NIMS GUIDE TO THE SECOND EARTH-MOON ENCOUNTER (E2) (EE9 AND EE11)

Original: November 1992

Revised: November 1994

Galileo

The NIMS EARTH2 Encounter Handbook

(Original Title Page)

Cover Page: Antarctica as seen by the Near Infrared Mapping Spectrometer (NIMS) during the Earth 1 flyby on December 8, 1990. This is the Antarctica continental color mosaic in long map mode (408 wavelength) 100 km per nimsel with continental outline; band 351-4.56 microns in red, band 281=3.71 microns in green and band 83=1.38 microns in blue.

GLL Moon Closest Approach at 12/8/92 03:57:45 (GMT)
GLL Earth Closest Approach at 12/8/92 15:09:25 (GMT)

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Chapter 1 - Introduction

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Chapter 1

Introduction to the Revised Edition

This document was originally published by the NIMS team in December 1992 as a guide to the second Galileo Earth-Moon encounter (E2). It has been revised and corrected for inclusion on the 2nd, 3rd and 4th CD-ROMs of NIMS Experiment Data Records (EDRs). Some material in the original document has been omitted since it is available elsewhere on the CD. Other material of only historical interest has been relegated to an appendix.

The aim of the revised guide is to provide detailed information on the various NIMS observations and calibrations. Also included is background information on the encounters. An overview of the guide is given below. Please refer to the beginning of each chapter for a detailed list of contents.

Chapter 2 gives and overview of the entire E2 encounter. Chapter 3 contains diagrams of earth and moon flyby geometries for the E2 encounter and also comparisons with the E1 encounter. Chapter 4 contains a spreadsheet presentation of observation parameters for the entire E2 encounter. Chapter 5 provides comprehensive information on NIMS calibration activities during EE9, the pre-Earth-encounter period. Chapter 6 does the same for all planned NIMS science observations during the Earth and Moon encounters, and some additional calibration activities afterwards. Chapters 5 and 6 include detailed timelines, observation catalogs (tables containing spacecraft clock ranges, instrument modes and parameters for each observation described in the chapter), science observation descriptions and objectives, as well as Pointer plots (observation footprints).

Note that there isn't a chapter for the EE10 sequence, since no NIMS observations were planned for that sequence. But the instrument was on, and a large amount of data collected, which may be useful for studying interference by the particles and fields instruments.

For information on the NIMS instrument, please see the preprint of the NIMS instrument paper provided elsewhere on the CD-ROM, or refer to the published version: 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 60: 457-502, 1992.

ACKNOWLEDGMENTS

The NIMS Earth observations described in this Guide were designed by Rosaly Lopes-Gautier with help from Marcia Segura and input from Hugh Kieffer, Bob Carlson, Kevin Baines, Larry Soderblom and Bill Smythe. The Moon observations were designed by John Hui, with input from Hugh Kieffer. The calibrations were designed by Rosaly Lopes-Gautier and John Hui, with input from Bill Smythe, Al Stevenson and Ron Burns. John Hui edited the original printed document. Frank Leader subsequently retrieved most of the original material for the CD-ROM, edited the original Postscript files for consistency and clarity, and recovered missing material by scanning parts of the original printed document. Al Stevenson regenerated the sequence summaries. Bob Mehlman rewrote the introduction.

Original Introduction

Welcome to Galileo's second Earth-Moon encounter on its journey to its primary mission: study of Jupiter and its satelites. This encounter not only allows us first-time science opportunities in the study of planet Earth and its moon, but also provides for critical instrument and spacecraft calibrations needed for the Jupiter mission. Due to the high data rates available at Earth 2, Gaspra data obtained in October 1991 and contained in Galileo's taperecorder tracks 1-3 will be replayed at the beginning of the encounter. The Galileo trajectory allows the first-ever near infrared observation of the Moon's North pole. This trajectory also gives NIMS the opportunity to study Indonesia, Australia, Antarctica and the Earth's aurora. We therefore expect that Earth 2 will be an interesting encounter for the science return and calibration opportunity.

This guide provides an overview of Earth 2 events, science observations and calibrations. The timeline on Page 2 gives a general schedule of meetings and important instrument operations such as NIMS turn-on. Section 2 is the "Cruise Overview" with diagrams of science, engineering and other sequence activities for both EE9 and EE11, the two sequences comprising this encounter. Section 3 includes spacecraft geometry information such as phase angle (Sun-Earth/Moon-Spacecraft angle) which may be helpful in understanding expected NIMS data return when combined with the observation designs in Sections 5 and 6. If more detailed information is needed before actual spacecraft attitude and articulation control data is available on the ground, a science coordinator can provide you with a copy of the "Science Planning Package". Section 4 is a fold-out summary of the Earth 2 encounter and can be used for a quick reference for information on observation time, description, NIMS state at time of observation, etc. As mentioned before, Sections 5 and 6 are the EE9 and EE11 sequence descriptions for the NIMS instrument. In these sections you will find descriptions of each observation as well as a plot of the footprint on the desired target.

Since this handbook can only provide a limited amount of information, we have felt it important to insert a Personnel listing of Principal and Co_investigators and Science Coordinators in Section 7. For further detail on the information in this handbook, please contact the appropriate person.

Finally, great effort has been made to ensure that the NIMS focal plane assembly remains at a low enough temperature to avoid saturation of data as was the case

for some observations at Earth 1. In appendix A you will find a memo explaining the NIMS strategy for avoiding overheating of the instrument. Appendix B contains a summary of Gaspra observations since Gaspra data playback occurs in EE9, November 23rd and 24th.

We hope this NIMS Earth 2 handbook is a helpful guide to a successful encounter.

Original Timeline Summary

The list below provides an overview of important Encounter events and meetings as they are currently known.

DATE	EVENT
11/22 (Day 327)	EE9 Begins
11/23 (Day 328)	Gaspra Playback Begins NIMS turns on, begins calibrations and observations (EE9) SSI turns on
11/24 (Day 329)	Gaspra Playback Continues Ida Aimpoint Selection meeting (12pm - 3pm)
12/01 (Day 335)	10 am Pres Conference in von Karman, Earth-Moon observations preview, Declare trajectory final, Gaspra (if exciting)
12/05 (Day 339)	EE9 ends
12/07 (Day 342)	NIMS Team Meeting (Bldg 264-784) EE11 Begins Lunar and Earth observations begin
12/08 (Day 343)	GLL Moon Closest Approach (LCA) at 03:47:45 (GMT) GLL EArth Closest Approach (ECA) at 15:09:25 (GMT) 10 am Press conference in von Karman, Declare successful EGA, Quicklook (not released) Moon & Earth photos, Family Evening
12/11 (Day 346)	NIMS off
12/14-15 (Days 349-350)	SROP and PSG
12/22 (Day 357)	10 am Press Conference in von Karman, Earth & Moon observation results, Earth/Moon conjunction images (movie?)
1/4/93 (Day 004)	EE11 Ends

Original Timeline Summary (cont.)

Daily
Operations/Data Review meeting @ 10 am in 264-415
MIPL meeting to review data products @ 3:30 pm in MIPL User Room

Tuesdays
Regular SROP meeting @ 9 am
Regulat NIMS Science Coordinators meeting @ 11 am

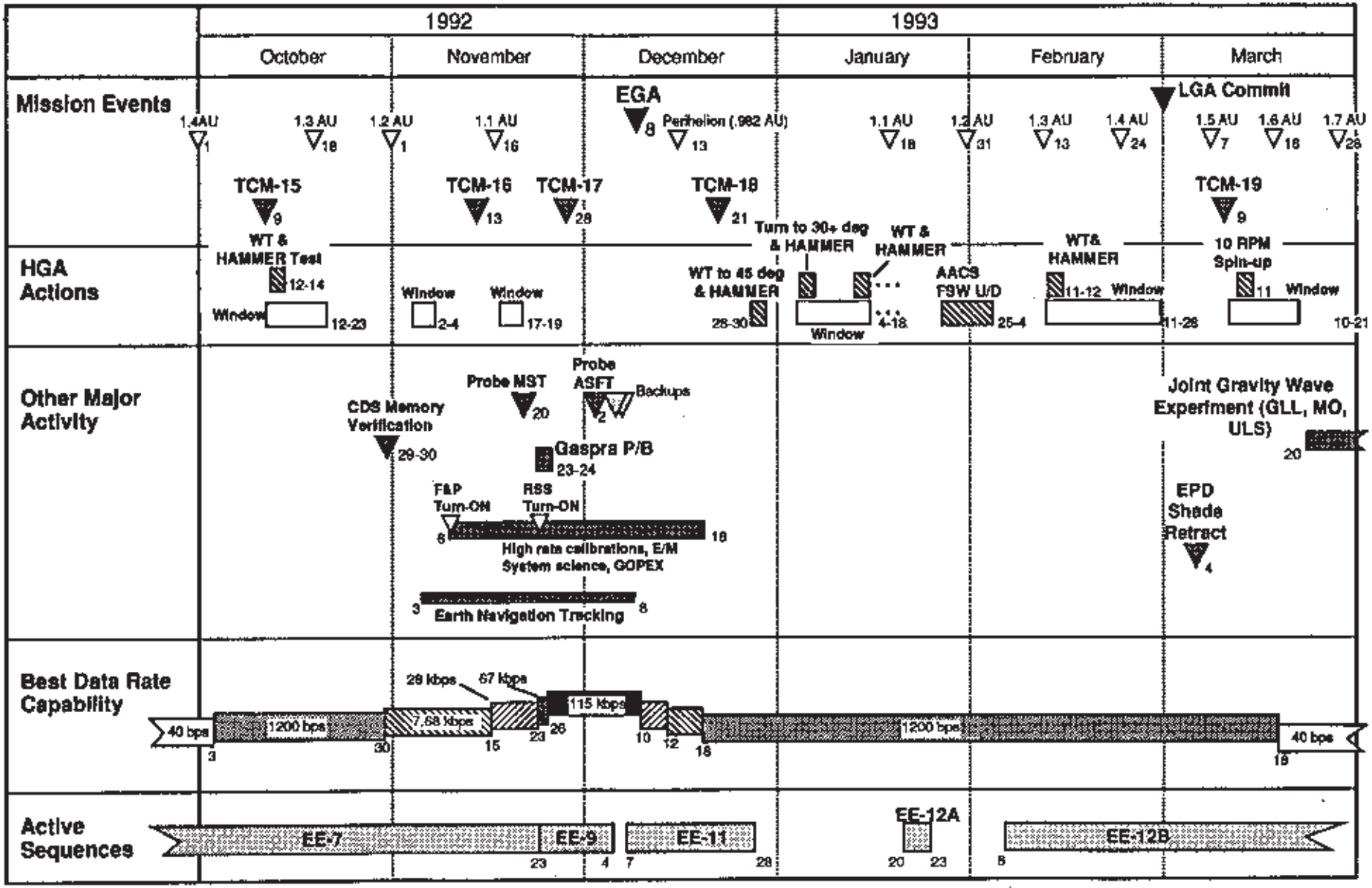
Wednesdays
Regular S&MD meeting at 9:30 am

Thursdays
Regular NIMS Team Meeting (Bldg 183-343) @ 12 pm

Other important meeting places:

NIMS Lab - Bldg 183-415	**x 4-3214**
NIMS Image Display Room - Bldg 264-729	**x 3-1074, x 3-1079**
NIMS Computer Room Bldg 264-721	

GLL TIMELINE OF EVENTS (OCT 92-MAR 93)



WJO-16
11/2/92

Chapter 2 - Cruise Overviews

Contents

Chapter 2

Introduction

The Earth/Moon Overview on Page 3 shows time in Day of Year (DOY), PST time, engineering events, science events, navigation events, sequence load for the period, downlink capacity in Kbits/sec and the calendar date in month/day/year.

