

# **NIMS GUIDE TO THE E19 ORBIT**

**Original: February 1999**

**Revised: May 2000**

## 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 E19 Orbit for the NIMS Team. The aim of this guide is to provide detailed information on the various NIMS E19 observations and calibrations. Also included in this document is background information on the E19 orbit. This guide was produced before the start of the E19 orbit. After analysis of the NIMS E19 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 E19 orbit. Chapter 2 gives an overview of the E19 orbit and summarizes the NIMS science objectives for the E19 orbit using tables, spreadsheets and timelines. Chapter 3 contains diagrams of various aspects of spacecraft geometry for the E19 orbit. Chapter 4 summarizes the NIMS E19 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 E19 orbit.

For more information on the E19 orbit, please refer to the Galileo Orbit Planning guide and the Galileo Orbit Activity Plan for the E19 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.

## Table of Contents

	Chapter	Page
1.0	Introduction .....	1-01
2.0	Orbit Overview .....	2-01
3.0	Orbit Geometries .....	3-01
4.0	Sequence Summary .....	4-01
5.0	Detailed Observation Designs .....	5-01
6.0	Edit Tables .....	6-01
7.0	Edit Tables .....	7-01

# Chapter 1 - Introduction

## Contents

	Sub-Section	Page
1.0	Contents .....	1
1.1	Introduction .....	2
1.2	E19A Overview Timeline .....	3
1.3	E19B Overview Timeline .....	4
1.4	E19C Overview Timeline .....	5
1.5	E19 Major Events list .....	6

## Introduction

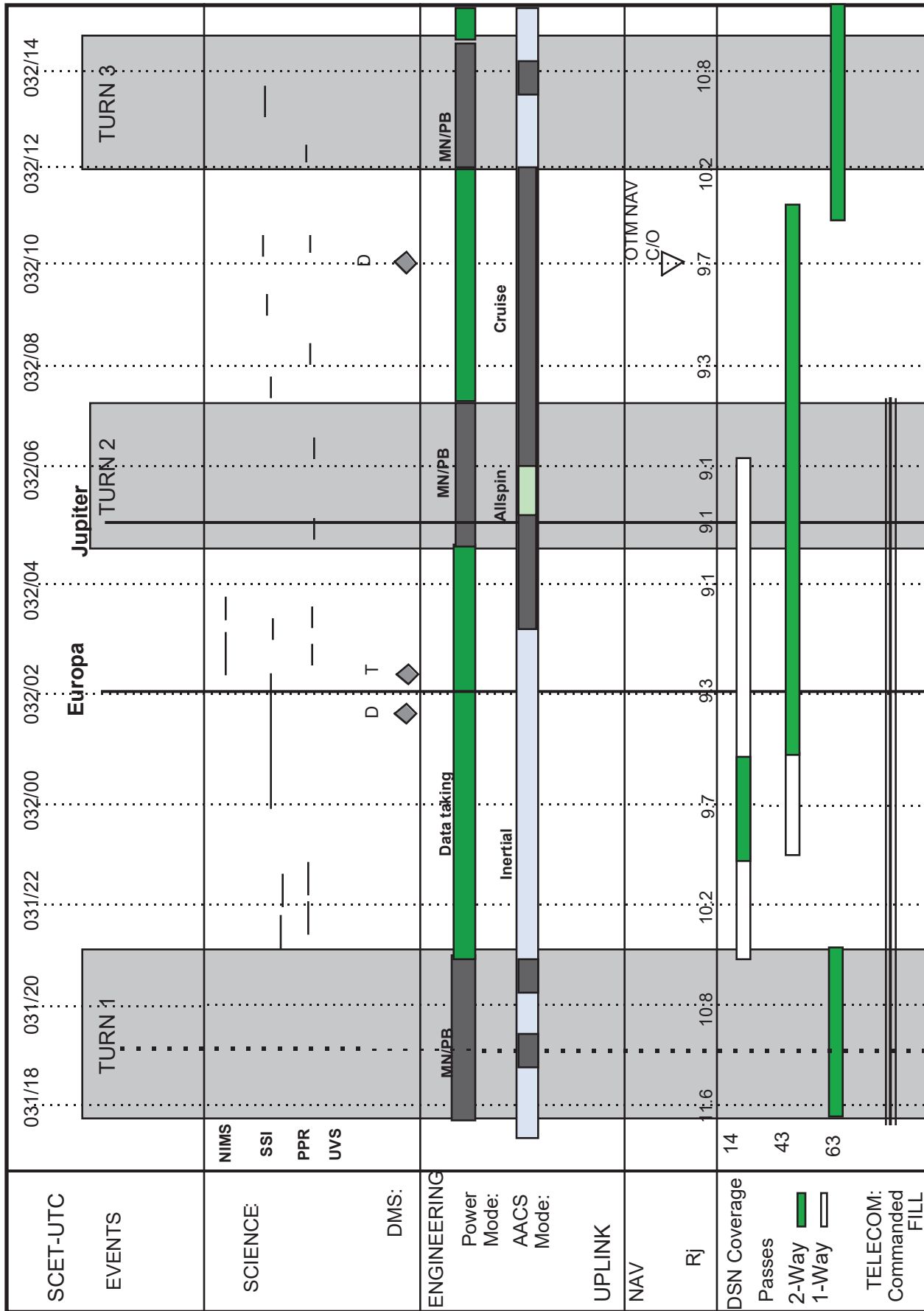
This E19 orbit is the nineteenth of twenty-five orbits in Galileo's Tour of the Jovian system and the eighth orbit in the Galileo Europa Mission (GEM). This orbit has a targetted satellite flyby of Europa. NIMS will make observations of Jupiter and Ganymede in this orbit.

There are 11 autonomous reloads of the NIMS RAM code from CDS planned during the E19A 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.

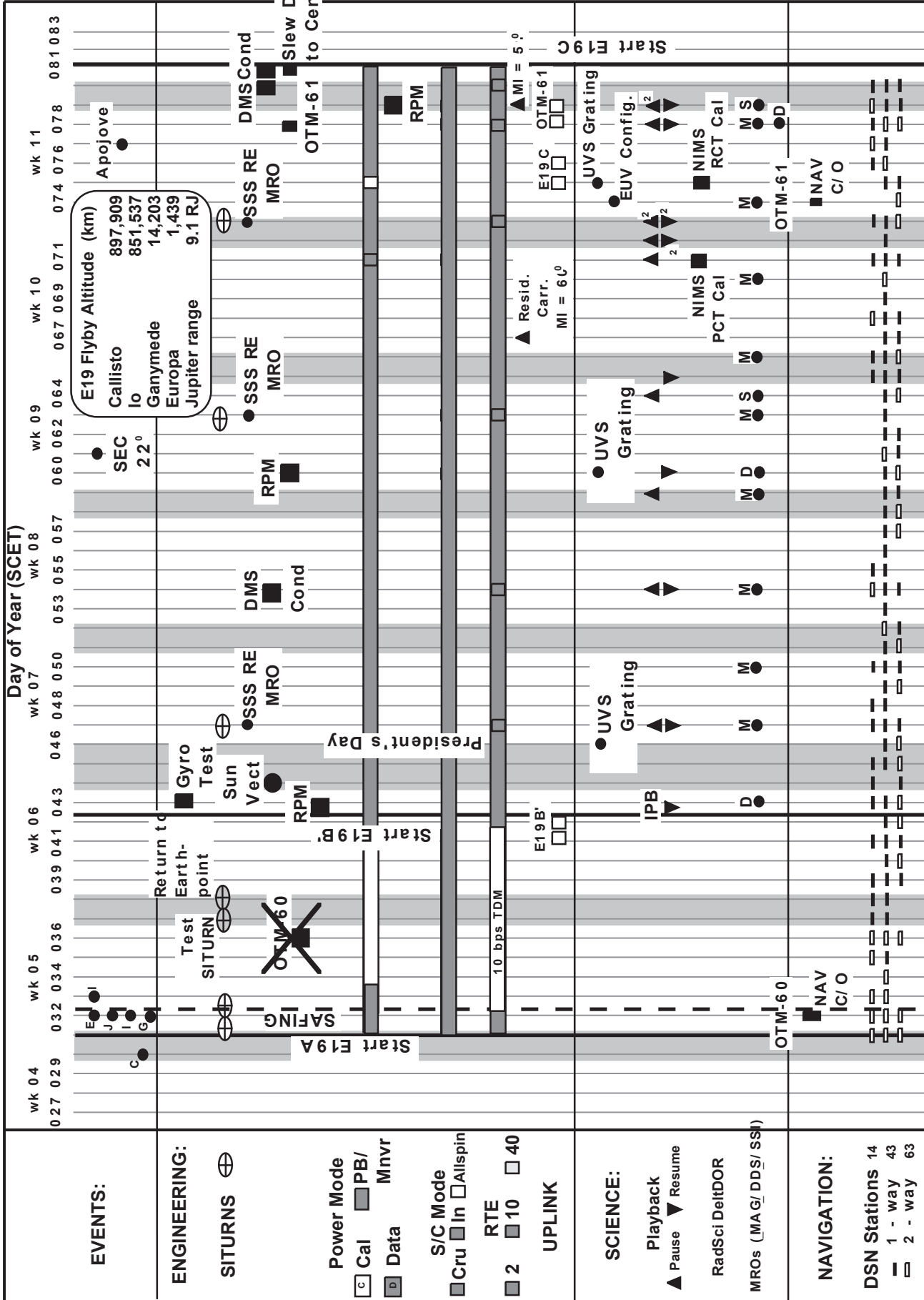
The E19 orbit is divided into 3 sequence loads: one Encounter Load (E19A) and two Orbital Cruise Loads (E19B and E19C). The E19A load begins on D031 (01/31/99) and ends on D042 (02/11/99). This load contains the flybys of Jupiter, Europa and Ganymede. The Cruise Load E19B runs from D042 to D081. The Cruise Load E19C run from D081 to D122. The E19 Cruise period was split into two loads because of solar conjunction. Playback of the recorded data takes place during the Cruise phase, E19B and E19C. A high-level overview timeline of the E19 orbit can be found on the following three pages.

Due to spacecraft safing just after perijove in the E19 encounter, some of the E19 encounter sequence was lost.

# E19A TURNS

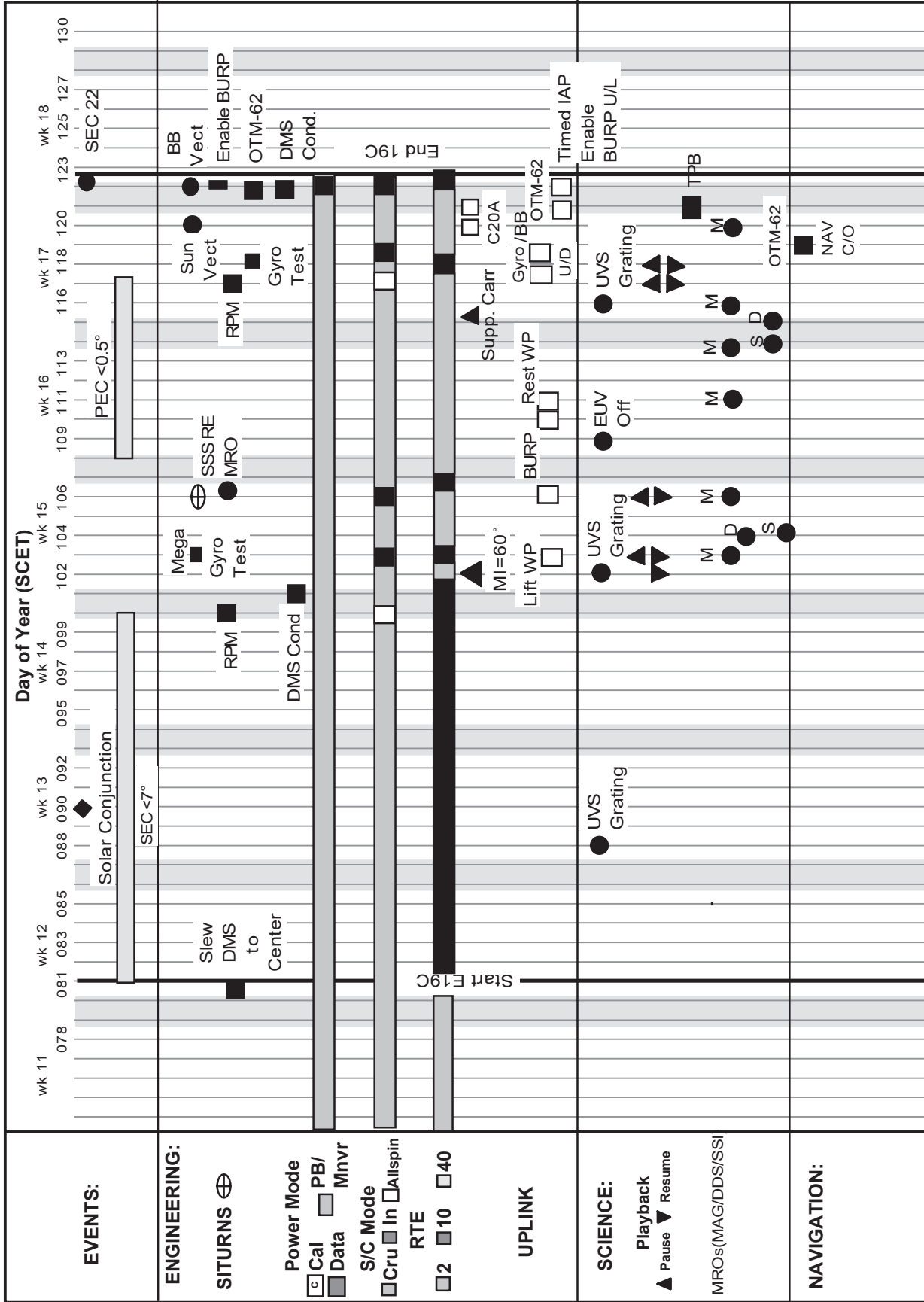


# E-19 Overview (Pt1)





# E-19 Overview (Pt 2)



Mar 1999  
 April 1999  
 May 1999

19 22 24 26 29 31 02 05 07 09 12 14 16 19 21 23 26 28 30 03 05 07 10

M Tu W Th F Sa Su M Tu W Th F Sa Su M Tu W Th F Sa Su M Tu W Th F Sa Su M

SST/IBMcl/ara  
 04/15/99 Ana G.

## Introduction

The following table lists the major events during E19, including NIMS Real Time observations, in UTC.

01/31/99	99-031/02:00:00	E19 Encounter Start
01/31/99	99-031/02:59:51	NIMS RAM Reload 01
01/31/99	99-031/03:07:42	NIMS R/T Jupiter 01
01/31/99	99-031/03:28:10	NIMS RAM Reload 02
01/31/99	99-031/03:34:00	NIMS R/T Jupiter 02
01/31/99	99-031/13:30:47	NIMS RAM Reload 03
01/31/99	99-031/14:00:06	NIMS RAM Reload 04
01/31/99	99-031/15:24:02	NIMS RAM Reload 05
01/32/99	99-032/02:10:57	E19 Europa Closest Approach
01/32/99	99-032/02:21:04	NIMS RAM Reload 06
01/32/99	99-032/02:39:55	NIMS RAM Reload 07
01/32/99	99-032/05:00:50	PJ-19 Jupiter Closest Approach
01/32/99	99-032/05:41:00	SPACECRAFT SAFED
02/11/99	99-042/02:58:28	NIMS Power ON
02/11/99	99-042/03:02:06	NIMS RAM Reload
02/11/99	99-042/17:12:59	Start E19 Playback
03/12/99	99-071/23:28:19	NIMS R/T PCT CAL
03/17/99	99-076/00:34:20	NIMS R/T RCT CAL
03/22/99	99-081/05:00:00	Start Solar Conjunction
04/10/99	99-100/05:00:00	End Solar Conjunction
05/01/99	99-121/05:11:06	End E19 Playback

## Chapter 2 - Orbit Overview

### Contents

	Sub-Section	Page
2.0	Contents .....	1
2.1	Introduction to Chapter 2 .....	2
2.2	NIMS Science Objectives .....	3
2.3	NIMS Calibrations .....	3
2.4	Early Data Return .....	3
2.5	E19 Playback .....	3
2.6	NIMS Time-ordered Listing .....	4
2.7	NIMS E19 Observation Geometry Plot .....	5
2.8	NIMS Calibration Geometry Plot .....	6
2.9	NIMS E19 Input Spreadsheet .....	7
2.10	NIMS E19 Resource Usage Spreadsheets .....	8-9
2.11	NIMS E19 Observing Geometry Table .....	10
2.12	E19 Encounter Timeline .....	11
2.13	E19 Tapemap .....	12
2.14	E19 Playback Schedule .....	13-24
2.15	NIMS E19 Mosaic Summary .....	25-26

## Introduction to Chapter 2

This chapter gives an overview of the NIMS observations in the E19 Orbit.

The text on page 3 summarizes the NIMS science objectives for E19. The NIMS calibrations are discussed on page 3. Early data return and E19 playback are also discussed on page 3.

The table on page 4 is a time-ordered listing of the NIMS Oapels for E19.

The plot on page 5 shows the geometry of the NIMS E19 observations using a north trajectory pole view projection. The plot on page 6 shows the geometry of the NIMS E19 calibrations.

The spreadsheet on page 7 summarizes the various inputs for the NIMS E19 Observations. The spreadsheet on pages 8 and 9 summarizes the resource usage for the NIMS E19 observations.

The table on page 10 lists various NIMS E19 observing parameters: target latitude/longitude, range, cone angle, incidence angle (light), emission angle (view) and phase angle.

The timeline on page 11 shows the placement of the E19 observations for all instruments during the E19 Encounter Period.

The tapemap on page 12 shows the placement of the E19 observations on the spacecraft's tape recorder.

The timeline on pages 13 through 24 shows the preliminary E19 playback schedule.

The NIMS E19 mosaic designs are summarized on page 25 and 26 in time-order.

## NIMS E19 SCIENCE OVERVIEW

### Jupiter Science

There are nine Jupiter observations in E19. Two are realtime and seven are recorded. The first realtime observation looks at the Northern Temperate Belt (NTB) and the second looks at the northern auroal region. Three recorded observations (JNHOTMAP01, 02 and 03) map the same +7 degree latitude hotspot region at different viewing geometries, 2 nightside and 1 dayside. Three other observations (JNJUPNTB01, 02 and 03) map the same NTB region at different viewing geometries, 2 nightside and 1 dayside. JNIOFLUX01 maps the Io Flux tube footprint region on the nightside of the northern auroral region.

### Io Science

Io was not observed in E19.

### Europa Science

There are two Europa observations planned for E19: HEXICE02 and HEXICE03. Both observations look at the same spot on Europa over a large range of viewing angles to map out phase function of the icy material to try to distinguish the ice's crystalline sturcture.

### Ganymede Science

GNAURORA01, 02 and 03 are distant maps of Ganymede in Jupiter eclipse to search for any auroral activity on Ganymede.

### Callisto Science

Callisto was not observed in E19.

### Calibration

There are three NIMS calibration observations planned for E19: one PCT cal, one RCT cal, one OPCAL.

### Early Data Return

There are five realtime observations in E19: Two 408 wavelength Jupiter observations (JUPRTS), one PCT calibration, one RCT calibration and one OPCAL.

### E19 Playback

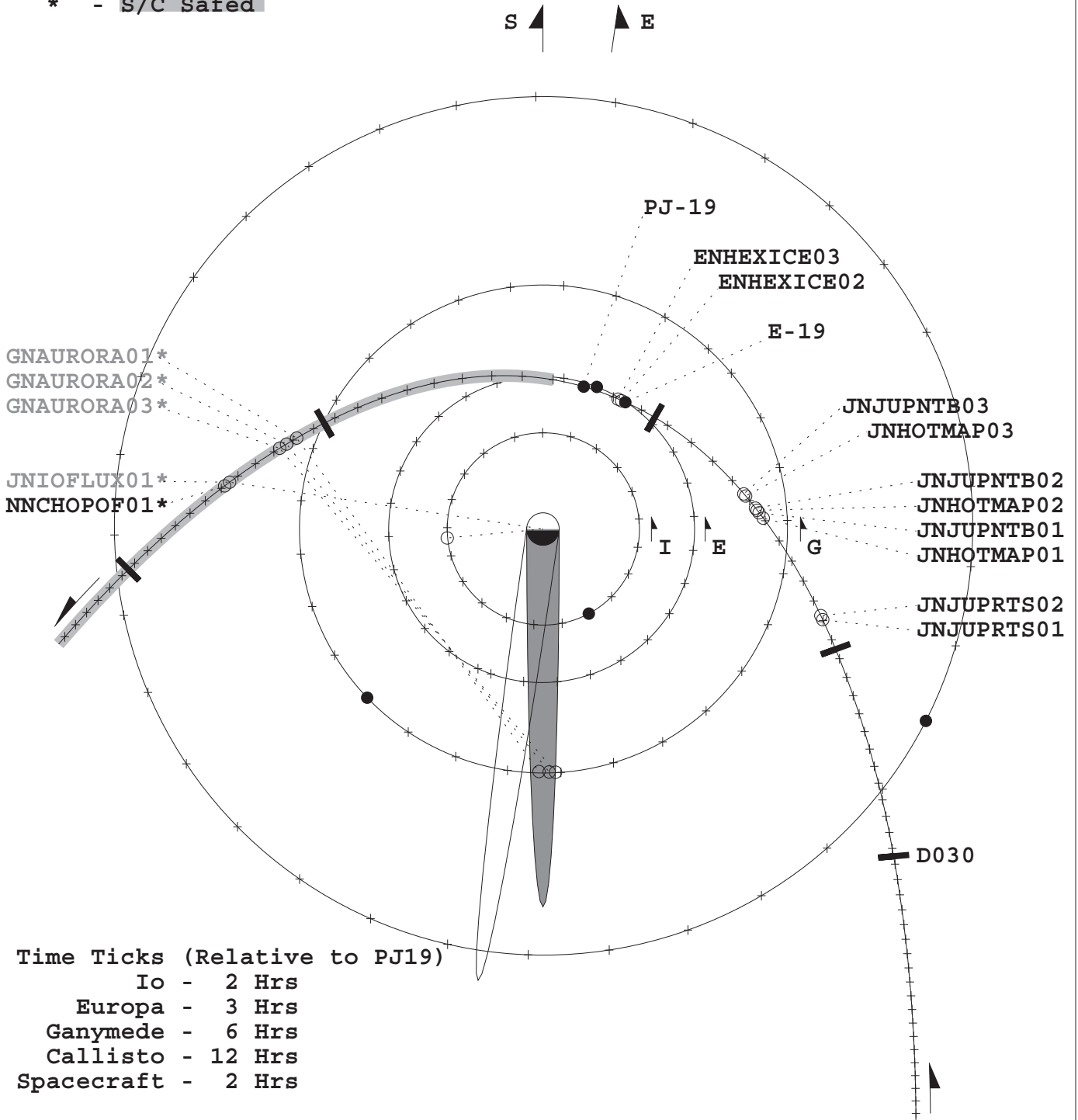
E19 playback is split into two passes through the tape.

E19 Time-Ordered Listing

OAPEL	Start (UTC)	End (UTC)	Duration
19NNJUPRTS01-	99-031/02:59:37	99-031/03:01:38	000/00:02:01
19JNJUPRTS01*	99-031/03:02:39	99-031/03:16:48	000/00:14:09
19NNJUPRTS02-	99-031/03:27:56	99-031/03:29:57	000/00:02:01
19JNJUPRTS02*	99-031/03:30:58	99-031/03:45:07	000/00:14:09
19NNHOTMAP01-	99-031/13:30:33	99-031/13:32:34	000/00:02:01
19JNHOTMAP01-	99-031/13:33:35	99-031/13:47:44	000/00:14:09
19JNJUPNTB01-	99-031/13:47:44	99-031/13:59:52	000/00:12:08
19NNHOTMAP02-	99-031/13:59:52	99-031/14:01:54	000/00:02:01
19JNHOTMAP02-	99-031/14:02:54	99-031/14:36:16	000/00:33:22
19JNJUPNTB02-	99-031/14:36:16	99-031/14:50:26	000/00:14:09
19NNHOTMAP03-	99-031/15:23:48	99-031/15:25:49	000/00:02:01
19JNHOTMAP03-	99-031/15:26:50	99-031/15:40:59	000/00:14:09
19JNJUPNTB03-	99-031/15:40:59	99-031/15:55:08	000/00:14:09
19NNHEXICE02-	99-032/02:20:00	99-032/02:22:02	000/00:02:01
19ENHEXICE02-	99-032/02:23:02	99-032/02:37:15	000/00:14:12
19NNHEXICE03-	99-032/02:39:13	99-032/02:41:14	000/00:02:01
19ENHEXICE03-	99-032/02:42:15	99-032/03:09:29	000/00:27:14
19NNAURORA01-	99-033/02:28:55	99-033/02:30:57	000/00:02:01
19GNAURORA01-	99-033/02:31:57	99-033/02:39:13	000/00:07:15
19NNAURORA02-	99-033/03:36:40	99-033/03:38:41	000/00:02:01
19GNAURORA02-	99-033/03:39:42	99-033/03:46:57	000/00:07:15
19NNAURORA03-	99-033/04:17:07	99-033/04:19:08	000/00:02:01
19GNAURORA03-	99-033/04:20:09	99-033/04:27:24	000/00:07:15
19NNIOFLUX01-	99-033/09:59:53	99-033/10:01:54	000/00:02:01
19JNIOFLUX01-	99-033/10:02:55	99-033/10:17:04	000/00:14:09
19NNCHOPOF01-	99-033/10:36:17	99-033/10:46:24	000/00:10:06
19NNPCTRLT01-	99-071/17:00:00	99-072/00:50:10	000/07:50:10
19NNRCTRLT01-	99-075/12:00:00	99-076/01:15:44	000/13:15:44

# NIMS E19 OBSERVATIONS

**Bold** - Returned  
 Gray - Not Returned  
 \* - S/C Safed



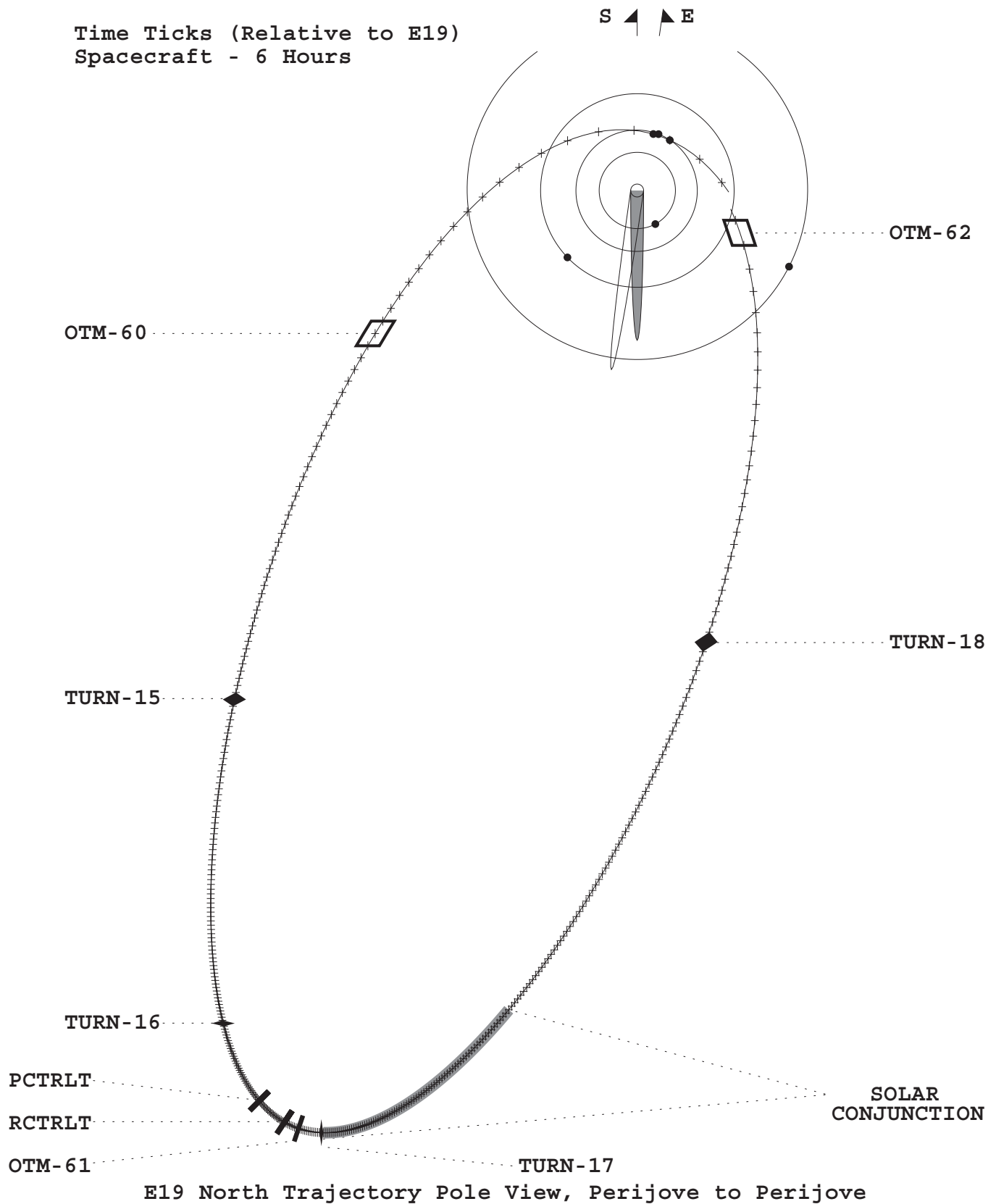
Europa Flyby (E19): 01-FEB-1999 (D032) 02:10:57 UTC  
 Perijove (PJ19): 01-FEB-1999 (D032) 05:00:50 UTC

E19 North Trajectory Pole View

# NIMS E19 CRUISE CALIBRATIONS

Europa Flyby (E19): 01-FEB-1999 (D032) 02:10:57 UTC  
 Perijove (PJ19): 01-FEB-1999 (D032) 05:00:50 UTC  
 Apojove (AJ19): 18-MAR-1999 (D077) 17:00:00 UTC

Time Ticks (Relative to E19)  
 Spacecraft - 6 Hours





# E19 NIMS INPUTS

Activity ID	Observation Title	NIMS Edit Table	NIMS PB Table	Mode	Gain	Grating	Grating	Start	Offset	Record Format	PSID
19NNJUPRTS01-	NIMS Software Reload										DA
19NJUPRTS01*	Jupiter Realtime Observation	E19JLM408/MB	R/T	IM	2			0	4	R/T	DA
19NNJUPRTS02-	NIMS Software Reload										DC
19NJUPRTS02*	Jupiter Realtime Observation	E19JRT204A/MB	R/T	LM	4			0	4	R/T	DC
19NNHOTWAP01-	NIMS Software Reload										DB
19JNHOTWAP01-	NIMS Jupiter HotMap	E19JHT253A	E19JHT253A	IM	4			0	4	LPU	DB
19JNJUPNTB01-	Jupiter NTB Observation	E19JHT253A	E19JHT253A	LM	4			0	4	LPU	DM
19NNHOTWAP02-	NIMS Software Reload										DD
19JNHOTWAP02-	NIMS Jupiter HotMap	E19JHT253A	E19JHT253A	IM	4			0	4	LPU	DD
19JNJUPNTB02-	Jupiter NTB Observation	E19JHT253A	E19JHT253A	LM	4			0	4	LPU	DN
19NNHOTWAP03-	NIMS Software Reload										DE
19JNHOTWAP03-	NIMS Jupiter HotMap	E19JSB253C	E19JSB253C	IM	2			0	4	LPU	DE
19JNJUPNTB03-	Jupiter NTB Observation	E19JSB253C	E19JSB253C	IM	2			0	4	LPU	DO
19NNHEXICE02-	NIMS Software Reload										DF
19ENHEXICE02-	Europa Hexagonal Ice Obs. part 2	E19EXM17A	E19EXM15A	XM	4			0	4	MPW	DF
19NNHEXICE03-	NIMS Software Reload										DF
19ENHEXICE03-	Europa Hexagonal Ice Obs. part 3	E19EXM17A	E19EXM15A	XM	4			0	4	MPW	DG
19NNAURORA01-	NIMS Software Reload										DI
19GNAURORA01-	Ganymede Aurora Observation	E19GLM247L	E19GLM228L	LM	4			0	4	LPU	DI
19NNAURORA02-	NIMS Software Reload										DJ
19GNAURORA02-	Ganymede Aurora Observation	E19GLM247L	E19GLM228L	LM	4			0	4	LPU	DJ
19NNAURORA03-	NIMS Software Reload										DK
19GNAURORA03-	Ganymede Aurora Observation	E19GLM247L	E19GLM228L	LM	4			0	4	LPU	DK
19NNIOFLUX01-	NIMS Software Reload										DP
19JNIOFLUX01-	Jupiter Io Flux Observation	E19JLM442	E19JLM360	LM	4			0	4	MPW	DP
19NNCHOPPOF01-	NIMS Chopper Off										FN
19NNPCTRLT01-	NIMS Real-Time PCT Calibration	E19PCT252	R/T								FB
19NNRCTLT01-	NIMS RCT Real Time Calibration	E19RCT252	R/T	LM	1			0	4	R/T	XU
19NNROPICAL01-	NIMS OPICAL	E19OPCAL48	R/T	LM	4			0	4	R/T	DC

## E19 RESOURCES

Activity ID	Mode	Record Format	Obs.		Obs. Cost (tracks)	Obs. Cost (ticks)	Number Returned	Wavelengths (sec.)	Obs Record (sec.)	Obs PB (sec.)	Selected		Bits to		Mode Cycle time (sec)
			Cost (tracks)	Cost (ticks)							sBOT (MBITS)	Tape MBOT (Mbit)	sBOT (MBITS)	Tape MBOT (Mbit)	
19JNJUPRTS01	LM	R/T				360									
19JNJUPRTS02	LM	R/T				204									
19JNHOTMAP01	LM	LPU	0.0245	143	72	600	597	3.68	3.70	8.667					
19JNJUPNTB01	LM	LPU	0.0249	145	72	610	607	3.74	3.76	8.667					
19JNHOTMAP02	LM	LPU	0.0245	143	72	600	597	3.68	3.70	8.667					
19JNJUPNTB02	LM	LPU	0.0486	283	72	1200	598	3.69	7.40	8.667					
19JNHOTMAP03	LM	LPU	0.0245	143	238	600	597	3.68	3.70	8.667					
19JNJUPNTB03	LM	LPU	0.0486	283	238	1200	598	3.69	7.40	8.667					
19ENHEXICE02	XM	MPW	0.1006	586	15	664	660	7.60	7.65	0.333					
19ENHEXICE03	XM	MPW	0.2107	1228	15	1394	137	1.58	16.06	0.333					
19GNAUFORA01	LM	LPU	0.0154	90	228	375	360	2.22	2.31	8.667					
19GNAUFORA02	LM	LPU	0.0154	90	228	375	300	1.85	2.31	8.667					
19GNAUFORA03	LM	LPU	0.0154	90	228	375	360	2.22	2.31	8.667					
19JNIOFLUX01	LM	MPW	0.0909	530	360	600	595	6.85	6.91	8.667					
<b>Resource Totals</b>			<b>0.6440</b>	<b>3753</b>											

## E19 RESOURCES

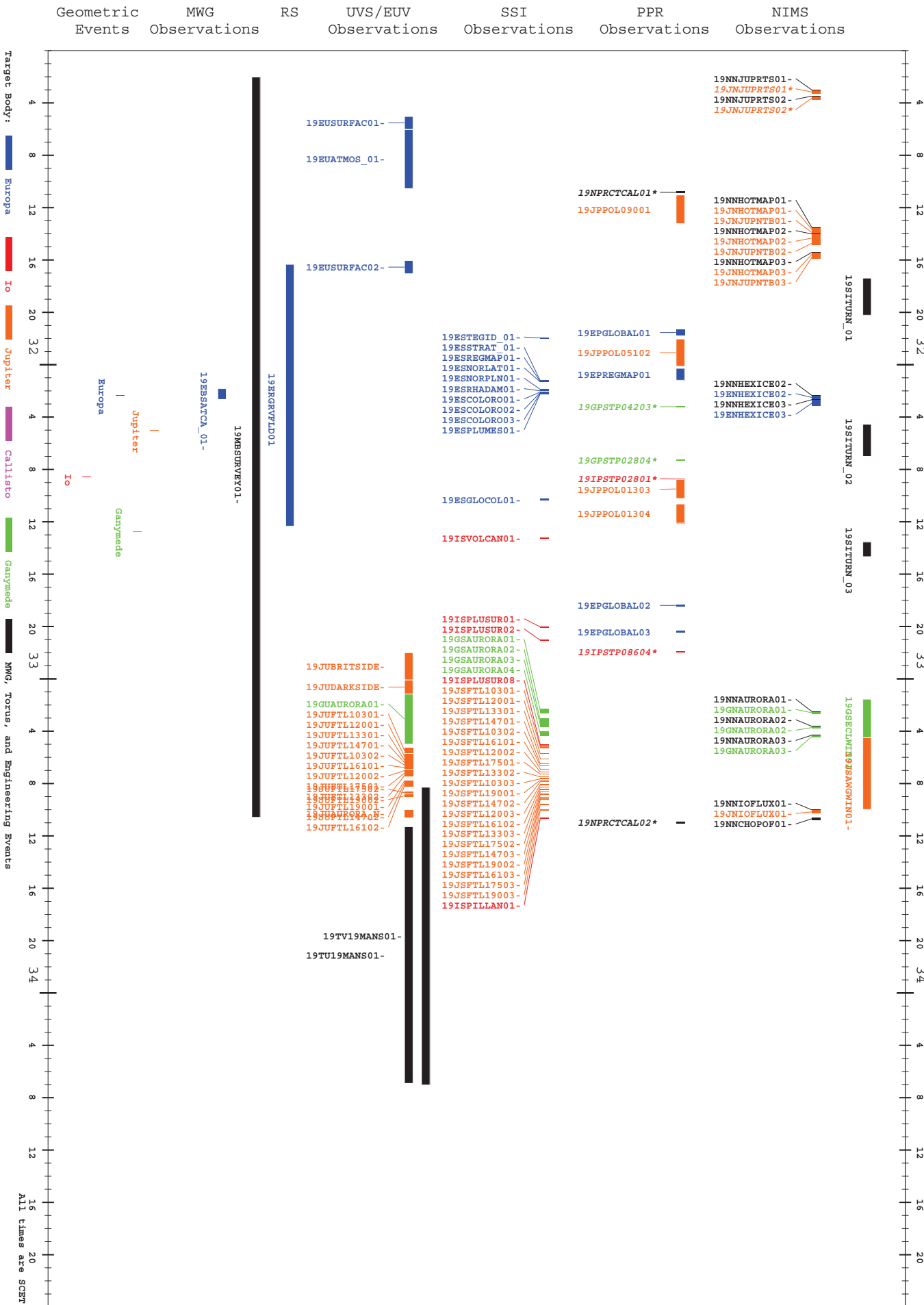
Activity ID	AACS Mbits	Comp	Thoid	RT BTG Mbits	Total BTG Mbits (4% ahead)	Data Reduction	Pass
	c 2.5					Factor	
						(sBOT/BTG)	
19NJUPRTS01				0.16			
19NJUPRTS02				0.16			
19JNHOTMAP01	0.03	1.5	0		0.6877		5.4 1
19JNJUPNTB01	0.03	1.3	0		0.8068		4.6 2
19JNHOTMAP02	0.03	1.3	0		0.7935		4.6 2
19JNJUPNTB02	0.03	1.3	0		0.7948		4.6 1
19JNHOTMAP03	0.03	1.5	0		2.2733		1.6 1,2
19JNJUPNTB03	0.03	1.5	0		2.2771		1.6 1,2
19ENHEXICE02	0.04	1.5	0		4.1225		1.8 1,2
19ENHEXICE03	0.01	1.3	0		0.9874		1.6 1,2
19GNAURORA01	0.02	2.2	0		0.8954		2.5 2
19GNAURORA02	0.02	2.2	0		0.7462		2.5 1
19GNAURORA03	0.02	2.2	0		0.8954		2.5 2
19JNIOFLUX01	0.03	1.5	0		3.4271		2.0 1,2
<b>Resource Totals</b>					<b>18.7072</b>		
				<b>Alloc.</b>	<b>18.8180</b>		
				<b>Over.</b>	<b>-0.1108</b>		

NIMS E19 OBSERVING GEOMETRY

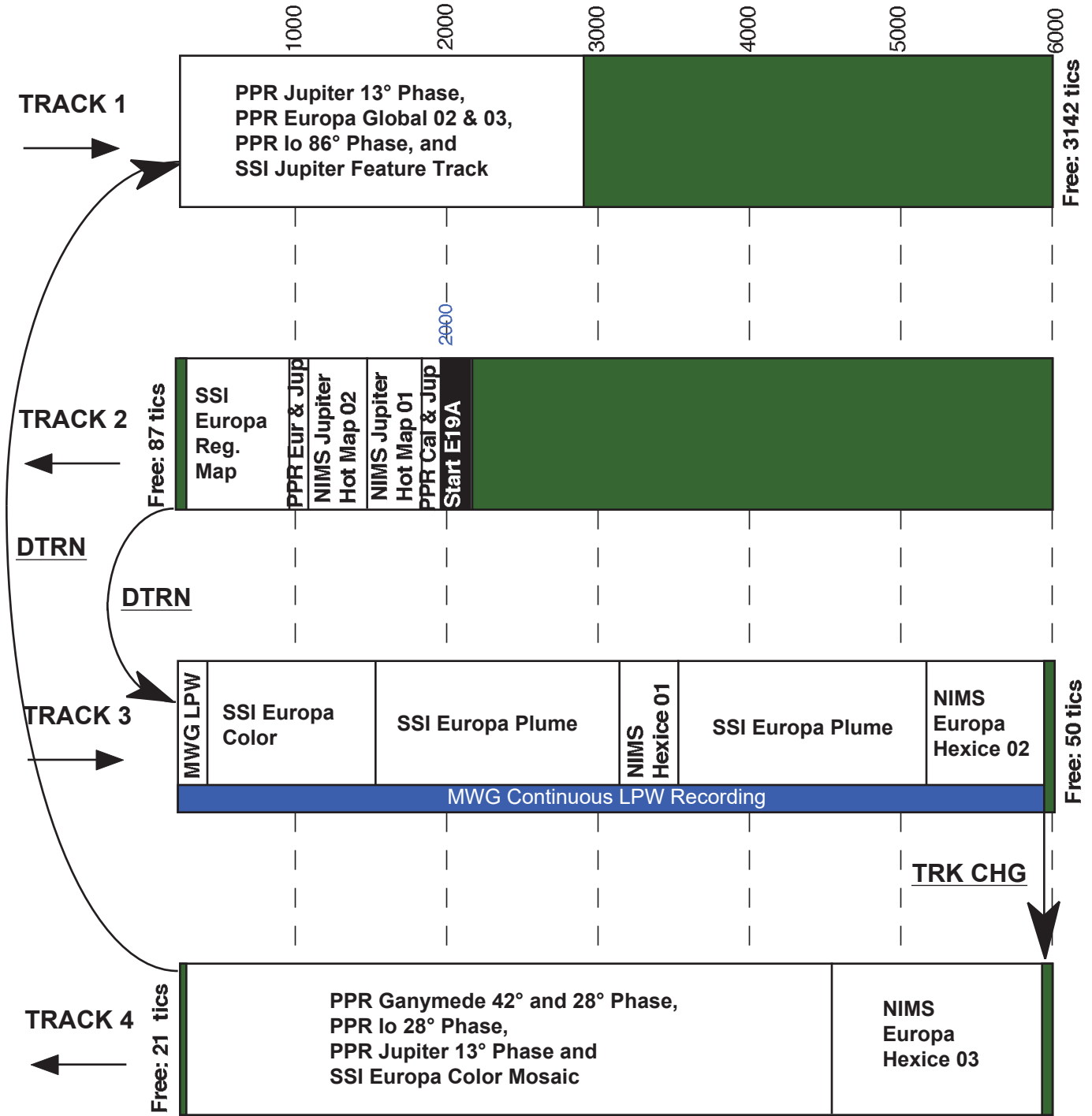
OAPEL	Latitude (deg)	Longitude (deg)	Range (km)	Cone (deg)	Light (deg)	View (deg)	Phase (deg)
19JNJUPRTS01	+15 TO +40	162 to 181	1240K	77	60 to 70	43 to 65	110
19JNJUPRTS02	+75 to +80	158 and 304	1271K	80	74 to 99	90	---
19JNHOTMAP01	+3 to +10	235 to 250	890K	103	101 to 122	19 to 39	83
19JNJUPNTB01	+15 to +22	239 to 263	890K	104	94 to 125	25 to 50	83
19JNHOTMAP02	+3 to +10	237 to 250	872K	104	86 to 105	8 to 23	84
19JNJUPNTB02	+15 to +22	256 to 294	880K	105	92 to 137	23 to 64	82
19JNHOTMAP03	+3 to +10	233 to 250	845K	104	31 to 54	30 to 53	83
19JNJUPNTB03	+15 to +22	249 to 280	834K	106	38 to 77	22 to 52	82
19ENHEXICE02	26	64	3.7K	57 to 78	85	36 to 83	119 to 160
19ENHEXICE03	26	64	10K	57	86	25 to 28	95 to 106
19GNAURORA01	-90 to +90	235 to 55	1816K	136	4 to 126	4 to 90	36
19GNAURORA02	-90 to +90	235 to 55	1848K	133	8 to 128	4 to 90	38
19GNAURORA03	-90 to +90	235 to 55	1869K	132	3 to 130	6 to 90	40
19JNIOFLUX01	+40 to +70	130 to 190	1387K	92	103 to 130	67 to 91	80

E19 ENCOUNTER  
Plot Time: 99-03/100:00:00.000 to 99-35/100:00:00.000  
Date of Plot: 26-Jan-99 11:25: 7

# GEM: E19



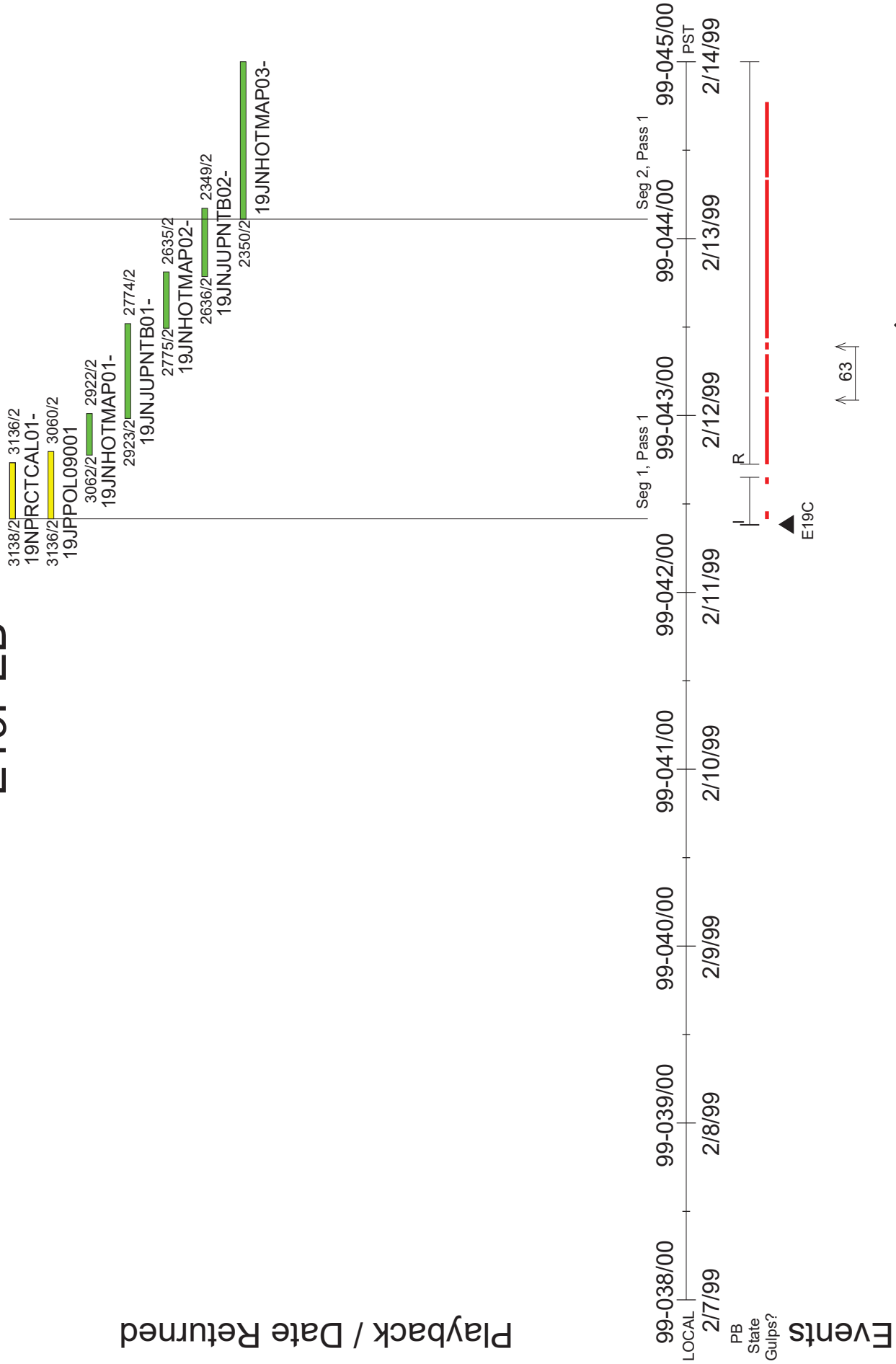
# E19 HIGH-LEVEL TAPEMAP



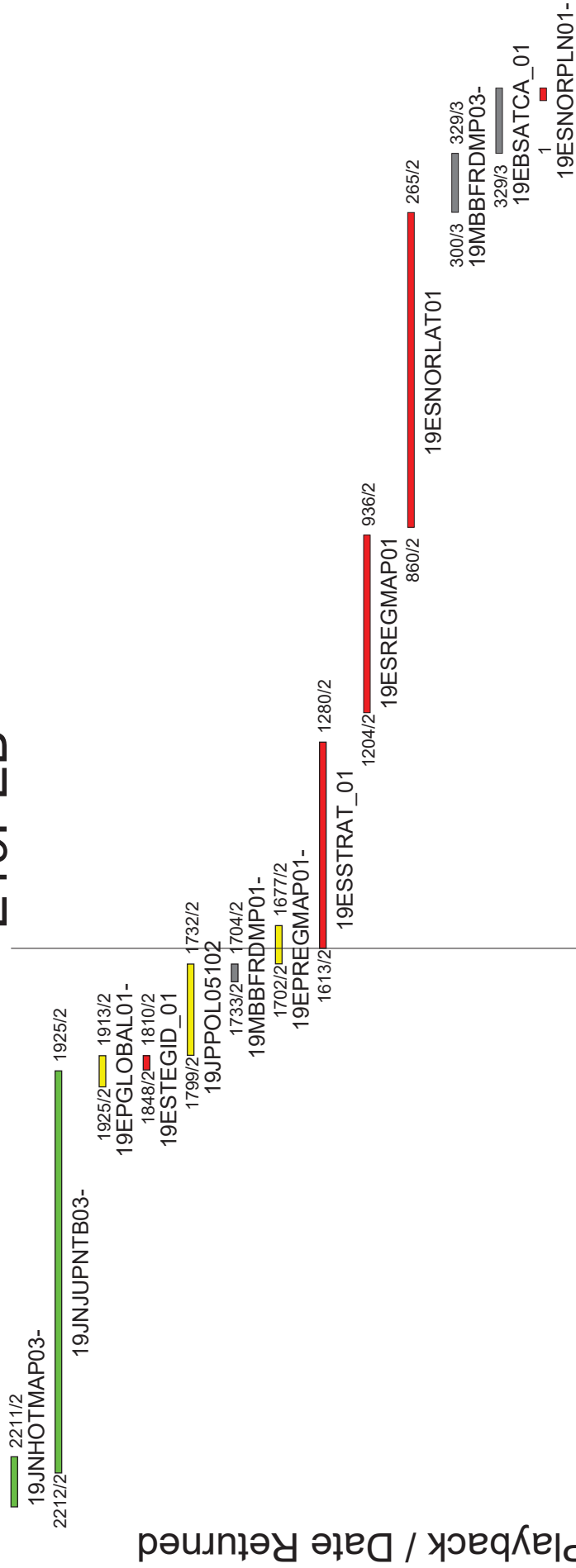
J. Gross, 8/13/97

# E19PEB

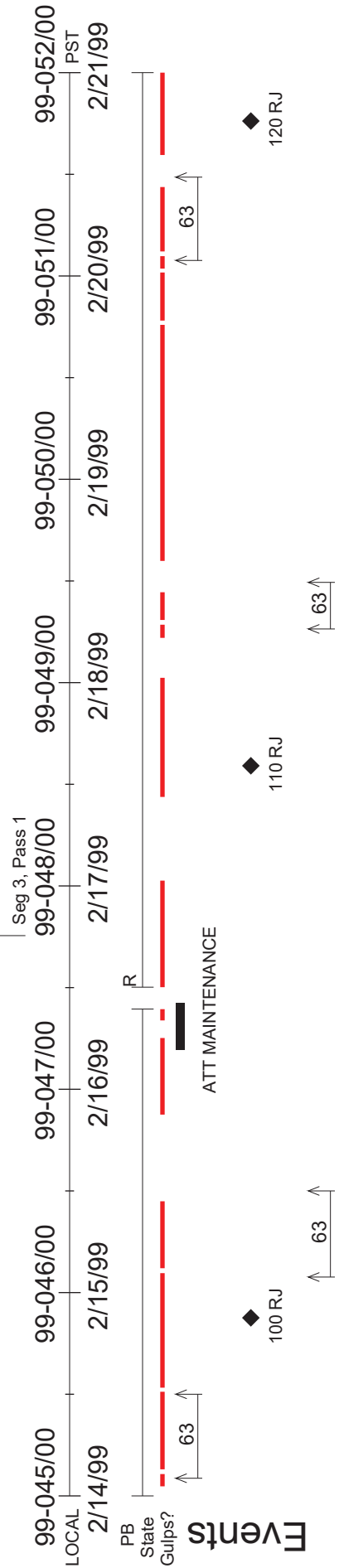
Playback / Date Returned



# E19PEB

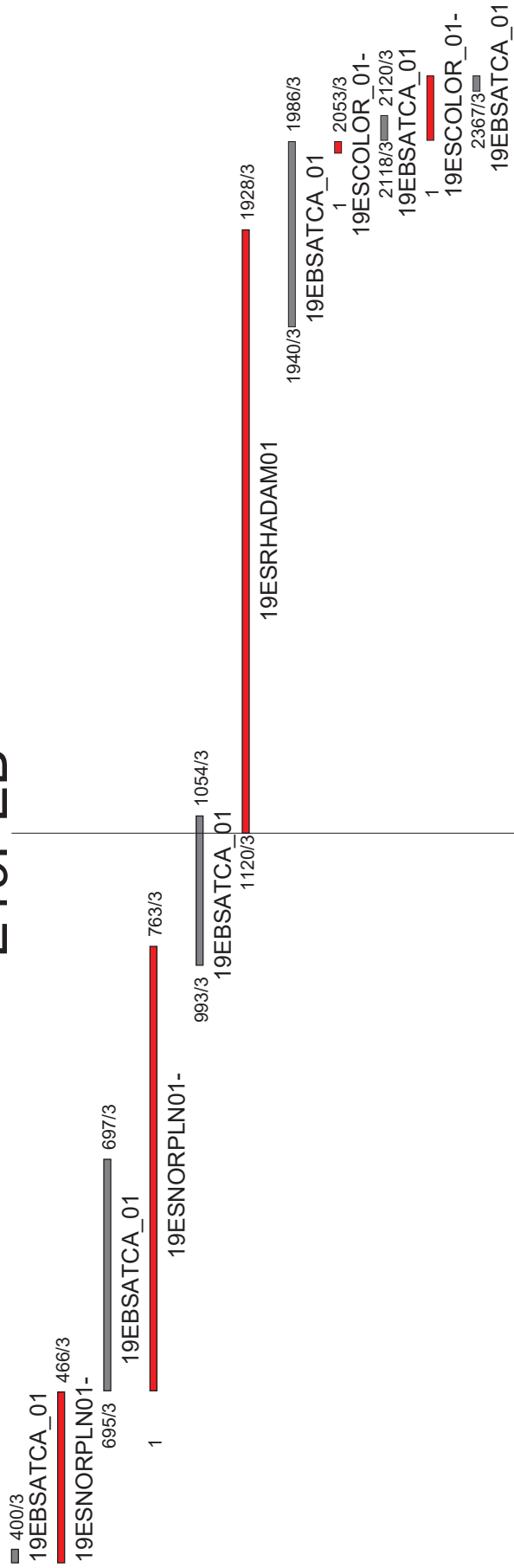


Playback / Date Returned

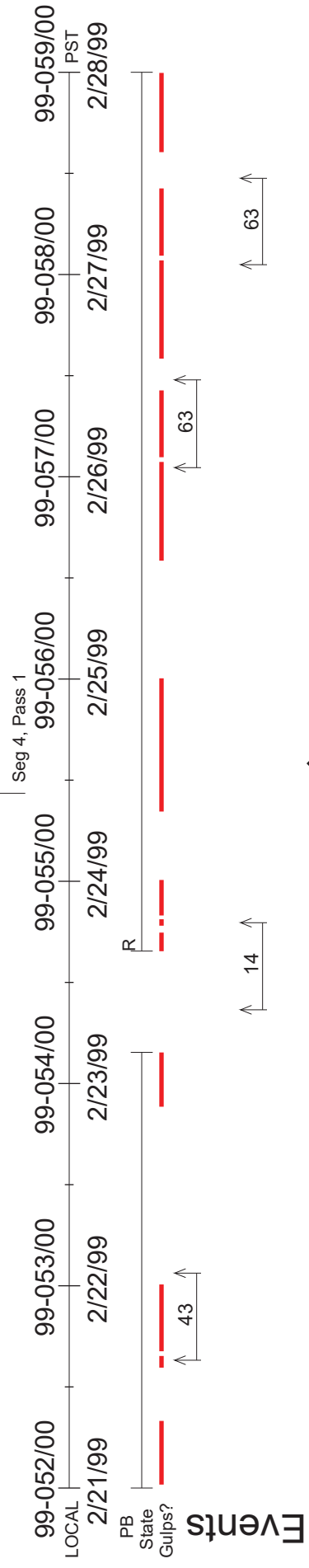




# E19PEB



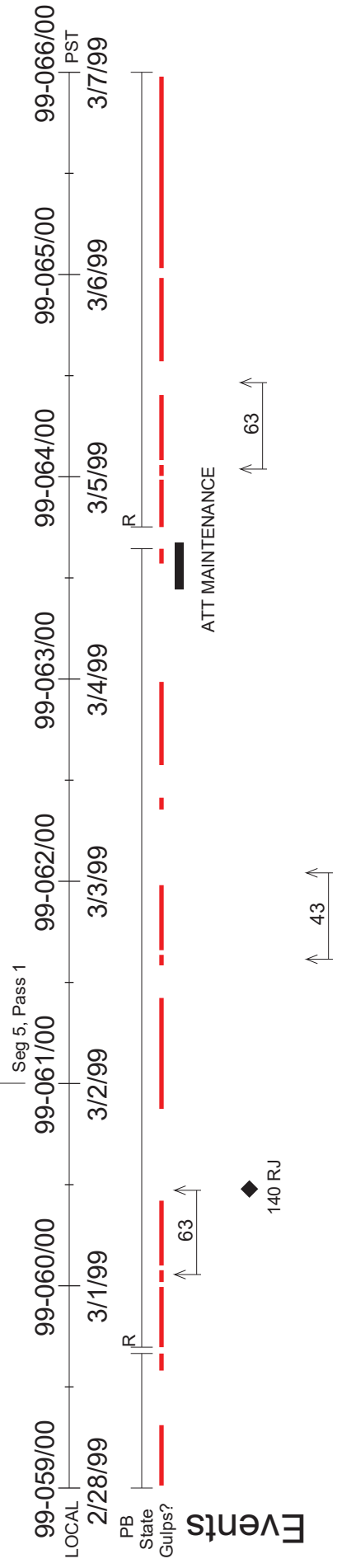
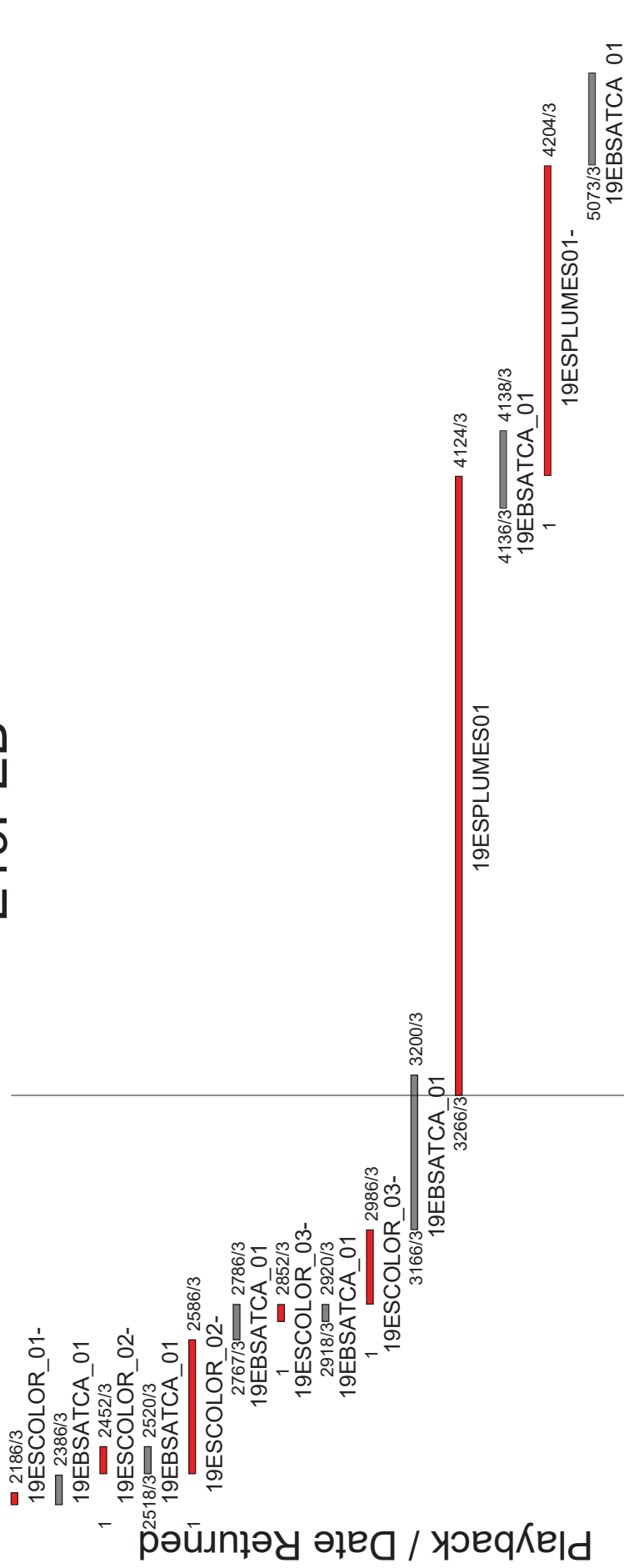
Playback / Date Returned



Events

◆ 130 RJ

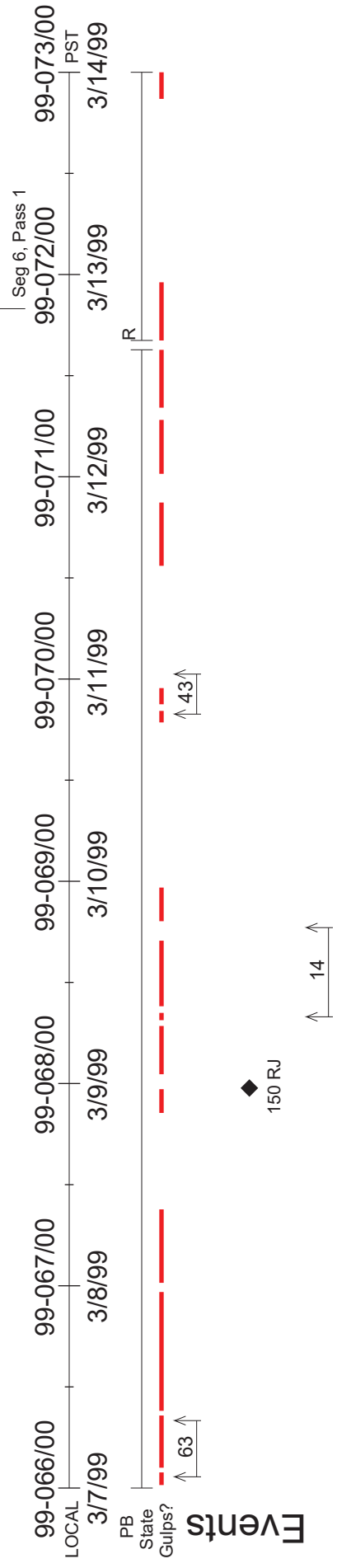
# E19PEB



# E19PEB

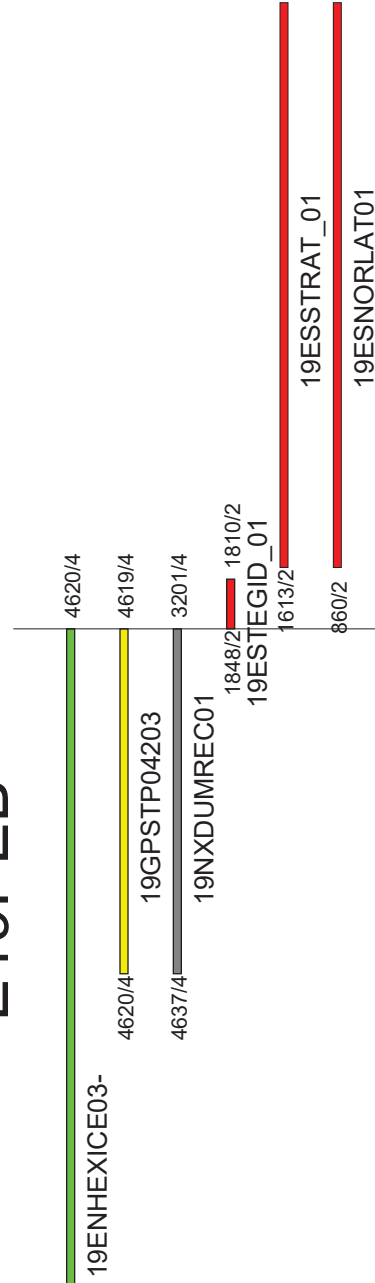


Playback / Date Returned

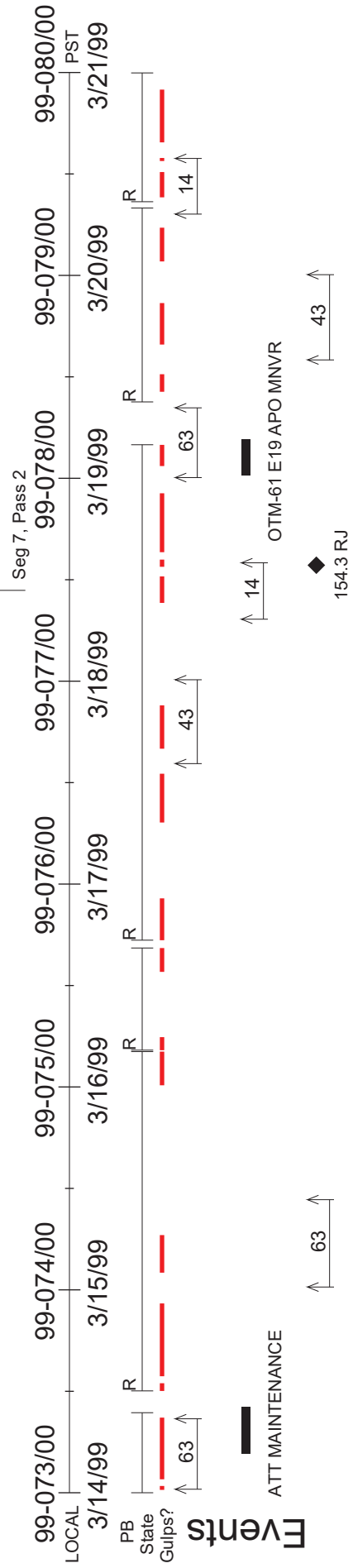


# E19PEB

5852/4  
19MBBFRDMP02-



Playback / Date Returned

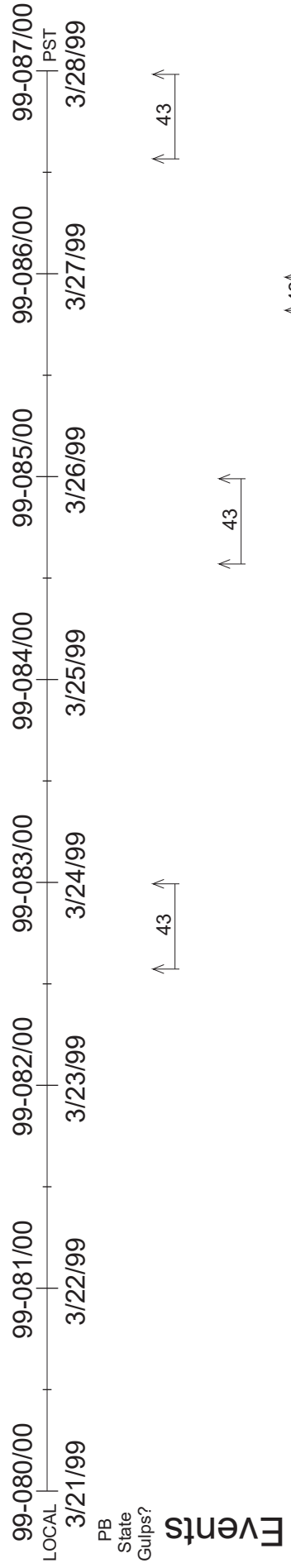


# E19PEB

19ESSTRAT\_01

19ESNORLAT01

Playback / Date Returned

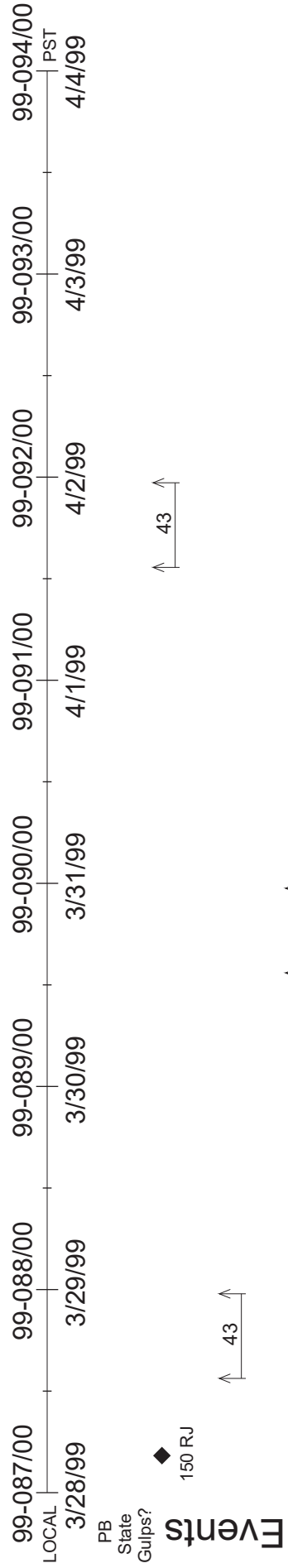


# E19PEB

19ESSTRAT\_01

19ESNORLAT01

Playback / Date Returned

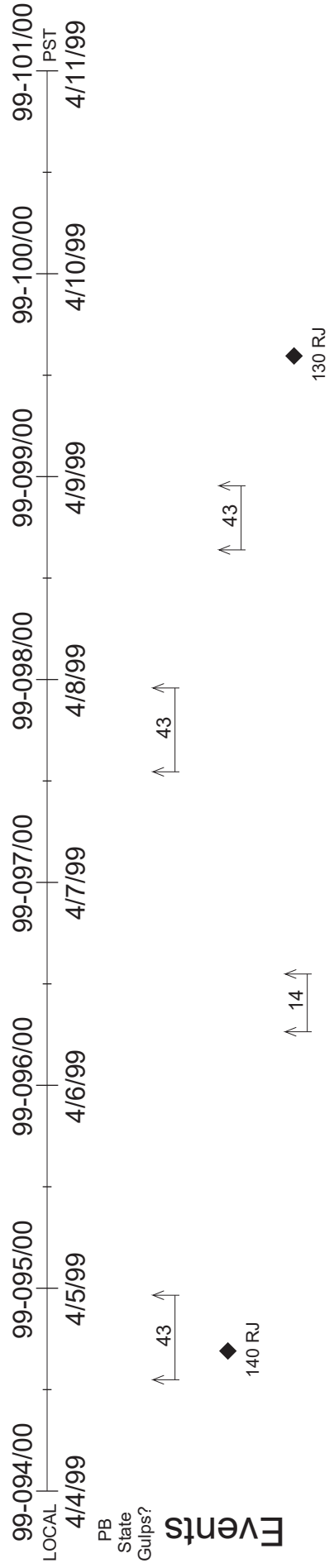


# E19PEB

19ESSTRAT\_01

19ESNORLAT01

Playback / Date Returned



# E19PEB

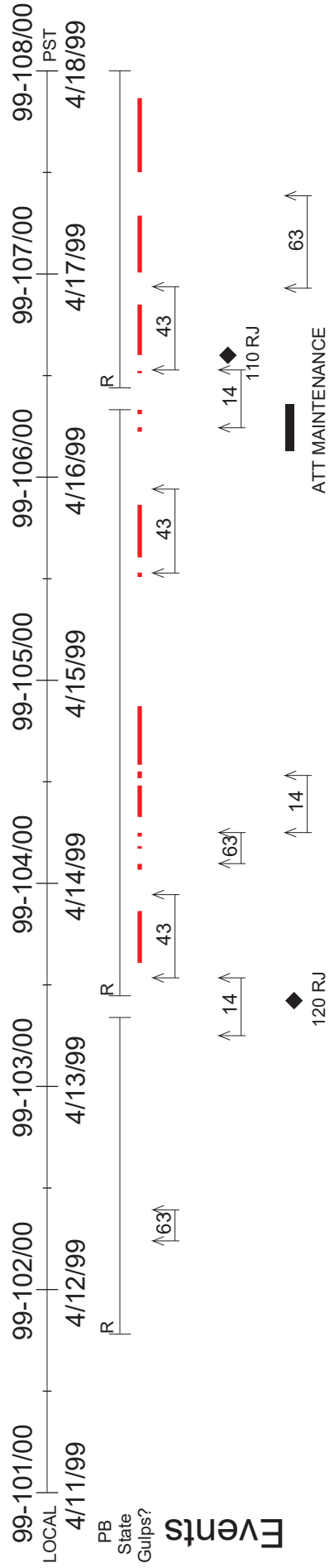
1280/2

19ESSTRAT\_01

19ESNORLAT01

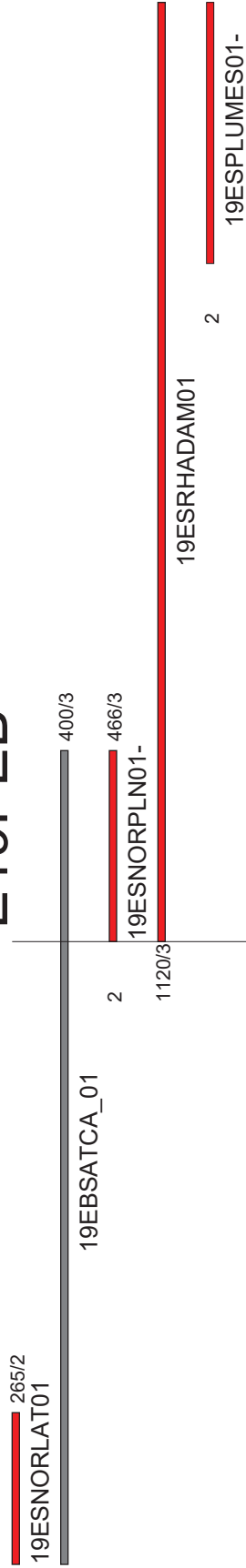
329/3  
19EBSATCA\_01

Playback / Date Returned

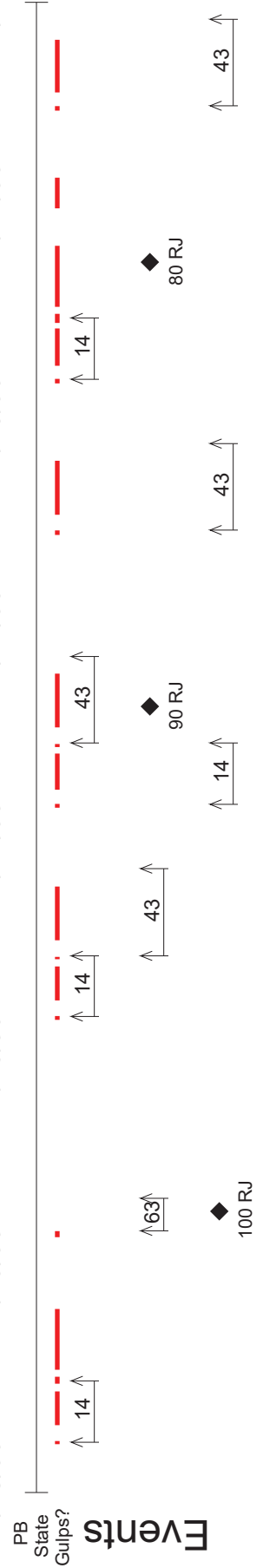
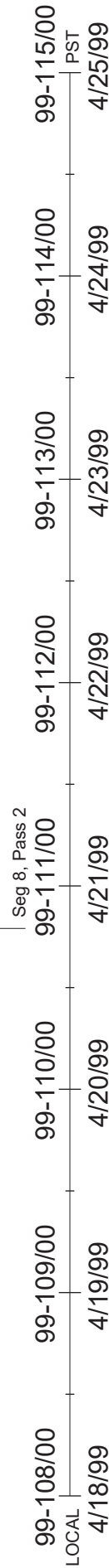




# E19PEB



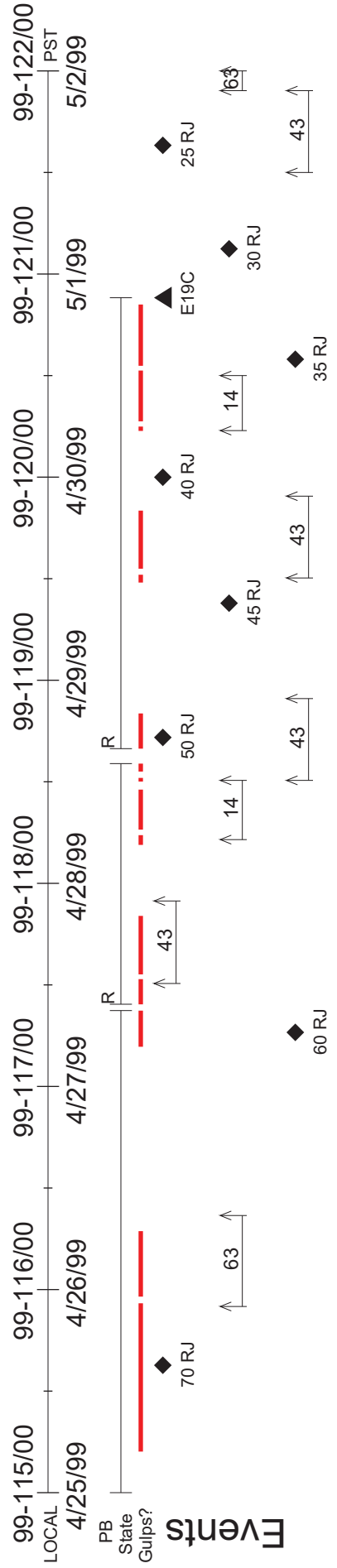
Playback / Date Returned



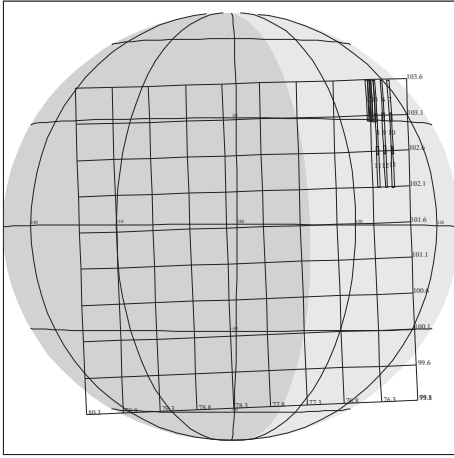
# E19PEB

1928/3  
 19ESRHADAM01  
 3266/3  
 19ESPLUMES01-

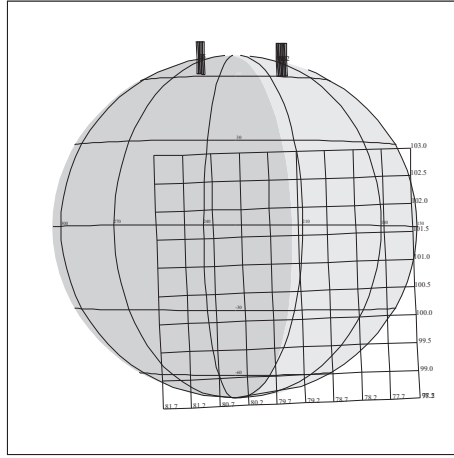
Playback / Date Returned



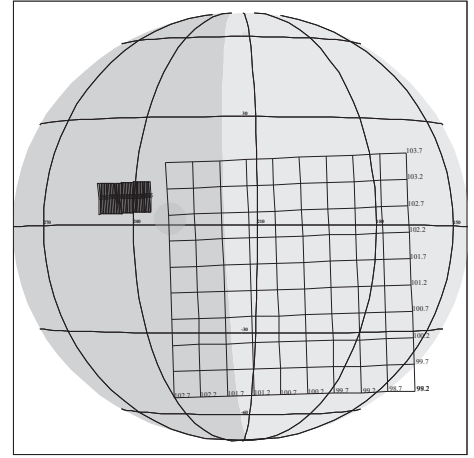
# E19 NIMS A



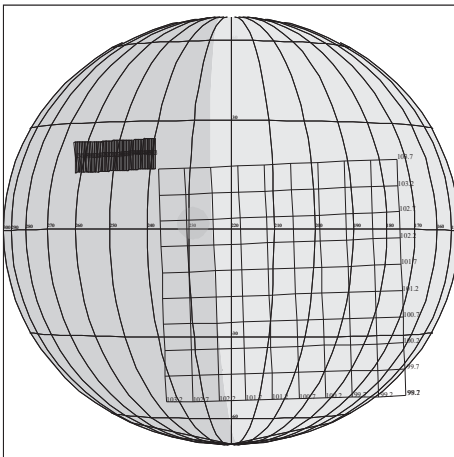
**19JNJUPRTS01**  
**99-031 03:02:39**



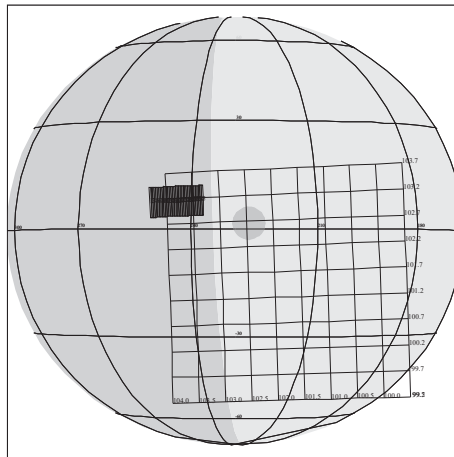
**19JNJUPRTS02**  
**99-031 03:30:58**



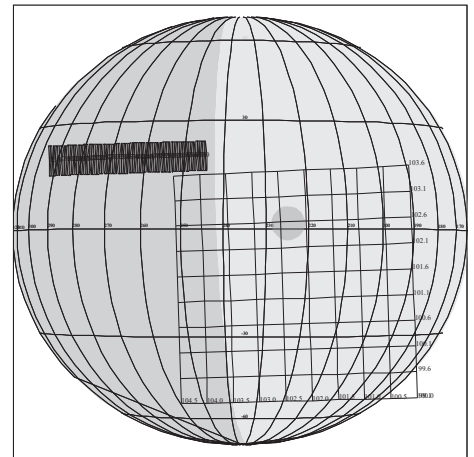
**19JNHOTMAP01**  
**99-031 13:33:35**



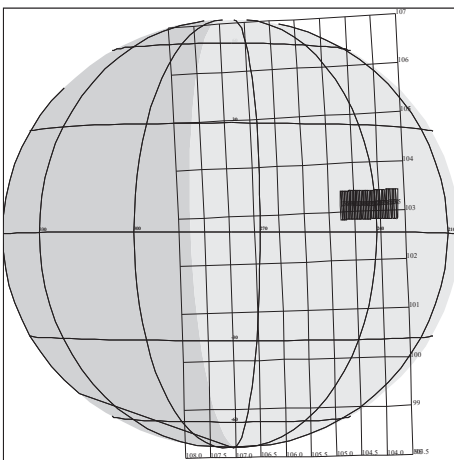
**19JNJUPNTB01**  
**99-031 13:47:44**



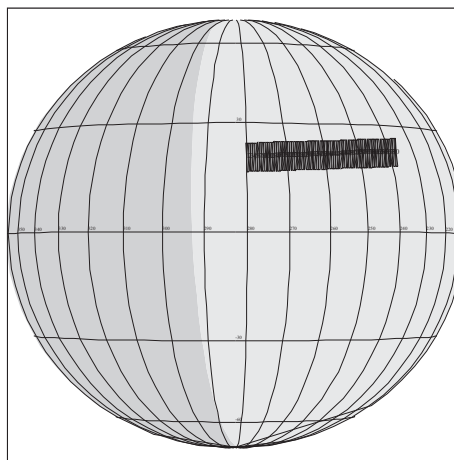
**19JNHOTMAP02**  
**99-031 14:02:54**



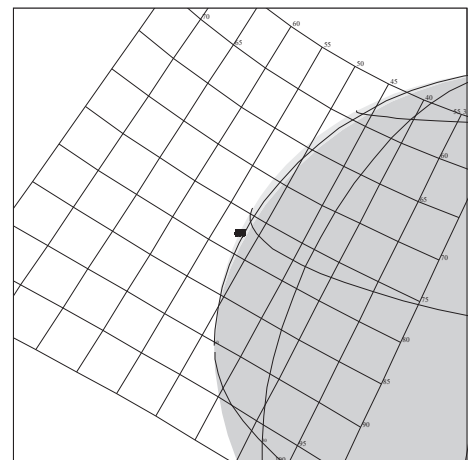
**19JNJUPNTB02**  
**99-031 14:36:16**



**19JNHOTMAP03**  
**99-031 15:26:50**

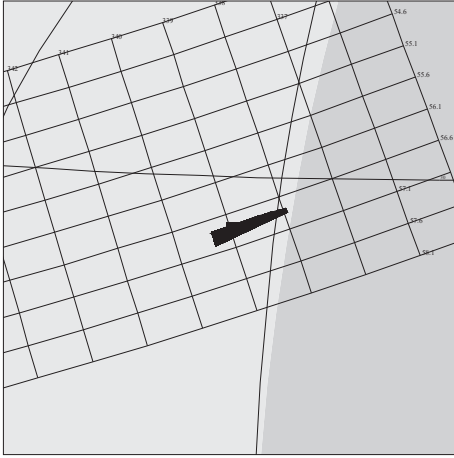


**19JNJUPNTB03**  
**99-031 15:40:59**

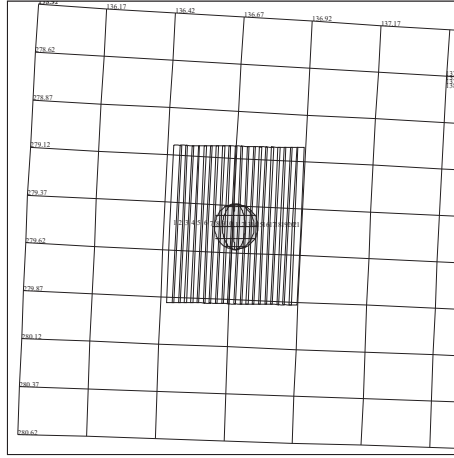


**19ENHEXICE02**  
**99-032 02:23:02**

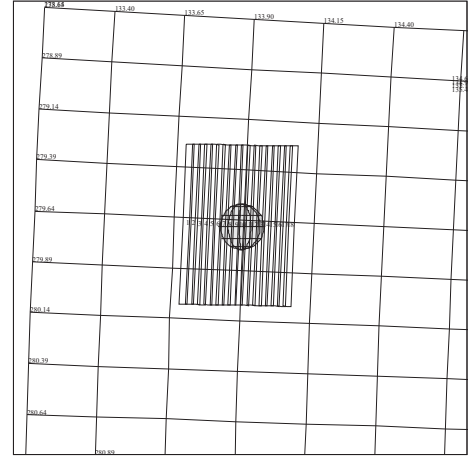
# E19 NIMS B



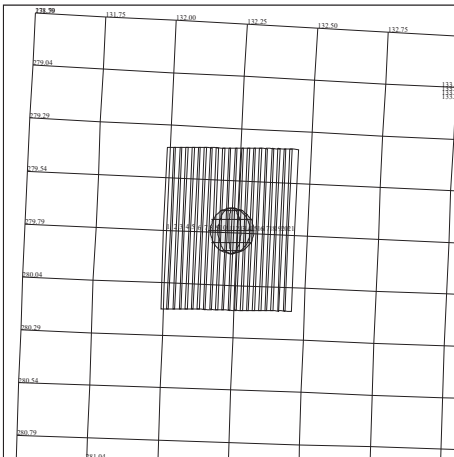
**19ENHEXICE03**  
**99-032 02:42:15**



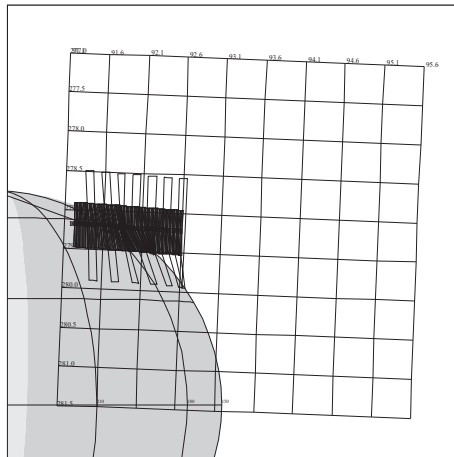
**19GNAURORA01**  
**99-033 02:31:57**



**19GNAURORA02**  
**99-033 03:39:42**



**19GNAURORA03**  
**99-033 04:20:09**



**19JNIOFLUX01**  
**99-033 10:02:55**

## Chapter 3 - Orbit Geometries

### Contents

Sub-Section		Page
3.0	Contents .....	1
3.1	Introduction to Chapter 3 .....	2
3.2	E19 North Trajectory Pole View (apo to apo) ..	3
3.3	E19 North Trajectory Pole View (+/- 5 days) ..	4
3.4	E19 North Trajectory Pole View (+/- 2 days) ..	5
3.5	E19 North Trajectory Pole View (+/- 1 day) ...	6
3.7	Europa North Trajectory Pole View (+/- 6 hours)	7
3.8	Europa North Trajectory Pole View (+/- 1 hour)	8
3.9	Europa Groundtrack at Closest Approach .....	9
3.10	Jupiter Groundtrack at Closest Approach .....	10

### Introduction to Chapter 3

This chapter contains diagrams of various aspects of geometry for the E19 Orbit.

The figure on page 3 is a North Trajectory Pole View of the E19 Orbit from apoapsis to apoapsis.

The figure on page 4 is a North Trajectory Pole View of the E19 Orbit from +/- 5 days of Europa closest approach.

The figure on page 5 is a North Trajectory Pole View of the E19 Orbit from +/- 2 days of Europa closest approach.

The figure on page 6 is a North Trajectory Pole View of the E19 Orbit from +/- 1 day of Europa closest approach.

