31JNGRSPOT01	SM	LPU	54	2500	825	5.09	15.42	2.33	0.05	1.41	2.82	1.80	3	
31JNGRSPOT01-gf	SM	LPU	54	2500	51	0.31	15.42	2.33	0.00	1.41	0.17	1.80	3	
<b>35.22 Total</b>														
<b>35.06 Allocation</b>														
<b>0.1598 Over/Under</b>														

01/18/02

## RECAP OF I31 PLAYBACK EVENTS

I31 was marred by the loss of many of SSI's recorded Io observations due to an instrument anomaly. This occurrence resulted in a significant windfall of downlink resources for NIMS. The increased allocation permitted us to return a healthy proportion of our recorded data. We were able to return 7 samples per detector for the large observation 31INREGION01, amounting to some 12 Mbits by itself. A new, large, extremely hot volcanic outburst was observed on Io in I31, which was imaged in that observation.

Although there were at least two spacecraft safings due to despun bus resets, only one NIMS observation was severely impacted (31INREGION02). Late changes made to the sequence prior to uplink also severely impacted the plan for 31INSO2MAP01; only a small portion of this observation could be salvaged.

The following timeline details the most significant events of the C30 playback period. Most of the text below is excerpted from messages issued at the time.

### I31 Playback Events Timeline (06-18-01 to 10-25-01)

- 06-18-01: The first-cut playback table for I31 has been delivered to donatello. We will have several additional input ports for this pbt (June 26, July 5, July 16, July 27).
- 06-22-01: (Y. Anderson) The allocations are based on the 1st OP ORPROs: I31ABA and I31BBA. We initiate I31 playback at 01-221/12:00:00.000, 9 hrs before the end of the A-load, and terminate at 01-286/09:50:00.266.  
NIMS allocation: 22.422 Mbits  
We have a total 90.34 MB downlink capability, and SPOT holds 3.00 MB margin and 2.71 MB inefficiency. Thus, 84.63 MB is allocated to the teams, which is more than a 30% increase from OPG.
- 07-03-01: (Y. Anderson) I31 Playback Allocation Update (7/3)--  
Initiation of I31 playback in ADA has been moved 14 hours earlier. As a result we gain 1 MB more downlink capability. Currently, I31 playback initiates at 01-220/20:00:00.000, and terminates at 01-286/09:50:00.266. Total MTG is 91.224 MB. SPOT holds 3.00 MB margin and 2.737 MB inefficiency. 85.487 MB (vs. 84.63 MB previously) is allocated to the teams.  
NIMS: 21.651 MB

I31 Playback Events Timeline (06-18-01 to 10-25-01)

07-16-01: There is one additional update cycle before the I31 table is uplinked to the spacecraft. The current table has times adjusted to align with the latest SEF. Data reduction factors are now realistic, but not all singles have correct wavelength edit table entries. Our allocation in I31 is currently 21.6 Mbits, about 3 times larger than that for C30. Nonetheless we are recording much more data than can be brought down. To deliver this table I made some assumptions about the magnitude of data editing. These will need to be reviewed and fine-tuned for the next update cycle. Below are percentage values (of data recorded) planned for return in the current table.

All Io high-resolution observations:	50%
Io REGION01, REGION02:	15%
Jupiter Great Red Spot observations:	25-50%

As noted, we can bring these in line with science priorities in the next cycle.

07-22-01: (D. Bindschadler) This is to update you with regard to the situation surrounding the planned SEQID hibernation period at I31 C/A. The hibernation period is required due to the geometry of the planned flyby. During a period of approximately 15 minutes near Io c/a, there is a bright body vector (necessitated by Io itself) which also blocks our OSAD star. A similar situation occurred at both I25 and E26 flybys. Similar to I25, we planned to increase the persistences on several AACS variables, which would allow SEQID to continue to provide attitude reference during the period when the OSAD star was blocked out. During testbed testing (AACS subsystem mode), the hibernation period worked fine, but SEQID crashed at the point it should have required the OSAD star. SEQID quickly recovered, but the crash caused us to investigate further. We found that scan platform movement during the hibernation period causes changes in rotor motion that are not as accurately modeled by SEQID as we might wish. In particular, investigations during I25 development suggested that the spacecraft mass properties (in particular the Izz moment of inertia) is not correctly modeled in AACS software. The result is that any net scan platform motion between the start of the hibernation period and the end creates an error in SEQID's estimate of clock angle. In the case of the testbed test, once the BBV hiding our OSAD star expired, SEQID began "looking" for the star at the wrong time and in the wrong part of the sky. Once it crashed it was able to quickly re-acquire the OSAD star, since the incorrect positional information was discarded.

### I31 Playback Events Timeline (06-18-01 to 10-25-01)

There are four options for dealing with this issue. Below is my description and my recommendation with regard to each one.

- Option 0: Do nothing. Allow SEQID to crash upon exiting the hibernation period.
- Impact: This will likely impact the INSO2MAP01 observation (NIMS) and could impact the ISPROMTH01 (SSI) observation. Shadan may be able to better estimate the impact.
- Testing: This option has been tested in the testbed.
- Option 1: Add a post-position slew to the sequence.
- Impact: This will impact the INSO2MAP01 observation (NIMS). From Shadan's and my inspection, this appeared to allow the 1st minute of the observation, but not the subsequent ~2 minutes. The post-position slew needs to begin at 05:03:20 in order to have the required 160 seconds to reach its target clock angle position. There appears to be time in the sequence for the subsequent slew (for ISPROMTH01) to execute.
- Testing: This option has already been mostly tested in the testbed. The only remaining aspect (does s/p motion subsequent to post-positioning slew execute wi/out misslews?) will be done by Monday am.
- Option 2: Add a pre-position slew to the sequence.
- Impact: This will impact INHSISUM01 (NIMS) and \*probably\* IPHIRES\_01 (PPR). Because of the required 160 sec slew time, INHSISUM01 appears to be completely gutted -- the preposition slew has to begin by 04:48:20, and the MPW 6TMREC isn't until 04:49:36. In addition, there doesn't appear to be time to slew from the pre-position point to the beginning of the IPHIRES\_01 observation, meaning that this PPR observation would also be compromised.
- Testing: This option has been tested but is unsuccessful in the testbed. Would require pointer work (to create a hole for the pre-position slew), and testing of the new s/p sequence in testbed.
- Option 3: Increase the duration of the BBV, and thus the hibernation period by 4 minutes. Add a pre-position slew (but earlier than in #2).
- Impact: In this option, we would begin the BBV 4 minutes earlier and place it prior to the INHSISUM01 (NIMS) observation. However, there is not time in the timeline for this option either. At the very least INHSISUM01 would be compromised and possibly the previous one (INTHRMAL01) would also be affected. In addition, we would be operating further outside our range of experience. For I25, the BBV was 13 minutes long with persistences set to 17 min. Current I31 situation is 15/17. This would become 19 minutes with 21 minutes persistences.