The activities are named and represented by dark blocks in the engineering, science and navigation sections. The shaded areas represent holidays and weekends for JPL employees.

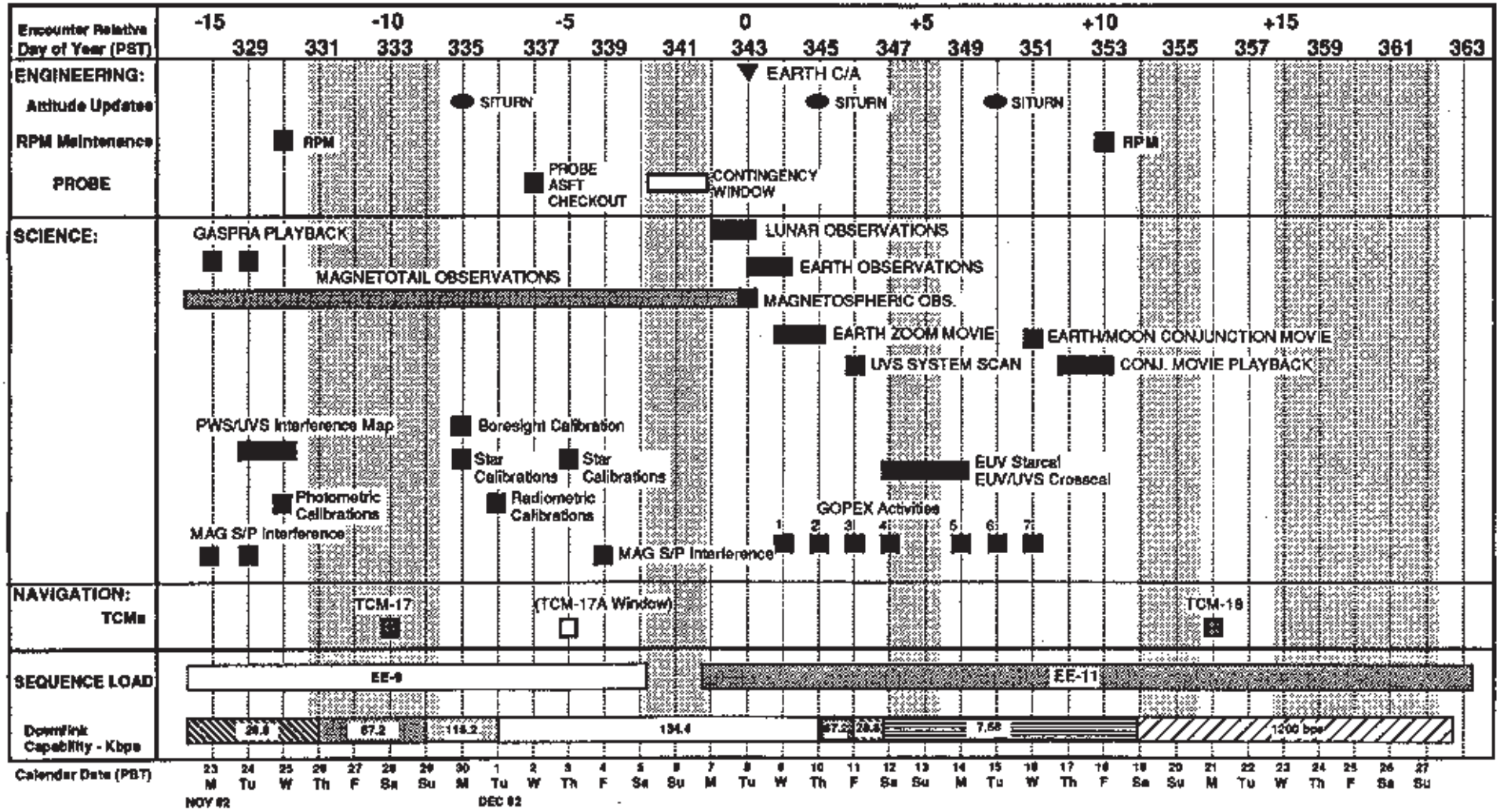
The next four diagrams (pages 4,5,6 and 7) contain helpful details on science observations and should be self-explanatory.

Page 8 shows the Earth Closest Approach (ECA) activities.

Page 9 contains more details on engineering events and staffing requirements during the EE9 and EE11 sequence loads (E2). Again, shaded areas show holidays and weekend periods.

Pages 10 and 11 are overviews of the NIMS observations for E2.

EARTH/MOON 2 ENCOUNTER OVERVIEW

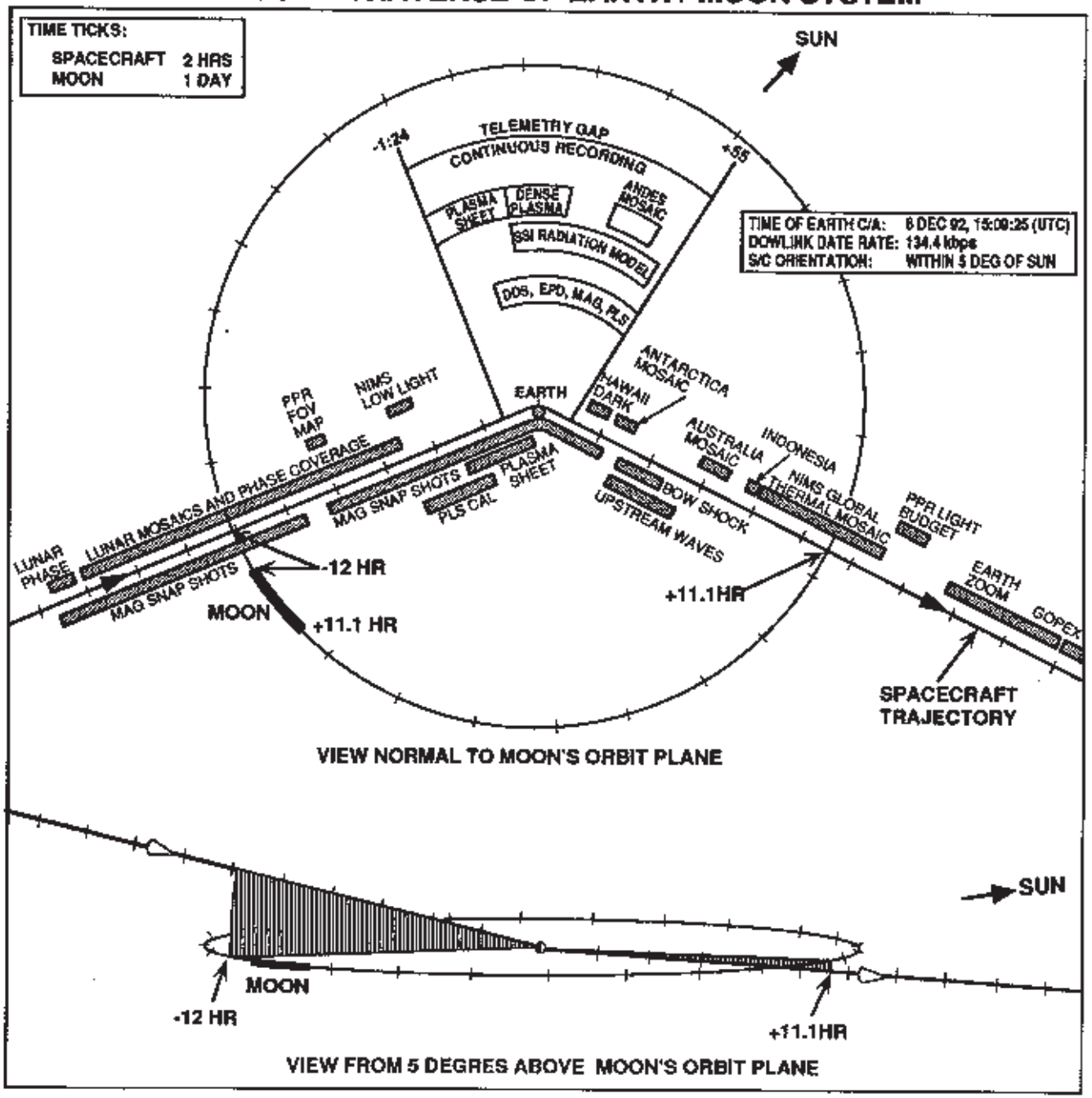


NOTE:
Downlink capability is defined here to be the maximum data rate that can be acquired with a 70m DSN station