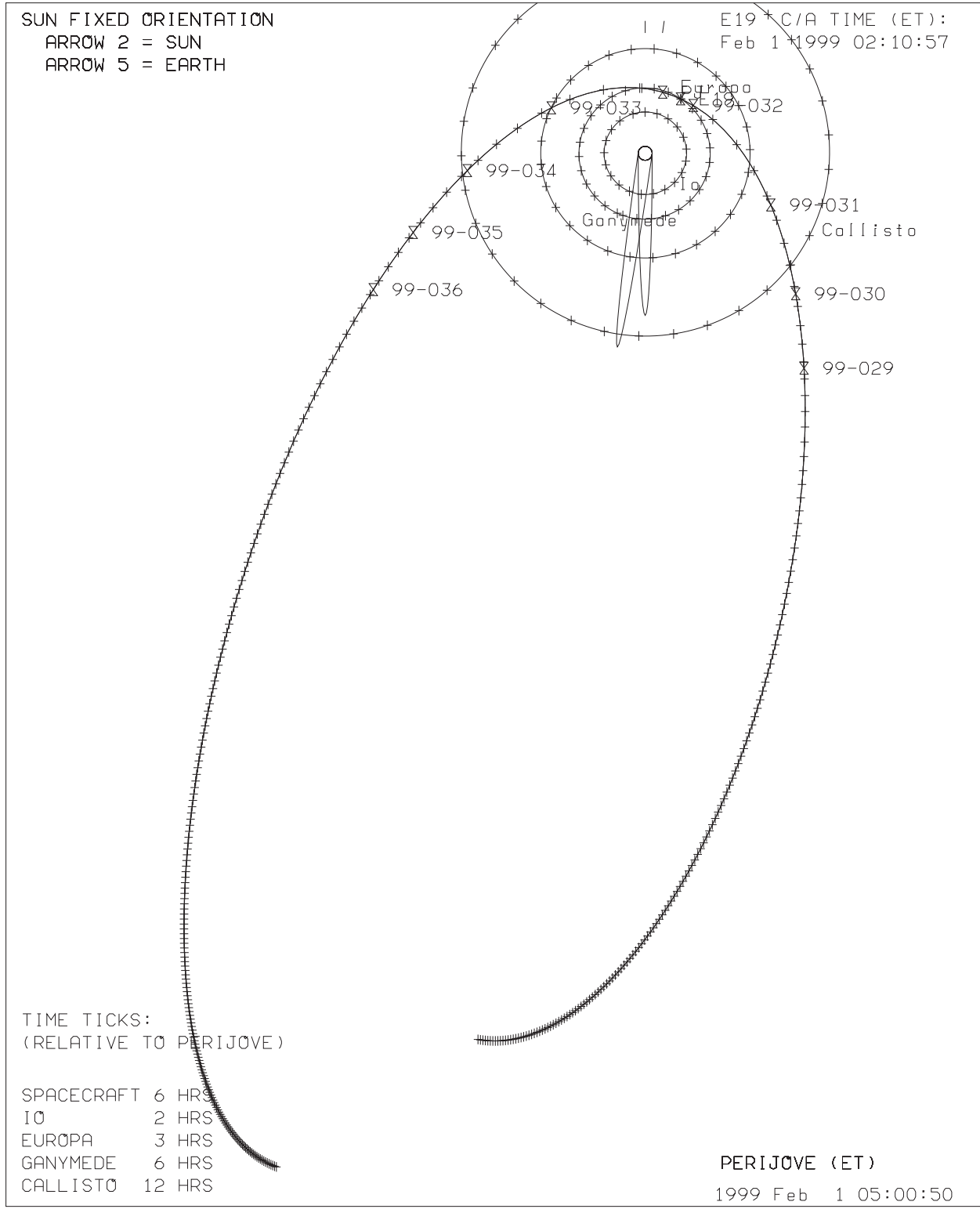
The figure on page 7 is a North Trajectory Pole View of the E19 Orbit from +/- 6 hours of Europa closest approach.

The figure on page 8 is a North Trajectory Pole View of the E19 Orbit from +/- 1 hour of Europa closest approach.

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

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

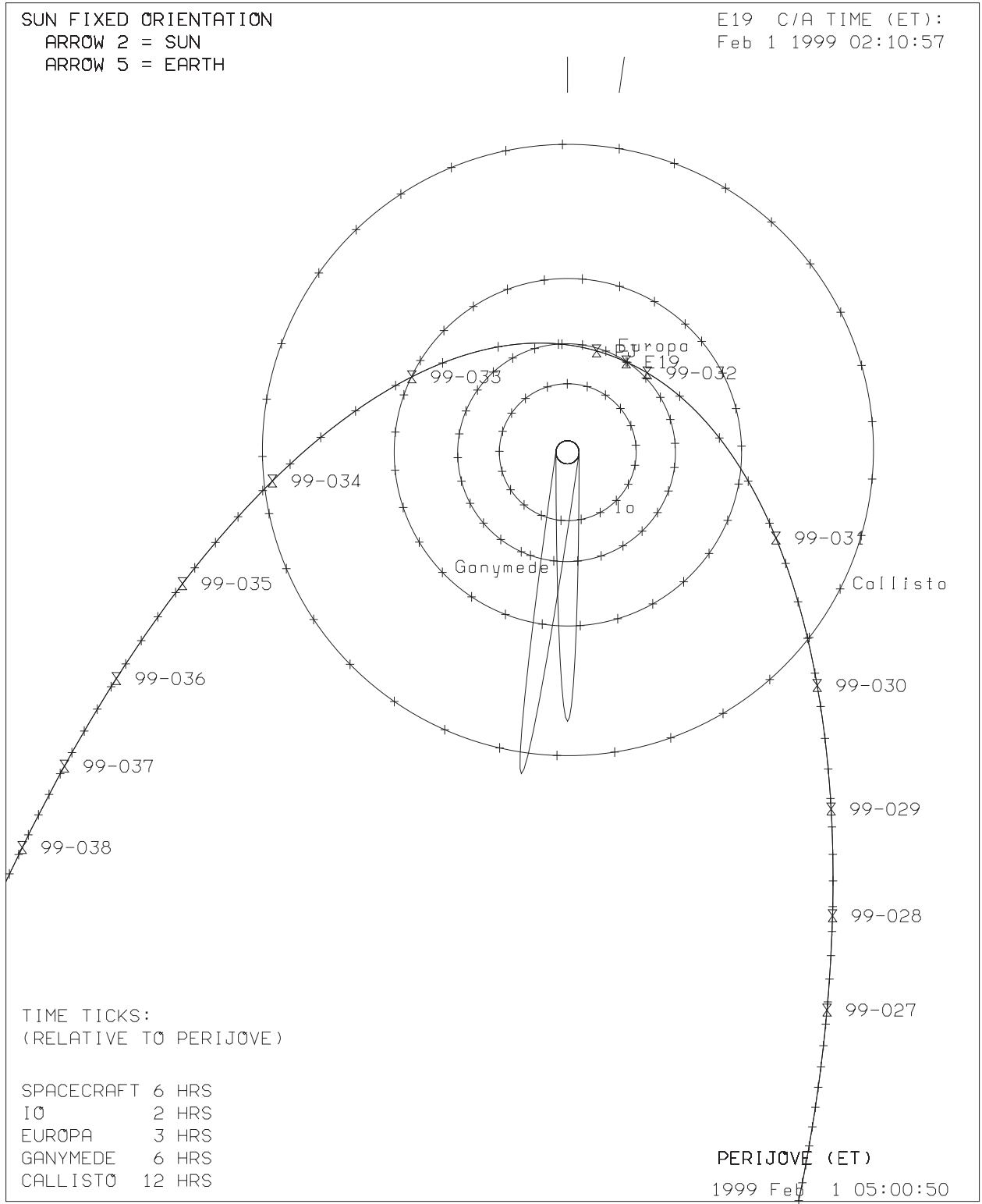
# JUPITER 19: N. TRAJ. POLE VIEW (APO TO APO)



GEM-970401

NAV Apr 24, 1997

# JUPITER 19: N. TRAJ. POLE VIEW (+/- 5 DAYS)

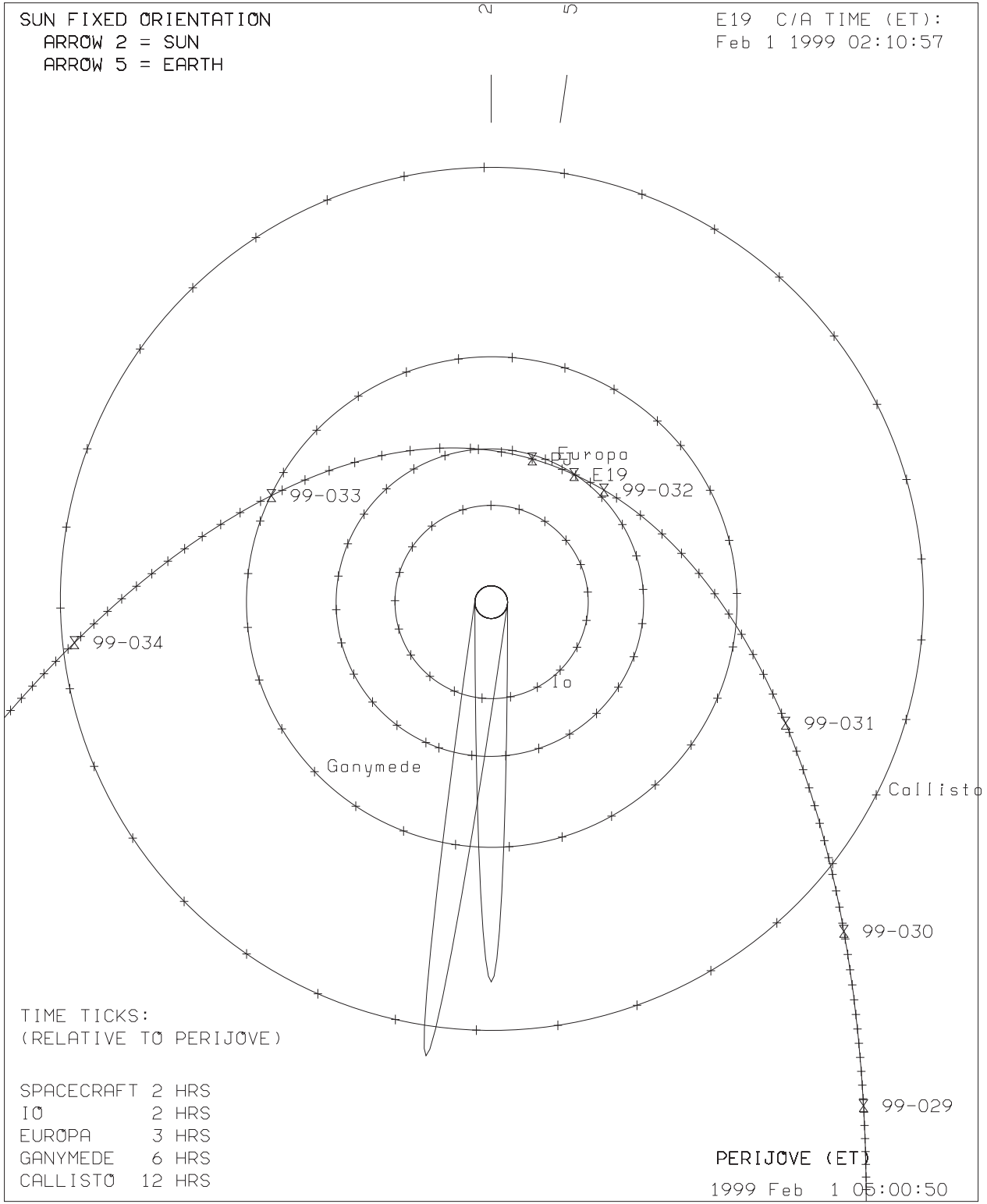


GEM-970401

NAV Apr 24, 1997



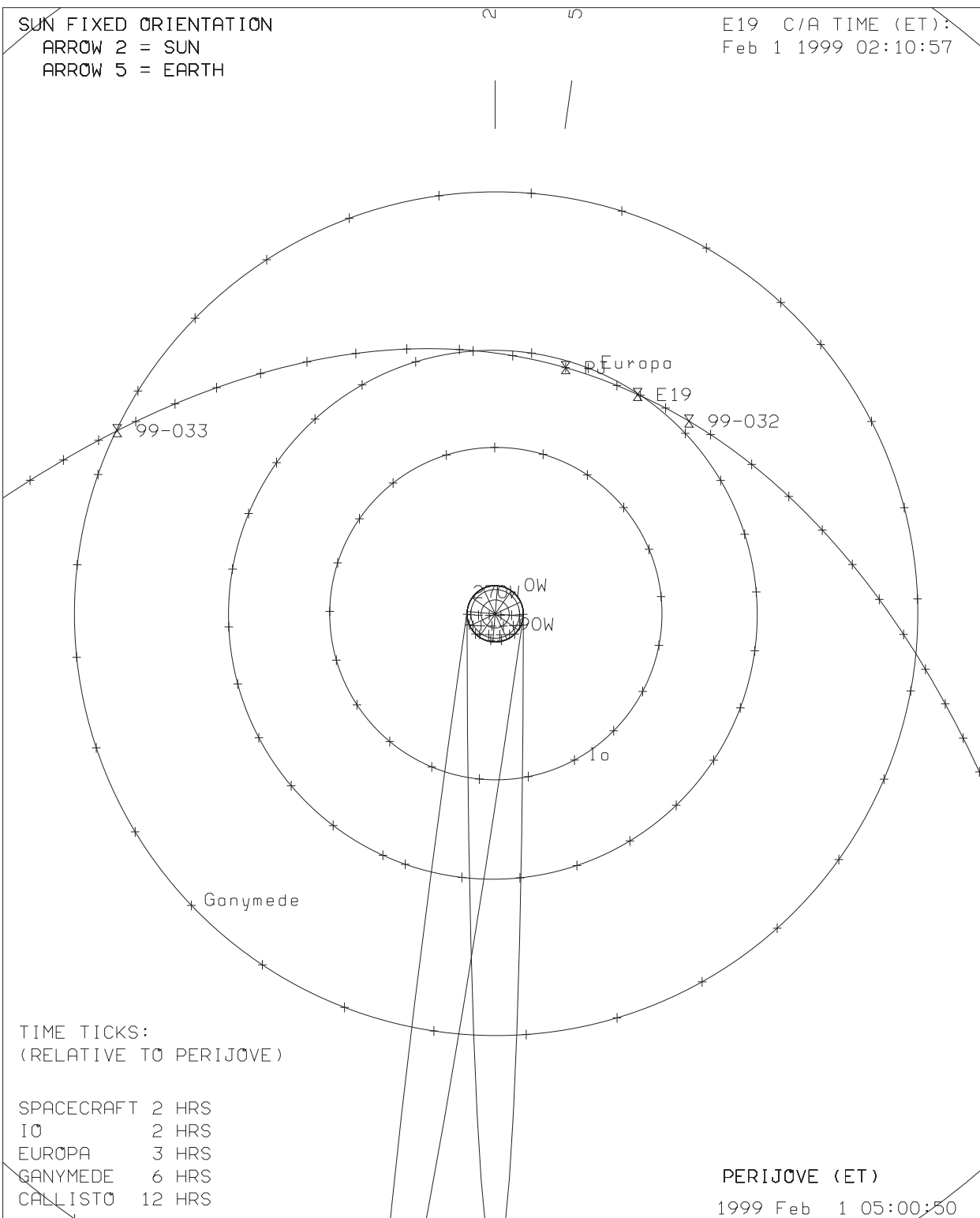
# JUPITER 19: N. TRAJ. POLE VIEW (+/- 2 DAYS)



GEM-970401

NAV Apr 24, 1997

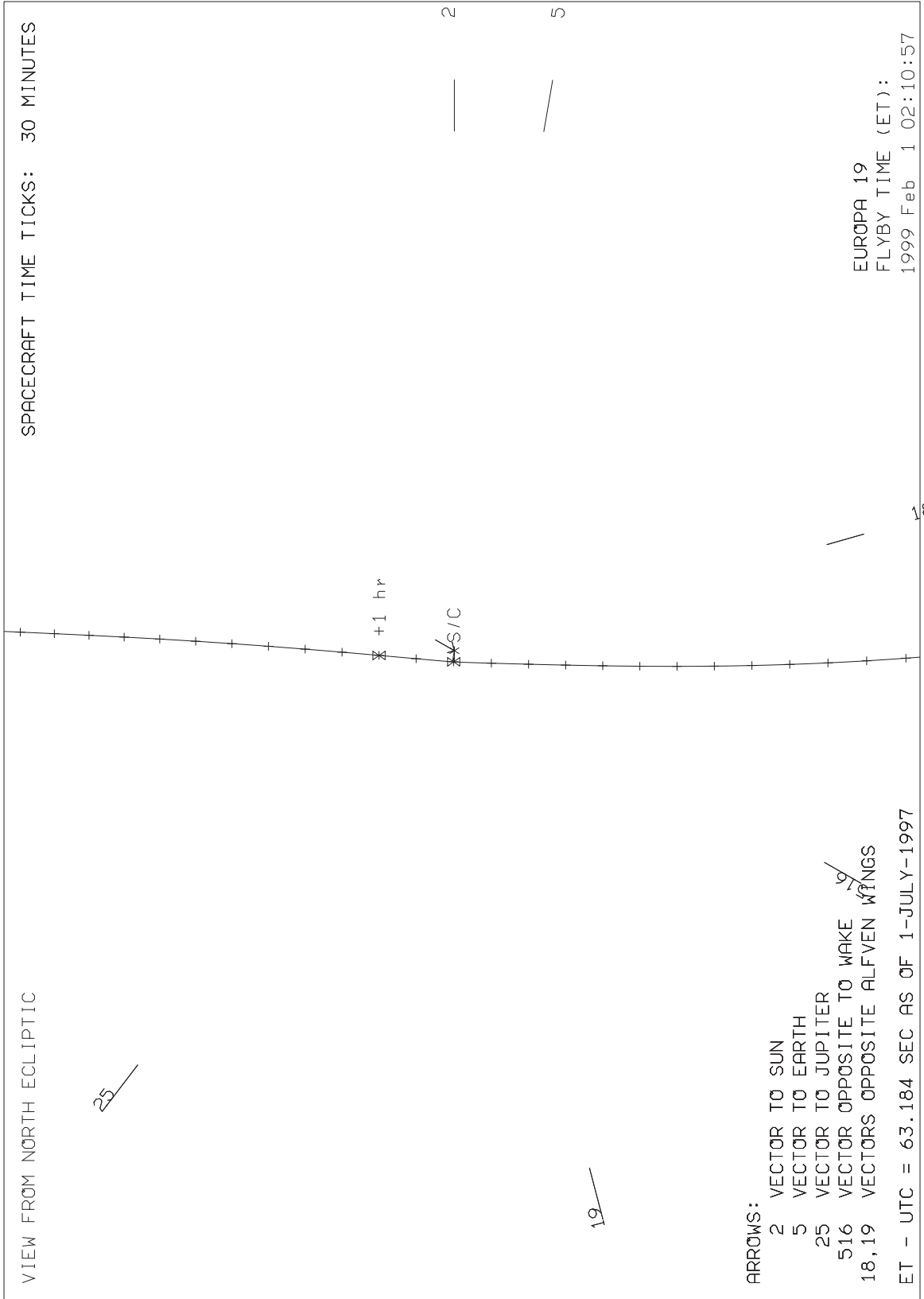
# JUPITER 19: N. TRAJ. POLE VIEW (+/- 1 DAY)



GEM-970401

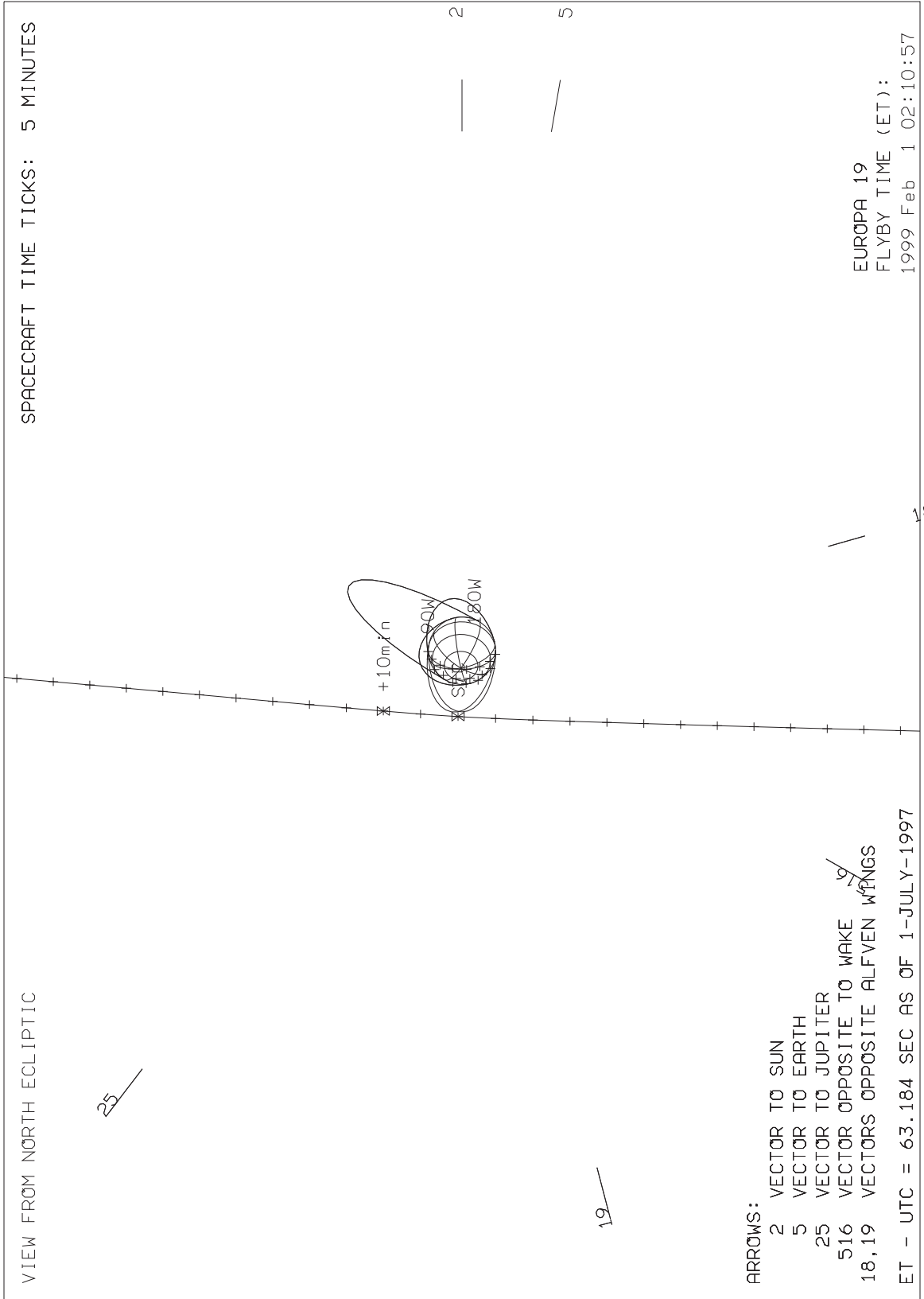
NAV Apr 24, 1997

# EUROPA 19: S. TRAJ POLE VIEW (+/- 6 HRS)

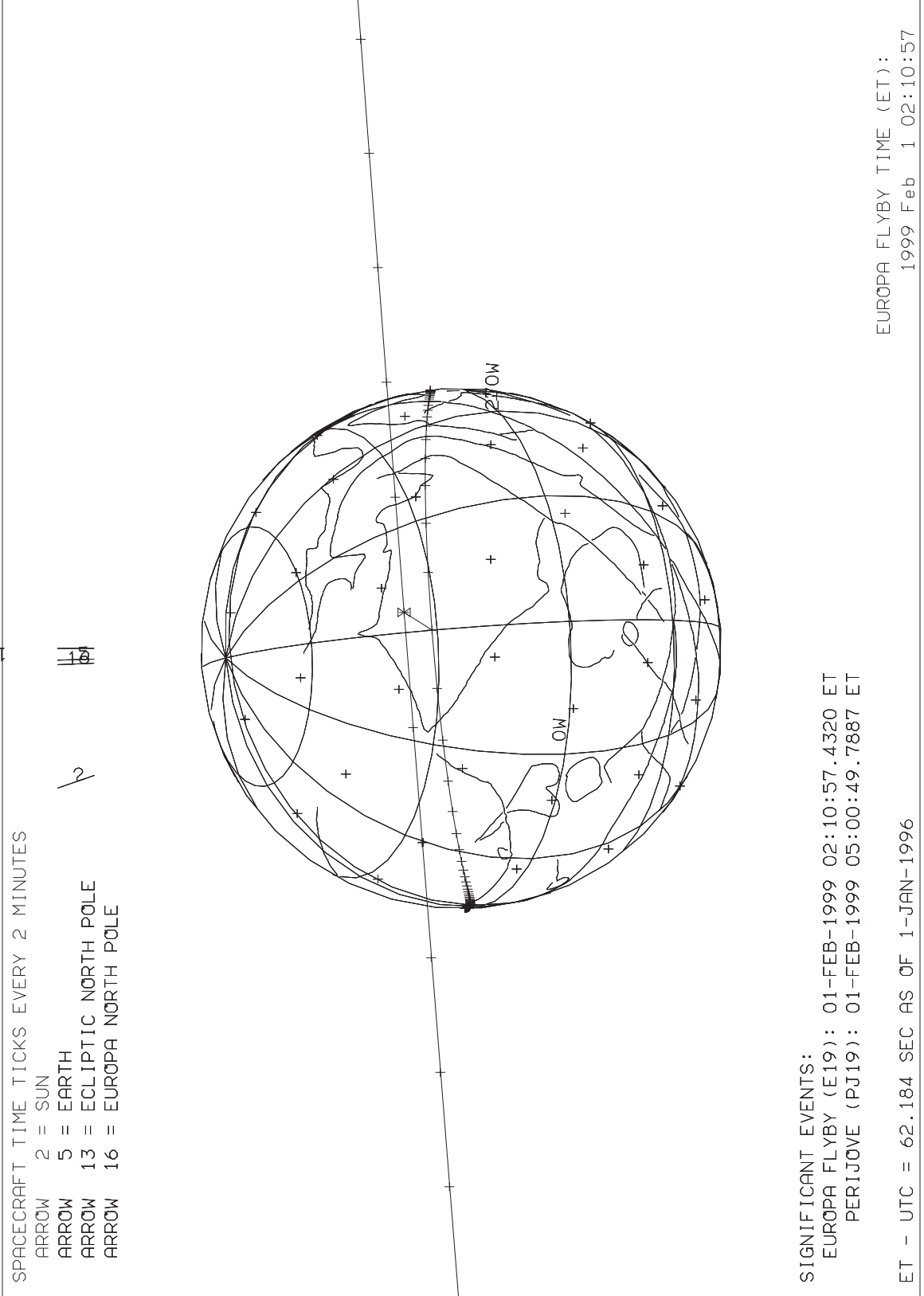


NAV 4/30/97

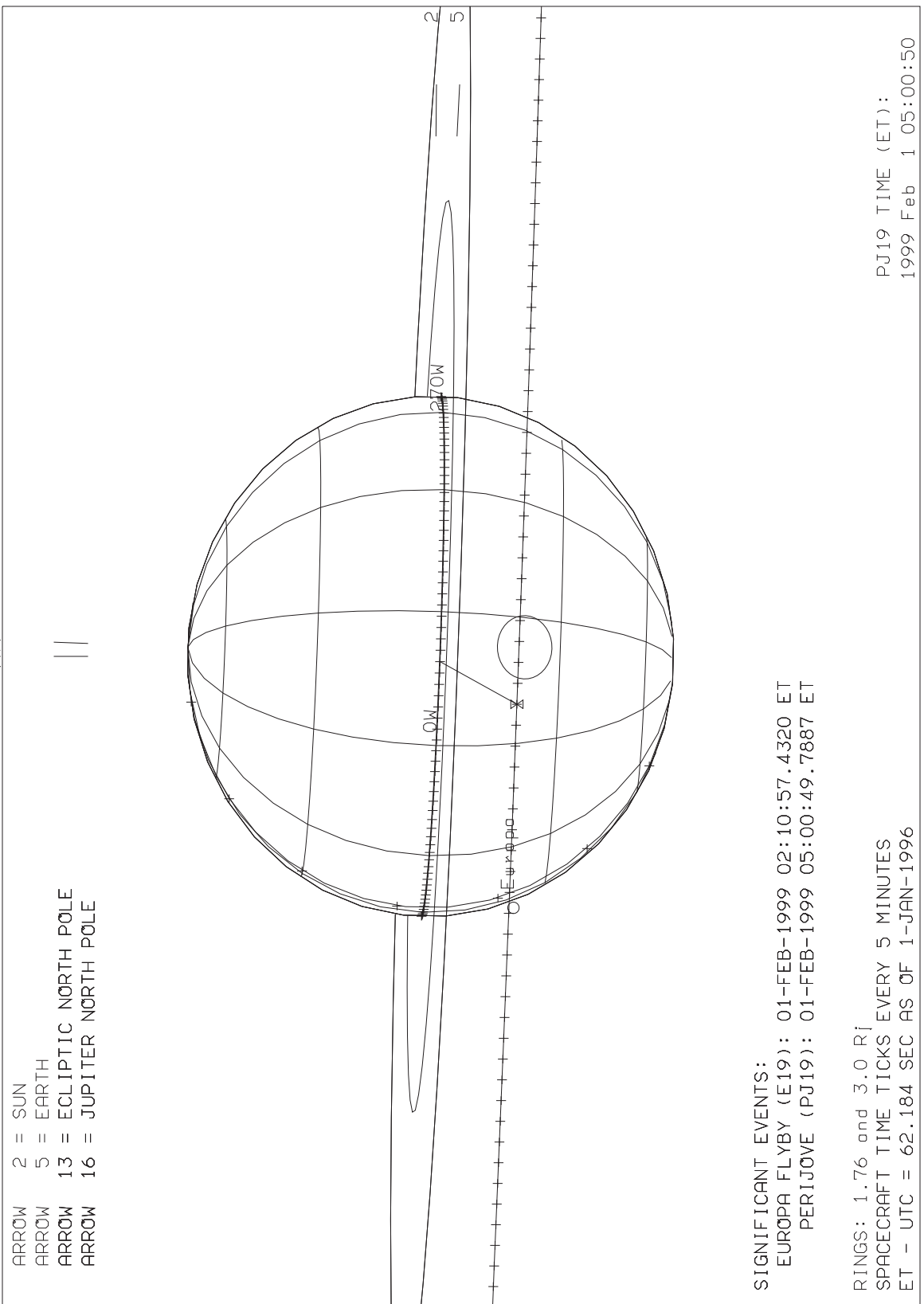
# EUROPA 19: S. TRAJ POLE VIEW (+/- 1 HR)



# EUROPA 19: GROUNDTRACK AT CLOSEST APPROACH



# JUPITER 19: GROUNDTRACK AT CLOSEST APPROACH



ARROW 2 = SUN  
 ARROW 5 = EARTH  
 ARROW 13 = ECLIPTIC NORTH POLE  
 ARROW 16 = JUPITER NORTH POLE

SIGNIFICANT EVENTS:  
 EUROPA FLYBY (E19): 01-FEB-1999 02:10:57.4320 ET  
 PERIJOVE (PJ19): 01-FEB-1999 05:00:49.7887 ET

RINGS: 1.76 and 3.0 RJ  
 SPACECRAFT TIME TICKS EVERY 5 MINUTES  
 ET - UTC = 62.184 SEC AS OF 1-JAN-1996

PJ19 TIME (ET):  
 1999 Feb 1 05:00:50  
 NAV Apr 6, 1997

## Chapter 4 - NIMS Observation Summaries

### Contents

	Sub-Section	Page
4.0	Contents .....	1
4.1	Introduction to Chapter 4 .....	2
4.2	NIMS Sequence Summary .....	3-62
4.3	NIMS Individual Obstab Summaries .....	63-81
4.4	NIMS OBSTAB (Returned) .....	82-86

## Introduction to Chapter 4

This chapter summarizes the NIMS E19 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 E19 Sequence. The information in this summary is derived from the E19 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 E19 data. It is also derived from the E19 SEFs and PBTs. Each Obstab entry is 512 bytes long but is presented here as 4 lines of 128 characters per entry.



Sequence:		E19A-AR		Created: 5/12/99		Begin: 99-031/02:00:00		Finish: 99-042/16:00:00				
Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
1	99	31	02:00:00.000	20A3EW	37A	Initial Condition	NIMS Power ON	400	4	0	4,847,463:08:9	
2	99	31	02:00:00.000	20A3FF	40T2R	Initial Condition	PCT Heater 2 OFF	400	4	0	4,847,463:08:9	
3	99	31	02:00:00.000	20A3EX	37HR	Initial Condition	Replacement Heaters OFF	400	4	0	4,847,463:08:9	
4	99	31	02:00:00.000	20A3EY	37C1PR	Initial Condition	Optics Heater 1 OFF (primary relay)	400	4	0	4,847,463:08:9	
5	99	31	02:00:00.000	20A3EZ	37C2PR	Initial Condition	Optics Heater 2 OFF (primary relay)	400	4	0	4,847,463:08:9	
6	99	31	02:00:00.000	20A3FA	37F1PR	Initial Condition	Radiator Flash Heater OFF (primary relay)	400	4	0	4,847,463:08:9	
7	99	31	02:00:00.000	20A3FB	37F2PR	Initial Condition	Shield Flash Heater OFF (primary relay)	400	4	0	4,847,463:08:9	
8	99	31	02:00:00.000	20A3FD	40HRPR	Initial Condition	PCT Heater OFF (primary relay)	400	4	0	4,847,463:08:9	
9	99	31	02:00:00.000	20A3FE	40T1PR	Initial Condition	PCT Heater 1 OFF (primary relay)	400	4	0	4,847,463:08:9	
10	99	31	02:00:00.066		DMS: : READY		RDY_TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,847,463:09:0	
11	99	31	02:00:40.066	488AA6A	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	400	4	0	4,847,463:69:0	
12	99	31	02:00:53.400	432JA6B	6RTDS2	NIMDSL,AACNCG,RT	NIMS R/T DESELECT	400	4	0	4,847,463:89:0	
13	99	31	02:00:54.066	432JA431A6A	6RCDL	DDSNCG,PLSDSL,EP	Record Deselect (DDS o	400	4	0	4,847,463:90:0	
14	99	31	02:00:54.733	432JA6C	6RTSL1		R/T Select of DDS and	400	4	0	4,847,464:00:0	
15	99	31	02:00:54.733	432JA6D	6RTSL2	NIMNCG,AACSEL,RT	AACS SELECT	400	4	0	4,847,464:00:0	
16	99	31	02:02:30.066	20OA6A	6HICON			400	4	0	4,847,465:52:0	
17	99	31	02:05:57.400	165LA4A	7SCAN	NORM,252.23,22.	Check S/P Position	400	4	0	4,847,468:90:0	
18	99	31	02:35:23.400	444UA443A4B	7MODE	INT	AACS INERTIAL MODE	400	4	0	4,847,498:09:0	
19	99	31	02:55:28.066	176DA6A	6TMREC	NRC	NO RECORD Record Mode Change	400	4	0	4,847,517:87:0	
20	99	31	02:59:37.400	19NNJUPRTS01-		-----START-----		400	4	0	:	:
21	99	31	02:59:51.400	20DA5A	37PL		Program Load (halts microprocessor & unwri	260	4	0	4,847,522:27:0	
22	99	31	02:59:52.733	20DA5B	37MRL		Memory Realocate (software operates from R	260	4	0	4,847,522:29:0	
23	99	31	02:59:54.066	20DA6A	6MCPY	NIMS	NIMS,1000,LLM1A,7300,77F7	260	4	0	4,847,522:31:0	
24	99	31	03:00:04.066	20DA6B	6MCPY	NIMS	NIMS,1598,LLM1A,77F8,781D	260	4	0	4,847,522:46:0	
25	99	31	03:00:14.066	20DA5C	37IRT		Instrument Reset (goes into POR state)	260	4	0	4,847,522:61:0	
26	99	31	03:00:38.066	20DA5D	37MN		Memory Normal (software operates from ROM)	260	4	0	4,847,523:06:0	
27	99	31	03:00:49.400	20DA4A	37IST	1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)	2R0	4	0	4,847,523:23:0	
28	99	31	03:01:38.734	19NNJUPRTS01-		-----STOP-----		2R0	4	0	:	:
29	99	31	03:02:30.733	125DA4A	37IST	0,2,0,OFF,0,1,0	Gain State 2	2R0	4	0	4,847,524:84:0	
30	99	31	03:02:30.733	125DA	NIMSNIT	GS	##### GROUP START INIT	2R0	4	0	4,847,524:84:0	
31	99	31	03:02:39.400	19NNJUPRTS01*		-----START-----		2R0	4	0	:	:
32	99	31	03:03:31.400	125DA11A	NIMSNIT	GE	##### GROUP END INIT	2R0	4	0	4,847,525:84:0	
33	99	31	03:03:31.400	125DA4B	37MB	1B,1B,0,0,0,0	Selects mirror (spatial) edit table	2R0	4	0	4,847,525:84:0	
34	99	31	03:03:32.066	127DA	NIMSTAB	GS	%%%%GROUP START TAB	2R0	4	0	4,847,526:84:0	
35	99	31	03:04:32.066	127DA4A	37IOP	3,0	Long Map, Grating Start Position =00	2R3	4	0	4,847,526:84:0	
36	99	31	03:04:32.733	127DA4B	37ETB	04,C4,35,FF,FF	Loads wavelength edit table	2R3	4	0	4,847,526:85:0	
37	99	31	03:04:36.066	165DA4A	7SCAN	NORM,253.804998,	Check S/P Position	2R3	4	0	4,847,526:90:0	
38	99	31	03:04:40.733	127DA11A	NIMSTAB	GE	%%%%GROUP END TAB	2R3	4	0	4,847,527:06:0	
39	99	31	03:07:42.733	432DA6A	6RTSL2	NIMSEL,AACNCG,RT	NIMS R/T SELECT	2R3	4	0	4,847,530:06:0	
40	99	31	03:08:30.066	117DA	CSMOS	GS	***** GROUP START CSMOS	2R3	4	0	4,847,530:77:0	
41	99	31	03:08:38.066	165DA4B	7VECT		Inert vect update UTC	2R3	4	0	4,847,530:89:0	
42	99	31	03:08:39.400	117DA105A106A4A	7STRP	-0.005,0,0,0,0,0	Slew =,0.03	2R3	4	0	4,847,531:00:0	
43	99	31	03:11:32.066	117DA105A106A4B	7STRP	0.005,-0.008,0,0	Slew =12.01	2R3	4	0	4,847,533:77:0	
44	99	31	03:11:42.066	117DA105A106A4C	7STRP	-0.005,0,0,0,0,0	Slew =,0.03	2R3	4	0	4,847,534:01:0	
45	99	31	03:14:34.733	117DA105A106A4D	7STRP	0.005,-0.008,0,0	Slew =12.01	2R3	4	0	4,847,536:78:0	
46	99	31	03:14:44.733	117DA105A106A4E	7STRP	-0.005,0,0,0,0,0	Slew =,0.03	2R3	4	0	4,847,537:02:0	
47	99	31	03:16:48.734	19NNJUPRTS01*		-----STOP-----		2R3	4	0	:	:
48	99	31	03:17:37.400	117DA11A	CSMOS	GE	***** GROUP END CSMOS	2R3	4	0	4,847,539:79:0	
49	99	31	03:17:48.066	432DZ6A	6RTDS2	NIMDSL,AACNCG,RT	NIMS R/T DESELECT	2R3	4	0	4,847,540:04:0	
50	99	31	03:21:44.066	488AA6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	2R3	4	0	4,847,543:85:0	
51	99	31	03:27:56.067	19NNJUPRTS02-		-----START-----		2R3	4	0	:	:
52	99	31	03:28:10.066	20DC5A	37PL		Program Load (halts microprocessor & unwri	2R3	4	0	4,847,550:27:0	
53	99	31	03:28:11.400	20DC5B	37MRL		Memory Realocate (software operates from R	2R3	4	0	4,847,550:29:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
54	99	31	03:28:12.733	20DC6A	6MCPY	NIMS	NIMS,1000,LLM1A,7300,77F7	2R3	4	0	4,847,550:31:0	
55	99	31	03:28:22.733	20DC6B	6MCPY	NIMS	NIMS,1598,LLM1A,77F8,781D	2R3	4	0	4,847,550:46:0	
56	99	31	03:28:32.733	20DC5C	37IRT		Instrument Reset (goes into POR state)	260	4	0	4,847,550:61:0	
57	99	31	03:28:56.733	20DC5D	37MN		Memory Normal (software operates from ROM)	260	4	0	4,847,551:06:0	
58	99	31	03:29:08.066	20DC4A	37IST	1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)	2R0	4	0	4,847,551:23:0	
59	99	31	03:29:53.400		DMS:	: *TURNARND	P7, TRACK 1, FWD, TIC 202.12 +/-	2R0	4	0	4,847,552:00:0	
60	99	31	03:29:53.400		DMS:	: *SLEW-TIC	P7, TRACK 1, FWD, TIC 202.12 +/-	2R0	4	0	4,847,552:00:0	
61	99	31	03:29:53.400		DMS:	: *E4-DELAY	RDY, TRACK 1, FWD, TIC 202.12 +/-	2R0	4	0	4,847,552:00:0	
62	99	31	03:29:53.400	465KA6A	6DMST		3140 DMS Slew to TIC	2R0	4	0	4,847,552:00:0	
63	99	31	03:29:57.400	19NNJUPRTS02-			-----STOP-----	2R0	4	0	:	
64	99	31	03:30:00.066		DMS:	: *RUNUP	P7, TRACK 1, FWD, TIC 202.12 +/-	2R0	4	0	4,847,552:10:0	
65	99	31	03:30:01.466		DMS:	: *AT SPD	P7, TRACK 1, FWD, TIC * 202.24 +/-	2R0	4	0	4,847,552:12:1	
66	99	31	03:30:49.400	125DC	NIMSINIT	GS	##### GROUP START INIT	2R0	4	0	4,847,552:84:0	
67	99	31	03:30:49.400	125DC4A	37IST	0,2,0,OFF,0,1,1	Gain State 4	4R0	4	0	4,847,552:84:0	
68	99	31	03:30:53.400	165DH4A	7SCAN	NORM;257;462997,	Check S/P Position	4R0	4	0	4,847,552:90:0	
69	99	31	03:30:58.067	19JNJUPRTS02*			-----START-----	4R0	4	0	:	
70	99	31	03:31:50.066	125DC11A	NIMSINIT	GE	##### GROUP END INIT	4R0	4	0	4,847,553:84:0	
71	99	31	03:31:50.066	125DC4B	37MB	19,13,0,0,0,0	Selects mirror (spatial) edit table	4R0	4	0	4,847,553:84:0	
72	99	31	03:33:51.400	127DC	NIMSTAB	GS	%%/%% GROUP START TAB	4R0	4	0	4,847,555:84:0	
73	99	31	03:33:51.400	127DC4A	37IOP	3,0	Long Map, Grating Start Position =00	4R3	4	0	4,847,555:84:0	
74	99	31	03:33:52.066	127DC4B	37ETB	0A,CA,18,00,FF,1	Loads wavelength edit table	4R3	4	0	4,847,555:85:0	
75	99	31	03:34:00.066	127DC11A	NIMSTAB	GE	%%/%% GROUP END TAB	4R3	4	0	4,847,556:06:0	
76	99	31	03:34:00.066	432DC6A	6RTSL2	NIMSEL,AACNCG,RT	NIMS R/T SELECT	4R3	4	0	4,847,556:06:0	
77	99	31	03:34:47.400	117DH	CSMOS	GS	***** GROUP START CSMOS	4R3	4	0	4,847,556:77:0	
78	99	31	03:34:56.733	117DH105A106A4A	7STRP	0,0,0,0,0,0,0,0	Slew =-0.03	4R3	4	0	4,847,557:00:0	
79	99	31	03:39:02.066	432DY6A	6RTDS2	NIMDSL,AACNCG,RT	NIMS R/T DESELECT	4R3	4	0	4,847,561:04:0	
80	99	31	03:40:00.066	117DH105A106A4B	7STRP	-0.022004,-0.001	Slew =12.01	4R3	4	0	4,847,562:00:0	
81	99	31	03:41:04.733	432DH6A	6RTSL2	NIMSEL,AACNCG,RT	NIMS R/T SELECT	4R3	4	0	4,847,563:06:0	
82	99	31	03:42:01.400	117DH105A106A4C	7STRP	0,0,0,0,0,0,0,0	Slew =-0.03	4R3	4	0	4,847,564:00:0	
83	99	31	03:45:07.400	19JNJUPRTS02*			-----STOP-----	4R3	4	0	:	
84	99	31	03:46:06.733	432DX6A	6RTDS2	NIMDSL,AACNCG,RT	NIMS R/T DESELECT	4R3	4	0	4,847,568:04:0	
85	99	31	03:47:04.733	117DH11A	CSMOS	GE	***** GROUP END CSMOS	4R3	4	0	4,847,569:00:0	
86	99	31	05:01:53.400	165CE4A	7SCAN	NORM;280;738998,	Check S/P Position	4R3	4	0	4,847,642:90:0	
87	99	31	05:03:54.066	165CE4B	7VECT		Inert vect update UTC	4R3	4	0	4,847,644:89:0	
88	99	31	06:02:33.400	165CA4A	7SCAN	NORM;281;271999,	Check S/P Position	4R3	4	0	4,847,702:90:0	
89	99	31	06:06:35.400	165CA4B	7VECT		Inert vect update UTC	4R3	4	0	4,847,706:89:0	
90	99	31	06:36:34.066	165CA4C	7VECT		Inert vect update UTC	4R3	4	0	4,847,736:57:0	
91	99	31	06:58:46.200		DMS:	: *RUNDOWN	P7, TRACK 1, FWD, TIC *3137.94 +/-	4R3	4	0	4,847,758:53:2	
92	99	31	06:58:47.400		DMS:	: *READY	RDY, TRACK 1, FWD, TIC *3138.00 +/-	4R3	4	0	4,847,758:55:0	
93	99	31	07:06:32.733	165CA4D	7VECT		Inert vect update UTC	4R3	4	0	4,847,766:25:0	
94	99	31	07:14:21.400		DMS:	: READY	RDY, TRACK *2, *REV, TIC 3138.00 +/-	4R3	4	0	4,847,774:00:0	
95	99	31	07:14:21.400	465KB6A	6DMSC	RDY.2	DMS Control Tape stop	4R3	4	0	4,847,774:00:0	
96	99	31	07:36:35.400	165CB4A	7SCAN	NORM;281;824997,	Check S/P Position	4R3	4	0	4,847,795:90:0	
97	99	31	07:37:35.400	165CB4B	7VECT		Inert vect update UTC	4R3	4	0	4,847,796:89:0	
98	99	31	08:07:34.066	165CB4C	7VECT		Inert vect update UTC	4R3	4	0	4,847,826:57:0	
99	99	31	08:37:32.733	165CB4D	7VECT		Inert vect update UTC	4R3	4	0	4,847,856:25:0	
100	99	31	08:52:24.066	488AB6A	6TMSED	NORM/AL3	Sci, Eng. and D/L Chan	4R3	4	0	4,847,870:88:0	
101	99	31	09:07:35.400	165CC4A	7SCAN	NORM;284;341,-23	Check S/P Position	4R3	4	0	4,847,885:90:0	
102	99	31	09:08:35.400	165CC4B	7VECT		Inert vect update UTC	4R3	4	0	4,847,886:89:0	
103	99	31	09:37:12.066	488AB6B	6TMSED	NORM/AL2	Sci, Eng. and D/L Chan	4R3	4	0	4,847,915:25:0	
104	99	31	09:54:03.400	165CC4C	7VECT		Inert vect update UTC	4R3	4	0	4,847,931:86:0	
105	99	31	10:00:40.066	488AB6C	6TMSED	NORM/AL3	Sci, Eng. and D/L Chan	4R3	4	0	4,847,938:44:0	
106	99	31	10:39:36.733	192GA4A	7CONE	8,0,0,0	Check S/P Position	4R3	4	0	4,847,977:00:0	
107	99	31	10:46:41.400	176GA6A	6TMREC	BPT	7.68 KBPS PPR BURST TO TAPE Record Mode C	4R3	4	0	4,847,984:00:0	
108	99	31	10:48:56.066	176GA6B	6TMREC	NRC	NO RECORD Record Mode Change	4R3	4	0	4,847,986:20:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
109	99	31	10:48:58.066		6DMSC	R7,0	DMS Control	4R3	4	0	4,847,986:230	
110	99	31	10:48:58.066	50ZZ6XX	DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC *3138.00 +/-	4R3	4	0	4,847,986:230	
111	99	31	10:48:59.466		DMS:	: *US AT SP	P7, TRACK 1, FWD, TIC *3138.12 +/-	4R3	4	0	4,847,986:251	
112	99	31	10:49:04.733		DMS:	: *US RD	P7, TRACK 1, FWD, TIC *3139.35 +/-	4R3	4	0	4,847,986:330	
113	99	31	10:49:05.933		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *3139.41 +/-	4R3	4	0	4,847,986:348	
114	99	31	10:49:07.333		DMS:	: *AT SPD	R7, TRACK 2, REV, TIC *3139.29 +/-	4R3	4	0	4,847,986:369	
115	99	31	10:49:08.066		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *3139.12 +/-	4R3	4	0	4,847,986:380	
116	99	31	10:49:18.733	50ZZ6RD	6DMSC	RDY,0	DMS Control	4R3	4	0	4,847,986:540	
117	99	31	10:49:18.733		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *3136.62 +/-	4R3	4	0	4,847,986:540	
118	99	31	10:49:19.933		DMS:	: *READY	RDY, TRACK 2, REV, TIC *3136.56 +/-	4R3	4	0	4,847,986:558	
119	99	31	11:01:50.733	165GB4A	7SCAN	NORM:268.795998,	Check S/P Position	4R3	4	0	4,847,998:900	
120	99	31	11:02:37.400	488AB6D	6TMSD	FILL,AL3	Sci, Eng. and D/L Chan	4R3	4	0	4,847,999:690	
121	99	31	11:04:40.066	488AB6E	6TMSD	FILL,AL4	Sci, Eng. and D/L Chan	4R3	4	0	4,848,001:710	
122	99	31	11:04:53.400	176GB6A	6TMREC	BPT	7.68 KBPS PPR BURST TO TAPE Record Mode C	4R3	4	0	4,848,002:000	
123	99	31	11:05:44.733	117GB	CSMOS	GS	**** GROUP START CSMOS	4R3	4	0	4,848,002:770	
124	99	31	11:05:54.066	117GB105A106A4A	7STRP	0.0,-0.0,0.017002,0,	Slew =-0.32	4R3	4	0	4,848,003:000	
125	99	31	11:06:51.400	117GB105A106A4B	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,003:860	
126	99	31	11:07:02.733	117GB105A106A4C	7STRP	0.0,-0.0,0.017002,0,	Slew =-0.32	4R3	4	0	4,848,004:120	
127	99	31	11:08:00.066	117GB105A106A4D	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,005:070	
128	99	31	11:08:11.400	117GB105A106A4E	7STRP	0.0,-0.0,0.017002,0,	Slew =-0.32	4R3	4	0	4,848,005:240	
129	99	31	11:09:08.733	117GB105A106A4F	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,006:190	
130	99	31	11:09:20.066	117GB105A106A4G	7STRP	0.0,-0.0,0.017002,0,	Slew =-0.32	4R3	4	0	4,848,006:360	
131	99	31	11:10:17.400	117GB105A106A4H	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,007:310	
132	99	31	11:10:28.733	117GB105A106A4I	7STRP	0.0,-0.0,0.017002,0,	Slew =-0.32	4R3	4	0	4,848,007:480	
133	99	31	11:11:26.066	117GB105A106A4J	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,008:430	
134	99	31	11:11:37.400	117GB105A106A4K	7STRP	0.0,-0.0,0.017002,0,	Slew =-0.32	4R3	4	0	4,848,008:600	
135	99	31	11:12:34.733	117GB105A106A4L	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,009:550	
136	99	31	11:12:46.066	117GB105A106A4M	7STRP	0.0,-0.0,0.017002,0,	Slew =-0.32	4R3	4	0	4,848,009:720	
137	99	31	11:13:43.400	117GB105A106A4N	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,010:670	
138	99	31	11:13:54.733	117GB105A106A4O	7STRP	0.0,-0.0,0.017002,0,	Slew =-0.32	4R3	4	0	4,848,010:840	
139	99	31	11:14:52.066	117GB105A106A4P	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,011:790	
140	99	31	11:15:03.400	117GB105A106A4Q	7STRP	0.0,-0.0,0.017002,0,	Slew =-0.32	4R3	4	0	4,848,012:050	
141	99	31	11:16:00.733	117GB105A106A4R	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,013:000	
142	99	31	11:16:12.066	117GB105A106A4S	7STRP	0.0,-0.0,0.017002,0,	Slew =-0.32	4R3	4	0	4,848,013:170	
143	99	31	11:17:09.400	117GB105A106A4T	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,014:120	
144	99	31	11:17:20.733	117GB105A106A4U	7STRP	0.0,-0.0,0.017002,0,	Slew =-0.32	4R3	4	0	4,848,014:290	
145	99	31	11:18:18.066	117GB105A106A4V	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,015:240	
146	99	31	11:18:29.400	117GB105A106A4W	7STRP	0.0,-0.0,0.017002,0,	Slew =-0.32	4R3	4	0	4,848,015:410	
147	99	31	11:19:26.733	117GB105A106A4X	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,016:360	
148	99	31	11:19:38.066	117GB105A106A4Y	7STRP	0.0,-0.0,0.017002,0,	Slew =-0.32	4R3	4	0	4,848,016:530	
149	99	31	11:20:35.400	117GB105A106A4Z	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,017:480	
150	99	31	11:20:46.733	117GB105A106A4A	7STRP	0.0,-0.0,0.017002,0,	Slew =-0.32	4R3	4	0	4,848,017:650	
151	99	31	11:21:44.066	117GB105A106A4AB	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,018:600	
152	99	31	11:21:55.400	117GB105A106A4AC	7STRP	0.0,-0.0,0.017002,0,	Slew =-0.32	4R3	4	0	4,848,018:770	
153	99	31	11:22:06.066	50ZZ6XX	6DMSC	R7,0	DMS Control	4R3	4	0	4,848,019:020	
154	99	31	11:22:06.066		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC *3136.56 +/-	4R3	4	0	4,848,019:020	
155	99	31	11:22:07.466		DMS:	: *US AT SP	P7, TRACK 1, FWD, TIC *3136.68 +/-	4R3	4	0	4,848,019:041	
156	99	31	11:22:12.733		DMS:	: *US RD	P7, TRACK 1, FWD, TIC *3137.92 +/-	4R3	4	0	4,848,019:120	
157	99	31	11:22:13.933		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *3137.98 +/-	4R3	4	0	4,848,019:138	
158	99	31	11:22:15.333		DMS:	: *AT SPD	R7, TRACK 2, REV, TIC *3137.86 +/-	4R3	4	0	4,848,019:159	
159	99	31	11:22:41.400		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *3131.75 +/-	4R3	4	0	4,848,019:550	
160	99	31	11:22:52.733	117GB105A106A4AD	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,019:720	
161	99	31	11:23:04.066		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *3126.43 +/-	4R3	4	0	4,848,019:890	
162	99	31	11:23:04.066	117GB105A106A4AE	7STRP	0.0,-0.0,0.017002,0,	Slew =-0.32	4R3	4	0	4,848,019:890	
163	99	31	11:23:04.066	50ZZ6RE	6DMSC	RDY,0	DMS Control	4R3	4	0	4,848,019:890	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
164	99	31	11:23:05.266		DMS:	: *READY	RDY, TRACK 2, REV, TIC *3126.38 +/-	4R3	4	0	4,848,019:90:8	
165	99	31	11:24:01.400	117GB105A106A4AF	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,020:84:0	
166	99	31	11:24:12.733	117GB105A106A4AG	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,021:10:0	
167	99	31	11:25:10.066	117GB105A106A4AH	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,022:05:0	
168	99	31	11:25:21.400	117GB105A106A4AI	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,022:22:0	
169	99	31	11:26:18.733	117GB105A106A4AJ	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,023:17:0	
170	99	31	11:26:30.066	117GB105A106A4AK	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,023:34:0	
171	99	31	11:27:27.400	117GB105A106A4AL	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,024:29:0	
172	99	31	11:27:38.733	117GB105A106A4AM	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,024:46:0	
173	99	31	11:28:36.066	117GB105A106A4AN	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,025:41:0	
174	99	31	11:28:47.400	117GB105A106A4AO	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,025:58:0	
175	99	31	11:29:44.733	117GB105A106A4AP	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,026:53:0	
176	99	31	11:29:56.066	117GB105A106A4AQ	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,026:70:0	
177	99	31	11:30:53.400	117GB105A106A4AR	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,027:65:0	
178	99	31	11:31:04.733	117GB105A106A4AS	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,027:82:0	
179	99	31	11:32:02.066	117GB105A106A4AT	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,028:77:0	
180	99	31	11:32:13.400	117GB105A106A4AU	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,029:03:0	
181	99	31	11:33:10.733	117GB105A106A4AV	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,029:89:0	
182	99	31	11:33:22.066	117GB105A106A4AW	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,030:15:0	
183	99	31	11:34:19.400	117GB105A106A4AX	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,031:10:0	
184	99	31	11:34:30.733	117GB105A106A4AY	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,031:27:0	
185	99	31	11:35:28.066	117GB105A106A4AZ	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,032:22:0	
186	99	31	11:35:39.400	117GB105A106A4BA	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,032:39:0	
187	99	31	11:36:36.733	117GB105A106A4BB	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,033:34:0	
188	99	31	11:36:48.066	117GB105A106A4BC	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,033:51:0	
189	99	31	11:37:45.400	117GB105A106A4BD	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,034:46:0	
190	99	31	11:37:56.733	117GB105A106A4BE	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,034:63:0	
191	99	31	11:38:54.066	117GB105A106A4BF	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,035:58:0	
192	99	31	11:39:05.400	117GB105A106A4BG	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,035:75:0	
193	99	31	11:39:57.400		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC *3126.38 +/-	4R3	4	0	4,848,036:62:0	
194	99	31	11:39:58.800	50ZZ6XX	6DMSC	R7.0	DMS Control Tape rumup 7.68kps	4R3	4	0	4,848,036:62:0	
195	99	31	11:39:58.800		DMS:	: *US AT SP	P7, TRACK 1, FWD, TIC *3126.49 +/-	4R3	4	0	4,848,036:64:1	
196	99	31	11:40:02.733	117GB105A106A4BH	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,036:70:0	
197	99	31	11:40:04.066		DMS:	: *US RD	P7, TRACK 1, FWD, TIC *3127.73 +/-	4R3	4	0	4,848,036:72:0	
198	99	31	11:40:05.266		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *3127.79 +/-	4R3	4	0	4,848,036:73:8	
199	99	31	11:40:06.666		DMS:	: *AT SPD	R7, TRACK 2, REV, TIC *3127.67 +/-	4R3	4	0	4,848,036:75:9	
200	99	31	11:40:14.066	117GB105A106A4BI	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,036:87:0	
201	99	31	11:40:32.066		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *3121.72 +/-	4R3	4	0	4,848,037:23:0	
202	99	31	11:40:54.733	50ZZ6RD	6DMSC	RDY.0	DMS Control Tape stop	4R3	4	0	4,848,037:57:0	
203	99	31	11:40:54.733		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *3116.40 +/-	4R3	4	0	4,848,037:57:0	
204	99	31	11:40:55.933		DMS:	: *READY	RDY, TRACK 2, REV, TIC *3116.34 +/-	4R3	4	0	4,848,037:58:8	
205	99	31	11:41:11.400	117GB105A106A4BJ	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,037:82:0	
206	99	31	11:41:22.733	117GB105A106A4BK	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,038:08:0	
207	99	31	11:42:20.066	117GB105A106A4BL	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,039:03:0	
208	99	31	11:42:31.400	117GB105A106A4BM	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,039:20:0	
209	99	31	11:43:28.733	117GB105A106A4BN	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,040:15:0	
210	99	31	11:43:40.066	117GB105A106A4BO	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,040:32:0	
211	99	31	11:44:37.400	117GB105A106A4BP	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,041:27:0	
212	99	31	11:44:48.733	117GB105A106A4BQ	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,041:44:0	
213	99	31	11:45:46.066	117GB105A106A4BR	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,042:39:0	
214	99	31	11:45:57.400	117GB105A106A4BS	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,042:56:0	
215	99	31	11:46:54.733	117GB105A106A4BT	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,043:51:0	
216	99	31	11:47:06.066	117GB105A106A4BU	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,043:68:0	
217	99	31	11:48:03.400	117GB105A106A4BV	7STRP	0.00143.0.017052	Slew = 12.01	4R3	4	0	4,848,044:63:0	
218	99	31	11:48:14.733	117GB105A106A4BW	7STRP	0.0-0.017002.0,	Slew = 0.32	4R3	4	0	4,848,044:80:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
219	99	31	11:49:12.066	117GB105A106A4BX	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,045:75.0	
220	99	31	11:49:23.400	117GB105A106A4BY	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,046:01.0	
221	99	31	11:50:20.733	117GB105A106A4BZ	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,046:87.0	
222	99	31	11:50:32.066	117GB105A106A4CA	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,047:13.0	
223	99	31	11:51:29.400	117GB105A106A4CB	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,048:08.0	
224	99	31	11:51:40.733	117GB105A106A4CC	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,048:25.0	
225	99	31	11:51:45.400	488AC6A	6TMSED	NORM,AL4	Sci. Eng. and D/L Chan	4R3	4	0	4,848,048:32.0	
226	99	31	11:52:38.066	117GB105A106A4CD	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,049:20.0	
227	99	31	11:52:49.400	117GB105A106A4CE	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,049:37.0	
228	99	31	11:53:46.733	117GB105A106A4CF	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,050:32.0	
229	99	31	11:53:58.066	117GB105A106A4CG	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,050:49.0	
230	99	31	11:54:55.400	117GB105A106A4CH	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,051:44.0	
231	99	31	11:55:06.733	117GB105A106A4CI	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,051:61.0	
232	99	31	11:56:04.066	117GB105A106A4CJ	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,052:56.0	
233	99	31	11:56:15.400	117GB105A106A4CK	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,052:73.0	
234	99	31	11:57:12.733	117GB105A106A4CL	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,053:68.0	
235	99	31	11:57:24.066	117GB105A106A4CM	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,053:85.0	
236	99	31	11:57:48.733		DMS:	*:US-RUNUP	P7, TRACK *1, *FWD, TIC 3116.34 +/-	4R3	4	0	4,848,054:31.0	
237	99	31	11:57:48.733	50ZZ6XX	6DMSC	R7.0	DMS Control Tape runup 7.68kps	4R3	4	0	4,848,054:31.0	
238	99	31	11:57:50.133		DMS:	*:US, AT, SP	P7, TRACK 1, FWD, TIC *3116.46 +/-	4R3	4	0	4,848,054:33.1	
239	99	31	11:57:55.400		DMS:	*:US, RD	P7, TRACK 1, FWD, TIC *3117.70 +/-	4R3	4	0	4,848,054:41.0	
240	99	31	11:57:56.600		DMS:	*:RUNUP	R7, TRACK *2, *REV, TIC *3117.76 +/-	4R3	4	0	4,848,054:42.8	
241	99	31	11:57:58.000		DMS:	*:AT, SPD	R7, TRACK 2, REV, TIC *3117.64 +/-	4R3	4	0	4,848,054:44.9	
242	99	31	11:58:21.400	117GB105A106A4CN	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,054:80.0	
243	99	31	11:58:23.400		DMS:	*:RECORD	R7, TRACK 2, REV, TIC *3111.68 +/-	4R3	4	0	4,848,055:06.0	
244	99	31	11:58:32.733	117GB105A106A4CO	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,055:26.0	
245	99	31	11:58:46.066		DMS:	*:RUNDOWN	R7, TRACK 2, REV, TIC *3106.37 +/-	4R3	4	0	4,848,055:26.0	
246	99	31	11:58:46.066	50ZZ6RE	6DMSC	RDY.0	DMS Control Tape stop	4R3	4	0	4,848,055:26.0	
247	99	31	11:58:47.266		DMS:	*:READY	RDY, TRACK 2, REV, TIC *3106.31 +/-	4R3	4	0	4,848,055:27.8	
248	99	31	11:59:30.066	117GB105A106A4CP	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,056:01.0	
249	99	31	11:59:41.400	117GB105A106A4CQ	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,056:18.0	
250	99	31	12:00:38.733	117GB105A106A4CR	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,057:13.0	
251	99	31	12:00:50.066	117GB105A106A4CS	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,057:30.0	
252	99	31	12:01:47.400	117GB105A106A4CT	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,058:25.0	
253	99	31	12:01:58.733	117GB105A106A4CU	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,058:42.0	
254	99	31	12:02:56.066	117GB105A106A4CV	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,059:37.0	
255	99	31	12:03:07.400	117GB105A106A4CW	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,059:54.0	
256	99	31	12:04:04.733	117GB105A106A4CX	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,060:49.0	
257	99	31	12:04:16.066	117GB105A106A4CY	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,060:66.0	
258	99	31	12:05:13.400	117GB105A106A4CZ	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,061:61.0	
259	99	31	12:05:24.733	117GB105A106A4DA	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,061:78.0	
260	99	31	12:06:22.066	117GB105A106A4DB	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,062:73.0	
261	99	31	12:06:33.400	117GB105A106A4DC	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,062:90.0	
262	99	31	12:07:30.733	117GB105A106A4DD	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,063:85.0	
263	99	31	12:07:42.066	117GB105A106A4DE	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,064:11.0	
264	99	31	12:08:39.400	117GB105A106A4DF	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,065:06.0	
265	99	31	12:08:50.733	117GB105A106A4DG	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,065:23.0	
266	99	31	12:09:48.066	117GB105A106A4DH	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,066:18.0	
267	99	31	12:09:59.400	117GB105A106A4DI	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,066:35.0	
268	99	31	12:10:56.733	117GB105A106A4DJ	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,067:30.0	
269	99	31	12:11:08.066	117GB105A106A4DK	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,067:47.0	
270	99	31	12:12:05.400	117GB105A106A4DL	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,068:42.0	
271	99	31	12:12:16.733	117GB105A106A4DM	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,068:59.0	
272	99	31	12:13:14.066	117GB105A106A4DN	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,069:54.0	
273	99	31	12:13:25.400	117GB105A106A4DO	7STRP	0.0-0.017002.0,	Slew =0.32	4R3	4	0	4,848,069:71.0	

Line	YR	DOY	SCET	G-MT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
274	99	31	12:14:22.733		117GB105A106A4DP	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,070:66:0	
275	99	31	12:14:34.066		117GB105A106A4DQ	7STRP	0.0,-0.017002,0.	Slew =0.32	4R3	4	0	4,848,070:83:0	
276	99	31	12:15:31.400		117GB105A106A4DR	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,071:78:0	
277	99	31	12:15:40.066			DMS: : *US-RUNUP		P7, TRACK *1, *FWD, TIC 3106.31 +/-	4R3	4	0	4,848,072:00:0	
278	99	31	12:15:40.066		50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	4R3	4	0	4,848,072:00:0	
279	99	31	12:15:41.466			DMS: : *US_AT_SP		P7, TRACK 1, FWD, TIC *3106.43 +/-	4R3	4	0	4,848,072:02:0	
280	99	31	12:15:42.733		117GB105A106A4DS	7STRP	0.0,-0.017002,0.	Slew =0.32	4R3	4	0	4,848,072:04:0	
281	99	31	12:15:46.733			DMS: : *US_RD		P7, TRACK 1, FWD, TIC *3107.67 +/-	4R3	4	0	4,848,072:10:0	
282	99	31	12:15:47.933			DMS: : *RUNUP		R7, TRACK *2, *REV, TIC *3107.73 +/-	4R3	4	0	4,848,072:11:8	
283	99	31	12:15:49.333			DMS: : *AT_SPD		R7, TRACK 2, REV, TIC *3107.61 +/-	4R3	4	0	4,848,072:13:9	
284	99	31	12:16:14.733			DMS: : *RECORD		R7, TRACK 2, REV, TIC *3101.65 +/-	4R3	4	0	4,848,072:52:0	
285	99	31	12:16:37.400		50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	4R3	4	0	4,848,072:86:0	
286	99	31	12:16:37.400			DMS: : *RUNDOWN		R7, TRACK 2, REV, TIC *3096.34 +/-	4R3	4	0	4,848,072:86:0	
287	99	31	12:16:38.600			DMS: : *READY		RDY, TRACK 2, REV, TIC *3096.28 +/-	4R3	4	0	4,848,072:87:8	
288	99	31	12:16:40.066		117GB105A106A4DT	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,072:90:0	
289	99	31	12:16:51.400		117GB105A106A4DU	7STRP	0.0,-0.017002,0.	Slew =0.32	4R3	4	0	4,848,073:16:0	
290	99	31	12:17:48.733		117GB105A106A4DV	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,074:11:0	
291	99	31	12:18:00.066		117GB105A106A4DW	7STRP	0.0,-0.017002,0.	Slew =0.32	4R3	4	0	4,848,074:28:0	
292	99	31	12:18:57.400		117GB105A106A4DX	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,075:23:0	
293	99	31	12:19:08.733		117GB105A106A4DY	7STRP	0.0,-0.017002,0.	Slew =0.32	4R3	4	0	4,848,075:40:0	
294	99	31	12:20:06.066		117GB105A106A4DZ	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,076:35:0	
295	99	31	12:20:17.400		117GB105A106A4EA	7STRP	0.0,-0.017002,0.	Slew =0.32	4R3	4	0	4,848,076:52:0	
296	99	31	12:21:14.733		117GB105A106A4EB	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,077:47:0	
297	99	31	12:21:26.066		117GB105A106A4EC	7STRP	0.0,-0.017002,0.	Slew =0.32	4R3	4	0	4,848,077:64:0	
298	99	31	12:22:23.400		117GB105A106A4ED	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,078:59:0	
299	99	31	12:22:34.733		117GB105A106A4EE	7STRP	0.0,-0.017002,0.	Slew =0.32	4R3	4	0	4,848,078:76:0	
300	99	31	12:23:32.066		117GB105A106A4EF	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,079:71:0	
301	99	31	12:23:43.400		117GB105A106A4EG	7STRP	0.0,-0.017002,0.	Slew =0.32	4R3	4	0	4,848,079:88:0	
302	99	31	12:24:40.733		117GB105A106A4EH	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,080:83:0	
303	99	31	12:24:52.066		117GB105A106A4EI	7STRP	0.0,-0.017002,0.	Slew =0.32	4R3	4	0	4,848,081:09:0	
304	99	31	12:25:49.400		117GB105A106A4EJ	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,082:04:0	
305	99	31	12:26:00.733		117GB105A106A4EK	7STRP	0.0,-0.017002,0.	Slew =0.32	4R3	4	0	4,848,082:21:0	
306	99	31	12:26:58.066		117GB105A106A4EL	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,083:16:0	
307	99	31	12:27:09.400		117GB105A106A4EM	7STRP	0.0,-0.017002,0.	Slew =0.32	4R3	4	0	4,848,083:33:0	
308	99	31	12:28:06.733		117GB105A106A4EN	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,084:28:0	
309	99	31	12:28:18.066		117GB105A106A4EO	7STRP	0.0,-0.017002,0.	Slew =0.32	4R3	4	0	4,848,084:45:0	
310	99	31	12:29:15.400		117GB105A106A4EP	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,085:40:0	
311	99	31	12:29:26.733		117GB105A106A4EQ	7STRP	0.0,-0.017002,0.	Slew =0.32	4R3	4	0	4,848,085:57:0	
312	99	31	12:30:24.066		117GB105A106A4ER	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,086:52:0	
313	99	31	12:30:35.400		117GB105A106A4ES	7STRP	0.0,-0.017002,0.	Slew =0.32	4R3	4	0	4,848,086:69:0	
314	99	31	12:31:32.733		117GB105A106A4ET	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,087:64:0	
315	99	31	12:31:44.066		117GB105A106A4EU	7STRP	0.0,-0.017002,0.	Slew =0.32	4R3	4	0	4,848,087:81:0	
316	99	31	12:32:41.400		117GB105A106A4EV	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,088:76:0	
317	99	31	12:32:52.733		117GB105A106A4EW	7STRP	0.0,-0.017002,0.	Slew =0.32	4R3	4	0	4,848,089:02:0	
318	99	31	12:33:31.400		50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	4R3	4	0	4,848,089:60:0	
319	99	31	12:33:31.400			DMS: : *US-RUNUP		P7, TRACK *1, *FWD, TIC 3096.28 +/-	4R3	4	0	4,848,089:60:0	
320	99	31	12:33:32.800			DMS: : *US_AT_SP		P7, TRACK 1, FWD, TIC *3096.40 +/-	4R3	4	0	4,848,089:62:1	
321	99	31	12:33:38.066			DMS: : *US_RD		P7, TRACK 1, FWD, TIC *3097.64 +/-	4R3	4	0	4,848,089:70:0	
322	99	31	12:33:39.266			DMS: : *RUNUP		R7, TRACK *2, *REV, TIC *3097.70 +/-	4R3	4	0	4,848,089:71:8	
323	99	31	12:33:40.666			DMS: : *AT_SPD		R7, TRACK 2, REV, TIC *3097.58 +/-	4R3	4	0	4,848,089:73:9	
324	99	31	12:33:50.066		117GB105A106A4EX	7STRP	0.00143,0.017052	Slew =12.01	4R3	4	0	4,848,089:88:0	
325	99	31	12:34:01.400		117GB105A106A4EY	7STRP	0.0,-0.017002,0.	Slew =0.32	4R3	4	0	4,848,090:14:0	
326	99	31	12:34:06.066			DMS: : *RECORD		R7, TRACK 2, REV, TIC *3091.62 +/-	4R3	4	0	4,848,090:21:0	
327	99	31	12:34:28.733		50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	4R3	4	0	4,848,090:55:0	
328	99	31	12:34:28.733			DMS: : *RUNDOWN		R7, TRACK 2, REV, TIC *3086.31 +/-	4R3	4	0	4,848,090:55:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
329	99	31	12:34:29.933		DMS:	*READY	RDY, TRACK 2, REV, TIC *3086.25 +/-	4R3	4	0	4,848,090:56:8	
330	99	31	12:34:58.733	117GB105A106A4E2	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,091:09:0	
331	99	31	12:35:10.066	117GB105A106A4FA	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,091:26:0	
332	99	31	12:36:07.400	117GB105A106A4FB	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,092:21:0	
333	99	31	12:36:18.733	117GB105A106A4FC	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,092:38:0	
334	99	31	12:37:16.066	117GB105A106A4FD	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,093:33:0	
335	99	31	12:37:27.400	117GB105A106A4FE	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,093:50:0	
336	99	31	12:38:24.733	117GB105A106A4FF	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,094:45:0	
337	99	31	12:38:36.066	117GB105A106A4FG	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,094:62:0	
338	99	31	12:39:33.400	117GB105A106A4FH	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,095:57:0	
339	99	31	12:39:44.733	117GB105A106A4FI	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,095:74:0	
340	99	31	12:40:42.066	117GB105A106A4FJ	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,096:69:0	
341	99	31	12:40:53.400	117GB105A106A4FK	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,096:86:0	
342	99	31	12:41:50.733	117GB105A106A4FL	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,097:81:0	
343	99	31	12:42:02.066	117GB105A106A4FM	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,098:07:0	
344	99	31	12:42:59.400	117GB105A106A4FN	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,099:02:0	
345	99	31	12:43:10.733	117GB105A106A4FO	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,099:19:0	
346	99	31	12:44:08.066	117GB105A106A4FP	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,100:14:0	
347	99	31	12:44:19.400	117GB105A106A4FQ	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,100:31:0	
348	99	31	12:45:16.733	117GB105A106A4FR	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,101:26:0	
349	99	31	12:45:28.066	117GB105A106A4FS	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,101:43:0	
350	99	31	12:46:25.400	117GB105A106A4FT	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,102:38:0	
351	99	31	12:46:36.733	117GB105A106A4FU	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,102:55:0	
352	99	31	12:47:34.066	117GB105A106A4FV	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,103:50:0	
353	99	31	12:47:45.400	117GB105A106A4FW	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,103:67:0	
354	99	31	12:48:42.733	117GB105A106A4FX	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,104:62:0	
355	99	31	12:48:54.066	117GB105A106A4FY	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,104:79:0	
356	99	31	12:49:51.400	117GB105A106A4FZ	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,105:74:0	
357	99	31	12:50:02.733	117GB105A106A4GA	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,106:00:0	
358	99	31	12:51:00.066	117GB105A106A4GB	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,106:86:0	
359	99	31	12:51:11.400	117GB105A106A4GC	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,107:12:0	
360	99	31	12:51:22.733		DMS:	*US-RUNUP	P7, TRACK *1, *FWD, TIC 3086.25 +/-	4R3	4	0	4,848,107:29:0	
361	99	31	12:51:22.733	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	4R3	4	0	4,848,107:29:0	
362	99	31	12:51:24.133		DMS:	*US_AT_SP	P7, TRACK 1, FWD, TIC *3086.37 +/-	4R3	4	0	4,848,107:31:1	
363	99	31	12:51:29.400		DMS:	*US_RD	P7, TRACK 1, FWD, TIC *3087.60 +/-	4R3	4	0	4,848,107:39:0	
364	99	31	12:51:30.600		DMS:	*RUNUP	R7, TRACK *2, *REV, TIC *3087.66 +/-	4R3	4	0	4,848,107:40:8	
365	99	31	12:51:32.000		DMS:	*AT SPD	R7, TRACK 2, REV, TIC *3087.54 +/-	4R3	4	0	4,848,107:42:9	
366	99	31	12:51:57.400		DMS:	*RECORD	R7, TRACK 2, REV, TIC *3081.59 +/-	4R3	4	0	4,848,107:81:0	
367	99	31	12:52:08.733	117GB105A106A4GD	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,108:07:0	
368	99	31	12:52:20.066	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	4R3	4	0	4,848,108:24:0	
369	99	31	12:52:20.066	117GB105A106A4GE	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,108:24:0	
371	99	31	12:52:21.266		DMS:	*READY	RDY, TRACK 2, REV, TIC *3076.22 +/-	4R3	4	0	4,848,108:25:8	
372	99	31	12:53:17.400	117GB105A106A4GF	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,109:19:0	
373	99	31	12:53:28.733	117GB105A106A4GG	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,109:36:0	
374	99	31	12:54:26.066	117GB105A106A4GH	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,110:31:0	
375	99	31	12:54:37.400	117GB105A106A4GI	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,110:48:0	
376	99	31	12:55:34.733	117GB105A106A4GJ	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,111:43:0	
377	99	31	12:55:46.066	117GB105A106A4GK	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,111:60:0	
378	99	31	12:56:43.400	117GB105A106A4GL	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,112:55:0	
379	99	31	12:56:54.733	117GB105A106A4GM	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,112:72:0	
380	99	31	12:57:52.066	117GB105A106A4GN	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,113:67:0	
381	99	31	12:58:03.400	117GB105A106A4GO	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,113:84:0	
382	99	31	12:59:00.733	117GB105A106A4GP	7STRP	0.00143,0.017052	Slew = 12.01	4R3	4	0	4,848,114:79:0	
383	99	31	12:59:12.066	117GB105A106A4GQ	7STRP	0.0,-0.017002,0,	Slew = 0.32	4R3	4	0	4,848,115:05:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
384	99	31	13:00:09.400	117GB105A106A4GR	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,116:00:0	
385	99	31	13:00:20.733	117GB105A106A4GS	7STRP	0.0-0.017002.0.	Slew =0.32	4R3	4	0	4,848,116:17:0	
386	99	31	13:01:18.066	117GB105A106A4GT	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,117:12:0	
387	99	31	13:01:29.400	117GB105A106A4GU	7STRP	0.0-0.017002.0.	Slew =0.32	4R3	4	0	4,848,117:29:0	
388	99	31	13:02:26.733	117GB105A106A4GV	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,118:24:0	
389	99	31	13:02:38.066	117GB105A106A4GW	7STRP	0.0-0.017002.0.	Slew =0.32	4R3	4	0	4,848,118:41:0	
390	99	31	13:03:35.400	117GB105A106A4GX	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,119:36:0	
391	99	31	13:03:46.733	117GB105A106A4GY	7STRP	0.0-0.017002.0.	Slew =0.32	4R3	4	0	4,848,119:53:0	
392	99	31	13:04:44.066	117GB105A106A4GZ	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,120:48:0	
393	99	31	13:04:55.400	117GB105A106A4HA	7STRP	0.0-0.017002.0.	Slew =0.32	4R3	4	0	4,848,120:65:0	
394	99	31	13:05:52.733	117GB105A106A4HB	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,121:60:0	
395	99	31	13:06:04.066	117GB105A106A4HC	7STRP	0.0-0.017002.0.	Slew =0.32	4R3	4	0	4,848,121:77:0	
396	99	31	13:07:01.400	117GB105A106A4HD	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,122:72:0	
397	99	31	13:07:12.733	117GB105A106A4HE	7STRP	0.0-0.017002.0.	Slew =0.32	4R3	4	0	4,848,122:89:0	
398	99	31	13:08:10.066	117GB105A106A4HF	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,123:84:0	
399	99	31	13:08:21.400	117GB105A106A4HG	7STRP	0.0-0.017002.0.	Slew =0.32	4R3	4	0	4,848,124:10:0	
400	99	31	13:09:13.400	50ZZ6XX	6DMSC	R7.0	DMS Control Tape runup 7.68kps	4R3	4	0	4,848,124:88:0	
401	99	31	13:09:13.400		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 3076.22 +/-	4R3	4	0	4,848,124:88:0	
402	99	31	13:09:14.800		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *3076.34 +/-	4R3	4	0	4,848,124:90:1	
403	99	31	13:09:18.733	117GB105A106A4HH	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,125:05:0	
404	99	31	13:09:20.066		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *3077.57 +/-	4R3	4	0	4,848,125:07:0	
405	99	31	13:09:21.266		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *3077.63 +/-	4R3	4	0	4,848,125:08:8	
406	99	31	13:09:22.666		DMS:	: *AT_SPD	R7, TRACK 2, REV, TIC *3077.51 +/-	4R3	4	0	4,848,125:10:9	
407	99	31	13:09:30.066	117GB105A106A4HI	7STRP	0.0-0.017002.0.	Slew =0.32	4R3	4	0	4,848,125:22:0	
408	99	31	13:09:48.733		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *3071.40 +/-	4R3	4	0	4,848,125:50:0	
409	99	31	13:10:11.400		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *3066.09 +/-	4R3	4	0	4,848,125:84:0	
410	99	31	13:10:11.400	50ZZ6RE	6DMSC	RDY.0	DMS Control Tape stop	4R3	4	0	4,848,125:84:0	
411	99	31	13:10:12.600		DMS:	: *READY	RDY, TRACK 2, REV, TIC *3066.03 +/-	4R3	4	0	4,848,125:85:8	
412	99	31	13:10:27.400	117GB105A106A4HJ	7STRP	0.00143.0.017052	Slew =12.01	4R3	4	0	4,848,126:17:0	
413	99	31	13:10:38.733	117GB105A106A4HK	7STRP	0.0-0.017002.0.	Slew =0.32	4R3	4	0	4,848,126:34:0	
414	99	31	13:11:36.066	117GB11A	CSMOS	GE	***** GROUP END CSMOS	4R3	4	0	4,848,127:29:0	
415	99	31	13:12:47.400	176GB6B	6TMREC	NRC	NO RECORD Record Mode Change	4R3	4	0	4,848,128:45:0	
416	99	31	13:12:49.400		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 3066.03 +/-	4R3	4	0	4,848,128:48:0	
417	99	31	13:12:49.400	50ZZ6XX	6DMSC	R7.0	DMS Control Tape runup 7.68kps	4R3	4	0	4,848,128:48:0	
418	99	31	13:12:50.800		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *3066.15 +/-	4R3	4	0	4,848,128:50:1	
419	99	31	13:12:56.066		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *3067.39 +/-	4R3	4	0	4,848,128:58:0	
420	99	31	13:12:57.266		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *3067.45 +/-	4R3	4	0	4,848,128:59:8	
421	99	31	13:12:58.666		DMS:	: *AT_SPD	R7, TRACK 2, REV, TIC *3067.33 +/-	4R3	4	0	4,848,128:61:9	
422	99	31	13:12:59.400		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *3067.15 +/-	4R3	4	0	4,848,128:63:0	
423	99	31	13:13:10.733	50ZZ6RD	6DMSC	RDY.0	DMS Control Tape stop	4R3	4	0	4,848,128:80:0	
424	99	31	13:13:10.733		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *3064.50 +/-	4R3	4	0	4,848,128:80:0	
425	99	31	13:13:11.933		DMS:	: *READY	RDY, TRACK 2, REV, TIC *3064.44 +/-	4R3	4	0	4,848,128:81:8	
426	99	31	13:30:33.400	19NHNHTMAP01-	*****START-----			4R3	4	0	:	:
427	99	31	13:30:47.400	20DB5A	37PL		Program Load (halts microprocessor & unwri	4R3	4	0	4,848,146:27:0	
428	99	31	13:30:48.733	20DB5B	37MRL		Memory Reallocate (software operates from R	4R3	4	0	4,848,146:29:0	
429	99	31	13:30:50.066	20DB6A	6MCPY	NIMS	NIMS,1000,LLM1A,7300,77F7	4R3	4	0	4,848,146:31:0	
430	99	31	13:31:00.066	20DB6B	6MCPY	NIMS	NIMS,1598,LLM1A,77F8,781D	4R3	4	0	4,848,146:46:0	
431	99	31	13:31:08.733	20DB5C	37IRT		Instrument Reset (goes into POR state)	260	4	0	4,848,146:59:0	
432	99	31	13:31:34.066	20DB5D	37MNL		Memory Normal (software operates from ROM)	260	4	0	4,848,147:06:0	
433	99	31	13:31:45.400	20DB4A	37IST	1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)	2R0	4	0	4,848,147:23:0	
434	99	31	13:32:34.734	19NHNHTMAP01-	-----STOP-----			2R0	4	0	:	:
435	99	31	13:33:35.400	19JNHNHTMAP01-	-----START-----			2R0	4	0	:	:
436	99	31	13:34:27.400	125DB	NIMSINIT	GS	##### GROUP START INIT	2R0	4	0	4,848,149:84:0	
437	99	31	13:34:27.400	125DB4A	37IST	0,2,0,OFF,0,1,1	Gain State 4	4R0	4	0	4,848,149:84:0	
438	99	31	13:34:27.400	125DB11A	NIMSINIT	GE	##### GROUP END INIT	4R0	4	0	4,848,149:84:0	



Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
439	99	31	13:35:32.066	165DB4A	7SCAN	NORM,282.459,-23	Check S/P Position	4R0	4	0	4,848,150:90:0	
440	99	31	13:36:28.733	127DB4A	37IOP	3.0	Long Map, Grating Start Position =00	4R3	4	0	4,848,151:84:0	
441	99	31	13:36:28.733	127DB	NIMSTAB	GS	%%-%-% GROUP START TAB	4R3	4	0	4,848,151:84:0	
442	99	31	13:36:29.400	127DB4B	37ETB	0A,CA,16,05,FF,1	Loads wavelength edit table	4R3	4	0	4,848,151:85:0	
443	99	31	13:36:37.400	127DB11A	NIMSTAB	GE	%%-%-% GROUP END TAB	4R3	4	0	4,848,152:06:0	
444	99	31	13:37:22.066	175DB422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	4R3	4	0	4,848,152:73:0	
445	99	31	13:37:22.066		DMS:	:*US-RUNUP	P7, TRACK 1, *FWD, TIC 3064.44 +/-	4R3	4	0	4,848,152:73:0	
446	99	31	13:37:23.466		DMS:	:*US AT SP	P7, TRACK 1, FWD, TIC *3065.56 +/-	4R3	4	0	4,848,152:75:1	
447	99	31	13:37:24.733	117DB	CSMOS	GS	**** GROUP START CSMOS	4R3	4	0	4,848,152:77:0	
448	99	31	13:37:28.733		DMS:	:*US RD	P7, TRACK 1, FWD, TIC *3065.79 +/-	4R3	4	0	4,848,152:77:0	
449	99	31	13:37:29.933		DMS:	:*RUNUP	P7, TRACK 2, *REV, TIC *3065.85 +/-	4R3	4	0	4,848,152:83:0	
450	99	31	13:37:30.733	175DB176A6A	6TMREC	LPU	7.68 KBPS NIMS-UVS-PPR RECORD	4R3	4	0	4,848,152:84:8	
451	99	31	13:37:31.333		DMS:	:*RECORD	R7, TRACK 2, REV, TIC *3065.73 +/-	4R3	4	0	4,848,152:86:0	
452	99	31	13:37:31.333		DMS:	:*AT SPD	R7, TRACK 2, REV, TIC 3065.73 +/-	4R3	4	0	4,848,152:86:9	
453	99	31	13:37:32.733	165DB4B	7VECT		Inert vect update UTC	4R3	4	0	4,848,152:89:0	
454	99	31	13:37:34.066	19JNHOTMAP01-	NIMPBK	301DB	JUPITER HOT MAP OBS	4R3	4	0	:	
455	99	31	13:37:34.066	117DB105A106A4A	7STRP	-0.018002,0.0,0.0,	Slew =,0.03	4R3	4	0	4,848,153:00:0	
456	99	31	13:47:17.400	19JNHOTMAP01-	DESELC	300DB	JUPITER HOT MAP OBS	4R3	4	0	:	
457	99	31	13:47:27.400	175DB422A6B	6DMSC	RDY,0	DMS Control Tape stop	4R3	4	0	4,848,162:71:0	
458	99	31	13:47:27.400	175DB6A	6TMREC	NRC	NO RECORD Record Mode Change	4R3	4	0	4,848,162:71:0	
459	99	31	13:47:27.400		DMS:	:*RUNDOWN	R7, TRACK 2, REV, TIC *2926.03 +/-	4R3	4	0	4,848,162:71:0	
460	99	31	13:47:28.600		DMS:	:*READY	RDY, TRACK 2, REV, TIC *2925.97 +/-	4R3	4	0	4,848,162:72:8	
461	99	31	13:47:37.400	117DB11A	CSMOS	GE	**** GROUP END CSMOS	4R3	4	0	4,848,162:86:0	
462	99	31	13:47:40.066	165DM4A	7SCAN	NORM,283.213997,	Check S/P Position	4R3	4	0	4,848,162:90:0	
463	99	31	13:47:44.734	19JNJUPNTB01-	-----START-----			4R3	4	0	:	
464	99	31	13:47:44.734	19JNHOTMAP01-	-----STOP-----			4R3	4	0	:	
465	99	31	13:48:29.400		DMS:	:*US-RUNUP	P7, TRACK *1, *FWD, TIC 2925.97 +/-	4R3	4	0	4,848,163:73:0	
466	99	31	13:48:29.400	175DM422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	4R3	4	0	4,848,163:73:0	
467	99	31	13:48:30.800		DMS:	:*US AT SP	P7, TRACK 1, FWD, TIC *2926.09 +/-	4R3	4	0	4,848,163:75:1	
468	99	31	13:48:32.066	117DM	CSMOS	GS	**** GROUP START CSMOS	4R3	4	0	4,848,163:77:0	
469	99	31	13:48:36.066		DMS:	:*US_RD	P7, TRACK 1, FWD, TIC *2927.32 +/-	4R3	4	0	4,848,163:83:0	
470	99	31	13:48:37.266		DMS:	:*RUNUP	P7, TRACK *2, *REV, TIC *2927.38 +/-	4R3	4	0	4,848,163:84:8	
471	99	31	13:48:38.066	175DM176A6A	6TMREC	LPU	7.68 KBPS NIMS-UVS-PPR RECORD	4R3	4	0	4,848,163:86:0	
472	99	31	13:48:38.666		DMS:	:*AT SPD	R7, TRACK 2, REV, TIC 2927.26 +/-	4R3	4	0	4,848,163:86:9	
473	99	31	13:48:38.666		DMS:	:*RECORD	R7, TRACK 2, REV, TIC *2927.26 +/-	4R3	4	0	4,848,163:86:9	
474	99	31	13:48:40.066	165DM4B	7VECT		Inert vect update UTC	4R3	4	0	4,848,163:89:0	
475	99	31	13:48:41.400	19JNJUPNTB01-	NIMPBK	301DM	JUPITER NORTHERN TEMPERATE BELT	4R3	4	0	:	
476	99	31	13:48:41.400	117DM105A106A4A	7STRP	-0.027007,0.0,0.0,	Slew =,0.03	4R3	4	0	4,848,164:00:0	
477	99	31	13:54:44.733	19JNJUPNTB01-	NIMPBK	301EA	JUPITER NORTHERN TEMPERATE BELT	4R3	4	0	:	
478	99	31	13:55:06.733	19JNJUPNTB01-	DESELC	300EA	JUPITER NORTHERN TEMPERATE BELT	4R3	4	0	:	
479	99	31	13:56:28.733	19JNJUPNTB01-	NIMPBK	301EB	JUPITER NORTHERN TEMPERATE BELT	4R3	4	0	:	
480	99	31	13:56:41.400	19JNJUPNTB01-	DESELC	300EB	JUPITER NORTHERN TEMPERATE BELT	4R3	4	0	:	
481	99	31	13:58:48.733	19JNJUPNTB01-	DESELC	300DM	JUPITER NORTHERN TEMPERATE BELT	4R3	4	0	:	
482	99	31	13:59:18.066	175DM422A6B	6DMSC	RDY,0	DMS Control Tape stop	4R3	4	0	4,848,174:45:0	
483	99	31	13:59:18.066	175DM6A	6TMREC	NRC	NO RECORD Record Mode Change	4R3	4	0	4,848,174:45:0	
484	99	31	13:59:18.066		DMS:	:*RUNDOWN	R7, TRACK 2, REV, TIC *2777.40 +/-	4R3	4	0	4,848,174:45:0	
485	99	31	13:59:19.266		DMS:	:*READY	RDY, TRACK 2, REV, TIC *2777.34 +/-	4R3	4	0	4,848,174:46:8	
486	99	31	13:59:52.734	19NNHOTMAP02-	-----START-----			4R3	4	0	:	
487	99	31	13:59:52.734	19JNJUPNTB01-	-----STOP-----			4R3	4	0	:	
488	99	31	14:00:06.733	20DD5A	37PL		Program Load (halts microprocessor & unwri	4R3	4	0	4,848,175:27:0	
489	99	31	14:00:08.066	20DD5B	37MRL		Memory Realocate (software operates from R	4R3	4	0	4,848,175:29:0	
490	99	31	14:00:09.400	20DD6A	6MCOPY	NIMS	NIMS,1000,LLM1A,7300,77F7	4R3	4	0	4,848,175:31:0	
491	99	31	14:00:19.400	20DD6B	6MCOPY	NIMS	NIMS,1598,LLM1A,77F8,781D	4R3	4	0	4,848,175:46:0	
492	99	31	14:00:29.400	20DD5C	37IRT		Instrument Reset (goes into POR state)	260	4	0	4,848,175:61:0	
493	99	31	14:00:53.400	20DD5D	37MNI		Memory Normal (software operates from ROM)	260	4	0	4,848,176:06:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
494	99	31	14:01:04.733	20DD4A	37IST	1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)	2R0	4	0	4,848,176:23:0	
495	99	31	14:01:54.067	19NHOTMAP02-		-----STOP-----		2R0	4	0	:	:
496	99	31	14:02:54.734	19JNHOTMAP02-		-----START-----		2R0	4	0	:	:
497	99	31	14:03:46.733	125DD11A	NIMSNIT	GE	##### GROUP END INIT	2R0	4	0	4,848,178:84:0	
498	99	31	14:03:46.733	125DD	NIMSNIT	GS	##### GROUP START INIT	2R0	4	0	4,848,178:84:0	
499	99	31	14:03:46.733	125DD4A	37IST	0,2,0,OFF,0,1,1	Gain State 4	4R0	4	0	4,848,178:84:0	
500	99	31	14:03:48.066	117DM11A	CSMOS	GE	***** GROUP END CSMOS	4R0	4	0	4,848,178:86:0	
501	99	31	14:03:50.733	165DD4A	7SCAN	NORM,282.765999,	Check S/P Position	4R0	4	0	4,848,178:90:0	
502	99	31	14:04:47.400	127DD	NIMSTAB	GS	%%%GROUP START TAB	4R0	4	0	4,848,179:84:0	
503	99	31	14:04:47.400	127DD4A	37IOP	3,0	Long Map, Grating Start Position =00	4R3	4	0	4,848,179:84:0	
504	99	31	14:04:48.066	127DD4B	37ETB	0A,CA,16,05,FF,1	Loads wavelength edit table	4R3	4	0	4,848,179:85:0	
505	99	31	14:04:56.066	127DD11A	NIMSTAB	GE	%%%GROUP END TAB	4R3	4	0	4,848,180:06:0	
506	99	31	14:05:40.733	175DD422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	4R3	4	0	4,848,180:73:0	
507	99	31	14:05:40.733	DMS:	: *US-RUNUP		P7, TRACK 1, *FWD, TIC 2777.34 +/-	4R3	4	0	4,848,180:73:0	
508	99	31	14:05:42.133	DMS:	: *US_AT_SP		P7, TRACK 1, FWD, TIC *2777.46 +/-	4R3	4	0	4,848,180:75:1	
509	99	31	14:05:43.400	DMS:	: *RECORD		***** GROUP START CSMOS	4R3	4	0	4,848,180:77:0	
510	99	31	14:05:47.400	DMS:	: *US_RD		P7, TRACK 1, FWD, TIC *2778.70 +/-	4R3	4	0	4,848,180:83:0	
511	99	31	14:05:48.600	DMS:	: *RUNUP		R7, TRACK 2, *REV, TIC *2778.76 +/-	4R3	4	0	4,848,180:84:8	
512	99	31	14:05:49.400	6TMREC	LPU		7.68 KBPS NIMS-UVS-PPR RECORD Record Mode	4R3	4	0	4,848,180:86:0	
513	99	31	14:05:50.000	DMS:	: *AT_SPD		R7, TRACK 2, REV, TIC *2778.64 +/-	4R3	4	0	4,848,180:86:9	
514	99	31	14:05:50.000	DMS:	: *RECORD		***** GROUP START CSMOS	4R3	4	0	4,848,180:86:9	
515	99	31	14:05:51.400	7VECT			Inert vect update UTC	4R3	4	0	4,848,180:89:0	
516	99	31	14:05:52.733	19JNHOTMAP02-	NIMPBK	301DD	JUPITER HOT MAP OBS	4R3	4	0	:	:
517	99	31	14:05:52.733	117DD105A106A4A	7STRP	-0,018002,0,0,0,0,	Slew =0.03	4R3	4	0	4,848,181:00:0	
518	99	31	14:15:36.066	19JNHOTMAP02-	DESELC	300DD	JUPITER HOT MAP OBS	4R3	4	0	:	:
519	99	31	14:15:46.066	DMS:	: *RUNDOWN		R7, TRACK 2, REV, TIC *2638.93 +/-	4R3	4	0	4,848,190:71:0	
520	99	31	14:15:46.066	6DMSC	RDY,0		DMS Control Tape stop	4R3	4	0	4,848,190:71:0	
521	99	31	14:15:46.066	6TMREC	NRC		NO RECORD Record Mode Change	4R3	4	0	4,848,190:71:0	
522	99	31	14:15:47.266	DMS:	: *READY		RDY, TRACK 2, REV, TIC *2638.88 +/-	4R3	4	0	4,848,190:72:8	
523	99	31	14:15:56.066	117DD11A	CSMOS	GE	***** GROUP END CSMOS	4R3	4	0	4,848,190:86:0	
524	99	31	14:15:58.733	165DN4A	7SCAN	NORM,285.453999,	Check S/P Position	4R3	4	0	4,848,190:90:0	
525	99	31	14:16:48.066	DMS:	: *US-RUNUP		P7, TRACK *1, *FWD, TIC 2638.88 +/-	4R3	4	0	4,848,191:73:0	
526	99	31	14:16:48.066	175DN422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	4R3	4	0	4,848,191:73:0	
527	99	31	14:16:49.466	DMS:	: *US_AT_SP		P7, TRACK 1, FWD, TIC *2638.99 +/-	4R3	4	0	4,848,191:75:1	
528	99	31	14:16:50.733	117DN	CSMOS	GS	***** GROUP START CSMOS	4R3	4	0	4,848,191:77:0	
529	99	31	14:16:54.733	DMS:	: *US_RD		P7, TRACK 1, FWD, TIC *2640.23 +/-	4R3	4	0	4,848,191:83:0	
530	99	31	14:16:55.933	DMS:	: *RUNUP		P7, TRACK 2, *REV, TIC *2640.29 +/-	4R3	4	0	4,848,191:84:8	
531	99	31	14:16:56.733	175DN176A6A	6TMREC	LPU	7.68 KBPS NIMS-UVS-PPR RECORD Record Mode	4R3	4	0	4,848,191:86:0	
532	99	31	14:16:57.333	DMS:	: *AT_SPD		R7, TRACK 2, REV, TIC 2640.17 +/-	4R3	4	0	4,848,191:86:9	
533	99	31	14:16:57.333	DMS:	: *RECORD		R7, TRACK 2, REV, TIC *2640.17 +/-	4R3	4	0	4,848,191:86:9	
534	99	31	14:16:58.733	165DN4B	7VECT		Inert vect update UTC	4R3	4	0	4,848,191:89:0	
535	99	31	14:17:00.066	19JNJUPNTB02-	NIMPBK	301EN	JUPITER NORTHERN TEMPERATE BELT	4R3	4	0	:	:
536	99	31	14:17:00.066	117DN105A106A4A	7STRP	-0,036016,0,0,0,0,	Slew =0.03	4R3	4	0	4,848,192:00:0	
537	99	31	14:27:04.066	19JNJUPNTB02-	NIMPBK	301DN	JUPITER NORTHERN TEMPERATE BELT	4R3	4	0	:	:
538	99	31	14:27:12.066	19JNJUPNTB02-	DESELC	300EN	JUPITER NORTHERN TEMPERATE BELT	4R3	4	0	:	:
539	99	31	14:36:16.734	19JNJUPNTB02-		-----START-----		4R3	4	0	:	:
540	99	31	14:36:16.734	19JNHOTMAP02-		-----STOP-----		4R3	4	0	:	:
541	99	31	14:37:10.066	117DN11A	CSMOS	GE	***** GROUP END CSMOS	4R3	4	0	4,848,211:86:0	
542	99	31	14:37:10.066	19JNJUPNTB02-	DESELC	300DN	JUPITER NORTHERN TEMPERATE BELT	4R3	4	0	:	:
543	99	31	14:37:22.066	DMS:	: *RUNDOWN		R7, TRACK 2, REV, TIC *2353.12 +/-	4R3	4	0	4,848,212:13:0	
544	99	31	14:37:22.066	175DN6A	6TMREC	NRC	NO RECORD Record Mode Change	4R3	4	0	4,848,212:13:0	
545	99	31	14:37:22.066	175DN422A6B	6DMSC	RDY,0	DMS Control Tape stop	4R3	4	0	4,848,212:13:0	
546	99	31	14:37:23.266	DMS:	: *READY		RDY, TRACK 2, REV, TIC *2353.06 +/-	4R3	4	0	4,848,212:14:8	
547	99	31	14:50:26.067	19JNJUPNTB02-		-----STOP-----		4R3	4	0	:	:
548	99	31	15:23:48.067	19NHOTMAP03-		-----START-----		4R3	4	0	:	:

Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MFI
549	99	31	15:24:02.066	20DE5A	37PL	Program Load (halts microprocessor & unwri	4R3	4	0	4,848,258:27:0	
550	99	31	15:24:03.400	20DE5B	37MRL	Memory Realocate (software operates from R	4R3	4	0	4,848,258:29:0	
551	99	31	15:24:04.733	20DE6A	6MCOPY	NIMS,1000,LLM1A,7300,77F7	4R3	4	0	4,848,258:31:0	
552	99	31	15:24:14.733	20DE6B	6MCOPY	NIMS,1598,LLM1A,77F8,781D	4R3	4	0	4,848,258:46:0	
553	99	31	15:24:24.733	20DE5C	37IRT	Instrument Reset (goes into POR state)	260	4	0	4,848,258:61:0	
554	99	31	15:24:48.733	20DE5D	37MN	Memory Normal (software operates from ROM)	260	4	0	4,848,259:06:0	
555	99	31	15:25:00.066	20DE4A	37IST	Chopper ON, Sync, Chopper (Ref)	2R0	4	0	4,848,259:23:0	
556	99	31	15:25:49.400	19NHNHOTMAP03-	-----STOP-----		2R0	4	0	: : :	
557	99	31	15:26:50.067	19JNHOTMAP03-	-----START-----		2R0	4	0	: : :	
558	99	31	15:27:42.066	125DE4A	37IST	Gain State 2	2R0	4	0	4,848,261:84:0	
559	99	31	15:27:42.066	125DE11A	NIMSINIT	##### GROUP END INIT	2R0	4	0	4,848,261:84:0	
560	99	31	15:27:42.066	125DE	NIMSINIT	##### GROUP START INIT	2R0	4	0	4,848,261:84:0	
561	99	31	15:28:46.733	165DE4A	7SCAN	NORM,283.255997,	2R0	4	0	4,848,262:90:0	
562	99	31	15:29:43.400	127DE	NIMSTAB	GS	2R0	4	0	4,848,263:84:0	
563	99	31	15:29:43.400	127DE4A	37IOP	3.0	2R3	4	0	4,848,263:84:0	
564	99	31	15:29:44.066	127DE4B	37ETB	Long Map, Grating Start Position =00	2R3	4	0	4,848,263:85:0	
565	99	31	15:29:52.066	127DE11A	NIMSTAB	GE	2R3	4	0	4,848,264:06:0	
566	99	31	15:30:36.733		DMS:	:*US-RUNUP	2R3	4	0	4,848,264:73:0	
567	99	31	15:30:36.733	175DE422A6A	6DMSC	R7,0	2R3	4	0	4,848,264:73:0	
568	99	31	15:30:38.133		DMS:	:*US_AT_SP	2R3	4	0	4,848,264:75:1	
569	99	31	15:30:39.400	117DE	CSMOS	***** GROUP START CSMOS	2R3	4	0	4,848,264:77:0	
570	99	31	15:30:43.400		DMS:	:*US_RD	2R3	4	0	4,848,264:83:0	
571	99	31	15:30:44.600		DMS:	:*RUNUP	2R3	4	0	4,848,264:84:8	
572	99	31	15:30:45.400	175DE176A6A	6TMREC	LPU	2R3	4	0	4,848,264:86:0	
573	99	31	15:30:46.000		DMS:	:*AT_SPD	2R3	4	0	4,848,264:86:9	
574	99	31	15:30:46.000		DMS:	:*RECORD	2R3	4	0	4,848,264:86:9	
575	99	31	15:30:47.400	165DE4B	7VECT	Inert vect update UTC	2R3	4	0	4,848,264:89:0	
576	99	31	15:30:48.733	117DE105A106A4A	7STRP	Slew =,0.03	2R3	4	0	4,848,265:00:0	
577	99	31	15:30:48.733	19JNHOTMAP03-	NIMPBK	301DE	2R3	4	0	: : :	
578	99	31	15:40:32.066	19JNHOTMAP03-	6TMREC	DESELC	2R3	4	0	: : :	
579	99	31	15:40:42.066	175DE6A	6TMREC	NRC	2R3	4	0	4,848,274:71:0	
580	99	31	15:40:42.066		DMS:	:*RUNDOWN	2R3	4	0	4,848,274:71:0	
581	99	31	15:40:42.066	175DE422A6B	6DMSC	RDY,0	2R3	4	0	4,848,274:72:8	
582	99	31	15:40:43.266		DMS:	:*READY	2R3	4	0	4,848,274:72:8	
583	99	31	15:40:52.066	117DE11A	CSMOS	GE	2R3	4	0	4,848,274:86:0	
584	99	31	15:40:54.733	165DO4A	7SCAN	NORM,285.857998,	2R3	4	0	4,848,274:86:0	
585	99	31	15:40:59.400	19JNJUPNTB03-	-----START-----	Check S/P Position	2R3	4	0	: : :	
586	99	31	15:40:59.400	19JNHOTMAP03-	-----STOP-----		2R3	4	0	: : :	
587	99	31	15:41:44.066	175DO422A6A	6DMSC	R7,0	2R3	4	0	4,848,275:73:0	
588	99	31	15:41:44.066		DMS:	:*US-RUNUP	2R3	4	0	4,848,275:73:0	
589	99	31	15:41:45.466		DMS:	:*US_AT_SP	2R3	4	0	4,848,275:75:1	
590	99	31	15:41:46.733	117DO	CSMOS	GS	2R3	4	0	4,848,275:77:0	
591	99	31	15:41:50.733		DMS:	:*US_RD	2R3	4	0	4,848,275:83:0	
592	99	31	15:41:51.933		DMS:	:*RUNUP	2R3	4	0	4,848,275:84:8	
593	99	31	15:41:52.733	175DO176A6A	6TMREC	LPU	2R3	4	0	4,848,275:86:0	
594	99	31	15:41:53.333		DMS:	:*AT_SPD	2R3	4	0	4,848,275:86:9	
595	99	31	15:41:53.333		DMS:	:*RECORD	2R3	4	0	4,848,275:86:9	
596	99	31	15:41:54.733	165DO4B	7VECT	Inert vect update UTC	2R3	4	0	4,848,275:89:0	
597	99	31	15:41:56.066	117DO105A106A4A	7STRP	Slew =,0.03	2R3	4	0	4,848,276:00:0	
598	99	31	15:43:56.733	19JNJUPNTB03-	NIMPBK	301DO	2R3	4	0	: : :	
599	99	31	15:46:50.066	19JNJUPNTB03-	NIMPBK	301EC	2R3	4	0	: : :	
600	99	31	15:47:00.066	19JNJUPNTB03-	DESELC	301EC	2R3	4	0	: : :	
601	99	31	15:48:42.733	19JNJUPNTB03-	NIMPBK	301ED	2R3	4	0	: : :	
602	99	31	15:48:50.733	19JNJUPNTB03-	DESELC	300ED	2R3	4	0	: : :	
603	99	31	15:49:34.733	19JNJUPNTB03-	NIMPBK	301EE	2R3	4	0	: : :	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
604	99	31	15:49:42.733	19JNJUPNTB03-	DESELC	300EE	JUPITER NORTHERN TEMPERATE BELT	2R3	4	0	:	:
605	99	31	15:50:00.733	19JNJUPNTB03-	NIMPBK	301EF	JUPITER NORTHERN TEMPERATE BELT	2R3	4	0	:	:
606	99	31	15:50:21.400	19JNJUPNTB03-	DESELC	300EF	JUPITER NORTHERN TEMPERATE BELT	2R3	4	0	:	:
607	99	31	15:52:45.400	19JNJUPNTB03-	NIMPBK	301EG	JUPITER NORTHERN TEMPERATE BELT	2R3	4	0	:	:
608	99	31	15:52:54.733	19JNJUPNTB03-	DESELC	300EG	JUPITER NORTHERN TEMPERATE BELT	2R3	4	0	:	:
609	99	31	15:55:08.734	19JNJUPNTB03-		-----STOP-----		2R3	4	0	:	:
610	99	31	16:00:24.733	19JNJUPNTB03-	NIMPBK	301EH	JUPITER NORTHERN TEMPERATE BELT	2R3	4	0	:	:
611	99	31	16:00:33.400	19JNJUPNTB03-	DESELC	300EH	JUPITER NORTHERN TEMPERATE BELT	2R3	4	0	:	:
612	99	31	16:00:42.066	19JNJUPNTB03-	NIMPBK	301EI	JUPITER NORTHERN TEMPERATE BELT	2R3	4	0	:	:
613	99	31	16:00:54.733	19JNJUPNTB03-	DESELC	300EI	JUPITER NORTHERN TEMPERATE BELT	2R3	4	0	:	:
614	99	31	16:01:25.400	19JNJUPNTB03-	NIMPBK	301EJ	JUPITER NORTHERN TEMPERATE BELT	2R3	4	0	:	:
615	99	31	16:02:00.066	19JNJUPNTB03-	DESELC	300EJ	JUPITER NORTHERN TEMPERATE BELT	2R3	4	0	:	:
616	99	31	16:02:06.066	117DO11A	CSMOS	GE	***** GROUP END CSMOS	2R3	4	0	4,848,295:86:0	
617	99	31	16:02:06.066	19JNJUPNTB03-	DESELC	300DO	JUPITER NORTHERN TEMPERATE BELT	2R3	4	0	:	:
618	99	31	16:02:08.733	165CF4A	7SCAN	NORM,279.156998,	Check SIP Position	2R3	4	0	4,848,295:90:0	
619	99	31	16:02:16.733	175DO6A	6TMREC	NORM	NO RECORD Record Mode Change	2R3	4	0	4,848,296:11:0	
620	99	31	16:02:16.733	175DO42A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	4,848,296:11:0	
621	99	31	16:02:16.733		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *1929.15 +/-	2R3	4	0	4,848,296:11:0	
622	99	31	16:02:17.933		DMS:	: *READY	RDY, TRACK 2, REV, TIC *1929.09 +/-	2R3	4	0	4,848,296:12:8	
623	99	31	16:06:10.733	165CF4B	7VECT		Inert vect update UTC	2R3	4	0	4,848,299:89:0	
624	99	31	16:52:24.066	488AC6B	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	2R3	4	0	4,848,345:63:0	
625	99	31	17:12:02.066	41SW99A	POWER	PWR MODE change	Change to Maneuver/Playback Mode	2R3	4	0	4,848,365:10:0	
626	99	31	17:13:56.066	41SW3G	40T1P		1 PCT Heater 1 ON (primary relay)	2R3	4	0	4,848,366:90:0	
627	99	31	17:14:06.066	41SW3H	40T1P		2 PCT Heater 1 ON (primary relay)	2R3	4	0	4,848,367:14:0	
628	99	31	17:14:16.066	41SW3I	40T2		1 PCT Heater 2 ON	2R3	4	0	4,848,367:29:0	
629	99	31	17:14:26.066	41SW3J	40T2		2 PCT Heater 2 ON	2R3	4	0	4,848,367:44:0	
630	99	31	17:18:04.066	20SH4A	7SAFE	UNSTOW	SIP TO 153 deg cone	2R3	4	0	4,848,371:07:0	
631	99	31	17:24:02.066	432SA6A	6RTDS2	NIMNCG,AACNCG,RT	RT ENG DESLECT	2R3	4	0	4,848,376:89:0	
632	99	31	17:29:00.066	20WC4A	7STAT	8.73,172.977.35.	Stator inertial point	2R3	4	0	4,848,381:81:0	
633	99	31	17:48:02.066	490UA412A4B	7MODE	INT	AACS INERTIAL MODE	2R3	4	0	4,848,400:65:0	
634	99	31	17:53:00.066	490UA412A4D	7SAFE	UNSTOW	SIP TO 153 deg cone	2R3	4	0	4,848,405:57:0	
635	99	31	17:53:20.066	20WC4B	7STAT	17.45,172.977.35	Stator inertial point	2R3	4	0	4,848,405:87:0	
636	99	31	17:54:23.400	432SB6A	6RTSL2	NIMNCG,AACNCG,RT	RT ENG SELECT	2R3	4	0	4,848,407:00:0	
637	99	31	17:57:10.066	490UA412A4E	7VECT		Inert vect update UTC	2R3	4	0	4,848,409:68:0	
638	99	31	17:57:14.066	490UA412A4F	7TURN	2,MVR	ALERT Thruster	2R3	4	0	4,848,409:74:0	
639	99	31	17:59:52.066	488AD6A	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	2R3	4	0	4,848,412:38:0	
640	99	31	18:01:02.066	490UA412A40A4A	7STAR	71,700,278.81	Star catalog update	2R3	4	0	4,848,413:52:0	
641	99	31	18:01:04.066	490UA412A406A4B	7STAR	8,226,263.15	Star catalog update	2R3	4	0	4,848,413:55:0	
642	99	31	18:01:06.066	490UA412A406A4C	7STAR	9,150,319.35	Star catalog update	2R3	4	0	4,848,413:58:0	
643	99	31	18:01:08.066	490UA412A406A4D	7STAR	10,0,0,0.0	Star catalog update	2R3	4	0	4,848,413:61:0	
644	99	31	18:01:10.066	490UA412A406A4E	7STAR	11,0,0,0.0	Star catalog update	2R3	4	0	4,848,413:64:0	
645	99	31	18:01:12.066	490UA412A406A4F	7STAR	12,0,0,0.0	Star catalog update	2R3	4	0	4,848,413:67:0	
646	99	31	18:30:06.066	20WC4D	7SLEW	DIS,POS,0.0	Stator movement	2R3	4	0	4,848,442:29:0	
647	99	31	18:31:10.066	490UA412A4G	7MODE	CRU	AACS CRUISE MODE	2R3	4	0	4,848,443:34:0	
648	99	31	18:49:58.733	432SC6A	6RTDS2	NIMNCG,AACNCG,RT	RT ENG DESLECT	2R3	4	0	4,848,461:89:0	
649	99	31	18:59:00.066	20WD4A	7STAT	8.73,165.0,60.5	Stator inertial point	2R3	4	0	4,848,470:82:0	
650	99	31	19:18:02.066	490UB412A4B	7MODE	INT	AACS INERTIAL MODE	2R3	4	0	4,848,489:66:0	
651	99	31	19:23:00.066	490UB412A4D	7SAFE	UNSTOW	SIP TO 153 deg cone	2R3	4	0	4,848,494:58:0	
652	99	31	19:23:20.066	20WD4B	7STAT	17.45,165.0,60.5	Stator inertial point	2R3	4	0	4,848,494:88:0	
653	99	31	19:27:10.066	490UB412A4E	7VECT	MVR	Inert vect update UTC	2R3	4	0	4,848,498:69:0	
654	99	31	19:27:14.066	490UB412A4F	7TURN	2,MVR	ALERT Thruster	2R3	4	0	4,848,498:75:0	
655	99	31	19:31:02.066	490UB412A406A4A	7STAR	7,218,68.263.16.	Star catalog update	2R3	4	0	4,848,502:53:0	
656	99	31	19:31:04.066	490UB412A406A4B	7STAR	8,226,263.15	Star catalog update	2R3	4	0	4,848,502:56:0	
657	99	31	19:31:06.066	490UB412A406A4C	7STAR	91,051,200.64	Star catalog update	2R3	4	0	4,848,502:59:0	
658	99	31	19:31:08.066	490UB412A406A4D	7STAR	10,0,0,0.0	Star catalog update	2R3	4	0	4,848,502:62:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF1
659	99	31	19:31:10.066	490UB412A406A4E	7STAR	11,0,0,0,0,0	Star catalog update	2R3	4	0	4,848,502:65:0	
660	99	31	19:31:12.066	490UB412A406A4F	7STAR	12,0,0,0,0,0	Star catalog update	2R3	4	0	4,848,502:68:0	
661	99	31	19:49:39.400	432SD6A	6RTSL2	NIMNCG,AACNCG,RT	R/T ENG SELECT	2R3	4	0	4,848,521:00:0	
662	99	31	19:54:06.066	20WD4D	7SLEW	DIS,POS,0.0	Stator movement	2R3	4	0	4,848,525:36:0	
663	99	31	19:55:10.066	490UB412A4G	6RTSL2	CRU	AACS CRUISE MODE	2R3	4	0	4,848,526:41:0	
664	99	31	20:44:14.066	432SE6A	7MTDS2	NIMNCG,AACNCG,RT	R/T ENG DESLECT	2R3	4	0	4,848,574:89:0	
665	99	31	20:57:59.400	432OF431A6A	6RCDSL	DDSNCG,PLSNCG,EP	Record Deselect (DDS o	2R3	4	0	4,848,588:53:0	
666	99	31	20:58:00.066	432OF6A	6RTSL1		R/T Select of DDS and	2R3	4	0	4,848,588:54:0	
667	99	31	21:01:26.066	165LC4A	7SCAN	NORM,274.016998,	Check S/P Position	2R3	4	0	4,848,591:90:0	
668	99	31	21:09:00.066	444UE443A4B	7MODE	INT	AACS INERTIAL MODE	2R3	4	0	4,848,599:43:0	
669	99	31	21:14:00.066	41SZ99A	POWER	PWR MODE change	Change to Data Taking Mode	2R3	4	0	4,848,604:38:0	
670	99	31	21:14:04.066	41SZ3A	40T1PR		1 PCT Heater 1 OFF (primary relay)	2R3	4	0	4,848,604:44:0	
671	99	31	21:14:14.066	41SZ3B	40T1PR		2 PCT Heater 1 OFF (primary relay)	2R3	4	0	4,848,604:59:0	
672	99	31	21:14:24.066	41SZ3C	40T2R		1 PCT Heater 2 OFF	2R3	4	0	4,848,604:74:0	
673	99	31	21:14:34.066	41SZ3D	40T2R		2 PCT Heater 2 OFF	2R3	4	0	4,848,604:89:0	
674	99	31	21:19:38.066	165GC4A	7SCAN	NORM,273.743999,	Check S/P Position	2R3	4	0	4,848,609:90:0	
675	99	31	21:22:40.733	176GC6A	6TMREC	BPT	7.68 KBPS PPR BURST TO TAPE	2R3	4	0	4,848,613:00:0	
676	99	31	21:23:32.066	117GC	CSMOS	GS	**** GROUP START CSMOS	2R3	4	0	4,848,613:77:0	
677	99	31	21:23:41.400	117GC105A106A4A	7STRP	-0.0068,-0.01080	Slew = 0.29	2R3	4	0	4,848,614:00:0	
678	99	31	21:24:28.066	117GC105A106A4B	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,614:70:0	
679	99	31	21:24:38.733	117GC105A106A4C	7STRP	-0.0068,-0.01080	Slew = -0.29	2R3	4	0	4,848,614:86:0	
680	99	31	21:25:25.400	117GC105A106A4D	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,615:65:0	
681	99	31	21:25:36.066	117GC105A106A4E	7STRP	-0.0068,-0.01080	Slew = -0.29	2R3	4	0	4,848,615:81:0	
682	99	31	21:26:22.733	117GC105A106A4F	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,616:60:0	
683	99	31	21:26:33.400	117GC105A106A4G	7STRP	-0.0068,-0.01080	Slew = -0.29	2R3	4	0	4,848,616:76:0	
684	99	31	21:27:20.066	117GC105A106A4H	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,617:55:0	
685	99	31	21:27:30.733	117GC105A106A4I	7STRP	-0.0068,-0.01080	Slew = 0.29	2R3	4	0	4,848,617:71:0	
686	99	31	21:28:17.400	117GC105A106A4J	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,618:50:0	
687	99	31	21:28:28.066	117GC105A106A4K	7STRP	-0.0068,-0.01080	Slew = 0.29	2R3	4	0	4,848,618:66:0	
688	99	31	21:29:14.733	117GC105A106A4L	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,619:45:0	
689	99	31	21:29:25.400	117GC105A106A4M	7STRP	-0.0068,-0.01080	Slew = -0.29	2R3	4	0	4,848,619:61:0	
690	99	31	21:30:12.066	117GC105A106A4N	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,620:40:0	
691	99	31	21:30:22.733	117GC105A106A4O	7STRP	-0.0068,-0.01080	Slew = -0.29	2R3	4	0	4,848,620:56:0	
692	99	31	21:31:09.400	117GC105A106A4P	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,621:35:0	
693	99	31	21:31:20.066	117GC105A106A4Q	7STRP	-0.0068,-0.01080	Slew = -0.29	2R3	4	0	4,848,621:51:0	
694	99	31	21:32:06.733	117GC105A106A4R	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,622:30:0	
695	99	31	21:32:17.400	117GC105A106A4S	7STRP	-0.0068,-0.01080	Slew = 0.29	2R3	4	0	4,848,622:46:0	
696	99	31	21:33:04.066	117GC105A106A4T	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,623:25:0	
697	99	31	21:33:14.733	117GC105A106A4U	7STRP	-0.0068,-0.01080	Slew = 0.29	2R3	4	0	4,848,623:41:0	
698	99	31	21:34:01.400	117GC105A106A4V	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,624:20:0	
699	99	31	21:34:12.066	117GC105A106A4W	7STRP	-0.0068,-0.01080	Slew = -0.29	2R3	4	0	4,848,624:36:0	
700	99	31	21:34:58.733	117GC105A106A4X	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,625:15:0	
701	99	31	21:35:09.400	117GC105A106A4Y	7STRP	-0.0068,-0.01080	Slew = -0.29	2R3	4	0	4,848,625:31:0	
702	99	31	21:35:56.066	117GC105A106A4Z	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,626:10:0	
703	99	31	21:36:06.733	117GC105A106A4AA	7STRP	-0.0068,-0.01080	Slew = -0.29	2R3	4	0	4,848,626:26:0	
704	99	31	21:36:53.400	117GC105A106A4AB	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,627:05:0	
705	99	31	21:37:04.066	117GC105A106A4AC	7STRP	-0.0068,-0.01080	Slew = 0.29	2R3	4	0	4,848,627:21:0	
706	99	31	21:37:50.733	117GC105A106A4AD	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,628:00:0	
707	99	31	21:38:01.400	117GC105A106A4AE	7STRP	-0.0068,-0.01080	Slew = -0.29	2R3	4	0	4,848,628:16:0	
708	99	31	21:38:48.066	117GC105A106A4AF	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,628:86:0	
709	99	31	21:38:58.733	117GC105A106A4AG	7STRP	-0.0068,-0.01080	Slew = -0.29	2R3	4	0	4,848,629:11:0	
710	99	31	21:39:45.400	117GC105A106A4AH	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,629:81:0	
711	99	31	21:39:53.400	50ZZ6XX	6DMSC	RT,0	DMS Control Tape runup 7.68kps	2R3	4	0	4,848,630:02:0	
712	99	31	21:39:53.400		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 1929.09 +/-	2R3	4	0	4,848,630:02:0	
713	99	31	21:39:54.800		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *1929.21 +/-	2R3	4	0	4,848,630:04:1	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
714	99	31	21:39:56.066	117GC105A106A4AJ	7STRP	-0.0068,-0.01080	Slew = 0.29	2R3	4	0	4,848,630:06:0	
715	99	31	21:40:00.066		DMS:	: *US RD	P7, TRACK 1, FWD, TIC *1930.45 +/-	2R3	4	0	4,848,630:12:0	
716	99	31	21:40:01.266		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *1930.51 +/-	2R3	4	0	4,848,630:13:8	
717	99	31	21:40:02.666		DMS:	: *AT SPD	R7, TRACK 2, REV, TIC *1930.39 +/-	2R3	4	0	4,848,630:15:9	
718	99	31	21:40:28.733		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *1924.28 +/-	2R3	4	0	4,848,630:55:0	
719	99	31	21:40:42.733	117GC105A106A4AJ	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,630:76:0	
720	99	31	21:40:51.400	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	4,848,630:89:0	
721	99	31	21:40:51.400		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *1918.97 +/-	2R3	4	0	4,848,630:89:0	
722	99	31	21:40:52.600		DMS:	: *READY	RDY, TRACK 2, REV, TIC *1918.91 +/-	2R3	4	0	4,848,630:90:8	
723	99	31	21:40:53.400	117GC105A106A4AK	7STRP	-0.0068,-0.01080	Slew = 0.29	2R3	4	0	4,848,631:01:0	
724	99	31	21:41:40.066	117GC105A106A4AL	7STRP	0.0077,0.0099,0,	Slew = 12.01	2R3	4	0	4,848,631:71:0	
725	99	31	21:41:50.733	117GC105A106A4AM	7STRP	-0.0068,-0.01080	Slew = 0.29	2R3	4	0	4,848,631:87:0	
726	99	31	21:42:37.400	117GC11A	CSMOS	GE	***** GROUP END CSMOS	2R3	4	0	4,848,632:66:0	
727	99	31	21:44:24.733	176GC6B	6TMREC	NRC	NO RECORD Record Mode Change	2R3	4	0	4,848,634:45:0	
728	99	31	21:44:26.733		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 1918.91 +/-	2R3	4	0	4,848,634:48:0	
729	99	31	21:44:26.733	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	4,848,634:48:0	
730	99	31	21:44:28.133		DMS:	: *US AT SP	P7, TRACK 1, FWD, TIC *1919.03 +/-	2R3	4	0	4,848,634:50:1	
731	99	31	21:44:33.400		DMS:	: *US RD	P7, TRACK 1, FWD, TIC *1920.26 +/-	2R3	4	0	4,848,634:58:0	
732	99	31	21:44:34.600		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *1920.32 +/-	2R3	4	0	4,848,634:59:8	
733	99	31	21:44:36.000		DMS:	: *AT SPD	R7, TRACK 2, REV, TIC *1920.20 +/-	2R3	4	0	4,848,634:61:9	
734	99	31	21:44:36.733		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *1920.03 +/-	2R3	4	0	4,848,634:63:0	
735	99	31	21:44:48.733	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	4,848,634:81:0	
736	99	31	21:44:48.733		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *1917.22 +/-	2R3	4	0	4,848,634:81:0	
737	99	31	21:44:49.933		DMS:	: *READY	RDY, TRACK 2, REV, TIC *1917.16 +/-	2R3	4	0	4,848,634:82:8	
738	99	31	21:55:01.400	165IA4A	7SCAN	NORM:272.453999,	Check S/P Position	2R3	4	0	4,848,644:90:0	
739	99	31	21:58:53.400		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 1917.16 +/-	2R3	4	0	4,848,648:74:0	
740	99	31	21:58:53.400	175IA422A6A	6DMSC	R806,0	DMS Control Tape runup 806.4Kb	2R3	4	0	4,848,648:74:0	
741	99	31	21:58:54.800		DMS:	: *US AT SP	P7, TRACK 1, FWD, TIC *1917.28 +/-	2R3	4	0	4,848,648:76:1	
742	99	31	21:59:00.066		DMS:	: *US RD	P7, TRACK 1, FWD, TIC *1918.51 +/-	2R3	4	0	4,848,648:84:0	
743	99	31	21:59:01.266		DMS:	: *RUNUP	R806, TRACK *2, *REV, TIC *1918.57 +/-	2R3	4	0	4,848,648:85:8	
744	99	31	21:59:06.066	175IA176A6A	6TMREC	IM8	806.4 KBPS IMAGE RECORD Record Mode Chang	2R3	4	0	4,848,649:02:0	
745	99	31	21:59:06.533		DMS:	: *RECORD	R806, TRACK 2, REV, TIC *1852.57 +/-	2R3	4	0	4,848,649:02:7	
746	99	31	21:59:06.533		DMS:	: *AT SPD	R806, TRACK 2, REV, TIC 1852.57 +/-	2R3	4	0	4,848,649:02:7	
747	99	31	21:59:08.066	175IA422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	4,848,649:05:0	
748	99	31	21:59:08.066		DMS:	: *RUNDOWN	R806, TRACK 2, REV, TIC *1814.84 +/-	2R3	4	0	4,848,649:05:0	
749	99	31	21:59:10.800		DMS:	: *READY	RDY, TRACK 2, REV, TIC *1803.34 +/-	2R3	4	0	4,848,649:09:1	
750	99	31	22:02:06.066	165GD4A	7SCAN	NORM:310.620998,	Check S/P Position	2R3	4	0	4,848,651:90:0	
751	99	31	22:05:08.733	176GD6A	6TMREC	BPT	7.68 KBPS PPR BURST TO TAPE Record Mode C	2R3	4	0	4,848,655:00:0	
752	99	31	22:06:00.066	117GD	CSMOS	GS	***** GROUP START CSMOS	2R3	4	0	4,848,655:77:0	
753	99	31	22:06:09.400	117GD105A106A4A	7STRP	0.025706,0.0,0,0	Slew = 0.32	2R3	4	0	4,848,656:00:0	
754	99	31	22:07:33.400	117GD105A106A4B	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,657:35:0	
755	99	31	22:07:40.066	117GD105A106A4C	7STRP	0.025706,0.0,0,0	Slew = 0.32	2R3	4	0	4,848,657:45:0	
756	99	31	22:09:04.066	117GD105A106A4D	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,658:80:0	
757	99	31	22:09:10.733	117GD105A106A4E	7STRP	0.025706,0.0,0,0	Slew = 0.32	2R3	4	0	4,848,658:90:0	
758	99	31	22:10:34.733	117GD105A106A4F	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,660:34:0	
759	99	31	22:10:41.400	117GD105A106A4G	7STRP	0.025706,0.0,0,0	Slew = 0.32	2R3	4	0	4,848,660:44:0	
760	99	31	22:12:05.400	117GD105A106A4H	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,661:79:0	
761	99	31	22:12:12.066	117GD105A106A4I	7STRP	0.025706,0.0,0,0	Slew = 0.32	2R3	4	0	4,848,661:89:0	
762	99	31	22:13:36.066	117GD105A106A4J	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,663:33:0	
763	99	31	22:13:42.733	117GD105A106A4K	7STRP	0.025706,0.0,0,0	Slew = 0.32	2R3	4	0	4,848,663:43:0	
764	99	31	22:15:06.733	117GD105A106A4L	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,664:78:0	
765	99	31	22:15:13.400	117GD105A106A4M	7STRP	0.025706,0.0,0,0	Slew = 0.32	2R3	4	0	4,848,664:88:0	
766	99	31	22:16:37.400	117GD105A106A4N	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,666:32:0	
767	99	31	22:16:44.066	117GD105A106A4O	7STRP	0.025706,0.0,0,0	Slew = 0.32	2R3	4	0	4,848,666:42:0	
768	99	31	22:18:08.066	117GD105A106A4P	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,667:77:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
769	99	31	22:18:14.733	117GD105A106A4Q	7STRP	0.025706,0.0,0.0	Slew = -0.32	2R3	4	0	4,848,667:87.0	
770	99	31	22:19:38.733	117GD105A106A4R	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,669:31.0	
771	99	31	22:19:45.400	117GD105A106A4S	7STRP	0.025706,0.0,0.0	Slew = -0.32	2R3	4	0	4,848,669:41.0	
772	99	31	22:21:09.400	117GD105A106A4T	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,670:76.0	
773	99	31	22:21:16.066	117GD105A106A4U	7STRP	0.025706,0.0,0.0	Slew = -0.32	2R3	4	0	4,848,670:86.0	
774	99	31	22:22:21.400	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	4,848,672:02.0	
775	99	31	22:22:21.400		DMS:	: *US-RUNUP	P7, TRACK 1, *FWD, TIC 1803.34 +/-	2R3	4	0	4,848,672:02.0	
776	99	31	22:22:22.800		DMS:	: *US AT SP	P7, TRACK 1, FWD, TIC *1803.46 +/-	2R3	4	0	4,848,672:04.1	
777	99	31	22:22:28.066		DMS:	: *US RD	P7, TRACK 1, FWD, TIC *1804.69 +/-	2R3	4	0	4,848,672:12.0	
778	99	31	22:22:29.266		DMS:	: *RUNUP	R7, TRACK 2, *REV, TIC *1804.75 +/-	2R3	4	0	4,848,672:13.8	
779	99	31	22:22:30.666		DMS:	: *AT SPD	R7, TRACK 2, REV, TIC *1804.63 +/-	2R3	4	0	4,848,672:15.9	
780	99	31	22:22:40.066	117GD105A106A4V	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,672:30.0	
781	99	31	22:22:46.733	117GD105A106A4W	7STRP	0.025706,0.0,0.0	Slew = -0.32	2R3	4	0	4,848,672:40.0	
782	99	31	22:22:56.733		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *1798.52 +/-	2R3	4	0	4,848,672:55.0	
783	99	31	22:23:19.400	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	4,848,672:89.0	
784	99	31	22:23:19.400		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *1793.21 +/-	2R3	4	0	4,848,672:89.0	
785	99	31	22:23:20.600		DMS:	: *READY	RDY, TRACK 2, REV, TIC *1793.15 +/-	2R3	4	0	4,848,672:90.8	
786	99	31	22:24:10.733	117GD105A106A4X	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,673:75.0	
787	99	31	22:24:17.400	117GD105A106A4Y	7STRP	0.025706,0.0,0.0	Slew = -0.32	2R3	4	0	4,848,673:85.0	
788	99	31	22:25:41.400	117GD105A106A4Z	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,675:29.0	
789	99	31	22:25:48.066	117GD105A106A4AA	7STRP	0.025706,0.0,0.0	Slew = -0.32	2R3	4	0	4,848,675:39.0	
790	99	31	22:27:12.066	117GD105A106A4AB	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,676:74.0	
791	99	31	22:27:18.733	117GD105A106A4AC	7STRP	0.025706,0.0,0.0	Slew = -0.32	2R3	4	0	4,848,676:84.0	
792	99	31	22:28:42.733	117GD105A106A4AD	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,678:28.0	
793	99	31	22:28:49.400	117GD105A106A4AE	7STRP	0.025706,0.0,0.0	Slew = -0.32	2R3	4	0	4,848,678:38.0	
794	99	31	22:30:13.400	117GD105A106A4AF	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,679:73.0	
795	99	31	22:30:20.066	117GD105A106A4AG	7STRP	0.025706,0.0,0.0	Slew = -0.32	2R3	4	0	4,848,679:83.0	
796	99	31	22:31:44.066	117GD105A106A4AH	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,681:27.0	
797	99	31	22:31:50.733	117GD105A106A4AI	7STRP	0.025706,0.0,0.0	Slew = -0.32	2R3	4	0	4,848,681:37.0	
798	99	31	22:33:14.733	117GD105A106A4AJ	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,682:72.0	
799	99	31	22:33:21.400	117GD105A106A4AK	7STRP	0.025706,0.0,0.0	Slew = -0.32	2R3	4	0	4,848,682:82.0	
800	99	31	22:34:45.400	117GD105A106A4AL	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,684:26.0	
801	99	31	22:34:52.066	117GD105A106A4AM	7STRP	0.025706,0.0,0.0	Slew = -0.32	2R3	4	0	4,848,684:36.0	
802	99	31	22:36:16.066	117GD105A106A4AN	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,685:71.0	
803	99	31	22:36:22.733	117GD105A106A4AO	7STRP	0.025706,0.0,0.0	Slew = -0.32	2R3	4	0	4,848,685:81.0	
804	99	31	22:37:46.733	117GD105A106A4AP	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,687:25.0	
805	99	31	22:37:53.400	117GD105A106A4AQ	7STRP	0.025706,0.0,0.0	Slew = -0.32	2R3	4	0	4,848,687:35.0	
806	99	31	22:39:17.400	117GD105A106A4AR	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,688:70.0	
807	99	31	22:39:24.066	117GD105A106A4AS	7STRP	0.025706,0.0,0.0	Slew = -0.32	2R3	4	0	4,848,688:80.0	
808	99	31	22:40:12.733	50ZZ6XX	6DMSC	RDY,0	DMS Control Tape runup 7.68kps	2R3	4	0	4,848,689:62.0	
809	99	31	22:40:12.733		DMS:	: *US-RUNUP	P7, TRACK 1, *FWD, TIC 1793.15 +/-	2R3	4	0	4,848,689:62.0	
810	99	31	22:40:14.133		DMS:	: *US AT SP	P7, TRACK 1, FWD, TIC *1793.27 +/-	2R3	4	0	4,848,689:64.1	
811	99	31	22:40:19.400		DMS:	: *US RD	P7, TRACK 1, FWD, TIC *1794.50 +/-	2R3	4	0	4,848,689:72.0	
812	99	31	22:40:20.600		DMS:	: *RUNUP	R7, TRACK 2, *REV, TIC *1794.56 +/-	2R3	4	0	4,848,689:73.8	
813	99	31	22:40:22.000		DMS:	: *AT SPD	R7, TRACK 2, REV, TIC *1794.44 +/-	2R3	4	0	4,848,689:75.9	
814	99	31	22:40:47.400		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *1788.49 +/-	2R3	4	0	4,848,690:23.0	
815	99	31	22:40:48.066	117GD105A106A4AT	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,690:24.0	
816	99	31	22:40:54.733	117GD105A106A4AU	7STRP	0.025706,0.0,0.0	Slew = -0.32	2R3	4	0	4,848,690:34.0	
817	99	31	22:41:10.066	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	4,848,690:57.0	
818	99	31	22:41:10.066		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *1783.18 +/-	2R3	4	0	4,848,690:57.0	
819	99	31	22:41:11.266		DMS:	: *READY	RDY, TRACK 2, REV, TIC *1783.12 +/-	2R3	4	0	4,848,690:58.8	
820	99	31	22:42:18.733	117GD105A106A4AV	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,691:69.0	
821	99	31	22:42:25.400	117GD105A106A4AW	7STRP	0.025706,0.0,0.0	Slew = -0.32	2R3	4	0	4,848,691:79.0	
822	99	31	22:43:49.400	117GD105A106A4AX	7STRP	-0.025536,0.0020	Slew = 12.01	2R3	4	0	4,848,693:23.0	
823	99	31	22:43:56.066	117GD105A106A4AY	7STRP	0.025706,0.0,0.0	Slew = -0.32	2R3	4	0	4,848,693:33.0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
824	99	31	22:45:20.066	117GD105A106A4AZ	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,694:68:0	
825	99	31	22:45:26.733	117GD105A106A4BA	7STRP	0.025706,0.0,0.0	Slew =0.32	2R3	4	0	4,848,694:78:0	
826	99	31	22:46:50.733	117GD105A106A4BB	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,696:22:0	
827	99	31	22:46:57.400	117GD105A106A4BC	7STRP	0.025706,0.0,0.0	Slew =0.32	2R3	4	0	4,848,696:32:0	
828	99	31	22:48:21.400	117GD105A106A4BD	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,697:67:0	
829	99	31	22:48:28.066	117GD105A106A4BE	7STRP	0.025706,0.0,0.0	Slew =-0.32	2R3	4	0	4,848,697:77:0	
830	99	31	22:49:52.066	117GD105A106A4BF	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,699:21:0	
831	99	31	22:49:58.733	117GD105A106A4BG	7STRP	0.025706,0.0,0.0	Slew =-0.32	2R3	4	0	4,848,699:31:0	
832	99	31	22:51:22.733	117GD105A106A4BH	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,700:66:0	
833	99	31	22:51:29.400	117GD105A106A4BJ	7STRP	0.025706,0.0,0.0	Slew =-0.32	2R3	4	0	4,848,700:76:0	
834	99	31	22:52:53.400	117GD105A106A4BJ	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,702:20:0	
835	99	31	22:53:00.066	117GD105A106A4BK	7STRP	0.025706,0.0,0.0	Slew =0.32	2R3	4	0	4,848,702:30:0	
836	99	31	22:54:24.066	117GD105A106A4BL	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,703:65:0	
837	99	31	22:54:30.733	117GD105A106A4BM	7STRP	0.025706,0.0,0.0	Slew =0.32	2R3	4	0	4,848,703:75:0	
838	99	31	22:55:54.733	117GD105A106A4BN	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,705:19:0	
839	99	31	22:56:01.400	117GD105A106A4BO	7STRP	0.025706,0.0,0.0	Slew =-0.32	2R3	4	0	4,848,705:29:0	
840	99	31	22:57:25.400	117GD105A106A4BP	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,706:64:0	
841	99	31	22:57:32.066	117GD105A106A4BQ	7STRP	0.025706,0.0,0.0	Slew =-0.32	2R3	4	0	4,848,706:74:0	
842	99	31	22:58:04.066		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 1783.12 +/-	2R3	4	0	4,848,707:31:0	
843	99	31	22:58:04.066	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	4,848,707:31:0	
844	99	31	22:58:05.466		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *1783.24 +/-	2R3	4	0	4,848,707:33:1	
845	99	31	22:58:10.733		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *1784.47 +/-	2R3	4	0	4,848,707:41:0	
846	99	31	22:58:11.933		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *1784.53 +/-	2R3	4	0	4,848,707:42:8	
847	99	31	22:58:13.333		DMS:	: *AT_SPD	R7, TRACK 2, REV, TIC *1784.41 +/-	2R3	4	0	4,848,707:44:9	
848	99	31	22:58:38.733		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *1778.46 +/-	2R3	4	0	4,848,707:83:0	
849	99	31	22:58:56.066	117GD105A106A4BR	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,708:18:0	
850	99	31	22:59:01.400		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *1773.15 +/-	2R3	4	0	4,848,708:26:0	
851	99	31	22:59:01.400	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	4,848,708:26:0	
852	99	31	22:59:02.600		DMS:	: *READY	RDY, TRACK 2, REV, TIC *1773.09 +/-	2R3	4	0	4,848,708:27:8	
853	99	31	22:59:02.733	117GD105A106A4BS	7STRP	0.025706,0.0,0.0	Slew =-0.32	2R3	4	0	4,848,708:28:0	
854	99	31	23:00:26.733	117GD105A106A4BT	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,709:63:0	
855	99	31	23:00:33.400	117GD105A106A4BU	7STRP	0.025706,0.0,0.0	Slew =0.32	2R3	4	0	4,848,709:73:0	
856	99	31	23:01:57.400	117GD105A106A4BV	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,711:17:0	
857	99	31	23:02:04.066	117GD105A106A4BW	7STRP	0.025706,0.0,0.0	Slew =0.32	2R3	4	0	4,848,711:27:0	
858	99	31	23:03:28.066	117GD105A106A4BX	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,712:62:0	
859	99	31	23:03:34.733	117GD105A106A4BY	7STRP	0.025706,0.0,0.0	Slew =-0.32	2R3	4	0	4,848,712:72:0	
860	99	31	23:04:58.733	117GD105A106A4BZ	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,714:16:0	
861	99	31	23:05:05.400	117GD105A106A4CA	7STRP	0.025706,0.0,0.0	Slew =-0.32	2R3	4	0	4,848,714:26:0	
862	99	31	23:06:29.400	117GD105A106A4CB	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,715:61:0	
863	99	31	23:06:36.066	117GD105A106A4CC	7STRP	0.025706,0.0,0.0	Slew =-0.32	2R3	4	0	4,848,715:71:0	
864	99	31	23:08:00.066	117GD105A106A4CD	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,717:15:0	
865	99	31	23:08:06.733	117GD105A106A4CE	7STRP	0.025706,0.0,0.0	Slew =0.32	2R3	4	0	4,848,717:25:0	
866	99	31	23:09:30.733	117GD105A106A4CF	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,718:60:0	
867	99	31	23:09:37.400	117GD105A106A4CG	7STRP	0.025706,0.0,0.0	Slew =0.32	2R3	4	0	4,848,718:70:0	
868	99	31	23:11:01.400	117GD105A106A4CH	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,720:14:0	
869	99	31	23:11:08.066	117GD105A106A4CI	7STRP	0.025706,0.0,0.0	Slew =-0.32	2R3	4	0	4,848,720:24:0	
870	99	31	23:12:32.066	117GD105A106A4CJ	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,721:59:0	
871	99	31	23:12:38.733	117GD105A106A4CK	7STRP	0.025706,0.0,0.0	Slew =-0.32	2R3	4	0	4,848,721:69:0	
872	99	31	23:14:02.733	117GD105A106A4CL	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,723:13:0	
873	99	31	23:14:09.400	117GD105A106A4CM	7STRP	0.025706,0.0,0.0	Slew =-0.32	2R3	4	0	4,848,723:23:0	
874	99	31	23:15:33.400	117GD105A106A4CN	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,724:58:0	
875	99	31	23:15:40.066	117GD105A106A4CO	7STRP	0.025706,0.0,0.0	Slew =0.32	2R3	4	0	4,848,724:68:0	
876	99	31	23:15:55.400		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 1773.09 +/-	2R3	4	0	4,848,725:00:0	
877	99	31	23:15:55.400	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	4,848,725:00:0	
878	99	31	23:15:56.800		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *1773.21 +/-	2R3	4	0	4,848,725:02:1	



Line	YR	DOY	SCET	GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
879	99	31	23:16:02.066			DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *1774.44 +/-	2R3	4	0	4,848,725:10:0	
880	99	31	23:16:03.266			DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *1774.50 +/-	2R3	4	0	4,848,725:11:8	
881	99	31	23:16:04.066			DMS:	: *AT SPD	R7, TRACK 2, REV, TIC *1774.38 +/-	2R3	4	0	4,848,725:13:9	
882	99	31	23:16:30.066			DMS:	: *RECORD	R7, TRACK 2, REV, TIC *1768.43 +/-	2R3	4	0	4,848,725:52:0	
883	99	31	23:16:52.733		50ZZ6RD	6DMSC	RDY, 0	DMS Control Tape stop	2R3	4	0	4,848,725:86:0	
884	99	31	23:16:52.733			DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *1763.11 +/-	2R3	4	0	4,848,725:86:0	
885	99	31	23:16:53.933			DMS:	: *READY	RDY, TRACK 2, REV, TIC *1763.05 +/-	2R3	4	0	4,848,725:87:8	
886	99	31	23:17:04.066		117GD105A106A4CP	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,726:12:0	
887	99	31	23:17:10.733		117GD105A106A4CQ	7STRP	0.025706,0.0000	Slew = 0.32	2R3	4	0	4,848,726:22:0	
888	99	31	23:18:34.733		117GD105A106A4CR	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,727:57:0	
889	99	31	23:18:41.400		117GD105A106A4CS	7STRP	0.025706,0.0000	Slew =-0.32	2R3	4	0	4,848,727:67:0	
890	99	31	23:20:05.400		117GD105A106A4CT	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,729:11:0	
891	99	31	23:20:12.066		117GD105A106A4CU	7STRP	0.025706,0.0000	Slew =-0.32	2R3	4	0	4,848,729:21:0	
892	99	31	23:21:36.066		117GD105A106A4CV	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,730:56:0	
893	99	31	23:21:42.733		117GD105A106A4CW	7STRP	0.025706,0.0000	Slew =-0.32	2R3	4	0	4,848,730:66:0	
894	99	31	23:23:06.733		117GD105A106A4CX	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,732:10:0	
895	99	31	23:23:13.400		117GD105A106A4CY	7STRP	0.025706,0.0000	Slew = 0.32	2R3	4	0	4,848,732:20:0	
896	99	31	23:24:37.400		117GD105A106A4CZ	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,733:55:0	
897	99	31	23:24:44.066		117GD105A106A4DA	7STRP	0.025706,0.0000	Slew = 0.32	2R3	4	0	4,848,733:65:0	
898	99	31	23:26:08.066		117GD105A106A4DB	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,735:09:0	
899	99	31	23:26:14.733		117GD105A106A4DC	7STRP	0.025706,0.0000	Slew =-0.32	2R3	4	0	4,848,735:19:0	
900	99	31	23:27:38.733		117GD105A106A4DD	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,736:54:0	
901	99	31	23:27:45.400		117GD105A106A4DE	7STRP	0.025706,0.0000	Slew =-0.32	2R3	4	0	4,848,736:64:0	
902	99	31	23:29:09.400		117GD105A106A4DF	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,738:08:0	
903	99	31	23:29:16.066		117GD105A106A4DG	7STRP	0.025706,0.0000	Slew =-0.32	2R3	4	0	4,848,738:18:0	
904	99	31	23:30:40.066		117GD105A106A4DH	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,739:53:0	
905	99	31	23:30:46.733		117GD105A106A4DI	7STRP	0.025706,0.0000	Slew = 0.32	2R3	4	0	4,848,739:63:0	
906	99	31	23:32:10.733		117GD105A106A4DJ	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,741:07:0	
907	99	31	23:32:17.400		117GD105A106A4DK	7STRP	0.025706,0.0000	Slew = 0.32	2R3	4	0	4,848,741:17:0	
908	99	31	23:33:41.400		117GD105A106A4DL	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,742:52:0	
909	99	31	23:33:46.733			DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 1763.05 +/-	2R3	4	0	4,848,742:60:0	
910	99	31	23:33:46.733		50ZZ6XX	6DMSC	R7, 0	DMS Control Tape runup 7.68kps	2R3	4	0	4,848,742:60:0	
911	99	31	23:33:48.066		117GD105A106A4DM	7STRP	0.025706,0.0000	Slew =-0.32	2R3	4	0	4,848,742:62:0	
912	99	31	23:33:48.133			DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *1763.17 +/-	2R3	4	0	4,848,742:62:1	
913	99	31	23:33:53.400			DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *1764.41 +/-	2R3	4	0	4,848,742:70:0	
914	99	31	23:33:54.600			DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *1764.47 +/-	2R3	4	0	4,848,742:71:8	
915	99	31	23:33:56.000			DMS:	: *AT SPD	R7, TRACK 2, REV, TIC *1764.35 +/-	2R3	4	0	4,848,742:73:9	
916	99	31	23:34:21.400			DMS:	: *RECORD	R7, TRACK 2, REV, TIC *1758.40 +/-	2R3	4	0	4,848,743:21:0	
917	99	31	23:34:44.066			DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *1753.08 +/-	2R3	4	0	4,848,743:55:0	
918	99	31	23:34:44.066		50ZZ6RE	6DMSC	RDY, 0	DMS Control Tape stop	2R3	4	0	4,848,743:55:0	
919	99	31	23:34:45.266			DMS:	: *READY	RDY, TRACK 2, REV, TIC *1753.02 +/-	2R3	4	0	4,848,743:56:8	
920	99	31	23:35:12.066		117GD105A106A4DN	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,744:06:0	
921	99	31	23:35:18.733		117GD105A106A4DO	7STRP	0.025706,0.0000	Slew =-0.32	2R3	4	0	4,848,744:16:0	
922	99	31	23:36:42.733		117GD105A106A4DP	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,745:51:0	
923	99	31	23:36:49.400		117GD105A106A4DQ	7STRP	0.025706,0.0000	Slew =-0.32	2R3	4	0	4,848,745:61:0	
924	99	31	23:38:13.400		117GD105A106A4DR	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,747:05:0	
925	99	31	23:38:20.066		117GD105A106A4DS	7STRP	0.025706,0.0000	Slew = 0.32	2R3	4	0	4,848,747:15:0	
926	99	31	23:39:44.066		117GD105A106A4DT	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,748:50:0	
927	99	31	23:39:50.733		117GD105A106A4DU	7STRP	0.025706,0.0000	Slew = 0.32	2R3	4	0	4,848,748:60:0	
928	99	31	23:41:14.733		117GD105A106A4DV	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,750:04:0	
929	99	31	23:41:21.400		117GD105A106A4DW	7STRP	0.025706,0.0000	Slew =-0.32	2R3	4	0	4,848,750:14:0	
930	99	31	23:42:45.400		117GD105A106A4DX	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,751:49:0	
931	99	31	23:42:52.066		117GD105A106A4DY	7STRP	0.025706,0.0000	Slew =-0.32	2R3	4	0	4,848,751:59:0	
932	99	31	23:44:16.066		117GD105A106A4DZ	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,753:03:0	
933	99	31	23:44:22.733		117GD105A106A4EA	7STRP	0.025706,0.0000	Slew =-0.32	2R3	4	0	4,848,753:13:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
934	99	31	23:45:46.733	117GD105A106A4EB	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,754:48.0	
935	99	31	23:45:53.400	117GD105A106A4EC	7STRP	0.025706,0.0000	Slew = 0.32	2R3	4	0	4,848,754:58.0	
936	99	31	23:47:17.400	117GD105A106A4ED	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,756:02.0	
937	99	31	23:47:24.066	117GD105A106A4EE	7STRP	0.025706,0.0000	Slew = 0.32	2R3	4	0	4,848,756:12.0	
938	99	31	23:48:48.066	117GD105A106A4EF	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,757:47.0	
939	99	31	23:48:54.733	117GD105A106A4EG	7STRP	0.025706,0.0000	Slew =,0.32	2R3	4	0	4,848,757:57.0	
940	99	31	23:50:18.733	117GD105A106A4EH	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,759:01.0	
941	99	31	23:50:25.400	117GD105A106A4EI	7STRP	0.025706,0.0000	Slew =,0.32	2R3	4	0	4,848,759:11.0	
942	99	31	23:51:38.066		DMS: *	:US-RUNUP	P7, TRACK *1, *FWD, TIC 1753.02 +/-	2R3	4	0	4,848,760:29.0	
943	99	31	23:51:38.066	50ZZ6XX	6DMSC		DMS Control Tape runup 7.68kps	2R3	4	0	4,848,760:29.0	
944	99	31	23:51:39.466		DMS: *	:US_AT_SP	P7, TRACK 1, FWD, TIC *1753.14 +/-	2R3	4	0	4,848,760:31.1	
945	99	31	23:51:44.733		DMS: *	:US_RD	P7, TRACK 1, FWD, TIC *1754.38 +/-	2R3	4	0	4,848,760:39.0	
946	99	31	23:51:45.933		DMS: *	:RUNUP	R7, TRACK *2, *REV, TIC *1754.44 +/-	2R3	4	0	4,848,760:40.8	
947	99	31	23:51:47.333		DMS: *	:AT_SPD	R7, TRACK 2, REV, TIC *1754.32 +/-	2R3	4	0	4,848,760:42.9	
948	99	31	23:51:49.400	117GD105A106A4EJ	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,760:46.0	
949	99	31	23:51:56.066	117GD105A106A4EK	7STRP	0.025706,0.0000	Slew =,0.32	2R3	4	0	4,848,760:56.0	
950	99	31	23:52:12.733		DMS: *	:RECORD	R7, TRACK 2, REV, TIC *1748.36 +/-	2R3	4	0	4,848,760:81.0	
951	99	31	23:52:35.400		DMS: *	:RUNDOWN	R7, TRACK 2, REV, TIC *1743.05 +/-	2R3	4	0	4,848,761:24.0	
952	99	31	23:52:35.400	50ZZ6RD	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	4,848,761:24.0	
953	99	31	23:52:36.600		DMS: *	:READY	RDY, TRACK 2, REV, TIC *1742.99 +/-	2R3	4	0	4,848,761:25.8	
954	99	31	23:53:20.066	117GD105A106A4EL	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,762:00.0	
955	99	31	23:53:26.733	117GD105A106A4EM	7STRP	0.025706,0.0000	Slew = 0.32	2R3	4	0	4,848,762:10.0	
956	99	31	23:54:50.733	117GD105A106A4EN	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,763:45.0	
957	99	31	23:54:57.400	117GD105A106A4EO	7STRP	0.025706,0.0000	Slew = 0.32	2R3	4	0	4,848,763:55.0	
958	99	31	23:56:21.400	117GD105A106A4EP	7STRP	-0.025536,0.0020	Slew =12.01	2R3	4	0	4,848,764:90.0	
959	99	31	23:56:28.066	117GD105A106A4EQ	7STRP	0.025706,0.0000	Slew =,0.32	2R3	4	0	4,848,765:09.0	
960	99	31	23:57:52.066	117GD11A	CSMOS	GE	***** GROUP END CSMOS	2R3	4	0	4,848,766:44.0	
961	99	32	00:06:58.733	176GD6B	6TMREC	NRC	NO RECORD Record Mode Change	2R3	4	0	4,848,775:45.0	
962	99	32	00:07:00.733	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	4,848,775:48.0	
963	99	32	00:07:00.733		DMS: *	:US-RUNUP	P7, TRACK *1, *FWD, TIC 1742.99 +/-	2R3	4	0	4,848,775:48.0	
964	99	32	00:07:02.133		DMS: *	:US_AT_SP	P7, TRACK 1, FWD, TIC *1743.11 +/-	2R3	4	0	4,848,775:50.1	
965	99	32	00:07:07.400		DMS: *	:US_RD	P7, TRACK 1, FWD, TIC *1744.35 +/-	2R3	4	0	4,848,775:58.0	
966	99	32	00:07:08.600		DMS: *	:RUNUP	R7, TRACK *2, *REV, TIC *1744.41 +/-	2R3	4	0	4,848,775:59.8	
967	99	32	00:07:10.000		DMS: *	:AT_SPD	R7, TRACK 2, REV, TIC *1744.29 +/-	2R3	4	0	4,848,775:61.9	
968	99	32	00:07:10.733		DMS: *	:RECORD	R7, TRACK 2, REV, TIC *1744.11 +/-	2R3	4	0	4,848,775:63.0	
969	99	32	00:07:30.733		DMS: *	:RUNDOWN	R7, TRACK 2, REV, TIC *1739.43 +/-	2R3	4	0	4,848,776:02.0	
970	99	32	00:07:30.733	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	4,848,776:02.0	
971	99	32	00:07:31.933		DMS: *	:READY	RDY, TRACK 2, REV, TIC *1739.37 +/-	2R3	4	0	4,848,776:03.8	
972	99	32	00:08:30.066	432SF6A	6RTSL2	NIMNCG,AACNCG,RT	R/T ENG SELECT	2R3	4	0	4,848,777:00.0	
973	99	32	00:09:30.733	411JA6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	4,848,778:00.0	
974	99	32	00:09:30.733		DMS: *	:US-RUNUP	P7, TRACK *1, *FWD, TIC 1739.37 +/-	2R3	4	0	4,848,778:00.0	
975	99	32	00:09:32.133		DMS: *	:US_AT_SP	P7, TRACK 1, FWD, TIC *1739.49 +/-	2R3	4	0	4,848,778:02.1	
976	99	32	00:09:37.400		DMS: *	:US_RD	P7, TRACK 1, FWD, TIC *1740.72 +/-	2R3	4	0	4,848,778:10.0	
977	99	32	00:09:38.600		DMS: *	:RUNUP	R7, TRACK *2, *REV, TIC *1740.78 +/-	2R3	4	0	4,848,778:11.8	
978	99	32	00:09:40.000		DMS: *	:AT_SPD	R7, TRACK 2, REV, TIC 1740.66 +/-	2R3	4	0	4,848,778:13.9	
979	99	32	00:09:40.000		DMS: *	:RECORD	R7, TRACK 2, REV, TIC *1740.66 +/-	2R3	4	0	4,848,778:13.9	
980	99	32	00:09:40.733	411JA6B	6TMREC	BDT	7.68 KBPS BUFFER DUMP TO TAPE Record Mode	2R3	4	0	4,848,778:15.0	
981	99	32	00:11:42.066	411JA6C	6TMREC	NRC	NO RECORD Record Mode Change	2R3	4	0	4,848,780:15.0	
982	99	32	00:11:44.733	175TN176A6A	6TMREC	LPW	7.68 KBPS LOW RATE SCI PWS RECORD Record	2R3	4	0	4,848,780:19.0	
983	99	32	00:11:45.400	175TN422A6A	6DMSC	RDY,0	DMS Control Tape runup 7.68kps	2R3	4	0	4,848,780:20.0	
984	99	32	00:11:52.066	175TN422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	4,848,780:30.0	
985	99	32	00:11:52.066		DMS: *	:RUNDOWN	R7, TRACK 2, REV, TIC *1709.71 +/-	2R3	4	0	4,848,780:30.0	
986	99	32	00:11:53.266		DMS: *	:READY	RDY, TRACK 2, REV, TIC *1709.65 +/-	2R3	4	0	4,848,780:31.8	
987	99	32	00:16:34.733	165GE4A	7SCAN	NORM,268.915997,	Check S/J Position	2R3	4	0	4,848,784:90.0	
988	99	32	00:19:37.400	176GE6A	6TMREC	BPT	7.68 KBPS PPR BURST TO TAPE Record Mode C	2R3	4	0	4,848,788:00.0	

Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MFI
989	99	32	00:20:28.733	117GE	CSMOS GS	***** GROUP START CSMOS	2R3	4	0	4,848,788:77.0	
990	99	32	00:20:38.066	117GE105A106A4A	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,789:00.0	
991	99	32	00:21:35.400	117GE105A106A4B	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,789:86.0	
992	99	32	00:21:46.733	117GE105A106A4C	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,790:12.0	
993	99	32	00:22:44.066	117GE105A106A4D	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,791:07.0	
994	99	32	00:22:55.400	117GE105A106A4E	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,791:24.0	
995	99	32	00:23:52.733	117GE105A106A4F	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,792:19.0	
996	99	32	00:24:04.066	117GE105A106A4G	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,792:36.0	
997	99	32	00:25:01.400	117GE105A106A4H	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,793:31.0	
998	99	32	00:25:12.733	117GE105A106A4I	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,793:48.0	
999	99	32	00:26:10.066	117GE105A106A4J	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,794:43.0	
1000	99	32	00:26:21.400	117GE105A106A4K	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,794:60.0	
1001	99	32	00:27:18.733	117GE105A106A4L	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,795:55.0	
1002	99	32	00:27:30.066	117GE105A106A4M	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,795:72.0	
1003	99	32	00:28:27.400	117GE105A106A4N	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,796:67.0	
1004	99	32	00:28:38.733	117GE105A106A4O	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,796:84.0	
1005	99	32	00:29:36.066	117GE105A106A4P	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,797:79.0	
1006	99	32	00:29:47.400	117GE105A106A4Q	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,798:05.0	
1007	99	32	00:30:44.733	117GE105A106A4R	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,799:00.0	
1008	99	32	00:30:56.066	117GE105A106A4S	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,799:17.0	
1009	99	32	00:31:53.400	117GE105A106A4T	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,800:12.0	
1010	99	32	00:32:04.733	117GE105A106A4U	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,800:29.0	
1011	99	32	00:33:02.066	117GE105A106A4V	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,801:24.0	
1012	99	32	00:33:13.400	117GE105A106A4W	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,801:41.0	
1013	99	32	00:34:10.733	117GE105A106A4X	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,802:36.0	
1014	99	32	00:34:22.066	117GE105A106A4Y	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,802:53.0	
1015	99	32	00:35:19.400	117GE105A106A4Z	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,803:48.0	
1016	99	32	00:35:30.733	117GE105A106A4AA	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,803:65.0	
1017	99	32	00:36:28.066	117GE105A106A4AB	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,804:60.0	
1018	99	32	00:36:39.400	117GE105A106A4AC	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,804:77.0	
1019	99	32	00:36:47.400	43Z5G6A	6RTDS2 NIMCG,AACNCG,RT	RT ENG DESLECT	2R3	4	0	4,848,804:89.0	
1020	99	32	00:36:50.066	50ZZ6XX	6DMSC R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	4,848,805:02.0	
1021	99	32	00:36:50.066	DMS:	: *US-RUNUP	P7, TRACK *1,*FWD, TIC 1709.65 +/-	2R3	4	0	4,848,805:02.0	
1022	99	32	00:36:51.466	DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *1709.77 +/-	2R3	4	0	4,848,805:04.1	
1023	99	32	00:36:56.733	DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *1711.00 +/-	2R3	4	0	4,848,805:12.0	
1024	99	32	00:36:57.933	DMS:	: *RUNUP	R7, TRACK *2,*REV, TIC *1711.06 +/-	2R3	4	0	4,848,805:13.8	
1025	99	32	00:36:59.333	DMS:	: *AT_SPD	R7, TRACK 2, REV, TIC *1710.94 +/-	2R3	4	0	4,848,805:15.9	
1026	99	32	00:37:25.400	DMS:	: *RECORD	R7, TRACK 2, REV, TIC *1704.83 +/-	2R3	4	0	4,848,805:55.0	
1027	99	32	00:37:36.733	117GE105A106A4AD	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,805:72.0	
1028	99	32	00:37:48.066	117GE105A106A4AE	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,805:89.0	
1029	99	32	00:37:48.066	50ZZ6RD	6DMSC RDY,0	DMS Control Tape stop	2R3	4	0	4,848,805:89.0	
1030	99	32	00:37:48.066	DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *1699.52 +/-	2R3	4	0	4,848,805:89.0	
1031	99	32	00:37:49.266	DMS:	: *READY	RDY, TRACK 2, REV, TIC *1699.46 +/-	2R3	4	0	4,848,805:90.8	
1032	99	32	00:38:45.400	117GE105A106A4AF	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,806:84.0	
1033	99	32	00:38:56.733	117GE105A106A4AG	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,807:10.0	
1034	99	32	00:39:54.066	117GE105A106A4AH	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,808:05.0	
1035	99	32	00:40:05.400	117GE105A106A4AI	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,808:22.0	
1036	99	32	00:41:02.733	117GE105A106A4AJ	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,809:17.0	
1037	99	32	00:41:14.066	117GE105A106A4AK	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,809:34.0	
1038	99	32	00:42:11.400	117GE105A106A4AL	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,810:29.0	
1039	99	32	00:42:22.733	117GE105A106A4AM	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,810:46.0	
1040	99	32	00:43:20.066	117GE105A106A4AN	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,811:41.0	
1041	99	32	00:43:31.400	117GE105A106A4AO	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,811:58.0	
1042	99	32	00:44:28.733	117GE105A106A4AP	7STRP 0.0077,0.013501,	Slew = 12.01	2R3	4	0	4,848,812:53.0	
1043	99	32	00:44:40.066	117GE105A106A4AQ	7STRP -0.009,-0.014401	Slew = 0.31	2R3	4	0	4,848,812:70.0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
1044	99	32	00:45:37.400	117GE105A106A4AR	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,813:65.0	
1045	99	32	00:45:48.733	117GE105A106A4AS	7STRP	-0.009,-0.014401,	Slew =0.31	2R3	4	0	4,848,813:82.0	
1046	99	32	00:46:46.066	117GE105A106A4AT	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,814:77.0	
1047	99	32	00:46:57.400	117GE105A106A4AU	7STRP	-0.009,-0.014401,	Slew =0.31	2R3	4	0	4,848,815:03.0	
1048	99	32	00:47:54.733	117GE105A106A4AV	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,815:89.0	
1049	99	32	00:48:06.066	117GE105A106A4AW	7STRP	-0.009,-0.014401,	Slew =-0.31	2R3	4	0	4,848,816:15.0	
1050	99	32	00:49:03.400	117GE105A106A4AX	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,817:10.0	
1051	99	32	00:49:14.733	117GE105A106A4AY	7STRP	-0.009,-0.014401,	Slew =-0.31	2R3	4	0	4,848,817:27.0	
1052	99	32	00:50:12.066	117GE105A106A4AZ	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,818:22.0	
1053	99	32	00:50:23.400	117GE105A106A4BA	7STRP	-0.009,-0.014401,	Slew =0.31	2R3	4	0	4,848,818:39.0	
1054	99	32	00:51:20.733	117GE105A106A4BB	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,819:34.0	
1055	99	32	00:51:32.066	117GE105A106A4BC	7STRP	-0.009,-0.014401,	Slew =0.31	2R3	4	0	4,848,819:51.0	
1056	99	32	00:52:29.400	117GE105A106A4BD	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,820:46.0	
1057	99	32	00:52:40.733	117GE105A106A4BE	7STRP	-0.009,-0.014401,	Slew =0.31	2R3	4	0	4,848,820:63.0	
1058	99	32	00:53:38.066	117GE105A106A4BF	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,821:58.0	
1059	99	32	00:53:49.400	117GE105A106A4BG	7STRP	-0.009,-0.014401	Slew =-0.31	2R3	4	0	4,848,821:75.0	
1060	99	32	00:54:41.400		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 1699.46 +/-	2R3	4	0	4,848,822:62.0	
1061	99	32	00:54:41.400	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	4,848,822:62.0	
1062	99	32	00:54:42.800		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *1699.58 +/-	2R3	4	0	4,848,822:64.1	
1063	99	32	00:54:46.733	117GE105A106A4BH	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,822:70.0	
1064	99	32	00:54:48.066		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *1700.82 +/-	2R3	4	0	4,848,822:72.0	
1065	99	32	00:54:49.266		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *1700.88 +/-	2R3	4	0	4,848,822:73.8	
1066	99	32	00:54:50.566		DMS:	: *AT_SPD	R7, TRACK 2, REV, TIC *1700.76 +/-	2R3	4	0	4,848,822:75.9	
1067	99	32	00:54:58.066	117GE105A106A4BI	7STRP	-0.009,-0.014401	Slew =0.31	2R3	4	0	4,848,822:87.0	
1068	99	32	00:55:16.066		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *1694.80 +/-	2R3	4	0	4,848,823:23.0	
1069	99	32	00:55:38.733		DMS:	: *RUNDOWN	R7, TRACK 2, REV, TIC *1689.49 +/-	2R3	4	0	4,848,823:57.0	
1070	99	32	00:55:38.733	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	4,848,823:57.0	
1071	99	32	00:55:39.933		DMS:	: *READY	RDY, TRACK 2, REV, TIC *1689.43 +/-	2R3	4	0	4,848,823:58.8	
1072	99	32	00:55:55.400	117GE105A106A4BJ	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,823:82.0	
1073	99	32	00:56:06.733	117GE105A106A4BK	7STRP	-0.009,-0.014401,	Slew =0.31	2R3	4	0	4,848,824:08.0	
1074	99	32	00:57:04.066	117GE105A106A4BL	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,825:03.0	
1075	99	32	00:57:15.400	117GE105A106A4BM	7STRP	-0.009,-0.014401,	Slew =0.31	2R3	4	0	4,848,825:20.0	
1076	99	32	00:58:12.733	117GE105A106A4BN	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,826:15.0	
1077	99	32	00:58:24.066	117GE105A106A4BO	7STRP	-0.009,-0.014401,	Slew =0.31	2R3	4	0	4,848,826:32.0	
1078	99	32	00:59:21.400	117GE105A106A4BP	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,827:27.0	
1079	99	32	00:59:32.733	117GE105A106A4BQ	7STRP	-0.009,-0.014401	Slew =-0.31	2R3	4	0	4,848,827:44.0	
1080	99	32	01:00:00.066	481UL4A	7VECT	BB1	Inert vect update UTC	2R3	4	0	4,848,827:85.0	
1081	99	32	01:00:30.066	117GE105A106A4BR	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,828:39.0	
1082	99	32	01:00:41.400	117GE105A106A4BS	7STRP	-0.009,-0.014401,	Slew =0.31	2R3	4	0	4,848,828:56.0	
1083	99	32	01:01:38.733	117GE105A106A4BT	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,829:51.0	
1084	99	32	01:01:50.066	117GE105A106A4BU	7STRP	-0.009,-0.014401,	Slew =-0.31	2R3	4	0	4,848,829:68.0	
1085	99	32	01:02:47.400	117GE105A106A4BV	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,830:63.0	
1086	99	32	01:02:58.733	117GE105A106A4BW	7STRP	-0.009,-0.014401,	Slew =-0.31	2R3	4	0	4,848,830:80.0	
1087	99	32	01:03:56.066	117GE105A106A4BX	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,831:75.0	
1088	99	32	01:04:07.400	117GE105A106A4BY	7STRP	-0.009,-0.014401,	Slew =0.31	2R3	4	0	4,848,832:01.0	
1089	99	32	01:05:04.733	117GE105A106A4BZ	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,832:87.0	
1090	99	32	01:05:16.066	117GE105A106A4CA	7STRP	-0.009,-0.014401,	Slew =0.31	2R3	4	0	4,848,833:13.0	
1091	99	32	01:06:13.400	117GE105A106A4CB	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,834:08.0	
1092	99	32	01:06:24.733	117GE105A106A4CC	7STRP	-0.009,-0.014401,	Slew =0.31	2R3	4	0	4,848,834:25.0	
1093	99	32	01:07:22.066	117GE105A106A4CD	7STRP	0.0077,0.013501,	Slew =12.01	2R3	4	0	4,848,835:20.0	
1094	99	32	01:07:33.400	117GE105A106A4CE	7STRP	-0.009,-0.014401	Slew =-0.31	2R3	4	0	4,848,835:37.0	
1095	99	32	01:08:30.733	117GE11A	CSMOS	GE	***** GROUP END CSMOS	2R3	4	0	4,848,836:32.0	
1096	99	32	01:10:40.733	176GE6B	6TMREC	NRC	NO RECORD Record Mode Change	2R3	4	0	4,848,838:45.0	
1097	99	32	01:10:42.733		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 1689.43 +/-	2R3	4	0	4,848,838:48.0	
1098	99	32	01:10:42.733	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	4,848,838:48.0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
1099	99	32	01:10:44.133		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *1689.55 +/-	2R3	4	0	4,848,838:50:1	
1100	99	32	01:10:49.400		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *1690.78 +/-	2R3	4	0	4,848,838:58:0	
1101	99	32	01:10:50.600		DMS:	: *RUNUP	R7, TRACK *2, *REV, TIC *1690.84 +/-	2R3	4	0	4,848,838:59:8	
1102	99	32	01:10:52.000		DMS:	: *AT_SPD	R7, TRACK 2, REV, TIC *1690.72 +/-	2R3	4	0	4,848,838:61:9	
1103	99	32	01:10:52.733		DMS:	: *RECORD	R7, TRACK 2, REV, TIC *1690.55 +/-	2R3	4	0	4,848,838:63:0	
1104	99	32	01:11:10.733	165IB4A	7SCAN	: NORM,261.875,-27 : *RUNDOWN	Check S/P Position	2R3	4	0	4,848,838:90:0	
1106	99	32	01:11:13.400	50ZZ6RD	6DMSC	: RDY,0	DMS Control Tape stop	2R3	4	0	4,848,839:03:0	
1107	99	32	01:11:14.600		DMS:	: *READY	RDY, TRACK 2, REV, TIC *1685.65 +/-	2R3	4	0	4,848,839:04:8	
1108	99	32	01:15:02.733		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 1685.65 +/-	2R3	4	0	4,848,842:74:0	
1109	99	32	01:15:02.733	175IB422A6A	6DMSC	: R806,0	DMS Control Tape runup 806.4kb	2R3	4	0	4,848,842:74:0	
1110	99	32	01:15:04.133		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC *1685.77 +/-	2R3	4	0	4,848,842:76:1	
1111	99	32	01:15:06.066	118IB	SMOS	: GS	P7, TRACK 1, FWD, TIC *1687.00 +/-	2R3	4	0	4,848,842:79:0	
1112	99	32	01:15:09.400		DMS:	: *US_RD	R806, TRACK *2, *REV, TIC *1687.06 +/-	2R3	4	0	4,848,842:84:0	
1113	99	32	01:15:10.600		DMS:	: *RUNUP	806.4 KBPS IMAGE RECORD Record Mode Chang	2R3	4	0	4,848,842:85:8	
1114	99	32	01:15:15.400	175IB176A6A	6TMREC	: IM8	R806, TRACK 2, REV, TIC 1621.06 +/-	2R3	4	0	4,848,843:02:0	
1115	99	32	01:15:15.866		DMS:	: *AT_SPD	R806, TRACK 2, REV, TIC *1621.06 +/-	2R3	4	0	4,848,843:02:7	
1116	99	32	01:15:15.866		DMS:	: *RECORD	Slew =2,5.0	2R3	4	0	4,848,843:03:0	
1117	99	32	01:15:16.066	118IB110A11A4A	7STRP	: -0.0051,0.00675, GE	DMS Control Tape stop	2R3	4	0	4,848,843:16:0	
1118	99	32	01:15:24.733	118IB11A	SMOS	: GS	DMS Control Tape stop	2R3	4	0	4,848,843:23:0	
1119	99	32	01:15:29.400	175IB422A6B	6DMSC	: *RUNDOWN	R806, TRACK 2, REV, TIC *1288.02 +/-	2R3	4	0	4,848,843:23:0	
1120	99	32	01:15:29.400		DMS:	: *READY	RDY, TRACK 2, REV, TIC *1276.52 +/- 1	2R3	4	0	4,848,843:27:1	
1121	99	32	01:15:32.133		DMS:	: *RUNUP	Check S/P Position	2R3	4	0	4,848,843:90:0	
1122	99	32	01:16:14.066	165IC4A	7SCAN	: NORM,264.088997, : *US-RUNUP	P7, TRACK *1, *FWD, TIC 1276.52 +/- 1	2R3	4	0	4,848,844:74:0	
1123	99	32	01:17:04.066		DMS:	: R806,0	DMS Control Tape runup 806.4kb	2R3	4	0	4,848,844:74:0	
1124	99	32	01:17:04.066	175ID422A6A	6DMSC	: *US_AT_SP	P7, TRACK 1, FWD, TIC *1276.64 +/- 1	2R3	4	0	4,848,844:76:1	
1125	99	32	01:17:05.466		DMS:	: GS	P7, TRACK 1, FWD, TIC *1277.87 +/- 1	2R3	4	0	4,848,844:79:0	
1126	99	32	01:17:07.400	118IC	SMOS	: GS	R806, TRACK *2, *REV, TIC *1277.93 +/- 1	2R3	4	0	4,848,844:85:8	
1127	99	32	01:17:10.733		DMS:	: *US_RD	806.4 KBPS IMAGE RECORD Record Mode Chang	2R3	4	0	4,848,845:02:0	
1128	99	32	01:17:11.933		DMS:	: *RUNUP	R806, TRACK 2, REV, TIC 1211.93 +/- 1	2R3	4	0	4,848,845:02:7	
1129	99	32	01:17:16.733	175ID176A6A	6TMREC	: IM8	R806, TRACK 2, REV, TIC *1211.93 +/- 1	2R3	4	0	4,848,845:02:7	
1130	99	32	01:17:17.200		DMS:	: *AT_SPD	Slew =2,5.0	2R3	4	0	4,848,845:02:7	
1131	99	32	01:17:17.200		DMS:	: *RECORD	R806, TRACK 2, REV, TIC *944.51 +/- 1	2R3	4	0	4,848,845:19:0	
1132	99	32	01:17:17.400	118IC110A11A4A	7STRP	: 0.009,0.014001,2 GE	DMS Control Tape stop	2R3	4	0	4,848,845:19:0	
1133	99	32	01:17:26.066	118IC11A	SMOS	: GS	RDY, TRACK 2, REV, TIC *933.01 +/- 1	2R3	4	0	4,848,845:23:1	
1134	99	32	01:17:28.066	175ID422A6B	6DMSC	: *RUNDOWN	Check S/P Position	2R3	4	0	4,848,845:90:0	
1135	99	32	01:17:28.066		DMS:	: *READY	P7, TRACK *1, *FWD, TIC 933.01 +/- 1	2R3	4	0	4,848,846:74:0	
1136	99	32	01:17:30.800		DMS:	: *RUNUP	DMS Control Tape stop	2R3	4	0	4,848,846:76:1	
1137	99	32	01:18:15.400	165ID4A	7SCAN	: NORM,264.32,-25, : *US-RUNUP	P7, TRACK 1, FWD, TIC *934.36 +/- 1	2R3	4	0	4,848,846:84:0	
1138	99	32	01:19:05.400		DMS:	: *US-RUNUP	806.4 KBPS IMAGE RECORD Record Mode Chang	2R3	4	0	4,848,846:85:8	
1139	99	32	01:19:05.400	175IC422A6A	6DMSC	: R806,0	R806, TRACK 2, REV, TIC 868.42 +/- 1	2R3	4	0	4,848,847:02:7	
1140	99	32	01:19:06.800		DMS:	: *US_AT_SP	R806, TRACK 2, REV, TIC *868.42 +/- 1	2R3	4	0	4,848,847:02:7	
1141	99	32	01:19:08.733	118ID	SMOS	: GS	Slew =3,5.0	2R3	4	0	4,848,847:03:0	
1142	99	32	01:19:12.066		DMS:	: *US_RD	R806, TRACK 2, REV, TIC *934.42 +/- 1	2R3	4	0	4,848,847:29:0	
1143	99	32	01:19:13.266		DMS:	: *RUNUP	DMS Control Tape stop	2R3	4	0	4,848,847:39:0	
1144	99	32	01:19:18.066	175IC176A6A	6TMREC	: IM8	RDY, TRACK 2, REV, TIC *261.88 +/- 1	2R3	4	0	4,848,847:39:0	
1145	99	32	01:19:18.533		DMS:	: *AT_SPD	RDY, TRACK 2, REV, TIC *261.38 +/- 1	2R3	4	0	4,848,847:43:1	
1146	99	32	01:19:18.533		DMS:	: *RECORD	P7, TRACK 2, REV, TIC 261.38 +/- 1	2R3	4	0	4,848,848:81:0	
1147	99	32	01:19:18.733	118ID110A11A4A	7STRP	: -0.001,0.00675,2 GE	P7, TRACK *1, *FWD, TIC 261.38 +/- 1	2R3	4	0	4,848,848:81:0	
1148	99	32	01:19:36.066	118ID11A	SMOS	: GS	DMS Control Tape stop	2R3	4	0	4,848,847:39:0	
1149	99	32	01:19:42.733	175IC422A6B	6DMSC	: *RUNDOWN	R806, TRACK 2, REV, TIC *272.88 +/- 1	2R3	4	0	4,848,847:39:0	
1150	99	32	01:19:42.733		DMS:	: *READY	RDY, TRACK 2, REV, TIC *261.38 +/- 1	2R3	4	0	4,848,847:43:1	
1151	99	32	01:19:45.466		DMS:	: *DMS-TURN	P7, TRACK 2, REV, TIC 261.38 +/- 1	2R3	4	0	4,848,848:81:0	
1152	99	32	01:21:11.400		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 261.38 +/- 1	2R3	4	0	4,848,848:81:0	
1153	99	32	01:21:11.400		DMS:	: *US-RUNUP		2R3	4	0	4,848,848:81:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
1154	99	32	01:21:11.400	465KC6A	6DTRN	CMD,6DTRN,465KC6	DMS TRACK TURNAROUND	2R3	4	0	4,848,848:81.0	
1155	99	32	01:21:12.800		DMS:	: *US_AT_SP	P7, TRACK 1, FWD, TIC * 261.50 +/- 1	2R3	4	0	4,848,848:83.1	
1156	99	32	01:21:18.066		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC * 262.73 +/- 1	2R3	4	0	4,848,849:00.0	
1157	99	32	01:21:19.266		DMS:	: *RUNUP	P7, TRACK *2, *REV, TIC * 262.79 +/- 1	2R3	4	0	4,848,849:01.8	
1158	99	32	01:21:20.666		DMS:	: *AT_SPD	P7, TRACK 2, REV, TIC * 262.67 +/- 1	2R3	4	0	4,848,849:03.9	
1159	99	32	01:25:48.533		DMS:	: *REVERSE	P7, TRACK 3, FWD, TIC * 199.87 +/- 1	2R3	4	0	4,848,853:41.7	
1160	99	32	01:25:49.733		DMS:	: *RUNUP	P7, TRACK 3, FWD, TIC 199.81 +/- 1	2R3	4	0	4,848,853:43.5	
1161	99	32	01:25:49.733		DMS:	: *TURNARND	P7, TRACK *3, *FWD, TIC * 199.81 +/- 1	2R3	4	0	4,848,853:43.5	
1162	99	32	01:25:51.133		DMS:	: *AT_SPD	P7, TRACK 3, FWD, TIC * 199.93 +/-	2R3	4	0	4,848,853:45.6	
1163	99	32	01:26:03.133		DMS:	: *AUTOSTOP	P7, TRACK 3, FWD, TIC * 202.06 +/-	2R3	4	0	4,848,853:63.6	
1164	99	32	01:26:04.333		DMS:	: *READY	RDY, TRACK 3, FWD, TIC * 202.12 +/-	2R3	4	0	4,848,853:65.4	
1165	99	32	01:32:17.400	465KD6A	6DMSC	P7,3	DMS Control Tape P/B 7.68kbps	2R3	4	0	4,848,859:79.0	
1166	99	32	01:32:17.400		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 202.12 +/-	2R3	4	0	4,848,859:79.0	
1167	99	32	01:32:24.066		DMS:	: *RUNUP	P7, TRACK *3, FWD, TIC 202.12 +/-	2R3	4	0	4,848,859:89.0	
1168	99	32	01:32:25.466		DMS:	: *AT_SPD	P7, TRACK 3, FWD, TIC 202.24 +/-	2R3	4	0	4,848,860:00.1	
1169	99	32	01:32:25.466		DMS:	: *P_SLEW	P7, TRACK 3, FWD, TIC * 202.24 +/-	2R3	4	0	4,848,860:00.1	
1170	99	32	01:39:32.066	465KD6B	6DMSC	RDY,3	DMS Control Tape stop	2R3	4	0	4,848,867:03.0	
1171	99	32	01:39:32.066		DMS:	: *RUNDOWN	P7, TRACK 3, FWD, TIC * 302.23 +/-	2R3	4	0	4,848,867:03.0	
1172	99	32	01:39:33.266		DMS:	: *READY	RDY, TRACK 3, FWD, TIC * 302.29 +/-	2R3	4	0	4,848,867:04.8	
1173	99	32	01:40:30.733	411JC6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R3	4	0	4,848,868:00.0	
1174	99	32	01:40:30.733		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 302.29 +/-	2R3	4	0	4,848,868:00.0	
1175	99	32	01:40:37.400		DMS:	: *RUNUP	R7, TRACK *3, FWD, TIC 302.29 +/-	2R3	4	0	4,848,868:10.0	
1176	99	32	01:40:38.800		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC * 302.41 +/-	2R3	4	0	4,848,868:12.1	
1177	99	32	01:40:38.800		DMS:	: *AT_SPD	R7, TRACK 3, FWD, TIC 302.41 +/-	2R3	4	0	4,848,868:12.1	
1178	99	32	01:40:40.733	411JC6B	6TMREC	BDT	7.68 KBPS BUFFER DUMP TO TAPE Record Mode	2R3	4	0	4,848,868:15.0	
1179	99	32	01:42:42.066	411JC6C	6TMREC	NRC	NO RECORD Record Mode Change	2R3	4	0	4,848,870:15.0	
1180	99	32	01:42:42.733		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 331.45 +/-	2R3	4	0	4,848,870:16.0	
1181	99	32	01:42:42.733	411JC6D	6DMSC	RDY,0	DMS Control Tape stop	2R3	4	0	4,848,870:16.0	
1182	99	32	01:42:43.933		DMS:	: *READY	RDY, TRACK 3, FWD, TIC * 331.51 +/-	2R3	4	0	4,848,870:17.8	
1183	99	32	01:49:26.066		DMS:	: *E4-DELAY	RDY, TRACK *1, FWD, TIC 331.51 +/-	2R3	4	0	4,848,876:75.0	
1184	99	32	01:49:26.066	175TA422A6A	6DMSC	R7,3	DMS Control	2R3	4	0	4,848,876:75.0	
1185	99	32	01:49:32.733		DMS:	: *RUNUP	R7, TRACK *3, FWD, TIC 331.51 +/-	2R3	4	0	4,848,876:85.0	
1186	99	32	01:49:34.066	282NA431A6A	6RCSEL	DDSNCG,PLSSEL,EP	Record Select (DDS onl)	2R3	4	0	4,848,876:87.0	
1187	99	32	01:49:34.066	175TA176A6A	6TMREC	LPW	7.68 KBPS LOW RATE SCI PWS RECORD Record	2R3	4	0	4,848,876:87.0	
1188	99	32	01:49:34.133		DMS:	: *AT_SPD	R7, TRACK 3, FWD, TIC 331.63 +/-	2R3	4	0	4,848,876:87.1	
1189	99	32	01:49:34.133		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC * 331.63 +/-	2R3	4	0	4,848,876:87.1	
1190	99	32	01:49:36.733	431MA6A	6RCSEL	DDSEL,PLSNCG,EP	Record Select (DDS onl)	2R3	4	0	4,848,877:00.0	
1191	99	32	01:49:36.733	432SH6A	6RTSL2	NIMNCG,AACNCG,RT	R/T ENG SELECT	2R3	4	0	4,848,877:00.0	
1192	99	32	01:50:35.400	165IE4A	7SCAN	NORM,252.745998,	Check S/P Position	2R3	4	0	4,848,877:88.0	
1193	99	32	01:52:10.733	428JA6A	6RCCLR			2R3	4	0	4,848,879:49.0	
1194	99	32	01:52:11.400	428JA6B	6RCSET			2R3	4	0	4,848,879:50.0	
1195	99	32	01:53:43.400	117IE	CSMOS	GS	**** GROUP START CSMOS	2R3	4	0	4,848,881:06.0	
1196	99	32	01:54:34.066	175IE422A6A	6DMSC	R806,3	DMS Control	2R3	4	0	4,848,881:82.0	
1197	99	32	01:54:34.066		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 401.93 +/-	2R3	4	0	4,848,881:82.0	
1198	99	32	01:54:35.266		DMS:	: *RUNUP	R806, TRACK 3, FWD, TIC * 401.99 +/-	2R3	4	0	4,848,881:83.8	
1199	99	32	01:54:37.400	165IE4B	7VECT		Inert vect update UTC	2R3	4	0	4,848,881:87.0	
1200	99	32	01:54:38.733	117IE105A106A4A	7STRP	0.0035,-0.025006	Slew = .3.26	2R3	4	0	4,848,881:89.0	
1201	99	32	01:54:40.066	175IE176A6A	6TMREC	Ai8	806.4 KBPS SSI RECORD Record Mode Change	2R3	4	0	4,848,882:00.0	
1202	99	32	01:54:40.533		DMS:	: *AT_SPD	R806, TRACK 3, FWD, TIC 467.99 +/-	2R3	4	0	4,848,882:00.7	
1203	99	32	01:54:40.533		DMS:	: *RECORD	R806, TRACK 3, FWD, TIC * 467.99 +/-	2R3	4	0	4,848,882:00.7	
1204	99	32	01:54:44.066	428JB6A	6RCCLR			2R3	4	0	4,848,882:06.0	
1205	99	32	01:54:44.733	428JB6B	6RCSET			2R3	4	0	4,848,882:07.0	
1206	99	32	01:54:49.400	175TB422A6A	6DMSC	R7,3	DMS Control	2R3	4	0	4,848,882:14.0	
1207	99	32	01:54:49.400		DMS:	: *RUNDOWN	R806, TRACK 3, FWD, TIC * 686.19 +/-	2R3	4	0	4,848,882:14.0	
1208	99	32	01:54:50.066	117IE105A106A4B	7STRP	-0.006,-0.00825,	Slew = :3.01	2R3	4	0	4,848,882:15.0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
1209	99	32	01:54:52.133		DMS:	: *RUNUP	R7, TRACK 3, FWD, TIC * 697.69 +/-	2R3	4	0	4,848,882:18:1	
1210	99	32	01:54:53.400	175TB176A6A	6TMREC	LPW	7.68 KBPS LOW RATE SCI PWS RECORD	2R3	4	0	4,848,882:20:0	
1211	99	32	01:54:53.533		DMS:	: *AT_SPD	R7, TRACK 3, FWD, TIC 697.81 +/-	2R3	4	0	4,848,882:20:2	
1212	99	32	01:54:53.533		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC * 697.81 +/-	2R3	4	0	4,848,882:20:2	
1213	99	32	01:54:56.733	428JC6A	6RCCLR			2R3	4	0	4,848,882:25:0	
1214	99	32	01:54:57.400	428JC6B	6RCSET			2R3	4	0	4,848,882:26:0	
1215	99	32	01:55:02.066		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC * 699.81 +/-	2R3	4	0	4,848,882:33:0	
1216	99	32	01:55:02.066	175IF422A6A	6DMSC	R806.3	DMS Control	2R3	4	0	4,848,882:33:0	
1217	99	32	01:55:03.266		DMS:	: *RUNUP	R806, TRACK 3, FWD, TIC * 699.87 +/-	2R3	4	0	4,848,882:34:8	
1218	99	32	01:55:06.733	117IE105A106A4C	7STRP	0.0035:-0.025006	Slew = -3.26	2R3	4	0	4,848,882:40:0	
1219	99	32	01:55:08.066	175IF176A6A	6TMREC	Ai8	806.4 KBPS SSI RECORD Record Mode Change	2R3	4	0	4,848,882:42:0	
1220	99	32	01:55:08.533		DMS:	: *AT_SPD	R806, TRACK 3, FWD, TIC 765.87 +/-	2R3	4	0	4,848,882:42:0	
1221	99	32	01:55:08.533		DMS:	: *RECORD	R806, TRACK 3, FWD, TIC * 765.87 +/-	2R3	4	0	4,848,882:42:7	
1222	99	32	01:55:12.733	428JD6A	6RCCLR			2R3	4	0	4,848,882:49:0	
1223	99	32	01:55:13.400	428JD6B	6RCSET			2R3	4	0	4,848,882:50:0	
1224	99	32	01:55:17.400	175TC422A6A	6DMSC	R7,3	DMS Control	2R3	4	0	4,848,882:56:0	
1225	99	32	01:55:17.400		DMS:	: *RUNDOWN	R806, TRACK 3, FWD, TIC * 984.08 +/-	2R3	4	0	4,848,882:56:0	
1226	99	32	01:55:18.066	117IE11A	CSMOS	GE	***** GROUP END CSMOS	2R3	4	0	4,848,882:57:0	
1227	99	32	01:55:20.133		DMS:	: *RUNUP	R7, TRACK 3, FWD, TIC * 995.58 +/-	2R3	4	0	4,848,882:60:1	
1228	99	32	01:55:21.400	175TC176A6A	6TMREC	LPW	7.68 KBPS LOW RATE SCI PWS RECORD	2R3	4	0	4,848,882:62:0	
1229	99	32	01:55:21.533		DMS:	: *AT_SPD	R7, TRACK 3, FWD, TIC 995.70 +/-	2R3	4	0	4,848,882:62:2	
1230	99	32	01:55:21.533		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC * 995.70 +/-	2R3	4	0	4,848,882:62:2	
1231	99	32	01:56:44.733	428JE6A	6RCCLR			2R3	4	0	4,848,884:05:0	
1232	99	32	01:56:45.400	428JE6B	6RCSET			2R3	4	0	4,848,884:06:0	
1233	99	32	01:58:42.066	165IF4A	7SCAN	NORM;241.306999,	Check S/P Position	2R3	4	0	4,848,885:90:0	
1234	99	32	01:59:35.400	118IF	SMOS	GS		2R3	4	0	4,848,886:79:0	
1235	99	32	01:59:38.733		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC *1055.98 +/-	2R3	4	0	4,848,886:84:0	
1236	99	32	01:59:38.733	175IG422A6A	6DMSC	R806.3	DMS Control	2R3	4	0	4,848,886:84:0	
1237	99	32	01:59:39.933		DMS:	: *RUNUP	R806, TRACK 3, FWD, TIC *1056.04 +/-	2R3	4	0	4,848,886:85:8	
1238	99	32	01:59:42.066	165IF4B	7VECT		Inert vect update UTC	2R3	4	0	4,848,886:89:0	
1239	99	32	01:59:44.733	175IG176A6A	6TMREC	IM8	806.4 KBPS IMAGE RECORD Record Mode Change	2R3	4	0	4,848,887:02:0	
1240	99	32	01:59:45.200		DMS:	: *RECORD	R806, TRACK 3, FWD, TIC *1122.04 +/-	2R3	4	0	4,848,887:02:7	
1241	99	32	01:59:45.200		DMS:	: *AT_SPD	R806, TRACK 3, FWD, TIC 1122.04 +/- 1	2R3	4	0	4,848,887:02:7	
1242	99	32	01:59:45.400	118IF110A111A4A	7STRP	0.00285,0.00675,	Slew =3.50	2R3	4	0	4,848,887:03:0	
1243	99	32	01:59:59.400	428JF6A	6RCCLR			2R3	4	0	4,848,887:24:0	
1244	99	32	02:00:00.066	428JF6B	6RCSET			2R3	4	0	4,848,887:25:0	
1245	99	32	02:00:02.733	118IF11A	SMOS	GE		2R3	4	0	4,848,887:29:0	
1246	99	32	02:00:03.400	116IF4A	7STRP	0.00195,0.00675,	Slew =-3.01	2R3	4	0	4,848,887:30:0	
1247	99	32	02:00:18.066	175TD422A6A	6DMSC	R7,3	DMS Control	2R3	4	0	4,848,887:52:0	
1248	99	32	02:00:18.066		DMS:	: *RUNDOWN	R806, TRACK 3, FWD, TIC *1930.87 +/- 1	2R3	4	0	4,848,887:52:0	
1249	99	32	02:00:20.800		DMS:	: *RUNUP	R7, TRACK 3, FWD, TIC *1942.37 +/- 1	2R3	4	0	4,848,887:56:1	
1250	99	32	02:00:22.066	175TD176A6A	6TMREC	LPW	7.68 KBPS LOW RATE SCI PWS RECORD	2R3	4	0	4,848,887:58:0	
1251	99	32	02:00:22.200		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC *1942.49 +/- 1	2R3	4	0	4,848,887:58:2	
1252	99	32	02:00:22.200		DMS:	: *AT_SPD	R7, TRACK 3, FWD, TIC 1942.49 +/- 1	2R3	4	0	4,848,887:58:2	
1253	99	32	02:01:30.066	428JG6A	6RCCLR			2R3	4	0	4,848,888:69:0	
1254	99	32	02:01:30.733	428JG6B	6RCSET			2R3	4	0	4,848,888:70:0	
1255	99	32	02:01:44.066	165IG4A	7SCAN	NORM;228.521999,	Check S/P Position	2R3	4	0	4,848,888:90:0	
1256	99	32	02:03:27.400	165IG4B	7VECT		Inert vect update UTC	2R3	4	0	4,848,890:63:0	
1257	99	32	02:03:40.066		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC *1988.86 +/- 1	2R3	4	0	4,848,890:82:0	
1258	99	32	02:03:40.066	175IH422A6A	6DMSC	R806.3	DMS Control	2R3	4	0	4,848,890:82:0	
1259	99	32	02:03:41.266		DMS:	: *RUNUP	R806, TRACK 3, FWD, TIC *1988.92 +/- 1	2R3	4	0	4,848,890:83:8	
1260	99	32	02:03:46.066	175IH176A6A	6TMREC	Ai8	806.4 KBPS SSI RECORD Record Mode Change	2R3	4	0	4,848,891:00:0	
1261	99	32	02:03:46.533		DMS:	: *RECORD	R806, TRACK 3, FWD, TIC *2054.92 +/- 1	2R3	4	0	4,848,891:00:7	
1262	99	32	02:03:46.533		DMS:	: *AT_SPD	R806, TRACK 3, FWD, TIC 2054.92 +/- 1	2R3	4	0	4,848,891:00:7	
1263	99	32	02:03:48.733	175TE422A6A	6DMSC	R7,3	DMS Control	2R3	4	0	4,848,891:04:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI	
1264	99	32	02:03:48.733		DMS:	: *RUNDOWN	R806, TRACK 3, FWD, TIC *2109.06 +/- 1	2R3	4	0	4,848,891:04:0		
1265	99	32	02:03:51.466		DMS:	: *RUNUP	R7, TRACK 3, FWD, TIC *2120.56 +/- 1	2R3	4	0	4,848,891:08:1		
1266	99	32	02:03:52.733	175TE176A6A	6TMREC	LPW	7.68 KBPS LOW RATE SCI PWS RECORD	Record	2R3	4	0	4,848,891:10:0	
1267	99	32	02:03:52.866		DMS:	: *AT_SPD	R7, TRACK 3, FWD, TIC 2120.68 +/- 1	2R3	4	0	4,848,891:10:2		
1268	99	32	02:03:52.866		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC *2120.68 +/- 1	2R3	4	0	4,848,891:10:2		
1269	99	32	02:04:00.733		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC *2122.53 +/- 1	2R3	4	0	4,848,891:22:0		
1270	99	32	02:04:00.733	175I1422A6A	6DMSC	R806.3	DMS Control	2R3	4	0	4,848,891:22:0		
1271	99	32	02:04:01.933		DMS:	: *RUNUP	R806, TRACK 3, FWD, TIC *2122.59 +/- 1	2R3	4	0	4,848,891:23:8		
1272	99	32	02:04:06.733	175I1176A6A	6TMREC	A18	806.4 KBPS SSI RECORD	Record Mode Change	2R3	4	0	4,848,891:31:0	
1273	99	32	02:04:07.200		DMS:	: *AT_SPD	R806, TRACK 3, FWD, TIC 2188.59 +/- 2	2R3	4	0	4,848,891:31:7		
1274	99	32	02:04:07.200		DMS:	: *RECORD	R806, TRACK 3, FWD, TIC *2188.59 +/- 1	2R3	4	0	4,848,891:31:7		
1275	99	32	02:04:10.733	428JJ6A	6RCCLR		DMS Control	2R3	4	0	4,848,891:37:0		
1276	99	32	02:04:11.400	428JJ6B	6RCSET		11	2R3	4	0	4,848,891:38:0		
1277	99	32	02:04:14.066	175TF422A6A	6DMSC	R7.3	DMS Control	2R3	4	0	4,848,891:42:0		
1278	99	32	02:04:14.066		DMS:	: *RUNDOWN	R806, TRACK 3, FWD, TIC *2357.57 +/- 2	2R3	4	0	4,848,891:42:0		
1279	99	32	02:04:16.800		DMS:	: *RUNUP	R7, TRACK 3, FWD, TIC *2369.07 +/- 2	2R3	4	0	4,848,891:46:1		
1280	99	32	02:04:18.066	175TF176A6A	6TMREC	LPW	7.68 KBPS LOW RATE SCI PWS RECORD	Record	2R3	4	0	4,848,891:48:0	
1281	99	32	02:04:18.200		DMS:	: *AT_SPD	R7, TRACK 3, FWD, TIC 2369.19 +/- 2	2R3	4	0	4,848,891:48:2		
1282	99	32	02:04:18.200		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC *2369.19 +/- 2	2R3	4	0	4,848,891:48:2		
1283	99	32	02:04:31.400	165I14A	7SCAN	NORM:224.210999,	Check S/P Position	2R3	4	0	4,848,891:68:0		
1284	99	32	02:05:06.066	428JK6A	6RCCLR		14	2R3	4	0	4,848,892:29:0		
1285	99	32	02:05:06.733	428JK6B	6RCSET			2R3	4	0	4,848,892:30:0		
1286	99	32	02:05:28.733	165I14B	7VECT		Inert vect update UTC	2R3	4	0	4,848,892:63:0		
1287	99	32	02:05:41.400	175IK422A6A	6DMSC	R806.3	DMS Control	2R3	4	0	4,848,892:82:0		
1288	99	32	02:05:41.400		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC *2388.69 +/- 2	2R3	4	0	4,848,892:82:0		
1289	99	32	02:05:42.600		DMS:	: *RUNUP	R806, TRACK 3, FWD, TIC *2388.75 +/- 2	2R3	4	0	4,848,892:83:8		
1290	99	32	02:05:47.400	175IK176A6A	6TMREC	A18	806.4 KBPS SSI RECORD	Record Mode Change	2R3	4	0	4,848,893:00:0	
1291	99	32	02:05:47.866		DMS:	: *RECORD	R806, TRACK 3, FWD, TIC *2454.75 +/- 2	2R3	4	0	4,848,893:00:7		
1292	99	32	02:05:47.866		DMS:	: *AT_SPD	R806, TRACK 3, FWD, TIC 2454.75 +/- 2	2R3	4	0	4,848,893:00:7		
1293	99	32	02:05:50.066	175TG422A6A	6DMSC	R7.3	DMS Control	2R3	4	0	4,848,893:04:0		
1294	99	32	02:05:50.066		DMS:	: *RUNDOWN	R806, TRACK 3, FWD, TIC *2508.89 +/- 2	2R3	4	0	4,848,893:04:0		
1295	99	32	02:05:52.800		DMS:	: *RUNUP	R7, TRACK 3, FWD, TIC *2520.39 +/- 2	2R3	4	0	4,848,893:08:1		
1296	99	32	02:05:54.066	175TG176A6A	6TMREC	LPW	7.68 KBPS LOW RATE SCI PWS RECORD	Record	2R3	4	0	4,848,893:10:0	
1297	99	32	02:05:54.200		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC *2520.51 +/- 2	2R3	4	0	4,848,893:10:2		
1298	99	32	02:05:54.200		DMS:	: *AT_SPD	R7, TRACK 3, FWD, TIC 2520.51 +/- 2	2R3	4	0	4,848,893:10:2		
1299	99	32	02:06:02.066		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC *2522.35 +/- 2	2R3	4	0	4,848,893:22:0		
1300	99	32	02:06:02.066	175L422A6A	6DMSC	R806.3	DMS Control	2R3	4	0	4,848,893:22:0		
1301	99	32	02:06:03.266		DMS:	: *RUNUP	R806, TRACK 3, FWD, TIC *2522.41 +/- 2	2R3	4	0	4,848,893:23:8		
1302	99	32	02:06:08.066	175L176A6A	6TMREC	A18	806.4 KBPS SSI RECORD	Record Mode Change	2R3	4	0	4,848,893:31:0	
1303	99	32	02:06:08.533		DMS:	: *AT_SPD	R806, TRACK 3, FWD, TIC 2588.41 +/- 3	2R3	4	0	4,848,893:31:7		
1304	99	32	02:06:08.533		DMS:	: *RECORD	R806, TRACK 3, FWD, TIC *2588.41 +/- 2	2R3	4	0	4,848,893:31:7		
1305	99	32	02:06:12.066	428JN6A	6RCCLR		DMS Control	2R3	4	0	4,848,893:37:0		
1306	99	32	02:06:12.733	428JN6B	6RCSET		11	2R3	4	0	4,848,893:38:0		
1307	99	32	02:06:15.400		DMS:	: *RUNDOWN	R806, TRACK 3, FWD, TIC *2757.40 +/- 3	2R3	4	0	4,848,893:42:0		
1308	99	32	02:06:15.400	175TH422A6A	6DMSC	R7.3	DMS Control	2R3	4	0	4,848,893:42:0		
1309	99	32	02:06:18.133		DMS:	: *RUNUP	R7, TRACK 3, FWD, TIC *2768.90 +/- 3	2R3	4	0	4,848,893:46:1		
1310	99	32	02:06:19.400	175TH176A6A	6TMREC	LPW	7.68 KBPS LOW RATE SCI PWS RECORD	Record	2R3	4	0	4,848,893:48:0	
1311	99	32	02:06:19.533		DMS:	: *AT_SPD	R7, TRACK 3, FWD, TIC 2769.02 +/- 3	2R3	4	0	4,848,893:48:2		
1312	99	32	02:06:19.533		DMS:	: *RECORD	R7, TRACK 3, FWD, TIC *2769.02 +/- 3	2R3	4	0	4,848,893:48:2		
1313	99	32	02:06:32.733	165IK4A	7SCAN	NORM:216.939999,	Check S/P Position	2R3	4	0	4,848,893:68:0		
1314	99	32	02:07:07.400	428JO6A	6RCCLR		14	2R3	4	0	4,848,894:29:0		
1315	99	32	02:07:08.066	428JO6B	6RCSET			2R3	4	0	4,848,894:30:0		
1316	99	32	02:07:30.066	165IK4B	7VECT		Inert vect update UTC	2R3	4	0	4,848,894:63:0		
1317	99	32	02:07:42.733		DMS:	: *RUNDOWN	R7, TRACK 3, FWD, TIC *2788.52 +/- 3	2R3	4	0	4,848,894:82:0		
1318	99	32	02:07:42.733	175IN422A6A	6DMSC	R806.3	DMS Control	2R3	4	0	4,848,894:82:0		



Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
1319	99	32	02:07:43.933		DMS:	:*RUNUP	R806, TRACK 3, FWD, TIC *2788.58 +/- 3	2R3	4	0	4,848,894:83:8	
1320	99	32	02:07:48.733	175IN176A6A	6TMREC	A18	806.4 KBPS SSI RECORD Record Mode Change	2R3	4	0	4,848,895:00:0	
1321	99	32	02:07:49.200		DMS:	:*AT_SPD	R806, TRACK 3, FWD, TIC 2854.58 +/- 3	2R3	4	0	4,848,895:00:7	
1322	99	32	02:07:49.200		DMS:	:*RECORD	R806, TRACK 3, FWD, TIC *2854.58 +/- 3	2R3	4	0	4,848,895:00:7	
1323	99	32	02:07:51.400		DMS:	:*RUNDOWN	R806, TRACK 3, FWD, TIC *2908.72 +/- 3	2R3	4	0	4,848,895:04:0	
1324	99	32	02:07:51.400	175TI422A6A	6DMSC	R7,3	DMS Control	2R3	4	0	4,848,895:04:0	
1325	99	32	02:07:54.133		DMS:	:*RUNUP	R7, TRACK 3, FWD, TIC *2920.22 +/- 3	2R3	4	0	4,848,895:08:1	
1326	99	32	02:07:55.400	175TI176A6A	6TMREC	LPW	7.68 KBPS LOW RATE SCI PWS RECORD Record	2R3	4	0	4,848,895:10:0	
1327	99	32	02:07:55.533		DMS:	:*AT_SPD	R7, TRACK 3, FWD, TIC 2920.34 +/- 3	2R3	4	0	4,848,895:10:2	
1328	99	32	02:07:55.533		DMS:	:*RECORD	R7, TRACK 3, FWD, TIC *2920.34 +/- 3	2R3	4	0	4,848,895:10:2	
1329	99	32	02:08:03.400	175IO422A6A	6DMSC	R806.3	DMS Control	2R3	4	0	4,848,895:22:0	
1330	99	32	02:08:03.400		DMS:	:*RUNDOWN	R7, TRACK 3, FWD, TIC *2922.18 +/- 3	2R3	4	0	4,848,895:22:0	
1331	99	32	02:08:04.600		DMS:	:*RUNUP	R806, TRACK 3, FWD, TIC *2922.24 +/- 3	2R3	4	0	4,848,895:23:8	
1332	99	32	02:08:09.400	175IO176A6A	6TMREC	A18	806.4 KBPS SSI RECORD Record Mode Change	2R3	4	0	4,848,895:31:0	
1333	99	32	02:08:09.866		DMS:	:*RECORD	R806, TRACK 3, FWD, TIC *2988.24 +/- 3	2R3	4	0	4,848,895:31:7	
1334	99	32	02:08:09.866		DMS:	:*AT_SPD	R806, TRACK 3, FWD, TIC 2988.24 +/- 3	2R3	4	0	4,848,895:31:7	
1335	99	32	02:08:13.400	428JR6A	6RCCLR			2R3	4	0	4,848,895:37:0	
1336	99	32	02:08:14.066	428JR6B	6RCSET			2R3	4	0	4,848,895:38:0	
1337	99	32	02:08:16.733	175TJ422A6A	6DMSC	R7,3	DMS Control	2R3	4	0	4,848,895:42:0	
1338	99	32	02:08:16.733		DMS:	:*RUNDOWN	R7, TRACK 3, FWD, TIC *3157.23 +/- 3	2R3	4	0	4,848,895:42:0	
1339	99	32	02:08:19.466		DMS:	:*RUNUP	R7, TRACK 3, FWD, TIC *3168.73 +/- 4	2R3	4	0	4,848,895:46:1	
1340	99	32	02:08:20.733	175TJ176A6A	6TMREC	LPW	7.68 KBPS LOW RATE SCI PWS RECORD Record	2R3	4	0	4,848,895:48:0	
1341	99	32	02:08:20.866		DMS:	:*AT_SPD	R7, TRACK 3, FWD, TIC 3168.85 +/- 4	2R3	4	0	4,848,895:48:2	
1342	99	32	02:08:20.866		DMS:	:*RECORD	R7, TRACK 3, FWD, TIC *3168.85 +/- 4	2R3	4	0	4,848,895:48:2	
1343	99	32	02:08:48.733	165IM4A	7SCAN	NORM:196.938,-34	Check SIP Position	2R3	4	0	4,848,895:90:0	
1344	99	32	02:09:54.066	117IM	CSMOS	GS	***** GROUP START CSMOS	2R3	4	0	4,848,897:06:0	
1345	99	32	02:10:00.066	481UM4A	7VECT		Inert vect update UTC	2R3	4	0	4,848,897:15:0	
1346	99	32	02:10:36.066	428JS6A	6RCCLR			2R3	4	0	4,848,897:69:0	
1347	99	32	02:10:36.733	428JS6B	6RCSET			2R3	4	0	4,848,897:70:0	
1348	99	32	02:10:44.733		DMS:	:*RUNDOWN	R7, TRACK 3, FWD, TIC *3202.57 +/- 4	2R3	4	0	4,848,897:82:0	
1349	99	32	02:10:44.733	175IQ422A6A	6DMSC	R806.3	DMS Control	2R3	4	0	4,848,897:82:0	
1350	99	32	02:10:45.933		DMS:	:*RUNUP	R806, TRACK 3, FWD, TIC *3202.63 +/- 4	2R3	4	0	4,848,897:83:8	
1351	99	32	02:10:48.066	165IM4B	7VECT		Inert vect update UTC	2R3	4	0	4,848,897:87:0	
1352	99	32	02:10:49.400	117IM105A106A4A	7STRP	-0.085205,0.0902	Slew = -2.66	2R3	4	0	4,848,897:89:0	
1353	99	32	02:10:50.733	175IQ176A6A	6TMREC	A18	806.4 KBPS SSI RECORD Record Mode Change	2R3	4	0	4,848,898:00:0	
1354	99	32	02:10:51.200		DMS:	:*AT_SPD	R806, TRACK 3, FWD, TIC 3268.63 +/- 4	2R3	4	0	4,848,898:00:7	
1355	99	32	02:10:51.200		DMS:	:*RECORD	R806, TRACK 3, FWD, TIC *3268.63 +/- 4	2R3	4	0	4,848,898:00:7	
1356	99	32	02:11:06.733	428JT6A	6RCCLR			2R3	4	0	4,848,898:24:0	
1357	99	32	02:11:07.400	428JT6B	6RCSET			2R3	4	0	4,848,898:25:0	
1358	99	32	02:11:26.066	175TK422A6A	6DMSC	R7,3	DMS Control	2R3	4	0	4,848,898:53:0	
1359	99	32	02:11:26.066		DMS:	:*RUNDOWN	R806, TRACK 3, FWD, TIC *4126.67 +/- 4	2R3	4	0	4,848,898:53:0	
1360	99	32	02:11:26.733	117IM105A106B4A	7STRP	-0.0030,0.0,0.0	Slew = -2.71	2R3	4	0	4,848,898:54:0	
1361	99	32	02:11:28.800		DMS:	:*RUNUP	R7, TRACK 3, FWD, TIC *4138.17 +/- 4	2R3	4	0	4,848,898:57:1	
1362	99	32	02:11:30.066	175TK176A6A	6TMREC	LPW	7.68 KBPS LOW RATE SCI PWS RECORD Record	2R3	4	0	4,848,898:59:0	
1363	99	32	02:11:30.200		DMS:	:*AT_SPD	R7, TRACK 3, FWD, TIC 4138.29 +/- 4	2R3	4	0	4,848,898:59:2	
1364	99	32	02:11:30.200		DMS:	:*RECORD	R7, TRACK 3, FWD, TIC *4138.29 +/- 4	2R3	4	0	4,848,898:59:2	
1365	99	32	02:11:34.066	428JU6A	6RCCLR			2R3	4	0	4,848,898:65:0	
1366	99	32	02:11:34.733	428JU6B	6RCSET			2R3	4	0	4,848,898:66:0	
1367	99	32	02:11:38.066		DMS:	:*RUNDOWN	R7, TRACK 3, FWD, TIC *4140.14 +/- 4	2R3	4	0	4,848,898:71:0	
1368	99	32	02:11:38.066	175IR422A6A	6DMSC	R806.3	DMS Control	2R3	4	0	4,848,898:71:0	
1369	99	32	02:11:39.266		DMS:	:*RUNUP	R806, TRACK 3, FWD, TIC *4140.20 +/- 4	2R3	4	0	4,848,898:72:8	
1370	99	32	02:11:42.733	117IM105A106B4B	7STRP	-0.090244,0.0801	Slew = -2.66	2R3	4	0	4,848,898:78:0	
1371	99	32	02:11:44.066	175IR176A6A	6TMREC	A18	806.4 KBPS SSI RECORD Record Mode Change	2R3	4	0	4,848,898:80:0	
1372	99	32	02:11:44.533		DMS:	:*RECORD	R806, TRACK 3, FWD, TIC *4206.20 +/- 4	2R3	4	0	4,848,898:80:7	
1373	99	32	02:11:44.533		DMS:	:*AT_SPD	R806, TRACK 3, FWD, TIC 4206.20 +/- 4	2R3	4	0	4,848,898:80:7	

Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MFI
1374	99	32	02:12:01.400	428JV6A	6RCCLR		2R3	4	0	4,848,899:15:0	
1375	99	32	02:12:02.066	428JV6B	6RCSET	11	2R3	4	0	4,848,899:16:0	
1376	99	32	02:12:19.400	175TL422A6A	6DMSC R7,3	DMS Control	2R3	4	0	4,848,899:42:0	
1377	99	32	02:12:19.400		DMS: : *RUNDOWN	R806, TRACK 3, FWD, TIC *5064.24 +/- 4	2R3	4	0	4,848,899:42:0	
1378	99	32	02:12:20.066	117IM11A	DMS: GE	**** GROUP END CS MOS	2R3	4	0	4,848,899:43:0	
1379	99	32	02:12:22.133		DMS: : *RUNUP	R7, TRACK 3, FWD, TIC *5075.74 +/- 5	2R3	4	0	4,848,899:46:1	
1380	99	32	02:12:23.400	175TL176A6A	6TMREC LPW	7.68 KBPS LOW RATE SCI PWS RECORD	2R3	4	0	4,848,899:48:0	
1381	99	32	02:12:23.533		DMS: : *AT SPD	R7, TRACK 3, FWD, TIC 5075.86 +/- 5	2R3	4	0	4,848,899:48:2	
1382	99	32	02:12:23.533		DMS: : *RECORD	R7, TRACK 3, FWD, TIC *5075.86 +/- 5	2R3	4	0	4,848,899:48:2	
1383	99	32	02:20:00.066	428JW6A	6RCCLR		2R3	4	0	4,848,907:05:0	
1384	99	32	02:20:00.733	428JW6B	6RCSET	12	2R3	4	0	4,848,907:06:0	
1385	99	32	02:20:00.733	19NNHEXICE02-	-----START-----		2R3	4	0	:	:
1386	99	32	02:20:56.733	165DF4A	7SCAN NORM,172.651999,	Check S/P Position	2R3	4	0	4,848,907:90:0	
1387	99	32	02:21:04.733	20DF5A	37PL	Program Load (halts microprocessor & unwri	2R3	4	0	4,848,908:11:0	
1388	99	32	02:21:11.400	20DF5B	37MRL	Memory Realocate (software operates from R	2R3	4	0	4,848,908:21:0	
1389	99	32	02:21:18.066	20DF6A	NIMS	NIMS,1000,LLM1A,7300,77F7	2R3	4	0	4,848,908:31:0	
1390	99	32	02:21:28.066	20DF6B	6MCOPI NIMS	NIMS,1598,LLM1A,77F8,781D	2R3	4	0	4,848,908:46:0	
1391	99	32	02:21:38.066	20DF5C	37IRT	Instrument Reset (goes into POR state)	260	4	0	4,848,908:61:0	
1392	99	32	02:21:39.400	20DF5D	37MNI	Memory Normal (software operates from ROM)	260	4	0	4,848,908:63:0	
1393	99	32	02:21:50.733	20DF4A	37IST	Chopper ON, Sync, Chopper (Ref/Gain State	4R0	4	0	4,848,908:80:0	
1394	99	32	02:22:02.066	19NNHEXICE02-	-----STOP-----		4R0	4	0	:	:
1395	99	32	02:22:54.066	127DF4A	7IOP	Fixed Map, Grating Start Position =00	4R7	4	0	4,848,909:84:0	
1396	99	32	02:22:54.066	127DF	NIMSTAB GS	%%-%-% GROUP START TAB	4R7	4	0	4,848,909:84:0	
1397	99	32	02:22:54.733	127DF4B	37ETB	Loads wavelength edit table	4R7	4	0	4,848,909:85:0	
1398	99	32	02:23:02.733	127DF11A	NIMSTAB GE	%%-%-% GROUP END TAB	4R7	4	0	4,848,910:06:0	
1399	99	32	02:23:02.733	19NNHEXICE02-	-----START-----		4R7	4	0	:	:
1400	99	32	02:23:50.733	175DF422A6A	6DMSC R28,3	DMS Control	4R7	4	0	4,848,910:78:0	
1401	99	32	02:23:50.733		DMS: : *RUNDOWN	R7, TRACK 3, FWD, TIC *5236.93 +/- 5	4R7	4	0	4,848,910:78:0	
1402	99	32	02:23:51.933		DMS: : *RUNUP	R28, TRACK 3, FWD, TIC *5236.99 +/- 5	4R7	4	0	4,848,910:79:8	
1403	99	32	02:23:55.933		DMS: : *RECORD	R28, TRACK 3, FWD, TIC *5238.49 +/- 5	4R7	4	0	4,848,910:85:8	
1404	99	32	02:23:55.933		DMS: : *AT SPD	R28, TRACK 3, FWD, TIC 5238.49 +/- 5	4R7	4	0	4,848,910:85:8	
1405	99	32	02:23:56.066	175DF176A6A	6TMREC MPW	28.8 KBPS PWS + NIMS RECORD Record Mode C	4R7	4	0	4,848,910:86:0	
1406	99	32	02:23:58.066	165DF4B	7VECT	Inert vect update UTC	4R7	4	0	4,848,910:89:0	
1407	99	32	02:24:00.066	19NNHEXICE02-	NIMPBK 301DF	SEARCH FOR HEXAGONAL ICE	4R7	4	0	:	:
1408	99	32	02:26:47.066	19NNHEXICE02-	NIMPBK 301DX	SEARCH FOR HEXAGONAL ICE	4R7	4	0	:	:
1409	99	32	02:27:05.066	19NNHEXICE02-	DESELC 300DX	SEARCH FOR HEXAGONAL ICE	4R7	4	0	:	:
1410	99	32	02:27:58.066	481UN4A	7VECT BB2	Inert vect update UTC	4R7	4	0	4,848,914:85:0	
1411	99	32	02:28:05.400	428JX6A	6RCCLR		4R7	4	0	4,848,915:05:0	
1412	99	32	02:28:06.066	428JX6B	6RCSET		4R7	4	0	4,848,915:06:0	
1413	99	32	02:29:30.066	165DF4C	7VECT	Inert vect update UTC	4R7	4	0	4,848,916:41:0	
1414	99	32	02:30:07.066	19NNHEXICE02-	NIMPBK 301DY	SEARCH FOR HEXAGONAL ICE	4R7	4	0	:	:
1415	99	32	02:30:25.000	19NNHEXICE02-	DESELC 300DY	SEARCH FOR HEXAGONAL ICE	4R7	4	0	:	:
1416	99	32	02:31:16.000	19NNHEXICE02-	NIMPBK 301DZ	SEARCH FOR HEXAGONAL ICE	4R7	4	0	:	:
1417	99	32	02:31:30.000	19NNHEXICE02-	DESELC 300DZ	SEARCH FOR HEXAGONAL ICE	4R7	4	0	:	:
1418	99	32	02:34:58.066	19NNHEXICE02-	DESELC 300DF	SEARCH FOR HEXAGONAL ICE	4R7	4	0	:	:
1419	99	32	02:35:00.733	175TM422A6A	6DMSC R7,3	DMS Control	4R7	4	0	4,848,921:82:0	
1420	99	32	02:35:00.733		DMS: : *RUNDOWN	R28, TRACK 3, FWD, TIC *5822.78 +/- 5	4R7	4	0	4,848,921:82:0	
1421	99	32	02:35:01.933		DMS: : *RUNUP	R7, TRACK 3, FWD, TIC *5823.08 +/- 5	4R7	4	0	4,848,921:83:8	
1422	99	32	02:35:03.333		DMS: : *RECORD	R7, TRACK 3, FWD, TIC *5823.20 +/- 5	4R7	4	0	4,848,921:85:9	
1423	99	32	02:35:03.333		DMS: : *AT SPD	R7, TRACK 3, FWD, TIC 5823.20 +/- 5	4R7	4	0	4,848,921:85:9	
1424	99	32	02:35:03.400	175TM176A6A	6TMREC LPW	7.68 KBPS LOW RATE SCI PWS RECORD	4R7	4	0	4,848,921:86:0	
1425	99	32	02:37:12.066	428JZ6A	6RCCLR		4R7	4	0	4,848,924:06:0	
1426	99	32	02:37:15.399	19NNHEXICE02-	-----STOP-----		4R7	4	0	:	:
1427	99	32	02:38:08.733	432JD6A	6RTSL1	R/T Select of DDS and	4R7	4	0	4,848,925:00:0	
1428	99	32	02:39:07.400	432MB431A6A	6RCDSL	Record Deselect (DDS o	4R7	4	0	4,848,925:88:0	

Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MFI
1429	99	32	02:39:08.066	432MB6A	6RTSL1	R/T Select of DDS and	4R7	4	0	4,848,925:89:0	
1430	99	32	02:39:11.400		DMS: : *RUNDOWN	R7, TRACK 3, FWD, TIC *5881.34 +/- 5	4R7	4	0	4,848,926:03:0	
1431	99	32	02:39:11.400	175TM422A6B	6DMSC RDY,0	DMS Control Tape stop	4R7	4	0	4,848,926:03:0	
1432	99	32	02:39:11.400	432OA431A6A	6RCDSL DDSNCG,PLSNCG,EP	Record Deselect (DDS o	4R7	4	0	4,848,926:03:0	
1433	99	32	02:39:12.066	432OA6A	6RTSL1	R/T Select of DDS and	4R7	4	0	4,848,926:04:0	
1434	99	32	02:39:12.600		DMS: : *READY	RDY, TRACK 3, FWD, TIC *5881.40 +/- 5	4R7	4	0	4,848,926:04:8	
1435	99	32	02:39:13.399	19NNHEXICE03-	-----START-----		4R7	4	0	:	:
1436	99	32	02:39:15.400	282NB431A6A	6RCDSL DDSNCG,PLSDSL,EP	Record Deselect (DDS o	4R7	4	0	4,848,926:09:0	
1437	99	32	02:39:29.400		DMS: : *READY	RDY, TRACK *4, *REV, TIC 5881.40 +/- 5	4R7	4	0	4,848,926:30:0	
1438	99	32	02:39:29.400	465KE6A	6DMSC RDY,4	DMS Control Tape stop	4R7	4	0	4,848,926:30:0	
1439	99	32	02:39:55.400	20DG5A	37PL	Program Load (halts microprocessor & unwri	4R7	4	0	4,848,926:69:0	
1440	99	32	02:40:02.733	20DG5B	37MRL	Memory Realocate (software operates from R	4R7	4	0	4,848,926:80:0	
1441	99	32	02:40:04.066	282NB432A431A6A	6RCDSL DDSNCG,PLSDSL,EP	Record Deselect (DDS o	4R7	4	0	4,848,926:82:0	
1442	99	32	02:40:04.733	282NB432A6A	6RTSL1	R/T Select of DDS, and	4R7	4	0	4,848,926:83:0	
1443	99	32	02:40:09.400	165DG4A	7SCAN	Check S/P Position	4R7	4	0	4,848,926:90:0	
1444	99	32	02:40:10.733	20DG6A	NORM;111.905;17.	NIMS,1000,LLM1A,7300,77F7	4R7	4	0	4,848,927:01:0	
1445	99	32	02:40:20.733	20DG6B	6MCOPI NIMS	NIMS,1598,LLM1A,77F8,781D	4R7	4	0	4,848,927:16:0	
1446	99	32	02:40:30.733	20DG5C	37IRT	Instrument Reset (goes into POR state)	260	4	0	4,848,927:31:0	
1447	99	32	02:40:32.066	20DG5D	37MN	Memory Normal (software operates from ROM)	260	4	0	4,848,927:33:0	
1448	99	32	02:40:34.733		DMS: : *US-RUNUP	P7, TRACK *1, *FWD, TIC 5881.40 +/- 5	260	4	0	4,848,927:37:0	
1449	99	32	02:40:34.733	411JB6A	6DMSC R7,0	DMS Control Tape runup 7.68kps	260	4	0	4,848,927:37:0	
1450	99	32	02:40:36.133		DMS: : *US AT SP	P7, TRACK 1, FWD, TIC *5881.52 +/- 5	260	4	0	4,848,927:39:1	
1451	99	32	02:40:41.400		DMS: : *US RD	P7, TRACK 1, FWD, TIC *5882.76 +/- 5	260	4	0	4,848,927:47:0	
1452	99	32	02:40:42.600		DMS: : *RUNUP	R7, TRACK *4, *REV, TIC *5882.82 +/- 5	260	4	0	4,848,927:48:8	
1453	99	32	02:40:44.000		DMS: : *AT SPD	R7, TRACK 4, REV, TIC 5882.70 +/- 5	260	4	0	4,848,927:50:9	
1454	99	32	02:40:44.000		DMS: : *RECORD	R7, TRACK 4, REV, TIC *5882.70 +/- 5	260	4	0	4,848,927:50:9	
1455	99	32	02:40:44.733	411JB6B	6TMREC BDT	7.68 KBPS BUFFER DUMP TO TAPE Record Mode	260	4	0	4,848,927:52:0	
1456	99	32	02:41:03.400	20DG4A	37IST	Chopper ON, Sync, Chopper (Ref)Gain State	4R0	4	0	4,848,927:80:0	
1457	99	32	02:41:14.733	19NNHEXICE03-	1,2,0,OFF,0,1,1		4R0	4	0	:	:
1458	99	32	02:42:15.399	19ENHEXICE03-	-----STOP-----		4R0	4	0	:	:
1459	99	32	02:42:46.066	411JB6C	6TMREC NRC	NO RECORD Record Mode Change	4R0	4	0	4,848,929:52:0	
1460	99	32	02:42:48.733	175TO176A6A	6TMREC LPW	7.68 KBPS LOW RATE SCI PWS RECORD Record	4R0	4	0	4,848,929:56:0	
1461	99	32	02:42:49.400	175TO422A6A	6DMSC R7,0	DMS Control Tape runup 7.68kps	4R0	4	0	4,848,929:57:0	
1462	99	32	02:42:56.066		DMS: : *RUNDOWN	R7, TRACK 4, REV, TIC *5851.75 +/- 5	4R0	4	0	4,848,929:67:0	
1463	99	32	02:42:56.066	175TO422A6B	6DMSC RDY,0	DMS Control Tape stop	4R0	4	0	4,848,929:67:0	
1464	99	32	02:42:57.266		DMS: : *READY	RDY, TRACK 4, REV, TIC *5851.69 +/- 5	4R0	4	0	4,848,929:68:8	
1465	99	32	02:43:07.400	127DG4A	37IOP	Fixed Map, Grating Start Position =00	4R7	4	0	4,848,929:84:0	
1466	99	32	02:43:07.400	127DG	NIMSTAB GS	%%%%GROUP START TAB	4R7	4	0	4,848,929:84:0	
1467	99	32	02:43:08.066	127DG4B	37ETB	Loads wavelength edit table	4R7	4	0	4,848,929:85:0	
1468	99	32	02:43:16.066	127DG11A	NIMSTAB GE	%%%%GROUP END TAB	4R7	4	0	4,848,930:06:0	
1469	99	32	02:43:58.066		DMS: : *US-RUNUP	P7, TRACK *1, *FWD, TIC 5851.69 +/- 5	4R7	4	0	4,848,930:69:0	
1470	99	32	02:43:58.066	175DG422A6A	6DMSC R28,0	DMS Control Tape runup 28.8kbp	4R7	4	0	4,848,930:69:0	
1471	99	32	02:43:59.466		DMS: : *US AT SP	P7, TRACK 1, FWD, TIC *5851.81 +/- 5	4R7	4	0	4,848,930:71:1	
1472	99	32	02:44:04.733		DMS: : *US RD	R7, TRACK 1, FWD, TIC *5853.04 +/- 5	4R7	4	0	4,848,930:79:0	
1473	99	32	02:44:05.933		DMS: : *RUNUP	R28, TRACK *4, *REV, TIC *5853.10 +/- 5	4R7	4	0	4,848,930:80:8	
1474	99	32	02:44:09.400	175DG176A6A	6TMREC MPW	28.8 KBPS PWS + NIMS RECORD Record Mode C	4R7	4	0	4,848,930:86:0	
1475	99	32	02:44:09.933		DMS: : *AT SPD	R28, TRACK 4, REV, TIC 5851.60 +/- 5	4R7	4	0	4,848,930:86:8	
1476	99	32	02:44:09.933		DMS: : *RECORD	R28, TRACK 4, REV, TIC *5851.60 +/- 5	4R7	4	0	4,848,930:86:8	
1477	99	32	02:44:11.400	165DG4B	7VECT	Inert vect update UTC	4R7	4	0	4,848,930:89:0	
1478	99	32	02:44:16.733	19ENHEXICE03-	NIMPBK 301DG	EUROPA HEXAGONAL ICE OBSERVATION	4R7	4	0	:	:
1479	99	32	02:47:18.733	19ENHEXICE03-	DESELK 300DG	EUROPA HEXAGONAL ICE OBSERVATION	4R7	4	0	:	:
1480	99	32	02:51:30.333	19ENHEXICE03-	NIMPBK 301EP	EUROPA HEXAGONAL ICE OBSERVATION	4R7	4	0	:	:
1481	99	32	02:53:32.333	19ENHEXICE03-	DESELK 300EP	EUROPA HEXAGONAL ICE OBSERVATION	4R7	4	0	:	:
1482	99	32	02:59:58.066	481U04A	7VECT BB1	Inert vect update UTC	4R7	4	0	4,848,946:53:0	
1483	99	32	03:01:15.333	19ENHEXICE03-	NIMPBK 301EQ	EUROPA HEXAGONAL ICE OBSERVATION	4R7	4	0	:	:

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
1484	99	32	03:02:18.000	19ENHEXICE03-	DESEL	300EQ	EUROPA HEXAGONAL ICE OBSERVATION	4R7	4	0	:	:
1485	99	32	03:03:20.066	444UB443A4A	7MODE	CRU	AACS CRUISE MODE	4R7	4	0	4,848,949:83:0	
1486	99	32	03:07:28.066	175DG22A6B	6DMSC	RDY,0	DMS Control Tape stop	4R7	4	0	4,848,954:00:0	
1487	99	32	03:07:28.066		DMS:	: *RUNDOWN	R28, TRACK 4, REV, TIC *4622.77 +/- 5	4R7	4	0	4,848,954:00:0	
1488	99	32	03:07:29.266		DMS:	: *READY	RDY, TRACK 4, REV, TIC *4622.47 +/- 5	4R7	4	0	4,848,954:01:8	
1489	99	32	03:09:28.733	165GF4A	7SCAN	NORM,326.205997,	Check S/P Position	4R7	4	0	4,848,955:90:0	
1490	99	32	03:09:29.399	19ENHEXICE03-		-----STOP-----		4R7	4	0	:	:
1491	99	32	03:12:31.400	176GF6A	6TMREC	BPT	7.68 KBPS PPR BURST TO TAPE Record Mode C	4R7	4	0	4,848,959:00:0	
1492	99	32	03:13:22.733	117GF	CSMOS	GS	***** GROUP START CSMOS	4R7	4	0	4,848,959:77:0	
1493	99	32	03:13:32.066	117GF105A106A4A	7STRP	0.0054:0.0:0.0:0	***** GROUP END CSMOS	4R7	4	0	4,848,960:00:0	
1494	99	32	03:13:53.400	117GF11A	CSMOS	GE	NO RECORD Record Mode Change	4R7	4	0	4,848,960:32:0	
1495	99	32	03:15:02.733	176GF6B	6TMREC	NRC		4R7	4	0	4,848,961:45:0	
1496	99	32	03:15:04.733		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 4622.47 +/- 5	4R7	4	0	4,848,961:48:0	
1497	99	32	03:15:04.733	50ZZ6XX	6DMSC	R7,0	DMS Control Tape runup 7.68kps	4R7	4	0	4,848,961:48:0	
1498	99	32	03:15:06.133		DMS:	: *US_AT SP	P7, TRACK 1, FWD, TIC *4622.59 +/- 5	4R7	4	0	4,848,961:50:1	
1499	99	32	03:15:11.400		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *4623.83 +/- 5	4R7	4	0	4,848,961:58:0	
1500	99	32	03:15:12.600		DMS:	: *RUNUP	R7, TRACK *4, *REV, TIC *4623.89 +/- 5	4R7	4	0	4,848,961:58:0	
1501	99	32	03:15:14.000		DMS:	: *AT_SPD	R7, TRACK 4, REV, TIC *4623.77 +/- 5	4R7	4	0	4,848,961:61:9	
1502	99	32	03:15:14.733		DMS:	: *RECORD	R7, TRACK 4, REV, TIC *4623.59 +/- 5	4R7	4	0	4,848,961:63:0	
1503	99	32	03:15:26.066	50ZZ6RE	6DMSC	RDY,0	DMS Control Tape stop	4R7	4	0	4,848,961:80:0	
1504	99	32	03:15:26.066		DMS:	: *RUNDOWN	R7, TRACK 4, REV, TIC *4620.94 +/- 5	4R7	4	0	4,848,961:80:0	
1505	99	32	03:15:27.266		DMS:	: *READY	RDY, TRACK 4, REV, TIC *4620.88 +/- 5	4R7	4	0	4,848,961:81:8	
1506	99	32	03:17:33.400	432SI6A	6RTDS2	NIMNCG,AACNCG,RT	R/T ENG DESLECT	4R7	4	0	4,848,963:89:0	
1507	99	32	04:25:19.400	432SJ6A	6RTSL2	NIMNCG,AACNCG,RT	R/T ENG SELECT	4R7	4	0	4,849,031:00:0	
1508	99	32	04:26:00.066	41DT99A	POWER	PWR MODE change	Change to Maneuver/Playback Mode	4R7	4	0	4,849,031:61:0	
1509	99	32	04:27:54.066	41DT3G	40T1P		1 PCT Heater 1 ON (primary relay)	4R7	4	0	4,849,033:50:0	
1510	99	32	04:28:04.066	41DT3H	40T1P		2 PCT Heater 1 ON (primary relay)	4R7	4	0	4,849,033:65:0	
1511	99	32	04:28:14.066	41DT3I	40T2		1 PCT Heater 2 ON	4R7	4	0	4,849,033:80:0	
1512	99	32	04:28:24.066	41DT3J	40T2		2 PCT Heater 2 ON	4R7	4	0	4,849,034:04:0	
1513	99	32	04:35:04.066	20TA4A	7MODE	SPNL	AACS ALL-SPIN LOW	4R7	4	0	4,849,040:58:0	
1514	99	32	04:45:04.066	20TA4B	7SUN		Check S/P Position	4R7	4	0	4,849,050:48:0	
1515	99	32	04:49:04.066	20TA4C	7VECT	RTH	Inert vect update UTC	4R7	4	0	4,849,054:44:0	
1516	99	32	04:49:06.066	20TA4D	7STAR	1,6217,100.729,-	Star catalog update	4R7	4	0	4,849,054:47:0	
1517	99	32	04:49:08.066	20TA4E	7STAR	2,111,257.158,65	Star catalog update	4R7	4	0	4,849,054:50:0	
1518	99	32	04:49:10.066	20TA4F	7STAR	3,125,259.734,-2	Star catalog update	4R7	4	0	4,849,054:53:0	
1519	99	32	04:49:12.066	20TA4G	7STAR	4,371,138.159,-6	Star catalog update	4R7	4	0	4,849,054:56:0	
1520	99	32	04:49:14.066	20TA4H	7STAR	5,0,0,0,0,0	Star catalog update	4R7	4	0	4,849,054:59:0	
1521	99	32	04:49:16.066	20TA4I	7STAR	6,0,0,0,0,0	Star catalog update	4R7	4	0	4,849,054:62:0	
1522	99	32	04:49:18.066	20TA4J	7STAR	13,9000,135,0,16	Star catalog update	4R7	4	0	4,849,054:65:0	
1523	99	32	04:49:20.066	20TA4K	7STAR	14,9000,180,0,1	Star catalog update	4R7	4	0	4,849,054:68:0	
1524	99	32	04:49:22.066	20TA4L	7STAR	15,9000,105,0,23	Star catalog update	4R7	4	0	4,849,054:71:0	
1525	99	32	04:49:24.066	20TA4M	7STAR	16,0,0,0,0,0	Star catalog update	4R7	4	0	4,849,054:74:0	
1526	99	32	04:49:26.066	20TA4N	7STAR	17,0,0,0,0,0	Star catalog update	4R7	4	0	4,849,054:77:0	
1527	99	32	04:49:28.066	20TA4O	7STAR	18,0,0,0,0,0	Star catalog update	4R7	4	0	4,849,054:80:0	
1528	99	32	04:49:30.066	481UP4A	7VECT	BB1	Inert vect update UTC	4R7	4	0	4,849,054:83:0	
1529	99	32	04:53:36.733	432SK6A	6RTDS2	NIMNCG,AACNCG,RT	R/T ENG DESLECT	4R7	4	0	4,849,058:89:0	
1530	99	32	05:32:03.400	432SL6A	6RTSL2	NIMNCG,AACNCG,RT	R/T ENG SELECT	4R7	4	0	4,849,097:00:0	
1531	99	32	05:41:30.066	20TA4R	7MODE	CRU	AACS CRUISE MODE	4R7	4	0	4,849,106:31:0	
1532	99	33	02:28:55.999	19NNAURORA01-		-----START-----		4R7	4	0	:	:
1533	99	33	02:30:57.333	19NNAURORA01-		-----STOP-----		4R7	4	0	:	:
1534	99	33	02:31:57.999	19GNAURORA01-		-----START-----		4R7	4	0	:	:
1535	99	33	02:39:13.333	19GNAURORA01-		-----STOP-----		4R7	4	0	:	:
1536	99	33	03:36:40.666	19NNAURORA02-		-----START-----		4R7	4	0	:	:
1537	99	33	03:38:41.999	19NNAURORA02-		-----STOP-----		4R7	4	0	:	:
1538	99	33	03:39:42.666	19GNAURORA02-		-----START-----		4R7	4	0	:	:

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
1539	99	33	03:46:57.999	19GNAURORA02-		-----STOP-----		4R7	4	0	:	:
1540	99	33	04:17:07.333	19NNAURORA03-		-----START-----		4R7	4	0	:	:
1541	99	33	04:19:08.666	19NNAURORA03-		-----STOP-----		4R7	4	0	:	:
1542	99	33	04:20:09.333	19GNAURORA03-		-----START-----		4R7	4	0	:	:
1543	99	33	04:27:24.666	19GNAURORA03-		-----STOP-----		4R7	4	0	:	:
1544	99	33	09:59:53.400	19NNIOFLUX01-		-----START-----		4R7	4	0	:	:
1545	99	33	10:01:54.733	19NNIOFLUX01-		-----STOP-----		4R7	4	0	:	:
1546	99	33	10:02:55.400	19JNIOFLUX01-		-----START-----		4R7	4	0	:	:
1547	99	33	10:17:04.733	19JNIOFLUX01-		-----STOP-----		4R7	4	0	:	:
1548	99	33	10:36:17.400	19NNCHOPOF01-		-----START-----		4R7	4	0	:	:
1549	99	33	10:46:24.066	19NNCHOPOF01-		-----STOP-----		4R7	4	0	:	:
1550	99	37	02:01:59.800	444UZ443A4A	7MODE	CRU	AACS CRUISE MODE					4,856,010:12:0
1551	99	37	02:06:59.800	41V99A	POWER	PWR MODE change	Change to Maneuver/Playback Mode					4,856,015:07:0
1552	99	37	02:08:53.800	41V3G	40T1P		1 PCT Heater 1 ON (primary relay)					4,856,016:87:0
1553	99	37	02:09:03.800	41V3H	40T1P		2 PCT Heater 1 ON (primary relay)					4,856,017:11:0
1554	99	37	02:09:13.800	41V3I	40T2		1 PCT Heater 2 ON					4,856,017:26:0
1555	99	37	02:09:23.800	41V3J	40T2		2 PCT Heater 2 ON					4,856,017:41:0
1556	99	37	02:21:19.800	20UN4B	7SAFE	UNSTOW	SIP TO 153 deg cone					4,856,029:23:0
1557	99	37	02:26:59.800	20UN6A	6MROH	7,73C0,0,A10	read from AACSA7,73C0,0,A10					4,856,034:78:0
1558	99	37	02:28:19.800	20UN6B	6MROH	7,73C0,0,A10	read from AACSA7,73C0,0,A10					4,856,036:16:0
1559	99	37	02:40:19.800	20UN4D	7MODE	INT	AACS INERTIAL MODE					4,856,048:04:0
1560	99	37	05:15:59.800	20UN6C	6MROH	7,73C0,0,A10	read from AACSA7,73C0,0,A10					4,856,202:00:0
1561	99	37	05:17:19.800	20UN6D	6MROH	7,73C0,0,A10	read from AACSA7,73C0,0,A10					4,856,203:29:0
1562	99	37	05:26:59.800	20WE4A	7STAT	8.73,172.977,35.	Stator inertial point					4,856,212:80:0
1563	99	37	05:45:01.800	490UC412A4B	7MODE	INT	AACS INERTIAL MODE					4,856,230:65:0
1564	99	37	05:49:59.800	490UC412A4D	7SAFE	UNSTOW	SIP TO 153 deg cone					4,856,235:57:0
1565	99	37	05:50:19.800	20WE4B	7STAT	17.45,172.977,35	Stator inertial point					4,856,235:87:0
1566	99	37	05:54:09.800	490UC412A4E	7VECT		Inert vect update UTC					4,856,239:68:0
1567	99	37	05:54:13.800	490UC412A4F	7TURN	2,RTH	ALERT Thruster					4,856,239:74:0
1568	99	37	05:58:01.800	490UC412A406A4A	7STAR	11,700,278.81	Star catalog update					4,856,243:52:0
1569	99	37	05:58:03.800	490UC412A406A4B	7STAR	2,226,263.15	Star catalog update					4,856,243:55:0
1570	99	37	05:58:05.800	490UC412A406A4C	7STAR	3,150,319.35	Star catalog update					4,856,243:58:0
1571	99	37	05:58:07.800	490UC412A406A4D	7STAR	4,0,0,0,0,0	Star catalog update					4,856,243:61:0
1572	99	37	05:58:09.800	490UC412A406A4E	7STAR	5,0,0,0,0,0	Star catalog update					4,856,243:64:0
1573	99	37	05:58:11.800	490UC412A406A4F	7STAR	6,0,0,0,0,0	Star catalog update					4,856,243:67:0
1574	99	37	06:08:05.800	20WE4D	7SLEW	DIS,POS,0.0	Stator movement					4,856,253:48:0
1575	99	37	06:09:09.800	490UC412A4G	7MODE	CRU	AACS CRUISE MODE					4,856,254:53:0
1576	99	37	07:38:59.800	20NV6A	6MROH	7,6960,13,A10	read from AACSA7,6960,13,A1					4,856,343:39:0
1577	99	37	07:57:39.800	20NV6B	6MROH	7,6960,13,A10	read from AACSA7,6960,13,A1					4,856,361:81:0
1578	99	37	08:16:19.800	20NV6C	6MROH	7,6F96,2,A10	read from AACSA7,6F96,2,A10					4,856,380:32:0
1579	99	37	08:20:19.800	20NV6D	6MROH	7,6F96,2,A10	read from AACSA7,6F96,2,A10					4,856,384:28:0
1580	99	38	02:26:59.733	20AE4A	7STAT	8.73,178.14,2,22	Stator inertial point					4,857,459:03:0
1581	99	38	02:45:01.733	490AC412A4B	7MODE	INT	AACS INERTIAL MODE					4,857,476:79:0
1582	99	38	02:49:59.733	490AC412A4D	7SAFE	UNSTOW	SIP TO 153 deg cone					4,857,481:71:0
1583	99	38	02:50:19.733	20AE4B	7STAT	17.45,178.14,2,2	Stator inertial point					4,857,482:10:0
1584	99	38	02:54:09.733	490AC412A4E	7VECT		Inert vect update UTC					4,857,485:82:0
1585	99	38	02:54:13.733	490AC412A4F	7TURN	2,RTH	ALERT Thruster					4,857,485:88:0
1586	99	38	02:58:01.733	490AC412A406A4A	7STAR	16,217,100.73	Star catalog update					4,857,489:66:0
1587	99	38	02:58:03.733	490AC412A406A4B	7STAR	2,125,259.73	Star catalog update					4,857,489:69:0
1588	99	38	02:58:05.733	490AC412A406A4C	7STAR	3,130,228.55	Star catalog update					4,857,489:72:0
1589	99	38	02:58:07.733	490AC412A406A4D	7STAR	4,371,138.16,-69	Star catalog update					4,857,489:75:0
1590	99	38	02:58:09.733	490AC412A406A4E	7STAR	5,0,0,0,0,0	Star catalog update					4,857,489:78:0
1591	99	38	02:58:11.733	490AC412A406A4F	7STAR	6,0,0,0,0,0	Star catalog update					4,857,489:81:0
1592	99	38	03:27:05.733	20AE4D	7SLEW	DIS,POS,0.0	Stator movement					4,857,518:43:0
1593	99	38	03:28:09.733	490AC412A4G	7MODE	CRU	AACS CRUISE MODE					4,857,519:48:0

Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MFI
1594	99	38	05:08:59.733	20AV6A	6MROH 7,6960,13,A10	read from AACSA7,6960,13,A1				4,857,619:23:0	
1595	99	38	05:27:39.733	20AV6B	6MROH 7,6960,13,A10	read from AACSA7,6960,13,A1				4,857,637:65:0	
1596	99	38	05:46:19.733	20AV6C	6MROH 7,6F96,2,A10	read from AACSA7,6F96,2,A10				4,857,656:16:0	
1597	99	38	05:50:19.733	20AV6D	6MROH 7,6F96,2,A10	read from AACSA7,6F96,2,A10				4,857,660:12:0	
1598	99	42	02:01:01.533	488ZZ6A	6TMSED NORM/AL2	Sci, Eng, and D/L Chan				4,863,130:05:0	
1599	99	42	02:01:58.200	432AA431A6A	6RTCSL DDSDSL,PLSDSL,EP	Record Deselect (DDS o				4,863,130:90:0	
1600	99	42	02:01:58.866	432AA6B	6RTSL1	R/T Select of DDS and				4,863,131:00:0	
1601	99	42	02:13:00.200	444AZ443A4A	7SAFE UNSTOW	S/P TO 153 deg cone				4,863,141:82:0	
1602	99	42	02:17:00.200	444AZ443A4B	7MODE CRU	AACS CRUISE MODE				4,863,145:78:0	
1603	99	42	02:32:18.866	432AB6A	6RTSL1	R/T Select of DDS and				4,863,161:00:0	
1604	99	42	02:34:20.200	465KF6A	6DMSC RDY,4	DMS Control Tape stop				4,863,163:00:0	
1605	99	42	02:36:12.200	175KA422A6A	6DMSC R7,0	DMS Control Tape runup 7.68kps				4,863,164:77:0	
1606	99	42	02:36:12.200		DMS: : *US-RUNUP	P7, TRACK *1, *FWD, TIC 4620.88 +/- 5				4,863,164:77:0	
1607	99	42	02:36:13.600		DMS: : *US_AT_SP	P7, TRACK 1, FWD, TIC *4621.00 +/- 5				4,863,164:79:1	
1608	99	42	02:36:18.866		DMS: : *US_RD	P7, TRACK 1, FWD, TIC *4622.23 +/- 5				4,863,164:87:0	
1609	99	42	02:36:20.066		DMS: : *RUNUP	R7, TRACK *4, *REV, TIC *4622.29 +/- 5				4,863,164:88:8	
1610	99	42	02:36:20.866	175KA176A6A	6TMREC LPW	7.68 KBPS LOW RATE SCI PWS RECORD				4,863,164:90:0	
1611	99	42	02:36:21.466		DMS: : *RECORD	R7, TRACK 4, REV, TIC *4622.17 +/- 5				4,863,164:90:9	
1612	99	42	02:36:21.466		DMS: : *AT_SPD	R7, TRACK 4, REV, TIC 4622.17 +/- 5				4,863,164:90:9	
1613	99	42	02:38:22.200	432PP431A6A	6RTCSL DDSNCG,PLSDSL,EP	Record Deselect (DDS o				4,863,166:90:0	
1614	99	42	02:38:22.866	432PP6A	6RTSL1	R/T Select of DDS and				4,863,167:00:0	
1615	99	42	02:40:01.533	20ZS6A	6CKSUM MAG,4040,46F0					4,863,168:57:0	
1616	99	42	02:40:41.533	20ZS6B	6MROH	12 read from LLM1A12,2282,0,A2				4,863,169:26:0	
1617	99	42	02:40:41.533	20ZS6B	6MROH 12,2282,0,A2	read from LLM1A12,2282,0,A2				4,863,169:26:0	
1618	99	42	02:58:00.200	20ZU3Q	37HR	1 Replacement Heaters OFF				4,863,186:37:0	
1619	99	42	02:58:02.200	20ZU3S	37HR	2 Replacement Heaters OFF				4,863,186:40:0	
1620	99	42	02:58:28.200	20ZU3R	37A	1 NIMS Power ON	260	4	0	4,863,186:79:0	
1621	99	42	02:58:30.200	20ZU3T	37A	2 NIMS Power ON	260	4	0	4,863,186:82:0	
1622	99	42	03:00:29.533	20ZU4A	37IST 1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)	2R0	4	0	4,863,188:79:0	
1623	99	42	03:02:06.200	20AH5A	37PL	Program Load (halts microprocessor & unwri	2R0	4	0	4,863,190:42:0	
1624	99	42	03:02:12.866	20AH5B	37MRL	Memory Realocate (software operates from R	2R0	4	0	4,863,190:52:0	
1625	99	42	03:02:19.533	20AH6A	6MCOPY NIMS	NIMS,1000,LLM1A,7300,77F7	2R0	4	0	4,863,190:62:0	
1626	99	42	03:02:29.533	20AH6B	6MCOPY NIMS	NIMS,1598,LLM1A,77F8,781D	2R0	4	0	4,863,190:77:0	
1627	99	42	03:02:39.533	20AH5C	37IRT	Instrument Reset (goes into POR state)	260	4	0	4,863,191:01:0	
1628	99	42	03:02:40.866	20AH5D	37MN	Memory Normal (software operates from ROM)	260	4	0	4,863,191:03:0	
1629	99	42	03:02:52.200	20AH4A	37IST 1,2,0,OFF,0,1,1	Chopper ON, Sync, Chopper (Ref)Gain State	4R0	4	0	4,863,191:20:0	
1630	99	42	03:14:53.533	282NX431A6A	6RCSEL DDSNCG,PLSSEL,EP	Record Select (DDS onl	4R0	4	0	4,863,203:10:0	
1631	99	42	03:25:02.200	282NY431A6A	6RCDSL DDSNCG,PLSDSL,EP	Record Deselect (DDS o	4R0	4	0	4,863,213:13:0	
1632	99	42	03:25:50.866	282NY432A431A6A	6RCDSL DDSNCG,PLSDSL,EP	Record Deselect (DDS o	4R0	4	0	4,863,213:86:0	
1633	99	42	03:25:51.533	282NY432A6A	6RTSL1	R/T Select of DDS and	4R0	4	0	4,863,213:87:0	
1634	99	42	04:09:21.533	431ZL6A	6RCDSL DDSNCG,PLSNGC,EP	Record Deselect (DDS o	4R0	4	0	4,863,256:89:0	
1635	99	42	04:14:02.866	20ZM6A	6EUVO		4R0	4	0	4,863,261:56:0	
1636	99	42	04:14:26.200	431ZM6A	6RCSEL DDSNCG,PLSNGC,EP	Record Select (DDS onl	4R0	4	0	4,863,262:00:0	
1637	99	42	04:18:28.866	175KA422A6B	6DMSC RDY,0	DMS Control Tape stop	4R0	4	0	4,863,266:00:0	
1638	99	42	04:18:28.866		DMS: : *RUNDOWN	R7, TRACK 4, REV, TIC *3186.06 +/- 5	4R0	4	0	4,863,266:00:0	
1639	99	42	04:18:30.066		DMS: : *READY	RDY, TRACK 4, REV, TIC *3186.00 +/- 5	4R0	4	0	4,863,266:01:8	
1640	99	42	04:34:39.533		DMS: : *READY	RDY, TRACK *2, REV, TIC 3186.00 +/- 5	4R0	4	0	4,863,282:00:0	
1641	99	42	04:34:39.533	465KH6A	6DMSC RDY,2	DMS Control Tape stop	4R0	4	0	4,863,282:00:0	
1642	99	42	04:40:00.200	41AV99A	POWER	Change to Manuever/Playback Mode	4R0	4	0	4,863,287:26:0	
1643	99	42	04:41:54.200	41AV3G	40T1P	1 PCT Heater 1 ON (primary relay)	4R0	4	0	4,863,289:15:0	
1644	99	42	04:42:04.200	41AV3H	40T1P	2 PCT Heater 1 ON (primary relay)	4R0	4	0	4,863,289:30:0	
1645	99	42	04:42:14.200	41AV3I	40T2	1 PCT Heater 2 ON	4R0	4	0	4,863,289:45:0	
1646	99	42	04:42:24.200	41AV3J	40T2	2 PCT Heater 2 ON	4R0	4	0	4,863,289:60:0	
1647	99	42	05:05:58.866	432PQ6B	6RTDS2 NIMDSL, AACDSL, RT	NIMS R/T DESELECT TAACS DESELECT	4R0	4	0	4,863,312:89:0	
1648	99	42	05:16:20.200	20U14B	7SAFE UNSTOW	SIP TO 153 deg cone	4R0	4	0	4,863,323:20:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
1649	99	42	05:35:20.200	20UL4D	7MODE	INT	AACS INERTIAL MODE	4R0	4	0	4,863,342:01:0	
1650	99	42	08:15:00.200	444UW443A4A	7MODE	CRU	AACS CRUISE MODE	4R0	4	0	4,863,499:84:0	
1651	99	42	16:00:00.000	20A3FB	37F2PR	Final Condition	Shield Flash Heater OFF (primary relay)	4R0	4	0	4,863,959:73:7	
1652	99	42	16:00:00.000	20A3FA	37F1PR	Final Condition	Radiator Flash Heater OFF (primary relay)	4R0	4	0	4,863,959:73:7	
1653	99	42	16:00:00.000	20A3EZ	37C2PR	Final Condition	Optics Heater 2 OFF (primary relay)	4R0	4	0	4,863,959:73:7	
1654	99	42	16:00:00.000	20A3EY	37C1PR	Final Condition	Optics Heater 1 OFF (primary relay)	4R0	4	0	4,863,959:73:7	
1655	99	42	16:00:00.000	20A3EX	37HR	Final Condition	Replacement Heaters OFF	4R0	4	0	4,863,959:73:7	
1656	99	42	16:00:00.000	20A3EW	37A	Final Condition	NIMS Power ON	4R0	4	0	4,863,959:73:7	
1657	99	42	16:00:00.000	20A3FF	40T2	Final Condition	PCT Heater 2 ON	4R0	4	0	4,863,959:73:7	
1658	99	42	16:00:00.000	20A3FE	40T1P	Final Condition	PCT Heater 1 ON (primary relay)	4R0	4	0	4,863,959:73:7	
1659	99	42	16:00:00.000	20A3FD	40HRPR	Final Condition	RCT Heater OFF (primary relay)	4R0	4	0	4,863,959:73:7	
1660	99	42	16:00:00.200		DMS:	: READY	RDY, TRACK 2, REV, TIC 3186.00 +/- 5	4R0	4	0	4,863,959:74:0	

Sequence:		E19B-AR		Created: 5/17/99		Begin: 99-042/16:00:00		Finish: 99-08/05:00:00				
Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
1	99	42	16:00:00.000	20A3EW	37A	Initial Condition	NIMS Power ON	2R0	4	0	4,863,959:73:7	
2	99	42	16:00:00.000	20A3FE	40T1P	Initial Condition	PCT Heater 1 ON (primary relay)	2R0	4	0	4,863,959:73:7	
3	99	42	16:00:00.000	20A3FD	40HRPR	Initial Condition	RCT Heater OFF (primary relay)	2R0	4	0	4,863,959:73:7	
4	99	42	16:00:00.000	20A3FB	37F2PR	Initial Condition	Shield Flash Heater OFF (primary relay)	2R0	4	0	4,863,959:73:7	
5	99	42	16:00:00.000	20A3FA	37F1PR	Initial Condition	Radiator Flash Heater OFF (primary relay)	2R0	4	0	4,863,959:73:7	
6	99	42	16:00:00.000	20A3EZ	37C2PR	Initial Condition	Optics Heater 2 OFF (primary relay)	2R0	4	0	4,863,959:73:7	
7	99	42	16:00:00.000	20A3FF	40T2	Initial Condition	PCT Heater 2 ON	2R0	4	0	4,863,959:73:7	
8	99	42	16:00:00.000	20A3EY	37C1PR	Initial Condition	Optics Heater 1 OFF (primary relay)	2R0	4	0	4,863,959:73:7	
9	99	42	16:00:00.000	20A3EX	37HR	Initial Condition	Replacement Heaters OFF	2R0	4	0	4,863,959:73:7	
10	99	42	16:00:00.200		DMS: : READY		RDY, TRACK 2, REV, TIC 3186.00 +/- 5	2R0	4	0	4,863,959:74:0	
11	99	42	16:14:20.866	431MA6A	6RCSEL	DDSEL,PLSNCG,EP	Record Select (DDS on)	2R0	4	0	4,863,974:00:0	
12	99	42	16:32:00.200	20UQ4B	7SLEW	DIS,POS,0.0	Stator movement	2R0	4	0	4,863,991:42:0	
13	99	42	16:33:00.200	20UQ4D	7MODE	SPNL	AACS ALL-SPIN LOW	2R0	4	0	4,863,992:41:0	
14	99	42	16:35:00.200	20UQ4E	7SAFE	UNSTOW	S/P TO 153 deg cone	2R0	4	0	4,863,994:39:0	
15	99	42	16:40:30.200	20UQ4G	7VENT	0.611,1.333,8	ALERT -- Thruster fire	2R0	4	0	4,863,999:79:0	
16	99	42	16:40:30.866	20UQ4H	7VENT	0.611,10.989,8	ALERT -- Thruster fire	2R0	4	0	4,863,999:80:0	
17	99	42	16:40:50.866	20UQ4I	7VENT	0.611,1.333,6	ALERT -- Thruster fire	2R0	4	0	4,864,000:19:0	
18	99	42	16:40:51.533	20UQ4J	7VENT	0.611,10.989,6	ALERT -- Thruster fire	2R0	4	0	4,864,000:20:0	
19	99	42	16:41:11.533	20UQ4K	7VENT	0.611,1.333,4	ALERT -- Thruster fire	2R0	4	0	4,864,000:50:0	
20	99	42	16:41:12.200	20UQ4L	7VENT	0.611,0.666,5	ALERT -- Thruster fire	2R0	4	0	4,864,000:51:0	
21	99	42	16:41:22.200	20UQ4M	7VENT	0.611,1.333,4	ALERT -- Thruster fire	2R0	4	0	4,864,000:66:0	
22	99	42	16:41:22.866	20UQ4N	7VENT	0.611,0.666,5	ALERT -- Thruster fire	2R0	4	0	4,864,000:67:0	
23	99	42	16:41:32.866	20UQ4O	7VENT	1.211,1.333,10	ALERT -- Thruster fire	2R0	4	0	4,864,000:82:0	
24	99	42	16:41:33.533	20UQ4P	7VENT	1.211,0.666,12	ALERT -- Thruster fire	2R0	4	0	4,864,000:83:0	
25	99	42	16:43:20.200	20UQ4S	7VENT	0.611,1.333,7	ALERT -- Thruster fire	2R0	4	0	4,864,002:61:0	
26	99	42	16:43:20.866	20UQ4T	7VENT	0.611,10.989,7	ALERT -- Thruster fire	2R0	4	0	4,864,002:62:0	
27	99	42	16:43:40.866	20UQ4U	7VENT	0.611,1.333,1	ALERT -- Thruster fire	2R0	4	0	4,864,003:01:0	
28	99	42	16:43:41.533	20UQ4V	7VENT	0.611,10.989,1	ALERT -- Thruster fire	2R0	4	0	4,864,003:02:0	
29	99	42	16:44:01.533	20UQ4AC	7VENT	0.611,1.333,2	ALERT -- Thruster fire	2R0	4	0	4,864,003:32:0	
30	99	42	16:44:02.200	20UQ4AD	7VENT	0.611,0.666,3	ALERT -- Thruster fire	2R0	4	0	4,864,003:33:0	
31	99	42	16:44:12.200	20UQ4AE	7VENT	0.611,1.333,2	ALERT -- Thruster fire	2R0	4	0	4,864,003:48:0	
32	99	42	16:44:12.866	20UQ4AF	7VENT	0.611,0.666,3	ALERT -- Thruster fire	2R0	4	0	4,864,003:49:0	
33	99	42	16:44:22.866	20UQ4AW	7VENT	1.211,1.333,9	ALERT -- Thruster fire	2R0	4	0	4,864,003:64:0	
34	99	42	16:44:23.533	20UQ4X	7VENT	1.211,0.666,11	ALERT -- Thruster fire	2R0	4	0	4,864,003:65:0	
35	99	42	16:45:20.200	20UQ4Z	7MODE	CRU	AACS CRUISE MODE	2R0	4	0	4,864,004:59:0	
36	99	42	17:10:04.200	20UJ4A	7SAFE	STOP	S/P NO MOVEMENT	2R0	4	0	4,864,029:10:0	
37	99	42	17:10:54.200	20UJ4B	7SLEW	DIS,POS,0.0	Stator movement	2R0	4	0	4,864,029:85:0	
38	99	42	17:12:59.533	176SU6A	6TMREC	IPB	INITIATE PLAYBACK (PB CONTROL) Record Mod	2R0	4	0	4,864,032:00:0	
39	99	42	17:56:23.533	488BA6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	2R0	4	0	4,864,074:84:0	
40	99	42	18:49:43.533	488BA6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	2R0	4	0	4,864,127:61:0	
41	99	42	18:59:40.866	488BA6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	2R0	4	0	4,864,137:47:0	
42	99	42	19:15:19.533	488BA6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	2R0	4	0	4,864,152:90:0	
43	99	42	19:51:35.533	488BA6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,864,188:78:0	
44	99	42	22:42:36.133	488BB6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,864,357:90:0	
45	99	42	23:33:27.466	488BB6B	6TMSED	NORM,AH5	Sci, Eng, and D/L Chan	2R0	4	0	4,864,408:26:0	
46	99	42	23:36:12.133	176SH6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	2R0	4	0	4,864,411:00:0	
47	99	43	00:07:00.133	20SQ4I	7MODE	INT	AACS INERTIAL MODE	2R0	4	0	4,864,441:42:0	
48	99	43	00:22:00.133	20SQ4K	7SLEW	INIT,POS,17.45	Stator movement	2R0	4	0	4,864,456:27:0	
49	99	43	00:34:00.133	20SQ4L	7SLEW	DIS,POS,0.0	Stator movement	2R0	4	0	4,864,468:15:0	
50	99	43	00:41:00.133	20SQ4M	7SLEW	INIT,NEG,17.45	Stator movement	2R0	4	0	4,864,475:08:0	
51	99	43	00:53:00.133	20SQ4N	7SLEW	DIS,POS,0.0	Stator movement	2R0	4	0	4,864,486:87:0	
52	99	43	01:05:00.133	20SQ4AH	7MODE	CRU	AACS CRUISE MODE	2R0	4	0	4,864,498:75:0	
53	99	43	01:21:04.133	20ST4A	7SAFE	STOP	S/P NO MOVEMENT	2R0	4	0	4,864,514:65:0	



Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
54	99	43	01:21:54.133	20ST4B	7SLEW	DIS,POS,0.0	Stator movement	2R0	4	0	4,864,515:49:0	
55	99	43	01:22:22.133	176SJ6A	6TMR	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	2R0	4	0	4,864,516:00:0	
56	99	43	01:43:35.466	488B6C	6TMR	NORM,AL6	Sci, Eng, and D/L Chan	2R0	4	0	4,864,536:90:0	
57	99	43	05:51:03.466	488B6A	6TMR	NORM,AL5	Sci, Eng, and D/L Chan	2R0	4	0	4,864,781:67:0	
58	99	43	08:01:11.466	488B6B	6TMR	NORM,AL2	Sci, Eng, and D/L Chan	2R0	4	0	4,864,910:40:0	
59	99	43	08:54:31.466	488B6C	6TMR	NORM,AL2	Sci, Eng, and D/L Chan	2R0	4	0	4,864,963:17:0	
60	99	43	09:17:59.466	488B6C	6TMR	NORM,AL3	Sci, Eng, and D/L Chan	2R0	4	0	4,864,986:36:0	
61	99	43	10:13:27.466	488B6E	6TMR	NORM,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,865,041:23:0	
62	99	43	10:34:27.466	488B6A	6TMR	FILL,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,865,062:02:0	
63	99	43	11:08:06.133	488B6B	6TMR	NORM,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,865,095:27:0	
64	99	43	16:18:53.466	488B6C	6TMR	FILL,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,865,402:61:0	
65	99	43	16:57:32.133	488B6A	6TMR	NORM,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,865,440:81:0	
66	99	43	17:54:29.466	488B6B	6TMR	FILL,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,865,497:20:0	
67	99	43	18:28:08.133	488B6C	6TMR	NORM,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,865,530:45:0	
68	99	43	18:28:23.466	488B6E	6TMR	NORM,AL5	Sci, Eng, and D/L Chan	2R0	4	0	4,865,530:68:0	
69	99	43	22:35:51.466	488B6E	6TMR	NORM,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,865,775:45:0	
70	99	43	23:33:27.466	488B6A	6TMR	NORM,AL5	Sci, Eng, and D/L Chan	2R0	4	0	4,865,832:42:0	
71	99	44	00:00:00.133	481UA4A	7VECT		Inert vect update UTC	2R0	4	0	4,865,858:65:0	
72	99	44	02:02:47.466	488B6B	6TMR	NORM,AL6	Sci, Eng, and D/L Chan	2R0	4	0	4,865,980:14:0	
73	99	44	05:25:27.400	488B6C	6TMR	NORM,AL5	Sci, Eng, and D/L Chan	2R0	4	0	4,866,180:54:0	
74	99	44	07:54:47.400	488B6A	6TMR	NORM,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,866,328:26:0	
75	99	44	08:50:15.400	488B6B	6TMR	NORM,AL2	Sci, Eng, and D/L Chan	2R0	4	0	4,866,383:13:0	
76	99	44	09:07:19.400	488B6C	6TMR	NORM,AL3	Sci, Eng, and D/L Chan	2R0	4	0	4,866,400:02:0	
77	99	44	09:28:39.400	488B6D	6TMR	NORM,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,866,421:11:0	
78	99	44	15:58:07.400	488B6A	6TMR	FILL,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,866,806:28:0	
79	99	44	16:05:27.400	488B6B	6TMR	FILL,AL2	Sci, Eng, and D/L Chan	2R0	4	0	4,866,813:51:0	
80	99	44	16:17:46.733	488B6C	6TMR	NORM,AL2	Sci, Eng, and D/L Chan	2R0	4	0	4,866,825:68:0	
81	99	44	16:22:31.400	488B6D	6TMR	NORM,AL3	Sci, Eng, and D/L Chan	2R0	4	0	4,866,830:40:0	
82	99	44	16:37:27.400	488B6E	6TMR	NORM,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,866,845:19:0	
83	99	44	18:32:39.400	488B6A	6TMR	NORM,AL5	Sci, Eng, and D/L Chan	2R0	4	0	4,866,959:13:0	
84	99	45	00:16:07.400	488B6B	6TMR	NORM,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,867,298:76:0	
85	99	45	02:15:35.400	488B6A	6TMR	NORM,AL3	Sci, Eng, and D/L Chan	2R0	4	0	4,867,416:90:0	
86	99	45	02:32:11.400	488B6B	6TMR	FILL,AL3	Sci, Eng, and D/L Chan	2R0	4	0	4,867,433:37:0	
87	99	45	02:34:47.400	488B6C	6TMR	FILL,AL2	Sci, Eng, and D/L Chan	2R0	4	0	4,867,435:89:0	
88	99	45	09:07:42.733	488B6A	6TMR	NORM,AL2	Sci, Eng, and D/L Chan	2R0	4	0	4,867,824:53:0	
89	99	45	09:13:43.400	488B6B	6TMR	NORM,AL3	Sci, Eng, and D/L Chan	2R0	4	0	4,867,830:48:0	
90	99	45	10:24:07.400	488B6C	6TMR	NORM,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,867,900:14:0	
91	99	45	10:34:39.400	488B6D	6TMR	FILL,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,867,910:52:0	
92	99	45	11:08:18.733	488B6E	6TMR	NORM,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,867,943:78:0	
93	99	45	17:20:07.333	488B6A	6TMR	NORM,AL3	Sci, Eng, and D/L Chan	2R0	4	0	4,868,311:53:0	
94	99	45	18:30:31.333	488B6B	6TMR	NORM,AL2	Sci, Eng, and D/L Chan	2R0	4	0	4,868,381:19:0	
95	99	45	18:56:07.333	488B6C	6TMR	NORM,AL5	Sci, Eng, and D/L Chan	2R0	4	0	4,868,406:48:0	
96	99	45	20:17:27.333	488B6D	6TMR	FILL,AL5	Sci, Eng, and D/L Chan	2R0	4	0	4,868,486:88:0	
97	99	45	20:46:33.333	488B6E	6TMR	NORM,AL5	Sci, Eng, and D/L Chan	2R0	4	0	4,868,515:68:0	
98	99	45	22:29:27.333	488B6A	6TMR	NORM,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,868,617:47:0	
99	99	45	23:37:43.333	488B6B	6TMR	NORM,AL5	Sci, Eng, and D/L Chan	2R0	4	0	4,868,685:03:0	
100	99	46	07:39:51.333	488B6A	6TMR	NORM,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,869,161:79:0	
101	99	46	08:39:35.333	488B6B	6TMR	NORM,AL2	Sci, Eng, and D/L Chan	2R0	4	0	4,869,220:86:0	
102	99	46	09:13:43.333	488B6C	6TMR	NORM,AL3	Sci, Eng, and D/L Chan	2R0	4	0	4,869,254:64:0	
103	99	46	10:17:39.333	488B6D	6TMR	FILL,AL3	Sci, Eng, and D/L Chan	2R0	4	0	4,869,317:85:0	
104	99	46	10:43:19.333	488B6E	6TMR	FILL,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,869,343:29:0	
105	99	46	10:52:30.666	488B6A	6TMR	NORM,AL4	Sci, Eng, and D/L Chan	2R0	4	0	4,869,352:37:0	
106	99	46	17:09:27.333	488B6B	6TMR	NORM,AL3	Sci, Eng, and D/L Chan	2R0	4	0	4,869,725:19:0	
107	99	46	18:24:07.333	488B6C	6TMR	NORM,AL2	Sci, Eng, and D/L Chan	2R0	4	0	4,869,799:05:0	
108	99	46	18:46:34.000	488B6D	6TMR	FILL,AL2	Sci, Eng, and D/L Chan	2R0	4	0	4,869,821:23:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
109	99	46	19:00:23.333	488BP6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	2R0	4	0	4,869,834:84:0	
110	99	46	19:36:39.333	488BP6E	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	2R0	4	0	4,869,870:72:0	
111	99	47	05:00:25.933	488BQ6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	2R0	4	0	4,870,428:34:0	
112	99	47	05:02:59.933	33A4A	37IST	1,0,0,OFF,0,0,0	Chopper ON, Sync, 63Hz (Ref)	260	4	0	4,870,430:83:0	
113	99	47	05:04:00.600	33B4A	37IST	1,1,0,OFF,0,0,0	Chopper OFF, N/A, 63Hz (Ref)	200	4	0	4,870,431:83:0	
114	99	47	07:29:11.266	488BQ6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,870,575:45:0	
115	99	47	08:39:35.266	488BQ6C	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,870,645:11:0	
116	99	47	08:58:47.266	488BQ6D	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,870,664:10:0	
117	99	47	09:28:39.266	488BQ6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,870,693:59:0	
118	99	47	14:02:53.933	488BR6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,870,964:80:0	
119	99	47	14:10:15.266	488BR6B	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,870,972:14:0	
120	99	47	16:07:29.933	488BR6C	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,871,088:10:0	
121	99	47	16:11:51.266	488BR6D	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,871,092:38:0	
122	99	47	16:33:11.266	488BR6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,871,113:47:0	
123	99	47	17:22:59.933	488BS6A	6TMSED	NORM,AH4	Sci, Eng, and D/L Chan	200	4	0	4,871,162:71:0	
124	99	47	17:27:15.933	176TF6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	200	4	0	4,871,167:00:0	
125	99	47	17:35:59.933	20WC4C	7STAT	17.45,181.62,0.5	Stator inertial point	200	4	0	4,871,175:58:0	
126	99	47	17:55:01.933	490UA12A4B	7MODE	INT	AACS INERTIAL MODE	200	4	0	4,871,194:42:0	
127	99	47	17:59:59.933	490UA12A4D	7SAFE	UNSTOW	S/P TO 153 deg cone	200	4	0	4,871,199:34:0	
128	99	47	18:00:19.933	20WC4D	7STAT	17.45,181.62,0.5	Stator inertial point	200	4	0	4,871,199:64:0	
129	99	47	18:04:09.933	490UA12A4E	7VECT		Inert vect update UTC	200	4	0	4,871,203:45:0	
130	99	47	18:04:13.933	490UA12A4F	7TURN	2,RTH	ALERT Thruster	200	4	0	4,871,203:51:0	
131	99	47	18:08:01.933	490UA12A4G	7STAR	16,217,100.73	Star catalog update	200	4	0	4,871,207:29:0	
132	99	47	18:08:03.933	490UA12A4H	7STAR	2,226,263.15	Star catalog update	200	4	0	4,871,207:32:0	
133	99	47	18:08:05.933	490UA12A4I	7STAR	3,125,259.73	Star catalog update	200	4	0	4,871,207:35:0	
134	99	47	18:08:07.933	490UA12A4J	7STAR	4,151,261.99	Star catalog update	200	4	0	4,871,207:38:0	
135	99	47	18:08:09.933	490UA12A4K	7STAR	5,0,0,0,0.0	Star catalog update	200	4	0	4,871,207:41:0	
136	99	47	18:08:11.933	490UA12A4L	7STAR	6,0,0,0,0.0	Star catalog update	200	4	0	4,871,207:44:0	
137	99	47	18:17:43.266	488BS6B	6TMSED	NORM,AH5	Sci, Eng, and D/L Chan	200	4	0	4,871,216:82:0	
138	99	47	18:18:05.933	20WC4F	7SLEW	DIS,POS:0.0	Stator movement	200	4	0	4,871,217:25:0	
139	99	47	18:26:09.933	490UA12A4G	7MODE	CRU	AACS CRUISE MODE	200	4	0	4,871,225:23:0	
140	99	47	19:54:59.933	480UA6A	6MROH	7,6960,13,A10	read from AACSA7.6960,13,A1	200	4	0	4,871,313:10:0	
141	99	47	20:00:03.933	20SW4A	7SAFE	STOP	S/P NO MOVEMENT	200	4	0	4,871,318:11:0	
142	99	47	20:00:53.933	20SW4B	7SLEW	DIS,POS:0.0	Stator movement	200	4	0	4,871,318:86:0	
143	99	47	20:02:58.600	176TG6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	200	4	0	4,871,321:00:0	
144	99	47	20:13:39.933	480UA6B	6MROH	7,6960,13,A10	read from AACSA7.6960,13,A1	200	4	0	4,871,331:52:0	
145	99	47	20:32:19.933	480UA6C	6MROH	7,6960,13,A10	read from AACSA7.6960,13,A1	200	4	0	4,871,350:03:0	
146	99	47	20:50:59.933	488BS6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,871,368:45:0	
147	99	47	22:20:55.266	488BS6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,871,457:39:0	
148	99	47	23:22:47.266	488BS6E	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,871,518:56:0	
149	99	48	01:43:35.266	488BT6A	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	200	4	0	4,871,657:79:0	
150	99	48	05:25:27.200	488BT6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,871,877:27:0	
151	99	48	07:44:07.200	488BU6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,872,014:40:0	
152	99	48	08:37:31.866	488BU6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,872,067:24:0	
153	99	48	08:39:35.200	488BU6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,872,069:27:0	
154	99	48	08:54:31.200	488BU6D	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	200	4	0	4,872,084:06:0	
155	99	48	18:30:17.866	488BV6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,872,653:47:0	
156	99	48	22:20:55.200	488BV6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,872,881:55:0	
157	99	48	23:18:31.200	488BV6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,872,938:52:0	
158	99	49	01:32:55.200	488BW6A	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	200	4	0	4,873,071:45:0	
159	99	49	05:29:43.200	488BW6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,873,305:63:0	
160	99	49	07:39:51.200	488BX6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,873,434:36:0	
161	99	49	08:33:57.200	488BX6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,873,487:82:0	
162	99	49	08:39:35.200	488BX6C	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	4,873,493:43:0	
163	99	49	09:15:51.200	488BX6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,873,529:31:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
164	99	49	13:17:00.466	488BX6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,873,767:77:0	
165	99	49	14:50:01.133	488BY6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,873,859:76:0	
166	99	49	15:23:40.466	488BY6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,873,893:11:0	
167	99	49	17:30:47.133	488BY6C	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,874,018:76:0	
168	99	49	18:24:07.133	488BY6D	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,874,071:53:0	
169	99	49	18:40:00.466	488BY6E	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,874,087:27:0	
170	99	49	18:58:15.133	488BZ6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,874,105:31:0	
171	99	49	22:21:58.466	488BZ6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,874,306:75:0	
172	99	49	23:18:31.133	488BZ6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,874,362:68:0	
173	99	50	01:32:55.133	488CA6A	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	200	4	0	4,874,495:61:0	
174	99	50	05:19:03.133	488CA6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,874,719:29:0	
175	99	50	07:35:35.133	488CB6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,874,854:32:0	
176	99	50	08:28:55.133	488CB6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,874,907:09:0	
177	99	50	09:03:03.133	488CB6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,874,940:78:0	
178	99	50	15:50:31.133	488CC6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,875,343:77:0	
179	99	50	16:11:51.133	488CC6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,875,364:86:0	
180	99	50	18:02:47.133	488CC6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,875,474:60:0	
181	99	51	00:09:43.066	488CD6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,875,837:51:0	
182	99	51	02:00:39.066	488CD6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,875,947:25:0	
183	99	51	02:13:45.733	488CD6C	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	4,875,960:22:0	
184	99	51	02:19:51.066	488CD6D	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,875,966:24:0	
185	99	51	02:34:47.066	488CD6E	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	200	4	0	4,875,981:03:0	
186	99	51	02:44:12.400	488CE6A	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	200	4	0	4,875,990:32:0	
187	99	51	05:10:31.066	488CE6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,876,135:05:0	
188	99	51	07:29:11.066	488CE6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,876,272:18:0	
189	99	51	08:24:34.400	488CE6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,876,326:89:0	
190	99	51	08:28:55.066	488CE6E	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,876,331:25:0	
191	99	51	08:52:11.733	488CF6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,876,354:27:0	
192	99	51	08:58:47.066	488CF6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,876,360:74:0	
193	99	51	09:47:51.066	488CF6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,876,409:31:0	
194	99	51	10:20:10.400	488CF6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,876,441:28:0	
195	99	51	10:53:49.733	488CF6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,876,474:54:0	
196	99	51	17:20:07.066	488CG6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,876,856:58:0	
197	99	51	18:19:51.066	488CG6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,876,915:65:0	
198	99	51	18:29:51.733	488CG6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,876,925:56:0	
199	99	51	18:47:35.066	488CG6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,876,943:13:0	
200	99	51	22:16:48.400	488CG6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,877,150:06:0	
201	99	51	23:12:07.066	488CH6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,877,204:70:0	
202	99	52	01:37:11.066	488CH6B	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	200	4	0	4,877,348:22:0	
203	99	52	05:04:07.000	488CH6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,877,552:82:0	
204	99	52	07:29:11.000	488CI6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,877,696:34:0	
205	99	52	08:24:39.000	488CI6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,877,751:21:0	
206	99	52	08:56:39.000	488CI6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,877,782:80:0	
207	99	52	15:57:47.000	488CJ6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,878,199:35:0	
208	99	52	16:05:27.000	488CJ6B	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,878,206:88:0	
209	99	52	22:17:03.666	488CK6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,878,574:45:0	
210	99	52	22:23:03.000	488CK6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,878,580:38:0	
211	99	52	23:01:27.000	488CK6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,878,618:36:0	
212	99	52	23:40:17.000	488CK6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,878,656:73:0	
213	99	53	00:13:56.333	488CK6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,878,690:08:0	
214	99	53	07:29:11.000	488CL6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,879,120:50:0	
215	99	53	08:09:25.666	488CL6B	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	4,879,160:32:0	
216	99	53	08:13:59.000	488CL6C	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	4,879,164:78:0	
217	99	53	08:50:15.000	488CL6D	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	200	4	0	4,879,200:66:0	
218	99	54	05:14:50.933	488CM6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,880,411:79:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
219	99	54	07:18:30.933	488CM6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,880,534:16:0	
220	99	54	08:20:22.933	488CM6C	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,880,595:33:0	
221	99	54	08:52:22.933	488CM6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,880,627:01:0	
222	99	54	11:41:13.600	176SN6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	200	4	0	4,880,794:00:0	
223	99	54	11:47:17.600	465WA6A	6DMST		5000 DMS Slew to TIC	200	4	0	4,880,800:00:0	
224	99	54	11:47:17.600		DMS:	: *SLEW-TIC	P7, TRACK *1, *FWD, TIC 3186.00 +/- 5	200	4	0	4,880,800:00:0	
225	99	54	11:47:17.600		DMS:	: *E4-DELAY	RDY, TRACK 1, FWD, TIC 3186.00 +/- 5	200	4	0	4,880,800:00:0	
226	99	54	11:47:24.266		DMS:	: *RUNUP	P7, TRACK 1, FWD, TIC 3186.00 +/- 5	200	4	0	4,880,800:10:0	
227	99	54	11:47:25.666		DMS:	: *AT_SPD	P7, TRACK 1, FWD, TIC *3186.12 +/- 5	200	4	0	4,880,800:12:1	
228	99	54	13:56:15.066		DMS:	: *RUNDOWN	P7, TRACK 1, FWD, TIC *4997.94 +/- 5	200	4	0	4,880,927:49:2	
229	99	54	13:56:16.266		DMS:	: *READY	RDY, TRACK 1, FWD, TIC *4998.00 +/- 5	200	4	0	4,880,927:51:0	
230	99	54	15:27:45.600	488CN6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,881,018:04:0	
231	99	54	15:35:34.933	488CN6B	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,881,025:71:0	
232	99	54	15:46:55.600	488CN6C	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,881,037:00:0	
233	99	54	15:52:38.933	488CN6D	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,881,042:60:0	
234	99	54	16:37:26.933	488CN6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,881,086:88:0	
235	99	54	17:20:24.933	488CO6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,881,129:42:0	
236	99	54	17:40:58.933	465WB6A	6DMSC	P100,4	DMS Control Tape P/B 100.8kbps	200	4	0	4,881,149:73:0	
237	99	54	17:40:58.933		DMS:	: *US-RUNUP	P7, TRACK 1, FWD, TIC 4998.00 +/- 5	200	4	0	4,881,149:73:0	
238	99	54	17:41:00.333		DMS:	: *US-AT_SP	P7, TRACK 1, FWD, TIC *4998.12 +/- 5	200	4	0	4,881,149:75:1	
239	99	54	17:41:05.600		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *4999.35 +/- 5	200	4	0	4,881,149:83:0	
240	99	54	17:41:06.800		DMS:	: *RUNUP	P100, TRACK *4, *REV, TIC *4999.41 +/- 5	200	4	0	4,881,149:84:8	
241	99	54	17:41:10.666		DMS:	: *AT_SPD	P100, TRACK 4, REV, TIC 4993.91 +/- 5	200	4	0	4,881,149:90:6	
242	99	54	17:41:10.666		DMS:	: *P_SLEW	P100, TRACK 4, REV, TIC *4993.91 +/- 5	200	4	0	4,881,149:90:6	
243	99	54	17:54:04.266	488CO6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,881,162:68:0	
244	99	54	18:06:50.933	465WB6B	6DMSC	RDY,4	DMS Control Tape stop	200	4	0	4,881,175:35:0	
245	99	54	18:06:50.933		DMS:	: *RUNDOWN	P100, TRACK 4, REV, TIC * 255.79 +/- 5	200	4	0	4,881,175:35:0	
246	99	54	18:06:52.133		DMS:	: *READY	RDY, TRACK 4, REV, TIC * 254.99 +/- 5	200	4	0	4,881,175:36:8	
247	99	54	20:05:39.600		DMS:	: *DMS-TURN	P7, TRACK 4, REV, TIC 254.99 +/- 5	200	4	0	4,881,292:81:0	
248	99	54	20:05:39.600		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 284.99 +/- 5	200	4	0	4,881,292:81:0	
249	99	54	20:05:39.600	465WC6A	6DTRN	CMD,6DTRN,465WC6	DMS TRACK TURNAROUND	200	4	0	4,881,292:81:0	
250	99	54	20:05:41.000		DMS:	: *US-AT_SP	P7, TRACK 1, FWD, TIC * 255.11 +/- 5	200	4	0	4,881,292:83:1	
251	99	54	20:05:46.266		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC * 256.34 +/- 5	200	4	0	4,881,293:00:0	
252	99	54	20:05:47.466		DMS:	: *RUNUP	P7, TRACK *4, *REV, TIC * 256.40 +/- 5	200	4	0	4,881,293:01:8	
253	99	54	20:05:48.866		DMS:	: *AT_SPD	P7, TRACK 4, REV, TIC * 256.28 +/- 5	200	4	0	4,881,293:03:9	
254	99	54	20:09:09.600	488CO6C	6TMSED	NORM,AH4	Sci, Eng, and D/L Chan	200	4	0	4,881,296:32:0	
255	99	54	20:09:49.533		DMS:	: *REVERSE	P7, TRACK 4, REV, TIC * 199.87 +/- 5	200	4	0	4,881,297:00:9	
256	99	54	20:09:50.733		DMS:	: *TURNARND	P7, TRACK *1, *FWD, TIC * 199.81 +/- 5	200	4	0	4,881,297:02:7	
257	99	54	20:09:50.733		DMS:	: *RUNUP	P7, TRACK 1, FWD, TIC 199.81 +/- 5	200	4	0	4,881,297:02:7	
258	99	54	20:09:52.133		DMS:	: *AT_SPD	P7, TRACK 1, FWD, TIC * 199.93 +/- 5	200	4	0	4,881,297:04:8	
259	99	54	20:10:04.133		DMS:	: *AUTOSTOP	P7, TRACK 1, FWD, TIC * 202.06 +/- 5	200	4	0	4,881,297:22:8	
260	99	54	20:10:05.333		DMS:	: *READY	RDY, TRACK 1, FWD, TIC * 202.12 +/- 5	200	4	0	4,881,297:24:6	
261	99	54	20:15:42.266	465WD6A	6DMSC	P100,1	DMS Control Tape P/B 100.8kbps	200	4	0	4,881,302:75:0	
262	99	54	20:15:42.266		DMS:	: *E4-DELAY	RDY, TRACK 1, FWD, TIC 202.12 +/- 5	200	4	0	4,881,302:75:0	
263	99	54	20:15:48.933		DMS:	: *RUNUP	P100, TRACK 1, FWD, TIC 202.12 +/- 5	200	4	0	4,881,302:85:0	
264	99	54	20:15:52.800		DMS:	: *P_SLEW	P100, TRACK 1, FWD, TIC * 207.62 +/- 5	200	4	0	4,881,302:90:8	
265	99	54	20:15:52.800		DMS:	: *AT_SPD	P100, TRACK 1, FWD, TIC 207.62 +/- 5	200	4	0	4,881,302:90:8	
266	99	54	20:47:36.200	465WD6B	6DMSC	RDY,1	DMS Control Tape stop	200	4	0	4,881,334:34:0	
267	99	54	20:47:36.200		DMS:	: *RUNDOWN	P100, TRACK 1, FWD, TIC *6062.81 +/- 5	200	4	0	4,881,334:34:0	
268	99	54	20:47:37.400		DMS:	: *READY	RDY, TRACK 1, FWD, TIC *6063.61 +/- 5	200	4	0	4,881,334:35:8	
269	99	54	21:03:12.200		DMS:	: *US-RUNUP	P7, TRACK 1, FWD, TIC 6063.61 +/- 5	200	4	0	4,881,349:73:0	
270	99	54	21:03:12.200	465WE6A	6DMSC	P100,2	DMS Control Tape P/B 100.8kbps	200	4	0	4,881,349:73:0	
271	99	54	21:03:13.600		DMS:	: *US-AT_SP	P7, TRACK 1, FWD, TIC *6063.73 +/- 5	200	4	0	4,881,349:75:1	
272	99	54	21:03:18.866		DMS:	: *US_RD	P7, TRACK 1, FWD, TIC *6064.96 +/- 5	200	4	0	4,881,349:83:0	
273	99	54	21:03:20.066		DMS:	: *RUNUP	P100, TRACK *2, *REV, TIC *6065.02 +/- 5	200	4	0	4,881,349:84:8	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
274	99	54	21:03:23.933		DMS:	:*AT_SPD	P100, TRACK 2, REV, TIC 6059.52 +/-	200	4	0	4,881,349:90:6	
275	99	54	21:03:23.933		DMS:	:*P_SLEW	P100, TRACK 2, REV, TIC *6059.52 +/-	200	4	0	4,881,349:90:6	
276	99	54	21:35:20.200		DMS:	:*RUNDOWN	P100, TRACK 2, REV, TIC *164.76 +/-	200	4	0	4,881,381:53:0	
277	99	54	21:35:20.200	465WF6A	6DMSC	P100.3	DMS Control Tape P/B 100.8kbps	200	4	0	4,881,381:53:0	
278	99	54	21:35:21.400		DMS:	:*RUNUP	P100, TRACK *3, *FWD, TIC *163.96 +/-	200	4	0	4,881,381:54:8	
279	99	54	21:35:25.266		DMS:	:*AT_SPD	P100, TRACK 3, FWD, TIC 169.46 +/-	200	4	0	4,881,381:60:6	
280	99	54	21:35:25.266		DMS:	:*P_SLEW	P100, TRACK 3, FWD, TIC *169.46 +/-	200	4	0	4,881,381:60:6	
281	99	54	22:07:20.866	465WF6B	6DMSC	RDY.3	DMS Control Tape stop	200	4	0	4,881,413:22:0	
282	99	54	22:07:20.866		DMS:	:*RUNDOWN	P100, TRACK 3, FWD, TIC *6062.17 +/-	200	4	0	4,881,413:22:0	
283	99	54	22:07:22.066		DMS:	:*READY	RDY, TRACK 3, FWD, TIC *6062.97 +/-	200	4	0	4,881,413:23:8	
284	99	54	22:22:04.200	465WG6A	6DMSC	P100.4	DMS Control Tape P/B 100.8kbps	200	4	0	4,881,427:73:0	
285	99	54	22:22:04.200		DMS:	:*US-RUNUP	P7, TRACK *1, FWD, TIC 6062.97 +/-	200	4	0	4,881,427:73:0	
286	99	54	22:22:05.600		DMS:	:*US_AT_SP	P7, TRACK 1, FWD, TIC *6063.09 +/-	200	4	0	4,881,427:75:1	
287	99	54	22:22:10.866		DMS:	:*US_RD	P7, TRACK 1, FWD, TIC *6064.33 +/-	200	4	0	4,881,427:83:0	
288	99	54	22:22:12.066		DMS:	:*RUNUP	P100, TRACK *4, *REV, TIC *6064.39 +/-	200	4	0	4,881,427:84:8	
289	99	54	22:22:15.933		DMS:	:*P_SLEW	P100, TRACK 4, REV, TIC *6058.89 +/-	200	4	0	4,881,427:90:6	
290	99	54	22:22:15.933		DMS:	:*AT_SPD	P100, TRACK 4, REV, TIC 6058.89 +/-	200	4	0	4,881,427:90:6	
291	99	54	22:54:11.533		DMS:	:*RUNDOWN	P100, TRACK 4, REV, TIC *166.17 +/-	200	4	0	4,881,459:52:0	
292	99	54	22:54:11.533	465WH6A	6DMSC	P100.3	DMS Control Tape P/B 100.8kbps	200	4	0	4,881,459:52:0	
293	99	54	22:54:12.733		DMS:	:*RUNUP	P100, TRACK *3, *FWD, TIC *165.37 +/-	200	4	0	4,881,459:53:8	
294	99	54	22:54:16.600		DMS:	:*AT_SPD	P100, TRACK 3, FWD, TIC 170.87 +/-	200	4	0	4,881,459:59:6	
295	99	54	22:54:16.600		DMS:	:*P_SLEW	P100, TRACK 3, FWD, TIC *170.87 +/-	200	4	0	4,881,459:59:6	
296	99	54	22:55:17.533	465WH6B	6DMSC	RDY.3	DMS Control Tape stop	200	4	0	4,881,460:60:0	
297	99	54	22:55:17.533		DMS:	:*READY	RDY, TRACK 3, FWD, TIC *359.11 +/-	200	4	0	4,881,460:60:0	
298	99	54	22:55:18.733	488CO6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,881,460:61:8	
299	99	54	22:55:59.533		DMS:	:*READY	RDY, TRACK *4, *REV, TIC 359.11 +/-	200	4	0	4,881,475:00:0	
300	99	54	23:09:47.533	465WI6A	6DMSC	RDY.4	DMS Control Tape stop	200	4	0	4,881,475:00:0	
301	99	54	23:09:47.533		DMS:	:*US-RUNUP	P7, TRACK *1, *FWD, TIC 359.11 +/-	200	4	0	4,881,475:81:0	
302	99	54	23:10:41.533		DMS:	:*DMS-TURN	P7, TRACK 4, REV, TIC 359.11 +/-	200	4	0	4,881,475:81:0	
303	99	54	23:10:41.533	465WJ6A	6DTRN	CMD.6DTRN,465WJ6	DMS TRACK TURNAROUND	200	4	0	4,881,475:81:0	
304	99	54	23:10:41.533		DMS:	:*US_AT_SP	P7, TRACK 1, FWD, TIC *359.23 +/-	200	4	0	4,881,475:83:1	
305	99	54	23:10:42.933		DMS:	:*US_RD	P7, TRACK 1, FWD, TIC *360.47 +/-	200	4	0	4,881,476:00:0	
306	99	54	23:10:48.200		DMS:	:*RUNUP	P7, TRACK *4, *REV, TIC *360.53 +/-	200	4	0	4,881,476:01:8	
307	99	54	23:10:49.400		DMS:	:*AT_SPD	P7, TRACK 4, REV, TIC *360.41 +/-	200	4	0	4,881,487:03:9	
308	99	54	23:22:15.733		DMS:	:*REVERSE	P7, TRACK 4, REV, TIC *199.87 +/-	200	4	0	4,881,487:30:3	
309	99	54	23:22:16.933		DMS:	:*RUNUP	P7, TRACK 1, FWD, TIC 199.81 +/-	200	4	0	4,881,487:32:1	
310	99	54	23:22:16.933		DMS:	:*TURNARND	P7, TRACK *1, *FWD, TIC *199.81 +/-	200	4	0	4,881,487:34:2	
311	99	54	23:22:18.333		DMS:	:*AT_SPD	P7, TRACK 1, FWD, TIC *199.93 +/-	200	4	0	4,881,487:52:2	
312	99	54	23:22:30.333		DMS:	:*AUTOSTOP	RDY, TRACK 1, FWD, TIC *202.06 +/-	200	4	0	4,881,487:54:0	
313	99	54	23:22:31.533		DMS:	:*READY	S/P NO MOVEMENT	200	4	0	4,881,504:86:0	
314	99	54	23:40:04.200	20UG4A	7SAFE	STOP	Stator movement	200	4	0	4,881,505:70:0	
315	99	54	23:40:54.200	20UG4B	7SLEW	DIS,POS:0.0	RESUME PLAYBACK (PB CONTROL) Record Mode	200	4	0	4,881,507:00:0	
316	99	54	23:42:08.866	176SO6A	6TMREC	RPB	Sci, Eng, and D/L Chan	200	4	0	4,881,597:51:0	
317	99	54	01:13:42.866	488CP6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,881,637:59:0	
318	99	55	01:13:42.866	488CP6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,881,637:59:0	
319	99	55	01:54:14.866	488CP6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,881,654:48:0	
320	99	55	01:54:35.533	488CP6C	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	200	4	0	4,881,686:68:0	
321	99	55	02:11:18.866	488CP6D	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	200	4	0	4,881,731:88:0	
322	99	55	02:43:53.533	488CP6E	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	200	4	0	4,881,758:45:0	
323	99	55	03:29:36.866	488CP6E	6TMSED	FILL,AL6	Sci, Eng, and D/L Chan	200	4	0	4,881,795:81:0	
324	99	55	03:56:26.200	488CP6A	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	200	4	0	4,881,954:12:0	
325	99	55	04:34:14.866	488CP6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,882,008:60:0	
326	99	55	07:14:14.866	488CP6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,882,013:19:0	
327	99	55	08:09:22.866	488CP6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0		
328	99	55	08:13:58.866	488CR6A	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0		

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
329	99	55	08:50:14.866	488CR6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,882,049:07:0	
330	99	55	16:16:31.533	488CS6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,882,490:41:0	
331	99	55	17:56:22.866	488CS6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,882,589:19:0	
332	99	55	21:59:34.866	488CS6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,882,829:67:0	
333	99	55	23:01:26.866	488CT6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,882,890:84:0	
334	99	56	01:52:06.866	488CT6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,883,059:65:0	
335	99	56	04:23:34.866	488CT6C	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	200	4	0	4,883,209:47:0	
336	99	56	07:09:58.800	488CU6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,883,374:08:0	
337	99	56	08:04:56.800	488CU6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,883,428:41:0	
338	99	56	08:09:42.800	488CU6C	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	4,883,433:15:0	
339	99	56	08:45:58.800	488CU6D	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	4,883,469:03:0	
340	99	56	22:02:46.800	488CV6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,884,257:07:0	
341	99	56	22:12:22.800	488CV6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,884,266:52:0	
342	99	56	23:01:26.800	488CV6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,884,315:09:0	
343	99	57	01:56:22.800	488CV6D	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	200	4	0	4,884,488:10:0	
344	99	57	04:08:38.800	488CW6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,884,618:84:0	
345	99	57	07:03:34.800	488CW6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,884,791:85:0	
346	99	57	08:09:42.800	488CW6C	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,884,857:31:0	
347	99	57	08:39:34.800	488CW6D	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,884,886:80:0	
348	99	57	09:37:10.800	488CW6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,884,943:77:0	
349	99	57	09:45:37.466	488CX6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,884,952:18:0	
350	99	57	10:19:16.133	488CX6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,884,985:43:0	
351	99	57	16:54:30.733	488CY6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,885,376:34:0	
352	99	57	17:58:30.733	488CY6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,885,439:61:0	
353	99	57	18:15:00.733	488CY6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,885,455:90:0	
354	99	57	18:28:22.733	488CY6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	4,885,469:19:0	
355	99	57	19:04:38.733	488CY6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,885,505:07:0	
356	99	57	22:01:22.733	488CZ6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,885,679:79:0	
357	99	57	23:01:26.733	488CZ6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,885,739:25:0	
358	99	58	02:02:46.733	488CZ6C	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	200	4	0	4,885,918:56:0	
359	99	58	04:00:06.733	488CZ6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,886,034:60:0	
360	99	58	06:59:18.733	488DA6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,886,211:81:0	
361	99	58	07:59:02.733	488DA6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,886,270:88:0	
362	99	58	08:26:46.733	488DA6C	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,886,298:36:0	
363	99	58	09:37:10.733	488DA6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,886,368:02:0	
364	99	58	09:40:41.400	488DA6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,886,371:45:0	
365	99	58	10:14:20.733	488DB6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,886,404:71:0	
366	99	58	16:50:14.733	488DC6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,886,796:30:0	
367	99	58	17:54:14.733	488DC6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,886,859:57:0	
368	99	58	18:12:59.400	488DC6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,886,878:15:0	
369	99	58	18:28:22.733	488DC6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	4,886,893:35:0	
370	99	58	19:04:38.733	488DC6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,886,929:23:0	
371	99	58	22:31:18.666	488DD6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,887,133:59:0	
372	99	58	22:57:10.666	488DD6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,887,159:21:0	
373	99	59	02:47:34.666	488DD6C	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	200	4	0	4,887,387:09:0	
374	99	59	02:58:14.666	488DD6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,887,397:59:0	
375	99	59	06:55:02.666	488DE6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,887,631:77:0	
376	99	59	07:55:30.666	488DE6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,887,691:59:0	
377	99	59	07:59:02.666	488DE6C	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	4,887,695:13:0	
378	99	59	08:17:36.666	488DE6D	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,887,713:46:0	
379	99	59	08:37:26.666	488DE6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,887,733:11:0	
380	99	59	15:27:36.000	488DF6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,888,138:70:0	
381	99	59	21:56:14.666	488DG6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,888,523:13:0	
382	99	59	23:01:26.666	488DG6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,888,587:57:0	
383	99	59	23:57:26.000	176SV6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	200	4	0	4,888,643:00:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
384	99	60	00:02:00.000	20UR4B	7SLEW	DIS,POS,0.0	Stator movement	200	4	0	4,888,647:47:0	
385	99	60	00:03:00.000	20UR4D	7MODE	SPNL	AACS ALL-SPIN LOW	200	4	0	4,888,648:46:0	
386	99	60	00:05:00.000	20UR4E	7SAFE	UNSTOW	S/P TO 153 deg cone	200	4	0	4,888,650:44:0	
387	99	60	00:10:30.000	20UR4G	7VENT	0.611,1.333,8	ALERT -- Thruster fire	200	4	0	4,888,655:84:0	
388	99	60	00:10:30.666	20UR4H	7VENT	0.611,10.989,8	ALERT -- Thruster fire	200	4	0	4,888,655:85:0	
389	99	60	00:10:50.666	20UR4I	7VENT	0.611,1.333,6	ALERT -- Thruster fire	200	4	0	4,888,656:24:0	
390	99	60	00:10:51.333	20UR4J	7VENT	0.611,10.989,6	ALERT -- Thruster fire	200	4	0	4,888,656:25:0	
391	99	60	00:11:11.333	20UR4K	7VENT	0.611,1.333,4	ALERT -- Thruster fire	200	4	0	4,888,656:55:0	
392	99	60	00:11:12.000	20UR4L	7VENT	0.611,0.666,5	ALERT -- Thruster fire	200	4	0	4,888,656:56:0	
393	99	60	00:11:22.000	20UR4M	7VENT	0.611,1.333,4	ALERT -- Thruster fire	200	4	0	4,888,656:71:0	
394	99	60	00:11:22.666	20UR4N	7VENT	0.611,0.666,5	ALERT -- Thruster fire	200	4	0	4,888,656:72:0	
395	99	60	00:11:32.666	20UR4O	7VENT	1.211,1.333,10	ALERT -- Thruster fire	200	4	0	4,888,656:87:0	
396	99	60	00:11:33.333	20UR4P	7VENT	1.211,0.666,12	ALERT -- Thruster fire	200	4	0	4,888,656:88:0	
397	99	60	00:13:20.000	20UR4S	7VENT	0.611,1.333,7	ALERT -- Thruster fire	200	4	0	4,888,658:66:0	
398	99	60	00:13:20.666	20UR4T	7VENT	0.611,10.989,7	ALERT -- Thruster fire	200	4	0	4,888,658:67:0	
399	99	60	00:13:40.666	20UR4U	7VENT	0.611,1.333,1	ALERT -- Thruster fire	200	4	0	4,888,659:06:0	
400	99	60	00:13:41.333	20UR4V	7VENT	0.611,10.989,1	ALERT -- Thruster fire	200	4	0	4,888,659:07:0	
401	99	60	00:14:01.333	20UR4AC	7VENT	0.611,1.333,2	ALERT -- Thruster fire	200	4	0	4,888,659:37:0	
402	99	60	00:14:02.000	20UR4AD	7VENT	0.611,0.666,3	ALERT -- Thruster fire	200	4	0	4,888,659:38:0	
403	99	60	00:14:12.000	20UR4AE	7VENT	0.611,1.333,2	ALERT -- Thruster fire	200	4	0	4,888,659:53:0	
404	99	60	00:14:12.666	20UR4AF	7VENT	0.611,0.666,3	ALERT -- Thruster fire	200	4	0	4,888,659:54:0	
405	99	60	00:14:22.666	20UR4W	7VENT	1.211,1.333,9	ALERT -- Thruster fire	200	4	0	4,888,659:69:0	
406	99	60	00:14:23.333	20UR4X	7VENT	1.211,0.666,11	ALERT -- Thruster fire	200	4	0	4,888,659:70:0	
407	99	60	00:15:20.000	20UR4Z	7MODE	CRU	AACS CRUISE MODE	200	4	0	4,888,660:64:0	
408	99	60	00:40:04.000	20UR4A	7SAFE	STOP	S/P NO MOVEMENT	200	4	0	4,888,685:15:0	
409	99	60	00:40:54.000	20UK4B	7SLEW	DIS,POS,0.0	Stator movement	200	4	0	4,888,685:90:0	
410	99	60	00:42:56.000	176SW6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	200	4	0	4,888,688:00:0	
411	99	60	06:48:38.600	488DH6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,889,049:63:0	
412	99	60	07:51:40.600	488DH6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,889,112:03:0	
413	99	60	07:54:46.600	488DH6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,889,115:09:0	
414	99	60	08:21:32.600	488DH6D	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,889,141:52:0	
415	99	60	08:26:46.600	488DH6E	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,889,146:68:0	
416	99	60	09:47:50.600	488DI6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,889,226:84:0	
417	99	60	09:50:47.933	488DI6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,889,229:77:0	
418	99	60	10:24:27.266	488DI6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,889,263:12:0	
419	99	60	16:24:38.600	488DJ6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,889,619:33:0	
420	99	60	17:43:34.600	488DJ6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,889,697:39:0	
421	99	60	18:05:49.266	488DJ6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,889,719:39:0	
422	99	60	18:19:50.600	488DJ6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	4,889,733:27:0	
423	99	60	18:56:06.600	488DJ6E	6TMSED	FILL,AL5	Sci, Eng, and D/L Chan	200	4	0	4,889,769:15:0	
424	99	61	04:59:22.600	488DK6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,890,365:73:0	
425	99	61	06:40:06.600	488DK6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,890,465:39:0	
426	99	61	07:48:22.600	488DK6C	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,890,532:86:0	
427	99	61	08:11:50.600	488DK6D	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,890,556:14:0	
428	99	61	08:37:26.600	488DK6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,890,581:43:0	
429	99	61	17:24:22.533	488DL6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,891,102:56:0	
430	99	61	18:04:54.533	488DL6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,891,142:64:0	
431	99	61	18:09:09.200	488DL6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,891,146:82:0	
432	99	61	22:01:27.866	488DL6D	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,891,376:60:0	
433	99	61	22:16:38.533	488DL6E	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,891,391:61:0	
434	99	61	23:12:06.533	488DM6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,891,446:48:0	
435	99	61	23:15:54.533	488DM6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,891,450:26:0	
436	99	61	23:49:33.200	488DM6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,891,483:51:0	
437	99	62	06:23:02.533	488DN6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,891,872:66:0	
438	99	62	07:18:30.533	488DN6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,891,927:53:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
439	99	62	07:32:20.533	488DN6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,891,941:24:0	
440	99	62	07:44:06.533	488DN6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	4,891,952:82:0	
441	99	62	08:20:22.533	488DN6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,891,988:70:0	
442	99	62	16:31:04.533	488DO6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,892,474:07:0	
443	99	62	17:13:42.533	488DO6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,892,516:22:0	
444	99	62	17:49:58.533	488DO6C	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,892,552:10:0	
445	99	62	17:54:48.533	488DO6D	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,892,556:81:0	
446	99	62	18:04:54.533	488DO6E	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	4,892,566:80:0	
447	99	62	18:41:10.533	488DP6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	4,892,602:68:0	
448	99	62	21:47:23.800	488DP6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,892,786:84:0	
449	99	62	21:57:26.466	488DP6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,892,796:78:0	
450	99	62	23:16:22.466	488DP6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,892,874:84:0	
451	99	63	06:14:30.466	488DQ6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,893,288:42:0	
452	99	63	07:39:37.133	488DQ6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,893,372:58:0	
453	99	63	07:39:50.466	488DQ6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,893,372:78:0	
454	99	63	08:09:42.466	488DQ6D	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	4,893,402:36:0	
455	99	63	21:42:20.466	488DR6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,894,206:09:0	
456	99	63	21:51:02.466	488DR6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,894,214:64:0	
457	99	63	22:57:10.466	488DR6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,894,280:10:0	
458	99	63	23:22:59.800	488DR6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,894,305:59:0	
459	99	63	23:27:23.800	176TH6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	200	4	0	4,894,310:00:0	
460	99	63	23:35:59.800	20WD4C	7STAR	17.45,183.96,-0.	Stator inertial point	200	4	0	4,894,318:46:0	
461	99	63	23:55:01.800	490UB412A4B	7MODE	INT	AACS INERTIAL MODE	200	4	0	4,894,337:30:0	
462	99	63	23:59:59.800	490UB412A4D	7SAFE	UNSTOW	S/P TO 153 deg cone	200	4	0	4,894,342:22:0	
463	99	64	00:00:19.800	20WD4D	7STAR	17.45,183.96,-0.	Stator inertial point	200	4	0	4,894,342:52:0	
464	99	64	00:04:09.800	490UB412A4E	7VECT		Inert vect update UTC	200	4	0	4,894,346:33:0	
465	99	64	00:04:13.800	490UB412A4F	7TURN	2,RTH	ALERT Thruster	200	4	0	4,894,346:39:0	
466	99	64	00:08:01.800	490UB412A406A4A	7STAR		16,217,100.73 Star catalog update	200	4	0	4,894,350:17:0	
467	99	64	00:08:03.800	490UB412A406A4B	7STAR		2,226,263.15 Star catalog update	200	4	0	4,894,350:20:0	
468	99	64	00:08:05.800	490UB412A406A4C	7STAR		3,125,259.73 Star catalog update	200	4	0	4,894,350:23:0	
469	99	64	00:08:07.800	490UB412A406A4D	7STAR	4,0,0,0,0,0,0	Star catalog update	200	4	0	4,894,350:26:0	
470	99	64	00:08:09.800	490UB412A406A4E	7STAR	5,0,0,0,0,0,0	Star catalog update	200	4	0	4,894,350:29:0	
471	99	64	00:08:11.800	490UB412A406A4F	7STAR	6,0,0,0,0,0,0	Star catalog update	200	4	0	4,894,350:32:0	
472	99	64	00:18:05.800	20WD4F	7SLEW	DIS,POS,0.0	Stator movement	200	4	0	4,894,360:13:0	
473	99	64	00:26:09.800	490UB412A4G	7MODE	CRU	AACS CRUISE MODE	200	4	0	4,894,368:11:0	
474	99	64	01:30:46.466	488DR6E	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	200	4	0	4,894,432:02:0	
475	99	64	01:54:59.800	480UB6A	6MROH	7,6960,13,A10	read from AACS7.6960,13,A1	200	4	0	4,894,455:89:0	
476	99	64	02:00:03.800	20TX4A	7SAFE	STOP	S/P NO MOVEMENT	200	4	0	4,894,460:90:0	
477	99	64	02:00:53.800	20TX4B	7SLEW	DIS,POS,0.0	Stator movement	200	4	0	4,894,461:74:0	
478	99	64	02:02:05.800	176TI6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	200	4	0	4,894,463:00:0	
479	99	64	02:13:39.800	480UB6B	6MROH	7,6960,13,A10	read from AACS7.6960,13,A1	200	4	0	4,894,474:40:0	
480	99	64	02:32:19.800	480UB6C	6MROH	7,6960,13,A10	read from AACS7.6960,13,A1	200	4	0	4,894,492:82:0	
481	99	64	02:50:59.800	488DS6A	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	200	4	0	4,894,511:33:0	
482	99	64	03:49:26.466	488DS6B	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,894,569:15:0	
483	99	64	06:29:26.400	488DS6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,894,727:37:0	
484	99	64	07:37:42.400	488DS6D	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,894,794:84:0	
485	99	64	07:39:31.733	488DS6E	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	4,894,796:66:0	
486	99	64	07:48:22.400	488DT6A	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,894,805:43:0	
487	99	64	08:06:19.733	488DT6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,894,823:21:0	
488	99	64	08:26:46.400	488DT6C	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,894,843:41:0	
489	99	64	09:23:57.733	488DT6D	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	4,894,900:01:0	
490	99	64	09:49:58.400	488DT6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,894,925:67:0	
491	99	64	09:58:53.066	488DU6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,894,934:50:0	
492	99	64	16:09:42.400	488DV6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,895,301:27:0	
493	99	64	17:17:58.400	488DV6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,895,368:74:0	



Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
494	99	64	17:42:31.066	488DV6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,895,393:08:0	
495	99	64	17:47:50.400	488DV6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	4,895,398:32:0	
496	99	64	18:24:06.400	488DV6E	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	4,895,434:20:0	
497	99	64	21:42:17.733	488DW6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,895,630:21:0	
498	99	64	21:51:02.400	488DW6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,895,638:80:0	
499	99	64	22:50:46.400	488DW6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,895,697:87:0	
500	99	65	01:41:26.400	488DW6D	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	200	4	0	4,895,866:68:0	
501	99	65	03:34:30.400	488DW6E	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,895,978:52:0	
502	99	65	06:23:02.400	488DX6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,896,145:23:0	
503	99	65	07:33:26.400	488DX6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,896,214:80:0	
504	99	65	07:35:35.066	488DX6C	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	4,896,217:00:0	
505	99	65	07:44:06.400	488DX6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	4,896,225:39:0	
506	99	65	08:20:22.400	488DX6E	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,896,261:27:0	
507	99	65	08:45:55.733	488DY6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,896,286:52:0	
508	99	65	14:59:18.333	488DZ6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,896,655:77:0	
509	99	65	15:16:22.333	488DZ6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,896,672:66:0	
510	99	65	15:31:18.333	488DZ6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,896,687:45:0	
511	99	65	18:11:18.333	488DZ6D	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,896,845:67:0	
512	99	65	21:29:42.333	488EA6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,897,041:87:0	
513	99	65	21:46:46.333	488EA6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,897,058:76:0	
514	99	65	22:50:46.333	488EA6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,897,122:12:0	
515	99	66	01:56:22.333	488EA6D	6TMSED	NORM,AL6	Sci, Eng, and D/L Chan	200	4	0	4,897,305:63:0	
516	99	66	03:13:10.333	488EA6E	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,897,381:59:0	
517	99	66	06:18:46.333	488EB6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,897,565:19:0	
518	99	66	07:28:49.000	488EB6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,897,634:44:0	
519	99	66	07:33:26.333	488EB6C	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	4,897,639:05:0	
520	99	66	08:09:42.333	488EB6D	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,897,674:84:0	
521	99	66	08:21:13.000	488EB6E	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,897,686:28:0	
522	99	66	08:26:46.333	488EC6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,897,691:73:0	
523	99	66	09:37:10.333	488EC6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,897,761:39:0	
524	99	66	09:51:08.333	488EC6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,897,775:22:0	
525	99	66	10:24:47.666	488EC6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,897,808:48:0	
526	99	66	14:52:54.333	488ED6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,898,073:63:0	
527	99	66	15:16:22.333	488ED6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,898,096:82:0	
528	99	66	15:27:02.333	488ED6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,898,107:41:0	
529	99	66	16:36:09.000	488ED6D	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,898,175:73:0	
530	99	66	17:09:48.333	488ED6E	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,898,209:08:0	
531	99	66	18:15:34.333	488EE6A	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,898,274:12:0	
532	99	66	21:57:26.266	488EE6B	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,898,493:51:0	
533	99	66	22:50:46.266	488EE6C	6TMSED	NORM,AL5	Sci, Eng, and D/L Chan	200	4	0	4,898,546:28:0	
534	99	67	06:14:30.266	488EF6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,898,985:15:0	
535	99	67	07:15:41.600	488EF6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,899,045:62:0	
536	99	67	07:29:10.266	488EF6C	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	4,899,059:01:0	
537	99	67	08:05:26.266	488EF6D	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,899,094:80:0	
538	99	67	08:27:40.933	488EF6E	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,899,116:80:0	
539	99	67	09:15:50.266	488EG6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,899,164:46:0	
540	99	67	16:09:42.266	488EH6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,899,573:75:0	
541	99	67	17:03:50.266	488EH6B	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,899,627:33:0	
542	99	67	17:22:14.266	488EH6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,899,645:51:0	
543	99	68	04:30:47.533	488EI6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,900,306:70:0	
544	99	68	06:23:02.200	488EI6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,900,417:71:0	
545	99	68	07:03:34.200	488EI6C	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,900,457:79:0	
546	99	68	07:19:48.866	488EI6D	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,900,473:85:0	
547	99	68	07:33:26.200	488EI6E	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	4,900,487:37:0	
548	99	68	08:09:42.200	488EJ6A	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,900,523:25:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
549	99	68	09:06:08.200	488EJ6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,900,579:08:0	
550	99	68	09:15:50.200	488EJ6C	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,900,588:62:0	
551	99	68	14:49:44.866	488EK6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	4,900,918:84:0	
552	99	68	14:59:18.200	488EK6B	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,900,928:34:0	
553	99	68	15:31:06.866	488EK6C	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,900,959:76:0	
554	99	68	16:22:55.533	488EK6D	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,901,011:07:0	
555	99	68	17:10:13.533	488EK6E	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,901,057:78:0	
556	99	68	18:21:58.200	488EL6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,901,128:74:0	
557	99	68	21:59:34.200	488EL6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,901,344:02:0	
558	99	69	00:57:00.200	488EM6A	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,901,519:46:0	
559	99	69	00:58:46.200	488EM6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	4,901,521:23:0	
560	99	69	01:37:10.200	488EM6C	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,901,559:21:0	
561	99	69	03:15:45.533	488EM6D	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,901,656:67:0	
562	99	69	06:18:46.200	488EM6E	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,901,837:67:0	
563	99	69	06:59:18.200	488EN6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,901,877:75:0	
564	99	69	07:15:14.200	488EN6B	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,901,893:53:0	
565	99	69	07:29:10.200	488EN6C	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	4,901,907:33:0	
566	99	69	08:05:26.200	488EN6D	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,901,943:21:0	
567	99	70	02:51:02.800	488EO6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,903,056:43:0	
568	99	70	04:12:59.466	488EO6B	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,903,137:47:0	
569	99	70	05:00:18.133	488EO6C	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,903,184:28:0	
570	99	70	06:55:18.133	488EO6D	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,903,298:04:0	
571	99	70	06:59:18.133	488EO6E	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	200	4	0	4,903,302:00:0	
572	99	70	07:35:34.133	488EP6A	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,903,337:79:0	
573	99	70	21:26:00.733	488EQ6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,904,159:17:0	
574	99	70	21:51:02.066	488EQ6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,904,183:85:0	
575	99	70	22:35:50.066	488EQ6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,904,228:22:0	
576	99	71	04:56:34.066	488ER6A	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	200	4	0	4,904,604:72:0	
577	99	71	05:04:06.066	488ER6B	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	200	4	0	4,904,612:22:0	
578	99	71	08:21:00.066	488ER6C	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	200	4	0	4,904,806:89:0	
579	99	71	09:30:46.066	488ER6D	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,904,875:89:0	
580	99	71	14:44:55.400	488ES6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	200	4	0	4,905,186:62:0	
581	99	71	16:11:58.733	488ES6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,905,272:71:0	
582	99	71	17:00:00.000	19NNPCTRLT01-		-----START-----		200	4	0		
583	99	71	17:00:04.066	41FB3A	40T1PR		1 PCT Heater 1 OFF (primary relay)	200	4	0	4,905,320:31:0	
584	99	71	17:00:14.066	41FB3B	40T1PR		2 PCT Heater 1 OFF (primary relay)	200	4	0	4,905,320:46:0	
585	99	71	17:00:24.066	41FB3C	40T2R		1 PCT Heater 2 OFF	200	4	0	4,905,320:61:0	
586	99	71	17:00:34.066	41FB3D	40T2R		2 PCT Heater 2 OFF	200	4	0	4,905,320:76:0	
587	99	71	18:15:34.066	488ES6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	200	4	0	4,905,395:01:0	
588	99	71	21:38:14.066	488ET6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	200	4	0	4,905,595:41:0	
589	99	71	23:03:43.400	176FB6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	200	4	0	4,905,680:00:0	
590	99	71	23:07:04.733	444FB443A4A	7SAFE	UNSTOW	S/P TO 153 deg cone	200	4	0	4,905,683:29:0	
591	99	71	23:11:04.733	444FB443A4B	7MODE	SPNL	AACS ALL-SPIN LOW	200	4	0	4,905,687:25:0	
592	99	71	23:20:04.733	444FB443A4C	7CLK	17.45,0.0	Check S/P Position	200	4	0	4,905,696:16:0	
593	99	71	23:22:51.400	125FB	NIMSINIT	GS	##### GROUP START INIT	200	4	0	4,905,698:84:0	
594	99	71	23:22:51.400	125FB4A	37IST	1,0,0,OFF,0,0,0	Chopper ON, Sync, 63Hz (Ref)	260	4	0	4,905,698:84:0	
595	99	71	23:23:52.066	125FB4B	37IST	1,2,0,OFF,0,1,1	Chopper ON, Sync, Chopper (RefGain State	4R0	4	0	4,905,699:84:0	
596	99	71	23:24:52.733	125FB1A	NIMSINIT	GE	##### GROUP END INIT	4R0	4	0	4,905,700:84:0	
597	99	71	23:24:52.733	125FB4C	37MB	1B,1B,0,0,0,0	Selects mirror (spatial) edit table	4R0	4	0	4,905,700:84:0	
598	99	71	23:27:54.733	127FB	NIMSTAB	GS	%%%% GROUP START TAB	4R0	4	0	4,905,703:84:0	
599	99	71	23:27:54.733	127FB4A	37IOP	3,0	Long Map, Grating Start Position =00	4R3	4	0	4,905,703:85:0	
600	99	71	23:27:55.400	127FB4B	37ETB	0A,CA,19,FF,C0,1	Loads wavelength edit table	4R3	4	0	4,905,704:25:0	
601	99	71	23:28:16.066	127FB1A	NIMSTAB	GE	%%%% GROUP END TAB	4R3	4	0	4,905,704:25:0	
602	99	71	23:28:19.400	432FB6A	6RTSL2	NIMSEL,AACNCG,RT	NIMS R/T SELECT	4R3	4	0	4,905,704:30:0	
603	99	71	23:30:19.400	432FC6A	6RTDS2	NIMDSL,AACNCG,RT	NIMS R/T DESELECT	4R3	4	0	4,905,706:28:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
604	99	71	23:31:01.400	192FC4A	7CONE	17.0,54.88	Check S/P Position	4R3	4	0	4,905,707:00:0	
605	99	71	23:31:02.066	192FC4B	7CLK	17.0,244.07	Check S/P Position	4R3	4	0	4,905,707:01:0	
606	99	71	23:33:26.066	488ET6B	6TMSD	NORM,AL4	Sci, Eng, and D/L Chan	4R3	4	0	4,905,709:35:0	
607	99	71	23:34:23.400	432FD6A	6RTSL2	NIMSEL,AACNCG,RT	NIMS R/T SELECT	4R3	4	0	4,905,710:30:0	
608	99	71	23:44:28.733	432FE6A	6RTDS2	NIMDSL,AACNCG,RT	NIMS R/T DESELECT	4R3	4	0	4,905,720:28:0	
609	99	71	23:45:06.066	127FE	NIMSTAB	GS	%%%%GROUP START TAB	4R3	4	0	4,905,720:84:0	
610	99	71	23:45:06.066	127FE4A	37IOP	0,0	Safe, Grating Start Position =00	4R3	4	0	4,905,720:84:0	
611	99	71	23:45:06.733	127FE4B	37ETB	04,C4,02,00,00	Loads wavelength edit table	4R0	4	0	4,905,720:85:0	
612	99	71	23:45:27.400	20FE4A	7SAFE	UNSTOW	S/P TO 153 deg cone	4R0	4	0	4,905,721:25:0	
613	99	71	23:45:27.400	127FE11A	NIMSTAB	GE	%%%%GROUP END TAB	4R0	4	0	4,905,721:25:0	
614	99	71	23:47:07.400	125FE4A	37IST	1,0,0,OFF,0,0,0	Chopper ON, Sync, 63Hz (Ref)	460	4	0	4,905,722:84:0	
615	99	71	23:47:07.400	125FE	NIMSNIT	GS	##### GROUP START INIT	460	4	0	4,905,722:84:0	
616	99	71	23:48:08.066	125FE4B	37IST	1,1,0,OFF,0,0,0	Chopper OFF, N/A, 63Hz (Ref)	400	4	0	4,905,723:84:0	
617	99	71	23:49:08.733	125FE11A	NIMSNIT	GE	##### GROUP END INIT	400	4	0	4,905,724:84:0	
618	99	71	23:49:08.733	125FE4C	37MB	0,0,0,0,0,0	Selects mirror (spatial) edit table	400	4	0	4,905,724:84:0	
619	99	71	23:50:33.400	444FF443A4A	7SAFE	UNSTOW	S/P TO 153 deg cone	400	4	0	4,905,726:29:0	
620	99	71	23:54:33.400	444FF443A4B	7MODE	CRU	AACS CRUISE MODE	400	4	0	4,905,730:25:0	
621	99	72	00:04:40.066	41FG99A	POWER	PWR MODE change	Change to Maneuver/Playback Mode	400	4	0	4,905,740:25:0	
622	99	72	00:06:34.066	41FG3G	40T1P		1 PCT Heater 1 ON (primary relay)	400	4	0	4,905,742:14:0	
623	99	72	00:06:44.066	41FG3H	40T1P		2 PCT Heater 1 ON (primary relay)	400	4	0	4,905,742:29:0	
624	99	72	00:06:54.066	41FG3I	40T2		1 PCT Heater 2 ON	400	4	0	4,905,742:44:0	
625	99	72	00:07:04.066	41FG3J	40T2		2 PCT Heater 2 ON	400	4	0	4,905,742:59:0	
626	99	72	00:08:46.733	20FH4A	7SAFE	STOP	S/P NO MOVEMENT	400	4	0	4,905,744:31:0	
627	99	72	00:09:36.733	20FH4B	7SLEW	DIS,POS,0.0	Stator movement	400	4	0	4,905,745:15:0	
628	99	72	00:10:27.400	176FH6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	400	4	0	4,905,746:00:0	
629	99	72	00:50:10.000	19NNPCTRLT01-		-----STOP-----		400	4	0	:	:
630	99	72	05:48:54.000	488EU6A	6TMSD	NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,906,080:66:0	
631	99	72	06:37:58.000	488EU6B	6TMSD	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,906,129:23:0	
632	99	72	07:04:47.333	488EU6C	6TMSD	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,906,155:71:0	
633	99	72	07:18:30.000	488EU6D	6TMSD	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,906,169:31:0	
634	99	72	07:54:46.000	488EU6E	6TMSD	FILL,AL4	Sci, Eng, and D/L Chan	400	4	0	4,906,205:19:0	
635	99	73	04:50:35.333	488EV6A	6TMSD	NORM,AL4	Sci, Eng, and D/L Chan	400	4	0	4,907,447:21:0	
636	99	73	05:38:14.000	488EV6B	6TMSD	NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,907,494:32:0	
637	99	73	06:33:42.000	488EV6C	6TMSD	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,907,549:19:0	
638	99	73	07:14:14.000	488EV6D	6TMSD	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,907,589:27:0	
639	99	73	08:20:22.000	488EV6E	6TMSD	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,907,654:64:0	
640	99	73	08:48:07.333	488EW6A	6TMSD	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,907,682:14:0	
641	99	73	09:35:26.000	488EW6B	6TMSD	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,907,728:86:0	
642	99	73	16:16:05.933	488EX6A	6TMSD	NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,908,125:19:0	
643	99	73	16:53:09.933	488EX6B	6TMSD	FILL,AL3	Sci, Eng, and D/L Chan	400	4	0	4,908,161:79:0	
644	99	73	16:54:29.933	488EX6C	6TMSD	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,908,163:17:0	
645	99	73	17:27:40.600	176TA6A	6TMREC	PBB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	400	4	0	4,908,196:00:0	
646	99	73	17:35:59.933	20WE4C	7STAT	17.45,193.41,-8.	Stator inertial point	400	4	0	4,908,204:21:0	
647	99	73	17:49:59.933	488EX6D	6TMSD	FILL,AH1	Sci, Eng, and D/L Chan	400	4	0	4,908,218:07:0	
648	99	73	17:55:01.933	490UC412A4B	7MODE	INT	AACS INERTIAL MODE	400	4	0	4,908,223:05:0	
649	99	73	17:59:59.933	490UC412A4D	7SAFE	UNSTOW	S/P TO 153 deg cone	400	4	0	4,908,227:88:0	
650	99	73	18:00:19.933	20WE4D	7STAT	17.45,193.41,-8.	Stator inertial point	400	4	0	4,908,228:27:0	
651	99	73	18:04:09.933	490UC412A4E	7VECT		Inert vect update UTC	400	4	0	4,908,232:08:0	
652	99	73	18:04:13.933	490UC412A4F	7TURN	2,RTH	ALERT Thruster	400	4	0	4,908,232:14:0	
653	99	73	18:08:01.933	490UC412A406A4A	7STAR	1,875,114,162.5.	Star catalog update	400	4	0	4,908,235:83:0	
654	99	73	18:08:03.933	490UC412A406A4B	7STAR	2,100,230.20	Star catalog update	400	4	0	4,908,235:86:0	
655	99	73	18:08:05.933	490UC412A406A4C	7STAR	3,332,275.21	Star catalog update	400	4	0	4,908,235:89:0	
656	99	73	18:08:07.933	490UC412A406A4D	7STAR	4,0,0,0,0,0	Star catalog update	400	4	0	4,908,236:01:0	
657	99	73	18:08:09.933	490UC412A406A4E	7STAR	5,0,0,0,0,0	Star catalog update	400	4	0	4,908,236:04:0	
658	99	73	18:08:11.933	490UC412A406A4F	7STAR	6,0,0,0,0,0	Star catalog update	400	4	0	4,908,236:07:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
659	99	73	18:09:09.933	488EX6E	6TMSED	FILL,AH2	Sci, Eng, and D/L Chan	400	4	0	4,908,237:03:0	
660	99	73	18:19:55.933	488EY6A	6TMSED	NORM,AH2	Sci, Eng, and D/L Chan	400	4	0	4,908,247:62:0	
661	99	73	18:20:05.933	20WE4F	7SLEW	DIS,POS,0.0	Stator movement	400	4	0	4,908,247:77:0	
662	99	73	18:26:09.933	490UC412A4G	7MODE	CRU	AACS CRUISE MODE	400	4	0	4,908,253:77:0	
663	99	73	19:54:59.933	480UC6A	6MROH	7,6960,13,A10	S/P NO MOVEMENT	400	4	0	4,908,341:64:0	
664	99	73	20:00:03.933	20UB4A	7SAFE	STOP	S/P NO MOVEMENT	400	4	0	4,908,346:65:0	
665	99	73	20:00:53.933	20UB4B	7SLEW	DIS,POS,0.0	Stator movement	400	4	0	4,908,347:49:0	
666	99	73	20:02:22.600	176TB6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	400	4	0	4,908,349:00:0	
667	99	73	20:13:39.933	480UC6B	6MROH	7,6960,13,A10	read from AACS7,6960,13,A1	400	4	0	4,908,360:15:0	
668	99	73	20:32:19.933	480UC6C	6MROH	7,6960,13,A10	read from AACS7,6960,13,A1	400	4	0	4,908,378:57:0	
669	99	73	20:50:59.933	488EY6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,908,397:08:0	
670	99	73	20:57:14.600	488EY6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,908,403:24:0	
671	99	73	21:12:37.933	488EY6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,908,418:44:0	
672	99	73	21:46:55.933	488EY6E	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,908,452:37:0	
673	99	73	22:35:49.933	488EZ6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,908,500:70:0	
674	99	74	05:48:53.933	488FA6A	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,908,929:07:0	
675	99	74	06:23:38.600	488FA6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,908,963:40:0	
676	99	74	10:01:55.266	488FA6C	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,909,179:29:0	
677	99	74	14:28:37.933	488FB6A	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,909,443:09:0	
678	99	75	08:11:53.200	488FC6A	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,910,494:61:0	
679	99	75	11:59:59.866	41XE99A	POWER	PWR MODE change	Change to Calib/Decon Mode	400	4	0	4,910,720:25:0	
680	99	75	12:00:00.000	19NNRCTRLT01-	-----START-----			400	4	0	:	:
681	99	75	12:00:03.866	41XE31	40T1PR		1 PCT Heater 1 OFF (primary relay)	400	4	0	4,910,720:31:0	
682	99	75	12:00:13.866	41XE3J	40T1PR		2 PCT Heater 1 OFF (primary relay)	400	4	0	4,910,720:46:0	
683	99	75	12:00:23.866	41XE3K	40T2R		1 PCT Heater 2 OFF	400	4	0	4,910,720:61:0	
684	99	75	12:00:33.866	41XE3L	40T2R		2 PCT Heater 2 OFF	400	4	0	4,910,720:76:0	
685	99	75	12:10:50.533	176XU6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	400	4	0	4,910,731:00:0	
686	99	75	12:14:09.200	20XE4A	7SAFE	UNSTOW	S/P TO 153 deg cone	400	4	0	4,910,734:25:0	
687	99	75	12:18:15.866	20DA4A	7SAFE	STOP	S/P NO MOVEMENT	400	4	0	4,910,738:31:0	
688	99	75	12:19:05.866	20DA4B	7SLEW	DIS,POS,0.0	Stator movement	400	4	0	4,910,739:15:0	
689	99	75	12:20:57.200	176XV6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	400	4	0	4,910,741:00:0	
690	99	75	12:21:57.866	185XE10A3A	40HRP		1 RCT Heater ON (primary relay)	400	4	0	4,910,742:00:0	
691	99	75	12:22:03.200	185XE10B3A	40HRP		2 RCT Heater ON (primary relay)	400	4	0	4,910,742:08:0	
692	99	75	13:53:35.866	488FC6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,910,832:57:0	
693	99	75	21:36:51.866	488FD6A	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,911,290:73:0	
694	99	75	22:31:33.866	488FD6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,911,344:82:0	
695	99	76	00:16:44.533	125XE	NIM5INIT	GS	##### GROUP START INIT	400	4	0	4,911,448:84:0	
696	99	76	00:16:44.533	125XE4A	37IST	1,0,0,OFF,0,0,0	Chopper ON, Sync, 63Hz (Ref)	460	4	0	4,911,448:84:0	
697	99	76	00:17:45.200	125XE4B	37IST	1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)	4R0	4	0	4,911,449:84:0	
698	99	76	00:18:45.866	125XE4C	37IST	0,2,0,OFF,0,1,3	Gain State 1	1R0	4	0	4,911,450:84:0	
699	99	76	00:19:46.533	125XE4D	37MB	1B,1B,0,0,0,0	Selects mirror (spatial) edit table	1R0	4	0	4,911,451:84:0	
700	99	76	00:19:46.533	125XE11A	NIM5INIT	GE	##### GROUP END INIT	1R0	4	0	4,911,451:84:0	
701	99	76	00:21:47.866	127XE	NIM5TAB	GS	%%%%%% GROUP START TAB	1R0	4	0	4,911,453:84:0	
702	99	76	00:21:47.866	127XE4A	37IOP	3,0	Long Map, Grating Start Position =00	1R3	4	0	4,911,453:84:0	
703	99	76	00:21:48.533	127XE4B	37ETB	0A,CA,18,03,FF,1	Loads wavelength edit table	1R3	4	0	4,911,453:85:0	
704	99	76	00:22:09.200	127XE11A	NIM5TAB	GE	%%%%%% GROUP END TAB	1R3	4	0	4,911,454:25:0	
705	99	76	00:25:55.200	176XE6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	1R3	4	0	4,911,458:00:0	
706	99	76	00:31:59.200	192XE4A	7CONE	17,0,119,7	Check S/P Position	1R3	4	0	4,911,464:00:0	
707	99	76	00:34:20.533	432XE6A	6RTSL2	NIMSEL,AACNCG,RT	NIMS R/T SELECT	1R3	4	0	4,911,466:30:0	
708	99	76	00:35:19.866	432XF6A	6RTDS2	NIMDSL,AACNCG,RT	NIMS R/T DESELECT	1R3	4	0	4,911,467:28:0	
709	99	76	00:38:03.200	192XE4B	7CONE	17,0,0,0	Check S/P Position	1R3	4	0	4,911,470:00:0	
710	99	76	00:40:24.533	432XU6A	6RTSL2	NIMSEL,AACNCG,RT	NIMS R/T SELECT	1R3	4	0	4,911,472:30:0	
711	99	76	00:42:24.533	432XV6A	6RTDS2	NIMDSL,AACNCG,RT	NIMS R/T DESELECT	1R3	4	0	4,911,474:28:0	
712	99	76	00:44:07.200	192XE4C	7CONE	17,0,119,7	Check S/P Position	1R3	4	0	4,911,476:00:0	
713	99	76	00:46:08.533	185XE10C3A	40HRPR		1 RCT Heater OFF (primary relay)	1R3	4	0	4,911,478:00:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
714	99	76	00:46:13.866	185XE10D3A	40HRPR		2 RCT Heater OFF (primary relay)	1R3	4	0	4,911,478:08:0	
715	99	76	00:46:28.533	432XW6A	6RTSL2	NIMSEL,AACNCG,RT	NIMS RT SELECT	1R3	4	0	4,911,478:30:0	
716	99	76	00:47:27.866	432XY6A	6RTDS2	NIMDSL,AACNCG,RT	NIMS RT DESELECT	1R3	4	0	4,911,479:28:0	
717	99	76	00:49:05.866	125DC4A	37IST	0,2,0,OFF,0,1,1	Gain State 4	4R3	4	0	4,911,480:84:0	
718	99	76	00:49:05.866	125DC11A	NIMSINIT	GE	##### GROUP END INIT	4R3	4	0	4,911,480:84:0	
719	99	76	00:49:05.866	125DC	NIMSINIT	GS	##### GROUP START INIT	4R3	4	0	4,911,480:84:0	
720	99	76	00:50:06.533	127DC4A	37IOP	3,0	Long Map, Grating Start Position =00	4R3	4	0	4,911,481:84:0	
721	99	76	00:50:06.533	127DC	NIMSTAB	GS	%%%GROUP START TAB	4R3	4	0	4,911,481:84:0	
722	99	76	00:50:07.200	127DC4B	37ETB	07,C7,31,80,00,0	Loads wavelength edit table	4R3	4	0	4,911,481:85:0	
723	99	76	00:50:11.200	192XE4D	7CONE	17,0,153,0	Check S/P Position	4R3	4	0	4,911,482:00:0	
724	99	76	00:50:27.866	127DC11A	NIMSTAB	GE	%%%GROUP END TAB	4R3	4	0	4,911,482:25:0	
725	99	76	00:50:31.866	432DC6A	6RTSL2	NIMSEL,AACNCG,RT	NIMS RT SELECT	4R3	4	0	4,911,482:30:0	
726	99	76	00:51:07.200	125DD11A	NIMSINIT	GE	##### GROUP END INIT	4R3	4	0	4,911,482:84:0	
727	99	76	00:51:07.200	125DD	NIMSINIT	GS	##### GROUP START INIT	4R3	4	0	4,911,482:84:0	
728	99	76	00:51:07.200	125DD4A	37IST	0,2,1,OFF,1,0,1	OPCAL	4R3	4	0	4,911,482:84:0	
729	99	76	00:53:08.533	125DE11A	NIMSINIT	GE	##### GROUP END INIT	4R3	4	0	4,911,484:84:0	
730	99	76	00:53:08.533	125DE	NIMSINIT	GS	##### GROUP START INIT	4R3	4	0	4,911,484:84:0	
731	99	76	00:53:08.533	125DE4A	37IST	0,2,1,OFF,1,0,1	OPCAL	4R3	4	0	4,911,484:84:0	
732	99	76	00:53:31.866	432DE6A	6RTDS2	NIMDSL,AACNCG,RT	NIMS RT DESELECT	4R3	4	0	4,911,485:28:0	
733	99	76	00:57:11.200	127XF	NIMSTAB	GS	%%%GROUP START TAB	4R3	4	0	4,911,488:84:0	
734	99	76	00:57:11.200	127XF4A	37IOP	0,0	Safe, Grating Start Position =00	4R0	4	0	4,911,488:84:0	
735	99	76	00:57:11.866	127XF4B	37ETB	04,C4,02,00,00	Loads wavelength edit table	4R0	4	0	4,911,488:85:0	
736	99	76	00:57:32.533	127XF11A	NIMSTAB	GE	%%%GROUP END TAB	4R0	4	0	4,911,489:25:0	
737	99	76	01:00:13.200	125XF4A	37MB	0,0,0,0,0,0	Selects mirror (spatial) edit table	4R0	4	0	4,911,491:84:0	
738	99	76	01:00:13.200	125XF	NIMSINIT	GS	##### GROUP START INIT	4R0	4	0	4,911,491:84:0	
739	99	76	01:01:13.866	125XF4B	37IST	1,0,0,OFF,0,0,0	Chopper ON, Sync, 63Hz (Ref)	460	4	0	4,911,492:84:0	
740	99	76	01:02:14.533	125XF4C	37IST	1,1,0,OFF,0,0,0	Chopper OFF, N/A, 63Hz (Ref)	400	4	0	4,911,493:84:0	
741	99	76	01:02:14.533	125XF11A	NIMSINIT	GE	##### GROUP END INIT	400	4	0	4,911,493:84:0	
742	99	76	01:08:39.866	41XU9A	POWER	PWR MODE change	Change to Manuever/Playback Mode	400	4	0	4,911,500:25:0	
743	99	76	01:10:43.866	41XU3G	40T1P		1 PCT Heater 1 ON (primary relay)	400	4	0	4,911,502:14:0	
744	99	76	01:10:43.866	41XU3H	40T1P		2 PCT Heater 1 ON (primary relay)	400	4	0	4,911,502:29:0	
745	99	76	01:10:53.866	41XU3I	40T2		1 PCT Heater 2 ON	400	4	0	4,911,502:44:0	
746	99	76	01:11:03.866	41XU3J	40T2		2 PCT Heater 2 ON	400	4	0	4,911,502:59:0	
747	99	76	01:15:44.666	19NNRCTRLT01-		-----STOP-----		400	4	0	:	
748	99	76	01:18:50.533	20DB4A	7SAFE	STOP	S/P NO MOVEMENT	400	4	0	4,911,510:31:0	
749	99	76	01:19:40.533	20DB4B	7SLEW	DIS,POS,0,0	Stator movement	400	4	0	4,911,511:15:0	
750	99	76	01:21:31.866	176XF6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	400	4	0	4,911,513:00:0	
751	99	76	05:38:13.800	488FE6A	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,911,766:80:0	
752	99	76	06:18:35.133	488FE6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,911,806:72:0	
753	99	76	15:16:51.133	488FF6A	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,912,339:13:0	
754	99	76	18:00:37.800	488FF6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,912,501:11:0	
755	99	76	21:03:02.466	488FF6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,912,681:48:0	
756	99	76	21:19:01.800	488FG6A	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,912,697:31:0	
757	99	77	00:00:41.133	488FG6B	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,912,857:20:0	
758	99	77	05:08:33.800	488FH6A	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,913,161:65:0	
759	99	77	17:15:42.400	488FI6A	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,913,880:79:0	
760	99	77	20:23:31.733	488FI6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,914,066:57:0	
761	99	77	21:31:49.066	488FI6C	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,914,134:15:0	
762	99	77	22:22:47.733	488FI6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,914,184:53:0	
763	99	77	23:31:33.733	488FI6E	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,914,193:23:0	
764	99	77	23:15:33.733	488FI6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,914,236:70:0	
765	99	78	05:27:33.733	488FK6A	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,914,604:62:0	
766	99	78	06:13:31.733	488FK6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,914,650:13:0	
767	99	78	09:26:47.733	488FK6C	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,914,841:26:0	
768	99	78	11:52:59.733	488FL6A	6TMSED	NORM,AH1	Sci, Eng, and D/L Chan	400	4	0	4,914,985:80:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
769	99	78	11:57:09.733	176SD6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	400	4	0	4,914,990:00:0	
770	99	78	12:08:59.733	20BA4C	7STAT	17.45,104.3921,6	Stator inertial point	400	4	0	4,915,001:64:0	
771	99	78	12:29:59.733	474BA416A4B	7MODE	INT	AACS INERTIAL MODE	400	4	0	4,915,022:43:0	
772	99	78	12:31:59.733	474BA416A4D	7SAFE	UNSTOW	S/P TO 153 deg cone	400	4	0	4,915,024:41:0	
773	99	78	12:32:19.733	20BA4D	7STAT	17.45,104.3921,6	Stator inertial point	400	4	0	4,915,024:71:0	
774	99	78	12:36:13.733	474BA416A4E	7BURN	104.392099,6.72	ALERT -- Thruster fire	400	4	0	4,915,028:58:0	
775	99	78	12:56:13.733	20BA4F	7SLEW	DIS,POS,0.0	Stator movement	400	4	0	4,915,048:38:0	
776	99	78	13:02:05.733	20BA4G	7MODE	CRU	AACS CRUISE MODE	400	4	0	4,915,054:20:0	
777	99	78	13:26:21.733	20BA4L	7STAT	17.45,104.3921,6	Stator inertial point	400	4	0	4,915,078:20:0	
778	99	78	13:29:21.733	20BA4O	7MODE	INT	AACS INERTIAL MODE	400	4	0	4,915,081:17:0	
779	99	78	13:31:21.733	474BA416A4G	7BURN	T,104.392099,6.7	ALERT -- Thruster fire	400	4	0	4,915,083:15:0	
780	99	78	13:37:57.733	20BA4Q	7SLEW	DIS,POS,0.0	Stator movement	400	4	0	4,915,089:63:0	
781	99	78	13:42:49.733	20BA4R	7MODE	CRU	AACS CRUISE MODE	400	4	0	4,915,094:46:0	
782	99	78	14:50:21.733	20BB4A	7SAFE	STOP	S/P NO MOVEMENT	400	4	0	4,915,161:27:0	
783	99	78	14:51:11.733	20BB4B	7SLEW	DIS,POS,0.0	Stator movement	400	4	0	4,915,162:11:0	
784	99	78	14:52:05.066	176BA6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	400	4	0	4,915,163:00:0	
785	99	78	16:23:19.733	488FL6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,915,253:22:0	
786	99	78	17:00:59.733	488FL6C	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,915,290:45:0	
787	99	78	17:01:30.400	176SE6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	400	4	0	4,915,291:00:0	
788	99	78	18:14:05.733	488FM6A	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,915,362:72:0	
789	99	78	20:18:31.000	488FM6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,915,485:77:0	
790	99	78	23:49:06.333	488FM6C	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,915,694:11:0	
791	99	79	04:43:31.000	488FN6A	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,915,985:27:0	
792	99	79	09:39:07.000	488FN6B	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,916,277:59:0	
793	99	79	13:38:29.666	488FO6A	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,916,514:36:0	
794	99	79	15:37:37.666	176SX6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	400	4	0	4,916,652:00:0	
795	99	79	16:02:00.333	20US4B	7SLEW	DIS,POS,0.0	Stator movement	400	4	0	4,916,656:30:0	
796	99	79	16:03:00.333	20US4D	7MODE	SPNL	AACS ALL-SPIN LOW	400	4	0	4,916,657:29:0	
797	99	79	16:05:00.333	20US4E	7SAFE	UNSTOW	S/P TO 153 deg cone	400	4	0	4,916,659:27:0	
798	99	79	16:10:30.333	20US4G	7VENT	0.611,1.333,8	ALERT -- Thruster fire	400	4	0	4,916,664:67:0	
799	99	79	16:10:31.000	20US4H	7VENT	0.611,10.989,8	ALERT -- Thruster fire	400	4	0	4,916,664:68:0	
800	99	79	16:10:51.000	20US4I	7VENT	0.611,1.333,6	ALERT -- Thruster fire	400	4	0	4,916,665:07:0	
801	99	79	16:10:51.666	20US4J	7VENT	0.611,10.989,6	ALERT -- Thruster fire	400	4	0	4,916,665:08:0	
802	99	79	16:11:11.666	20US4K	7VENT	0.611,1.333,4	ALERT -- Thruster fire	400	4	0	4,916,665:38:0	
803	99	79	16:11:22.333	20US4L	7VENT	0.611,0.666,5	ALERT -- Thruster fire	400	4	0	4,916,665:39:0	
804	99	79	16:11:22.333	20US4M	7VENT	0.611,1.333,4	ALERT -- Thruster fire	400	4	0	4,916,665:54:0	
805	99	79	16:11:23.000	20US4N	7VENT	0.611,0.666,5	ALERT -- Thruster fire	400	4	0	4,916,665:55:0	
806	99	79	16:11:33.000	20US4O	7VENT	1.211,1.333,10	ALERT -- Thruster fire	400	4	0	4,916,665:70:0	
807	99	79	16:11:33.666	20US4P	7VENT	1.211,0.666,12	ALERT -- Thruster fire	400	4	0	4,916,665:71:0	
808	99	79	16:13:20.333	20US4S	7VENT	0.611,1.333,7	ALERT -- Thruster fire	400	4	0	4,916,667:49:0	
809	99	79	16:13:21.000	20US4T	7VENT	0.611,10.989,7	ALERT -- Thruster fire	400	4	0	4,916,667:50:0	
810	99	79	16:13:41.000	20US4U	7VENT	0.611,1.333,1	ALERT -- Thruster fire	400	4	0	4,916,667:80:0	
811	99	79	16:13:41.666	20US4V	7VENT	0.611,10.989,1	ALERT -- Thruster fire	400	4	0	4,916,667:81:0	
812	99	79	16:14:01.666	20US4AC	7VENT	0.611,1.333,2	ALERT -- Thruster fire	400	4	0	4,916,668:20:0	
813	99	79	16:14:02.333	20US4AD	7VENT	0.611,0.666,3	ALERT -- Thruster fire	400	4	0	4,916,668:21:0	
814	99	79	16:14:12.333	20US4AE	7VENT	0.611,1.333,2	ALERT -- Thruster fire	400	4	0	4,916,668:36:0	
815	99	79	16:14:13.000	20US4AF	7VENT	0.611,0.666,3	ALERT -- Thruster fire	400	4	0	4,916,668:37:0	
816	99	79	16:14:23.000	20US4AW	7VENT	1.211,1.333,9	ALERT -- Thruster fire	400	4	0	4,916,668:52:0	
817	99	79	16:14:23.666	20US4X	7VENT	1.211,0.666,11	ALERT -- Thruster fire	400	4	0	4,916,668:53:0	
818	99	79	16:15:20.333	20US4Z	7MODE	CRU	AACS CRUISE MODE	400	4	0	4,916,669:47:0	
819	99	79	16:40:04.333	20UL4A	7SAFE	STOP	S/P NO MOVEMENT	400	4	0	4,916,693:89:0	
820	99	79	16:40:54.333	20UL4B	7SLEW	DIS,POS,0.0	Stator movement	400	4	0	4,916,694:73:0	
821	99	79	16:42:07.000	176SY6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	400	4	0	4,916,696:00:0	
822	99	79	17:14:07.000	488FO6B	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,916,727:59:0	
823	99	79	20:13:29.666	488FP6A	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,916,905:05:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
824	99	79	21:31:46.333	488FP6B	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,916,982:43:0	
825	99	79	21:53:21.666	488FP6C	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,917,003:75:0	
826	99	79	23:44:08.333	488FP6D	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,917,113:35:0	
827	99	80	05:58:28.933	488FQ6A	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,917,483:56:0	
828	99	80	07:56:09.600	176SP6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	400	4	0	4,917,600:00:0	
829	99	80	08:02:13.600		DMS:	: *TURNARND	P7, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,917,606:00:0	
830	99	80	08:02:13.600		DMS:	: *SLEW-TIC	P7, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,917,606:00:0	
831	99	80	08:02:13.600	465WK6A	6DMST		5000 DMS Slew to TIC	400	4	0	4,917,606:00:0	
832	99	80	08:02:13.600		DMS:	: *E4-DELAY	RDY, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,917,606:00:0	
833	99	80	08:02:20.266		DMS:	: *RUNUP	P7, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,917,606:10:0	
834	99	80	08:02:21.666		DMS:	: *AT SPD	P7, TRACK 1, FWD, TIC *202.24 +/-	400	4	0	4,917,606:12:1	
835	99	80	08:21:44.933	488FQ6B	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,917,625:28:0	
836	99	80	13:43:22.400		DMS:	: *RUNDOWN	P7, TRACK 1, FWD, TIC *4997.94 +/-	400	4	0	4,917,943:36:2	
837	99	80	13:43:23.600		DMS:	: *READY	RDY, TRACK 1, FWD, TIC *4998.00 +/-	400	4	0	4,917,943:38:0	
838	99	80	13:55:54.933	465WL6A	6DMSC	P100.4	DMS Control Tape P/B 100.8kbps	400	4	0	4,917,955:73:0	
839	99	80	13:55:54.933		DMS:	: *US-RUNUP	P7, TRACK 1, FWD, TIC 4998.00 +/-	400	4	0	4,917,955:73:0	
840	99	80	13:55:56.333		DMS:	: *US AT SP	P7, TRACK 1, FWD, TIC *4998.12 +/-	400	4	0	4,917,955:75:1	
841	99	80	13:56:01.600		DMS:	: *US RD	P7, TRACK 1, FWD, TIC *4999.35 +/-	400	4	0	4,917,955:83:0	
842	99	80	13:56:02.800		DMS:	: *RUNUP	P100, TRACK *4, *REV, TIC *4999.41 +/-	400	4	0	4,917,955:84:8	
843	99	80	13:56:06.666		DMS:	: *P SLEW	P100, TRACK 4, REV, TIC *4993.91 +/-	400	4	0	4,917,955:90:6	
844	99	80	13:56:06.666		DMS:	: *AT SPD	P100, TRACK 4, REV, TIC 4993.91 +/-	400	4	0	4,917,955:90:6	
845	99	80	14:21:46.933		DMS:	: *RUNDOWN	P100, TRACK 4, REV, TIC *255.79 +/-	400	4	0	4,917,981:35:0	
846	99	80	14:21:46.933	465WL6B	6DMSC	RDY.4	DMS Control Tape stop	400	4	0	4,917,981:35:0	
847	99	80	14:21:48.133		DMS:	: *READY	RDY, TRACK 4, REV, TIC *254.99 +/-	400	4	0	4,917,981:36:8	
848	99	80	15:33:28.933	488FR6A	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,918,052:27:0	
849	99	80	17:46:44.933	488FR6B	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,918,184:09:0	
850	99	80	20:13:28.933	488FR6C	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,918,329:20:0	
851	99	80	21:31:44.933	488FR6D	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,918,406:57:0	
852	99	80	21:50:12.933		DMS:	: *DMS-TURN	P7, TRACK 4, REV, TIC 254.99 +/-	400	4	0	4,918,424:81:0	
853	99	80	21:50:12.933		DMS:	: *US-RUNUP	P7, TRACK *1, *FWD, TIC 284.99 +/-	400	4	0	4,918,424:81:0	
854	99	80	21:50:12.933	465WM6A	6DTRN	CMD.6DTRN,465WM6	DMS TRACK TURNAROUND	400	4	0	4,918,424:83:1	
855	99	80	21:50:14.333		DMS:	: *US AT SP	P7, TRACK 1, FWD, TIC *255.11 +/-	400	4	0	4,918,425:00:0	
856	99	80	21:50:19.600		DMS:	: *US RD	P7, TRACK 1, FWD, TIC *256.34 +/-	400	4	0	4,918,425:01:8	
857	99	80	21:50:20.800		DMS:	: *RUNUP	P7, TRACK *4, *REV, TIC *256.40 +/-	400	4	0	4,918,425:03:9	
858	99	80	21:50:22.200		DMS:	: *AT SPD	P7, TRACK 4, REV, TIC *256.28 +/-	400	4	0	4,918,428:72:0	
859	99	80	21:54:09.600	488FS6A	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,918,429:00:9	
860	99	80	21:54:22.866		DMS:	: *REVERSE	P7, TRACK 4, REV, TIC *199.87 +/-	400	4	0	4,918,429:02:7	
861	99	80	21:54:24.066		DMS:	: *TURNARND	P7, TRACK *1, *FWD, TIC *199.81 +/-	400	4	0	4,918,429:02:7	
862	99	80	21:54:24.066		DMS:	: *RUNUP	P7, TRACK 1, FWD, TIC 199.81 +/-	400	4	0	4,918,429:04:8	
863	99	80	21:54:25.466		DMS:	: *AT SPD	P7, TRACK 1, FWD, TIC *199.93 +/-	400	4	0	4,918,429:22:8	
864	99	80	21:54:37.466		DMS:	: *AUTOSTOP	P7, TRACK 1, FWD, TIC *202.06 +/-	400	4	0	4,918,429:24:6	
865	99	80	21:54:38.666		DMS:	: *READY	RDY, TRACK 1, FWD, TIC *202.12 +/-	400	4	0	4,918,434:75:0	
866	99	80	22:00:15.600	465WN6A	6DMSC	P100.1	DMS Control Tape P/B 100.8kbps	400	4	0	4,918,434:75:0	
867	99	80	22:00:15.600		DMS:	: *E4-DELAY	RDY, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,918,434:75:0	
868	99	80	22:00:22.266		DMS:	: *RUNUP	P100, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,918,434:85:0	
869	99	80	22:00:26.133		DMS:	: *P SLEW	P100, TRACK 1, FWD, TIC *207.62 +/-	400	4	0	4,918,434:90:8	
870	99	80	22:00:26.133		DMS:	: *AT SPD	P100, TRACK 1, FWD, TIC 207.62 +/-	400	4	0	4,918,434:90:8	
871	99	80	22:32:09.600	465WN6B	6DMSC	RDY.1	DMS Control Tape stop	400	4	0	4,918,466:34:0	
872	99	80	22:32:09.600		DMS:	: *RUNDOWN	P100, TRACK 1, FWD, TIC *6063.01 +/-	400	4	0	4,918,466:34:0	
873	99	80	22:32:10.800		DMS:	: *READY	RDY, TRACK 1, FWD, TIC *6063.81 +/-	400	4	0	4,918,466:35:8	
874	99	80	22:47:45.600		DMS:	: *US-RUNUP	P7, TRACK 1, FWD, TIC 6063.81 +/-	400	4	0	4,918,481:73:0	
875	99	80	22:47:45.600	465WO6A	6DMSC	P100.2	DMS Control Tape P/B 100.8kbps	400	4	0	4,918,481:73:0	
876	99	80	22:47:47.000		DMS:	: *US AT SP	P7, TRACK 1, FWD, TIC *6063.93 +/-	400	4	0	4,918,481:75:1	
877	99	80	22:47:52.266		DMS:	: *US RD	P7, TRACK 1, FWD, TIC *6065.17 +/-	400	4	0	4,918,481:83:0	
878	99	80	22:47:53.466		DMS:	: *RUNUP	P100, TRACK *2, *REV, TIC *6065.23 +/-	400	4	0	4,918,481:84:8	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
879	99	80	22:47:57.333		DMS:	:*P SLEW	P100, TRACK 2, REV, TIC *6059.73 +/-	400	4	0	4,918,481:90:6	
880	99	80	22:47:57.333		DMS:	:*AT SPD	P100, TRACK 2, REV, TIC 6059.73 +/-	400	4	0	4,918,481:90:6	
881	99	80	23:19:53.600		DMS:	:*RUNDOWN	P100, TRACK 2, REV, TIC * 164.96 +/-	400	4	0	4,918,513:53:0	
882	99	80	23:19:53.600	465WP6A	6DMSC	P100.3	DMS Control Tape P/B 100.8kbps	400	4	0	4,918,513:53:0	
883	99	80	23:19:54.800		DMS:	:*RUNUP	P100, TRACK *3, *FWD, TIC * 164.16 +/-	400	4	0	4,918,513:54:8	
884	99	80	23:19:58.666		DMS:	:*P SLEW	P100, TRACK 3, FWD, TIC * 169.66 +/-	400	4	0	4,918,513:60:6	
885	99	80	23:19:58.666		DMS:	:*AT SPD	P100, TRACK 3, FWD, TIC 169.66 +/-	400	4	0	4,918,513:60:6	
886	99	80	23:51:54.266	465WP6B	6DMSC	RDY.3	DMS Control Tape stop	400	4	0	4,918,545:22:0	
887	99	80	23:51:54.266		DMS:	:*RUNDOWN	P100, TRACK 3, FWD, TIC *6062.38 +/-	400	4	0	4,918,545:22:0	
888	99	80	23:51:55.466		DMS:	:*READY	RDY, TRACK 3, FWD, TIC *6063.18 +/-	400	4	0	4,918,545:23:8	
889	99	81	00:06:37.600		DMS:	:*US-RUNUP	P7, TRACK *1, FWD, TIC *6063.18 +/-	400	4	0	4,918,559:73:0	
890	99	81	00:06:37.600	465WQ6A	6DMSC	P100.4	DMS Control Tape P/B 100.8kbps	400	4	0	4,918,559:73:0	
891	99	81	00:06:39.000		DMS:	:*US, AT SP	P7, TRACK 1, FWD, TIC *6063.30 +/-	400	4	0	4,918,559:75:1	
892	99	81	00:06:44.266		DMS:	:*US, RD	P7, TRACK 1, FWD, TIC *6064.53 +/-	400	4	0	4,918,559:83:0	
893	99	81	00:06:45.466		DMS:	:*RUNUP	P100, TRACK *4, *REV, TIC *6064.59 +/-	400	4	0	4,918,559:84:8	
894	99	81	00:06:49.333		DMS:	:*P SLEW	P100, TRACK 4, REV, TIC *6059.09 +/-	400	4	0	4,918,559:90:6	
895	99	81	00:06:49.333		DMS:	:*AT SPD	P100, TRACK 4, REV, TIC 6059.09 +/-	400	4	0	4,918,559:90:6	
896	99	81	00:38:44.933		DMS:	:*RUNDOWN	P100, TRACK 4, REV, TIC * 166.38 +/-	400	4	0	4,918,591:52:0	
897	99	81	00:38:44.933	465WR6A	6DMSC	P100.3	DMS Control Tape P/B 100.8kbps	400	4	0	4,918,591:52:0	
898	99	81	00:38:46.133		DMS:	:*RUNUP	P100, TRACK *3, *FWD, TIC * 165.58 +/-	400	4	0	4,918,591:53:8	
899	99	81	00:38:50.000		DMS:	:*P SLEW	P100, TRACK 3, FWD, TIC * 171.08 +/-	400	4	0	4,918,591:59:6	
900	99	81	00:38:50.000		DMS:	:*AT SPD	P100, TRACK 3, FWD, TIC 171.08 +/-	400	4	0	4,918,591:59:6	
901	99	81	00:39:50.933	465WR6B	6DMSC	RDY.3	DMS Control Tape stop	400	4	0	4,918,592:60:0	
902	99	81	00:39:50.933		DMS:	:*RUNDOWN	P100, TRACK 3, FWD, TIC * 358.52 +/-	400	4	0	4,918,592:60:0	
903	99	81	00:39:52.133		DMS:	:*READY	RDY, TRACK 3, FWD, TIC * 359.32 +/-	400	4	0	4,918,592:61:8	
904	99	81	00:40:59.600	488FS6B	6TMSD	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,918,593:72:0	
905	99	81	00:54:20.933	465WS6A	6DMSC	RDY.4	DMS Control Tape stop	400	4	0	4,918,607:00:0	
906	99	81	00:54:20.933		DMS:	:*READY	RDY, TRACK *4, *REV, TIC 359.32 +/-	400	4	0	4,918,607:00:0	
907	99	81	00:55:14.933	465WT6A	6DTRN	CMD,6DTRN,465WT6	DMS TRACK TURNAROUND	400	4	0	4,918,607:81:0	
908	99	81	00:55:14.933		DMS:	:*DMS-TURN	P7, TRACK 4, REV, TIC 359.32 +/-	400	4	0	4,918,607:81:0	
909	99	81	00:55:14.933		DMS:	:*US-RUNUP	P7, TRACK *1, *FWD, TIC 359.32 +/-	400	4	0	4,918,607:81:0	
910	99	81	00:55:16.333		DMS:	:*US, AT SP	P7, TRACK 1, FWD, TIC * 359.44 +/-	400	4	0	4,918,607:83:1	
911	99	81	00:55:21.600		DMS:	:*US, RD	P7, TRACK 1, FWD, TIC * 360.67 +/-	400	4	0	4,918,608:00:0	
912	99	81	00:55:22.800		DMS:	:*RUNUP	P7, TRACK *4, *REV, TIC * 360.73 +/-	400	4	0	4,918,608:01:8	
913	99	81	00:55:24.200		DMS:	:*AT SPD	P7, TRACK 4, REV, TIC * 360.61 +/-	400	4	0	4,918,608:03:9	
914	99	81	01:06:50.000		DMS:	:*REVERSE	P7, TRACK 4, REV, TIC * 199.87 +/-	400	4	0	4,918,619:31:6	
915	99	81	01:06:51.200		DMS:	:*RUNUP	P7, TRACK 1, FWD, TIC 199.81 +/-	400	4	0	4,918,619:33:4	
916	99	81	01:06:51.200		DMS:	:*TURNARND	P7, TRACK *1, *FWD, TIC * 199.81 +/-	400	4	0	4,918,619:33:4	
917	99	81	01:06:52.600		DMS:	:*AT SPD	P7, TRACK 1, FWD, TIC * 199.93 +/-	400	4	0	4,918,619:35:5	
918	99	81	01:07:04.600		DMS:	:*AUTOSTOP	P7, TRACK 1, FWD, TIC * 202.06 +/-	400	4	0	4,918,619:53:5	
919	99	81	01:07:05.800		DMS:	:*READY	RDY, TRACK 1, FWD, TIC * 202.12 +/-	400	4	0	4,918,619:55:3	
920	99	81	01:24:40.933		DMS:	:*TURNARND	P7, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,918,637:00:0	
921	99	81	01:24:40.933		DMS:	:*SLEW-TIC	P7, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,918,637:00:0	
922	99	81	01:24:40.933		DMS:	:*E4-DELAY	RDY, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,918,637:00:0	
923	99	81	01:24:40.933	465SZ6A	6DMST		3114 DMS Slew to TIC	400	4	0	4,918,637:00:0	
924	99	81	01:24:47.600		DMS:	:*RUNUP	P7, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,918,637:10:0	
925	99	81	01:24:49.000		DMS:	:*AT SPD	P7, TRACK 1, FWD, TIC * 202.24 +/-	400	4	0	4,918,637:12:1	
926	99	81	04:51:43.066		DMS:	:*RUNDOWN	P7, TRACK 1, FWD, TIC *3111.94 +/-	400	4	0	4,918,841:69:2	
927	99	81	04:51:44.266		DMS:	:*READY	RDY, TRACK 1, FWD, TIC *3112.00 +/-	400	4	0	4,918,841:71:0	
928	99	81	05:00:00.000	20A3FE	40T1P	Final Condition	PCT Heater 1 ON (primary relay)	400	4	0	4,918,849:86:6	
929	99	81	05:00:00.000	20A3FF	40T2	Final Condition	PCT Heater 2 ON	400	4	0	4,918,849:86:6	
930	99	81	05:00:00.000	20A3FA	37F1PR	Final Condition	Radiator Flash Heater OFF (primary relay)	400	4	0	4,918,849:86:6	
931	99	81	05:00:00.000	20A3EW	37A	Final Condition	NIMS Power ON	400	4	0	4,918,849:86:6	
932	99	81	05:00:00.000	20A3EX	37HR	Final Condition	Replacement Heaters OFF	400	4	0	4,918,849:86:6	
933	99	81	05:00:00.000	20A3EY	37C1PR	Final Condition	Optics Heater 1 OFF (primary relay)	400	4	0	4,918,849:86:6	



Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MFI
934	99	81	05:00:00.000	20A3EZ	37C2PR	Final Condition	Optics Heater 2 OFF (primary relay)	400	4	0	4,918,849:86:6	4,918,849:86:6
935	99	81	05:00:00.000	20A3FB	37F2PR	Final Condition	Shield Flash Heater OFF (primary relay)	400	4	0	4,918,849:86:6	4,918,849:86:6
936	99	81	05:00:00.000	20A3FD	40HRPR	Final Condition	RCT Heater OFF (primary relay)	400	4	0	4,918,849:86:6	4,918,849:86:6
937	99	81	05:00:00.266		DMS:	: READY	RDY, TRACK 1, FWD, TIC 3112.00 +/-	400	4	0	4,918,849:87:0	4,918,849:87:0

Sequence:		E19C-AR		Created: 6/28/99		Begin: 99-081/05:00:00		Finish: 99-122/17:00:00				
Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
1	99	81	05:00:00.000	20A3EW	37A	CMD,37A,20A3EW,,	NIMS Power ON	400	4	0	4,918,849:86:6	
2	99	81	05:00:00.000	20A3FA	37F1PR	CMD,37F1PR,20A3F	Radiator Flash Heater OFF (primary relay)	400	4	0	4,918,849:86:6	
3	99	81	05:00:00.000	20A3EX	37HR	CMD,37HR,20A3EX,	Replacement Heaters OFF	400	4	0	4,918,849:86:6	
4	99	81	05:00:00.000	20A3EY	37C1PR	CMD,37C1PR,20A3E	Optics Heater 1 OFF (primary relay)	400	4	0	4,918,849:86:6	
5	99	81	05:00:00.000	20A3EZ	37C2PR	CMD,37C2PR,20A3E	Optics Heater 2 OFF (primary relay)	400	4	0	4,918,849:86:6	
6	99	81	05:00:00.000	20A3FF	40T2	CMD,40T2,20A3FF,	PCT Heater 2 ON	400	4	0	4,918,849:86:6	
7	99	81	05:00:00.000	20A3FE	40T1P	CMD,40T1P,20A3FE	PCT Heater 1 ON (primary relay)	400	4	0	4,918,849:86:6	
8	99	81	05:00:00.000	20A3FD	40HRPR	CMD,40HRPR,20A3F	RCT Heater OFF (primary relay)	400	4	0	4,918,849:86:6	
9	99	81	05:00:00.000	20A3FB	37F2PR	CMD,37F2PR,20A3F	Shield Flash Heater OFF (primary relay)	400	4	0	4,918,849:86:6	
10	99	81	05:00:00.266		DMS:	: READY	RDY, TRACK 1, FWD, TIC 3112.00 +/-	400	4	0	4,918,849:87:0	
11	99	81	05:01:02.266	432NB6B	6RTDS2	NIMDSL,AAACDSL,RT	NIMS R/T DESELECTAACS DESELECT	400	4	0	4,918,850:89:0	
12	99	81	05:01:57.600	488AA6A	6TMSED	NORM,AH1	Sci, Eng, and D/L Chan	400	4	0	4,918,851:81:0	
13	99	81	05:48:27.600	488AA6B	6TMSED	FILL,AH1	Sci, Eng, and D/L Chan	400	4	0	4,918,897:80:0	
14	99	81	18:06:42.200	488AB6A	6TMSED	NORM,AH1	Sci, Eng, and D/L Chan	400	4	0	4,919,628:01:0	
15	99	100	09:33:25.933	488AC6A	6TMSED	FILL,AH1	Sci, Eng, and D/L Chan	400	4	0	4,946,179:67:0	
16	99	100	20:21:45.933	488AD6A	6TMSED	NORM,AH1	Sci, Eng, and D/L Chan	400	4	0	4,946,820:86:0	
17	99	100	22:01:59.933	20UT4B	7SLEW	DIS,POS,0.0	Stator movement	400	4	0	4,946,920:07:0	
18	99	100	22:02:59.933	20UT4D	7MODE	SPNL	AACS ALL-SPIN LOW	400	4	0	4,946,921:06:0	
19	99	100	22:04:59.933	20UT4E	7SAFE	UNSTW	S/P TO 153 deg cone	400	4	0	4,946,923:04:0	
20	99	100	22:10:29.933	20UT4G	7VENT	0.611,1.333,8	ALERT -- Thruster fire	400	4	0	4,946,928:44:0	
21	99	100	22:10:30.600	20UT4H	7VENT	0.611,10.989,8	ALERT -- Thruster fire	400	4	0	4,946,928:45:0	
22	99	100	22:10:50.600	20UT4I	7VENT	0.611,1.333,6	ALERT -- Thruster fire	400	4	0	4,946,928:75:0	
23	99	100	22:10:51.266	20UT4J	7VENT	0.611,10.989,6	ALERT -- Thruster fire	400	4	0	4,946,928:76:0	
24	99	100	22:11:11.266	20UT4K	7VENT	0.611,1.333,4	ALERT -- Thruster fire	400	4	0	4,946,929:15:0	
25	99	100	22:11:11.933	20UT4L	7VENT	0.611,0.666,5	ALERT -- Thruster fire	400	4	0	4,946,929:16:0	
26	99	100	22:11:21.933	20UT4M	7VENT	0.611,1.333,4	ALERT -- Thruster fire	400	4	0	4,946,929:31:0	
27	99	100	22:11:22.600	20UT4N	7VENT	0.611,0.666,5	ALERT -- Thruster fire	400	4	0	4,946,929:32:0	
28	99	100	22:11:32.600	20UT4O	7VENT	1.211,1.333,10	ALERT -- Thruster fire	400	4	0	4,946,929:47:0	
29	99	100	22:11:33.266	20UT4P	7VENT	1.211,0.666,12	ALERT -- Thruster fire	400	4	0	4,946,929:48:0	
30	99	100	22:13:19.933	20UT4S	7VENT	0.611,1.333,7	ALERT -- Thruster fire	400	4	0	4,946,931:26:0	
31	99	100	22:13:20.600	20UT4T	7VENT	0.611,10.989,7	ALERT -- Thruster fire	400	4	0	4,946,931:27:0	
32	99	100	22:13:40.600	20UT4U	7VENT	0.611,1.333,1	ALERT -- Thruster fire	400	4	0	4,946,931:57:0	
33	99	100	22:13:41.266	20UT4V	7VENT	0.611,10.989,1	ALERT -- Thruster fire	400	4	0	4,946,931:58:0	
34	99	100	22:14:01.266	20UT4AC	7VENT	0.611,1.333,2	ALERT -- Thruster fire	400	4	0	4,946,931:88:0	
35	99	100	22:14:01.933	20UT4AD	7VENT	0.611,0.666,3	ALERT -- Thruster fire	400	4	0	4,946,931:89:0	
36	99	100	22:14:11.933	20UT4AE	7VENT	0.611,1.333,2	ALERT -- Thruster fire	400	4	0	4,946,932:13:0	
37	99	100	22:14:12.600	20UT4AF	7VENT	0.611,0.666,3	ALERT -- Thruster fire	400	4	0	4,946,932:14:0	
38	99	100	22:14:22.600	20UT4W	7VENT	1.211,1.333,9	ALERT -- Thruster fire	400	4	0	4,946,932:29:0	
39	99	100	22:14:23.266	20UT4X	7VENT	1.211,0.666,11	ALERT -- Thruster fire	400	4	0	4,946,932:30:0	
40	99	100	22:15:19.933	20UT4Z	7MODE	CRU	AACS CRUISE MODE	400	4	0	4,946,933:24:0	
41	99	100	22:40:03.933	20UU4A	7SAFE	STOP	S/P NO MOVEMENT	400	4	0	4,946,957:66:0	
42	99	100	22:40:53.933	20JU4B	7SLEW	DIS,POS,0.0	Stator movement	400	4	0	4,946,958:50:0	
43	99	101	05:03:30.600	488AE6A	6TMSED	FILL,AH1	Sci, Eng, and D/L Chan	400	4	0	4,947,336:87:0	
44	99	101	07:06:47.266	488AE6B	6TMSED	NORM,AH1	Sci, Eng, and D/L Chan	400	4	0	4,947,458:80:0	
45	99	101	07:33:20.600	488AE6C	6TMSED	FILL,AH1	Sci, Eng, and D/L Chan	400	4	0	4,947,485:13:0	
46	99	101	09:20:45.266	488AE6D	6TMSED	NORM,AH1	Sci, Eng, and D/L Chan	400	4	0	4,947,591:34:0	
47	99	101	14:23:31.200	488AF6A	6TMSED	FILL,AH1	Sci, Eng, and D/L Chan	400	4	0	4,947,890:74:0	
48	99	101	14:47:58.533		DMS:	: *SLEW-TIC	P7, TRACK 1, FWD, TIC 3112.00 +/-	400	4	0	4,947,915:00:0	
49	99	101	14:47:58.533		DMS:	: *E4-DELAY	RDY, TRACK 1, FWD, TIC 3112.00 +/-	400	4	0	4,947,915:00:0	
50	99	101	14:47:58.533	465XA6A	6DMST		5000 DMS Slew to TIC	400	4	0	4,947,915:00:0	
51	99	101	14:48:05.200		DMS:	: *RUNUP	P7, TRACK 1, FWD, TIC 3112.00 +/-	400	4	0	4,947,915:10:0	
52	99	101	14:48:06.600		DMS:	: *AT_SPD	P7, TRACK 1, FWD, TIC *3112.12 +/-	400	4	0	4,947,915:12:1	
53	99	101	17:02:12.000		DMS:	: *RUNDOWN	P7, TRACK 1, FWD, TIC *4997.94 +/-	400	4	0	4,948,047:68:2	

Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MF I
54	99	101	17:02:13.200		DMS: : *READY	RDY, TRACK 1, FWD, TIC *4998.00 +/-	400	4	0	4,948,047:70:0	
55	99	101	20:16:47.866	488AF6B	6TMSED NORM, AH1	Sci, Eng, and D/L Chan	400	4	0	4,948,240:19:0	
56	99	101	20:41:39.866		DMS: : *US-RUNUP	P7, TRACK 1, FWD, TIC 4998.00 +/-	400	4	0	4,948,264:73:0	
57	99	101	20:41:39.866	465XB6A	6DMSC P100.4	DMS Control Tape P/B 100.8kpbs	400	4	0	4,948,264:73:0	
58	99	101	20:41:41.266		DMS: : *US AT SP	P7, TRACK 1, FWD, TIC *4998.12 +/-	400	4	0	4,948,264:73:0	
59	99	101	20:41:46.533		DMS: : *US_RD	P7, TRACK 1, FWD, TIC *4999.41 +/-	400	4	0	4,948,264:73:0	
60	99	101	20:41:47.733		DMS: : *RUNUP	P100, TRACK *4, *REV, TIC *4999.41 +/-	400	4	0	4,948,264:84:8	
61	99	101	20:41:51.600		DMS: : *AT SPD	P100, TRACK 4, REV, TIC 4993.91 +/-	400	4	0	4,948,264:90:6	
62	99	101	20:41:51.600		DMS: : *P_SLEW	P100, TRACK 4, REV, TIC *4993.91 +/-	400	4	0	4,948,264:90:6	
63	99	101	21:07:31.866		DMS: : *RUNDOWN	P100, TRACK 4, REV, TIC *255.79 +/-	400	4	0	4,948,290:35:0	
64	99	101	21:07:31.866	465XB6B	6DMSC RDY,4	DMS Control Tape stop	400	4	0	4,948,290:35:0	
65	99	101	21:07:33.066		DMS: : *READY	RDY, TRACK 4, REV, TIC *254.99 +/-	400	4	0	4,948,290:36:8	
66	99	101	23:10:23.200	465XC6A	6DTRN CMD,6DTRN,465XC6	DMS TRACK TURNAROUND	400	4	0	4,948,411:81:0	
67	99	101	23:10:23.200		DMS: : *DMS-TURN	P7, TRACK 4, REV, TIC 254.99 +/-	400	4	0	4,948,411:81:0	
68	99	101	23:10:23.200		DMS: : *US-RUNUP	P7, TRACK *1, *FWD, TIC 254.99 +/-	400	4	0	4,948,411:81:0	
69	99	101	23:10:24.600		DMS: : *US AT SP	P7, TRACK 1, FWD, TIC *255.11 +/-	400	4	0	4,948,411:83:1	
70	99	101	23:10:29.866		DMS: : *US_RD	P7, TRACK 1, FWD, TIC *256.34 +/-	400	4	0	4,948,412:00:0	
71	99	101	23:10:31.066		DMS: : *RUNUP	P7, TRACK *4, *REV, TIC *256.40 +/-	400	4	0	4,948,412:01:8	
72	99	101	23:10:32.466		DMS: : *AT SPD	P7, TRACK 4, REV, TIC *256.28 +/-	400	4	0	4,948,412:03:9	
73	99	101	23:14:09.200	488AG6A	6TMSED NORM, AH1	Sci, Eng, and D/L Chan	400	4	0	4,948,415:56:0	
74	99	101	23:14:33.133		DMS: : *REVERSE	P7, TRACK 4, REV, TIC *199.87 +/-	400	4	0	4,948,416:00:9	
75	99	101	23:14:34.333		DMS: : *RUNUP	P7, TRACK 1, FWD, TIC 199.81 +/-	400	4	0	4,948,416:02:7	
76	99	101	23:14:34.333		DMS: : *TURNARND	P7, TRACK *1, *FWD, TIC *199.81 +/-	400	4	0	4,948,416:02:7	
77	99	101	23:14:35.733		DMS: : *AT SPD	P7, TRACK 1, FWD, TIC *199.93 +/-	400	4	0	4,948,416:04:8	
78	99	101	23:14:47.733		DMS: : *AUTOSTOP	P7, TRACK 1, FWD, TIC *202.06 +/-	400	4	0	4,948,416:22:8	
79	99	101	23:14:48.933		DMS: : *READY	RDY, TRACK 1, FWD, TIC *202.12 +/-	400	4	0	4,948,416:24:6	
80	99	101	23:20:25.866	465XD6A	6DMSC P100.1	DMS Control Tape P/B 100.8kpbs	400	4	0	4,948,421:75:0	
81	99	101	23:20:25.866		DMS: : *E4-DELAY	RDY, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,948,421:75:0	
82	99	101	23:20:32.533		DMS: : *RUNUP	P100, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,948,421:85:0	
83	99	101	23:20:36.400		DMS: : *AT SPD	P100, TRACK 1, FWD, TIC 207.62 +/-	400	4	0	4,948,421:90:8	
84	99	101	23:20:36.400		DMS: : *P_SLEW	P100, TRACK 1, FWD, TIC *207.62 +/-	400	4	0	4,948,421:90:8	
85	99	101	23:52:19.866	465XD6B	6DMSC RDY,1	DMS Control Tape stop	400	4	0	4,948,453:34:0	
86	99	101	23:52:19.866		DMS: : *RUNDOWN	P100, TRACK 1, FWD, TIC *6063.01 +/-	400	4	0	4,948,453:34:0	
87	99	101	23:52:21.066		DMS: : *READY	RDY, TRACK 1, FWD, TIC *6063.81 +/-	400	4	0	4,948,453:35:8	
88	99	102	00:07:55.866	465XE6A	6DMSC P100.2	DMS Control Tape P/B 100.8kpbs	400	4	0	4,948,468:73:0	
89	99	102	00:07:55.866		DMS: : *US-RUNUP	P7, TRACK 1, FWD, TIC 6063.81 +/-	400	4	0	4,948,468:73:0	
90	99	102	00:07:57.266		DMS: : *US AT SP	P7, TRACK 1, FWD, TIC *6063.93 +/-	400	4	0	4,948,468:75:1	
91	99	102	00:08:02.533		DMS: : *US_RD	P7, TRACK 1, FWD, TIC *6065.17 +/-	400	4	0	4,948,468:83:0	
92	99	102	00:08:03.733		DMS: : *RUNUP	P100, TRACK *2, *REV, TIC *6065.23 +/-	400	4	0	4,948,468:84:8	
93	99	102	00:08:07.600		DMS: : *AT SPD	P100, TRACK 2, REV, TIC 6059.73 +/-	400	4	0	4,948,468:90:6	
94	99	102	00:08:07.600		DMS: : *P_SLEW	P100, TRACK 2, REV, TIC *6059.73 +/-	400	4	0	4,948,468:90:6	
95	99	102	00:40:03.866	465XF6A	6DMSC P100.3	DMS Control Tape P/B 100.8kpbs	400	4	0	4,948,500:53:0	
96	99	102	00:40:03.866		DMS: : *RUNDOWN	P100, TRACK 2, REV, TIC *164.96 +/-	400	4	0	4,948,500:53:0	
97	99	102	00:40:05.066		DMS: : *RUNUP	P100, TRACK *3, *FWD, TIC *164.16 +/-	400	4	0	4,948,500:54:8	
98	99	102	00:40:08.933		DMS: : *P_SLEW	P100, TRACK 3, FWD, TIC *169.66 +/-	400	4	0	4,948,500:60:6	
99	99	102	00:40:08.933		DMS: : *AT SPD	P100, TRACK 3, FWD, TIC 169.66 +/-	400	4	0	4,948,500:60:6	
100	99	102	01:12:04.533	465XF6B	6DMSC RDY,3	DMS Control Tape stop	400	4	0	4,948,532:22:0	
101	99	102	01:12:04.533		DMS: : *RUNDOWN	P100, TRACK 3, FWD, TIC *6062.38 +/-	400	4	0	4,948,532:22:0	
102	99	102	01:12:05.733		DMS: : *READY	RDY, TRACK 3, FWD, TIC *6063.18 +/-	400	4	0	4,948,532:23:8	
103	99	102	01:26:47.866		DMS: : *US-RUNUP	P7, TRACK *1, FWD, TIC 6063.18 +/-	400	4	0	4,948,546:73:0	
104	99	102	01:26:47.866	465XG6A	6DMSC P100.4	DMS Control Tape P/B 100.8kpbs	400	4	0	4,948,546:73:0	
105	99	102	01:26:49.266		DMS: : *US AT SP	P7, TRACK 1, FWD, TIC *6063.30 +/-	400	4	0	4,948,546:75:1	
106	99	102	01:26:54.533		DMS: : *US_RD	P7, TRACK 1, FWD, TIC *6064.53 +/-	400	4	0	4,948,546:83:0	
107	99	102	01:26:55.733		DMS: : *RUNUP	P100, TRACK *4, *REV, TIC *6064.59 +/-	400	4	0	4,948,546:84:8	
108	99	102	01:26:59.600		DMS: : *P_SLEW	P100, TRACK 4, REV, TIC *6059.09 +/-	400	4	0	4,948,546:90:6	

Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MF I
109	99	102	01:26:59.600		DMS: : *AT_SPD	P100, TRACK 4, REV, TIC 6059.09 +/-	400	4	0	4,948,546:90:6	
110	99	102	01:58:55.200		DMS: : *RUNDOWN	P100, TRACK 4, REV, TIC * 166.38 +/-	400	4	0	4,948,578:52:0	
111	99	102	01:58:55.200	465XH6A	6DMSC P100.3	DMS Control Tape P/B 100.8kpbs	400	4	0	4,948,578:52:0	
112	99	102	01:58:56.400		DMS: : *RUNUP	P100, TRACK *3, *FWD, TIC * 165.58 +/-	400	4	0	4,948,578:53:8	
113	99	102	01:59:00.266		DMS: : *AT_SPD	P100, TRACK 3, FWD, TIC 171.08 +/-	400	4	0	4,948,578:59:6	
114	99	102	01:59:00.266		DMS: : *P_SLEW	P100, TRACK 3, FWD, TIC * 171.08 +/-	400	4	0	4,948,578:59:6	
115	99	102	02:00:01.200		DMS: : *RUNDOWN	P100, TRACK 3, FWD, TIC * 358.52 +/-	400	4	0	4,948,579:60:0	
116	99	102	02:00:01.200	465XH6B	6DMSC RDY,3	DMS Control Tape stop	400	4	0	4,948,579:60:0	
117	99	102	02:00:02.400		DMS: : *READY	RDY, TRACK 3, FWD, TIC * 359.32 +/-	400	4	0	4,948,579:61:8	
118	99	102	02:00:59.200	488AG6B	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,948,580:56:0	
119	99	102	02:14:31.200		DMS: : *READY	RDY, TRACK *4, *REV, TIC 359.32 +/-	400	4	0	4,948,584:00:0	
120	99	102	02:14:31.200	465XJ6A	6DMSC RDY,4	DMS Control Tape stop	400	4	0	4,948,594:00:0	
121	99	102	02:15:25.200	465XJ6A	6DTRN CMD,6DTRN,465XJ6	DMS TRACK TURNAROUND	400	4	0	4,948,594:81:0	
122	99	102	02:15:25.200		DMS: : *DMS-TURN	P7, TRACK 4, REV, TIC 359.32 +/-	400	4	0	4,948,594:81:0	
123	99	102	02:15:25.200		DMS: : *US-RUNUP	P7, TRACK *1, *FWD, TIC 359.32 +/-	400	4	0	4,948,594:81:0	
124	99	102	02:15:26.600		DMS: : *US-AT_SP	P7, TRACK 1, FWD, TIC * 359.44 +/-	400	4	0	4,948,594:83:1	
125	99	102	02:15:31.866		DMS: : *US_RD	P7, TRACK 1, FWD, TIC * 360.67 +/-	400	4	0	4,948,595:00:0	
126	99	102	02:15:33.066		DMS: : *RUNUP	P7, TRACK *4, *REV, TIC * 360.73 +/-	400	4	0	4,948,595:01:8	
127	99	102	02:15:34.466		DMS: : *AT_SPD	P7, TRACK 4, REV, TIC * 360.61 +/-	400	4	0	4,948,595:03:9	
128	99	102	02:27:00.266		DMS: : *REVERSE	P7, TRACK 4, REV, TIC * 199.87 +/-	400	4	0	4,948,606:33:6	
129	99	102	02:27:01.466		DMS: : *RUNUP	P7, TRACK 1, FWD, TIC 199.81 +/-	400	4	0	4,948,606:33:4	
130	99	102	02:27:01.466		DMS: : *TURNARND	P7, TRACK *1, *FWD, TIC * 199.81 +/-	400	4	0	4,948,606:33:4	
131	99	102	02:27:02.866		DMS: : *AT_SPD	P7, TRACK 1, FWD, TIC * 199.93 +/-	400	4	0	4,948,606:35:5	
132	99	102	02:27:14.866		DMS: : *AUTOSTOP	P7, TRACK 1, FWD, TIC * 202.06 +/-	400	4	0	4,948,606:53:5	
133	99	102	02:27:16.066		DMS: : *READY	RDY, TRACK 1, FWD, TIC * 202.12 +/-	400	4	0	4,948,606:55:3	
134	99	102	02:41:03.866	20UJZ4A	<b>7SAFE STOP</b>	S/P NO MOVEMENT	400	4	0	4,948,620:23:0	
135	99	102	02:41:53.866	20UJZ4B	7SLEW DIS,POS,0.0	Stator movement	400	4	0	4,948,621:07:0	
136	99	102	02:44:51.200	176WJ6A	6TMREC <b>RPB</b>	RESUME PLAYBACK (PB CONTROL) Record Mode	400	4	0	4,948,624:00:0	
137	99	102	04:28:31.866	488AG6C	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,948,726:49:0	
138	99	102	06:41:47.866	488AH6A	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,948,858:31:0	
139	99	102	07:18:19.200	488AH6B	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,948,894:42:0	
140	99	102	09:05:43.200	488AH6C	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,949,000:62:0	
141	99	102	14:38:33.200	488A6A	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,949,329:78:0	
142	99	103	06:26:49.800	488AJ6A	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,950,267:65:0	
143	99	103	06:38:17.133	488AJ6B	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,950,279:04:0	
144	99	103	08:25:41.133	488AJ6C	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,950,385:24:0	
145	99	103	11:43:33.800	488AJ6D	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,950,580:88:0	
146	99	103	14:40:04.466	488AK6A	6TMSED FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,950,755:49:0	
147	99	103	14:52:31.133	488AK6B	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,950,767:77:0	
148	99	103	16:04:59.800	488AK6C	6TMSED NORM,AH2	Sci, Eng, and D/L Chan	400	4	0	4,950,839:48:0	
149	99	103	16:08:30.466	176TC6A	6TMREC <b>PPB</b>	PAUSE PLAYBACK (PB CONTROL) Record Mode C	400	4	0	4,950,843:00:0	
150	99	103	16:34:29.800	20SY4I	<b>7MODE INT</b>	AACS INERTIAL MODE	400	4	0	4,950,868:64:0	
151	99	103	16:49:29.800	20SY4K	7SLEW INIT,POS,17.45	Stator movement	400	4	0	4,950,883:49:0	
152	99	103	17:01:29.800	20SY4L	7SLEW DIS,POS,0.0	Stator movement	400	4	0	4,950,895:37:0	
153	99	103	17:08:29.800	20SY4M	7SLEW INIT,NEG,17.45	Stator movement	400	4	0	4,950,902:30:0	
154	99	103	17:20:29.800	20SY4N	7SLEW DIS,POS,0.0	Stator movement	400	4	0	4,950,914:18:0	
155	99	103	17:27:29.800	20SY4O	7SLEW INIT,POS,4.36	Stator movement	400	4	0	4,950,921:11:0	
156	99	103	17:39:29.800	20SY4P	7SLEW DIS,POS,0.0	Stator movement	400	4	0	4,950,932:90:0	
157	99	103	17:46:29.800	20SY4Q	7SLEW INIT,NEG,4.36	Stator movement	400	4	0	4,950,939:83:0	
158	99	103	17:58:29.800	20SY4R	7SLEW DIS,POS,0.0	Stator movement	400	4	0	4,950,951:71:0	
159	99	103	18:05:29.800	20SY4S	<b>7CONE 17.45,0.0</b>	Check S/P Position	400	4	0	4,950,958:64:0	
160	99	103	18:11:29.800	20SY4T	<b>7CONE 17.45,180.0</b>	Check S/P Position	400	4	0	4,950,964:58:0	
161	99	103	18:17:29.800	20SY4U	<b>7SAFE UNSTOW</b>	S/P TO 153 deg cone	400	4	0	4,950,970:52:0	
162	99	103	18:26:29.800	20SY4AH	<b>7MODE CRU</b>	AACS CRUISE MODE	400	4	0	4,950,979:43:0	
163	99	103	18:40:03.800	20SK4A	<b>7SAFE STOP</b>	S/P NO MOVEMENT	400	4	0	4,950,992:81:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
164	99	103	18:40:53.800	20SK4B	7SLEW	DIS,POS,0.0	Stator movement	400	4	0	4,950,993:65:0	
165	99	103	18:42:11.800	176TD6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	400	4	0	4,950,995:00:0	
166	99	103	18:43:59.800	488AK6D	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,950,996:71:0	
167	99	103	19:38:31.133	488AK6E	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,951,050:64:0	
168	99	103	20:30:49.800	488AL6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,951,102:40:0	
169	99	104	04:46:14.400	488AM6A	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,951,592:37:0	
170	99	104	04:57:40.400	488AM6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,951,603:65:0	
171	99	104	05:33:56.400	488AM6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,951,639:53:0	
172	99	104	16:50:51.733	488AN6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,952,309:06:0	
173	99	104	18:13:11.733	488AN6B	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,952,390:45:0	
174	99	104	19:00:29.733	488AN6C	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,952,437:25:0	
175	99	104	19:33:33.733	488AN6D	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,952,469:89:0	
176	99	104	20:25:51.733	488AN6E	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,952,521:64:0	
177	99	104	21:13:11.733	488AO6A	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,952,568:47:0	
178	99	104	22:00:29.733	488AO6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,952,615:27:0	
179	99	105	00:05:24.400	488AO6C	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,952,738:76:0	
180	99	105	01:13:40.400	488AO6D	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,952,806:32:0	
181	99	105	04:56:15.066	488AP6A	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,953,026:44:0	
182	99	105	04:57:40.400	488AP6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,953,027:81:0	
183	99	105	05:36:04.400	488AP6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,953,065:79:0	
184	99	105	20:15:53.666	488AQ6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,953,936:02:0	
185	99	105	23:16:20.333	488AQ6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,954,114:44:0	
186	99	106	01:58:28.333	488AQ6C	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,954,274:76:0	
187	99	106	02:52:59.000	488AR6A	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,954,328:68:0	
188	99	106	03:08:52.333	488AR6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,954,344:42:0	
189	99	106	06:36:56.333	488AR6C	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,954,550:22:0	
190	99	106	07:18:11.666	488AR6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,954,591:04:0	
191	99	106	09:05:36.333	488AS6A	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,954,697:25:0	
192	99	106	12:13:39.000	488AS6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,954,883:23:0	
193	99	106	13:21:56.333	488AS6C	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,954,950:72:0	
194	99	106	13:48:11.000	488AS6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,954,976:68:0	
195	99	106	15:16:20.333	488AT6A	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,955,063:85:0	
196	99	106	15:26:14.333	488AT6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,955,073:66:0	
197	99	106	15:53:00.333	488AT6C	6TMSED	NORM,AH2	Sci, Eng, and D/L Chan	400	4	0	4,955,100:18:0	
198	99	106	15:57:51.666	176TL6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	400	4	0	4,955,105:00:0	
199	99	106	16:06:00.333	20WF4C	7STAT	17.45,198.35,-3.	Stator inertial point	400	4	0	4,955,113:05:0	
200	99	106	16:25:02.333	490UD412A4B	7MODE	INT	AACS INERTIAL MODE	400	4	0	4,955,131:80:0	
201	99	106	16:30:00.333	490UD412A4D	7SAFE	UNSTOW	S/P TO 153 deg cone	400	4	0	4,955,136:72:0	
202	99	106	16:30:20.333	20WF4D	7STAT	17.45,198.35,-3.	Stator inertial point	400	4	0	4,955,137:11:0	
203	99	106	16:34:10.333	490UD412A4E	7VECT		Inert vect update UTC	400	4	0	4,955,140:83:0	
204	99	106	16:34:14.333	490UD412A4F	7TURN	2,RTH	ALERT Thruster	400	4	0	4,955,140:89:0	
205	99	106	16:38:02.333	490UD412A406A4A	7STAR	11,701,278.81	Star catalog update	400	4	0	4,955,144:67:0	
206	99	106	16:38:04.333	490UD412A406A4B	7STAR	2,332,275.21	Star catalog update	400	4	0	4,955,144:70:0	
207	99	106	16:38:06.333	490UD412A406A4C	7STAR	3,350,120.46	Star catalog update	400	4	0	4,955,144:73:0	
208	99	106	16:38:08.333	490UD412A406A4D	7STAR	4,875,114,162.5.	Star catalog update	400	4	0	4,955,144:76:0	
209	99	106	16:38:10.333	490UD412A406A4E	7STAR	5,111,257.16	Star catalog update	400	4	0	4,955,144:79:0	
210	99	106	16:38:12.333	490UD412A406A4F	7STAR	6.0,0.0,0.0	Star catalog update	400	4	0	4,955,144:82:0	
211	99	106	16:48:06.333	20WF4F	7SLEW	DIS,POS,0.0	Stator movement	400	4	0	4,955,154:63:0	
212	99	106	16:56:10.333	490UD412A4G	7MODE	CRU	AACS CRUISE MODE	400	4	0	4,955,162:61:0	
213	99	106	16:58:44.333	488AT6D	6TMSED	NORM,AH1	Sci, Eng, and D/L Chan	400	4	0	4,955,165:19:0	
214	99	106	18:25:00.266	480UD6A	6MROH	7,6960,13,A10	read from AACSA7,6960,13,A1	400	4	0	4,955,250:48:0	
215	99	106	18:30:04.266	20UC4A	7SAFE	STOP	S/P NO MOVEMENT	400	4	0	4,955,255:49:0	
216	99	106	18:30:54.266	20UC4B	7SLEW	DIS,POS,0.0	Stator movement	400	4	0	4,955,256:33:0	
217	99	106	18:32:33.600	176TM6A	6TMREC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	400	4	0	4,955,258:00:0	
218	99	106	18:43:40.266	480UD6B	6MROH	7,6960,13,A10	read from AACSA7,6960,13,A1	400	4	0	4,955,268:90:0	

Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MF I
219	99	106	19:02:20.266	480UD6C	6MROH 7.6960,13,A10	read from AACSA7.6960,13,A1	400	4	0	4,955,287:41:0	
220	99	106	19:03:40.933	488AT6E	6TMSED FILL,AH1	Sci, Eng, and D/L Chan	400	4	0	4,955,288:71:0	
221	99	106	19:21:00.266	488AU6A	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,955,305:83:0	
222	99	106	20:16:56.933	488AU6B	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,955,361:22:0	
223	99	106	20:33:10.933	488AU6C	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,955,377:27:0	
224	99	106	22:25:34.933	488AU6D	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,955,488:42:0	
225	99	107	04:23:42.266	488AV6A	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,955,842:59:0	
226	99	107	09:05:34.266	488AV6B	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,956,121:38:0	
227	99	107	14:38:42.933	488AW6A	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,956,450:82:0	
228	99	107	20:01:58.933	488AW6B	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,956,770:56:0	
229	99	107	20:10:44.266	488AW6C	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,956,779:25:0	
230	99	107	23:16:20.266	488AX6A	6TMSED NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,956,962:76:0	
231	99	108	01:43:32.200	488AX6B	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,957,108:38:0	
232	99	108	02:00:16.866	431YL6A	6RCDSL	Record Deselect (DDS o	400	4	0	4,957,124:89:0	
233	99	108	02:04:04.866	20YC6A	6HICON	Record Deselect (DDS o	400	4	0	4,957,128:67:0	
234	99	108	02:04:20.866	431YM6A	6RCSEL	Record Select (DDS onl	400	4	0	4,957,129:00:0	
235	99	108	04:47:10.200	488AX6C	6TMSED FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,957,290:03:0	
236	99	108	04:49:08.200	488AX6D	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,957,291:89:0	
237	99	108	13:27:00.866	488AY6A	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,957,804:15:0	
238	99	108	13:48:06.866	488AY6B	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,957,825:03:0	
239	99	108	15:35:30.866	488AY6C	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,957,931:23:0	
240	99	108	16:11:48.200	488AY6D	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,957,967:13:0	
241	99	108	18:08:08.200	488AY6E	6TMSED FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,958,082:18:0	
242	99	108	18:24:04.200	488AZ6A	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,958,097:87:0	
243	99	108	22:20:30.200	488AZ6B	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,958,331:72:0	
244	99	109	04:23:46.866	488BA6A	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,958,691:07:0	
245	99	109	08:07:02.866	488BA6B	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,958,911:81:0	
246	99	109	08:48:04.866	488BA6C	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,958,952:43:0	
247	99	109	10:35:28.800	488BB6A	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,959,058:63:0	
248	99	109	14:53:48.133	488BB6B	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,959,314:16:0	
249	99	110	13:17:06.133	488BC6A	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,960,642:65:0	
250	99	110	13:43:00.800	488BC6B	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,960,668:31:0	
251	99	110	15:27:00.133	488BC6C	6TMSED FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,960,771:17:0	
252	99	110	15:28:34.133	488BC6D	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,960,772:67:0	
253	99	110	19:18:25.400	488BD6A	6TMSED FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,961,000:06:0	
254	99	110	19:34:28.066	488BD6B	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,961,015:85:0	
255	99	110	20:07:07.400	488BD6C	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,961,048:21:0	
256	99	110	20:23:00.733	488BD6D	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,961,063:86:0	
257	99	110	22:15:25.400	488BD6E	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,961,175:11:0	
258	99	110	23:16:20.066	488BE6A	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,961,235:33:0	
259	99	111	01:28:36.066	488BE6B	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,961,366:16:0	
260	99	111	04:18:52.066	488BE6C	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,961,534:52:0	
261	99	111	20:02:10.066	488BF6A	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,962,467:46:0	
262	99	111	20:27:58.066	488BF6B	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,962,493:02:0	
263	99	111	22:15:22.066	488BF6C	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,962,599:22:0	
264	99	111	22:35:48.066	488BF6D	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,962,619:41:0	
265	99	112	01:58:28.000	488BF6E	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,962,819:81:0	
266	99	112	04:18:55.333	488BG6A	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,962,958:73:0	
267	99	112	19:57:13.333	488BH6A	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,963,886:72:0	
268	99	112	20:27:55.333	488BH6B	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,963,917:14:0	
269	99	112	22:12:20.000	488BH6C	6TMSED FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,964,020:38:0	
270	99	112	22:13:43.333	488BH6D	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,964,021:72:0	
271	99	113	02:19:48.000	488BI6A	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,964,265:15:0	
272	99	113	04:18:58.000	488BI6B	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,964,383:02:0	
273	99	113	13:02:15.266	488BJ6A	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,964,900:51:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
274	99	113	13:32:51.933	488BJ6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,964,930.76:0	
275	99	113	14:48:35.933	488BJ6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,965,005.67:0	
276	99	113	15:01:27.933	488BJ6D	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,965,018.42:0	
277	99	113	18:12:47.933	488BJ6E	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,965,207.63:0	
278	99	113	18:28:19.933	488BK6A	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,965,223.05:0	
279	99	113	21:50:59.933	488BK6B	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,965,423.45:0	
280	99	113	21:56:53.933	488BK6C	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,965,429.30:0	
281	99	114	02:34:43.933	488BL6A	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,965,704.10:0	
282	99	114	04:14:00.600	488BL6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,965,802.27:0	
283	99	114	07:07:17.933	488BL6C	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,965,973.62:0	
284	99	114	07:47:49.933	488BL6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,966,013.70:0	
285	99	114	09:05:07.933	488BM6A	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,966,090.20:0	
286	99	114	09:17:22.600	488BM6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,966,102.30:0	
287	99	114	11:49:23.933	488BM6C	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,966,252.62:0	
288	99	114	14:24:03.266	488BM6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,966,405.58:0	
289	99	114	15:05:39.933	488BN6A	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,966,446.72:0	
290	99	114	19:46:17.866	488BN6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,966,724.31:0	
291	99	114	21:27:31.866	488BO6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,966,824.42:0	
292	99	115	02:49:39.866	488BO6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,967,143.05:0	
293	99	115	04:11:22.533	488BP6A	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,967,223.79:0	
294	99	115	04:38:27.866	488BP6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,967,250.60:0	
295	99	115	05:14:43.866	488BP6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,967,286.48:0	
296	99	115	06:51:19.866	488BP6D	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,967,382.06:0	
297	99	115	08:12:42.533	488BP6E	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,967,462.50:0	
298	99	115	09:00:01.200	488BQ6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,967,509.31:0	
299	99	115	10:02:43.866	488BQ6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,967,571.33:0	
300	99	115	10:49:39.866	488BQ6C	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,967,617.71:0	
301	99	115	12:14:02.533	488BQ6D	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,967,701.21:0	
302	99	115	13:21:21.200	488BQ6E	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,967,767.73:0	
303	99	115	13:42:41.200	488BR6A	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,967,788.82:0	
304	99	115	14:25:07.866	488BR6B	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	400	4	0	4,967,830.80:0	
305	99	115	14:31:25.200	488BR6C	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,967,837.09:0	
306	99	115	19:13:07.866	488BR6D	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,968,115.65:0	
307	99	115	19:36:35.866	488BR6E	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,968,138.84:0	
308	99	115	20:06:27.866	488BS6A	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	400	4	0	4,968,168.42:0	
309	99	115	20:50:59.200	488BS6B	6TMSED	FILL,AL4	Sci, Eng, and D/L Chan	400	4	0	4,968,212.45:0	
310	99	115	21:24:38.533	488BS6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	400	4	0	4,968,245.71:0	
311	99	116	03:57:55.800	488BT6A	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,968,634.68:0	
312	99	116	04:34:11.800	488BT6B	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,968,670.56:0	
313	99	116	04:39:53.800	488BT6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,968,676.23:0	
314	99	116	04:53:23.800	488BT6D	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,968,689.55:0	
315	99	116	05:29:39.800	488BT6E	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,968,725.43:0	
316	99	116	06:21:23.800	488BU6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,968,776.58:0	
317	99	116	07:42:39.133	488BU6B	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,968,857.00:0	
318	99	116	08:29:57.800	488BU6C	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,968,903.72:0	
319	99	116	08:30:59.800	488BU6D	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,968,904.74:0	
320	99	116	12:04:19.800	488BU6E	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,969,115.73:0	
321	99	116	14:22:59.800	488BV6A	6TMSED	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,969,252.86:0	
322	99	116	14:54:09.800	488BV6B	6TMSED	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,969,283.70:0	
323	99	116	15:37:39.800	488BV6C	6TMSED	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,969,326.72:0	
324	99	117	12:41:29.066	488BW6A	6TMSED	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,970,576.66:0	
325	99	117	12:51:15.733	488BW6B	6TMSED	NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,970,586.36:0	
326	99	117	13:46:43.733	488BW6C	6TMSED	NORM,AL4	Sci, Eng, and D/L Chan	400	4	0	4,970,641.23:0	
327	99	117	18:27:33.733	176WX6A	6TMREC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	400	4	0	4,970,919.00:0	
328	99	117	18:31:59.733	20UV4B	7SLEW	DIS,POS:0.0	Stator movement	400	4	0	4,970,923.35:0	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
329	99	117	18:32:59.733	20UV4D	7MODE	SPNL	AACS ALL-SPIN LOW	400	4	0	4,970,924:34:0	
330	99	117	18:34:59.733	20UV4E	7SAFE	UNSTOW	S/P TO 153 deg cone	400	4	0	4,970,926:33:0	
331	99	117	18:40:29.733	20UV4G	7VENT	0.611,1.333,8	ALERT -- Thruster fire	400	4	0	4,970,931:72:0	
332	99	117	18:40:30.400	20UV4H	7VENT	0.611,10.989,8	ALERT -- Thruster fire	400	4	0	4,970,931:73:0	
333	99	117	18:40:50.400	20UV4I	7VENT	0.611,1.333,6	ALERT -- Thruster fire	400	4	0	4,970,932:12:0	
334	99	117	18:40:51.066	20UV4J	7VENT	0.611,10.989,6	ALERT -- Thruster fire	400	4	0	4,970,932:13:0	
335	99	117	18:41:11.066	20UV4K	7VENT	0.611,1.333,4	ALERT -- Thruster fire	400	4	0	4,970,932:43:0	
336	99	117	18:41:11.733	20UV4L	7VENT	0.611,0.666,5	ALERT -- Thruster fire	400	4	0	4,970,932:44:0	
337	99	117	18:41:21.733	20UV4M	7VENT	0.611,1.333,4	ALERT -- Thruster fire	400	4	0	4,970,932:59:0	
338	99	117	18:41:22.400	20UV4N	7VENT	0.611,0.666,5	ALERT -- Thruster fire	400	4	0	4,970,932:60:0	
339	99	117	18:41:32.400	20UV4O	7VENT	1.211,1.333,10	ALERT -- Thruster fire	400	4	0	4,970,932:75:0	
340	99	117	18:41:33.066	20UV4P	7VENT	1.211,0.666,12	ALERT -- Thruster fire	400	4	0	4,970,932:76:0	
341	99	117	18:43:19.733	20UV4S	7VENT	0.611,1.333,7	ALERT -- Thruster fire	400	4	0	4,970,934:54:0	
342	99	117	18:43:20.400	20UV4T	7VENT	0.611,10.989,7	ALERT -- Thruster fire	400	4	0	4,970,934:55:0	
343	99	117	18:43:40.400	20UV4U	7VENT	0.611,1.333,1	ALERT -- Thruster fire	400	4	0	4,970,934:85:0	
344	99	117	18:43:41.066	20UV4V	7VENT	0.611,10.989,1	ALERT -- Thruster fire	400	4	0	4,970,934:86:0	
345	99	117	18:44:01.066	20UV4AC	7VENT	0.611,1.333,2	ALERT -- Thruster fire	400	4	0	4,970,935:25:0	
346	99	117	18:44:01.733	20UV4AD	7VENT	0.611,0.666,3	ALERT -- Thruster fire	400	4	0	4,970,935:26:0	
347	99	117	18:44:11.733	20UV4AE	7VENT	0.611,1.333,2	ALERT -- Thruster fire	400	4	0	4,970,935:41:0	
348	99	117	18:44:12.400	20UV4AF	7VENT	0.611,0.666,3	ALERT -- Thruster fire	400	4	0	4,970,935:42:0	
349	99	117	18:44:22.400	20UV4AW	7VENT	1.211,1.333,9	ALERT -- Thruster fire	400	4	0	4,970,935:57:0	
350	99	117	18:44:23.066	20UV4AX	7VENT	1.211,0.666,11	ALERT -- Thruster fire	400	4	0	4,970,935:58:0	
351	99	117	18:45:19.733	20UV4Z	7MODE	CRU	AACS CRUISE MODE	400	4	0	4,970,936:52:0	
352	99	117	19:10:03.733	20WX4A	7SAFE	STOP	S/P NO MOVEMENT	400	4	0	4,970,961:03:0	
353	99	117	19:10:53.733	20WX4B	7SLEW	DIS,POS,0.0	Stator movement	400	4	0	4,970,961:78:0	
354	99	117	19:12:03.066	176WY6A	6TMSEC	RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	400	4	0	4,970,963:00:0	
355	99	117	19:16:39.733	488BX6A	6TMSEC	FILL,AL4	Sci, Eng, and D/L Chan	400	4	0	4,970,967:51:0	
356	99	117	19:23:47.733	488BX6B	6TMSEC	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,970,974:56:0	
357	99	117	20:06:29.733	488BX6C	6TMSEC	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,971,016:77:0	
358	99	117	20:32:33.066	488BX6D	6TMSEC	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,971,042:56:0	
359	99	117	21:06:11.733	488BX6E	6TMSEC	FILL,AL3	Sci, Eng, and D/L Chan	400	4	0	4,971,075:81:0	
360	99	117	21:14:51.733	488BY6A	6TMSEC	NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,971,084:42:0	
361	99	117	23:59:11.733	432MC431A6A	6RCDSL	DDSDSL,PLSNCG,EP	Record Deselect (DDS o	400	4	0	4,971,246:90:0	
362	99	117	23:59:12.400	432MC6A	6RTSL1		R/T Select of DDS and	400	4	0	4,971,247:00:0	
363	99	118	02:53:55.733	488BY6B	6TMSEC	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,971,419:73:0	
364	99	118	04:00:03.733	488BZ6A	6TMSEC	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,971,485:19:0	
365	99	118	04:09:17.066	488BZ6B	6TMSEC	FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,971,494:30:0	
366	99	118	12:32:33.733	488CA6A	6TMSEC	NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,971,992:07:0	
367	99	118	12:51:15.733	488CA6B	6TMSEC	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,972,010:52:0	
368	99	118	13:41:45.066	488CA6C	6TMSEC	FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,972,060:46:0	
369	99	118	13:46:43.733	488CA6D	6TMSEC	FILL,AL3	Sci, Eng, and D/L Chan	400	4	0	4,972,065:39:0	
370	99	118	14:20:48.400	488CA6E	6TMSEC	NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,972,099:12:0	
371	99	118	19:04:35.666	488CB6A	6TMSEC	NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,972,379:73:0	
372	99	118	19:30:11.666	488CB6B	6TMSEC	NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,972,405:11:0	
373	99	118	19:47:15.666	488CB6C	6TMSEC	NORM,AL4	Sci, Eng, and D/L Chan	400	4	0	4,972,422:00:0	
374	99	118	20:45:47.000	488CB6D	6TMSEC	FILL,AL4	Sci, Eng, and D/L Chan	400	4	0	4,972,479:80:0	
375	99	118	21:19:26.333	488CB6E	6TMSEC	NORM,AL4	Sci, Eng, and D/L Chan	400	4	0	4,972,513:15:0	
376	99	118	22:05:00.333	488CC6A	6TMSEC	NORM,AH4	Sci, Eng, and D/L Chan	400	4	0	4,972,558:21:0	
377	99	118	22:08:49.000	176NV6A	6TMSEC	PPB	PAUSE PLAYBACK (PB CONTROL) Record Mode C	400	4	0	4,972,562:00:0	
378	99	118	22:39:00.333	20SV4I	7MODE	INT	AACS INERTIAL MODE	400	4	0	4,972,591:78:0	
379	99	118	22:54:00.333	20SV4K	7SLEW	INIT,POS,17.45	Stator movement	400	4	0	4,972,606:63:0	
380	99	118	23:06:00.333	20SV4L	7SLEW	DIS,POS,0.0	Stator movement	400	4	0	4,972,618:51:0	
381	99	118	23:13:00.333	20SV4M	7SLEW	INIT,NEG,17.45	Stator movement	400	4	0	4,972,625:44:0	
382	99	118	23:25:00.333	20SV4N	7SLEW	DIS,POS,0.0	Stator movement	400	4	0	4,972,637:32:0	
383	99	118	23:37:00.333	20SV4AH	7MODE	CRU	AACS CRUISE MODE	400	4	0	4,972,649:20:0	



Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MF I
384	99	118	23:53:04.333	20SU4A	7SAFE STOP	S/P NO MOVEMENT	400	4	0	4,972,665:10:0	
385	99	118	23:53:54.333	20SU4B	7SLEW DIS,POS,0.0	Stator movement	400	4	0	4,972,665:85:0	
386	99	118	23:54:59.000	176TE6A	6TMREC RPB	RESUME PLAYBACK (PB CONTROL) Record Mode	400	4	0	4,972,667:00:0	
387	99	119	00:13:00.333	488CC6B	6TMSED NORM,AL4	Sci, Eng, and D/L Chan	400	4	0	4,972,684:75:0	
388	99	119	04:04:19.666	488CC6C	6TMSED NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,972,913:55:0	
389	99	119	04:29:55.666	488CD6A	6TMSED NORM,AL1	Sci, Eng, and D/L Chan	400	4	0	4,972,938:84:0	
390	99	119	05:42:27.666	488CD6B	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,973,010:60:0	
391	99	119	06:12:26.333	488CD6C	6TMSED FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,973,040:28:0	
392	99	119	06:59:45.000	488CD6D	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,973,087:09:0	
393	99	119	07:12:03.666	488CD6E	6TMSED NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,973,099:25:0	
394	99	119	10:10:14.333	488CE6A	6TMSED FILL,AL3	Sci, Eng, and D/L Chan	400	4	0	4,973,275:45:0	
395	99	119	10:19:47.666	488CE6B	6TMSED FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,973,284:86:0	
396	99	119	19:51:39.000	488CF6A	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,973,850:47:0	
397	99	119	20:42:43.666	488CF6B	6TMSED NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,973,901:03:0	
398	99	119	20:48:38.333	488CF6C	6TMSED FILL,AL3	Sci, Eng, and D/L Chan	400	4	0	4,973,906:80:0	
399	99	119	21:25:42.333	488CF6D	6TMSED NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,973,943:49:0	
400	99	120	00:00:00.333	481UC4A	7VECT	Inert vect update UTC	400	4	0	4,974,096:13:0	
401	99	120	03:04:35.600	488CG6A	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,974,278:64:0	
402	99	120	04:02:34.266	488CG6B	6TMSED FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,974,336:04:0	
403	99	120	04:04:19.600	488CG6C	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,974,337:71:0	
404	99	120	04:42:43.600	488CG6D	6TMSED FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,974,375:69:0	
405	99	120	12:46:41.600	488CH6A	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,974,854:37:0	
406	99	120	13:27:31.600	488CH6B	6TMSED NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,974,894:72:0	
407	99	120	13:43:34.266	488CH6C	6TMSED FILL,AL3	Sci, Eng, and D/L Chan	400	4	0	4,974,910:60:0	
408	99	120	14:20:38.266	488CH6D	6TMSED NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,974,947:29:0	
409	99	120	17:26:27.600	488CH6E	6TMSED NORM,AL4	Sci, Eng, and D/L Chan	400	4	0	4,975,131:09:0	
410	99	120	17:49:55.600	488CI6A	6TMSED NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,975,154:28:0	
411	99	120	19:00:19.600	488CI6B	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,975,223:85:0	
412	99	120	19:17:23.600	488CI6C	6TMSED NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,975,240:74:0	
413	99	120	19:36:35.600	488CI6D	6TMSED NORM,AL4	Sci, Eng, and D/L Chan	400	4	0	4,975,259:73:0	
414	99	120	20:35:38.266	488CI6E	6TMSED FILL,AL4	Sci, Eng, and D/L Chan	400	4	0	4,975,318:18:0	
415	99	120	21:09:17.600	488CJ6A	6TMSED NORM,AL4	Sci, Eng, and D/L Chan	400	4	0	4,975,351:44:0	
416	99	121	04:04:19.600	488CK6A	6TMSED NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,975,761:87:0	
417	99	121	04:23:48.933	488CK6B	6TMSED FILL,AL3	Sci, Eng, and D/L Chan	400	4	0	4,975,781:21:0	
418	99	121	04:29:55.600	488CK6C	6TMSED FILL,AL1	Sci, Eng, and D/L Chan	400	4	0	4,975,787:25:0	
419	99	121	05:06:11.600	488CK6D	6TMSED FILL,AL4	Sci, Eng, and D/L Chan	400	4	0	4,975,823:13:0	
420	99	121	05:11:06.266	176SQ6A	6TMREC TPB	TERMINATE PLAYBACK (PB CONTROL) Record Mo	400	4	0	4,975,828:00:0	
421	99	121	05:17:10.266	465BA6A	6DMST	5000 DMS Slew to TIC	400	4	0	4,975,834:00:0	
422	99	121	05:17:10.266		DMS: : *E4-DELAY	RDY, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,975,834:00:0	
423	99	121	05:17:10.266		DMS: : *SLEW-TIC	P7, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,975,834:00:0	
424	99	121	05:17:10.266		DMS: : *TURNARND	P7, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,975,834:00:0	
425	99	121	05:17:16.933		DMS: : *RUNUP	P7, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,975,834:10:0	
426	99	121	05:17:18.333		DMS: : *AT SPD	P7, TRACK 1, FWD, TIC *202.24 +/-	400	4	0	4,975,834:12:1	
427	99	121	07:16:25.600	488CK6E	6TMSED NORM,AL4	Sci, Eng, and D/L Chan	400	4	0	4,975,951:86:0	
428	99	121	10:58:19.000		DMS: : *RUNDOWN	P7, TRACK 1, FWD, TIC *4997.94 +/-	400	4	0	4,976,171:36:2	
429	99	121	10:58:20.200		DMS: : *READY	RDY, TRACK 1, FWD, TIC *4998.00 +/-	400	4	0	4,976,171:38:0	
430	99	121	11:10:51.533	465BB6A	6DMSC P100.4	DMS Control Tape P/B 100.8kbps	400	4	0	4,976,183:73:0	
431	99	121	11:10:51.533		DMS: : *US-RUNUP	P7, TRACK 1, FWD, TIC 4998.00 +/-	400	4	0	4,976,183:73:0	
432	99	121	11:10:52.933		DMS: : *US_AT_SP	P7, TRACK 1, FWD, TIC *4998.12 +/-	400	4	0	4,976,183:75:1	
433	99	121	11:10:58.200		DMS: : *US_RD	P7, TRACK 1, FWD, TIC *4999.35 +/-	400	4	0	4,976,183:83:0	
434	99	121	11:10:59.400		DMS: : *RUNUP	P100, TRACK 4, *REV, TIC *4999.41 +/-	400	4	0	4,976,183:84:8	
435	99	121	11:11:03.266		DMS: : *AT SPD	P100, TRACK 4, REV, TIC 4999.91 +/-	400	4	0	4,976,183:90:6	
436	99	121	11:11:03.266		DMS: : *P_SLEW	P100, TRACK 4, REV, TIC *4993.91 +/-	400	4	0	4,976,183:90:6	
437	99	121	11:36:43.533	465BB6B	6DMSC RDY,4	DMS Control Tape stop	400	4	0	4,976,209:35:0	
438	99	121	11:36:43.533		DMS: : *RUNDOWN	P100, TRACK 4, REV, TIC *255.79 +/-	400	4	0	4,976,209:35:0	

Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MF I
439	99	121	11:36:44.733		DMS: : *READY	RDY, TRACK 4, REV, TIC * 254.99 +/-	400	4	0	4,976,209,36:8	
440	99	121	12:12:51.533	488CL6A	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,976,245:11:0	
441	99	121	12:27:47.533	488CL6B	6TMSED NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,976,259:81:0	
442	99	121	13:06:11.533	488CL6C	6TMSED NORM,AL4	Sci, Eng, and D/L Chan	400	4	0	4,976,297:79:0	
443	99	121	13:40:35.533		DMS: : *US-RUNUP	P7, TRACK *1, *FWD, TIC 254.99 +/-	400	4	0	4,976,331:81:0	
444	99	121	13:40:35.533		DMS: : *DMS-TURN	P7, TRACK 4, REV, TIC 254.99 +/-	400	4	0	4,976,331:81:0	
445	99	121	13:40:35.533	465BC6A	6DTRN CMD,6DTRN,465BC6	DMS TRACK TURNAROUND	400	4	0	4,976,331:81:0	
446	99	121	13:40:36.933		DMS: : *US_AT_SP	P7, TRACK 1, FWD, TIC * 255.11 +/-	400	4	0	4,976,331:83:1	
447	99	121	13:40:42.200		DMS: : *US_RD	P7, TRACK 1, FWD, TIC * 256.34 +/-	400	4	0	4,976,332:00:0	
448	99	121	13:40:43.400		DMS: : *RUNUP	P7, TRACK *4, *REV, TIC * 256.40 +/-	400	4	0	4,976,332:01:8	
449	99	121	13:40:44.800		DMS: : *AT_SPD	P7, TRACK 4, REV, TIC * 256.28 +/-	400	4	0	4,976,332:03:9	
450	99	121	13:44:09.533	488CL6D	6TMSED NORM,MA4	Sci, Eng, and D/L Chan	400	4	0	4,976,335:38:0	
451	99	121	13:44:45.466		DMS: : *REVERSE	P7, TRACK 4, REV, TIC * 199.87 +/-	400	4	0	4,976,336:00:9	
452	99	121	13:44:46.666		DMS: : *TURNARND	P7, TRACK *1, *FWD, TIC * 199.81 +/-	400	4	0	4,976,336:02:7	
453	99	121	13:44:46.666		DMS: : *RUNUP	P7, TRACK 1, FWD, TIC 199.81 +/-	400	4	0	4,976,336:02:7	
454	99	121	13:44:48.066		DMS: : *AT_SPD	P7, TRACK 1, FWD, TIC * 199.93 +/-	400	4	0	4,976,336:04:8	
455	99	121	13:45:00.066		DMS: : *AUTOSTOP	P7, TRACK 1, FWD, TIC * 202.06 +/-	400	4	0	4,976,336:22:8	
456	99	121	13:45:01.266		DMS: : *READY	RDY, TRACK 1, FWD, TIC * 202.12 +/-	400	4	0	4,976,336:24:6	
457	99	121	13:50:38.200	465BD6A	6DMSC P100.1	DMS Control Tape P/B 100.8kbps	400	4	0	4,976,341:75:0	
458	99	121	13:50:38.200		DMS: : *E4-DELAY	RDY, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,976,341:75:0	
459	99	121	13:50:44.866		DMS: : *RUNUP	P100, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,976,341:85:0	
460	99	121	13:50:48.733		DMS: : *AT_SPD	P100, TRACK 1, FWD, TIC 207.62 +/-	400	4	0	4,976,341:90:8	
461	99	121	13:50:48.733		DMS: : *P_SLEW	P100, TRACK 1, FWD, TIC * 207.62 +/-	400	4	0	4,976,341:90:8	
462	99	121	14:22:32.200		DMS: : *RUNDOWN	P100, TRACK 1, FWD, TIC * 6063.01 +/-	400	4	0	4,976,373:34:0	
463	99	121	14:22:32.200	465BD6B	6DMSC RDY,1	DMS Control Tape stop	400	4	0	4,976,373:34:0	
464	99	121	14:22:33.400		DMS: : *READY	RDY, TRACK 1, FWD, TIC * 6063.81 +/-	400	4	0	4,976,373:35:8	
465	99	121	14:38:08.200		DMS: : *US-RUNUP	P7, TRACK 1, FWD, TIC 6063.81 +/-	400	4	0	4,976,388:73:0	
466	99	121	14:38:08.200	465BE6A	6DMSC P100.2	DMS Control Tape P/B 100.8kbps	400	4	0	4,976,388:73:0	
467	99	121	14:38:09.600		DMS: : *US_AT_SP	P7, TRACK 1, FWD, TIC * 6063.93 +/-	400	4	0	4,976,388:75:1	
468	99	121	14:38:14.866		DMS: : *US_RD	P7, TRACK 1, FWD, TIC * 6065.17 +/-	400	4	0	4,976,388:83:0	
469	99	121	14:38:16.066		DMS: : *RUNUP	P100, TRACK *2, *REV, TIC * 6065.23 +/-	400	4	0	4,976,388:84:8	
470	99	121	14:38:19.933		DMS: : *AT_SPD	P100, TRACK 2, REV, TIC 6059.73 +/-	400	4	0	4,976,388:90:6	
471	99	121	14:38:19.933		DMS: : *P_SLEW	P100, TRACK 2, REV, TIC 6059.73 +/-	400	4	0	4,976,388:90:6	
472	99	121	15:10:16.200	465BF6A	6DMSC P100.3	DMS Control Tape P/B 100.8kbps	400	4	0	4,976,420:53:0	
473	99	121	15:10:16.200		DMS: : *RUNDOWN	P100, TRACK 2, REV, TIC * 164.96 +/-	400	4	0	4,976,420:53:0	
474	99	121	15:10:17.400		DMS: : *RUNUP	P100, TRACK *3, *FWD, TIC * 164.16 +/-	400	4	0	4,976,420:54:8	
475	99	121	15:10:21.266		DMS: : *P_SLEW	P100, TRACK 3, FWD, TIC * 169.66 +/-	400	4	0	4,976,420:60:6	
476	99	121	15:10:21.266		DMS: : *AT_SPD	P100, TRACK 3, FWD, TIC 169.66 +/-	400	4	0	4,976,420:60:6	
477	99	121	15:42:16.866		DMS: : *RUNDOWN	P100, TRACK 3, FWD, TIC * 6062.38 +/-	400	4	0	4,976,452:22:0	
478	99	121	15:42:16.866	465BF6B	6DMSC RDY,3	DMS Control Tape stop	400	4	0	4,976,452:23:8	
479	99	121	15:42:18.066		DMS: : *READY	RDY, TRACK 3, FWD, TIC * 6063.18 +/-	400	4	0	4,976,452:23:8	
480	99	121	15:57:00.200		DMS: : *US-RUNUP	P7, TRACK *1, FWD, TIC 6063.18 +/-	400	4	0	4,976,466:73:0	
481	99	121	15:57:00.200	465BG6A	6DMSC P100.4	DMS Control Tape P/B 100.8kbps	400	4	0	4,976,466:73:0	
482	99	121	15:57:01.600		DMS: : *US_AT_SP	P7, TRACK 1, FWD, TIC * 6063.30 +/-	400	4	0	4,976,466:75:1	
483	99	121	15:57:06.866		DMS: : *US_RD	P7, TRACK 1, FWD, TIC * 6064.53 +/-	400	4	0	4,976,466:83:0	
484	99	121	15:57:08.066		DMS: : *RUNUP	P100, TRACK *4, *REV, TIC * 6064.59 +/-	400	4	0	4,976,466:84:8	
485	99	121	15:57:11.933		DMS: : *P_SLEW	P100, TRACK 4, REV, TIC * 6059.09 +/-	400	4	0	4,976,466:90:6	
486	99	121	15:57:11.933		DMS: : *AT_SPD	P100, TRACK 4, REV, TIC 6059.09 +/-	400	4	0	4,976,466:90:6	
487	99	121	16:29:07.533		DMS: : *RUNDOWN	P100, TRACK 4, REV, TIC * 166.38 +/-	400	4	0	4,976,498:52:0	
488	99	121	16:29:07.533	465BH6A	6DMSC P100.3	DMS Control Tape P/B 100.8kbps	400	4	0	4,976,498:52:0	
489	99	121	16:29:08.733		DMS: : *RUNUP	P100, TRACK *3, *FWD, TIC * 165.58 +/-	400	4	0	4,976,498:53:8	
490	99	121	16:29:12.600		DMS: : *AT_SPD	P100, TRACK 3, FWD, TIC 171.08 +/-	400	4	0	4,976,498:59:6	
491	99	121	16:29:12.600		DMS: : *P_SLEW	P100, TRACK 3, FWD, TIC * 171.08 +/-	400	4	0	4,976,498:59:6	
492	99	121	16:30:13.533	465BH6B	6DMSC RDY,3	DMS Control Tape stop	400	4	0	4,976,499:60:0	
493	99	121	16:30:13.533		DMS: : *RUNDOWN	P100, TRACK 3, FWD, TIC * 358.52 +/-	400	4	0	4,976,499:60:0	

Line	YR	DOY	SCET - GMT	PSID	Command Parameters	Description	GCM	GO	GS	RIM	MF I
494	99	121	16:30:14.733		DMS: : *READY	RDY, TRACK 3, FWD, TIC * 359.32 +/-	400	4	0	4,976,499:61:8	
495	99	121	16:30:59.533	488CL6E	6TMSED NORM,AL4	Sci, Eng, and D/L Chan	400	4	0	4,976,500:38:0	
496	99	121	16:44:43.533		DMS: : *READY	RDY, TRACK *4, *REV, TIC 359.32 +/-	400	4	0	4,976,514:00:0	
497	99	121	16:44:43.533	465B16A	6DMSC RDY,4	DMS Control Tape stop	400	4	0	4,976,514:00:0	
498	99	121	16:45:37.533		DMS: : *US-RUNUP	P7, TRACK *1, *FWD, TIC 359.32 +/-	400	4	0	4,976,514:81:0	
499	99	121	16:45:37.533		DMS: : *DMS-TURN	P7, TRACK 4, REV, TIC 359.32 +/-	400	4	0	4,976,514:81:0	
500	99	121	16:45:37.533	465BJ6A	6DTRN CMD,6DTRN,465BJ6	DMS TRACK TURNAROUND	400	4	0	4,976,514:81:0	
501	99	121	16:45:38.933		DMS: : *US AT SP	P7, TRACK 1, FWD, TIC * 359.44 +/-	400	4	0	4,976,514:83:1	
502	99	121	16:45:44.200		DMS: : *US RD	P7, TRACK 1, FWD, TIC * 360.67 +/-	400	4	0	4,976,515:00:0	
503	99	121	16:45:45.400		DMS: : *RUNUP	P7, TRACK *4, *REV, TIC * 360.73 +/-	400	4	0	4,976,515:01:8	
504	99	121	16:45:46.800		DMS: : *AT SPD	P7, TRACK 4, REV, TIC * 360.61 +/-	400	4	0	4,976,515:03:9	
505	99	121	16:57:12.600		DMS: : *REVERSE	P7, TRACK 4, REV, TIC * 199.87 +/-	400	4	0	4,976,526:31:6	
506	99	121	16:57:13.800		DMS: : *TURNARND	P7, TRACK *1, *FWD, TIC * 199.81 +/-	400	4	0	4,976,526:33:4	
507	99	121	16:57:13.800		DMS: : *RUNUP	P7, TRACK 1, FWD, TIC 199.81 +/-	400	4	0	4,976,526:33:4	
508	99	121	16:57:15.200		DMS: : *AT SPD	P7, TRACK 1, FWD, TIC * 199.93 +/-	400	4	0	4,976,526:35:5	
509	99	121	16:57:27.200		DMS: : *AUTOSTOP	P7, TRACK 1, FWD, TIC * 202.06 +/-	400	4	0	4,976,526:53:5	
510	99	121	16:57:28.400		DMS: : *READY	RDY, TRACK 1, FWD, TIC * 202.12 +/-	400	4	0	4,976,526:55:3	
511	99	121	19:00:19.533	488CM6A	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,976,648:10:0	
512	99	121	19:57:55.533	488CM6B	6TMSED NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,976,705:07:0	
513	99	121	20:28:27.533	488CM6C	6TMSED FILL,AL3	Sci, Eng, and D/L Chan	400	4	0	4,976,735:25:0	
514	99	121	21:05:31.533	488CM6D	6TMSED NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,976,771:85:0	
515	99	122	03:38:43.533	488CN6A	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,977,160:74:0	
516	99	122	03:59:08.200	465SA6A	6DMST	3700 DMS Slew to TIC	400	4	0	4,977,181:00:0	
517	99	122	03:59:08.200		DMS: : *TURNARND	P7, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,977,181:00:0	
518	99	122	03:59:08.200		DMS: : *SLEW-TIC	P7, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,977,181:00:0	
519	99	122	03:59:08.200		DMS: : *E4-DELAY	RDY, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,977,181:00:0	
520	99	122	03:59:14.866		DMS: : *RUNUP	P7, TRACK 1, FWD, TIC 202.12 +/-	400	4	0	4,977,181:10:0	
521	99	122	03:59:16.266		DMS: : *AT SPD	P7, TRACK 1, FWD, TIC * 202.24 +/-	400	4	0	4,977,181:12:1	
522	99	122	04:19:33.533	488CN6B	6TMSED FILL,AL2	Sci, Eng, and D/L Chan	400	4	0	4,977,201:18:0	
523	99	122	04:51:51.533	488CN6C	6TMSED NORM,AL2	Sci, Eng, and D/L Chan	400	4	0	4,977,233:13:0	
524	99	122	05:53:07.533	488CN6D	6TMSED NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,977,293:67:0	
525	99	122	05:58:25.533	488CN6E	6TMSED FILL,AL3	Sci, Eng, and D/L Chan	400	4	0	4,977,298:89:0	
526	99	122	06:45:29.533	488CO6A	6TMSED NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,977,345:48:0	
527	99	122	08:07:50.333		DMS: : *RUNDOWN	P7, TRACK 1, FWD, TIC * 3697.94 +/-	400	4	0	4,977,426:88:2	
528	99	122	08:07:51.533		DMS: : *READY	RDY, TRACK 1, FWD, TIC * 3698.00 +/-	400	4	0	4,977,426:90:0	
529	99	122	10:00:00.200	481UB4A	7VECT BB2	Inert vect update UTC	400	4	0	4,977,537:82:0	
530	99	122	11:23:00.200	488CO6B	6TMSED NORM,AL3	Sci, Eng, and D/L Chan	400	4	0	4,977,619:90:0	
531	99	122	12:00:03.533	488CO6C	6TMSED NORM,AH2	Sci, Eng, and D/L Chan	400	4	0	4,977,656:58:0	
532	99	122	12:46:59.533	488CP6A	6TMSED NORM,AH3	Sci, Eng, and D/L Chan	400	4	0	4,977,703:05:0	
533	99	122	13:28:23.533	488CP6B	6TMSED FILL,AH3	Sci, Eng, and D/L Chan	400	4	0	4,977,744:00:0	
534	99	122	14:10:27.533	488CP6C	6TMSED NORM,AH3	Sci, Eng, and D/L Chan	400	4	0	4,977,785:55:0	
535	99	122	15:07:47.533	488CP6D	6TMSED NORM,AH4	Sci, Eng, and D/L Chan	400	4	0	4,977,842:28:0	
536	99	122	16:31:00.133	488CP6E	6TMSED NORM,AL4	Sci, Eng, and D/L Chan	400	4	0	4,977,924:55:0	
537	99	122	16:35:00.133	41AC99A	POWER	Change to Data Taking Mode	400	4	0	4,977,928:51:0	
538	99	122	16:35:04.133	41AC3A	40T1PR	1 PCT Heater 1 OFF (primary relay)	400	4	0	4,977,928:57:0	
539	99	122	16:35:14.133	41AC3B	40T1PR	2 PCT Heater 1 OFF (primary relay)	400	4	0	4,977,928:72:0	
540	99	122	16:35:24.133	41AC3C	40T2R	1 PCT Heater 2 OFF	400	4	0	4,977,928:87:0	
541	99	122	16:35:34.133	41AC3D	40T2R	2 PCT Heater 2 OFF	400	4	0	4,977,929:11:0	
542	99	122	17:00:00.000	20A3FF	40T2R	PCT Heater 2 OFF	400	4	0	4,977,953:25:8	
543	99	122	17:00:00.000	20A3EW	37A	NIMS Power ON	400	4	0	4,977,953:25:8	
544	99	122	17:00:00.000	20A3EX	37HR	Replacement Heaters OFF	400	4	0	4,977,953:25:8	
545	99	122	17:00:00.000	20A3EY	37C1PR	Optics Heater 1 OFF (primary relay)	400	4	0	4,977,953:25:8	
546	99	122	17:00:00.000	20A3EZ	37C2PR	Optics Heater 2 OFF (primary relay)	400	4	0	4,977,953:25:8	
547	99	122	17:00:00.000	20A3FA	37F1PR	Radiator Flash Heater OFF (primary relay)	400	4	0	4,977,953:25:8	
548	99	122	17:00:00.000	20A3FB	37F2PR	Shield Flash Heater OFF (primary relay)	400	4	0	4,977,953:25:8	

Line	YR	DOY	SCET - GMT	PSID	Command	Parameters	Description	GCM	GO	GS	RIM	MF I
549	99	122	17:00:00.000	20A3FD	40HRPR	Final Condition	RCT Heater OFF (primary relay)	400	4	0	4,977,953:25:8	
550	99	122	17:00:00.000	20A3FE	40T1PR	Final Condition	PCT Heater 1 OFF (primary relay)	400	4	0	4,977,953:25:8	
551	99	122	17:00:00.133		DMS:	: READY	RDY, TRACK 1, FWD, TIC 3698.00 +/-	400	4	0	4,977,953:26:0	

# 19JNJUPRTS01

OAPEL: 19JNJUPRTS01                      ALIAS: 19JNJUPRTS01  
 EXT: R                                      PSID: LA  
 SCLK1: 04847531:00:0                    SCLK2: 04847540:12:0  
 SCET1: 1999-031/03:08:39.400         SCET2: 1999-031/03:17:53.400  
 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: 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  
 NWAVERTOT: 408                          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

WETGID: 0302408000                      03 02 408 000  
 WTGRP\_SIZ: 2

## EDIT TABLE

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

# 19JNJUPRTS02

```

OAPEL: 19JNJUPRTS02      ALIAS: 19JNJUPRTS02
EXT: R                    PSID: DC
SCLK1: 04847557:00:0     SCLK2: 04847561:12:0
SCET1: 1999-031/03:34:56.733  SCET2: 1999-031/03:39:07.400
TARGET: JUPITER          PARTITION: 1
  
```

```

MODE: 3                  GAIN: 4
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: 11001          MB_UP: 10011
COMP_FLAG: 0
EST_COMP: 0.0           EST_COMPV: 0.0
RATE_CON1: 00000       RATE_CON2: 00000
NWAVETOT: 204          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: 0303204000      03 03 204 000
WTGRP_SIZ: 3
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	000FF	0,0000,0000,1111,1111
1	000FF	0,0000,0000,1111,1111
2	000FF	0,0000,0000,1111,1111
3	000FF	0,0000,0000,1111,1111
4	000FF	0,0000,0000,1111,1111
5	000FF	0,0000,0000,1111,1111
6	000FF	0,0000,0000,1111,1111
7	000FF	0,0000,0000,1111,1111
8	000FF	0,0000,0000,1111,1111
9	000FF	0,0000,0000,1111,1111
10	000FF	0,0000,0000,1111,1111
11	000FF	0,0000,0000,1111,1111
12	001FF	0,0000,0001,1111,1111
13	001FF	0,0000,0001,1111,1111
14	001FF	0,0000,0001,1111,1111
15	001FF	0,0000,0001,1111,1111
16	001FF	0,0000,0001,1111,1111
17	001FF	0,0000,0001,1111,1111
18	001FF	0,0000,0001,1111,1111
19	001FF	0,0000,0001,1111,1111
20	001FF	0,0000,0001,1111,1111
21	001FF	0,0000,0001,1111,1111
22	001FF	0,0000,0001,1111,1111
23	001FF	0,0000,0001,1111,1111
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 19JNJUPRTS02

```

OAPEL: 19JNJUPRTS02      ALIAS: 19JNJUPRTS02
EXT: S                    PSID: DC
SCLK1: 04847564:00:0     SCLK2: 04847568:12:0
SCET1: 1999-031/03:42:01.400 SCET2: 1999-031/03:46:12.066
TARGET: JUPITER          PARTITION: 1
  
```

```

MODE: 3                  GAIN: 4
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: 11001          MB_UP: 10011
COMP_FLAG: 0
EST_COMP: 0.0          EST_COMPV: 0.0
RATE_CON1: 00000       RATE_CON2: 00000
NWAVETOT: 204          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: 0303204000      03 03 204 000
WTGRP_SIZ: 3
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	000FF	0,0000,0000,1111,1111
1	000FF	0,0000,0000,1111,1111
2	000FF	0,0000,0000,1111,1111
3	000FF	0,0000,0000,1111,1111
4	000FF	0,0000,0000,1111,1111
5	000FF	0,0000,0000,1111,1111
6	000FF	0,0000,0000,1111,1111
7	000FF	0,0000,0000,1111,1111
8	000FF	0,0000,0000,1111,1111
9	000FF	0,0000,0000,1111,1111
10	000FF	0,0000,0000,1111,1111
11	000FF	0,0000,0000,1111,1111
12	001FF	0,0000,0001,1111,1111
13	001FF	0,0000,0001,1111,1111
14	001FF	0,0000,0001,1111,1111
15	001FF	0,0000,0001,1111,1111
16	001FF	0,0000,0001,1111,1111
17	001FF	0,0000,0001,1111,1111
18	001FF	0,0000,0001,1111,1111
19	001FF	0,0000,0001,1111,1111
20	001FF	0,0000,0001,1111,1111
21	001FF	0,0000,0001,1111,1111
22	001FF	0,0000,0001,1111,1111
23	001FF	0,0000,0001,1111,1111
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 19JNHOTMAP01

```

OAPEL: 19JNHOTMAP01      ALIAS: 19JNHOTMAP01
EXT: A                    PSID: DB
SCLK1: 04848153:00:0     SCLK2: 04848162:55:0
SCET1: 99-031/13:37:34.066 SCET2: 99-031/13:47:17.400
TARGET: JUPITER          PARTITION: 1
  
```

```

MODE: 3                   GAIN: 4
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: 100           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: 0326100001      03 26 100 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	0000F	0,0000,0000,0000,1111
1	0000F	0,0000,0000,0000,1111
2	0000F	0,0000,0000,0000,1111
3	0000F	0,0000,0000,0000,1111
4	0000F	0,0000,0000,0000,1111
5	0000F	0,0000,0000,0000,1111
6	0000F	0,0000,0000,0000,1111
7	0000F	0,0000,0000,0000,1111
8	0000F	0,0000,0000,0000,1111
9	0000F	0,0000,0000,0000,1111
10	0000F	0,0000,0000,0000,1111
11	0000F	0,0000,0000,0000,1111
12	0000F	0,0000,0000,0000,1111
13	0000F	0,0000,0000,0000,1111
14	0000F	0,0000,0000,0000,1111
15	0000F	0,0000,0000,0000,1111
16	0000F	0,0000,0000,0000,1111
17	0000F	0,0000,0000,0000,1111
18	0000F	0,0000,0000,0000,1111
19	0000F	0,0000,0000,0000,1111
20	0001F	0,0000,0000,0001,1111
21	0001F	0,0000,0000,0001,1111
22	0001F	0,0000,0000,0001,1111
23	0001F	0,0000,0000,0001,1111
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000



# 19JNJUPNTB01

OAPEL: 19JNJUPNTB01                    ALIAS: 19JNJUPNTB01  
 EXT: A                                    PSID: DM  
 SCLK1: 04848164:00:0                  SCLK2: 04848174:01:0  
 SCET1: 99-031/13:48:41.400          SCET2: 99-031/13:58:48.733  
 TARGET: JUPITER                        PARTITION: 1

MODE: 3                                    GAIN: 4  
 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: 100                           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: 0326100001                      03 26 100 001  
 WTGRP\_SIZ: 26

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	0000F	0,0000,0000,0000,1111
1	0000F	0,0000,0000,0000,1111
2	0000F	0,0000,0000,0000,1111
3	0000F	0,0000,0000,0000,1111
4	0000F	0,0000,0000,0000,1111
5	0000F	0,0000,0000,0000,1111
6	0000F	0,0000,0000,0000,1111
7	0000F	0,0000,0000,0000,1111
8	0000F	0,0000,0000,0000,1111
9	0000F	0,0000,0000,0000,1111
10	0000F	0,0000,0000,0000,1111
11	0000F	0,0000,0000,0000,1111
12	0000F	0,0000,0000,0000,1111
13	0000F	0,0000,0000,0000,1111
14	0000F	0,0000,0000,0000,1111
15	0000F	0,0000,0000,0000,1111
16	0000F	0,0000,0000,0000,1111
17	0000F	0,0000,0000,0000,1111
18	0000F	0,0000,0000,0000,1111
19	0000F	0,0000,0000,0000,1111
20	0001F	0,0000,0000,0001,1111
21	0001F	0,0000,0000,0001,1111
22	0001F	0,0000,0000,0001,1111
23	0001F	0,0000,0000,0001,1111
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 19JNHOTMAP02

OAPEL: 19JNHOTMAP02                    ALIAS: 19JNHOTMAP02  
 EXT: A                                    PSID: DD  
 SCLK1: 04848181:00:0                   SCLK2: 04848190:55:0  
 SCET1: 99-031/14:05:52.733            SCET2: 99-031/14:15:36.066  
 TARGET: JUPITER                        PARTITION: 1

MODE: 3                                  GAIN: 4  
 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: 100                           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

WETGID: 0326100001                      03 26 100 001  
 WTGRP\_SIZ: 26

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	0000F	0,0000,0000,0000,1111
1	0000F	0,0000,0000,0000,1111
2	0000F	0,0000,0000,0000,1111
3	0000F	0,0000,0000,0000,1111
4	0000F	0,0000,0000,0000,1111
5	0000F	0,0000,0000,0000,1111
6	0000F	0,0000,0000,0000,1111
7	0000F	0,0000,0000,0000,1111
8	0000F	0,0000,0000,0000,1111
9	0000F	0,0000,0000,0000,1111
10	0000F	0,0000,0000,0000,1111
11	0000F	0,0000,0000,0000,1111
12	0000F	0,0000,0000,0000,1111
13	0000F	0,0000,0000,0000,1111
14	0000F	0,0000,0000,0000,1111
15	0000F	0,0000,0000,0000,1111
16	0000F	0,0000,0000,0000,1111
17	0000F	0,0000,0000,0000,1111
18	0000F	0,0000,0000,0000,1111
19	0000F	0,0000,0000,0000,1111
20	0001F	0,0000,0000,0001,1111
21	0001F	0,0000,0000,0001,1111
22	0001F	0,0000,0000,0001,1111
23	0001F	0,0000,0000,0001,1111
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 19JNJUPNTB02

```

OAPEL:  19JNJUPNTB02      ALIAS:  19JNJUPNTB02
EXT:    A                  PSID:    DN
SCLK1:  04848192:00:0     SCLK2:  04848211:86:0
SCET1:  99-031/14:17:00.066 SCET2:  99-031/14:37:10.066
TARGET: JUPITER          PARTITION: 1
    
```

```

MODE:    3                  GAIN:    4
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_COMPV: 0.3
EST_COMP:  2.0            RATE_CON2: 65525
RATE_CON1: 00000          TLMFMT:  LPU
NWAVETOT: 100
    
```

```

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:  0326100001      03  26  100  001
WTGRP_SIZ: 26
    
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	0000F	0,0000,0000,0000,1111
1	0000F	0,0000,0000,0000,1111
2	0000F	0,0000,0000,0000,1111
3	0000F	0,0000,0000,0000,1111
4	0000F	0,0000,0000,0000,1111
5	0000F	0,0000,0000,0000,1111
6	0000F	0,0000,0000,0000,1111
7	0000F	0,0000,0000,0000,1111
8	0000F	0,0000,0000,0000,1111
9	0000F	0,0000,0000,0000,1111
10	0000F	0,0000,0000,0000,1111
11	0000F	0,0000,0000,0000,1111
12	0000F	0,0000,0000,0000,1111
13	0000F	0,0000,0000,0000,1111
14	0000F	0,0000,0000,0000,1111
15	0000F	0,0000,0000,0000,1111
16	0000F	0,0000,0000,0000,1111
17	0000F	0,0000,0000,0000,1111
18	0000F	0,0000,0000,0000,1111
19	0000F	0,0000,0000,0000,1111
20	0001F	0,0000,0000,0001,1111
21	0001F	0,0000,0000,0001,1111
22	0001F	0,0000,0000,0001,1111
23	0001F	0,0000,0000,0001,1111
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 19JNHOTMAP03

OAPEL: 19JNHOTMAP03                    ALIAS: 19JNHOTMAP03  
EXT: A                                    PSID: DE  
SCLK1: 04848265:00:0                   SCLK2: 04848274:55:0  
SCET1: 99-031/15:30:48.733           SCET2: 99-031/15:40:32.066  
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: 253                            TLMFMT: LPU

THRESHOLD\_SEL: 0  
THRESHOLD\_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000  
   000, 000, 000, 000, 000, 000, 000, 000

WETGID: 0326253001                    03 26 253 001  
WTGRP\_SIZ: 26

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	11DC3	1,0001,1101,1100,0011
1	11DC3	1,0001,1101,1100,0011
2	11DC3	1,0001,1101,1100,0011
3	19DC3	1,1001,1101,1100,0011
4	1BDC3	1,1011,1101,1100,0011
5	1BDC3	1,1011,1101,1100,0011
6	1BDC7	1,1011,1101,1100,0111
7	1BDC7	1,1011,1101,1100,0111
8	1BD87	1,1011,1101,1000,0111
9	1BDC7	1,1011,1101,1100,0111
10	0BDC7	0,1011,1101,1100,0111
11	0BDC7	0,1011,1101,1100,0111
12	0BDC7	0,1011,1101,1100,0111
13	0BDC7	0,1011,1101,1100,0111
14	0BDC7	0,1011,1101,1100,0111
15	0BDC7	0,1011,1101,1100,0111
16	1BD87	1,1011,1101,1000,0111
17	1BD87	1,1011,1101,1000,0111
18	1BD07	1,1011,1101,0000,0111
19	1BD07	1,1011,1101,0000,0111
20	13D87	1,0011,1101,1000,0111
21	13D87	1,0011,1101,1000,0111
22	13D87	1,0011,1101,1000,0111
23	13987	1,0011,1001,1000,0111
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 19JNJUPNTB03

```

OAPEL: 19JNJUPNTB03          ALIAS: 19JNJUPNTB03
EXT: A                        PSID: DO
SCLK1: 04848277:90:0        SCLK2: 04848295:85:0
SCET1: 99-031/15:43:56.733  SCET2: 99-031/16:02:06.066
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: 253             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: 0326253001        03 26 253 001
WTGRP_SIZ: 26
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	11DC3	1,0001,1101,1100,0011
1	11DC3	1,0001,1101,1100,0011
2	11DC3	1,0001,1101,1100,0011
3	19DC3	1,1001,1101,1100,0011
4	1BDC3	1,1011,1101,1100,0011
5	1BDC3	1,1011,1101,1100,0011
6	1BDC7	1,1011,1101,1100,0111
7	1BDC7	1,1011,1101,1100,0111
8	1BD87	1,1011,1101,1000,0111
9	1BDC7	1,1011,1101,1100,0111
10	0BDC7	0,1011,1101,1100,0111
11	0BDC7	0,1011,1101,1100,0111
12	0BDC7	0,1011,1101,1100,0111
13	0BDC7	0,1011,1101,1100,0111
14	0BDC7	0,1011,1101,1100,0111
15	0BDC7	0,1011,1101,1100,0111
16	1BD87	1,1011,1101,1000,0111
17	1BD87	1,1011,1101,1000,0111
18	1BD07	1,1011,1101,0000,0111
19	1BD07	1,1011,1101,0000,0111
20	13D87	1,0011,1101,1000,0111
21	13D87	1,0011,1101,1000,0111
22	13D87	1,0011,1101,1000,0111
23	13987	1,0011,1001,1000,0111
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 19ENHEXICE02

```

OAPEL: 19ENHEXICE02      ALIAS: 19ENHEXICE02
EXT: A                    PSID: DF
SCLK1: 04848911:00:0     SCLK2: 04848921:77:0
SCET1: 99-032/02:24:00.066 SCET2: 99-032/02:34:58.066
TARGET: CAL              PARTITION: 1
  
```

```

MODE: 7                   GAIN: 4
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 012      PTAB_B: 1 1 0 0 012
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: 15           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: 0713015001      07 13 015 001
WTGRP_SIZ: 13
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	1BDFF	1,1011,1101,1111,1111
1	1BDFF	1,1011,1101,1111,1111
2	1BDFF	1,1011,1101,1111,1111
3	1BDFF	1,1011,1101,1111,1111
4	1BDFF	1,1011,1101,1111,1111
5	1BDFF	1,1011,1101,1111,1111
6	1BDFF	1,1011,1101,1111,1111
7	1BDFF	1,1011,1101,1111,1111
8	1BDFF	1,1011,1101,1111,1111
9	1BDFF	1,1011,1101,1111,1111
10	1BDFF	1,1011,1101,1111,1111
11	1BDFF	1,1011,1101,1111,1111
12	00000	0,0000,0000,0000,0000

# 19ENHEXICE03

```

OAPEL: 19ENHEXICE03      ALIAS: 19ENHEXICE03
EXT: A                    PSID: DG
SCLK1: 04848931:06:0     SCLK2: 04848934:06:0
SCET1: 99-032/02:44:16.733 SCET2: 99-032/02:47:18.733
TARGET: EUROPA           PARTITION: 1
  