I31 Playback Events Timeline (06-18-01 to 10-25-01)

Testing: Not yet tested.

RECOMMENDATION:

Option 1 (post-position slew)

Recommend implementation. This option works, with the only remaining detail left being to see if it affects the subsequent SSI observation. Impacts only one observation. Appears to be straightforward to implement in pointer and is not expected to cause SCANOPS problems.

07-23-01: The "final" (pre-uplink) I31 pbt must be delivered by Thursday, and there are still several questions about the overall Io plan. Here is the situation.

1. We are currently near our allocation, doing the following :

Returning 12 of 24 wavelengths recorded for

31INTHERML01  
31INHISISUM01  
31INSO2MAP01  
31INTVASHT01  
31INGISHBR01  
31INAMRANI01

Returning 3 of 24 wavelengths for

31INREGION01  
31INREGION02,

(however, not all of REGION01 is selected, see below).

2. Additions wanted: I understand the SSI ridealong data is wanted for 31ISTVASHT01-02. This will cost about 0.5-0.6 Mbits all together. And, in the current table, I did not include the second part of 31INREGION01, which has an instrument reload in the middle. Getting all of this will require another 1.7 Mbits.

SST is messing about with the sequence, and a good part of 31INSO2MAP01 may be lost as a result. We may involuntarily gain some bits here but it will be less than a Mbit.

The current distribution is about 10.3 Mbits to the higher resolution observations, and 4.6 to the two REGIONS, not counting the needed 1.7 Mbits to complete REGION01.

Thus it seems we have to prioritize.

Question: should the ridealongs take priority over any of the NIMS data?

Question: Did you want to bring down any other SSI ridealong data?

Question: are you happy with the S/N for 30INGLOBAL01? (This came down with 3 of 24 recorded wavelengths.

If it is not good enough then we should increase the sampling for the REGIONS. If it is better than adequate, perhaps we should consider dropping to 2 samples per detector for the I31 REGIONS).



I31 Playback Events Timeline (06-18-01 to 10-25-01)

If we drop from 12 to 8 or 9 samples returned for the higher resolution data, we can bring down the full area of both REGIONS and the ride-along data. Alternatively if we drop from 3 to 2 samples on the REGIONS, we can get everything else without changing the sampling (12/24).

- 07-24-01: (R. Lopes) Tough call. I suggest we drop from 12 to 8 or 9 samples for the higher resolution data, EXCEPT the nightside observation. We need the full sampling to derive the highest temperatures, so we need to get all we can for THRMAL01 and INHSISUM. Let's try to bring all SSI ridealongs back, we have found those very useful in the past. It's hard to assign a priority. These can also be 8 or 9 samples. Let's see what we can do with this plan, I would like the full coverage of the REGIONS and no less than 3 samples. I'd be very worried to go down to 2.
- 07-25-01: (F. Leader) Due to the s/c hibernation period near Io C/A, the NIMS observation 31INSO2MAP01 took a big hit. Only the first 55 mf are pointing at the spot on Io where we want to collect SO2 spectra. At that time, a scan platform TARGET command is issued to put the scan platform in a 'nice' place causing the NIMS FOV to slew all about Io's disk and out into space. So, the nice 5 Rim record has turned into a 55 mf record. The rest is recorded but not worth returning (only for curiosity).
- 07-27-01: Today's is the final update prior to uplink of the I31 playback table to the spacecraft. A very large number of changes were required this time in order to optimize the science data return (as discussed in yesterday's team meeting). In particular, new playback wavelength tables were generated for all observations with the exception of 31INTHERML01 and 31INHSISUM01. For better playback efficiency, portions of the following observations were placed in pass 3 (the first playback pass will assess the quality of SSI data recording only, as in C30):
- 31INTHERML01
  - 31INHSISUM01
  - 31INGISHBR01
  - 31INREGION01
  - 31JNGRSPOT01
- Two SSI ridealong observations were added, one in each pass, designated 31INTVASHT02+ and 31INTVASHT03+. If allocation allows, more SSI Io ridealong data return will be added in pass 3.

## I31 Playback Events Timeline (06-18-01 to 10-25-01)

### Io Strategy:

31INTHERML01 and 31INHISISUM01 (dark side, gain state 1, for temperature determination) will be previewed in the first pass with 12x sampling, with additional samples for the hot spot areas planned for return in the last pass. 31INREGION01-02 will come down with 3 samples per detector. The ridealongs, and 31INTVASHT01, 31INAMRANI01, 31INGISHBR01, and 31INSO2MAP01 will come down with 8 samples per detector (of 24 recorded). We will only return the first 40 seconds of the latter, as it's design was altered at the last minute for sequence safety reasons.

### Jupiter Strategy:

This orbit has two nice GRS observations obtained close in, one in short map and one in long map. The record table selects 10 detectors but we will not bring down the data from detector 7 (low to nonexistent signal). We are commanding 3 samples / detector for 31JNGRSPOT01 (of 6 recorded) and 6 of 24 for 31JNGRSPOT02.

- 08-04-01: I31 sequence begins at 11:00 GMT (day 216).
- 08-05-01: (R. Lineaweaver)  
A Bus reset occurred at 217/22:54:36 SCET. (218/01:24:17 ERT)
- 08-06-01: Perijove occurs at 04:53 GMT.
- 08-06-01: Io close approach occurs at 05:00 GMT.
- 08-06-01: (E. Theilig) The Galileo spacecraft is operating normally with the exception of the SSI camera as discussed below, and all activities appear to be as planned. Close approach to Jupiter was at 10:41 p.m. PDT on 8/5 (Earth-received time) at an altitude of 4.9 Jupiter radii. Closest approach to Io was a few minutes later at 10:48 p.m. PDT at a targeted altitude of 200 km.  
All planned atmospheric and Io observations to date appear to have been recorded successfully using over three quarters of the tape recorder. The DSN successfully recorded the Radio Science Jupiter Occultation using the RSR and DSP over DSS-43 (Canberra, Australia), between 3:39 p.m. and 6:15 p.m. (8/5) PDT.  
The spacecraft has now passed Jupiter close approach and the peak radiation level was around 590 (measured by the star scanner in pulse counts), significantly lower than the maximum of 1400 seen in previous extended mission orbits. The only identified radiation related effects so far have been a standard bus reset, handled normally by the on-board recovery software without any effect on the planned sequence, a NIMS memory upset, handled by instrument memory reloads in the science sequence, and possibly the SSI issue discussed below. All observation recording is proceeding according to plan. The expected end of the radiation danger is shortly after 9:00 a.m. PDT, Monday morning.