KLB-1
11/2/92

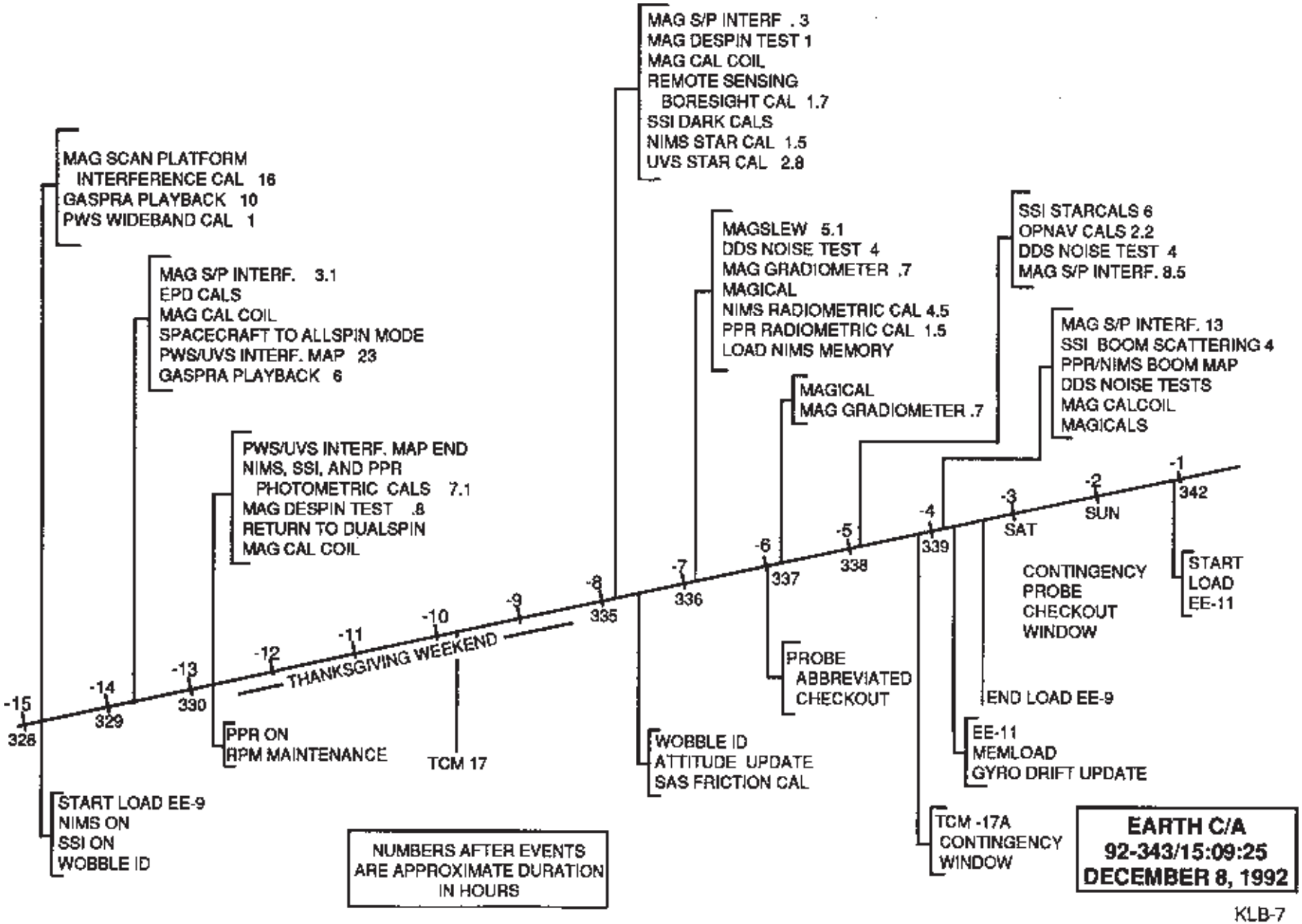
Galileo

SECOND TRAVERSE OF EARTH / MOON SYSTEM



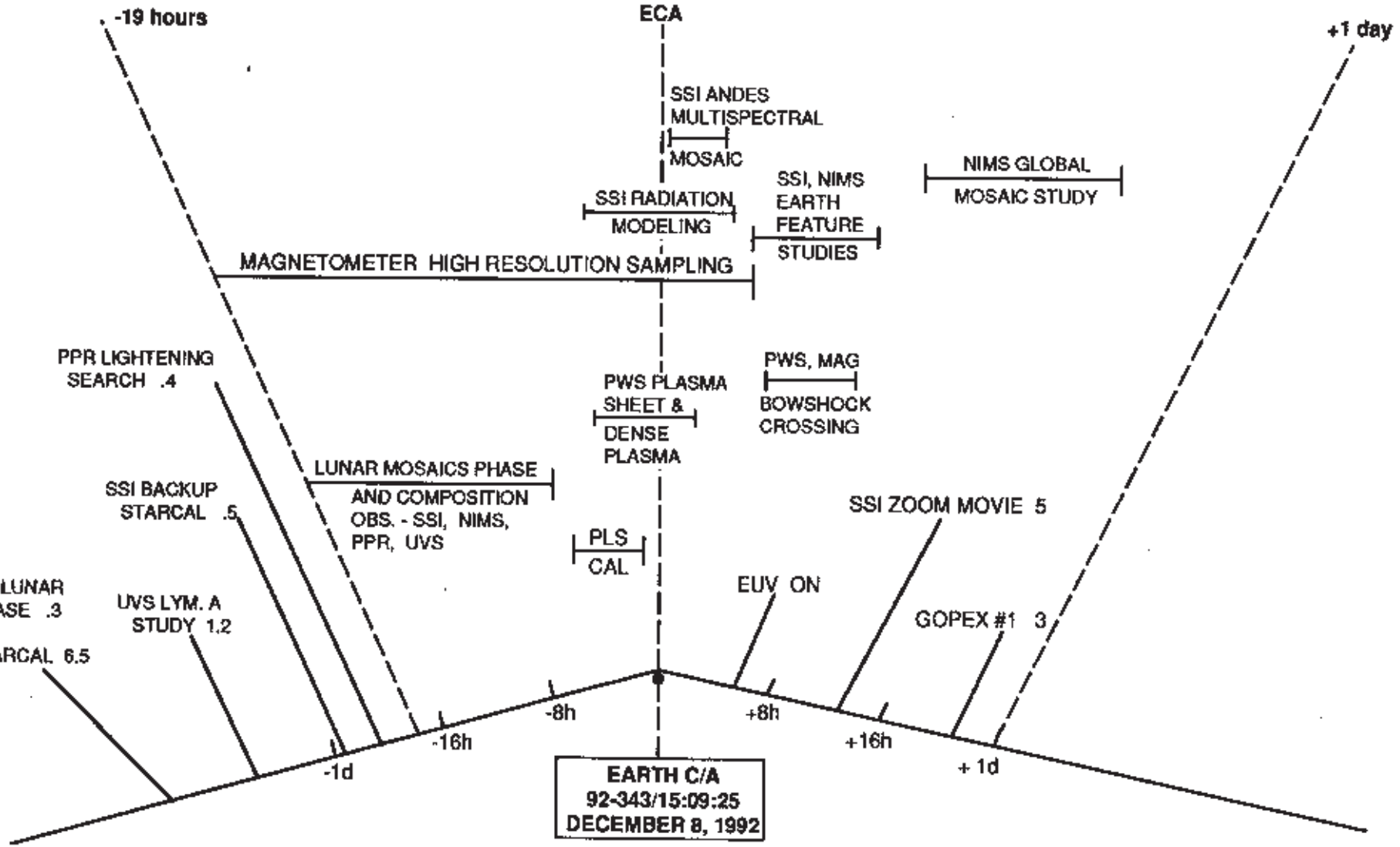
KLB-6
11/5/92

EARTH/MOON 2 ACTIVITIES (-15 TO -1 DAYS)



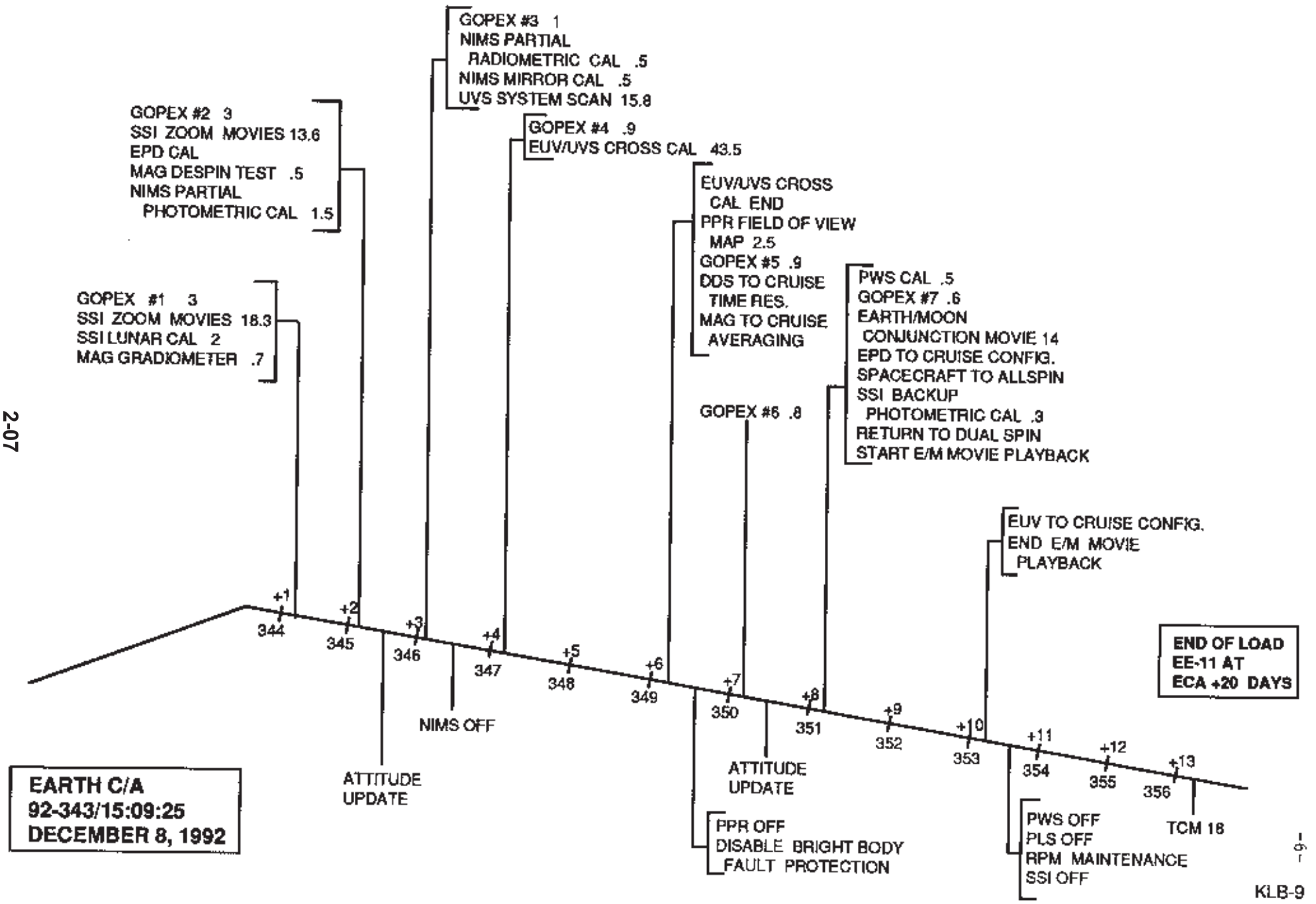
KLB-7
11/5/92

EARTH/MOON 2 ACTIVITIES (-1 TO +1 DAYS)