```

```

MODE: 7                   GAIN: 4
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 012      PTAB_B: 1 1 0 0 012
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: 15            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: 0713015001      07 13 015 001
WTGRP_SIZ: 13
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	1BDFF	1,1011,1101,1111,1111
1	1BDFF	1,1011,1101,1111,1111
2	1BDFF	1,1011,1101,1111,1111
3	1BDFF	1,1011,1101,1111,1111
4	1BDFF	1,1011,1101,1111,1111
5	1BDFF	1,1011,1101,1111,1111
6	1BDFF	1,1011,1101,1111,1111
7	1BDFF	1,1011,1101,1111,1111
8	1BDFF	1,1011,1101,1111,1111
9	1BDFF	1,1011,1101,1111,1111
10	1BDFF	1,1011,1101,1111,1111
11	1BDFF	1,1011,1101,1111,1111
12	00000	0,0000,0000,0000,0000

# 19ENHEXICE03

```

OAPEL: 19ENHEXICE03      ALIAS: 19ENHEXICE03
EXT: B                    PSID: DG
SCLK1: 04848938:19:0     SCLK2: 04848940:20:0
SCET1: 99-032/02:51:30.333 SCET2: 99-032/02:53:32.333
TARGET: EUROPA           PARTITION: 1
  
```

```

MODE: 7                   GAIN: 4
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 012      PTAB_B: 1 1 0 0 012
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: 15            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: 0713015001      07 13 015 001
WTGRP_SIZ: 13
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	1BDFF	1,1011,1101,1111,1111
1	1BDFF	1,1011,1101,1111,1111
2	1BDFF	1,1011,1101,1111,1111
3	1BDFF	1,1011,1101,1111,1111
4	1BDFF	1,1011,1101,1111,1111
5	1BDFF	1,1011,1101,1111,1111
6	1BDFF	1,1011,1101,1111,1111
7	1BDFF	1,1011,1101,1111,1111
8	1BDFF	1,1011,1101,1111,1111
9	1BDFF	1,1011,1101,1111,1111
10	1BDFF	1,1011,1101,1111,1111
11	1BDFF	1,1011,1101,1111,1111
12	00000	0,0000,0000,0000,0000



# 19ENHEXICE03

```

OAPEL: 19ENHEXICE03      ALIAS: 19ENHEXICE03
EXT: C                    PSID: DG
SCLK1: 04848947:77:0     SCLK2: 04848948:80:0
SCET1: 99-032/03:01:15.333 SCET2: 99-032/03:02:18.000
TARGET: EUROPA           PARTITION: 1
  
```

```

MODE: 7                   GAIN: 4
CHOP: 1                   GRAT_OFF: 4
PTAB_A: 1 1 0 0 012      PTAB_B: 1 1 0 0 012
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: 15            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: 0713015001      07 13 015 001
WTGRP_SIZ: 13
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	1BDFF	1,1011,1101,1111,1111
1	1BDFF	1,1011,1101,1111,1111
2	1BDFF	1,1011,1101,1111,1111
3	1BDFF	1,1011,1101,1111,1111
4	1BDFF	1,1011,1101,1111,1111
5	1BDFF	1,1011,1101,1111,1111
6	1BDFF	1,1011,1101,1111,1111
7	1BDFF	1,1011,1101,1111,1111
8	1BDFF	1,1011,1101,1111,1111
9	1BDFF	1,1011,1101,1111,1111
10	1BDFF	1,1011,1101,1111,1111
11	1BDFF	1,1011,1101,1111,1111
12	00000	0,0000,0000,0000,0000

# 19NNPCTRLT01

```

OAPEL: 19NNPCTRLT01      ALIAS: LSNNPCTRLT01
EXT: R                    PSID: FB
SCLK1: 04905705:00:0     SCLK2: 04905706:12:0
SCET1: 1999-071/23:29:00.066 SCET2: 1999-071/23:30:08.733
TARGET: CAL              PARTITION: 1
  
```

```

MODE: 3                  GAIN: 4
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	1FFC0	1,1111,1111,1100,0000
1	1FFC0	1,1111,1111,1100,0000
2	1FFC0	1,1111,1111,1100,0000
3	1FFC0	1,1111,1111,1100,0000
4	1FFC0	1,1111,1111,1100,0000
5	1FFC0	1,1111,1111,1100,0000
6	1FFC0	1,1111,1111,1100,0000
7	1FFC0	1,1111,1111,1100,0000
8	1FFC0	1,1111,1111,1100,0000
9	1FFC0	1,1111,1111,1100,0000
10	1FFC0	1,1111,1111,1100,0000
11	1FFC0	1,1111,1111,1100,0000
12	1FF80	1,1111,1111,1000,0000
13	1FF80	1,1111,1111,1000,0000
14	1FF80	1,1111,1111,1000,0000
15	1FF80	1,1111,1111,1000,0000
16	1FF80	1,1111,1111,1000,0000
17	1FF80	1,1111,1111,1000,0000
18	1FF80	1,1111,1111,1000,0000
19	1FF80	1,1111,1111,1000,0000
20	1FF80	1,1111,1111,1000,0000
21	1FF80	1,1111,1111,1000,0000
22	1FF80	1,1111,1111,1000,0000
23	1FF80	1,1111,1111,1000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 19NNPCTRLT01

```

OAPEL: 19NNPCTRLT01          ALIAS: LSNNPCTRLT01
EXT: S                        PSID: FB
SCLK1: 04905711:00:0        SCLK2: 04905720:12:0
SCET1: 1999-071/23:35:04.066 SCET2: 1999-071/23:44:18.066
TARGET: CAL                  PARTITION: 1
    
```

```

MODE: 3                      GAIN: 4
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	1FFC0	1,1111,1111,1100,0000
1	1FFC0	1,1111,1111,1100,0000
2	1FFC0	1,1111,1111,1100,0000
3	1FFC0	1,1111,1111,1100,0000
4	1FFC0	1,1111,1111,1100,0000
5	1FFC0	1,1111,1111,1100,0000
6	1FFC0	1,1111,1111,1100,0000
7	1FFC0	1,1111,1111,1100,0000
8	1FFC0	1,1111,1111,1100,0000
9	1FFC0	1,1111,1111,1100,0000
10	1FFC0	1,1111,1111,1100,0000
11	1FFC0	1,1111,1111,1100,0000
12	1FF80	1,1111,1111,1000,0000
13	1FF80	1,1111,1111,1000,0000
14	1FF80	1,1111,1111,1000,0000
15	1FF80	1,1111,1111,1000,0000
16	1FF80	1,1111,1111,1000,0000
17	1FF80	1,1111,1111,1000,0000
18	1FF80	1,1111,1111,1000,0000
19	1FF80	1,1111,1111,1000,0000
20	1FF80	1,1111,1111,1000,0000
21	1FF80	1,1111,1111,1000,0000
22	1FF80	1,1111,1111,1000,0000
23	1FF80	1,1111,1111,1000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

# 19NNRCTRLT01

```

OAPEL: 19NNRCTRLT01          ALIAS: LSNNRCTRTA01
EXT: R                        PSID: XU
SCLK1: 04911467:00:0        SCLK2: 04911467:12:0
SCET1: 1999-076/00:35:01.200 SCET2: 1999-076/00:35:09.200
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

# 19NNRCTRLT01

OAPEL: 19NNRCTRLT01                    ALIAS: LSNNRCTRTA01  
EXT: S                                    PSID: XU  
SCLK1: 04911473:00:0                  SCLK2: 04911474:12:0  
SCET1: 1999-076/00:41:05.200        SCET2: 1999-076/00:42:13.866  
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

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

# 19NNRCTRLT01

```

OAPEL: 19NNRCTRLT01      ALIAS: LSNNRCTRTA01
EXT: T                    PSID: XU
SCLK1: 04911479:00:0     SCLK2: 04911479:12:0
SCET1: 1999-076/00:47:09.200  SCET2: 1999-076/00:47:17.200
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

# 19NNOPCAL\_01

```

OAPEL: 19NNOPCAL_01      ALIAS: LSNNOPCAL_01
EXT: R                    PSID: DC
SCLK1: 04911483:00:0     SCLK2: 04911485:12:0
SCET1: 1999-076/00:51:11.866 SCET2: 1999-076/00:53:21.200
TARGET: CAL              PARTITION: 1
  
```