## I31 Playback Events Timeline (06-18-01 to 10-25-01)

As anticipated, the SSI camera baseline voltage anomaly is recurring in association either with instrument commanding or the radiation environment or both. The anomaly was triggered during a planned instrument power cycle preceding the closest approach observations and a subsequent power cycle failed to clear the problem. Results of a third cycle are unknown because of a telemetry outage; however, there is no change in the camera state after telemetry resumed. Most of the closest approach imaging is probably lost. Three more SSI observations and one OPNAV are planned over the next two days.

- 08-06-01: (R. Mehlman) Only spotty engineering data is available from the I31 encounter. We have two bad SCLKs which probably indicate NIMS software halts. The first is about an hour after the bus reset reported in the MCT summary, which is to be expected. (Our software was reloaded before our first observation.) The second is 2 1/3 hours after the start of the hour-long Io REGION02 observation indicating that our software crashed either during or after that observation. (Fairly close to even odds that it's OK.) Good SCLK values are reported between the GISHBR01 and AMRANI01 observations, and between the AMRANI01 and REGION01 observations, indicating that we hadn't crashed during GISHBR01 and AMRANI01.
- We got only two hardware status words near the Io encounter, both with zero values (gain state 2, 63-hertz chopper). The first is between the Io AMRANI01 and REGION01 observation. But we should \*not\* be in 63-hertz chopper mode at this point. The second is just before the bad SCLK after the REGION02 observation and confirms that something was wrong at that point.
- More engineering data might show up after besting, but there are already several observations whose success is questionable, and many more about which we know nothing. Perhaps we should consider sampling some of the longer ones, such as REGION02, during the second pass, before playing back the bulk of the data during the third.
- 08-07-01: (R. Mehlman) A conversation this afternoon with the Galileo ACE yielded two additional (but unofficial) bus reset times: SCETs 218/05:27 and 218/15:34. The first of these is 3 RIMs past the end of our INTVASHT01 observation, but well before INGISHBR01, which was preceded by a software reload. The second bus reset was well after INREGION02 and 35 RIMs before JNGRSPOT01, which also had a software reload.

I31 Playback Events Timeline (06-18-01 to 10-25-01)

This latter bus reset is several hours after another NIMS halt we infer from the trashed SCLK value CDS returned at 218/13:28, but which must have happened earlier. There's also a hardware status word at 218/13:21 indicating an unreasonable 63-hertz chopper mode, which often accompanies a NIMS halt. This halt must have occurred sometime during or after INREGION02, which was preceded by a reload. The observation is an hour long, and over an hour elapsed afterwards before we have evidence of the halt, so the odds are fairly even on whether the observation was affected. So we we might want to sample it before playing it back.

08-07-01: (K. Schimmels) We will be discussing updates to allocations due to SSI's anomaly during Io later this week / early next week, as that may fold into your PBT updates. I've had a request from the MWG to put BTG into dayside RTS inbound to I32, and we are looking at the possibility and cost of doing so. All depends on what SSI has on tape, what they realistically will maintain to play it back, and what the various science priorities are for the remaining observations vs. the RTS request.

08-07-01: (F. Leader) I31 NIMS halts and CDS Bus Resets:  
Summary: CDS reported 2 Bus Resets which halted NIMS due to loss of RTI synch. The sparse NIMS engineering seem to agree with the timing of these halts.  
31INREGION02 took a big hit - we recorded the first 6 of 58 Rims before the second CDS bus reset, which halted NIMS ... big impact on playback.  
The first CDS Bus reset took place before we were in data taking mode. So, no loss of data.  
31INAMRANI01 may be in Chopper 63Hz mode, but we don't know why.  
BURP #1 between D217 22:21 and 22:47  
anomalous engr at 217/23:27:56 - NIMS currents  
anomalous engr at 217/23:34:36 - grating current and Hardware status block  
anomalous engr at 217/23:41:16 - NIMS SCLK read 06101510 instead of 06154718  
NIMS RELOAD at 218/04:27:38 - 31NNTHRMAL01 - first NIMS reload ... NIMS seems to have recovered form the first BURP without loss of data.  
anomalous engr at 218/06:34:35 - hardware status block indicates 63Hz chopper mode  
standard engr at 218/06:41:15 - NIMS SCLK reading OK.  
... NIMS is reported to be in Chopper 63Hz mode in the middle of 31INAMRANI01. There oden't seem to be any problem in the NIMS software reload prior to this Observation.

I31 Playback Events Timeline (06-18-01 to 10-25-01)

BURP #2 at 218/11:11:46 in the middle of 31INREGION02 !!!!!  
(SCLK 6155403.28)  
anomalous engr at 218/13:14:35 - NIMS currents  
anomalous engr at 218/13:21:55 - grating current and  
Hardware status block  
anomalous engr at 218/13:27:55 - NIMS SCLK read 061444322  
instead of 06155535  
NIMS RELOAD at 218/16:04:56 - 31NNGRSPOT01  
... If NIMS halted at the time of the second BURP due to loss  
of RTI synch at 6155403.28, then a good portion of  
31INREGION02 is lost. 31INREGION02 ran from 6155397.00 to  
6155456.13 So, only the first 6 RIMS out of 58 are good !!!  
The spatial coverage of these 6 Rims is the upper section of  
the first of three swaths making a global map. This little  
piece DOES cover the ISUM region and will give context for  
the High-spatial-res obs 31INHISISUM01.  
Bob Mehlman thinks we should play back some of the halted  
stuff to verify that NIMS was indeed halted. I agree.  
Playback of 31INREGION02 is in the first NIMS pass (Pass 2)  
so a decision needs to be made soon.