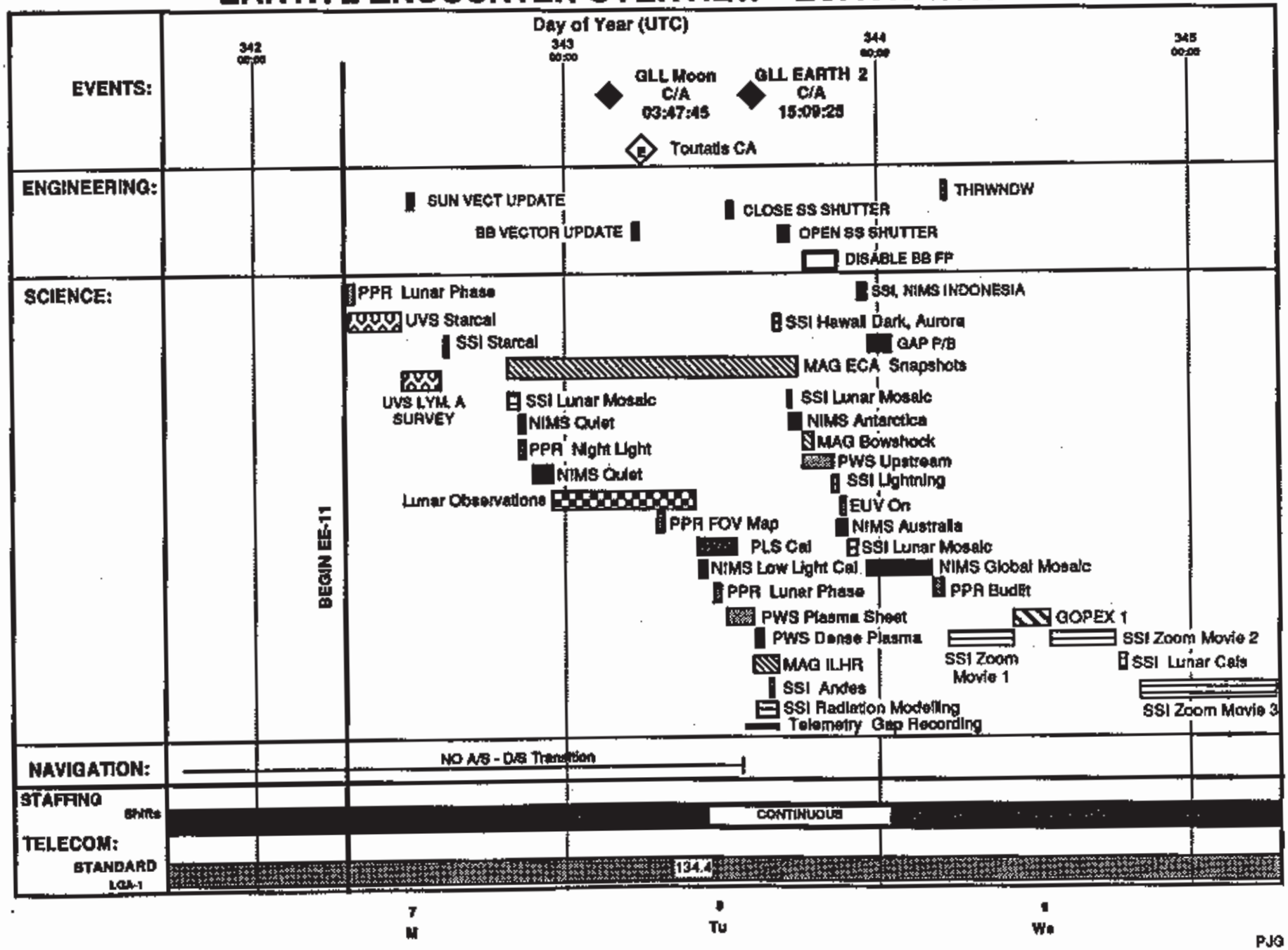
KLB-8
11/5/92

EARTH/MOON 2 ACTIVITIES (+1 TO +13 DAYS)

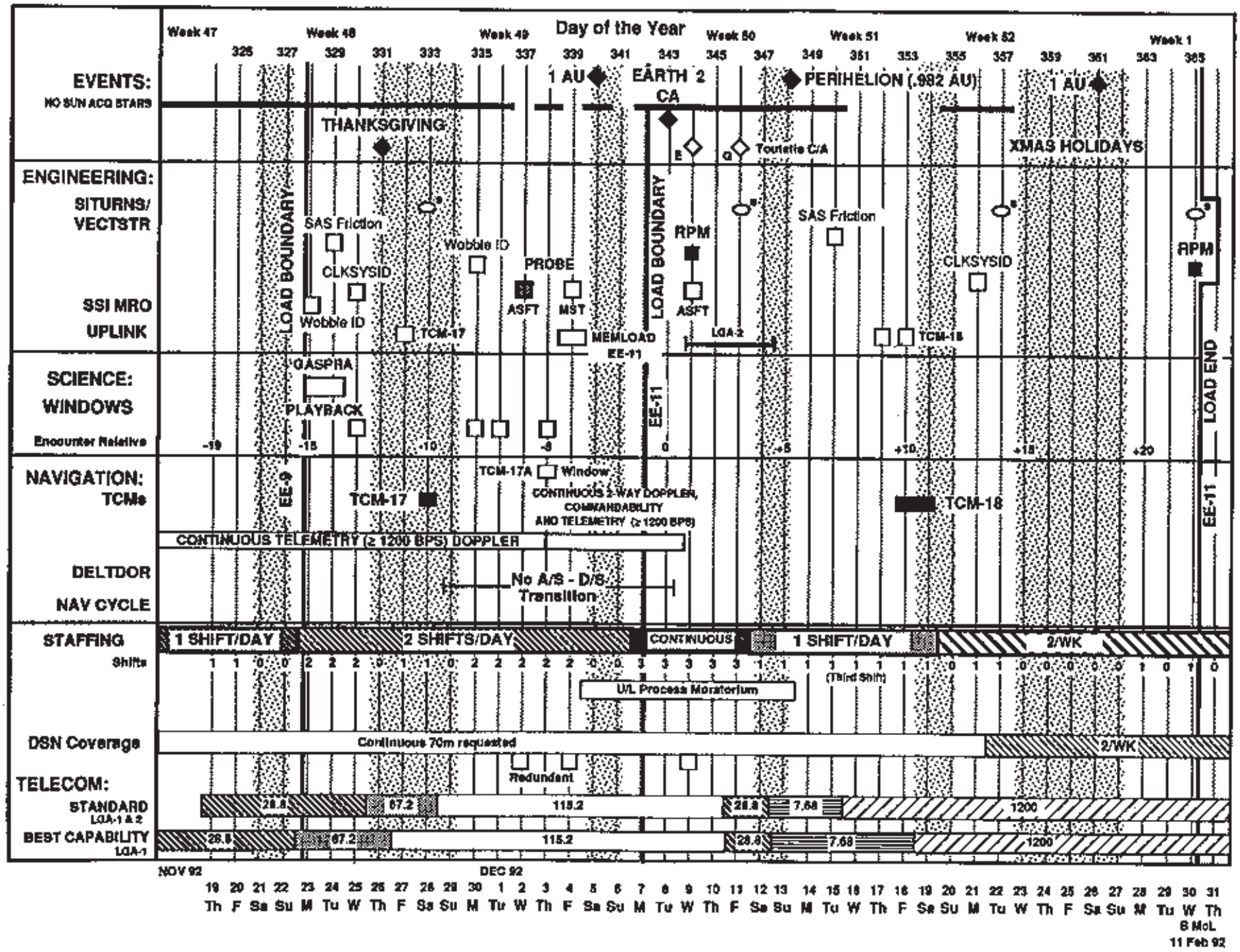


KLB-9
11/5/92

EARTH 2 ENCOUNTER OVERVIEW - ECA ACTIVITIES



Strawman EE-9/12 Overview, Part 1/3



NIMS Oapel Name	Team in Charge	Oapel Name	Start RIM ECA REL.	Total (RIMs)	NIMS Byte	Instrument State	Gain State	Slew rate	DN or N (Nyquist)	Grating Start Position	Chopper State	Objectives
--EE9												
NNNIMSON01	NIMS		-21372	10	67	SAFE	2			0	CR	Turn on NIMS
NNQUICAL01	NIMS	NWPWUMAG01	-18464	148	14	SAFE	4			0	CR	Listen/UVS grating motor
NNPCT 01	NIMS		-18306	217	872	ALL	ALL			Sel.	63/CR	Full PCT cal.
NNSAFE 01	NIMS		-18088	7179	14	SAFE	4			0	CR	SAFE
NNSTARFL01	PPR	HPTSTAR	-10908	98	28	XM	4	.02&.04	DN	6	CR	Pointing/Jitter
NNSTAR 01	NIMS		-10809	90	183	XM	4	0.02	DN	6	CR	Pointing/Jitter
NNMRO 01	NIMS		-10716	4	34	SAFE	4			0	CR	Verify memory
NNRCTON 01	NIMS		-9877	386	20	SAFE	4			0	CR	RCT warm up
NNQUICAL02	NIMS	NMINTCAL04	-9595	100	0	SAFE	4			0	CR	Listen/MAGinb_flip,int_coil
NNRCTCAL01	NIMS		-9490	267	1163	ALL	ALL			Sel.	63/CR	Full RCT cal.
NNLOAD 01	NIMS		-9131	2	425	SAFE	4			0	CR	SPECIAL Load Memory
NNQUICAL03	NIMS	NMINTCAL07	-8446	26	0	SAFE	4			0	CR	Listen/MAG outb_flipper
NNQUICAL04	NIMS	HSSTRCALa	-7189	114	0	SAFE	4			0	CR	Listen/SSI Filter wheel
NNQUICAL05	NIMS	NDNOISE04	-7071	121	0	SAFE	4			0	CR	Listen/DDS High voltage
NNBOOM 01	MAG	NMMAPSP03	-6823	539	24	XM	1			0	63	BOOM MAP 1
NNBOOM 02	MAG	NMMAPSP04	-5735	772	0	XM	1			0	63	BOOM MAP 2
--EE11 Moon												
NNQUICAL06	PPR	WPNITLIT01	-1138	28	56	SAFE	4			0	CR	Listen/EPD Stepper motor
NNQUICAL07	PPR	LPLUNFAZ02	-1105	109	0	SM	1	0.06	DN	2	63	Listen/PPR filter_phase 0
LNPHASE 01	SSI*	LSLUNMOS01	-995	39	14	SM	1	0.06	DN	2	63	Lunar Phase 1
LN4GAIN 01	NIMS	LN4GAIN01	-950	10	320	XM	ALL	Fix&.01	DN	6	63	4 Gain state cal/limb
LNPHASE 02	SSI*	LSLUNMOS02	-939	58	0	FM	1	0.03	DN	0	63	Phase 2
LNPHASE 03	SSI*	LSLUNMOS03	-880	141	14	SM	1	0.06	DN	2	63	Phase 3 & Stereo
LNPHASE 04	UVS	LULNRLMB01	-735	23	42	XM	1	0.074	DN	6	63	Phase 4/HNDARK/limbs
LNPHASE 05	SSI	LSLUNMOS04	-711	18	0	XS	1	~1.2	DN	6	63	Phase 5 & Stereo
LNHIRES 01	NIMS	LNHIRES01	-692	56	290	FM	1	0.03	DN	0	63	Hi-resolution/phase
LNPHASE 06	SSI	LSLUNMOS05	-635	18	28	XS	1	~1.2	DN	6	63	Phase 6 & Stereo
LNPHASE 07	NIMS	LNPHASE07	-616	30	240	SM	1	0.06	DN	2	63	Phase 7
LNPHASE 08	SSI*	LSLUNMOS06	-585	107	0	SM	1	0.06	DN	2	63	Phase 8 & Stereo
LNPHASE 09	PPR	LPFOVMAP01	-477	30	14	XM	1	0.12	DN	6	63	Phase 9 & limb
LNPHASE 10	SSI*	LSLUNMOS07	-426	97	14	FM	1	0.03	DN	0	63	Phase 10 & Stereo
LNPHASE 11	NIMS	LNPHASE11	-328	28	194	FM	1	0.03	DN	0	63	Phase 11
--EE11 Earth												
NNLOWCAL01	NIMS		-297	60	207	spec.	4	0.12	N		CR	Aurora & Dark cal.
NNNOOBS 01	NIMS		-168:52	0:04	350							AVOID HEAT
NNNOOBS 02	NIMS		-1:39	0:06	0							AVOID HEAT
NNNOOBS 03	NIMS		5:85	0:80	0							AVOID HEAT
NNNOOBS 04	NIMS		11:59	4:06	0							AVOID HEAT
NNNOOBS 05	NIMS		26:64	10	0							AVOID HEAT
NNANDES 01	SSI	NSANDES01	36	10	14	LM	1			0	63	Andes
NNNOOBS 06	NIMS		50	4	0							AVOID HEAT
NNHAWAUR01	SSI	NSHAWAUR01	59	12	14	XM	1			0	63	HAWAII & Aurora
NNANTAR 01	NIMS		135	44	234	LM	1	0.02	DN	0	63	Antarctica
NNLTNING01	SSI	NSLTNING01	317	15	14	XM	1			0	63	Lghtning
NNAUSIE 01	NIMS		337	60	212	LM	1	0.02	DN	0	63	Australia
NNINDO 01	NIMS		440	20	0	LM	1	0.02	DN	0	63	Indonesia
NNGMOS 01	NIMS		476	295	0	LM	1	0.03	N	0	63	Global mosaic 1
NNGMOS 02	SSI	NSZOOM01	896	296	0	LM	1			0	63	Global mosaic 2
NGOPEX 01	SSI		1191	178								
NNGMOS 03	SSI	NSZOOM02	1372	231	0	LM	1			0	63	Global mosaic 3
NNGMOS 04	SSI	NSZOOM03	1740	867	0	LM	1			0	63	Global mosaic 4
NGOPEX 02	SSI		2608	120								
NNPCTMIN01	NIMS		3885	90	184	Selected				0	63/CR	Partial PCT cal
NNRCTON 02	NIMS		4036	386	20							Turn RCT on
NNRCTMIN01	NIMS		4423	30	420	Selected				0	63/CR	Partial RCT cal
NNMIRCAL01	NIMS		4457	32	65	XM/LM				0	63/CR	Mirror Cal.
NNNIMOFF01	NIMS		4490	8	50						63	Turn off NIMS