```

MODE: 3                  GAIN: 4
CHOP: 1                  GRAT_OFF: 4
PTAB_A: 1 1 0 0 124     PTAB_B: 1 1 0 0 124
ECAL: 0                  OPCAL: 1
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: 048          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: 0302048000      03 02 048 000
WTGRP_SIZ: 2
  
```

## EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	18000	1,1000,0000,0000,0000
1	18000	1,1000,0000,0000,0000
2	18000	1,1000,0000,0000,0000
3	18000	1,1000,0000,0000,0000
4	18000	1,1000,0000,0000,0000
5	18000	1,1000,0000,0000,0000
6	18000	1,1000,0000,0000,0000
7	18000	1,1000,0000,0000,0000
8	18000	1,1000,0000,0000,0000
9	18000	1,1000,0000,0000,0000
10	18000	1,1000,0000,0000,0000
11	18000	1,1000,0000,0000,0000
12	18000	1,1000,0000,0000,0000
13	18000	1,1000,0000,0000,0000
14	18000	1,1000,0000,0000,0000
15	18000	1,1000,0000,0000,0000
16	18000	1,1000,0000,0000,0000
17	18000	1,1000,0000,0000,0000
18	18000	1,1000,0000,0000,0000
19	18000	1,1000,0000,0000,0000
20	18000	1,1000,0000,0000,0000
21	18000	1,1000,0000,0000,0000
22	18000	1,1000,0000,0000,0000
23	18000	1,1000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

NIMS E19 OBSTAB

This is a time-ordered ASCII TABLE (listing) of GALILEO NIMS observation parameters for use by downlink data processing of the NIMS E19 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  
 <tbd> 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: <tbd>
* 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)      SEF: 37IOP, data byte 2, bits 5-8
GAIN      1 74 - 74      .Gain State (true value)          SEF: 37IST, data byte 3, bits 7-8 (if bit 6 = 1)
                                         0=gs2, 1=gs4, 2=gs3, 3=gs1
CHOP      1 75 - 75      .Chopper State (1=Ref,2=63Hz,3=FreeRun,4=Off) SEF: 37IST, data byte 2, bits 7-8 (if bit 6 = 1)
                                         0=63hz, 1=off, 2=ref, 3=freeerun
GRAT_OFF  1 76 - 76      .Grating Offset (0-7, default 4)   SEF: 37GOF, data byte 2, bits 5-8
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) SEF: 37IST, data byte 3, bit 4 (1=on)
OPCAL     1 102 - 102     .Optics Calibration active (1=yes)   SEF: 37IST, data byte 3, bit 5 (1=on)
# REAL_TIME 1 103 - 103     .NIMS in Real-Time Telemetry (1=yes) SEF: track RT_INST_SEL .and. 37RT
# RECORD   1 104 - 104     .NIMS in Record Telemetry (1=yes)  SEF: track DMS status event:
                                         RECORD, REVERSE, RESUME, RUNDOWN <tbd>

* THRESHSEL 1 105 - 105     .Threshold value select (>0 = yes)   PBK: THRESHLD_TBL > 0 (i.e. 1-3)
<spare>    1 106 - 106     .
# RTISELDN 5 107 - 111     .RTI select, 5 binary bits (for mirror SEF: 37MB data byte 1, bits 4-8 <tbd>
                                         position blocking, down scan)
# RTISELUP 5 112 - 116     .RTI select, 5 binary bits (for mirror SEF: 37MB data byte 2, bits 4-8 <tbd>
                                         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) PBK: CMPR_DVSR <tbd>
ESTCOMPV   3 123 - 125     .Rice estimated error in compression ratio (m.n)PBK: CMPR_UNC <tbd>
# RATECON1 5 126 - 130     .Rate control lower limit           PBK: | S/W table entry indexed by LOSSY_COMP (1-7)
# RATECON2 5 131 - 135     .Rate control upper limit           PBK: | or 0 if LOSSY_COMP = 0 (no rate control)
                                         17 136 - 152
NWAVERTOT 3 153 - 155     .Total number of wavelengths selected Compute from relevant Wavelength Edit Table group
TLMFMT     3 156 - 158     .Telemetry format (MPW et al, LPU or LNR) SEF: 6TMREC command
SCET1      21 159 - 179     .Start time of played-back OBS in UTC PBK (except realtime data: SEF)
SCET2      21 180 - 200     .Stop time of played-back OBS in UTC  PBK (except realtime data: SEF)
<spares>   67 201 - 267     .Start time of played-back OBS in UTC  PBK (except realtime data: SEF)
* THRESH   51 268 - 318     .Threshold values (17 3-digit values, 0-999) 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

	Sub-Section	Page
5.0	Contents .....	1
5.1	Introduction to Chapter 5 .....	2
5.2	NIMS E19 Observations .....	3-34

## 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.

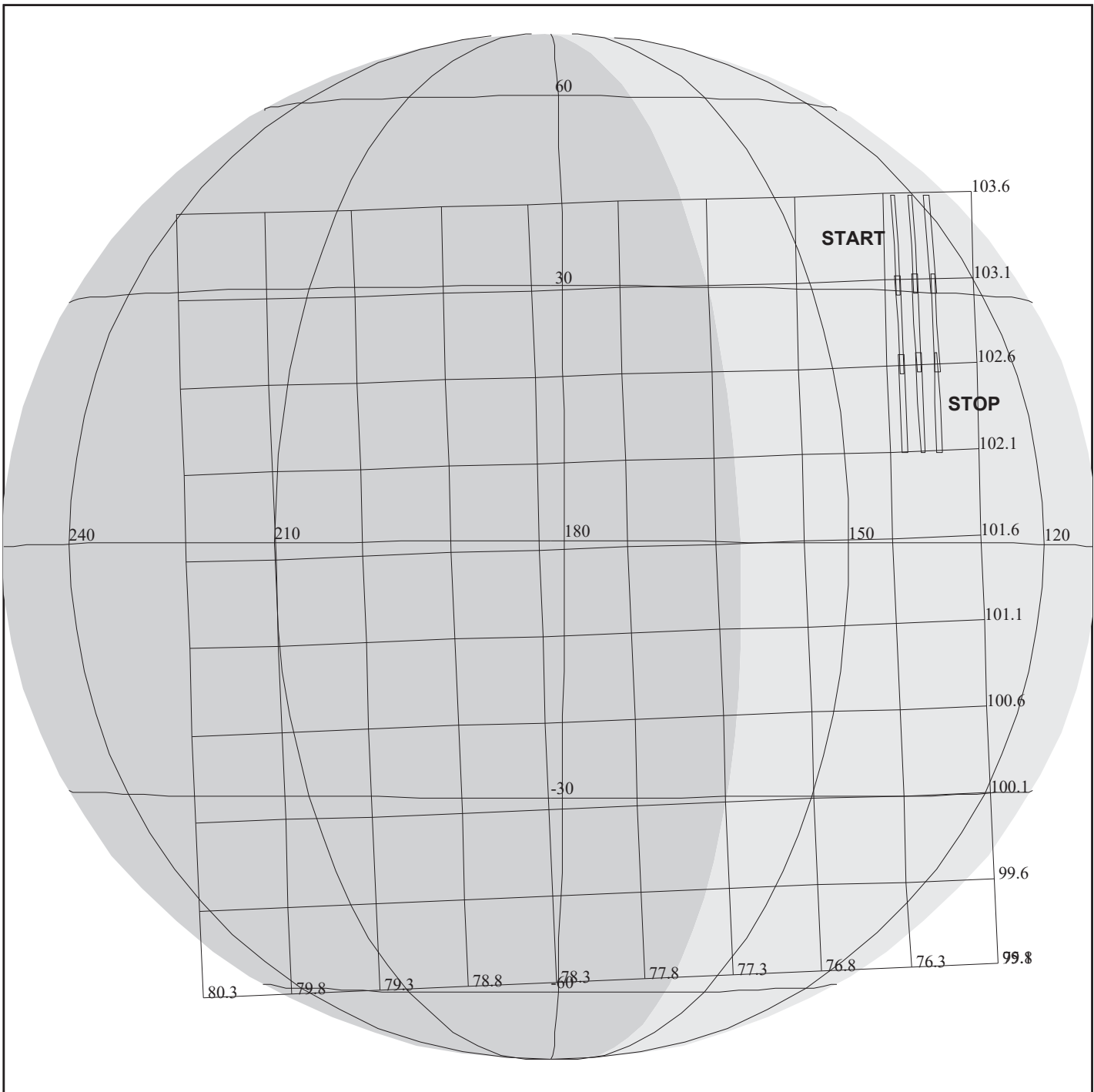
The Pointer plots have the spatial extent of the actual data returned outlined with a thick line. When no data were returned for a particular observation, its Pointer plot has a single slash across the plot with the text "NO DATA RETURNED" printed in the upper left corner of the plot.

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: 19NNJUPRTS01-	
		START TIME: 99-031/02:59:37.400	
Activity ID: Orbit 19 Target N Inst N OAPEL JUPRTS SeqNo 01 -			
Title	NIMS Software Reload		Instrument
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS Working Group SWG
Time System	CDS	Load ID	Calendar Date 01/31/99 Week 57
Start	JEE-CDS 00001545:00:0	99-031/02:59:37.400	JEE-001/02:02:10.000
End	JEE-CDS 00001543:00:0	99-031/03:01:38.734	JEE-001/02:00:08.666
Duration	00000002:00:0	000/00:02:01.334	000/00:02:01.334
Top Label	19NNJUPRTS01-		
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			
NIMS real-time software reload			
Each NIMS GEM observation will have an instrument reload before the start of each observation. Each reload has its own OAPEL form, but only this first form is included in the NIMSGUIDE.			
The NIMS E19 reload OAPELS are:			
19NNJUPRTS01, 19NNJUPRTS02, 19NNHOTMAP01, 19NNHOTMAP02, 19NNHOTMAP03, 19NNHEXICE02, 19NNHEXICE03, 19NNAURORA01, 19NNAURORA02, 19NNAURORA03, 19NNIOFLUX01			
19JNJUPNTB01, 19JNJUPNTB02, 19JNJUPNTB03 did not have reloads.,			
Design Detail			
Use a standard set of commands to halt the instrument, load the software and reinitialize the instrument.			
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.			
Galileo Activity Plan Form		01/15/99 09:46:13	rev 6/95



**19JNJUPRTS01**

TARGET G3.1 lisac: 1/15/1999 14: 8:10

FILE:P.19JNJUPRTS01

CENTRAL BODY:JUPITER III

MINI:m.target

S/C EPH:/DATA/NAVIO/E19-T-981116.NS

PERIAPSIS:

START:JEE 99-032/05:01:47.400 -CDS 1594:00:0

OBSERVATION:19JNJUPRTS01

165LA:TT= 0 TMC= 1 C= -35.00 XC= 29.50 BS= 0/9002 TC= 3  
 A= 728 pD= 0 SR=17.450 RA50=252.23 DEC50=-22.32 cone= 76.19 clock=103.37  
 165DA:TT= 0 TMC= 1 C= -35.00 XC= 29.50 BS= 0/9558 TC= 3  
 A= 728 pD= 1810 SR= 8.000 RA50=253.81 DEC50=-22.48 cone= 77.66 clock=103.42  
 117DA:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/9558  
 1:#s= 3 Cs= -5.00 XCs= 0.00 Cr= 5.00 XCr= -8.00 sD= 518 rD= 30

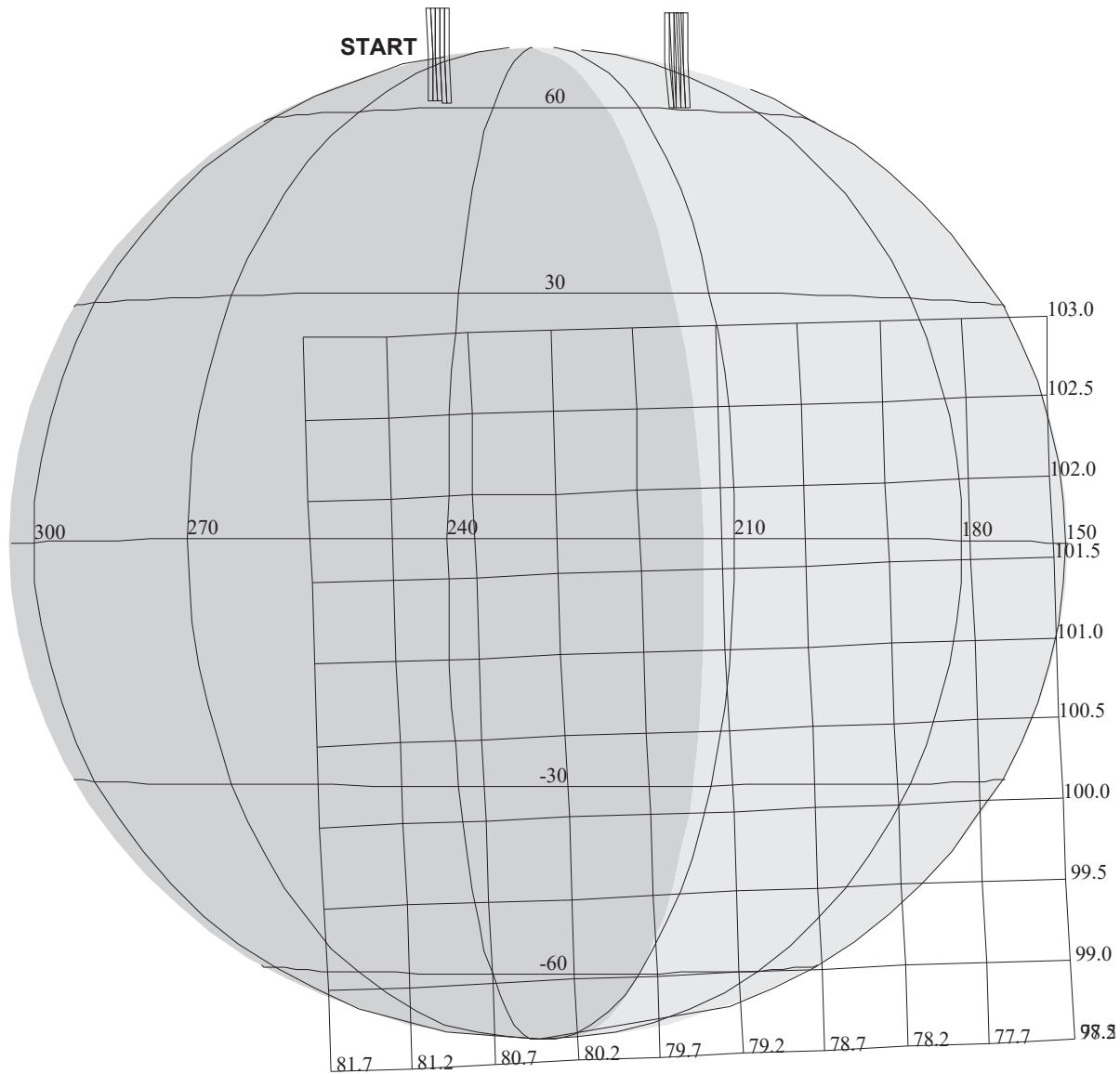
THINNING:NIM 7

BODY PLOT TIME:TARGET-TIME D= 1810 S= 1.000

DESCRIP:PREPOSITION\_FOR\_JUPRTS01



Jupiter Realtime Observation		ACTIVITY ID:	19JNJUPRTS01*		
		START TIME:	99-031/03:02:39.400		
Activity ID: Orbit 19 Target J Inst N OAPEL JUPRTS SeqNo 01 *					
Title	Jupiter Realtime Observation		Instrument		NIMS
Requestor	NIMS-AWG/K. BAINES		Team	NIMS Working Group	AWG
Time System	CDS	Load ID	Calendar Date	01/31/99	Week 57
Start	JEE-CDS 00001542:00:0		99-031/03:02:39.400	JEE-001/01:59:08.000	
End	JEE-CDS 00001528:00:0		99-031/03:16:48.734	JEE-001/01:44:58.666	
Duration	00000014:00:0		000/00:14:09.334	000/00:14:09.334	
Top Label	19JNJUPRTS01*				
Bottom Label					
Plot Key	NIMS	Type	SCI		
CDS Bytes	0	Report Options	BOTH		Scan Platform Yes
CDS Source	OAP	Spin State	DUAL		DMS No
Observation Objective					
Search for Jupiter atmospheric composition and thermal variations over time.					
FREE_RTS=0.16 Mbits					
Data Returned					
Design Detail					
Long map. Three scans, each three RIMS long.					
Target to 35 degrees North latitude for the first scan. No scan overlap;					
Nyquist sampling not necessary - lit surface only.					
Not longitudinal dependent. No overlap in FOV.					
NIMS R/T only returns every seventh FOV.					
Mirror Blocked (1B,1B) (11011,11011)					
4 nimsels per Rim.					
Long Map (LM), Gain 2, Grating Start 0, RT, JLM408					
Galileo Activity Plan Form			01/15/99	09:46:13	rev 6/95



165DH:TT= 0 TMC= 1 C= 10.00 XC= 52.00 BS= 0/4290 TC= 3  
 A= 728 pD= 0 SR=17.450 RA50=257.46 DEC50=-21.57 cone= 80.91 clock=104.74  
 117DH:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/4290  
 1:#s= 2 Cs= 0.00 XC= 0.00 Cr= -22.00 XCr= -1.00 sD= 910 rD= 364

## 19JNJUPRTS02

TARGET G3.1 lisac: 1/15/1999 14: 8:10

FILE:P.19JNJUPRTS02

CENTRAL BODY:JUPITER

MINI:m.target

S/C EPH:/DATA/NAVIO/E19-T-981116.NS

PERIAPSIS:

START:JEE 99-032/05:01:47.400 -CDS 1510:00:0

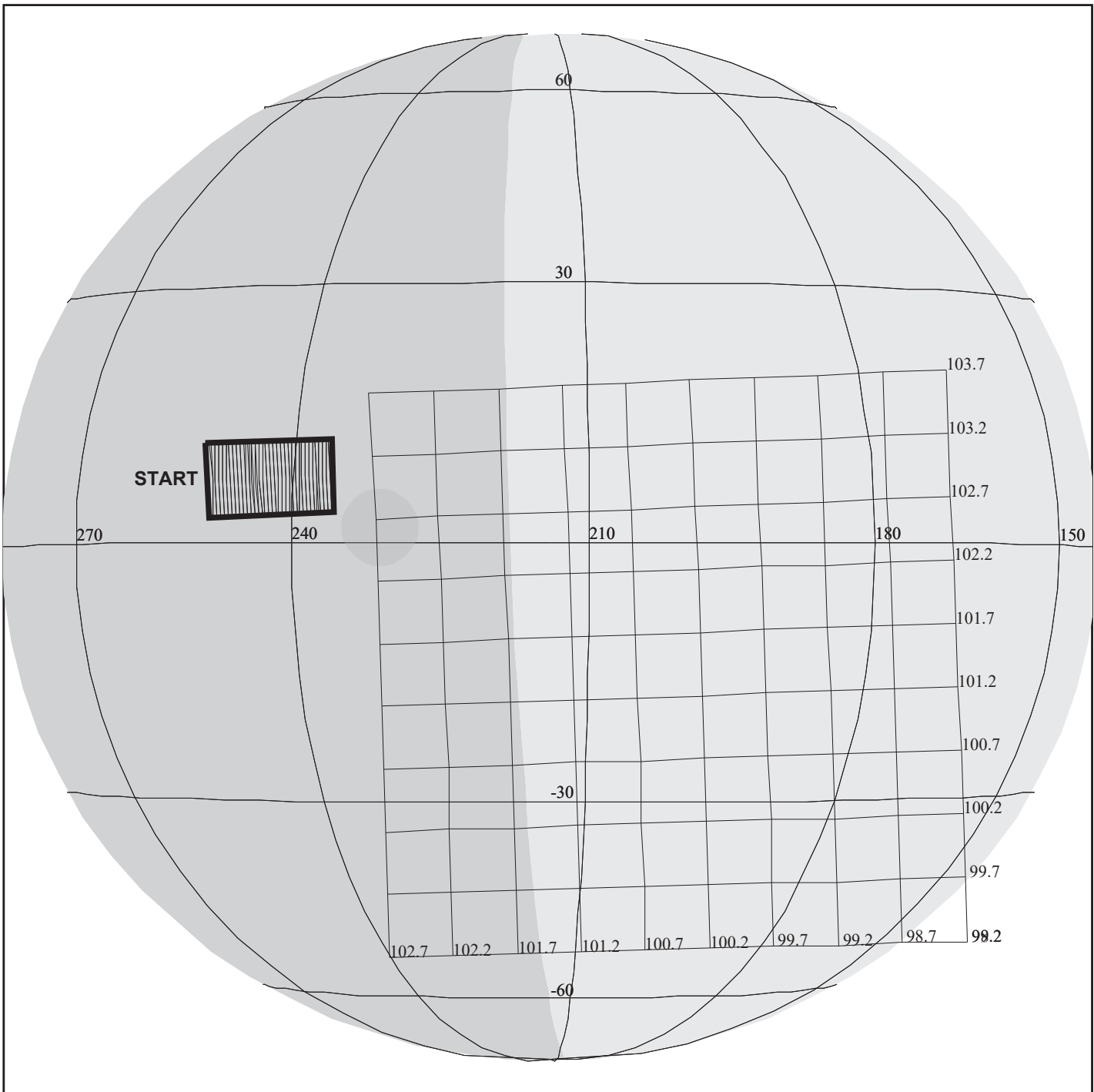
OBSERVATION:19JNJUPRTS02

THINNING:NIM 7

BODY PLOT TIME:TARGET-TIME D= 0 S= 0.800

DESCRIP:Jupiter\_Realtime\_Observation

Jupiter Realtime Observation		ACTIVITY ID:	19JNJUPRTS02*		
		START TIME:	99-031/03:30:58.067		
Activity ID: Orbit 19 Target J Inst N OAPEL JUPRTS SeqNo 02 *					
Title	Jupiter Realtime Observation		Instrument		NIMS
Requestor	NIMS-AWG/K. BAINES		Team	NIMS Working Group	AWG
Time System	CDS	Load ID	Calendar Date	01/31/99	Week 57
Start	JEE-CDS 00001514:00:0		99-031/03:30:58.067	JEE-001/01:30:49.333	
End	JEE-CDS 00001500:00:0		99-031/03:45:07.400	JEE-001/01:16:40.000	
Duration	00000014:00:0		000/00:14:09.333	000/00:14:09.333	
Top Label	19JNJUPRTS02*				
Bottom Label					
Plot Key	NIMS	Type	SCI		
CDS Bytes	0	Report Options	BOTH		
CDS Source	OAP	Spin State	DUAL	Scan Platform	Yes
				DMS	No
Observation Objective					
Search for Jupiter atmospheric composition and thermal variations over time. Look at northern auroral region.					
FREE_RTS=0.16 Mbits					
Data Returned					
Design Detail					
Long map. One scan, two 5 RIM segments at North polar region Longitude - not dependent. No overlap in FOV. 90 degrees phase angle Search for Aurora.					
First 5 Rims on Nightside Northern Aurora Slew for 2 Rims Second 5 Rims on Dayside Northern Aurora					
Mirror Blocked (19,13) (11001,10011) 8 nimsels per Rim.					
Long Map (LM), Gain 2, Grating Start 0, RT, JLM204					
Galileo Activity Plan Form			01/15/99	09:46:13	rev 6/95



**19JNHOTMAP01**

165DB:TT= 0 TMC= 1 C= 0.00 XC= 0.00 BS= 0/2762 TC= 1(7 250 )  
 A= 364 pD= 1810 SR=17.450 RA50=282.46 DEC50=-23.74 cone=103.99 clock=103.08  
 117DB:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/2762  
 1:#s= 1 Cs= -18.00 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 1810 rD= 2

TARGET G3.1 lisac: 1/15/1999 14: 8:10

FILE:P.19JNHOTMAP01

CENTRAL BODY:JUPITER

MINI:m.target

S/C EPH:/DATA/NAVIO/E19-T-981116.NS

PERIAPSIS:

START:JEE 99-032/05:01:47.400 -CDS 914:00:0

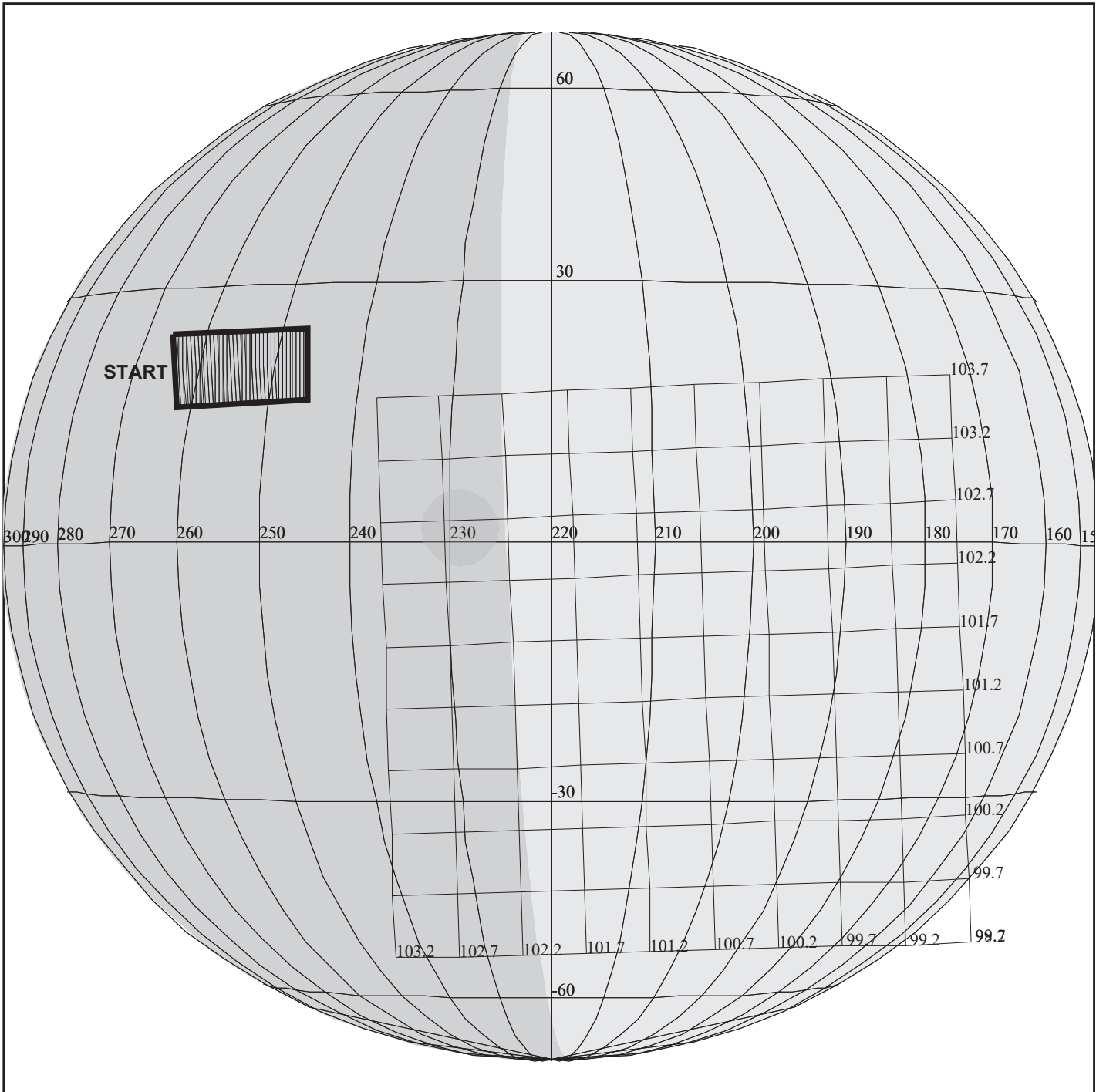
OBSERVATION:19JNHOTMAP01

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 1810 S= 1.000

DESCRIP:JUPITER\_HOTMAP\_1

NIMS Jupiter HotMap		ACTIVITY ID: 19JNHOTMAP01-	
		START TIME: 99-031/13:33:35.400	
Activity ID: Orbit 19 Target J Inst N OAPEL HOTMAP SeqNo 01 -			
Title	NIMS Jupiter HotMap	Instrument	NIMS
Requestor	NIMS-AWG/K. BAINES	Team NIMS Working Group	AWG
Time System	CDS	Load ID	Calendar Date 01/31/99 Week 57
Start	JEE-CDS 00000918:00:0	99-031/13:33:35.400	JEE-000/15:28:12.000
End	JEE-CDS 00000904:00:0	99-031/13:47:44.734	JEE-000/15:14:02.666
Duration	00000014:00:0	000/00:14:09.334	000/00:14:09.334
Top Label	19JNHOTMAP01-		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	150	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
		Scan Platform	Yes
		DMS	Yes
Observation Objective			
Long mapping of hotspot region at high spatial resolution. Observation uses special wavelength table JHT253A.			
Nightside Observation			
Data Returned			
Design Detail			
TICS=143, FMT= LPU, Long Map, Nyquist-sampled observation 5 X 1 (50 mrad X 10 mrad) area centered near 7 degrees North latitude, longitude range is from 235 degrees to 250 degrees, at about 391 km IFOV spatial resolution. Four RIMs available for targeting.			
Long Map (LM), Gain 4, Grating Start 0, LPU, JHT253A, JHT100A			
Galileo Activity Plan Form		01/15/99 09:46:14	rev 6/95



**19JNJUPNTB01**

165DM:TT= 0 TMC=1 C= 13.50 XC= 0.00 BS= 0/4764 TC= 1(20 250 )  
 A= 182 pD= 2720 SR=17.450 RA50=283.21 DEC50=-22.80 cone=104.75 clock=104.00  
 117DM:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/4764  
 1:#s= 1 Cs= -27.00 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 2720 rD= 40

TARGET G3.1 lisac: 1/15/1999 14: 8:10

FILE:P.19JNJUPNTB01

CENTRAL BODY:JUPITER

MINI:m.target

S/C EPH:/DATA/NAVIO/E19-T-981116.NS

PERIAPSIS:

START:JEE 99-032/05:01:47.400 -CDS 903:00:0

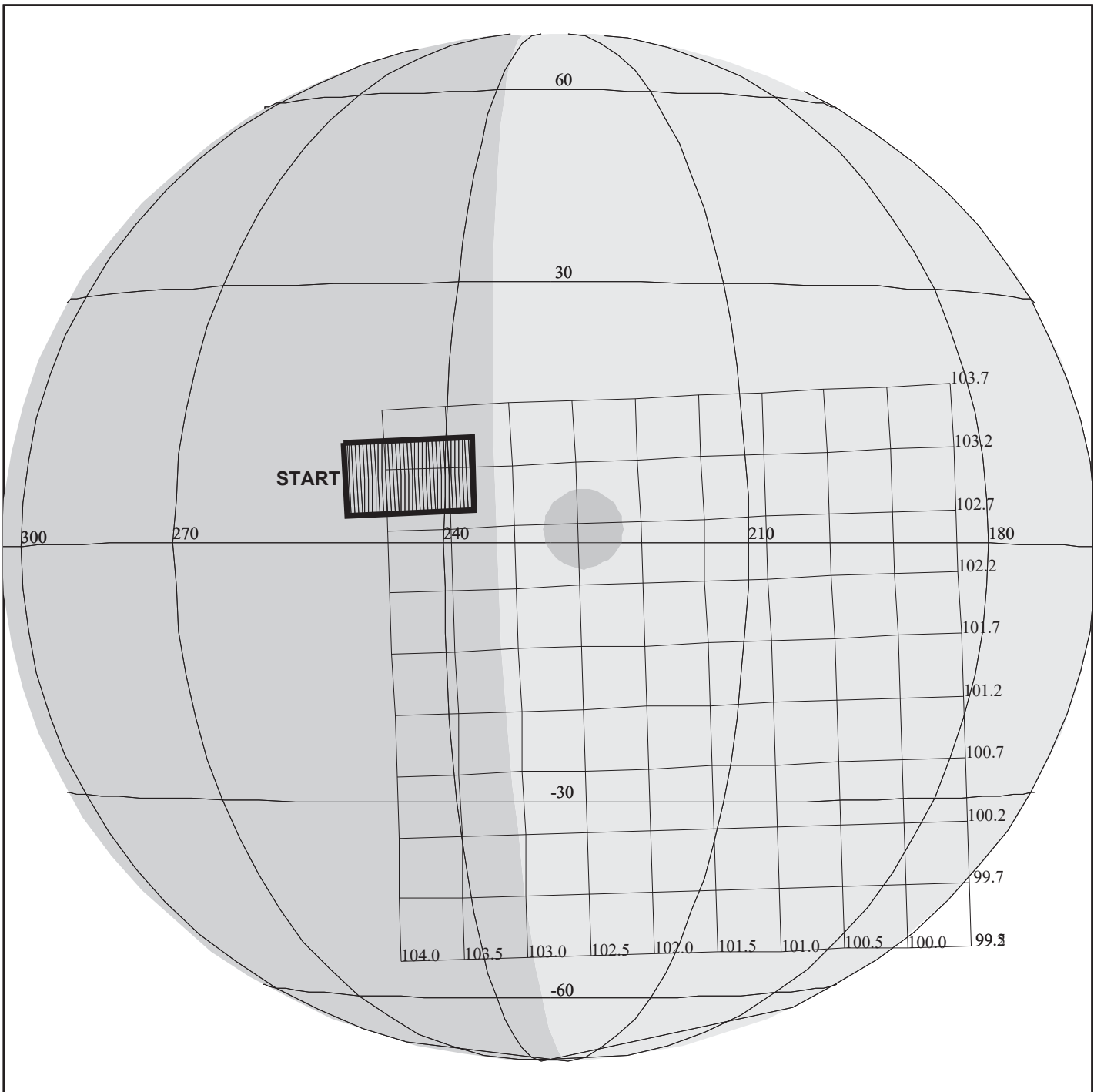
OBSERVATION:19JNJUPNTB01

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 2720 S= 1.000

DESCRIP:JUPITER\_NORTH\_TEMPORAL\_BELT\_01

Jupiter NTB Observation		ACTIVITY ID: 19JNJUPNTB01-	
		START TIME: 99-031/13:47:44.734	
Activity ID: Orbit 19 Target J Inst N OAPEL JUPNTB SeqNo 01 -			
Title	Jupiter NTB Observation	Instrument	NIMS
Requestor	NIMS-AWG/K. BAINES	Team	NIMS Working Group
Requestor		Working Group	AWG
Time System	CDS	Load ID	Calendar Date 01/31/99 Week 57
Start	JEE-CDS 00000904:00:0	99-031/13:47:44.734	JEE-000/15:14:02.666
End	JEE-CDS 00000892:00:0	99-031/13:59:52.734	JEE-000/15:01:54.666
Duration	00000012:00:0	000/00:12:08.000	000/00:12:08.000
Top Label	19JNJUPNTB01-		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	0	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
		Scan Platform	Yes
		DMS	Yes
Observation Objective			
Long mapping of Northern Temperate Belt at high spatial resolution. Observation uses special wavelength table JHT253A.			
Nightside Observation			
Data Returned			
Design Detail			
TICS=145, FMT= LPU, Long Map, Nyquist-sampled observation 5 X 1 (50 mrad X 10 mrad) area centered near 19 degrees North latitude, longitude range is from 239 degrees to 263 degrees, at about 391 km IFOV spatial resolution. Four RIMs available for targeting.			
Long Map (LM), Gain 4, Grating Start 0, LPU, JHT253A, JHT100A			
Galileo Activity Plan Form		01/15/99 09:46:14	rev 6/95



**19JNHOTMAP02**

165DD:TT= 0 TMC= 1 C= 0.00 XC= 0.00 BS= 0/7858 TC= 1(7 250 )  
 A= 364 pD= 1810 SR=17.450 RA50=282.77 DEC50=-23.69 cone=104.28 clock=103.11  
 117DD:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/7858  
 1:#s= 1 Cs= -18.00 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 1810 rD= 2

TARGET G3.1 lisac: 1/15/1999 14: 8:10

FILE:P.19JNHOTMAP02

CENTRAL BODY:JUPITER

MINI:m.target

S/C EPH:/DATA/NAVIO/E19-T-981116.NS

PERIAPSIS:

START:JEE 99-032/05:01:47.400 -CDS 886:00:0

OBSERVATION:19JNHOTMAP02

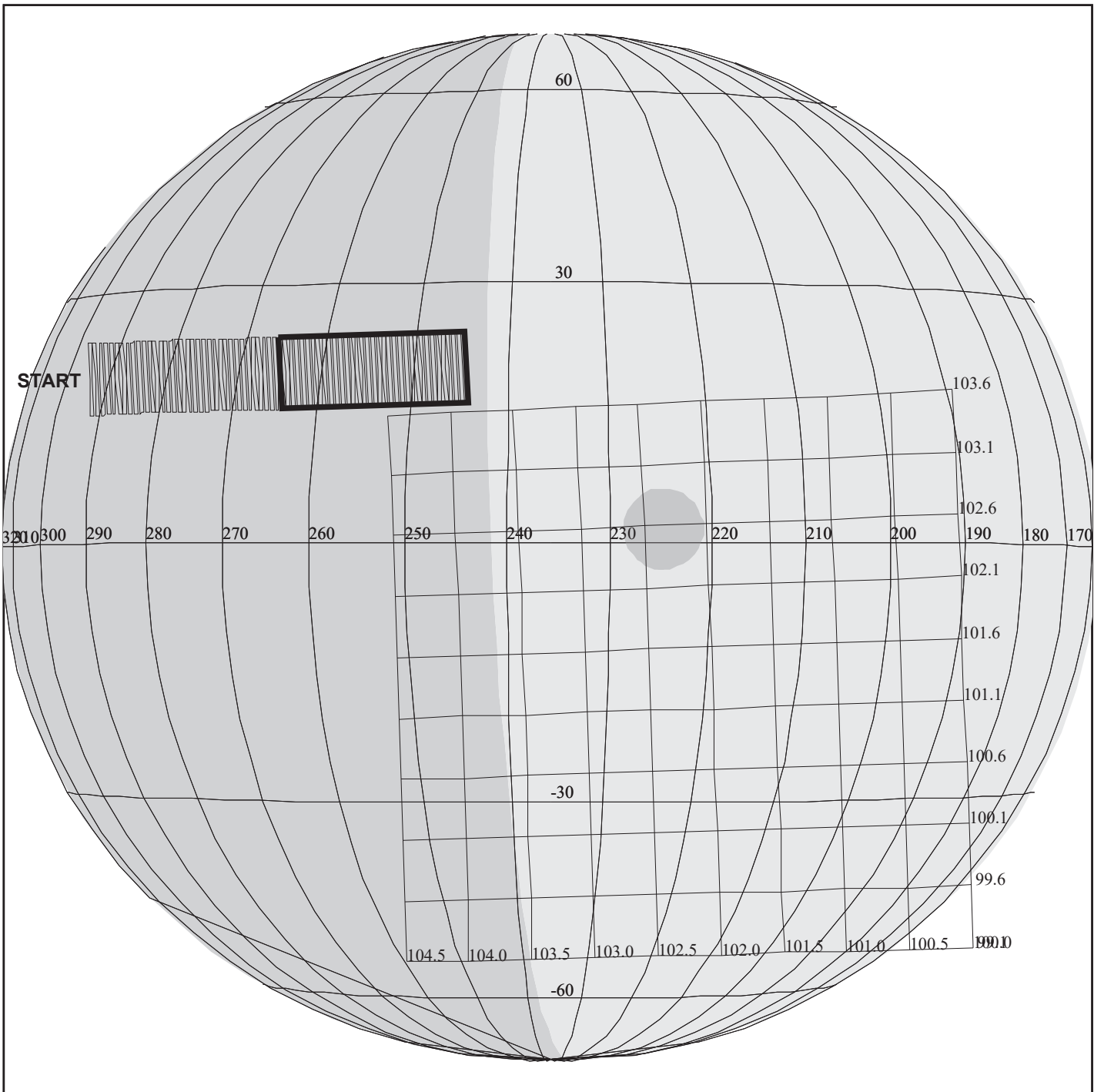
THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 1810 S= 1.000

DESCRIP:JUPITER\_HOTMAP\_2



NIMS Jupiter HotMap		ACTIVITY ID: 19JNHOTMAP02-	
		START TIME: 99-031/14:02:54.734	
Activity ID: Orbit 19 Target J Inst N OAPEL HOTMAP SeqNo 02 -			
Title	NIMS Jupiter HotMap	Instrument	NIMS
Requestor	NIMS-AWG/K. BAINES	Team NIMS Working Group	AWG
Time System	CDS	Load ID	Calendar Date 01/31/99 Week 57
Start	JEE-CDS 00000889:00:0	99-031/14:02:54.734	JEE-000/14:58:52.666
End	JEE-CDS 00000856:00:0	99-031/14:36:16.734	JEE-000/14:25:30.666
Duration	00000033:00:0	000/00:33:22.000	000/00:33:22.000
Top Label	19JNHOTMAP02-		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	150	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
		Scan Platform	Yes
		DMS	Yes
Observation Objective			
Long mapping of hotspot region at high spatial resolution. Observation uses special wavelength table JHT253A.			
Nightside Observation			
Data Returned			
Design Detail			
TICS=143, FMT= LPU, Long Map, Nyquist-sampled observation 5 X 1 (50 mrad X 10 mrad) area centered near 7 degrees North latitude, longitude range is from 237 degrees to 250 degrees, at about 303 km IFOV spatial resolution. Four RIMs available for targeting.			
Long Map (LM), Gain 4, Grating Start 0, LPU, JHT253A, JHT100A			
Galileo Activity Plan Form		01/15/99 09:46:14	rev 6/95



**19JNJUPNTB02**

165DN:TT= 0 TMC= 1 C= 45.00 XC= 0.00 BS= 0/9860 TC= 1(20 250 )  
 A= 182 pD= 3630 SR=17.450 RA50=285.45 DEC50=-22.60 cone=106.82 clock=104.05  
 117DN:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/9860  
 1:#s= 1 Cs= -36.00 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 3630 rD= 40

TARGET G3.1 lisac: 1/15/1999 14: 8:10

FILE:P.19JNJUPNTB02

CENTRAL BODY:JUPITER

MINI:m.target

S/C EPH:/DATA/NAVIO/E19-T-981116.NS

PERIAPSIS:

START:JEE 99-032/05:01:47.400 -CDS 875:00:0

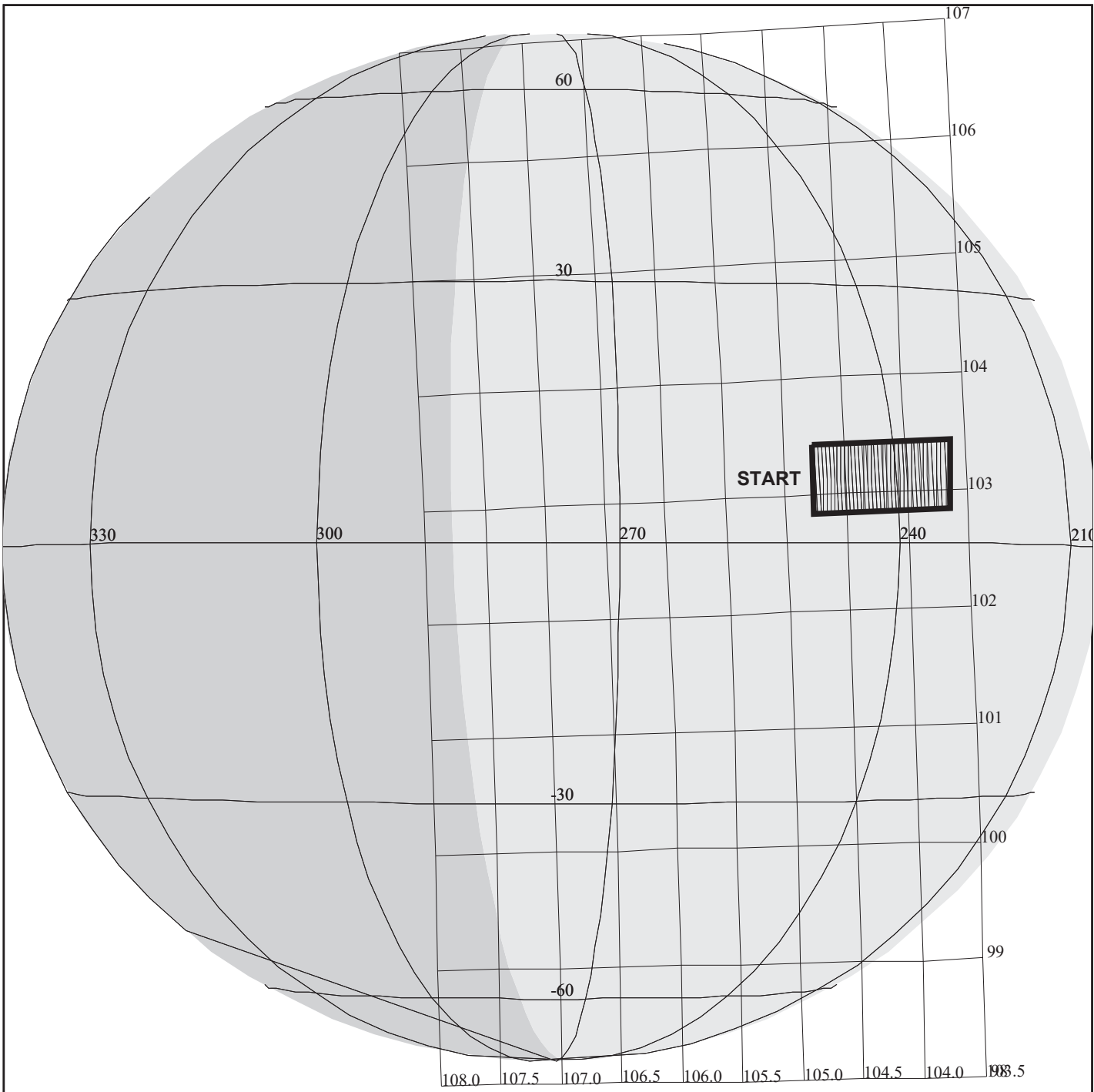
OBSERVATION:19JNJUPNTB02

THINNING:NIM 2

BODY PLOT TIME:START-TIME D= 3630 S= 1.000

DESCRIP:JUPITER\_NORTH\_TEMPORAL\_BELT\_01

Jupiter NTB Observation		ACTIVITY ID: 19JNJUPNTB02-	
		START TIME: 99-031/14:36:16.734	
Activity ID: Orbit 19 Target J Inst N OAPEL JUPNTB SeqNo 02 -			
Title	Jupiter NTB Observation	Instrument	NIMS
Requestor	NIMS-SWG/M. SEGURA	Team NIMS Working Group	SWG
Time System	CDS	Load ID	Calendar Date 01/31/99 Week 57
Start	JEE-CDS 00000856:00:0	99-031/14:36:16.734	JEE-000/14:25:30.666
End	JEE-CDS 00000842:00:0	99-031/14:50:26.067	JEE-000/14:11:21.333
Duration	00000014:00:0	000/00:14:09.333	000/00:14:09.333
Top Label	19JNNJUPNTB02-		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	0	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
		Scan Platform	Yes
		DMS	Yes
Observation Objective			
Long mapping of Northern Temperate Belt at high spatial resolution. Observation uses special wavelength table JHT253A.			
Nightside Observation			
Data Returned			
Design Detail			
TICS=283, FMT= LPU, Long Map, Nyquist-sampled observation 5 X 1 (50 mrad X 10 mrad) area centered near 19 degrees North latitude, longitude range is from 257 degrees to 294 degrees, at about 303 km IFOV spatial resolution. Four RIMs available for targeting.			
Long Map (LM), Gain 4, Grating Start 0, LPU, JHT253A, JHT100A			
Galileo Activity Plan Form		01/15/99 09:46:14	rev 6/95



165DE:TT= 0 TMC= 1 C= 0.00 XC= 0.00 BS= 0/3146 TC= 1(7 250 )  
 A= 364 pD= 1810 SR=17.450 RA50=283.26 DEC50=-23.64 cone=104.73 clock=103.13  
 117DE:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/3146  
 1:#s= 1 Cs= -18.00 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 1810 rD= 2

## 19JNHOTMAP03

TARGET G3.1 lisac: 1/15/1999 14: 8:10

FILE:P.19JNHOTMAP03

CENTRAL BODY:JUPITER

MINI:m.target

S/C EPH:/DATA/NAVIO/E19-T-981116.NS

PERIAPSIS:

START:JEE 99-032/05:01:47.400 -CDS 802:00:0

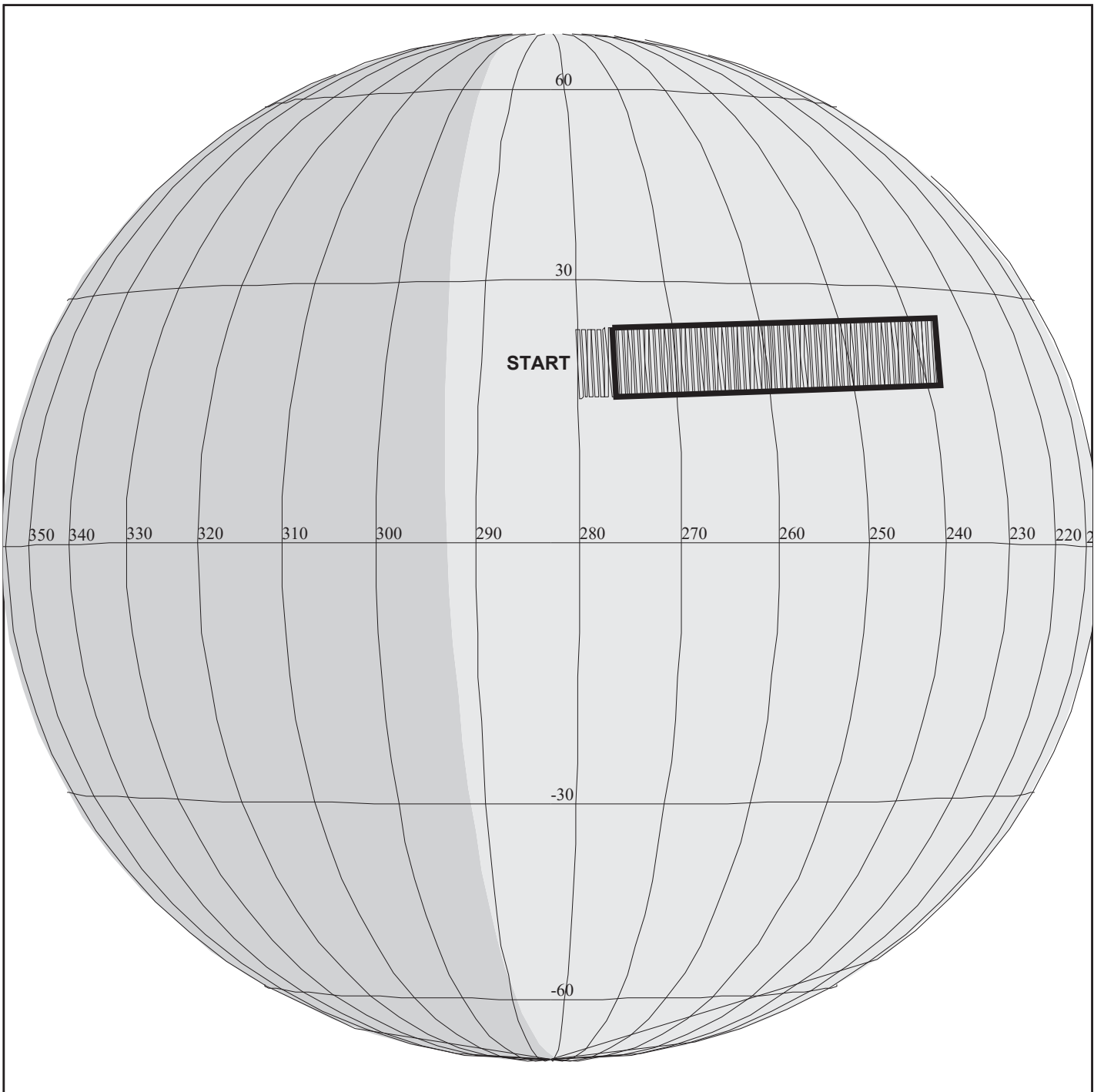
OBSERVATION:19JNHOTMAP03

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 1810 S= 1.000

DESCRIP:JUPITER\_HOTMAP\_3

NIMS Jupiter HotMap		ACTIVITY ID: 19JNHOTMAP03-	
		START TIME: 99-031/15:26:50.067	
Activity ID: Orbit 19 Target J Inst N OAPEL HOTMAP SeqNo 03 -			
Title	NIMS Jupiter HotMap	Instrument	NIMS
Requestor	NIMS-AWG/K. BAINES	Team NIMS Working Group	SWG
Time System	CDS	Load ID	Calendar Date 01/31/99 Week 57
Start	JEE-CDS 00000806:00:0	99-031/15:26:50.067	JEE-000/13:34:57.333
End	JEE-CDS 00000792:00:0	99-031/15:40:59.400	JEE-000/13:20:48.000
Duration	00000014:00:0	000/00:14:09.333	000/00:14:09.333
Top Label	19JNHOTMAP03-		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	0	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
		Scan Platform	Yes
		DMS	Yes
Observation Objective			
Long mapping of hotspot region at high spatial resolution. Observation uses special wavelength table JSB253C.			
Dayside Observation			
Data Returned			
Design Detail			
TICS=143, FMT= LPU, Long Map, Nyquist-sampled observation 5 X 1 (50 mrad X 10 mrad) area centered near 7 degrees North latitude, longitude range is from 233 degrees to 250 degrees, at about 391 km IFOV spatial resolution. Four RIMs available for targeting.			
Long Map (LM), Gain 2, Grating Start 0, LPU, JSB253C, JSB253C			
Galileo Activity Plan Form		01/15/99 09:46:14	rev 6/95



**19JNJUPNTB03**

165DO:TT= 0 TMC=1 C= 0.00 XC= 0.00 BS= 0/5148 TC= 1(20 280 )  
 A= 182 pD= 3630 SR=17.450 RA50=285.86 DEC50=-22.37 cone=107.22 clock=104.26  
 117DO:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/5148  
 1:#s= 1 Cs= -36.00 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 3630 rD= 40

TARGET G3.1 lisac: 1/15/1999 14: 8:10

FILE:P.19JNJUPNTB03

CENTRAL BODY:JUPITER

MINI:m.target

S/C EPH:/DATA/NAVIO/E19-T-981116.NS

PERIAPSIS:

START:JEE 99-032/05:01:47.400 -CDS 791:00:0

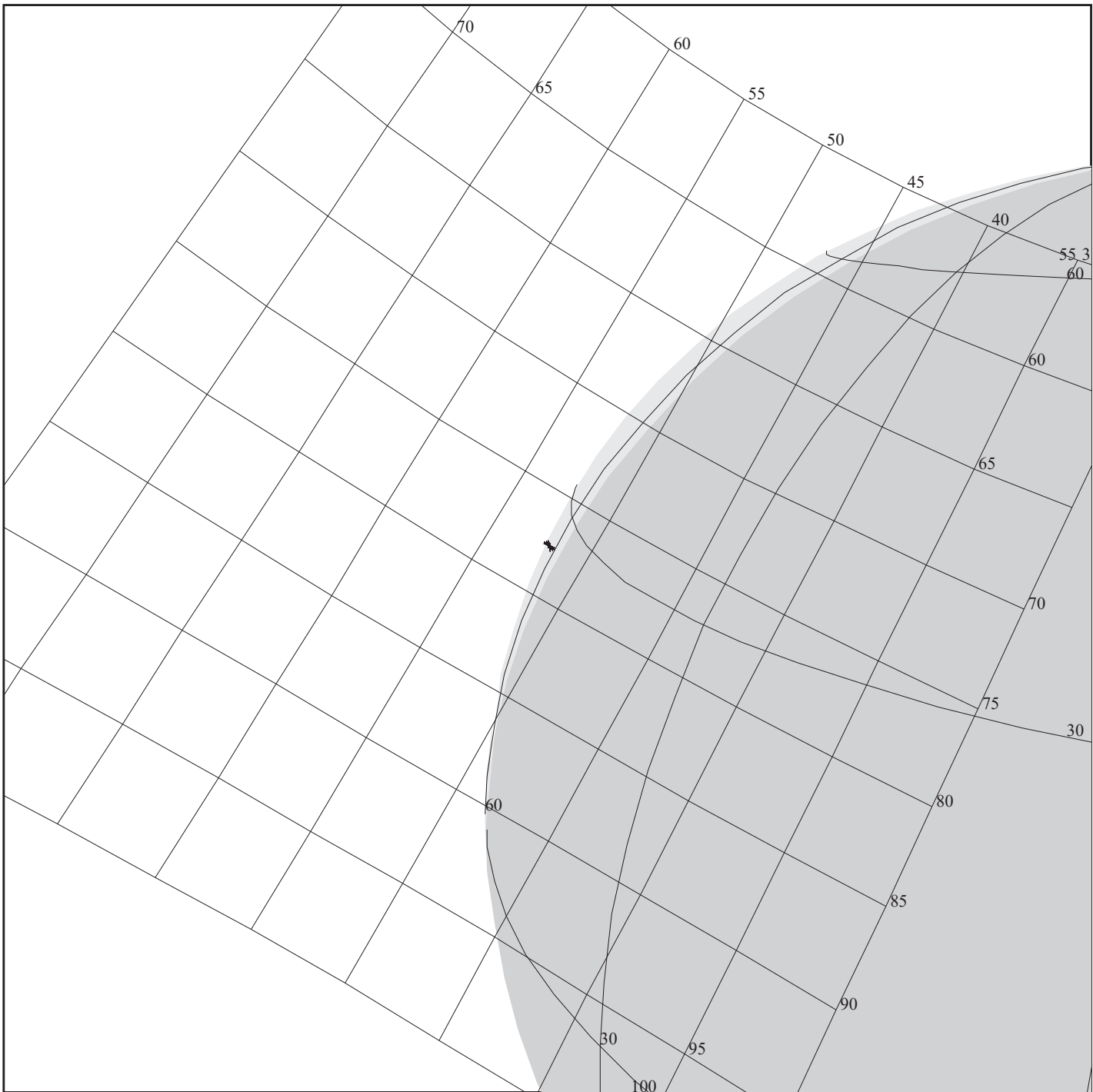
OBSERVATION:19JNJUPNTB03

THINNING:NIM 2

BODY PLOT TIME:START-TIME D= 3630 S= 1.000

DESCRIP:JUPITER\_NORTH\_TEMPORAL\_BELT\_03

Jupiter NTB Observation		ACTIVITY ID: 19JNJUPNTB03-	
		START TIME: 99-031/15:40:59.400	
Activity ID: Orbit 19 Target J Inst N OAPEL JUPNTB SeqNo 03 -			
Title	Jupiter NTB Observation	Instrument	
Requestor	NIMS-AWG/K. BAINES	Team	NIMS Working Group
			NIMS AWG
Time System	CDS	Load ID	Calendar Date 01/31/99 Week 57
Start	JEE-CDS 00000792:00:0	99-031/15:40:59.400	JEE-000/13:20:48.000
End	JEE-CDS 00000778:00:0	99-031/15:55:08.734	JEE-000/13:06:38.666
Duration	00000014:00:0	000/00:14:09.334	000/00:14:09.334
Top Label	19JNJUPNTB03-		
Bottom Label			
Plot Key	NIMS	Type	SCI
CDS Bytes	0	Report Options	BOTH
CDS Source	OAP	Spin State	DUAL
		Scan Platform	Yes
		DMS	Yes
Observation Objective			
Long mapping of Northern Temperate Belt at high spatial resolution. Observation uses special wavelength table JSB253C.			
Dayside Observation			
Data Returned			
Design Detail			
TICS=283, FMT= LPU, Long Map, Nyquist-sampled observation 5 X 1 (50 mrad X 10 mrad) area centered near 21 degrees North latitude, longitude range is from 280 degrees to 250 degrees, at about 391 km IFOV spatial resolution. Four RIMs available for targetting.			
Long Map (LM), Gain 2, Grating Start 0, LPU, JSB253C, JSB253C			
Galileo Activity Plan Form		01/15/99 09:46:14	rev 6/95



165DF:TT= 0 TMC= 2 C= 0.00 XC= 0.00 BS= 0/0718 TC= 1/26.17 63.61 )  
 A= 546 pD= 1992 SR= 8.000 RA50=172.65 DEC50=-16.80 cone= 77.54 clock= 51.95

## 19ENHEXICE02

TARGET G3.1 lisac: 1/15/1999 14: 8:10

FILE:P.19ENHEXICE02

TARGET BODY : EUROPA

MINI:m.target

S/C EPH:/DATA/NAVIO/E19-T-981116.NS

PERIAPSIS:

START:EEE 99-032/02:20:00.733 +CDS 04:00:0

OBSERVATION:19ENHEXICE02

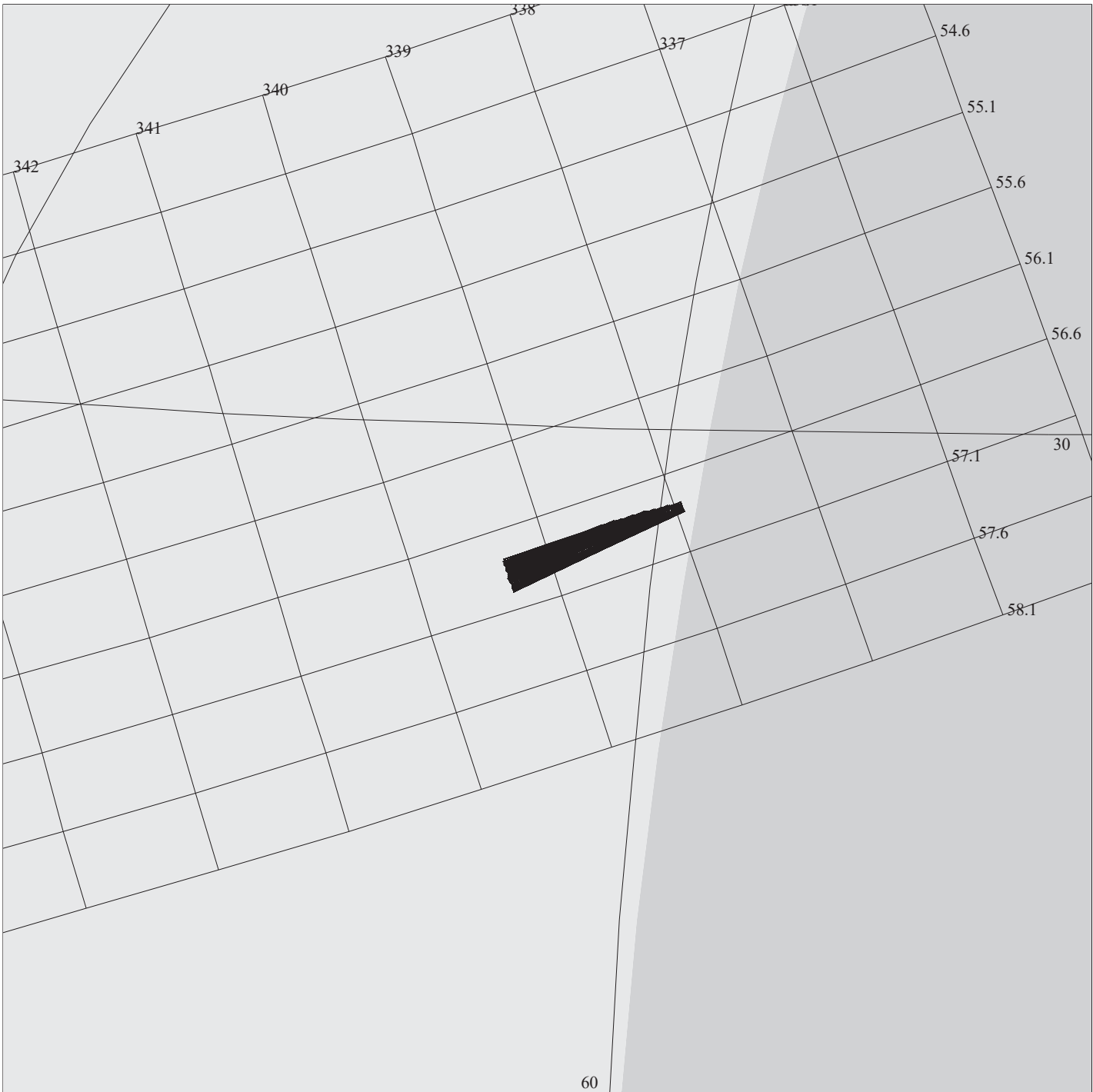
THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 1992 S= 1.000

DESCRIP:Europa\_Hexagonal\_Ice\_Obs\_2



Europa Hexagonal Ice Obs. part 2		ACTIVITY ID:	19ENHEXICE02-		
		START TIME:	99-032/02:23:02.733		
Activity ID: Orbit 19 Target E Inst N OAPEL HEXICE SeqNo 02 -					
Title	Europa Hexagonal Ice Obs. part 2		Instrument		NIMS
Requestor	NIMS-SWG/A. OCAMPO		Team	NIMS Working Group	SWG
Time System	CDS	Load ID	Calendar Date	02/01/99	Week 57
Start	EEE+CDS	00000003:00:0	99-032/02:23:02.733	EEE+000/00:03:02.000	
End	EEE+CDS	00000017:05:0	99-032/02:37:15.399	EEE+000/00:17:14.666	
Duration		00000014:05:0	000/00:14:12.666	000/00:14:12.666	
Top Label	19ENHEXICE02-				
Bottom Label					
Plot Key	NIMS	Type	SCI		
CDS Bytes	150	Report Options	BOTH	Scan Platform	Yes
CDS Source	OAP	Spin State	DUAL	DMS	Yes
Observation Objective					
To detect hexagonal ice on Europa's surface. Map out the ice phase function.					
Data Returned					
Design Detail					
NIMS mode = XM, TICS= 586, FMT= MPW, Gain state = 4, Grating position = 0					
Target only, stare at same lat/lon position while phase angle varies from 159 to 119 degrees.					
Fixed Map (XM), Gain 4, Grating Start 0, MPW, EXM17A, EXM15A					
Galileo Activity Plan Form			01/15/99	09:46:14	rev 6/95



165DG:TT= 0 TMC=1 C= 0.00 XC= 0.00 BS= 0/4358 TC= 1(26.17 63.61 )  
 A= 728 pD= 4164 SR=17.450 RA50=111.90 DEC50= 17.78 cone= 56.81 clock=338.97

## 19ENHEXICE03

TARGET G3.1 lisac: 1/15/1999 14: 8:10

FILE:P.19ENHEXICE03

TARGET BODY : EUROPA

MINI:m.target

S/C EPH:/DATA/NAVIO/E19-T-981116.NS

PERIAPSIS:

START:EEE 99-032/02:20:00.733 +CDS 24:00:0

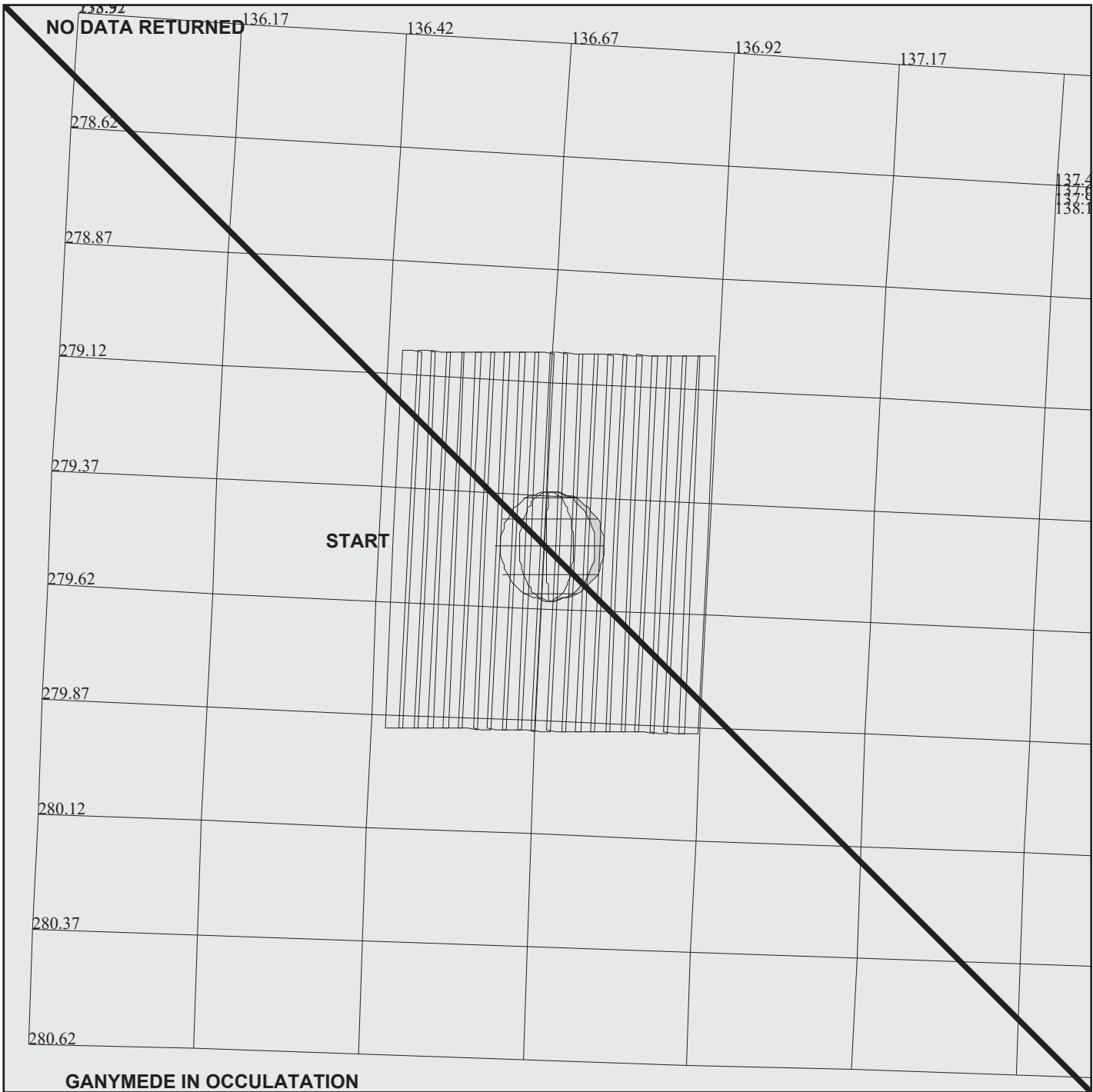
OBSERVATION:19ENHEXICE03

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 4164 S= 3.000

DESCRIP:Europa\_Hexagonal\_Ice\_Obs\_3

Europa Hexagonal Ice Obs. part 3		ACTIVITY ID:	19ENHEXICE03-		
		START TIME:	99-032/02:42:15.399		
Activity ID: Orbit 19 Target E Inst N OAPEL HEXICE SeqNo 03 -					
Title	Europa Hexagonal Ice Obs. part 3		Instrument		NIMS
Requestor	NIMS-SWG/A. OCAMPO		Team	NIMS Working Group	SWG
Time System	CDS	Load ID	Calendar Date	02/01/99	Week 57
Start	EEE+CDS	00000022:00:0	99-032/02:42:15.399	EEE+000/00:22:14.666	
End	EEE+CDS	00000048:85:0	99-032/03:09:29.399	EEE+000/00:49:28.666	
Duration		00000026:85:0	000/00:27:14.000	000/00:27:14.000	
Top Label	19ENHEXICE03-				
Bottom Label					
Plot Key	NIMS	Type	SCI		
CDS Bytes	150	Report Options	BOTH	Scan Platform	Yes
CDS Source	OAP	Spin State	DUAL	DMS	Yes
Observation Objective					
To detect hexagonal ice on Europa's surface. Map out the ice phase function.					
Data Returned					
Design Detail					
NIMS mode = XM, TICS= 1228, FMT= MPW, Gain state = 4, Grating position = 0					
Target only, stare at same lat/lon position while phase angle varies from 106 to 95 degrees.					
Fixed Map (XM), Gain 4, Grating Start 0, MPW, EXM17A, EXM15A					
Galileo Activity Plan Form			01/15/99	09:46:15	rev 6/95



**19GNAURORA01**

TARGET G3.1 lisac: 1/15/1999 14: 8:10

FILE:P.19GNAURORA01

TARGET BODY : GANYMEDE

MINI:m.target

S/C EPH:/DATA/NAVIO/E19-T-981116.NS

PERIAPSIS:

START:GEE 99-032/12:45:53.333 +CDS 820:00:0

OBSERVATION:19GNAURORA01

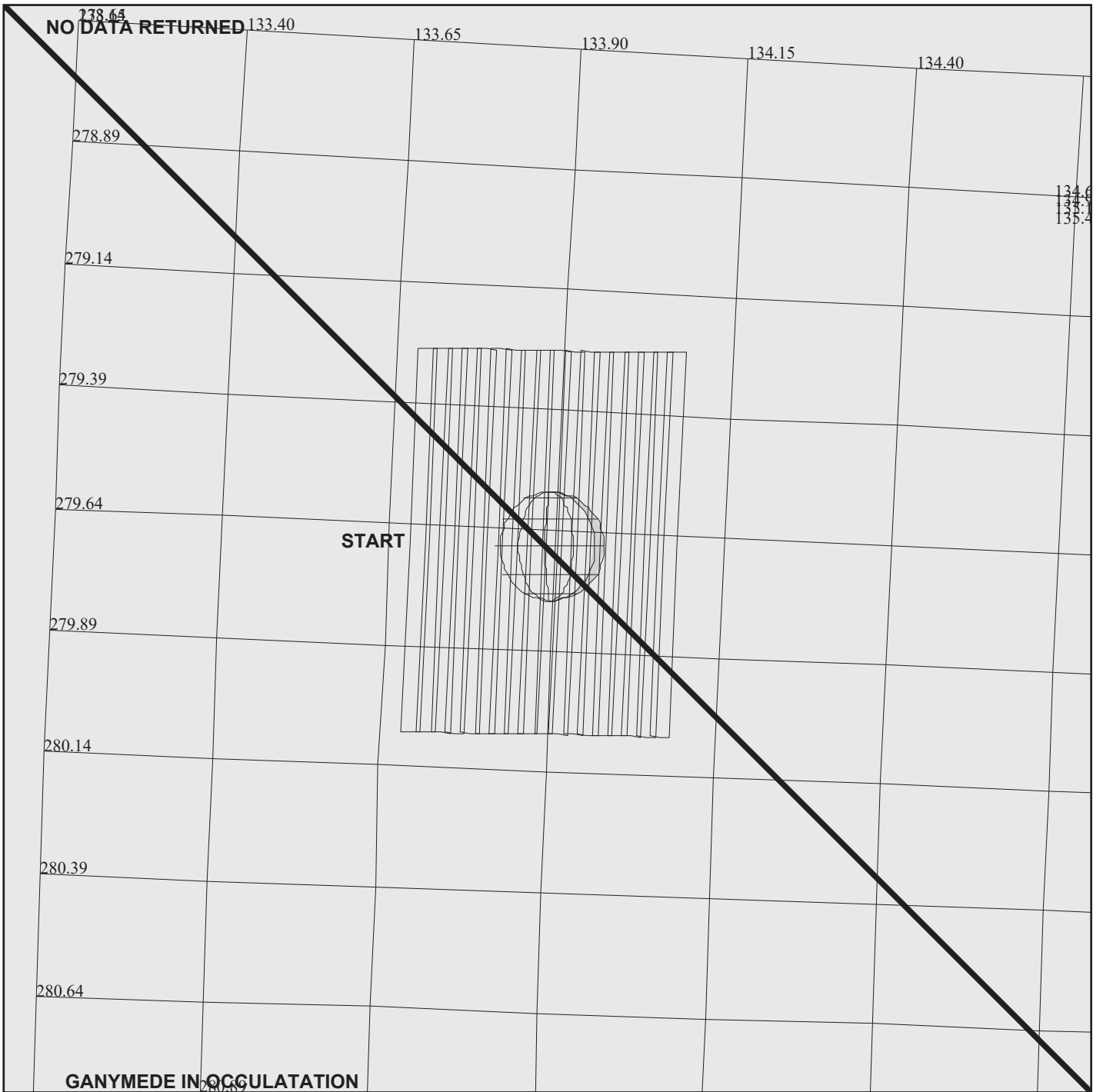
165DI:TT= 0 TMC= 1 C= -4.00 XC= 0.00 BS= 0/1888 TC= 3  
 A= 182 pD= 0 SR= 8.000 RA50= 37.82 DEC50= 16.87 cone=136.45 clock=279.48  
 117DI:#SB= 1 OR= 0.010 RR=12.000 BM=F RC= 1 BS= 0/1888  
 1:#s= 1 Cs= 3.50 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 1092 rD= 2

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 0 S= 0.100

DESCRIP:GANYMEDE\_AURORA\_OBS\_01

Ganymede Aurora Observation		ACTIVITY ID:	19GNAURORA01-		
		START TIME:	99-033/02:31:57.999		
Activity ID: Orbit 19 Target G Inst N OAPEL AURORA SeqNo 01 -					
Title	Ganymede Aurora Observation		Instrument		NIMS
Requestor	NIMS-SWG/M. SEGURA		Team	NIMS Working Group	SWG
Time System	CDS	Load ID	Calendar Date	02/02/99	Week 57
Start	GEE+CDS 00000817:00:0		99-033/02:31:57.999	GEE+000/13:46:04.666	
End	GEE+CDS 00000824:16:0		99-033/02:39:13.333	GEE+000/13:53:20.000	
Duration	00000007:16:0		000/00:07:15.334	000/00:07:15.334	
Top Label	19GNAURORA01-				
Bottom Label					
Plot Key	NIMS	Type	SCI		
CDS Bytes	0	Report Options	BOTH		
CDS Source	OAP	Spin State	DUAL	Scan Platform	Yes
			DMS		Yes
Observation Objective					
To obtain evidence of Ganymede Aurora. Observation is first in series of 3 while Ganymede is in eclipse.					
No Data Returned, S/C Safed					
Design Detail					
One Nyquist LM scan with pointing uncertainty factored in.					
Observe Ganymede full-disk while in solar occultation.					
SPACECRAFT SAFED					
NO DATA RETURNED					
Long Map (LM), Gain 4, Grating Start 0, LPU, GLM247L, GLM228L					
Galileo Activity Plan Form			01/15/99	09:46:15	rev 6/95



**19GNAURORA02**

165DJ:TT= 0 TMC= 1 C= -3.50 XC= 0.00 BS= 0/3718 TC= 3  
 A= 158 pD= 0 SR= 8.000 RA50= 40.55 DEC50= 17.76 cone=133.69 clock=279.67  
 117DJ:#SB= 1 OR= 0.010 RR=12.000 BM=F RC= 1 BS= 0/3718  
 1:#s= 1 Cs= 2.95 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 900 rD= 2

TARGET G3.1 lisac: 1/15/1999 14: 8:10

FILE:P.19GNAURORA02

TARGET BODY : GANYMEDE

MINI:m.target

S/C EPH:/DATA/NAVIO/E19-T-981116.NS

PERIAPSIS:

THINNING:NIM 2

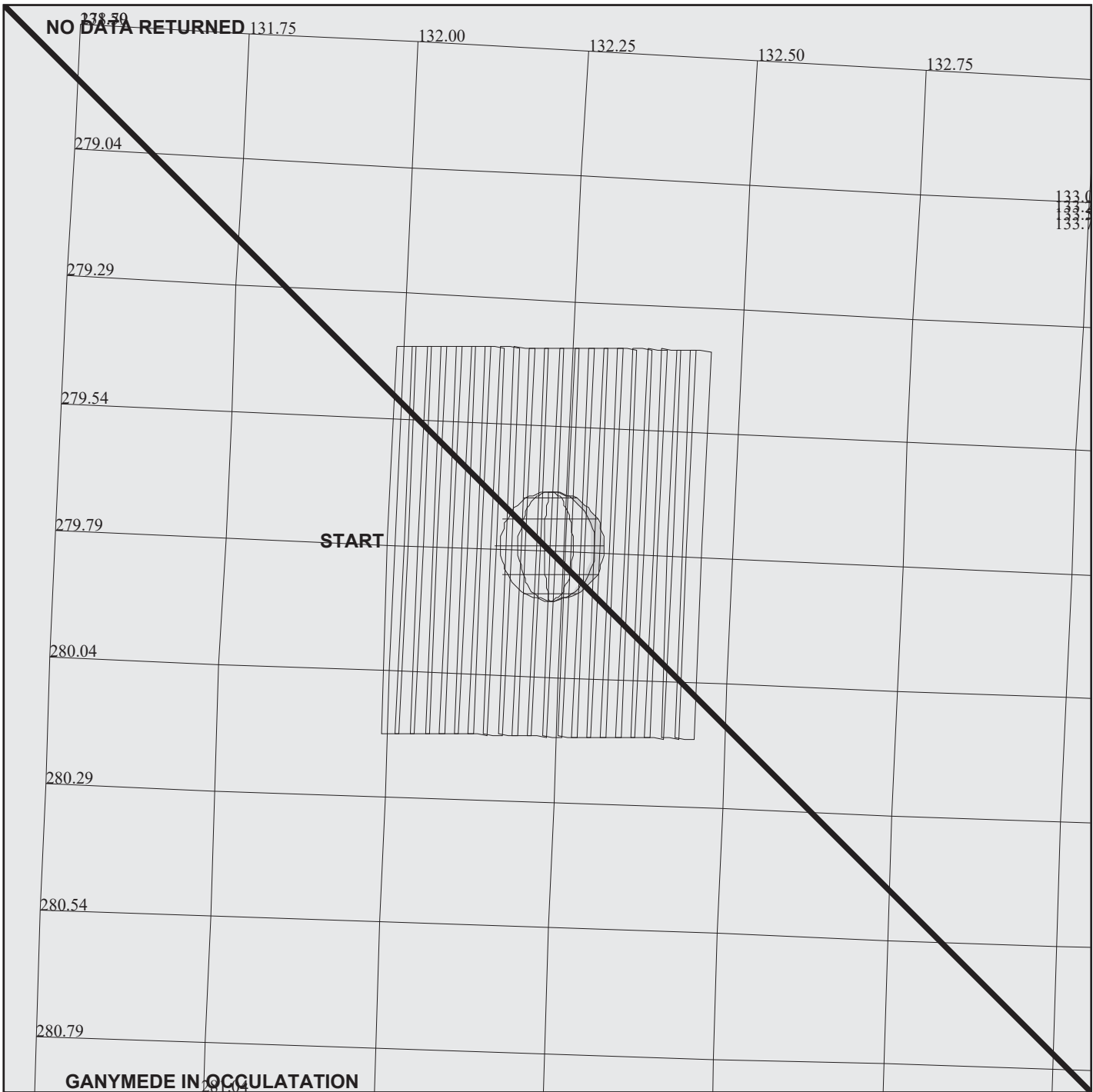
START:GEE 99-032/12:45:53.333 +CDS 885:00:0

BODY PLOT TIME:TARGET-TIME D= 0 S= 0.100

OBSERVATION:19GNAURORA02

DESCRIP:GANYMEDE\_AURORA\_OBS\_02

Ganymede Aurora Observation		ACTIVITY ID:	19GNAURORA02-		
		START TIME:	99-033/03:39:42.666		
Activity ID: Orbit 19 Target G Inst N OAPEL AURORA SeqNo 02 -					
Title	Ganymede Aurora Observation		Instrument		NIMS
Requestor	NIMS-SWG/M. SEGURA		Team	NIMS Working Group	SWG
Time System	CDS	Load ID	Calendar Date	02/02/99	Week 57
Start	GEE+CDS 00000884:00:0		99-033/03:39:42.666	GEE+000/14:53:49.333	
End	GEE+CDS 00000891:16:0		99-033/03:46:57.999	GEE+000/15:01:04.666	
Duration	00000007:16:0		000/00:07:15.333	000/00:07:15.333	
Top Label	19GNAURORA02-				
Bottom Label					
Plot Key	NIMS	Type	SCI		
CDS Bytes	0	Report Options	BOTH		
CDS Source	OAP	Spin State	DUAL	Scan Platform	Yes
			DMS		Yes
Observation Objective					
To obtain evidence of Ganymede Aurora. Observation is second in series of 3 while Ganymede is in eclipse.					
No Data Returned, S/C Safed					
Design Detail					
One Nyquist LM scan with pointing uncertainty factored in.					
Observe Ganymede full-disk while in solar occultation.					
SPACECRAFT SAFED					
NO DATA RETURNED					
Long Map (LM), Gain 4, Grating Start 0, LPU, GLM247L, GLM228L					
Galileo Activity Plan Form			01/15/99	09:46:15	rev 6/95



**19GNAURORA03**

TARGET G3.1 lisac: 1/15/1999 14: 8:10

FILE:P.19GNAURORA03

TARGET BODY : GANYMEDE

MINI:m.target

S/C EPH:/DATA/NAVIO/E19-T-981116.NS

PERIAPSIS:

START:GEE 99-032/12:45:53.333 +CDS 925:00:0

OBSERVATION:19GNAURORA03

165DK:TT= 0 TMC= 1 C= -4.00 XC= 0.00 BS= 0/0998 TC= 3  
 A= 182 pD= 0 SR= 8.000 RA50= 42.25 DEC50= 18.29 cone=132.00 clock=279.78  
 117DK:#SB= 1 OR= 0.010 RR=12.000 BM=F RC= 1 BS= 0/0998  
 1:#s= 1 Cs= 3.50 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 1082 rD= 2

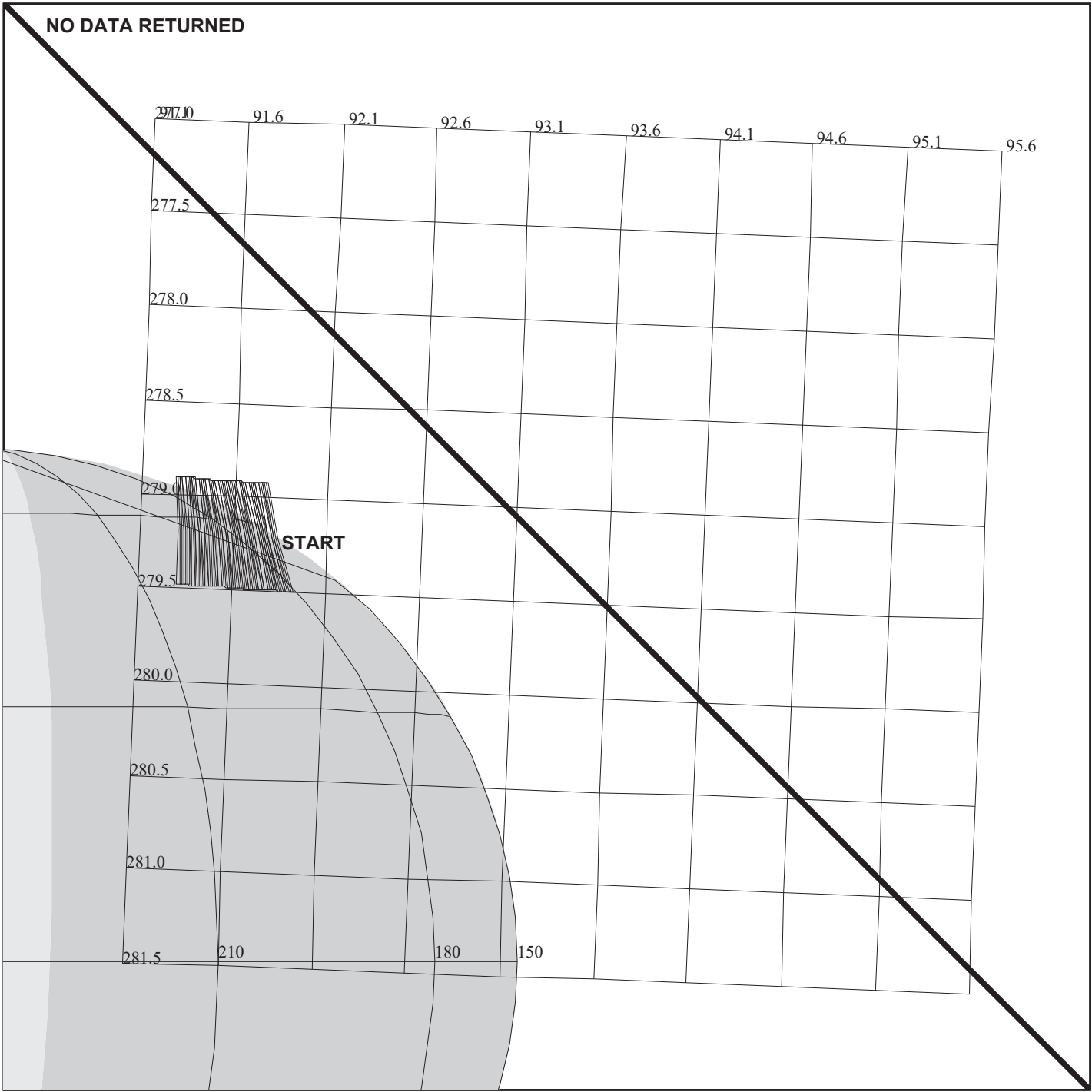
THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 0 S= 0.100

DESCRIP:GANYMEDE\_AURORA\_OBS\_03



Ganymede Aurora Observation		ACTIVITY ID:	19GNAURORA03-		
		START TIME:	99-033/04:20:09.333		
Activity ID: Orbit 19 Target G Inst N OAPEL AURORA SeqNo 03 -					
Title	Ganymede Aurora Observation		Instrument		NIMS
Requestor	NIMS-SWG/M. SEGURA		Team	NIMS Working Group	SWG
Time System	CDS	Load ID	Calendar Date	02/02/99	Week 57
Start	GEE+CDS 00000924:00:0		99-033/04:20:09.333	GEE+000/15:34:16.000	
End	GEE+CDS 00000931:16:0		99-033/04:27:24.666	GEE+000/15:41:31.333	
Duration	00000007:16:0		000/00:07:15.333	000/00:07:15.333	
Top Label	19GNAURORA03-				
Bottom Label					
Plot Key	NIMS	Type	SCI		
CDS Bytes	0	Report Options	BOTH		
CDS Source	OAP	Spin State	DUAL	Scan Platform	Yes
			DMS		Yes
Observation Objective					
To obtain evidence of Ganymede Aurora. Observation is third in series of 3 while Ganymede is in eclipse.					
No Data Returned, S/C Safed					
Design Detail					
One Nyquist LM scan with pointing uncertainty factored in.					
Observe Ganymede full-disk while in solar occultation.					
SPACECRAFT SAFED NO DATA RETURNED					
Long Map (LM), Gain 4, Grating Start 0, LPU, GLM247L, GLM228L					
Galileo Activity Plan Form			01/15/99	09:46:15	rev 6/95



165AV:TT= 0 TMC= 1 C= 0.00 XC= 0.00 BS= 0/2696 TC=15(27.6 83.25 )  
 A= 354 pD= 5450 SR=17.450 RA50= 83.25 DEC50= 27.60 cone= 93.30 clock=279.19  
 117AV:#SB= 1 OR= 0.020 RR=12.000 BM=F RC= 1 BS= 0/2696  
 1:#s= 1 Cs= -35.50 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 5370 rD= 2

**19JNIOFLUX01**

TARGET G3.1 lisac: 1/15/1999 14: 8:10

FILE:P.19JUAURORA\_N

CENTRAL BODY:JUPITER

MINI:m.target

S/C EPH:/DATA/NAVIO/E19-T-981116.NS

PERIAPSIS:

START:JEE 99-032/05:01:47.400 +CDS 1723:00:0

OBSERVATION:19JUAURORA\_N

THINNING:NIM 2

BODY PLOT TIME:99-033/10:34:00.000 D= 5450 S= 1.000

DESCRIP:UVS\_EUROPA\_SURFACE\_OBS

Jupiter Io Flux Observation		ACTIVITY ID:	19JNIOFLUX01-		
		START TIME:	99-033/10:02:55.400		
Activity ID: Orbit 19 Target J Inst N OAPEL IOFLUX SeqNo 01 -					
Title	Jupiter Io Flux Observation		Instrument		NIMS
Requestor	NIMS-AWG/K. BAINES		Team	NIMS Working Group	AWG
Time System	CDS	Load ID	Calendar Date	02/02/99	Week 57
Start	JEE+CDS 00001722:00:0		99-033/10:02:55.400	JEE+001/05:01:08.000	
End	JEE+CDS 00001736:00:0		99-033/10:17:04.733	JEE+001/05:15:17.333	
Duration	00000014:00:0		000/00:14:09.333	000/00:14:09.333	
Top Label	19JNIOFLUX01-				
Bottom Label					
Plot Key	NIMS	Type	SCI		
CDS Bytes	0	Report Options	BOTH		
CDS Source	OAP	Spin State	DUAL	Scan Platform	Yes
				DMS	Yes
Observation Objective					
To observe the Io footprint/flux tube.					
No Data Returned, S/C Safed					
Design Detail					
One LM scan, Nyquist sampling, 10 RIMs MPW recording. This is a collaborative UVS/NIMS observation. Timing of record is based on best knowledge of Io footprint geometric position as of 1/5/99.					
SPACECRAFT SAFED NO DATA RETURNED					
Long Map (LM), Gain 4, Grating Start 0, MPW, JLM442, JLM360					
Galileo Activity Plan Form			01/15/99	09:46:15	rev 6/95

NIMS Chopper Off		ACTIVITY ID: 19NNCHOPOF01-	
		START TIME: 99-033/10:36:17.400	
Activity ID: Orbit 19 Target N Inst N OAPEL CHOPOF SeqNo 01 -			
Title	NIMS Chopper Off		Instrument
Requestor	NIMS-SWG/E. BARBINIS		NIMS
	Team	NIMS	Working Group
Time System	CDS	Load ID	Calendar Date 02/02/99 Week 57
Start	JEE+CDS 00001755:00:0	99-033/10:36:17.400	JEE+001/05:34:30.000
End	JEE+CDS 00001765:00:0	99-033/10:46:24.066	JEE+001/05:44:36.666
Duration	00000010:00:0	000/00:10:06.666	000/00:10:06.666
Top Label	19NNCHOPOF01-		
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			
NIMS Chopper Off			
Commands Not Executed, S/C Safed			
Design Detail			
SPACECRAFT SAFED			
COMMANDS NOT EXECUTED			
Galileo Activity Plan Form		01/15/99 09:46:15	rev 6/95

NIMS Real-Time PCT Calibration		ACTIVITY ID:	19NNPCTRLT01-		
		START TIME:	99-071/17:00:00.000		
Activity ID: Orbit 19 Target N Inst N OAPEL PCTRLT SeqNo 01 -					
Title	NIMS Real-Time PCT Calibration		Instrument		NIMS
Requestor	NIMS-SWG/M. SEGURA		Team	NIMS Working Group	SWG
Time System	CDS	Load ID	Calendar Date	03/12/99	Week 63
Start	PCT+CDS 0:00:0		99-071/17:00:00.000	PCT+000/00:00:00.000	
End	PCT+CDS 00000465:00:0		99-072/00:50:10.000	PCT+000/07:50:10.000	
Duration	00000465:00:0		000/07:50:10.000	000/07:50:10.000	
Top Label	19NNPCTRLT01-				
Bottom Label					
Plot Key	NIMS	Type	SCI		
CDS Bytes	275	Report Options	BOTH		
CDS Source	OAP	Spin State	DUAL	Scan Platform	Yes
				DMS	No
Observation Objective					
<p>This observation is an NIMS photometric calibration usint the PCT target. The data will be used to calibrate the NIMS visible detectors. The calibration data will be returned using Real-Time telemetry. At this time the off sun angle is about x.x degrees.</p>					
Data Returned					
Design Detail					
<ol style="list-style-type: none"> <li>1) Turn off PCT heaters 6 hours before calibration.</li> <li>2) Scan Platform is at Safe/Unstow (cone = 153.00, clock = 0.00)</li> <li>3) Chopper on, Gain State 4,</li> <li>4) Set NIMS to Long Map Mode, ETB = PCT252, Mirror Blocking (1B, 1B) (11011, 11011)</li> <li>5) Select 2 RIMs of Dark in Real-Time (Return 2 LM grating cycle)</li> <li>6) Slew to PCT (cone 54.88, clock = 244.07)</li> <li>7) Select 10 RIMS of PCT in Real-Time (Return 10 LM grating cycles)</li> <li>8) Slew to Safe (cone = 153.00, clock = 0.00)</li> <li>9) NIMS to Safe Mode, Reset Mirror Blocking (00,00) (00000, 00000)</li> <li>10) Chopper Off.</li> </ol>					
Long Map (LM), Gain 4, Grating Start 0, RT, PCT252					
Galileo Activity Plan Form			01/15/99	09:46:15	rev 6/95

NIMS RCT Real Time Calibration		ACTIVITY ID:	19NNRCTRLT01-		
		START TIME:	99-075/12:00:00.000		
Activity ID: Orbit 19 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	03/16/99	Week 63
Start	RTA+CDS 0:00:0		99-075/12:00:00.000	RTA+000/00:00:00.000	
End	RTA+CDS 00000787:00:0		99-076/01:15:44.666	RTA+000/13:15:44.666	
Duration	00000787:00:0		000/13:15:44.666	000/13:15:44.666	
Top Label	19NNRCTRLT01-				
Bottom Label					
Plot Key	NIMS	Type	SCI		
CDS Bytes	450	Report Options	BOTH		
CDS Source	OAP	Spin State	DUAL	Scan Platform	Yes
				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 NIMS OPCAL has been included in the RCT calibration for GEM. Perform NIMS Optical Calibration to calibrate the NIMS grating.</p> <p>This is a GEM 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) Slew to Dark (cone = 119.7), return 1 grating cycle (12 mf) in R/T</li> <li>6) Slew to RCT (cone = 0.0), return 2 grating cycles (12 mf) in R/T</li> <li>7) Slew to Dark (cone = 119.7), return 1 grating cycle (12 mf) in R/T</li> <li>8) Slew to Safe (cone = 153.0)</li> <li>9) Long Map, gain state 4, ETB=OPCAL48.</li> <li>10) Use 37IST to turn on OPCAL Lamp (two times).</li> <li>11) Select NIMS Real Time 1 Rim OPCAL, 1 Rim Dark, 1 Rim OPCAL</li> <li>12) Set NIMS to Safe Mode and turn off Chopper.</li> <li>13) Resume Playback after using scan platform.</li> </ol> <p>Long Map (LM), Gain 1, Grating Start 0, R/T, RCT252 Long Map (LM), Gain 4, Grating Start 0, R/T, OPCAL48</p>					
Galileo Activity Plan Form			01/15/99	09:46:15	rev 6/95

## Chapter 6 - Edit Tables

### Contents

	Sub-Section	Page
6.0	Contents .....	1
6.1	Introduction .....	2
6.2	EXM17A_EXM15A .....	3
6.3	GLM247L_GLM228L .....	4
6.4	JHT253A .....	5
6.5	JLM204 .....	6
6.6	JLM408 .....	7
6.7	JLM408_JLM360 .....	8
6.8	JSB253C .....	9
6.9	OPCAL48 .....	10
6.10	PCT252 .....	11
6.11	RCT252 .....	12

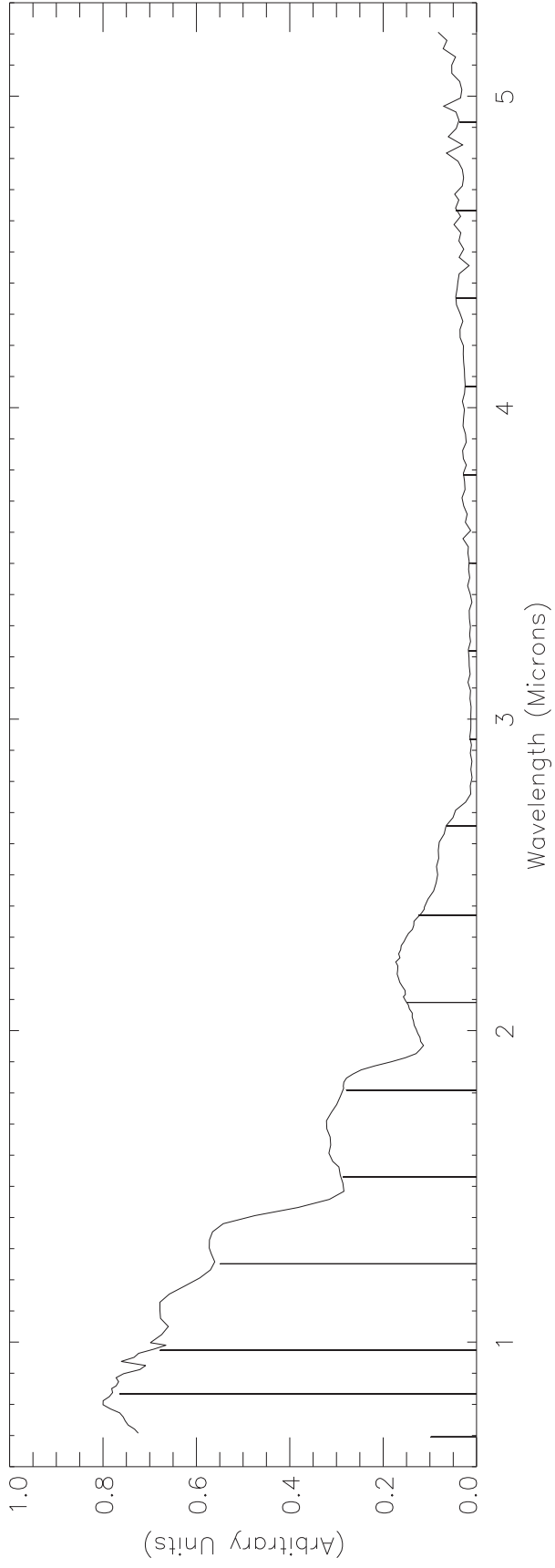
## Introduction to Chapter 6

### NIMS Edit Table Plots

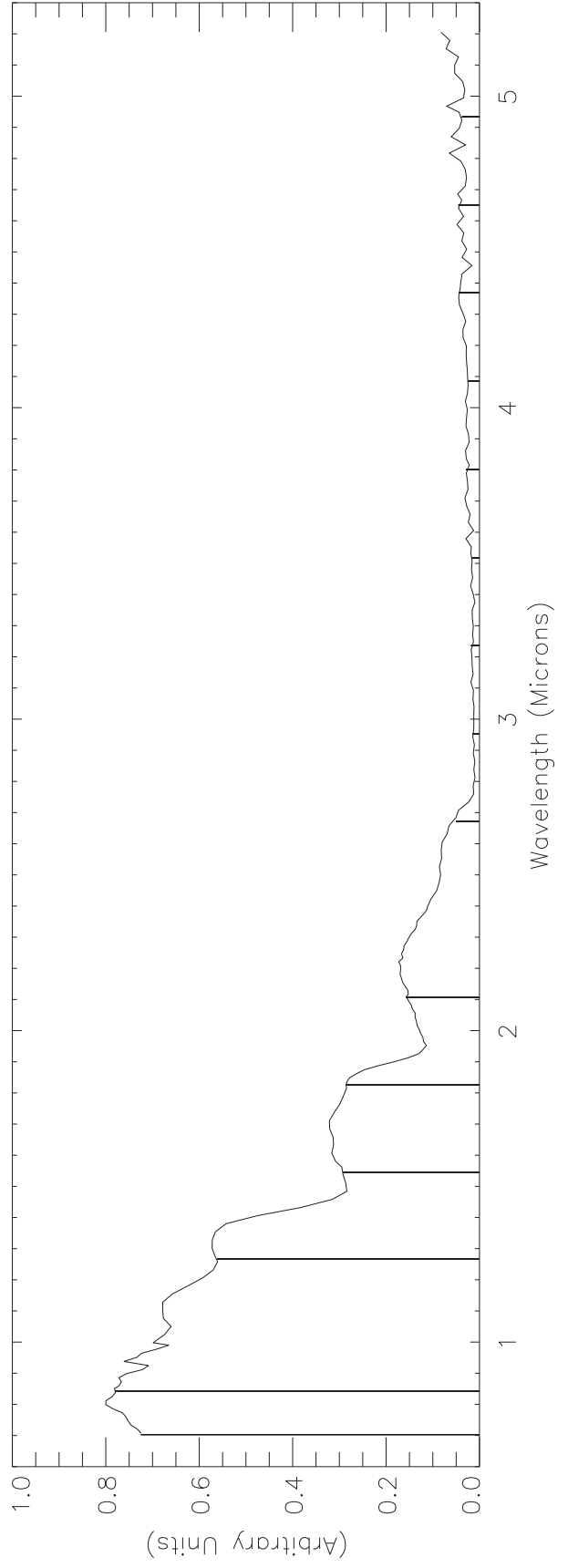
This chapter contains plots of the NIMS Edit Tables used in E19. The representative spectra used in these plots are observational reference spectra for the target body as obtained from telescopic observations from the Earth. Each reference spectrum is a composite of multiple published sources. Vertical 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.



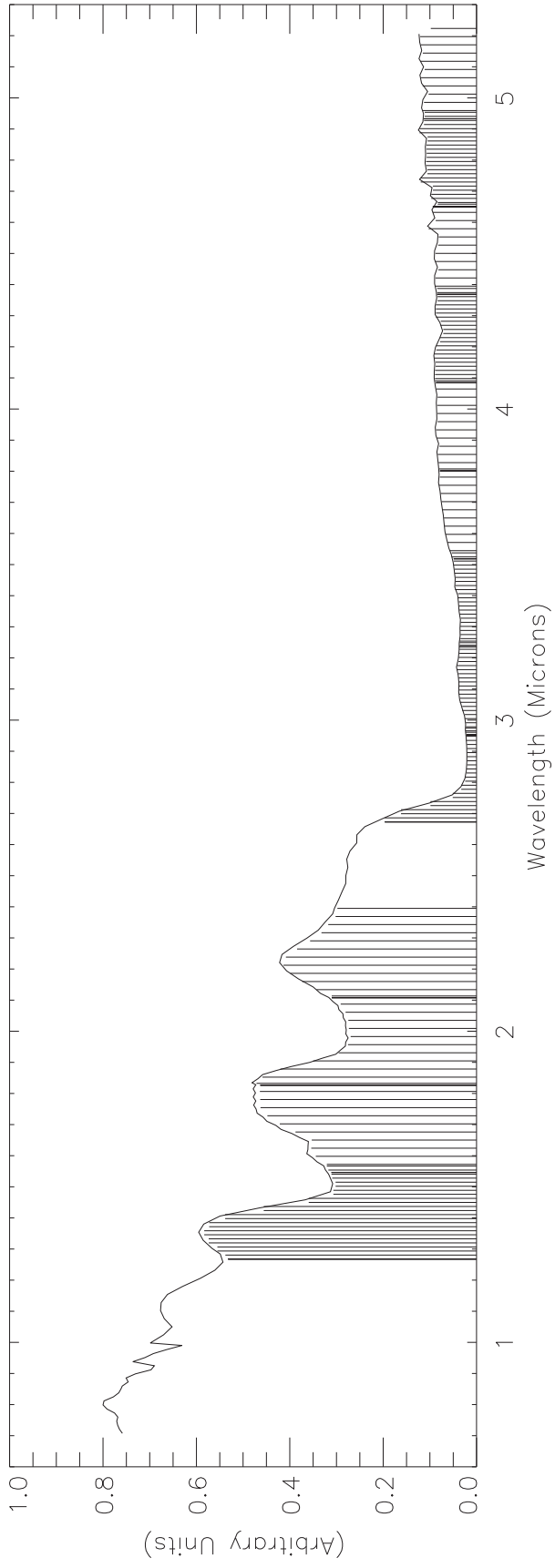
EXM17A.ETB



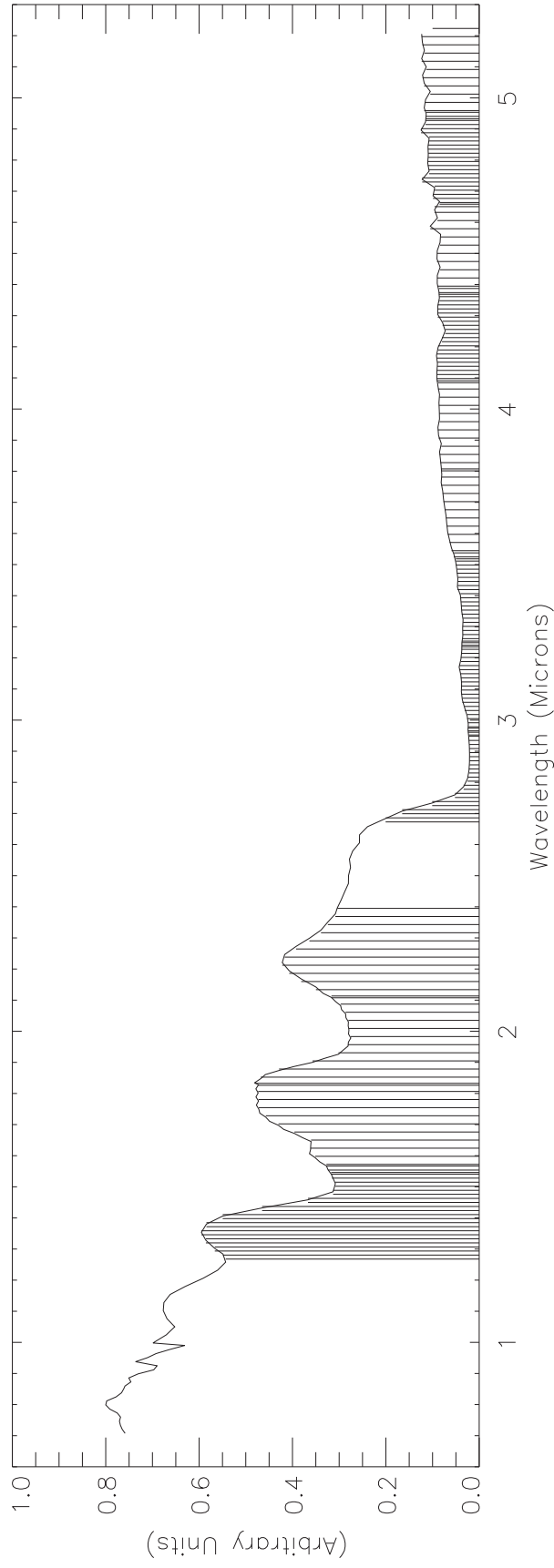
EXM15A.PBK



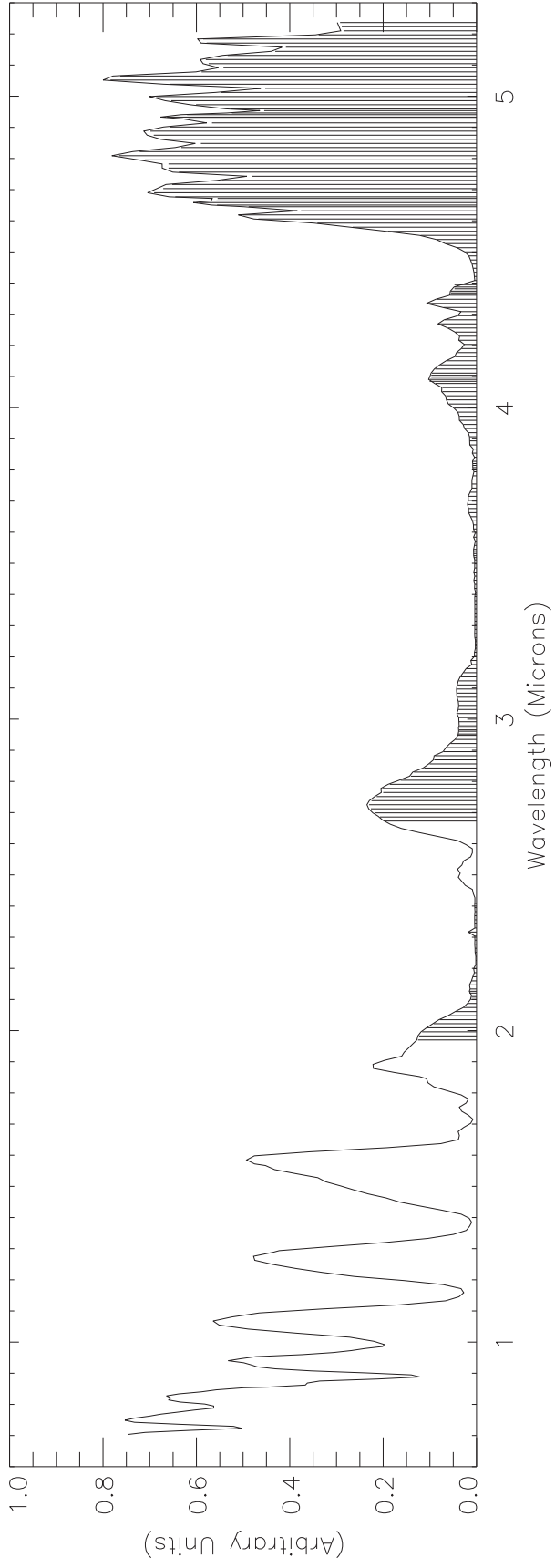
GLM247L.ETB



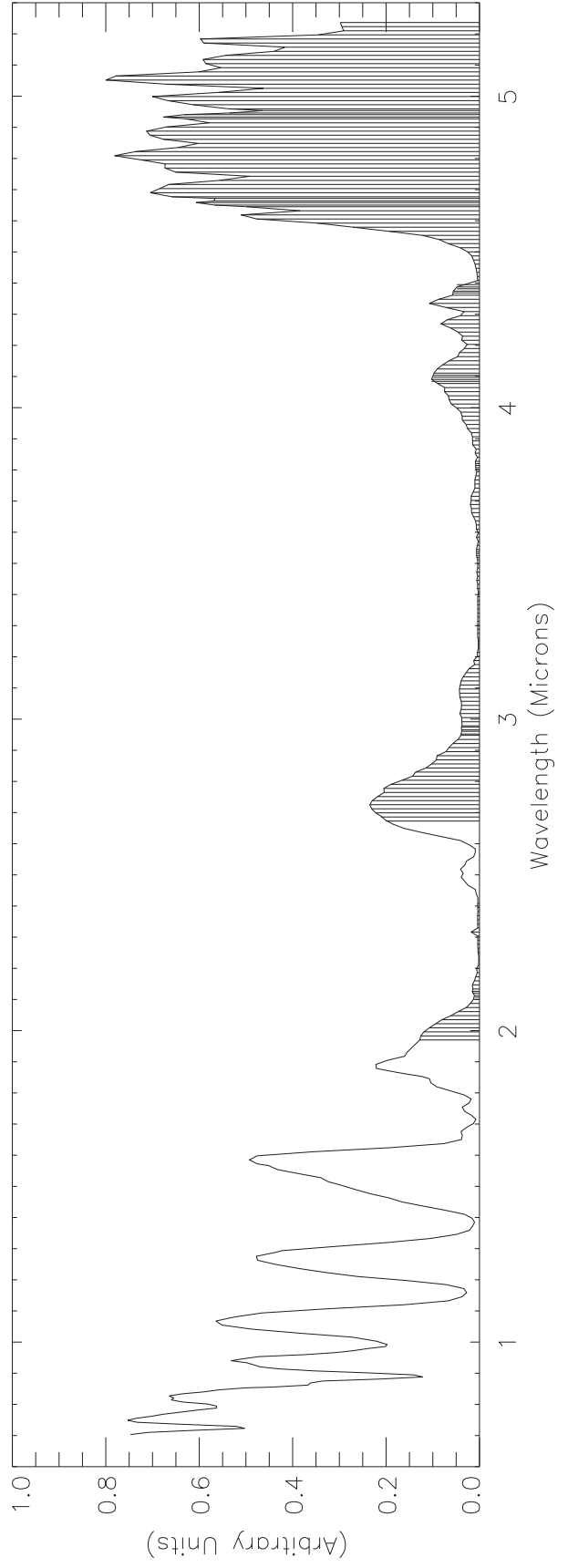
GLM228L.PBK



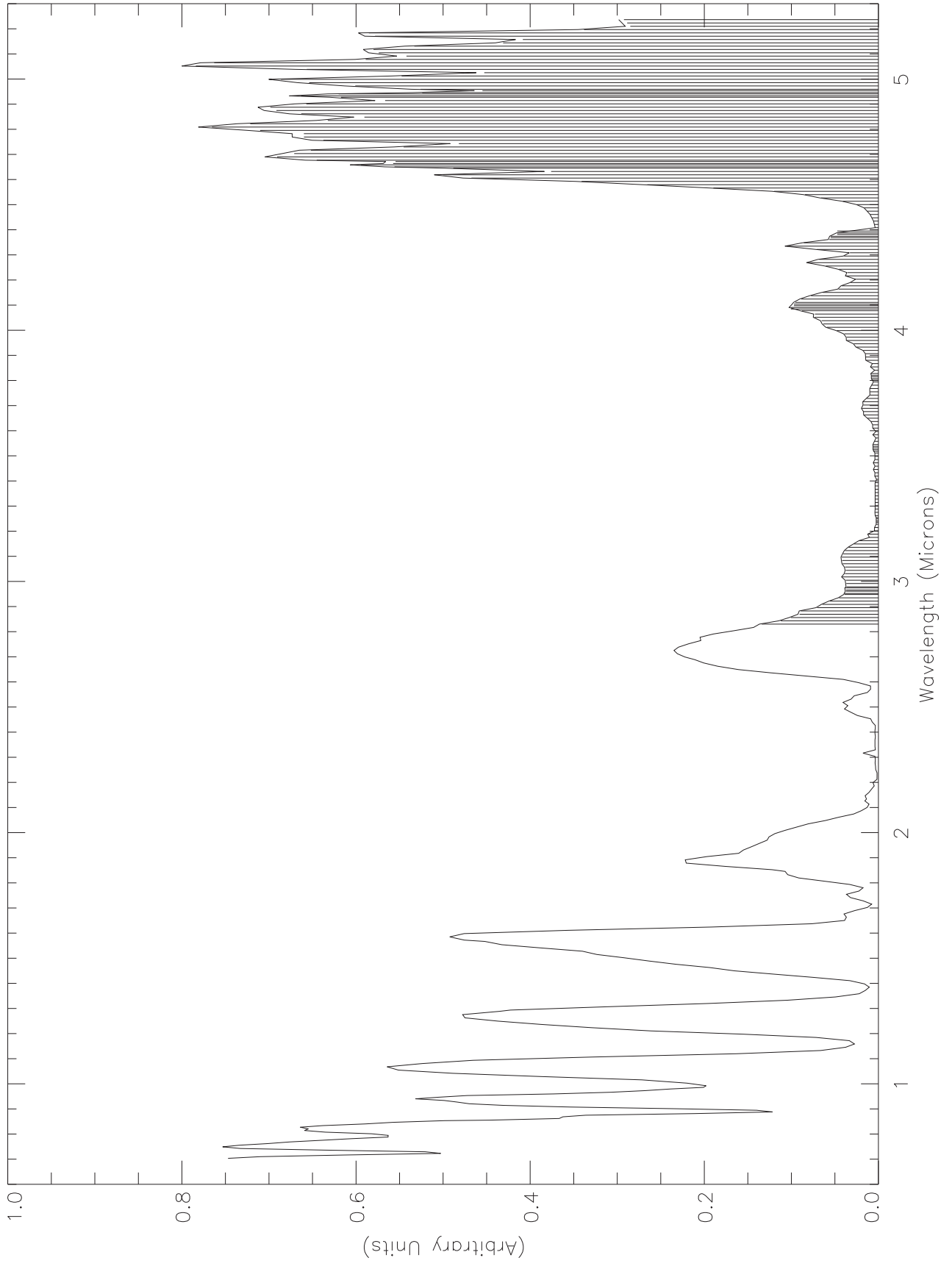
JHT253A.ETB



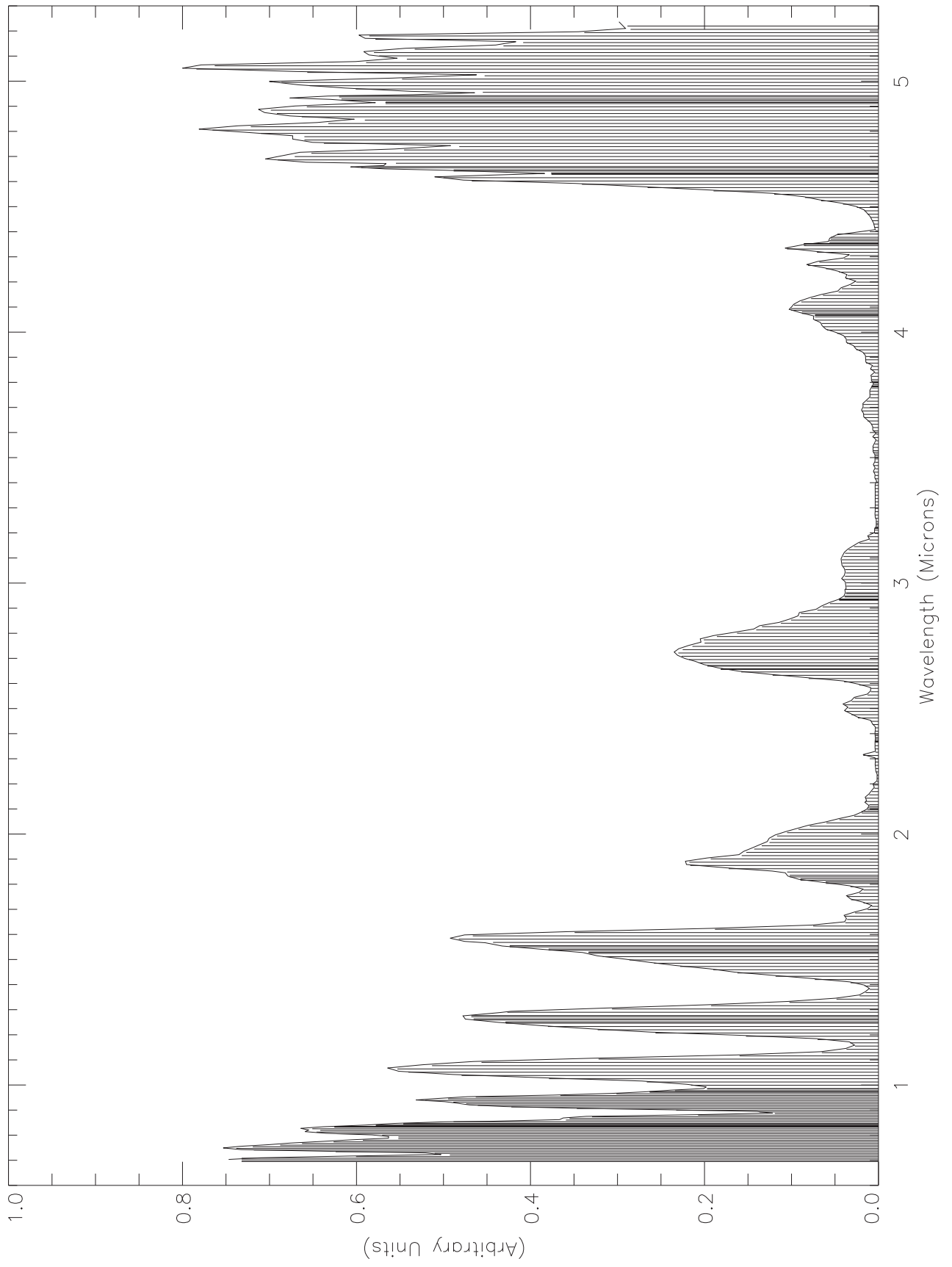
JHT253A.PBK



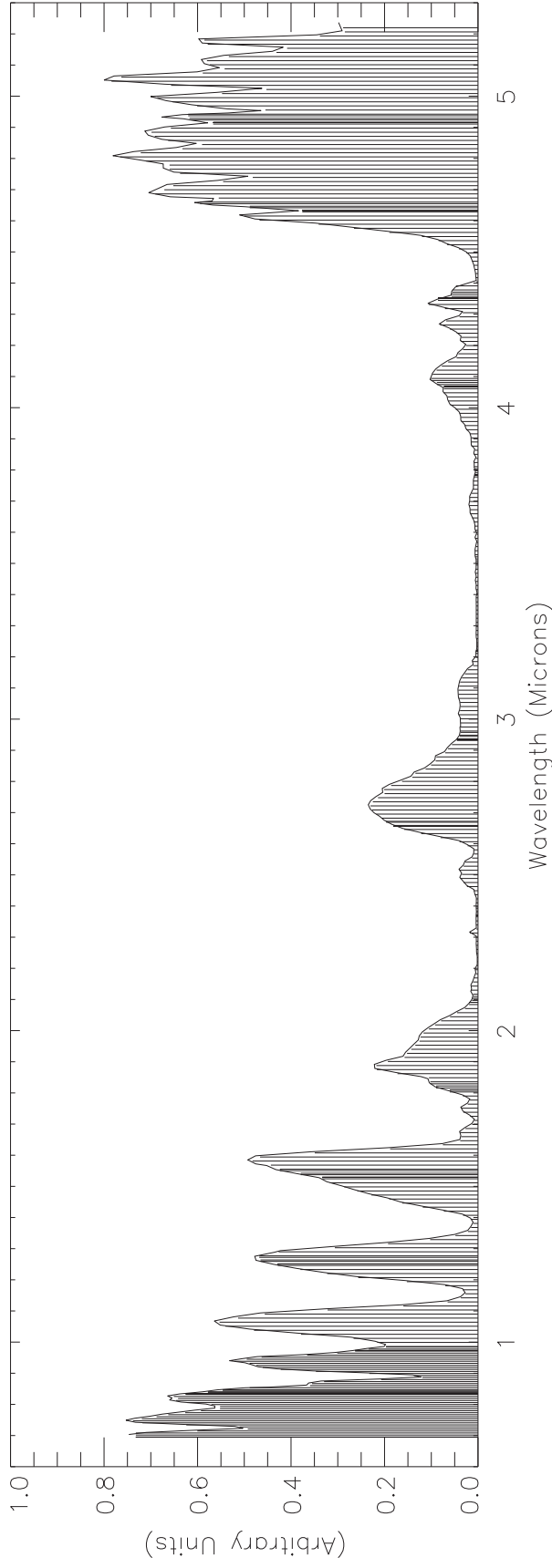
JLM204



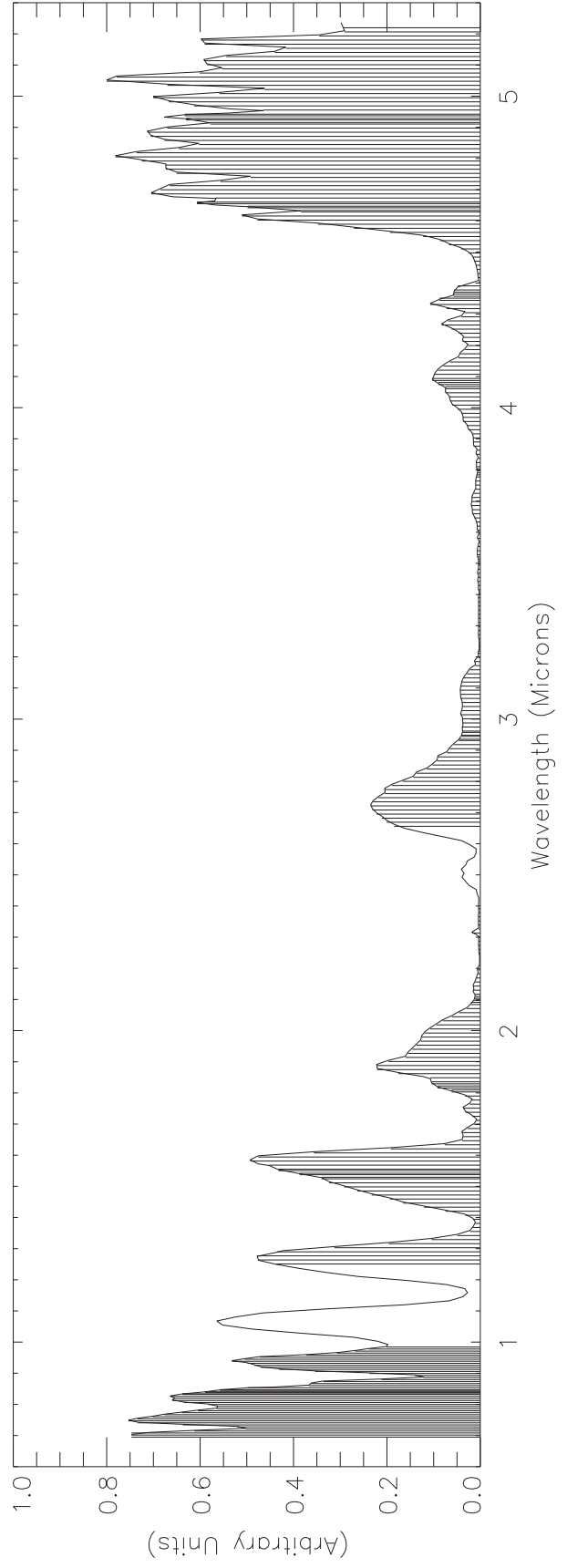
JLM408



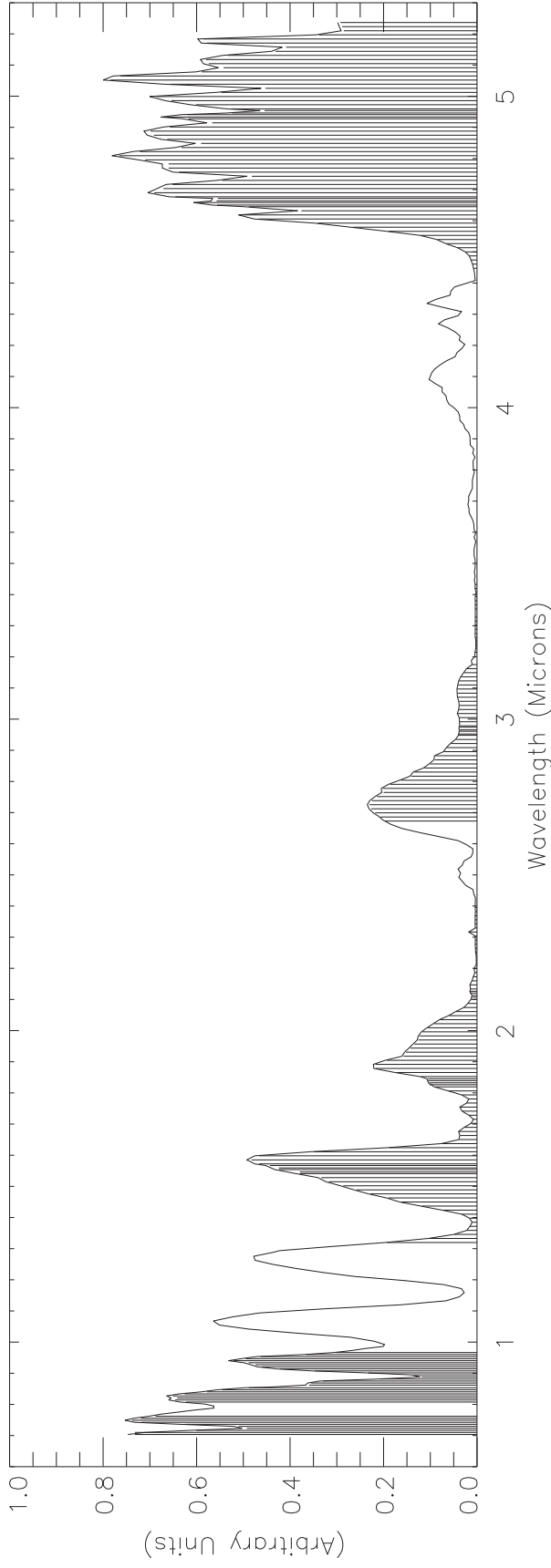
JLM408



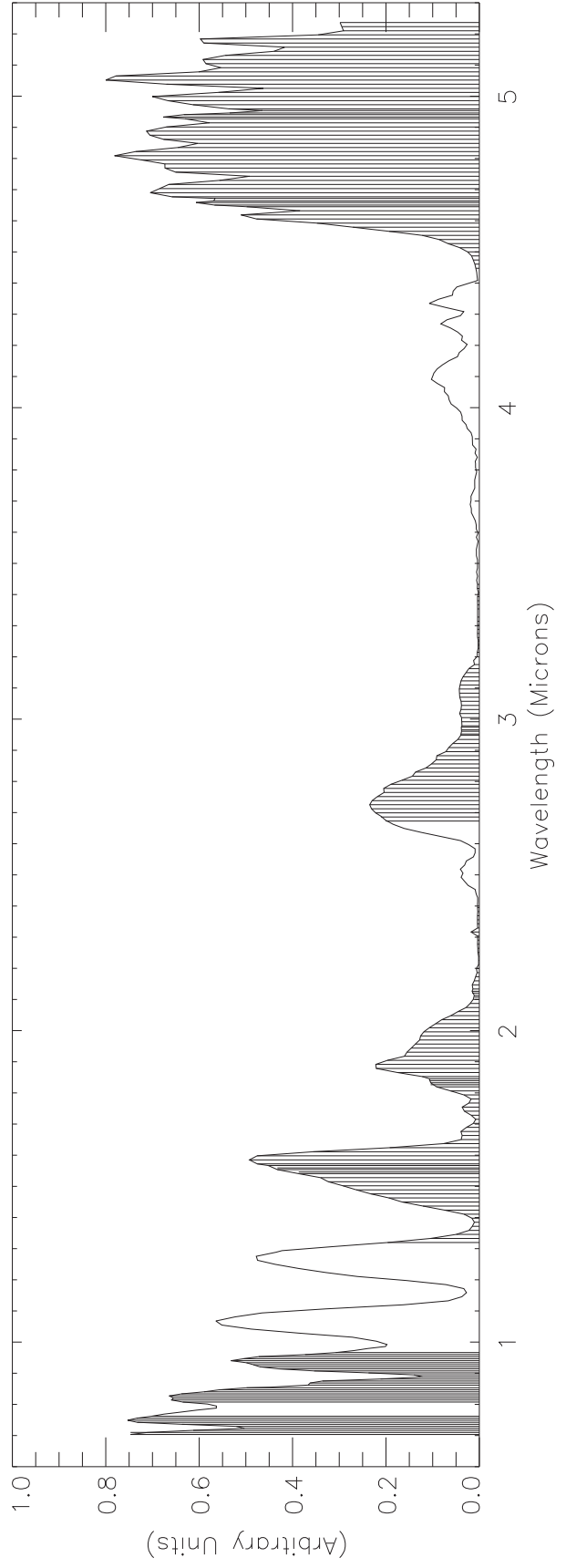
JLM360



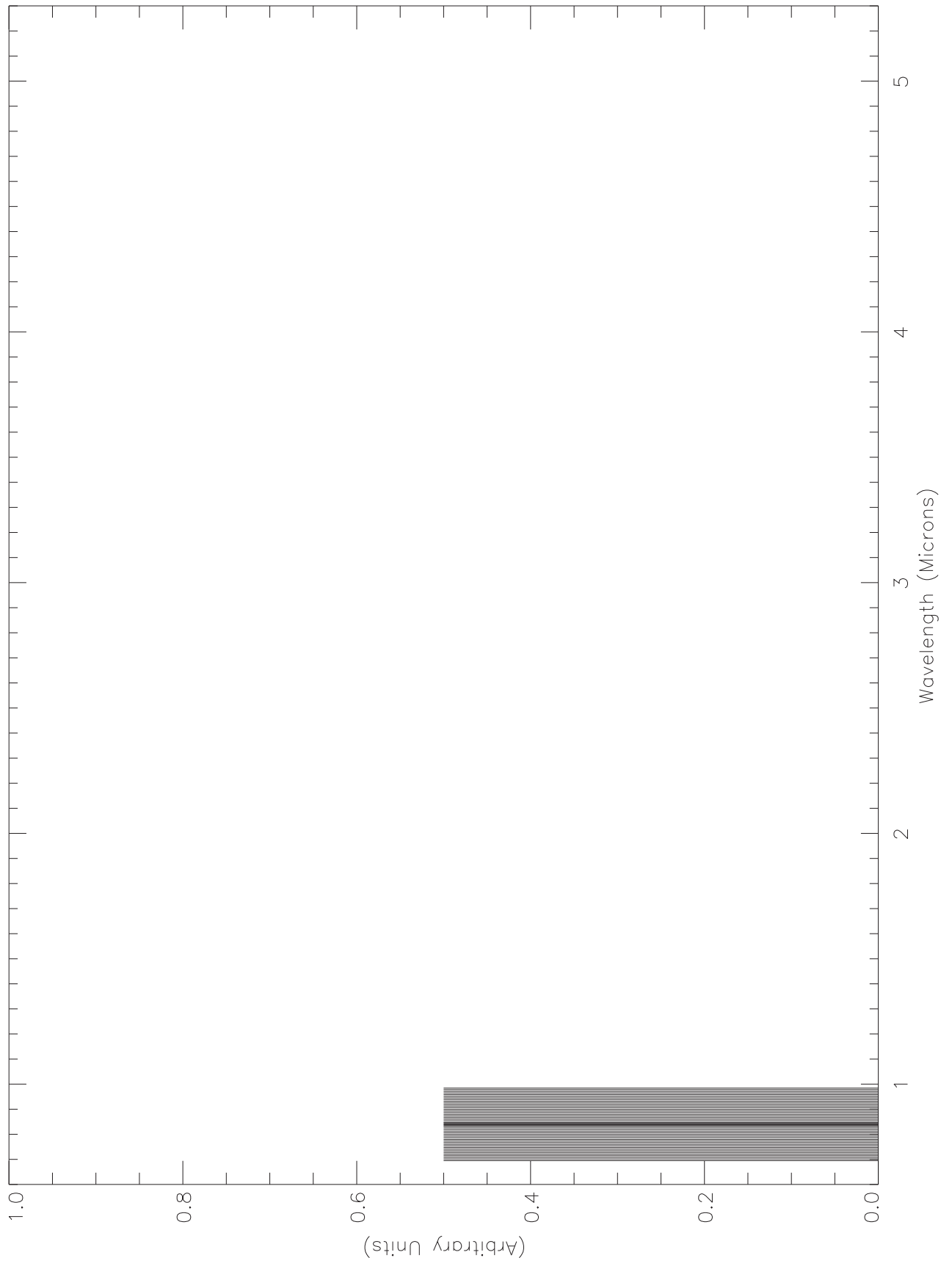
JSB253C.ETB



JSB253C.PBK

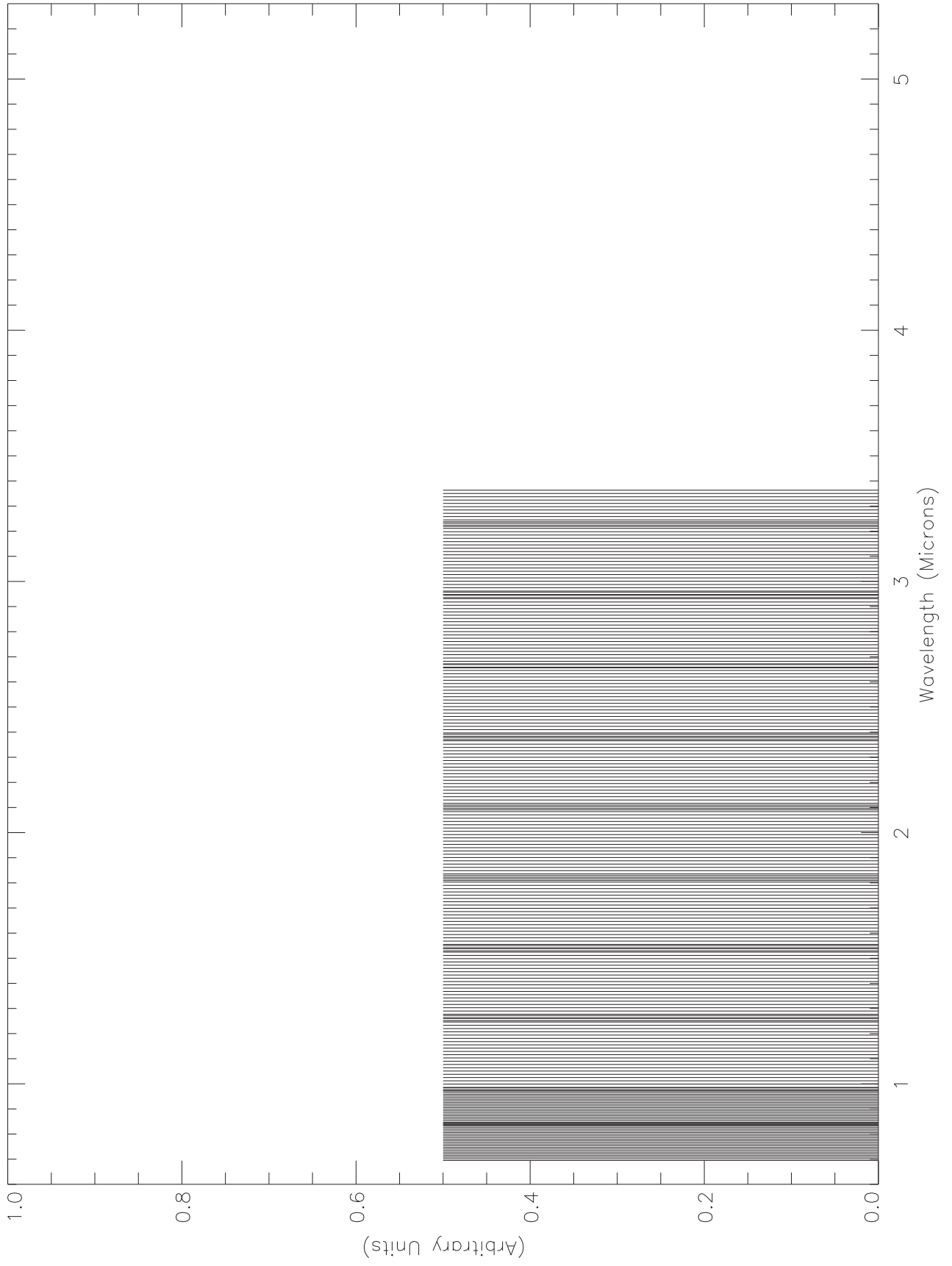


OPCAL48.ETB

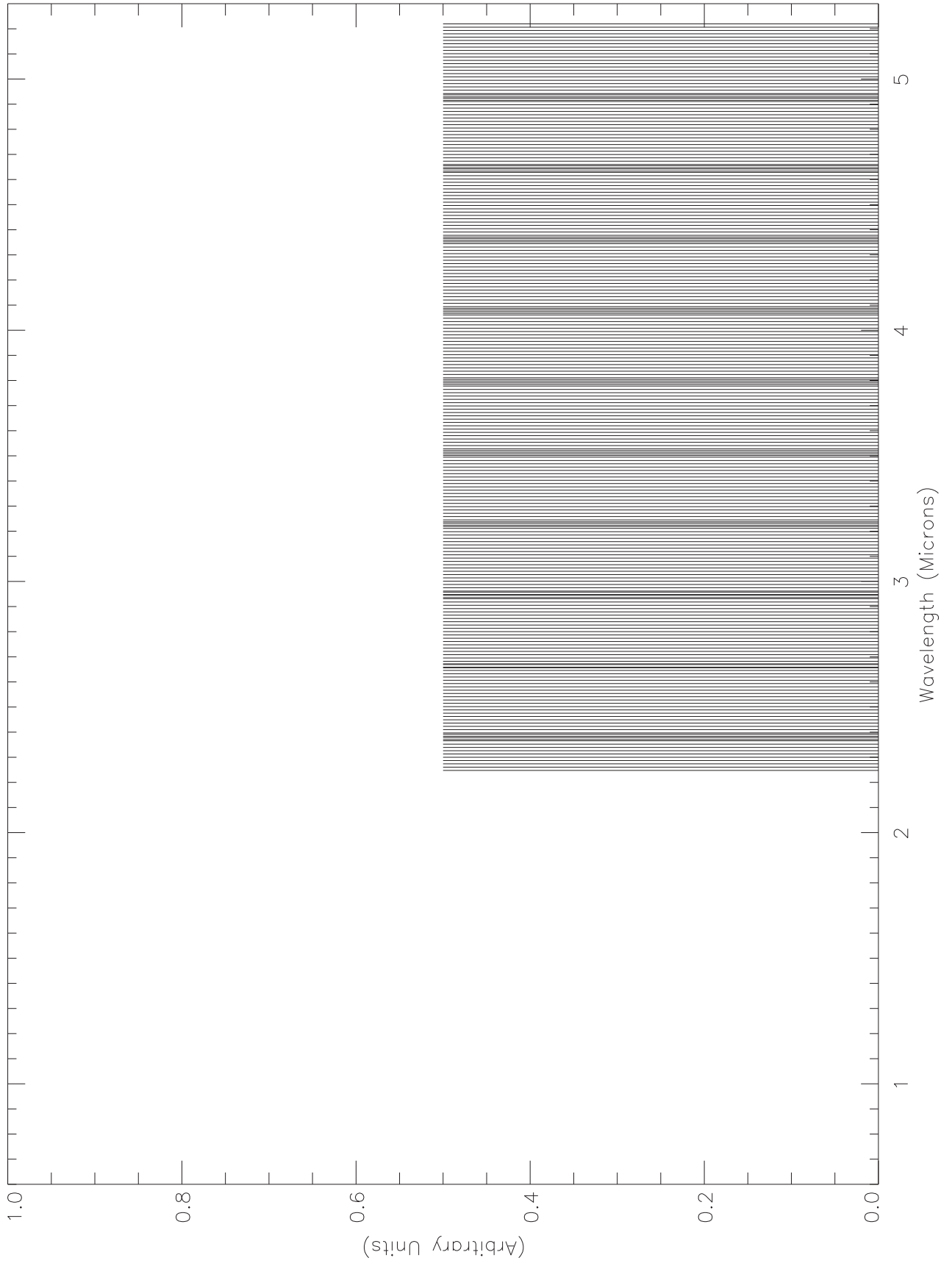




PCT252.ETB



RCT252.PBK



## Chapter 7 - Data Return

### Contents

	Sub-Section	Page
7.0	Contents .....	1
7.1	Introduction to Chapter 7 .....	2
7.2	NIMS E19 Observation Geometry Plot .....	3
7.3	NIMS Calibration Geometry Plot .....	4
7.4	Final E19 Playback Model .....	5-6
7.5	Recap of E19 Playback Events .....	7
7.6	Timeline of E19 Playback Events .....	7-13
7.7	E19 NIMS Anomaly Discussion .....	14
7.8	NIMS Archived EDRs and CUBEs .....	15
7.9	NIMS Data Formats, Types, Labels and Access ..	16-17
7.10	Understanding the NIMS Mask .....	18

## Introduction to Chapter 7

This chapter is a report on the NIMS data return for the E19 orbit. Due to the low downlink data rates available for Galileo Jupiter Operations and other unforeseen and unpredictable events during the E19 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 eleven autonomous reloads of the NIMS RAM code from CDS during the E19 encounter, one just before each science observation. No observations were lost due to a NIMS processor halt. The approach that we are taking to avoid data loss due to processor halts has proven to be very successful.

Detectors 3 and 8 are still not functioning and are expected to be lost for the rest of the mission.

The spacecraft safed about 5 hours after perijove during sun acquisition during a science turn recovery. The outbound portion of the E19 encounter were lost.

The plots on the pages 3 and 4 show the geometry of the NIMS E19 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 5 and 6 summarize the 'final' playback model for the 'returned' E19 and E17 data returned during E19 cruise.

The text on page 7 gives a 'recap' of the E19 playback events which affected which observations were returned.

A Timeline of E19 playback events is on pages 7 through 13.

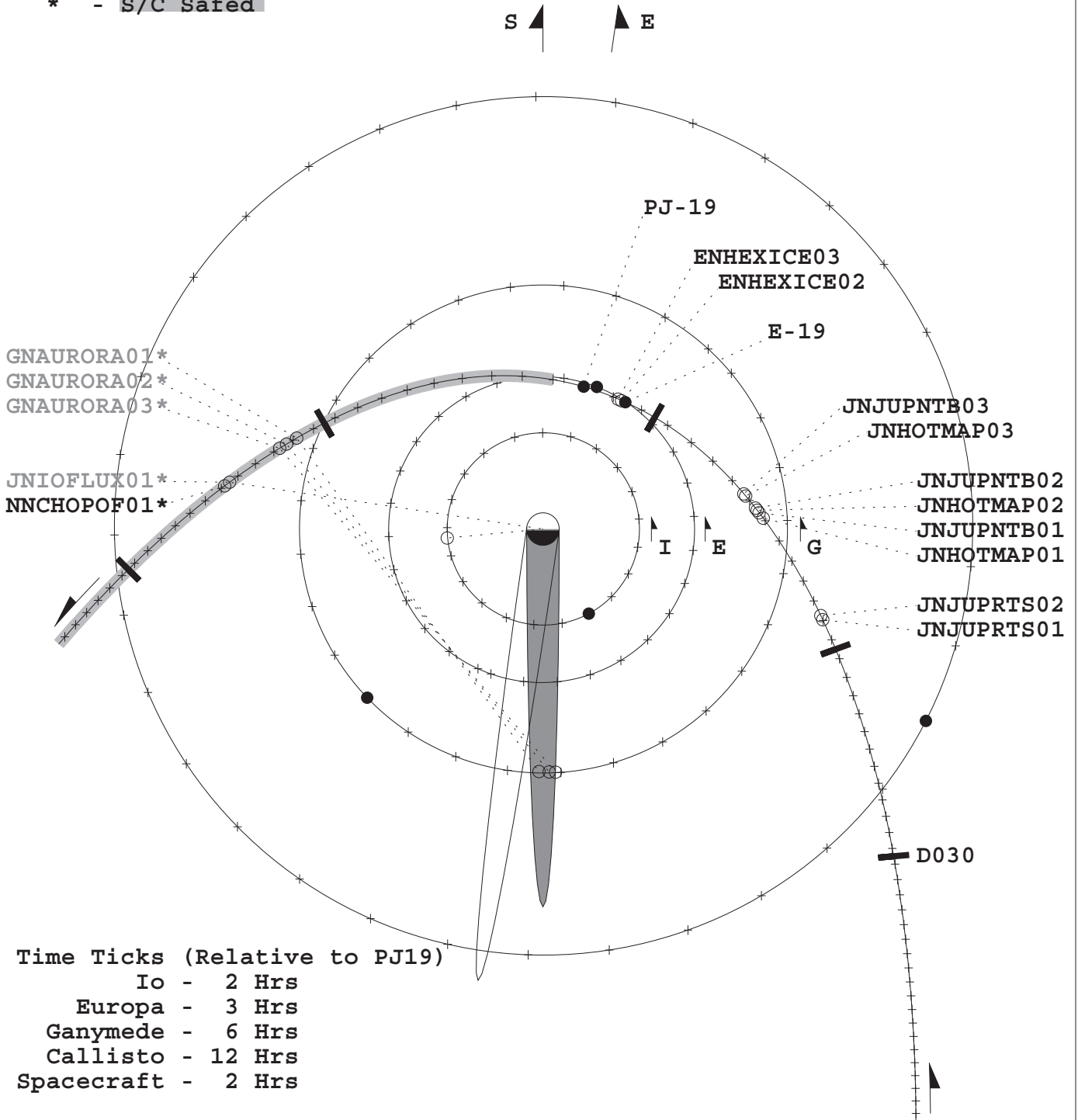
The text on page 14 describes the E19 NIMS and Spacecraft Anomalies.

The text on page 15 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 16 and 17.

The text on page 18 is a guide to understanding the NIMS MASK.

# NIMS E19 OBSERVATIONS

**Bold** - Returned  
 Gray - Not Returned  
 \* - S/C Safed



**Time Ticks (Relative to PJ19)**  
 Io - 2 Hrs  
 Europa - 3 Hrs  
 Ganymede - 6 Hrs  
 Callisto - 12 Hrs  
 Spacecraft - 2 Hrs

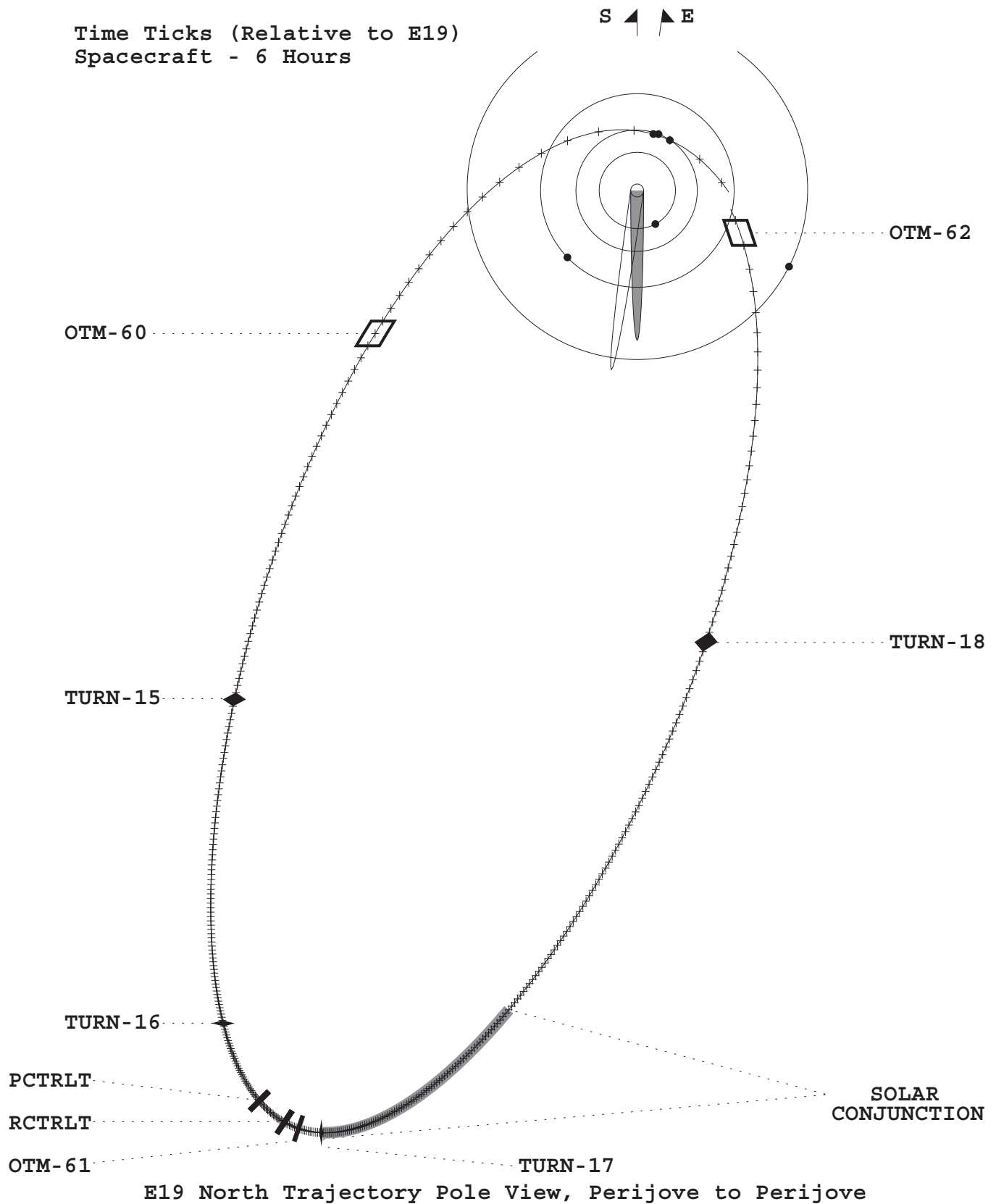
Europa Flyby (E19): 01-FEB-1999 (D032) 02:10:57 UTC  
 Perijove (PJ19): 01-FEB-1999 (D032) 05:00:50 UTC

E19 North Trajectory Pole View

# NIMS E19 CRUISE CALIBRATIONS

Europa Flyby (E19): 01-FEB-1999 (D032) 02:10:57 UTC  
 Perijove (PJ19): 01-FEB-1999 (D032) 05:00:50 UTC  
 Apojove (AJ19): 18-MAR-1999 (D077) 17:00:00 UTC

Time Ticks (Relative to E19)  
 Spacecraft - 6 Hours



## NIMS E19 DATA RETURN

Activity ID	Observation Title	NIMS Edit Table	NIMS PB Table	Mode	Gain	Grating	Grating	Grating	Record	PSID
					Start	Offset	Format	Format		
19JNJUPRTS01*	Jupiter Realtime Observation	E19JIM408/MB	R/T	LM	2	0	4	4	R/T	
19JNJUPRTS02*	Jupiter Realtime Observation	E19JRT204A/MB	R/T	LM	4	0	4	4	R/T	
19JNHOTWAP01-	NIMS Jupiter HotMap	E19JHT253A	E19JHT100A	LM	4	0	4	4	LPU	
19JNJUPNTB01-	Jupiter NTB Observation	E19JHT253A	E19JHT100A	LM	4	0	4	4	LPU	
19JNHOTWAP02-	NIMS Jupiter HotMap	E19JHT253A	E19JHT100A	LM	4	0	4	4	LPU	
19JNJUPNTB02-	Jupiter NTB Observation	E19JHT253A	E19JHT100A	LM	4	0	4	4	LPU	
19JNHOTWAP03-	NIMS Jupiter HotMap	E19JSB253C	E19JSB253C	LM	2	0	4	4	LPU	
19JNJUPNTB03-	Jupiter NTB Observation	E19JSB253C	E19JSB253C	LM	2	0	4	4	LPU	
19ENHEXICE02-	Europa Hexagonal Ice Obs. part 2	E19EXM17A	E19EXM15A	XM	4	0	4	4	MPW	
19ENHEXICE03-	Europa Hexagonal Ice Obs. part 3	E19EXM17A	E19EXM15A	XM	4	0	4	4	MPW	
19NNRCTRLT01-	NIMS RCT Real Time Calibration	E19RCT252	R/T	LM	1	0	4	4	R/T	
19NNROPAL01-	NIMS OPCAL	E19OPCAL48	R/T	LM	4	0	4	4	R/T	
19NNPCTRLT01-	NIMS Real-Time PCT Calibration									
19JNJUPNTB01-	Jupiter NTB Observation	E19JHT253A	E19JHT100A	LM	4	0	4	4	LPU	
19JNJUPNTB02-	Jupiter NTB Observation	E19JHT253A	E19JHT100A	LM	4	0	4	4	LPU	
19JNJUPNTB03-	Jupiter NTB Observation	E19JSB253C	E19JSB253C	LM	2	0	4	4	LPU	
19ENHEXICE02-	Europa Hexagonal Ice Obs. part 2	E19EXM17A	E19EXM15A	XM	4	0	4	4	MPW	
19ENHEXICE03-	Europa Hexagonal Ice Obs. part 3	E19EXM17A	E19EXM15A	XM	4	0	4	4	MPW	

## NIMS E19 DATA RETURN

Activity ID	Mode	Record	Wave- Format	Record lengths	Returned	Time (sec)	PB (sec)	Selected Bits of Tape	Total Bits of Tape	Mode Cycle	Comp	Thold	RT Mbits	BTG Mbits	Total BTG (4% ahead)	Data Mbits	Reduct (sBOT/BTG)	Pass	
																			Returned
19JNJUPRTS01	LM	R/T		360											0.16				
19JNJUPRTS02	LM	R/T		204											0.16				
19JNHOTMAP01	LM	LPU		100	600	573		3.53	3.70	8.667	1.28	0			1.074			3.29	1
19JNJUPNTB01	LM	LPU		100	610	607		3.74	3.76	8.667	1.4	0			1.041			3.60	1
19JNHOTMAP02	LM	LPU		100	600	583		3.60	3.70	8.667	1.26	0			1.110			3.24	1
19JNJUPNTB02	LM	LPU		100	1207	606		3.74	7.44	8.667	1.35	0			1.077			3.47	1
19JNHOTMAP03	LM	LPU		253	600	584		3.60	3.70	8.667	1.58	0			2.244			1.61	1
19JNJUPNTB03	LM	LPU		253	1220	1100		6.78	7.52	8.667	1.65	0			4.048			1.68	1
19ENHEXICE02	XM	MPW		15	664	658		7.58	7.65	0.333	1.48	0			4.166			1.82	1
19ENHEXICE03	XM	MPW		15	1394	182		2.10	16.06	0.333	1.24	0			1.375			1.52	1
<b>Resource Totals</b>																			
															<b>Total</b>	<b>19.388</b>			
															<b>Alloc.</b>	<b>17.624</b>			
															<b>Over.</b>	<b>1.764</b>			

3/28/00



## RECAP OF E19 PLAYBACK EVENTS

For the third time in four orbits, the Galileo spacecraft went into safe mode during the encounter period. In E19 this occurred after perijove, after about 70% of the planned recordings had been completed, and for a completely new reason. Galileo was commanded to re-orient itself using "sun acquisition" which depends on a pair of dedicated sensors. The overlap between the two sensors was insufficient, and when Galileo reached this blind spot, it had no choice but to drop into safe mode and wait for instructions.

As a result of the safing we were not able to record a number of observations of Ganymede designed to search for auroral emissions. NIMS also lost one night side Jupiter observation that might have detected the footprint of the Io flux tube. On the other hand, NIMS brought down several nice observations of a portion of Jupiter's north temperate belt, along with a series of HOTMAPs. Two observations of Europa, optimized for detecting particular crystalline forms of ice, were also recorded and returned.

E19 was made complex by new rules for encounter development (based on lessons learned from prior orbits), and by events occurring during the cruise period.

The following timeline details the most significant events of the E19 playback period. Most of the text below is excerpted from messages issued at the time.

### E19 Playback Events Timeline (11-16-98 to 05-01-99)

- 11-16-98: Encounter development begins with new constraints for rates of scan platform slewing mandated in order to minimize the probability of problems due to incorrect data from the gyros.
- 12-09-98: NIMS allocation is 18.565 Megabits.
- 01-09-99: Today's delivery is most probably the last one prior to uplink. We received roughly 1.5 Megabits of additional downlink allocation this time due to receiving some additional DSN station coverage due to the problems experienced by NEAR. The additional bits were employed to increase wavelength coverage for the Jupiter nightside observations 19JNJUPNTB01-02 and 19JNHOTMAP01-02. Coverage was increased to 100 wavelengths (full spectral resolution from 4.01-5.2 microns).

Yesterday's excitement was created by AACS' discovery that one of the stars in the star set needed during the E19 encounter would be obscured due to proximity to the cone pole. Following modeling and discussions of strategies involving changing the sequence at short notice it was decided to fly the sequence as is. Current information suggests that the star scanner should be able to successfully lock on to the two remaining stars, enabling the sequence to execute as planned.

E19 Playback Events Timeline (11-16-98 to 05-01-99)

A contingency plan exists in case the spacecraft goes into safing around perijove. This will recover from safing and reset all instruments prior to the time when the Ganymede observations (and subsequent Jupiter feature track observations) are taken.

01-11-99: (J. Gross) Allocations. You will notice that your allocation listed below is less than you expect. Here's why they've gone down, and why you shouldn't get too worked up about it.

A) There were 20 some stations that were one-way in the first E19C product that are now turned to 2-way. These stations are two-way to support the uplink of the CDS patch prior to C20. It is currently unknown how much of this two-way coverage will actually be needed; what is in the latest E19C product is a worst-case scenario. In all likelihood, we will get some of this coverage back, although not until E19C is executing.

B) By the end of the week, SST should have a new telemetry profile that will include ~10 new stations from NEAR, so your allocations will soon be going back up. BUT, whether our NEAR gains will offset our two-way losses is anyone's guess for now.

NIMS (allocation) = 17.099 MB

NIMS AACS Charge = 0.209 MB

Two-pass strategy. Currently our bits are split nearly 50-50 between passes. Given that we have such poor downlink rates, I'm not expecting very much inefficiency from the few long slews over unselected data that we have. Therefore, other than having NIMS and PPR ride-alongs synch up in a few cases, I will not be implementing any further changes.

01-15-99: NIMS allocation is 20.504 with new telemetry.

01-18-99: (D. Bindschadler) The purpose of this message is to present a strategy for commanding of science instruments in E19 in the event of a safing and the subsequent decision to utilize an E19A' sequence to recover observations starting with the E19 Ganymede Aurora and Atmospheric Feature Track observations. In the event of safing in E19A, it is possible that sufficient time will remain to recover the s/c, perform state matching, and execute an A' sequence that will capture significant science. At a high level, the proposed activities go something like this:

- 1) Bring up String A or B, if necessary.
- 2) Restart the SVM (+ position DMS, de-select RTS)
- 3) uplink and execute a state matching RBS.
- 4) uplink and execute E19A', which begins with SITURN#3, and then contains E19A observations from the Ganymede Aurora onward.

NIMS: Safing leaves NIMS off, with no Phase2 memory and Chopper off. No R/T commands are contemplated for NIMS. RBS sequence will include NIMSON library sequence. Memory load and Chopper ON will occur as part of normal E19A activities in E19A'. No special commanding is required in E19A'.

## E19 Playback Events Timeline (11-16-98 to 05-01-99)

- 01-31-99: E19 encounter starts at 02:00 UTC.
- 02-01-99: Europa encounter occurs at 02:10:57.  
Perijove occurs at 05:00:50.  
Galileo spacecraft drops into safe mode during sun acquisition soon thereafter.
- 02-01-99: (R. Mehlman) As you may know, Galileo went into safing after Jupiter closest approach, and we will lose our Ganymede aurora observations and the Jupiter Io fluxtube observation. However all other Jupiter observations should be on tape, and a spacecraft clock value returned in the middle of the last of these indicates that NIMS was still running. The Europa HEXICE observation was also executed, but we don't have any clock values from that period yet.
- 02-02-99: The E19 encounter sequence did not run to completion. Following the Europa encounter, the spacecraft was performing a "Sun acquisition" to bring it back to a near-Earth-pointed orientation. Part way through this turn, it appears that a sensor failed to see an expected signal, causing the spacecraft to go into safe mode. This prevented recording of the distant Ganymede aurora observations and the subsequent Jupiter feature track and Io flux tube observations. For NIMS these events resulted in the loss of about 30% of the data that was planned for playback. On the upside, we were not bringing down anywhere near all of our recorded data (and still cannot, under present conditions). The total amount of downlink bits available to Galileo is still somewhat uncertain. It is likely that we will receive some increases in our allocation later. Solar conjunction occurs from 22 March to 10 April, and E19 playback continues until the start of May. Some other missions are, however, looking to grab some of our DSN passes. In light of the uncertainties, both SSI and NIMS are adopting an unusual strategy of front-loading the playback tables, as opposed to splitting playback between the two passes over the tape. Thus about 90% of our current allocation is in pass 1 this time. In pass 2 we will be adding gap-filling playback commands, and may also use any available bits to increase wavelength and spatial coverage of the successfully recorded observations. Jupiter observations now comprise about 70% of the playback plan. The HOTMAP and JUPNTB (north temperate belt) observations will be coming down very early (since they were recorded early in the sequence), with full spatial coverage. The dark-side observations are coming down with 100 thermal wavelengths of the 253 recorded. We may be able to get more wavelengths in pass 2 if downlink bits are available. There is one instance (19JNHOTMAP02) where we are commanding the return of the balance of the 253 wavelengths in pass 2. The dayside observations have the full 253 wavelengths selected.

E19 Playback Events Timeline (11-16-98 to 05-01-99)

The 19ENHEXICE02 observation is fully selected as before but is now coming down all in pass 1. Playback of 19ENHEXICE03 was increased to 3 Rims in pass 1 and 1 Rim in pass 2. There will be about 19 Rims of this data left behind on the tape unless we receive more allocation. The spacecraft is still in safe mode pending new commands to bring it back to a nominal attitude. Playback will not begin until after this is accomplished.

- 02-04-99: (T. Johnson) I have had a number of requests for a little more information on where we stand on E19 following the safing event and on the status of our plans. A brief summary is:
- \* The spacecraft is ok at the moment.
  - \* The problem was probably (remember analysis is not yet complete) not either gyro, despun bus reset, or radiation related.
  - \* We think (again preliminary) that the science sequence executed correctly through closest approach up to the turn back toward earth where the safing occurred.
  - \* Observations after the safing, including Jupiter feature track, Europa global color and Io were lost.
  - \* Once the spacecraft is checked out and returned to Earth point we should be able to start playback and proceed normally. The schedule is still TBD but we hope we can be up and running within the week.
  - \* In this particular case (E19) I think it is important to emphasize several things:
    - The spacecraft is NOT falling apart - it's mostly just doing what we tell it to (damn it). There is no evidence that any of our recent problems are the result of progressive failure of systems due to radiation, with the possible exception of the gyro offsets, which do not seem to be getting much worse.
    - We think the E19 encounter was by and large very successful, with the highest priority closest approach data on the tape recorder. We won't know for sure until we start playing data back of course, as for any other encounter. By the priorities and allocations we set ourselves in the GEM OPG, we probably got 70 % or more of our goals accomplished (groan - there's Johnson and his 70% again!?).

- 02-04-99: (B. Paczkowski) At the GEM Staff meeting this morning it seems unlikely that we will get E19 playback started by Monday. It also seems optimistic that we will get it up and running by Wednesday. The more likely case might be Friday of next week. As a result, the playback tables that we are in the process of developing are probably not useable. Using Jerod's plot of p/b bits vs. time, by next Wednesday we will lose about 15Mbits and by Friday 21Mbits of our playback capability. The primary reason for this delay is that as a result of the anomaly, AACS has switched to backup hardware (sun acq sensor, spin detector, and thrusters) that the Project is uncomfortable using since the h/w hasn't been calibrated. The Project is in the

E19 Playback Events Timeline (11-16-98 to 05-01-99)

process of deciding on how to proceed and hopefully by tomorrow we will have a better idea of the upcoming schedule.

- 02-05-99: (J. Erickson) The Galileo spacecraft is presently in safing, stable, and expected to resume normal operations on or about 2/12/99. The primary activity over the past week has been the Europa 19 encounter on 1/31. Four hours after completing the close approach science recordings, the spacecraft went into safing during a sun acquisition turn designed to move us from the science data taking attitude back to the nominal earth pointed attitude. During that turn the on-board fault protection program determined that the sun acquisition had stopped, and correctly called the safing program. The flight team is still investigating the cause of the sun acquisition halt, but it appears to be the result of a failure of two acquisition sensors to provide the complete overlap they were designed for. This failure appears to have no impact on the rest of the planned extended mission.
- 02-08-99: (J. Gross) As you're probably aware, we are intending to resume "normal" spacecraft operations by Wednesday afternoon. This means that I'm going to need new PBTs from the teams by Tuesday at 1 PM!!!! In terms of allocations, we've lost approximately 18% of our original capability. Torrence decided to apply this cut evenly across the teams (except for PPR, which has already given up approx. 0.5 MB.). If this decision doesn't please you, feel free to take it up with him. On the plus side of the ledger, Brian P. has released 1.0 of the 5.0 MB he was keeping back to cover potential E19C station losses.  
NIMS - 16.790 MB (this must also cover the cost of your AACS)
- 02-09-99: Recovery from the spacecraft safing should be completed by Wednesday afternoon (02-10-99). We expect to begin playback of E19 observations at that time. The time consumed in recovery activities has cost us nearly 20% of our total downlink allocation. Thus for this final pre-uplink table we were forced to make cuts amounting to about 3.5 Mbits. The "easy" cuts were eliminating the fill-in wavelengths coverage for 19JNHOTMAP02 in pass 2, and the extra spatial coverage of 19ENHEXICE03, also in pass 2. The additional 1.5 Mbits were cut from the Jupiter North Temperate Belt series of observations. For 19JNJUPNTB02, on the dark side, we reduced playback from 20 Rims to 10, while retaining in the plan those longitudes that are also seen in the other two JUPNTB observations. In addition we deselected from playback the first 2 Rims of 19JNJUPNTB03 (dayside), retaining the other 18 Rims. The longitudes deleted are not seen in the other two observations of the series.

E19 Playback Events Timeline (11-16-98 to 05-01-99)

02-26-99: (J. Erickson) AACS anomaly resolution is ongoing on two fronts - the failed sun acq and the gyros. There are no R/T activities planned for E19C in this regard other than some parameter cleanup.

A gyro test was performed on DOY 43 and there was an appreciable worsening of some axes. Analysis is proceeding and we await the results of the gyro test after apojove. We are anticipating a scale factor update before C20. Until yesterday's 43 pass, playback was proceeding normally and about 1 day ahead of schedule and 41% complete. Prior to DSS43 pass yesterday it was reported that the station had a hardware failure and would not be ready to support Galileo. As a result, a pause playback was sent near the end of the DSS14 pass. Fortunately, DSS43 was repaired using some old spare hardware and was available to support Galileo. Unfortunately, we decided not to resume playback during that DSS43 pass. As a result, we lost about 1.35 Mbits of playback. A command to resume playback will be sent during Thursday's DSS43 pass. The first observation (ESRHADMAN01) to show any significant pointing offset has just begun to be played back. This observation occurred about 21 minutes before Europa C/A. The pointing offset for this observation is about 4 mrad. We will be anxiously awaiting the playback of subsequent observations to see if this pointing offset persists, possibly indicating the start of the gyros going bad in this orbit.

03-04-99: (J. Gross) This Sunday we're going to lose about 1.5 MB of capability. Part of the loss is due to six-hour period in which we have no station coverage but no FILL commands in the sequence. The other part of the loss is due to Erickson's decision to allow Voyager to take the first 4 hours of our scheduled 43-pass. With this loss, our playback capability is actually 1.5 MB less than it was with the old C load! On the bright side, however, the 4.0 MB of "Paczkowski" margin which was being held to cover any degradation of our E19C capability are now being released. An additional 0.14 MB is being given to MWG to cover the costs of the upcoming PLS RTS for instrument health.

03-05-99: The playback table delivered today differs from prior versions only in that it includes ten new sets of playback singles commanding gap-fill data return during the second tape pass of E19 playback. There are two gaps from pass 1 playback of 19JNJUPNTB01, and eight gaps in 19JNJUPNTB03. The estimated downlink needed for the gap fills is about .47 Mbits which places us a little over our allocation. As this is perhaps the last chance to get these gaps (they are near the start of the record sequence), the Project is letting us go ahead with this 'deficit spending.' Some margin remains in the bank. If the Europa HEXICE observations compress particularly poorly, we may end up in the doghouse.

E19 Playback Events Timeline (11-16-98 to 05-01-99)

- 03-08-99: (J. Gross) Over the weekend, SSI Europa Plumes severely undercompressed (expected C/R = 4.0, actual C/R ~ 1.4), meaning that we're running behind schedule. In fact, we're so far behind schedule that Pass 2 will not begin until approximately a week AFTER conjunction!
- 03-22-99:  
Solar conjunction (no data playback occurs).
- 04-10-99:
- 04-14-99: Only one change to the playback table was entered this week. A new set of playback singles to return the first half of 19JNJUPNTB02 was added. Although there are a number of gaps in 19ENHEXICE02, Bob indicated that the available data was sufficient for analysis, and that the Jupiter observation should receive higher priority. We should have another chance to go after these gap-fills later, IF we receive more margin bits. Downlink data rates have been at 32 bits per second and lower following solar conjunction. The last 1/2 Rim of 19ENHEXICE02 is coming down now, and it should be a week or so before we see 19ENHEXICE03. E19 playback will continue until the start of May (C20 begins on May second).
- 04-26-99: (J. Gross) Here's the situation: between Saturday AM and Monday AM, we finished Segments 6,7,8, and 9, and then sat autonomously paused for just over five hours. It's still unclear why we went through these segments so incredibly fast. Right now Segment 10 is loaded, and will go active with our first coverage tomorrow morning. The segment only has about 0.33 MB selected, so we will autonomously pause again before we get to an uplink pass. P.S. Total amount of capability lost of autonomous FILL in this scenario will be 0.93 MB.
- 04-27-99: Over the weekend, playback accelerated rapidly and unexpectedly, completing all the commands that were then present in spacecraft memory, and pausing. A rapid-turnaround table was requested for delivery by 11 am today. Since very little remains on the tape aside from NIMS data, we were asked to add in an additional 1.5 Mbits of data for playback prior to termination of E19. As a result there are 5 new sets of commands in the new table. There are 3 gap-filling sets for filling the biggest holes in 19ENHEXICE02. Several other tiny gaps will remain. In addition there are two new sets of commands for 20ENHEXICE03. We have already received data from the early part of the observation at phase angle ~ 105 degrees. We will now also receive 2 Rims recorded at phase 100 degrees, and one final Rim recorded at phase ~96 degrees.
- 05-01-99: Playback terminates at 05:12 UTC.

## NIMS Anomaly Report - E19 Sequence

There were no NIMS processor halts detected during the E19 Encounter. Detectors 3 and 8 are still not functioning and are expected to be lost for the rest of the mission.

Also, the spacecraft went into safe mode about 5 hours after E19 perijove. The outbound portion of the E19 encounter was lost.

### Processor Halts

There were no NIMS processor halts in E19.

### Spacecraft Anomaly (Galileo ISA 11055)

The spacecraft performed a science turn during E19 to get a better view of Europa during the E19 flyby. The spacecraft safed while turning back to earth pointing after the Europa flyby and E19 perijove.

The science turns are normally performed with the aid of the gyros. But, since the gyros had been unreliable lately, the turn was performed using the sun sensor. The sun acquisition maneuver was started at 63 degrees off sun. Thrusters were fired to reduce the sun angle. At about 43 degrees a transition between sun sensors E and I/G was reached. Unfortunately, at this transition angle, the sun signal was too low and fell below the detection threshold. This effect stopped the sun acquisition maneuver. Subsequently the spacecraft was safed.



## 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.