08-10-01: (A. McEwen) I strongly urge that NIMS and PPR receive as  
much of our excess BTG as they need for their unique  
high-resolution observations of Io, before we release any  
bits for MWG cruise science data. Our difficulties only  
serve to make close observations of Io by other experiments  
more valuable. NIMS and PPR may have modest requirements so  
that a portion can still go to MWG.  
(appended message from: H Herbert Breneman  
<H.H.Breneman@jpl.nasa.gov>)  
In view of the loss of a major fraction of SSI's data, it is  
likely that SSI will be "asked" (read "forced") to give up a  
portion of its 41-Mbit downlink allocation to support  
"high-priority" MWG cruise science data collection. I  
estimate that if we return all of the good non-Jupiter data  
(PLUMES, JOVHEM and both GLOCOLs) losslessly compressed and  
the Jupiter data ICT-compressed at 10:1, all in pass 2, and  
hold a 10% margin to cover compression uncertainty and  
gapfilling in pass 3, we would need about a 20-Mbit  
allocation. If the Jupiter data is compressed less, that  
total would go up, but AWG has said in the past that they are  
completely satisfied with 10:1 compression. Does the above  
sound like a good playback strategy? Does the Team have an  
opinion about how much of our BTG allocation I should fight  
to retain or offer to give up? The Project expects to make  
a decision on this by Friday.

I31 Playback Events Timeline (06-18-01 to 10-25-01)

- 08-14-01: (K. Schimmels) I wanted to send out a quick email to fill everyone in on the status of the I31 BTG situation due to the SSI anomaly in the I31 encounter. This message has two purposes. To document the decision process and status of the BTG, and to comment on the way this was handled. SSI has agreed initially to release approximately 15 MB from their 41 MB allocation. The agreement between Herb, Marcia, and Claudia was the following:  
NIMS: 5.0 MB for addt'l Io playback  
MWG: 10.0 MB for I31B RTS,  
and any "negligible" request from PPR would come from MWG. In addition, if SSI determines they do not need this amount of BTG for playback of their Io observations based on pass 1/2 playback, they agreed that such addtl BTG would go to NIMS on the understanding that (1) PPR's needs were negligible and (2) the nature of MWG's use of the downlink is such that their share had to be finalized up front, so they could not benefit from any later releases. It should be noted also that this entire plan is also contingent on a survey of the pass-1 images showing that all of the frames we are assuming to be bad based on engineering telemetry actually are bad. What was not included in this discussion was the fact that PPR had already requested an addt'l 2.0 MB. Had this been factored in, the decision may have been different by the MWG. Here is how we've left things:  
NIMS: 5.0 MB  
MWG: 8.0 MB  
PPR: 2.0 MB  
If SSI determines that they can release addt'l MB prior to the development of I31B part 2 (early next month) then I am requesting that the first 2.0 MB be restored to MWG, and then the addt'l go to NIMS. This retains the intention of the agreement between NIMS, MWG, and SSI.
- 08-15-01: Frank reported an engineering value near the end of 31INAMRANI01 indicating the chopper was in 63 Hz mode. Since we don't know when this happened I propose to play back the entire observation during our first pass over the data, but with wavelengths cut back to 36 (3 samples/detector) from 96. This will cost .65 Mbits, and we can go back in pass 3 to obtain more if there is good data on the tape. Let me know if you have objections/suggestions/redirections..
- 08-15-01: I have added several new sets of singles to pick up NIMS data embedded in the SSI Io observations. The PSIDs are DJ, DU, DV, DW, DY, DZ, EA, EB, EC, ED, EE. Yanhua mentioned when we worked out the original AACS requirements that MWG was paying for a large chunk that may overlap several of the above playback requests. All the new singles are in pass 3 so there is no great rush, but we do want all of the AACS for them, one way or another



I31 Playback Events Timeline (06-18-01 to 10-25-01)

- 08-15-01: This is the first update following the I31 encounter. Due to a despun bus reset during 31INREGION02, we believe that about 90% of that observation did not record correctly. We have redistributed the downlink bits allocated to that observation. In addition, we received a windfall of 5.0 Mbits from SSI due to the loss of their Io close-approach observations. As a result we have expanded our I31 playback plan significantly.
- Jupiter: The relatively high-resolution, short map observation 31JNGRSPOT01 will now come down with all 6 grating steps of the 9 detectors selected. 31JNGRSPOT02 is unchanged (6 samples of 24 recorded).
- Io: We added 9 sets of commands to return SSI-ridealong data for Io. These will come down with 12 (of 24) samples for each of the 12 detectors. We also increased sampling density of our own 31INTVASHT01 and 31INGISHBR01 to 12 samples (from 8). We will now return the whole of 31INREGION01 in the first pass (pass 2), with 3 samples. In the final pass we should be able to fill gaps, and return another 2-3 samples / detector.
- We are returning the first 6 1/2 RIMS of 31INREGION02 (prior to the bus reset). As an experiment we are also requesting a snippet of data from the period following the reset. This will most likely be corrupted, based on past experience, but it is possible that the instrument software survived the reset.
- Engineering data indicates the chopper may have been in 63Hz mode near the end of 31INAMRANI01. We cut back our sampling density from 8 to 3 but will return the entire observation in the first pass (2) to check this out.
- 08-28-01: (K. Schimmels) The MWG, after much discussion and deliberation, has determined that the MAG team has the priority of bow shock RTS data, and the rest of the MWG does not choose to participate in this activity, due both to complexity involved with getting it, and given the amount of good Io data still on the tape (as these bits were originally intended for Io science). Therefore, they have decided to let MAG do their own bow shock RTS at a cost of 1.0 MB, without the need for buffer dumps. They currently plant to release 4.0 MB back to SPOT this week. I believe that PPR has received all that they requested, and if this is the case, then the release is as follows:
- For Engineering data (0.37 MB):
- 0.072 Star Scanner data
  - 0.298 SSI Engineering Data
  - NIMS: 4.0 MB

## I31 Playback Events Timeline (06-18-01 to 10-25-01)

IF PPR still has data on the tape and requires more BTG, they should let me and NIMS know ASAP - the 4.0 MB to NIMS is contingent on PPR not needing any. The remainder of the BTG (2.63 MB) is being held by the MWG to cover gaps in Io Closest Approach data until next week, at which time they will have an idea of their gap totals and can possibly release the remainder back to SPOT.