*=Joint Observation

by John Hui 10/28/92

E2 DATA RECEIVE TIME

	Activities	Date	Day of Year	Local Receive Time			
				Start	End		
EE9:	NIMSON	23-Nov-92	328	6:59 AM	7:09 AM		
	Gaspra Playback	23-Nov-92	328	8:15 AM	6:25 PM		
	Gaspra Playback	23-Nov-92	328	6:25 PM	9:50 PM		
	Gaspra Playback	24-Nov-92	329	5:30 PM	10:00 PM		
	QUICAL01	25-Nov-92	330	8:21 AM	10:00 AM		
	PCTCAL01	25-Nov-92	330	10:40 AM	2:19 PM		
	STARFL01	30-Nov-92	335	3:20 PM	5:00 PM		
	NSTAR01	30-Nov-92	335	5:00 PM	6:31 PM		
	MRO01	30-Nov-92	335	6:34 PM	6:38 PM		
	QUICAL02	1-Dec-92	336	1:27 PM	3:08 PM		
	RCTCAL01	1-Dec-92	336	3:13 PM	7:43 PM		
	LOAD01	1-Dec-92	336	9:16 PM	9:18 PM		
	QUICAL03	2-Dec-92	337	8:49 AM	9:16 AM		
	QUICAL04	3-Dec-92	338	6:00 AM	7:56 AM		
	QUICAL05	3-Dec-92	338	7:59 AM	10:03 AM		
	BOOM01	3-Dec-92	338	12:10 PM	9:15 PM		
	BOOM02	4-Dec-92	339	6:30 AM	7:31 PM		
EE11:	QUICAL06	7-Dec-92	342	11:58 AM	12:27 PM		
	QUICAL07	7-Dec-92	342	12:32 PM	2:23 PM		
	PHASE01	7-Dec-92	342	2:23 PM	3:04 PM		
	4GAIN01	7-Dec-92	342	3:07 PM	3:18 PM		
	PHASE02	7-Dec-92	342	3:19 PM	4:18 PM		
	PHASE03	7-Dec-92	342	4:19 PM	6:43 PM		
	PHASE04	7-Dec-92	342	6:46 PM	7:10 PM		
	PHASE05	7-Dec-92	342	7:10 PM	7:29 PM		
	HIRES01	7-Dec-92	342	7:29 PM	8:26 PM		
	PHASE06	7-Dec-92	342	8:27 PM	8:46 PM		
	PHASE07	7-Dec-92	342	8:46 PM	9:17 PM		
	PHASE08	7-Dec-92	342	9:18 PM	11:06 PM		
	PHASE09	7-Dec-92	342	11:07 PM	11:38 PM		
	PHASE10	12/7 to 12/8	342/343	11:58 PM	1:36 AM		
	PHASE11	8-Dec-92	343	1:37 AM	2:06 AM		Track/Tick
	LOWCAL01	8-Dec-92	343	2:09 AM	3:10 AM		T3/2230
	ANDES01	8-Dec-92	343	6:45 AM	6:55 AM	RECORDED	to
	HAWAUR01	8-Dec-92	343	8:05 AM	8:21 AM		T4/4720
	ANTAR01	8-Dec-92	343	9:25 AM	10:14 AM		
	LTNING01	8-Dec-92	343	12:28 PM	12:49 PM		
	AUSIE01	8-Dec-92	343	12:50 PM	1:51 PM		
	INDO01	8-Dec-92	343	2:32 PM	2:55 PM		
	GMOS01	8-Dec-92	343	3:07 PM	8:10 PM		
	Playback ANDES	8-Dec-92	343	4:16 PM	5:31 PM	PLAYBACK	Track 3 & 4
	GMOS02	12/8 to 12/9	343/344	10:12 PM	3:13 AM		
	GOPEX01	9-Dec-92	344	3:14 AM	6:14 AM		
	GMOS03	9-Dec-92	344	6:16 AM	10:10 AM		
	GMOS04	12/9 to 12/10	344/345	12:26 PM	3:05 AM		
	GOPEX02	10-Dec-92	345	3:06 AM	5:14 AM		
	PCTMIN01	11-Dec-92	346	12:34 AM	2:05 AM		
	RCTMIN01	11-Dec-92	346	9:39 AM	10:11 AM		
	MIRCAL01	11-Dec-92	346	10:15 AM	10:48 AM		
	NIMSOFF	11-Dec-92	346	11:03 AM	11:06 AM		