- 08-29-01: Several significant changes to the table were implemented this week, and there are a number of issues that need to be addressed by science team members in tomorrow's team meeting. These relate to the prioritization of downlink bits for Io observations. The good news is that we received an additional 4 Mbits of playback allocation from MWG, which was derived from an earlier release of bit from SSI. There were no changes to the playback plan for Jupiter observations. The following changes were made to the Io playback commands.
1. SSI ride-alongs: We added commands to retrieve their 31INSPROMTH01, although NIMS was in SAFE mode. We deleted the GLOCOL01-02 ridealongs because of the small size of the target in our field of view. We are requesting all of the AACS data for all the SSI ridealongs.
  2. 31INAMRANI01 wavelengths: We got 3x sampling (36 wavelengths) in our first pass (note, this observation is thought to have been recorded in chopper 63 Hz mode). Since the data looks good we will go after an additional 9 samples per detector (total=12 x or 144 bands), as we are doing for our other high resolution observations. A new wavelength table was generated. This expanded playback costs 1.96 Mbits.
  3. Gap fill: There were 2 gaps in 31INTVASHT01 which will be filled in the next pass over the tape. There was also a small gap in 31INAMRANI01 (1/2 RIM). Since we will be getting 9x sampling over this observation (see 2 above), this gap will be ignored.
  4. 31INREGION01-02: We are now requesting all the AACS data for our playback time intervals for both observations, to aid with pointing corrections during these LONG observations. Our 31INREGION02 playback has been extended to include 26 seconds of data AFTER the despun bus reset. Also pass 3 playback of 31INREGION01 was increased from 24 to 36 wavelengths. We may wish to reallocate some of these bits (see below).
- Open issues:
1. Io dark side observations: 31INTHRMAL01 and 31INHISISUM01 are already down with 12x sampling. If we want more samples, or more samples for portions of these observations, we may need to take bits away from some other observation (such as 31INREGION01, pass 3).



I31 Playback Events Timeline (06-18-01 to 10-25-01)

2. Increased sampling for ridealongs (with rapid scan rates): It would require another .9 Mbits to go from 12x to 24x sampling for these. How should we rank this in comparison with the value of (1), or of more samples for 31INREGION01?
3. The cost of our expanded AACs data requests is not known, but it may exceed 1 Mbit. I will know before next week. These issues will be discussed tomorrow and need to be resolved by Tuesday (possibly the last chance to modify start of pass 3 playback).

- 09-04-01: The table delivered today has relatively few changes. Pass 3 playback of 31INTHRMAL01 and 31INHISISUM01 was extended to return the full spatial coverage, with the "other" 12 samples, so that we will have full recorded wavelengths density on these night side observations. A few changes to data reduction factors were made to reflect actual compressions from pass 2. 31INREGION01 is "undercompressing" by about 23% (1.16 actual versus 1.5 predicted). The predicted value was overly optimistic. Pass 2 playback of REGION01 will cost about 1.2 Mbits more than budgeted. We have plenty of time to adjust, and will most likely have to reduce our sampling density for this in pass 3. We do not have any Jupiter data down at present, and there may be some adjustments needed here also, after we know the actual compression figures.
- 09-06-01: (Y. Anderson) We are about 0.5 days ahead of schedule. We are near the end of Pass 2. Next week we'll start updating the Pass-3's segments. Playback is currently 37% complete.
- 09-06-01: (L. Kamp) Looking at the tubes, I think that for 31INHISISUM01A, I would say that we can probably omit the extra GPs over the first quarter of the observation, i.e., up to about SCLK 6155025:84. For 31INTHRMAL01A, we can trim the first 115 MFs and the last 120, i.e. SCLK < 6155014:33 and SCLK > 6155021:41. Thus, we will save 0.14 MB on ISUM and 0.45 MB on THRMAL. Together with the 0.77 MB obtained by deleting all the ridealongs except for AMRANI02, that makes 1.36 MB, which may be enough, if other things go well.
- 09-11-01: (K. Schimmels) Let me start by saying what an awful tragedy has occurred today, and although so many americans were affected closely by the events that unfolded, I dearly hope none of you had family or close friends involved in the various terrorist attacks that occurred. If you did, please let me know so we can all be here for you if you need us! Let us all hope that this horrific activity will cease after today.

I31 Playback Events Timeline (06-18-01 to 10-25-01)

- 09-14-01: The playback table delivered today has a number of changes. Although we received an additional 2.6 Mbits of downlink allocation courtesy of MWG, we were forced to cut back the number of observations planned for return. The following SSI-ridealong observations were deleted (Yanhua, please delete the corresponding AACS playback commands):
- 31INTVASHT02+
  - 31INPROMTH01+
  - 31INSAVITR01+
  - 31INMASUBI01+
  - 31INLEIZI\_01+
  - 31INKANEHE01+
  - 31INTERMIN01+
  - 31INTERMIN02+
- We will return 31INAMRANI02+ to aid in the interpretation of 31INAMRANI01 which may have been recorded in 63 Hz chopper mode.
- The cutbacks were necessitated by the lower than expected compression performance for 31INREGION01 and 31JNGRSPOT01. On the plus side, both observations are superb. Three gap-fill singles for 31JNGRSPOT01 were added this week. In addition pass 3 playback durations for 31INTHERML01 and 31HSISUM01 were reduced to save bits following Lucas' recommendations. Finally, we will return 3 more samples for the observation 31INREGION01, which includes pole-to-pole coverage and at least one major new hot spot. The current table models at 32.98 Mbits, slightly over our allocation. We have not received any data for 31JNGRSPOT02 so far; I expect this will overcompress relative to predicts. We have time to adapt by trimming back pass 3 playback commands if that becomes necessary.
- 09-24-01: (Y. Anderson) Most recent changes/trades reflected in the allocations are:
- ...PPR released their remaining bits (0.594MB). Since it seems only NIMS needs additional bits, the PPR bits goes to NIMS.
  - ...MWG released their remaining bits (3.872MB). 3.372MB goes to NIMS, and 0.5 MB was hold for SPOT margin.
  - ...All buffer dumps are on the ground. 2.005 MB was received for 5 BDTs. I don't know if there is any gap in the buffer dumps. At present, the remaining BDT bits (originally come from MWG), 0.757MB, also goes to NIMS.
- We are currently more than 2-day (about 1.7 MB) behind the schedule. The update this week is nominal. Please deliver the files by Wed 3PM. If nothing urgent coming up, this is the last update we have for I31.

I31 Playback Events Timeline (06-18-01 to 10-25-01)

- 09-26-01: We received various donations of I31 downlink bits from MWG, PPR, etc and now have 2 Mbits to spend. However, we can only affect segment 14 of playback, which starts with 31INREGION01. I have asked for permission to put in commands for a 4th tape pass but have not heard back from Kathy. Herb has not put in his pass 3 selects, so it is unclear who will be last on the tape.  
If there is no 4th pass, the logical thing to do is return another 6 grating positions for 31JNGRSPOT02. This would require 2 Mbits or so.  
The choices for Io are less exciting. We could get 1 more grating step for REGION01 (3 down now, 3 more planned), but it would break the symmetry of spacing of samples (I don't know if that is anything more than an aesthetic issue). Cost for that would be 1.7 Mbits. We could get 3 more samples (in addition to the 3 already down) for 31INREGION02 (but was there anything dramatic there?), with lots of bits left over (this would cost .3 Mbits).  
If Kathy approves a 4th pass, I was planning to reinstate all our SSI ridealongs, just to soak up any bits remaining after getting the GRSPOT02 down. This is a pain for me and Yanhua, but nothing unmanageable. However: Would it be of scientific value to go after data from detectors 1, 2, and/or 7 for the over-saturated 31INTHERML01 and 31INHISISUM01..?
- 09-26-01: (R. Lopes) I agree with Lucas that playing back dets 1,2, and 7 is probably not worth spending our bits on. If we can get the 4th pass, let's go for the SSI ride-alongs. The REGION02 data are very interesting, but look clean. If we don't get the 4th pass, I'd say let's get that, it's worth 0.3 Mbits. Of course I would like more sampling for REGION01, but 7 rather than 6 would probably not increase our science significantly.  
The reason REGION 02 is interesting is that it shows the Isum hot spot in darkness at lower spatial resolution than our observation near closest approach. It will be very interesting to do a comparison between the spectra and see what effect resolution has in what temperatures we can determine. Since the observations are close together in time, chances are the eruption did not change much.
- 09-26-01: Today's update may or may not be the final update for I31. We received additional downlink bits from PPR and MWG, giving us an additional 2 Mbits for science data return. After polling team members this morning it became clear that the best use for these bits was to expand playback of 31INREGION01 in the final pass from 3 to 4 samples, for a two-pass total of 7 (of 21 recorded). We can also bring down an additional 3 samples for REGION02. Both of these required new wavelength edit tables.

I31 Playback Events Timeline (06-18-01 to 10-25-01)

One additional set of gap-fill singles for 31JNGRSPOT01 was entered (PSID=EK).

I requested a 4th tape pass, in order to go after the 8 SSI ridealong observations that we were forced to delete (due to insufficient allocation) in the September 14 delivery. MWG also wants to get another shot at a buffer dump recording from the early part of the sequence. And, SSI wants to fill gaps in early Callisto data. Thus there will be a 4th pass, but none of us are assured of getting the data selected there. SSI added 13 Mbits in pass 3 today so prior schedules are now out the window. Herb can't make a delivery of pass 4 singles today so there may be another update (worst case) next week.

09-26-01: (Y. Anderson) Just wanted to update all the teams that there is pass 4 for I31 playback. NIMS requested pass 4 to playback the SSI ride-alongs, which were deleted earlier so that they are under their allocation. After receiving bits from PPR and MWG last week, they would now like to add these back. MWG's buffer dump #2 is completely missing. It's too late to fill the gap in pass 3 because BDT#2 was recorded before the c/a. It can only be played back in pass 4. SSI saw the opportunity and would like to add gap fills for their Callisto observation in pass 4. They have ~2MB available in their allocation even after pass 3. To accommodate this late change, we slip this week's update by half day. All file including pass 4 PBT are due tomorrow noon. Reasons for the slip? 1. SST cannot support a playback table update on Thursday (i.e. tomorrow) because of all the existing activities for I31B and I32A&B. 2. Teams will have time to work on pass 4 PBT (particularly for SSI), so that all the inputs can be put in for this week's update. Otherwise, if we stick to our regular schedule, we could not have all the inputs in this week. And we'll have to do another update next week.

09-27-01: (Y. Anderson) Nice catch. That's exactly what the problem was. I've changed all your SSI ridealongs in pass 4 to what you suggested. Now all singles in pass 4 can be fit into one segment. No worry about uplinks! At 9/27/2001 03:03 PM, you wrote: One other thing, if there are too many segments that will run out too fast, we / you can replace (at your option) any of the sets of edit groups (24,0239ff,020000,...060000;) with the following 2,3039FF,040000; This will just pick up more wavelengths (not an issue since we are not worrying about allocations in pass 4). (technically, if you do this, you should also replace the preceding field value 03309000 with 03052000) (this bit does not go to the spacecraft, it is just "accounting")

I31 Playback Events Timeline (06-18-01 to 10-25-01)

- 09-27-01: (E. Theilig) The Galileo spacecraft is operating normally. Playback of data recorded during the Io 32 encounter is 64% complete and is scheduled to terminate on 10/13. On 9/28, a new flight software patch will be loaded to further attempt to mitigate science losses due to the ongoing camera anomaly. The new patch permanently disables both the light flood and the erase mode, features added pre-launch to minimize "ghosting" or residual images. Images acquired with both disabled were acquired at Io 31 with negligible impact to image interpretation. Both the light flood and erase mode stress the video signal from the CCD and are considered to aggravate the problem. In addition to disabling these functions, a conditional check is being added to the camera power-cycling and memory reload process such that it will execute only if the camera is in its anomalous state.
- 09-27-01: While modeling the I31 playback table today, Yanhua ran into a problem that we have experienced before. There are only so many slots in CDS memory for NIMS edit groups. If we specify 24 edit groups for one observation playback, then only 3 of our observations can fit in one playback segment. Only 4 segments can exist on the s/c at once. New segments can only be uplinked during two-way passes. Bottom line, playback would probably run through segments with our ridealongs in a short period, and playback would pause or fill would be generated, until new segments were uplinked. The fix is easy. Yanhua edited our table so we are now selecting 24 samples instead of 12, for our ridealongs. Only 2 edit groups are required per observation, and there will only have to be 1 segment in pass 4.
- 10-02-01: I notice on the schedule I31PDL that no pass 4 entries are shown (on the graphic). Is this due to conservatism of the model, or some other problem?  
IF circumstances (running ahead?) warrant, NIMS would support one more update of I31 this week. We have experienced some gaps in "new territory" playback of 31INGISHBR01, and we would add singles to go after that, IF other teams or SPOT also have/has some incentive to do an update. Given work loads and schedules this week, we understand that this is unlikely. But let me know if that changes..
- 10-02-01: We have some gaps in our pass 3, including a 1 RIM gap in GISHBR, on territory not yet seen. MWG likewise has gaps. Thus we can do an early update this week. Does gap fill take precedence over ride-along data? (my gut says yes).
- 10-02-01: (R. Lopes) My gut agrees with yours - we should get the gap fill in preference to ride-alongs.