By John Hui
11/30/92

Chapter 3 - Earth/Moon 2 Flyby Geometries

Contents

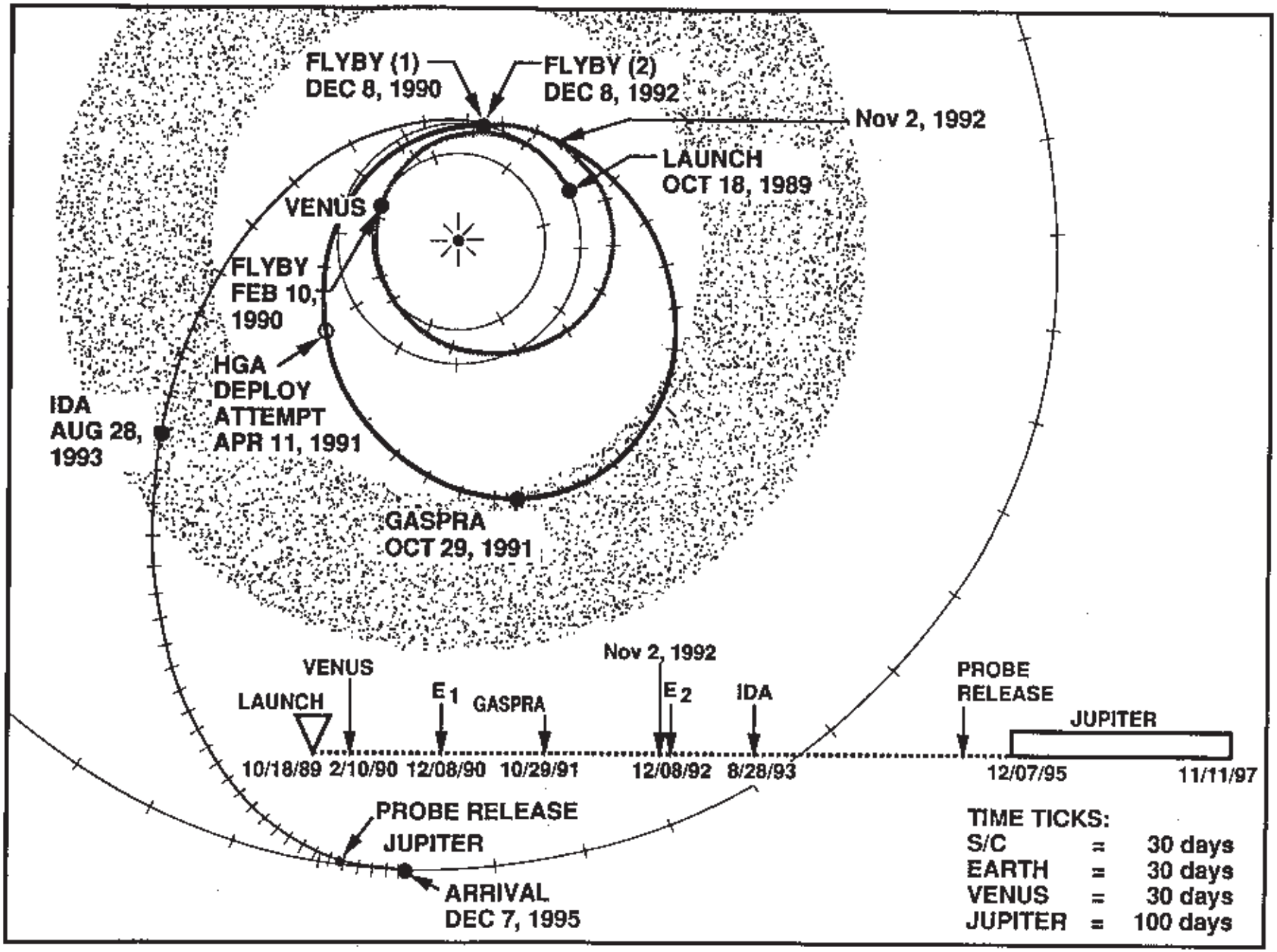
Chapter 3

Introduction

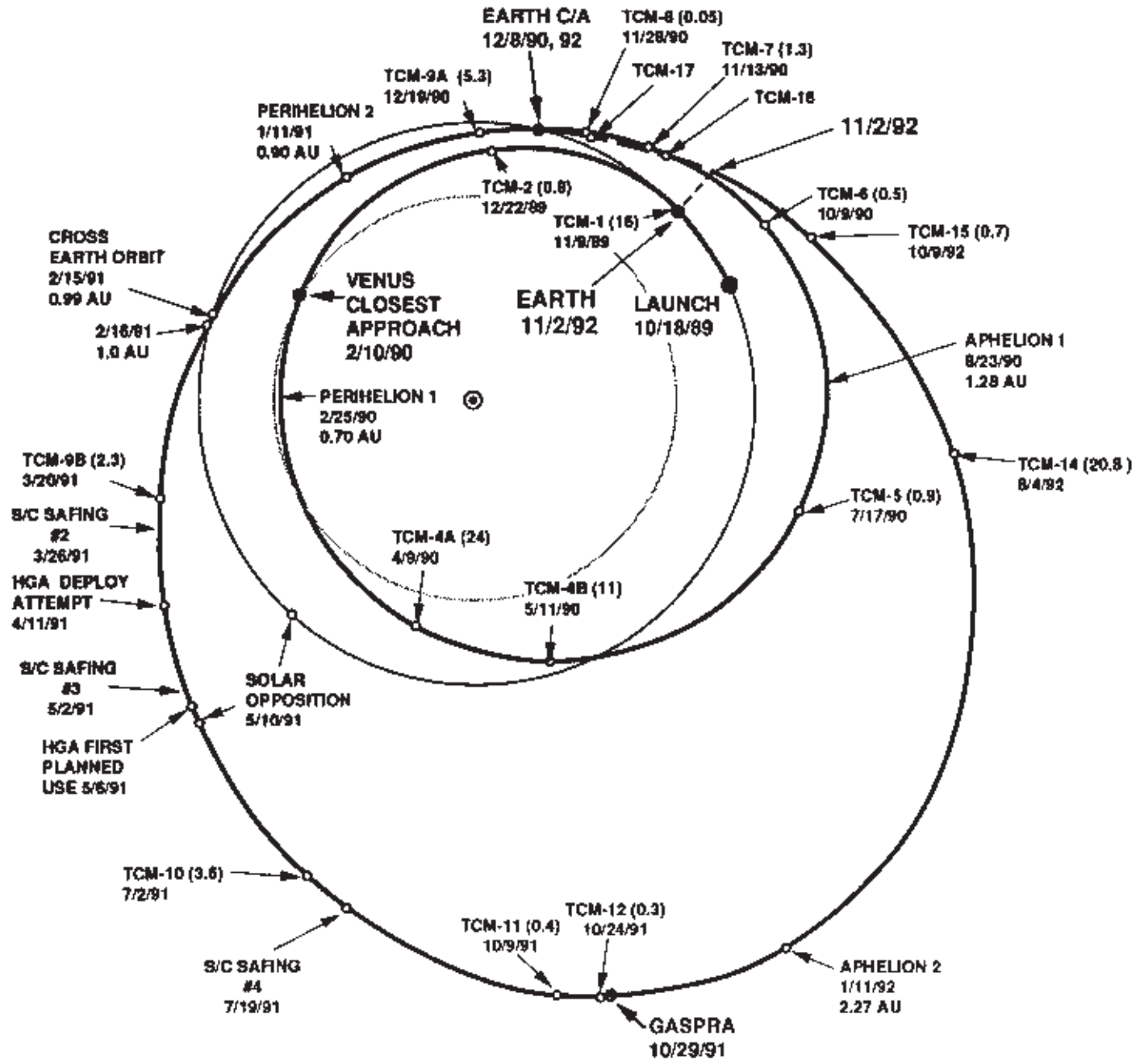
This chapter provides an overview of Galileo's traverse of the solar system (Pages 3 and 4) and a comparison of the Earth 2 flyby with Earth 1 for the lunar orbit traverse and Galileo's Earth ground track. Earth 1 flyby information is found on Pages 5 and 6. Comparable information for Earth 2 flyby can be found on Pages 7 and 8.

The EE9 and EE11 attitude strategies are given on Page 9. These represent RA/DEC values for the -Z axis.

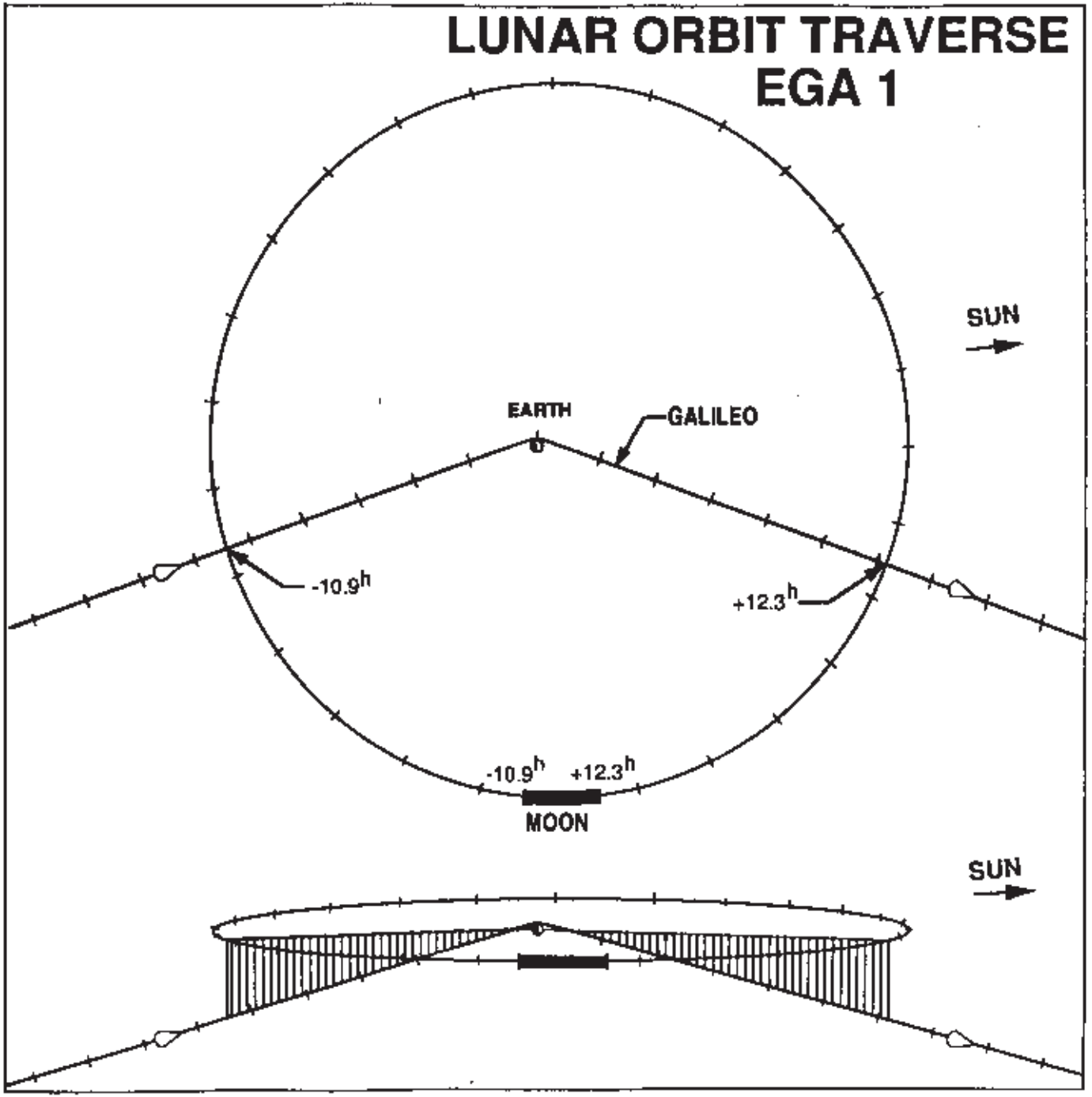
Further flyby geometrical information for Earth and Moon, including range, altitude and phase angle can be found on Pages 12-19 and 25-32. The y-axis for these plots are labeled with Target-Craft-Distance (TCDIS), Target-Craft-Altitude (TCAL), Sun-Target-Craft (STC) and Angular Semi-Diameter (ASD). Units are shown on the axis.


FLYBY (1)
DEC 8, 1990
FLYBY (2)
DEC 8, 1992
Nov 2, 1992
LAUNCH
OCT 18, 1989
VENUS
FLYBY
FEB 10,
1990
HGA
DEPLOY
ATTEMPT
APR 11, 1991
IDA
AUG 28,
1993
GASPRA
OCT 29, 1991
VENUS
LAUNCH
E 1
GASPRA
Nov 2, 1992
E 2
IDA
PROBE
RELEASE
JUPITER
10/18/89 2/10/90 12/08/90 10/29/91 12/08/92 8/28/93 12/07/95 11/11/97
PROBE RELEASE
JUPITER
ARRIVAL
DEC 7, 1995
TIME TICKS:
S/C = 30 days
EARTH = 30 days
VENUS = 30 days
JUPITER = 100 days