I31 Playback Events Timeline (06-18-01 to 10-25-01)

- 10-03-01: Data return during the 3rd tape pass has been afflicted with gaps. Although last week's version of the playback table was to have been the last, SPOT and the Project approved another update cycle, with files due at 10 am this morning. The table delivered today has 8 new sets of pass 4 gap-filling playback commands (PSIDs FA-FH). Thanks to Bob Mehlman for generating a list of gap times. The largest gaps are found in 31INGISHBR01 (new territory), in 31INAMRANI01, and in 31INREGION01. The NIMS team unanimously gave higher priority to gap fills than to new SSI ridealong data return, so all of the commands added last week to return ridalongs have been deleted from this table (including these would have reduced the chances of receiving the data to fill the above large gaps). The total pass 4 data requested is down from last week's .78 Mbits to .52 Mbits. It is unknown whether there will be sufficient downlink resource to return any of these bits. MWG has likewise experienced gaps, and added gap-fill singles ahead of ours.
- 10-15-01: (R. Mehlman) As you may already know, none of our pass 4 gap-fill for I31 came down, even though the MCT summary shows the tape at a tic mark beyond the 31INTHRMAL01 gap-fill.
- 10-25-01: None of the NIMS data selected for return in pass 4 was received on the ground due to insufficient downlink resources. Late in playback one of our DSN passes was changed from 1-way to 2-way, with a consequent loss of about 2 Mbits of downlink. This change was not noticed and was not entered correctly in the modeling software.



## NIMS Anomaly Report - I31 Sequence

The NIMS grating became stuck prior to the I24 encounter. The grating continued to be stuck for the I31 encounter. This development caused a drastic change in NIMS operations. Detectors 1, 2 and 7 now have very low sensitivity. Detectors 3 and 8 are still not functioning. NIMS now returns only 12 useful wavelengths.

The NIMS processor halted twice during the C30 Encounter as a result of CDS Bus Reset (BURP) events. The first CDS Bus Reset took place well before the first NIMS observation, so no data were lost. The second bus reset occurred during the NIMS observation 31INREGION02. Only 6 of 58 Rims were recorded.

The spacecraft did not safe during the I31 Encounter but did suffer two Bus Resets which precipitated the NIMS halts.

### Stuck Grating (from the I24 NIMS Guide)

At I24, NIMS experienced a fundamental change in the way that it operates. Sometime between C22 and I24, the NIMS grating became stuck at a position corresponding to a pshift of about 14.5. This unusual grating position produces wavelengths for each detector far shorter than previously used. With the stuck grating, NIMS is permanently in a "fixed grating" mode. At this new grating position, Detectors 1, 2 and 7 return very low DN, as their new wavelengths are outside of the passband of their blocking filters and therefore are of minimal use. As before, detectors 3 and 8 are still not functioning.

There is no ground calibration for the wavelengths corresponding to this pshift. Flight calibration was derived from the I24 RCT and PCT calibrations. Details of this new flight calibration will be discussed in the as yet unpublished NIMS calibration report.

The spectral capability of the NIMS instrument shrank from 408 wavelengths to 17 wavelengths with the stuck grating. Now all commanded modes, Long Map, Full Map, Short Map or Fixed Map, select the same 17 wavelengths. Two effects of the stuck grating have been put to good use: spatial editing and noise reduction.

Even though the grating is stuck, the grating cycle still plays an important role. The playback edit table can now be used for spatial data editing. In Long Map mode, each mirror scan can be selected or deselected using the playback edit table. This allows a range of spatial density versus areal coverage choices.

If an observation is performed in Long Map mode at the Long Map scan rate, the 24 mirror scans over a single grating cycle can be averaged together to increase the signal to noise level. The adverse effects of the high levels of radiation-induced noise encountered close-in to Jupiter are greatly alleviated by this averaging.

## NIMS Anomaly Report - I31 Sequence

### Response to Stuck Grating Anomaly (I31)

At I31 the cause of the stuck grating was not known (and is still not clearly understood). No attempts were made during I31 to unstick the grating.

### Processor Halts

There were two NIMS processor halts during I31. The halts were detected by the NIMS engineering and were coincident in time with the reported CDS Bus Reset events. The first Bus Reset occurred before the first NIMS observation. The NIMS software reload prior to the first NIMS observation restarted the software without any data loss. The second Bus Reset induced halt occurred 6 RIMS into the 58 RIM record of the NIMS observation 31INREGION02.

A hardware status word 0 was returned during the encounter, indicating chopper 63Hz mode, at RIM 6155128. This occurred near the end of the 31INAMRANI01 observation. The data were compared to other observations of the Amirani region and were found to agree with the instrument being in Chopper Reference mode. At this time we do not understand how or why the hardware status word got set to zero. The engineering value could have been 'zeroed out'. There was a similar event in C30.

### Spacecraft Anomaly

During the I31 encounter two standard CDS bus resets occurred and were handled normally by the on-board recovery software without any effects on the planned sequence. The BURP events occurred at about D217/22:21 and D218/11:11.

### Anomaly Timing:

6154641	01-217/22:21:00	CDS Bus Reset 01
6154720	01-217/23:41:16	6101510 SCLK reported (anomalous)
6155002	01-218/04:26:37	NIMS Software Reload (31INTHRMAL01)
6155128	01-218/06:34:35	Chopper 63Hz HW Status Word
6155397	01-218/11:05:46	Start Record for 31INREGION02
6155403	01-218/11:11:46	CDS Bus Reset 02
6155537	01-218/13:27:55	6144432 SCLK reported (anomalous)
6155691	01-218/16:03:26	NIMS Software Reload (31JNGRSPOT01)



## NIMS Archived EDRs and CUBEs

The NIMS data are stored in EDRs (Experimental Data Records) produced by JPL-MIPS (Multi-mission Image Processing System). The NIMS Phase2 EDR is described in the NIMS EDR SIS (Software Interface Specification) Number 232-08. The same information is available in both human and machine-readable form in the PDS (Planetary Data System) structure files EDRHDR.FMT and EDRDATA.FMT in the LABEL directory of the NIMS EDR CD-ROM. Each observation has at least one EDR. The EDR file name is derived from the 12 character observation name plus a single character which allows an observation to be broken up into multiple EDRs. The EDRs have a Vicar label, followed by a PDS/ISIS label, binary header records and the data records. For archiving on CD-ROM, the Vicar labels are detached from the EDR (but kept separately on CD) and the file is renamed so as to conform to the 8.3 DOS file-naming convention. The 8.3 EDR name consists of a 2 character orbit identifier, a single character target identifier, a 3 digit counter and the suffix EDR. For example, the MIPS EDR G1GNGLOBAL01A.1 becomes G1G001.EDR. More information about NIMS EDRs can be found in the VOLINFO.TXT file on the EDR CD-ROM.

NIMS EDR data typically require considerable processing before they are readily amenable to science analysis. Normally, the EDRs are processed into spectral image cubes by one of several sets of software. MIPS systematically processes the EDRs into CUBEs (band sequential image files) and MASKs (spatial/spectral summary images) which are distributed on the NIMS CUBE CD-ROMs. Information about the structure of the NIMS CUBEs can be found in the VOLINFO.TXT file on the CUBE CD-ROM. The name of the CUBE file is derived from the input EDR filename. For archiving on CD-ROM, the CUBE files are renamed so as to conform to the 8.3 DOS file-naming convention. The 8.3 CUBE name consists of a 2 character orbit identifier, a single character target identifier, a 3 digit counter, a single character cube-type identifier, a single character data unit-type (DN, radiance or IOF) and the suffix QUB. For example, the MIPS IOF radiance cube for the observation G1GNGLOBAL01A.1 (G1G001) becomes G1G001CR.EDR. The summary MASKs on the CD-ROM have the same 6 character name as the EDR name with the suffix JPG or GIF to denote its graphics format.

Data Format

All data files have PDS labels. The raw data (EDR) file contains time-sequential, 16 bit integers. Reduced data files (TUBES and CUBES) may be viewed as images or spectra. They contain VAX real numbers, are band sequential (BSQ - the images are stacked in band order) and have geometry information appended as backplanes after the last NIMS band.

Data Types

Mask files contain summary images (3 band BSQ) and spectra of up to six selected regions that provide a quick indication of data location, data quality and spectral content. A Guide to understanding the NIMS mask is available.

Cube files contain data that have been projected and resampled. The core data are BSQ - spatial in the first two dimensions, and spectral in the third. Cubes of the satellites are projected in point-of-view, and, with few exceptions have no photometric correction applied. Cubes of Jupiter are (generally) projected as simple cylindrical. Cubes of Europa, Ganymede, and Callisto have been despiked. The cubes are available both in radiance and I/F (intensity divided by flux) form.

Tube files contain data in (almost) time order and normally have a NIMS-related 20 pixel spatial dimension (20 x n or n x 20). Projection coordinates are contained in backplanes, but the data have not been resampled. The data are in units of radiance and no despiking has been applied. All data in cubes are also available in tube form. Some data (such as spatially undersampled data) appear in tube form only.

A spike file contains a list of pixels that have been identified as spikes, but not replaced, in the tube. Spike files can be used to remove spikes from both tube and EDR files.

EDR files contain the most primitive form of the data available. They should be used only for advanced data analysis. The format is complex and the files do not form images or spectra without prior processing.

Data Labels

A data label (PDS form) is attached to the front of each file (except masks, which have an attached VICAR label and a detached PDS label). The labels are in ASCII keyword=value format and contain pointers to various data objects in the file, descriptions of the data objects and descriptions of the observation associated with the file. A history object in similar format follows and describes the processing steps that produced the file. Much of this information is necessary for understanding and viewing the cube. In particular, the label contains the offset to the cube, the dimensions of the cube, axes labels, and explicit wavelength information.

Data Access

Software for processing this data is called ISIS and is available for DEC VAX VMS, SUN Solaris, DEC Alpha Digital Unix, Silicon Graphics Unix and PC LINUX systems. The Unix versions are available from the USGS Astrogeology team. Images from NIMS cubes and tubes can be viewed with any image display program which allows an offset from the beginning of the file to the selected image. Packages tested include ISIS, VICAR, ENVI, SAO IMAGE, and NASAVIEW. ISIS and ENVI (and soon NASAVIEW) additionally display spectra. The ISIS viewer is named CV (UNIX) or QL3 (VMS).

Labels may be displayed with some editors (eg DOS edit), and with most "type" and "search" functions. Some editors do not recognize the PDS line termination conventions. The label may be listed by the ISIS function LHLIST (VMS) or LABEL (UNIX).

Software for converting EDRs to cubes exist in both ISIS (DEC VAX VMS) and VICAR (DEC Alpha VMS) versions only. A primitive list of values in an EDR may be obtained with the program EDRDMP2.

## Understanding the NIMS Mask

The NIMS mask is designed to provide a quick summary of the contents of a NIMS data cube (or tube). It displays a view of both the spatial and spectral content of the data.

The mask has four regions. Starting from the upper left and proceeding clockwise: a spatial display; six or fewer representative spectra; annotation; and a spectral histogram.

The spatial display of an observation which has been projected and resampled (a cube) has a maximum size of 600x600 pixels. This is overlaid with surface coordinates and is embedded in a 700x700 grid of pixel coordinates. It is accompanied by two 1-dimensional histograms describing the raw image and the image stretched for display. The data image can range from a simple combination of up to 3 NIMS bands displayed in the RGB planes, to complicated arithmetic functions of NIMS bands displayed in the RGB planes. (The formulas appear as annotation below the histograms.) The graphics directly below the image show the input and output data histograms for the three color planes. The "shortest" color for each bin displays in front. The image also contains from one to six numbered rectangles, which show the from which averaged spectra (displayed on the right) were taken.

The spatial display of an observation in time sequence (a tube) is a graphic showing a footprint of the observation over a grid of surface coordinates on the target body. Numerals 1-6 on the graphic mark the locations of the average spectra displayed on the right.

The spectra to the right of the image may display either BDRF or radiance (or both). If both are displayed, then a vertical "radiance fence" line will appear where the breakpoint occurs. This permits display of both atmospheric data, which have significant reflectance and thermal components, and I/F satellite surface data which have strong absorptions at longer wavelengths (such as water spectra.) The spectra are labelled with wavelength in microns and location in both pixel and latitude-longitude space.

The annotation provides information about the observation, including its name, a brief description, its geometry, instrument and projection parameters. TCA is the time from Galileo's closest approach to the target body.

The 2-dimensional spectral histogram in the lower left corner shows the number of pixels at a given radiance for each wavelength. If a surface contains spatial mixtures with significantly different spatial fractions for several components, the spectra of the components will be evident in this display.