WJO-1
11/2/92

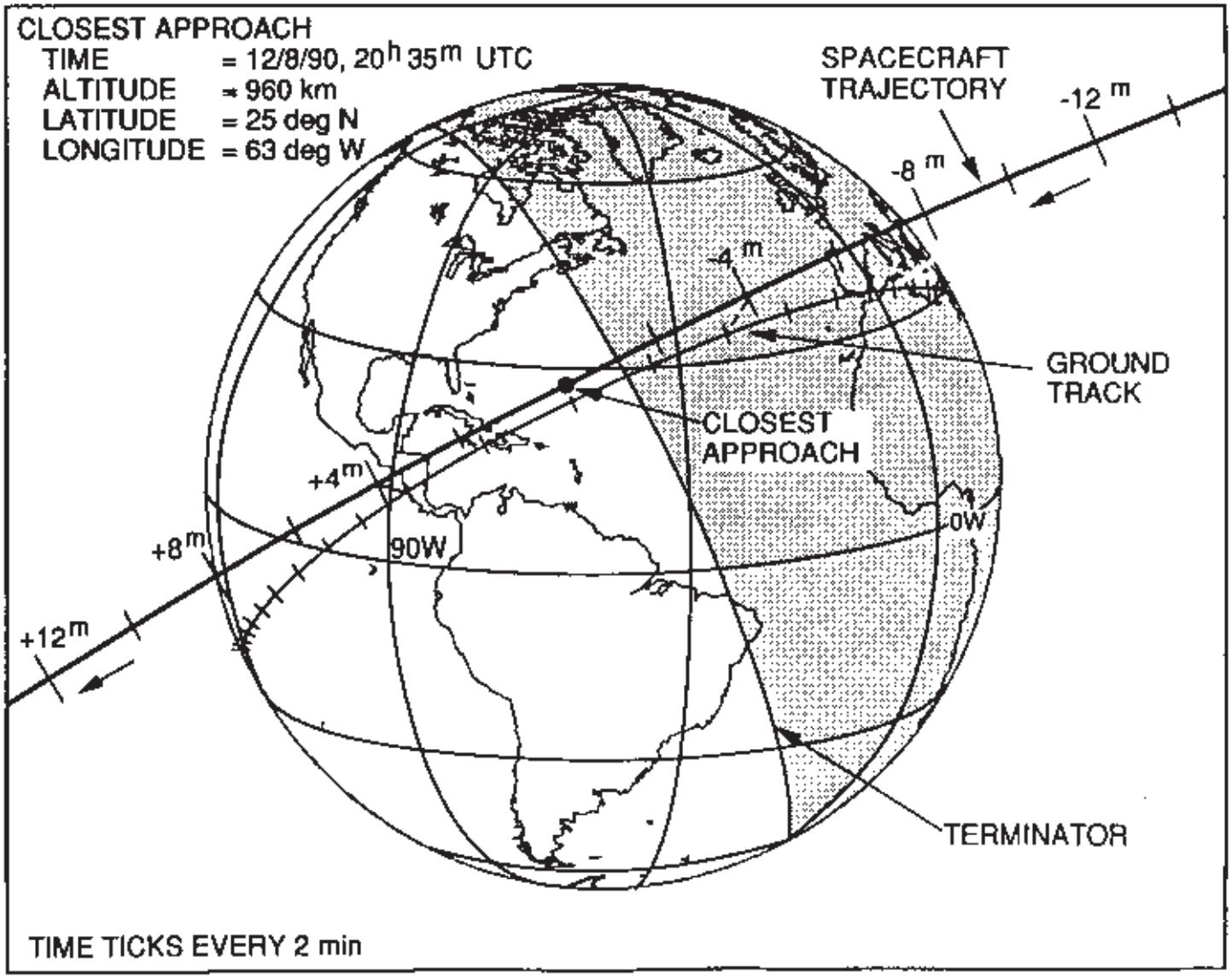

EARTH C/A
12/8/90, 92
TCM-8 (0.05)
11/28/90
TCM-7 (1.3)
11/13/90
TCM-17
TCM-16
TCM-9A (5.3)
12/19/90
PERIHELION 2
1/11/91
0.90 AU
11/2/92
TCM-2 (0.8)
12/22/89
TCM-1 (15)
11/6/89
TCM-6 (0.5)
10/9/90
TCM-15 (0.7)
10/9/92
CROSS
EARTH ORBIT
2/15/91
0.99 AU
VENUS
CLOSEST
APPROACH
2/10/90
EARTH
11/2/92
LAUNCH
10/18/89
2/16/91
1.0 AU
APHELION 1
8/23/90
1.28 AU
PERIHELION 1
2/25/90
0.70 AU
TCM-14 (20.8)
8/4/92
TCM-9B (2.3)
3/20/91
TCM-5 (0.9)
7/17/90
S/C SAFING
#2
3/26/91
TCM-4A (24)
4/9/90
HGA DEPLOY
ATTEMPT
4/11/91
TCM-4B (11)
5/11/90
S/C SAFING
#3
5/2/91
SOLAR
OPPOSITION
5/10/91
HGA FIRST
PLANNED
USE 5/6/91
TCM-10 (3.6)
7/2/91
TCM-12 (0.3)
10/24/91
TCM-11 (0.4)
10/9/91
S/C SAFING
#4
7/19/91
APHELION 2
1/11/92
2.27 AU
GASPRA
10/29/91

WJO-2
11/2/92

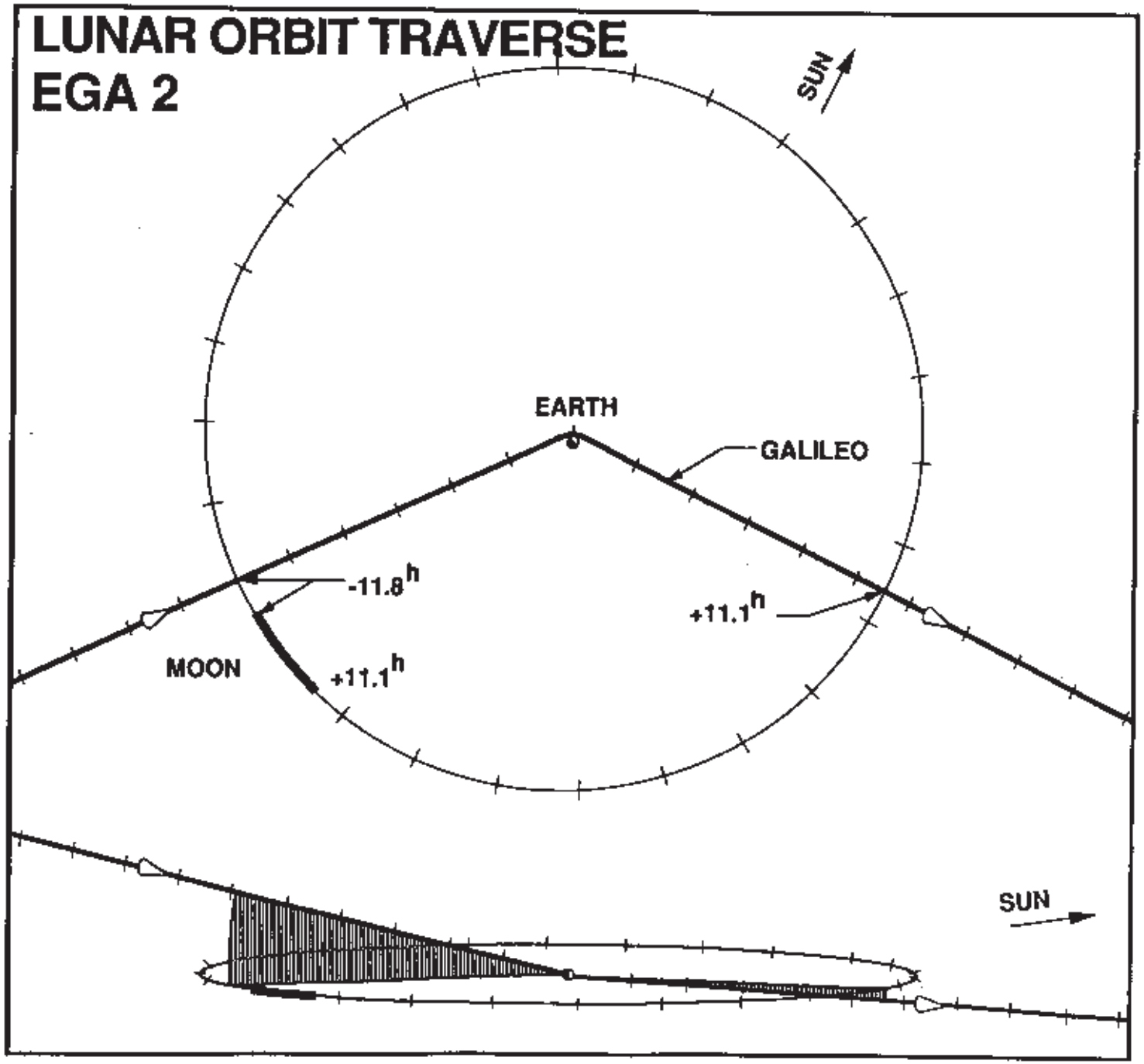

LUNAR ORBIT TRAVERSE
EGA 1
SUN
EARTH
GALILEO
-10.9h
+12.3h
-10.9h
+12.3h
MOON
SUN

WJO-12
11/2/92

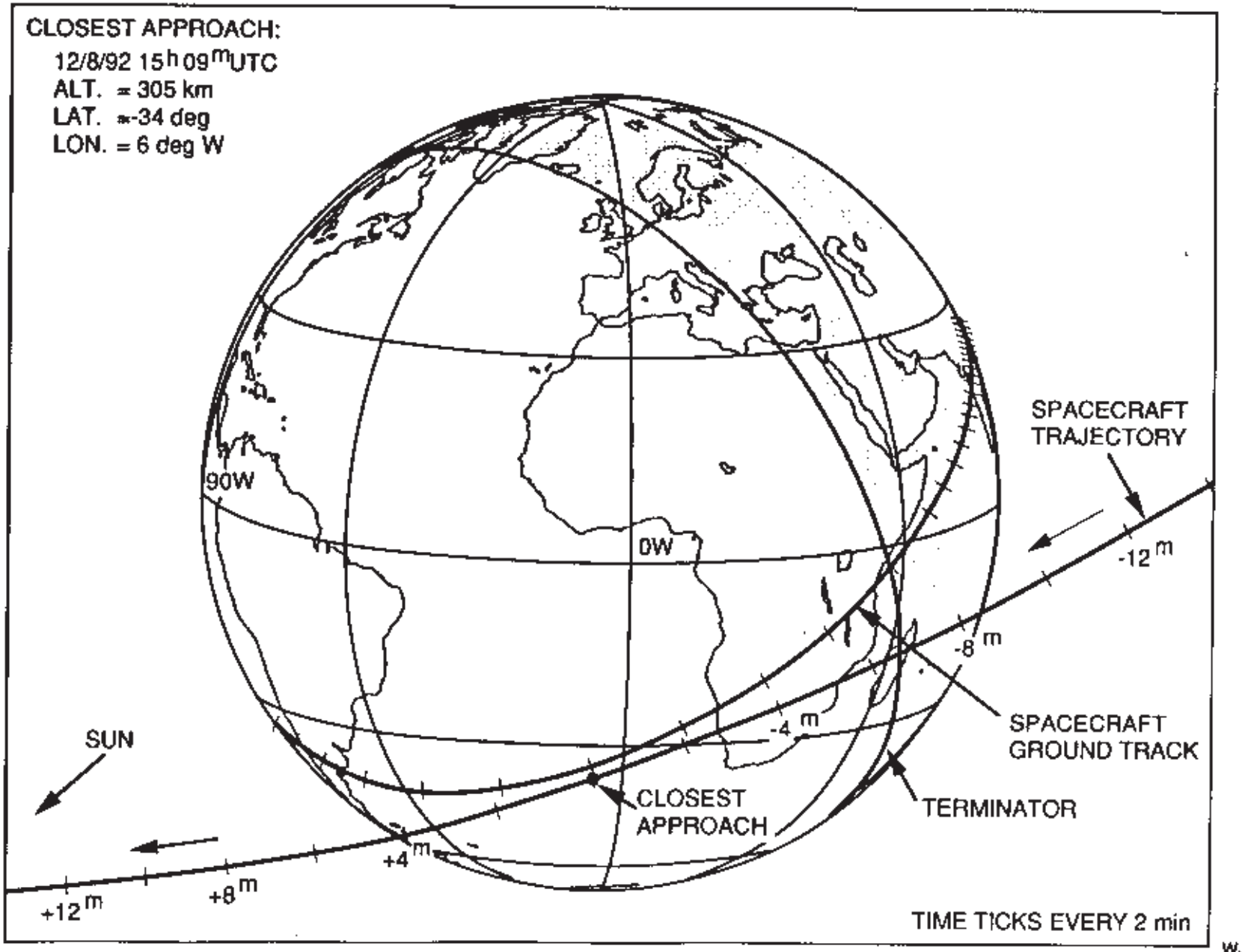
Galileo
GROUND TRACK EARTH 1 FLYBY



WJO-13
11/2/92


LUNAR ORBIT TRAVERSE
EGA 2
SUN
EARTH
GALILEO
-11.8h
+11.1h
MOON
+11.1h
SUN

GROUND TRACK OF EARTH 2 FLYBY



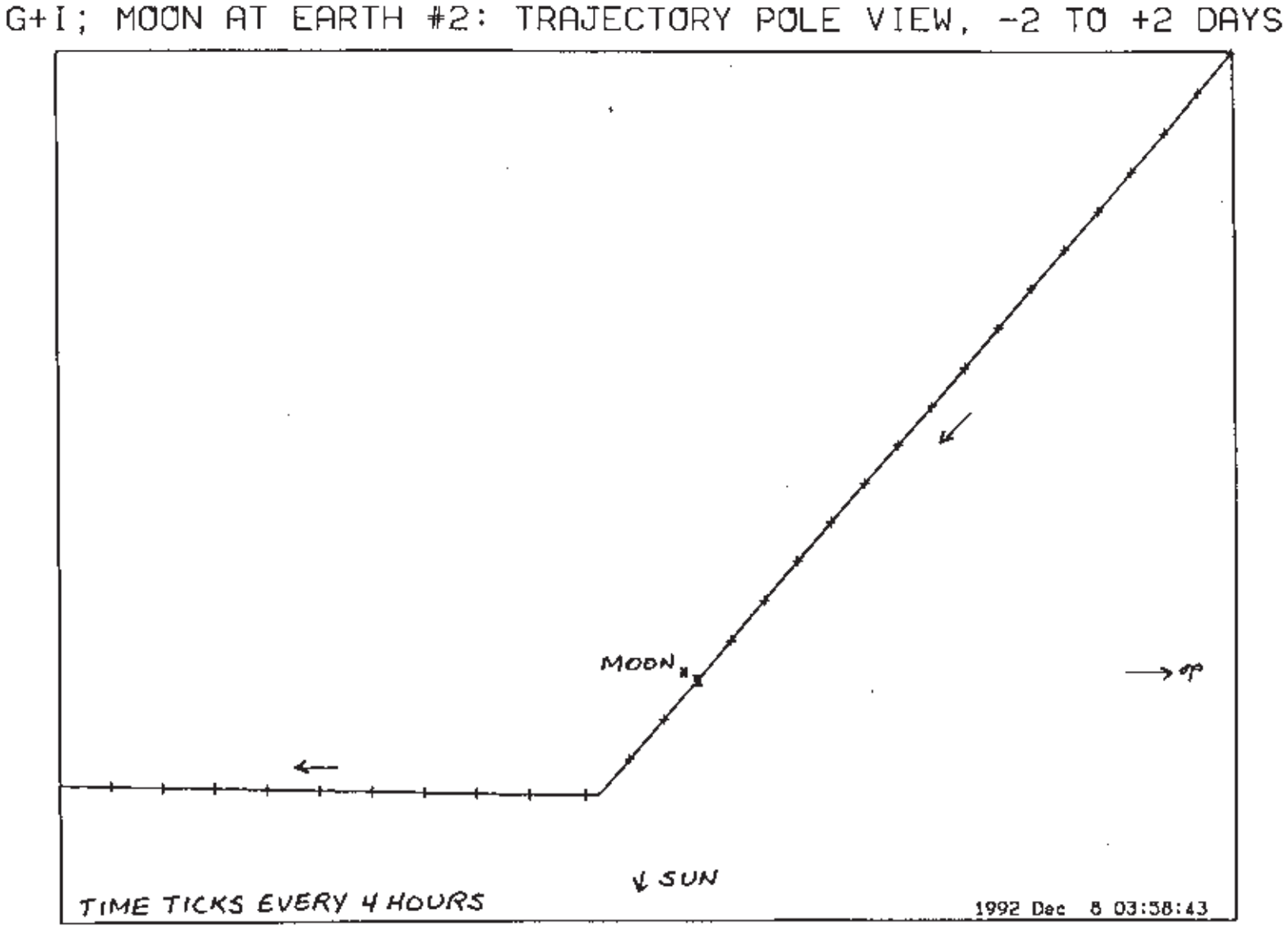
WJO-15
11/2/92

Attitude Strategy

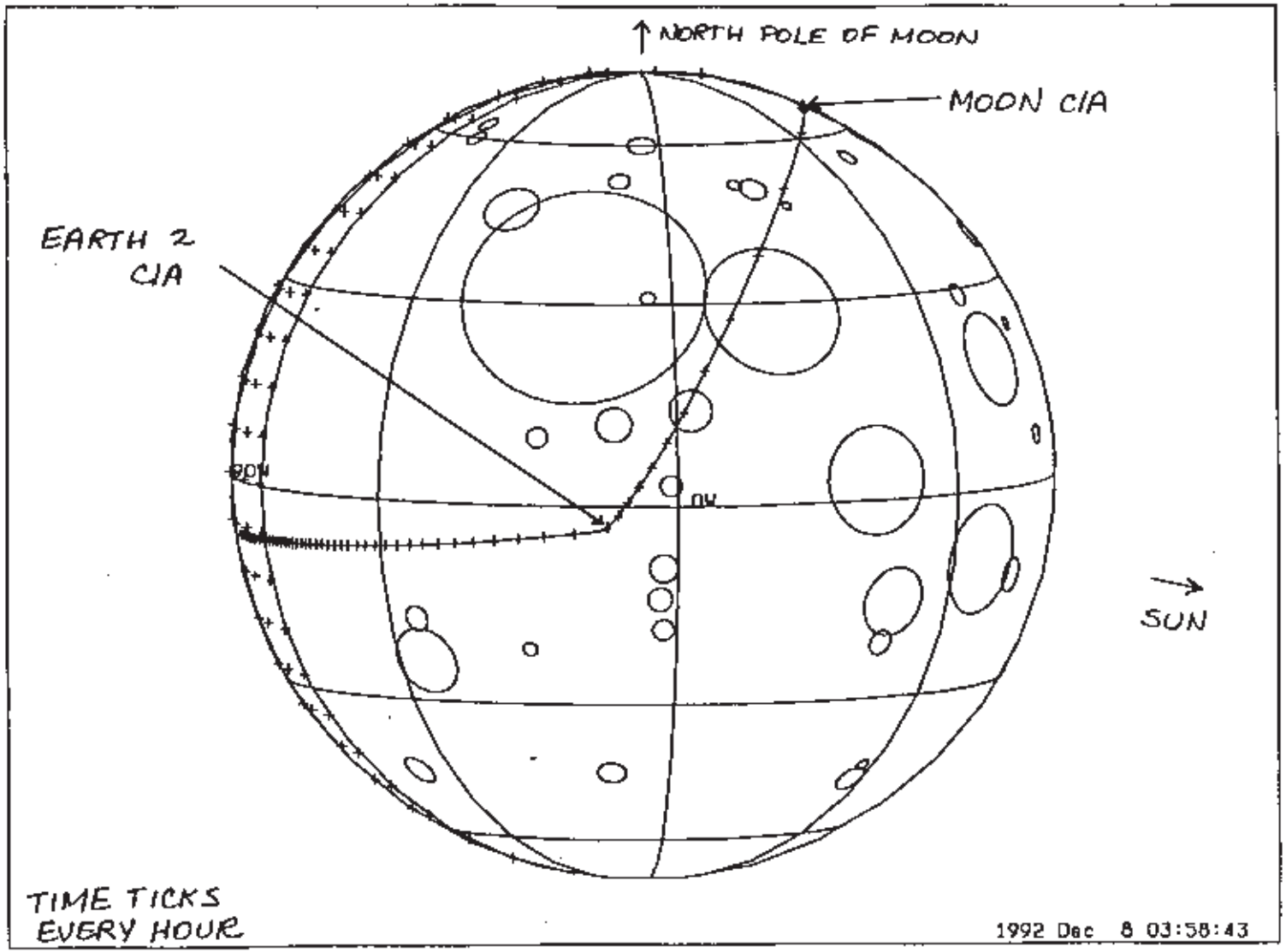
The fundamental attitude strategy during the EE9/EE11 sequences is to maintain sun-orientation with a maximum excursion of 9 degrees off sun-line. A lead-lag implementation maintains this strategy, with a small period of time (7.5 hours) prior to the SITURN on DOY 335 during which the excursion goes out to 9.3 degrees before the SITURN resets the position. OET/Thermal and the science instrument teams have indicated that this is not a concern. The RA/Dec coordinates of the turns in EE9/EE11 are listed in the following table.

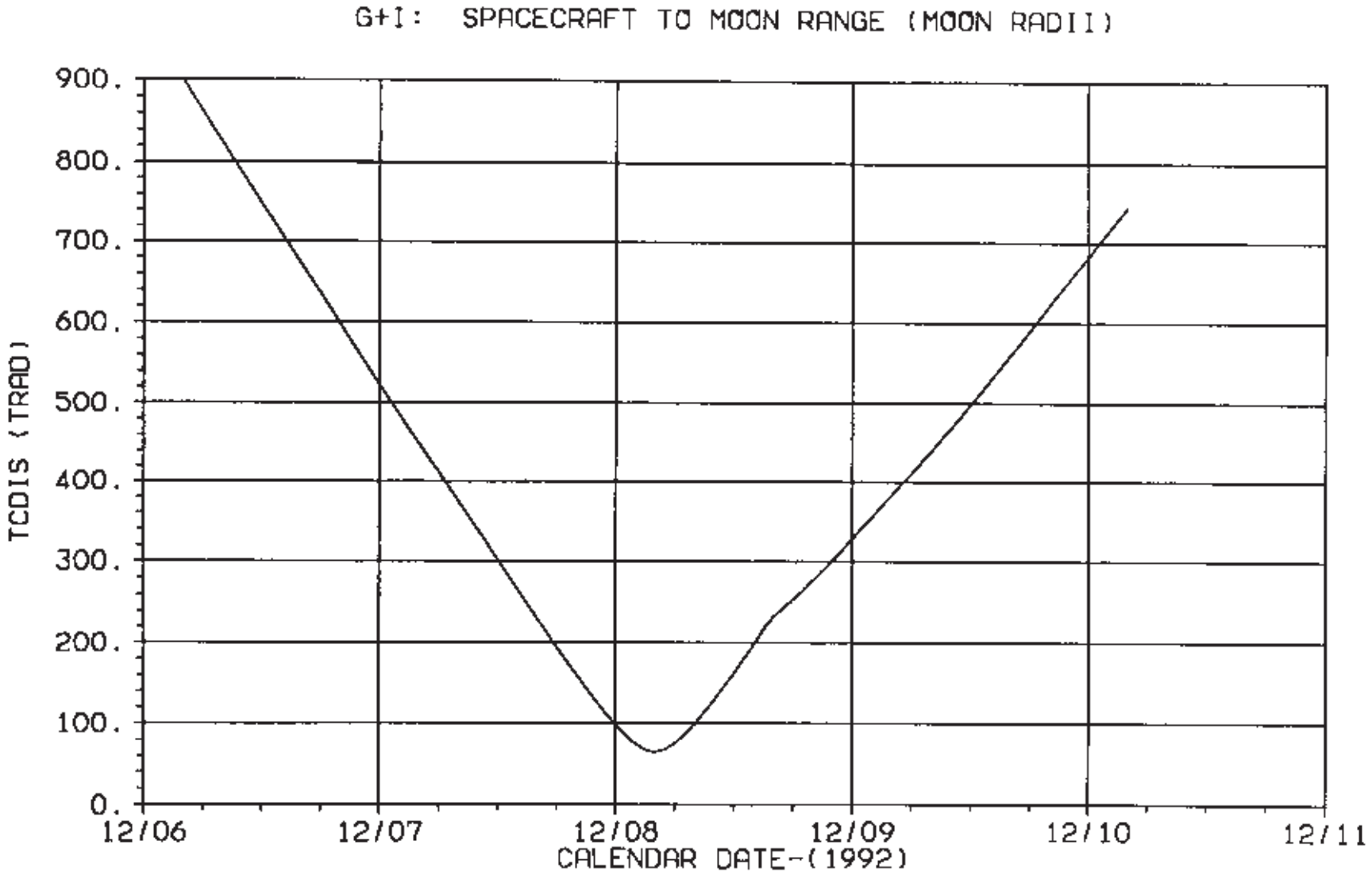
SITURNs in EE9/EE11

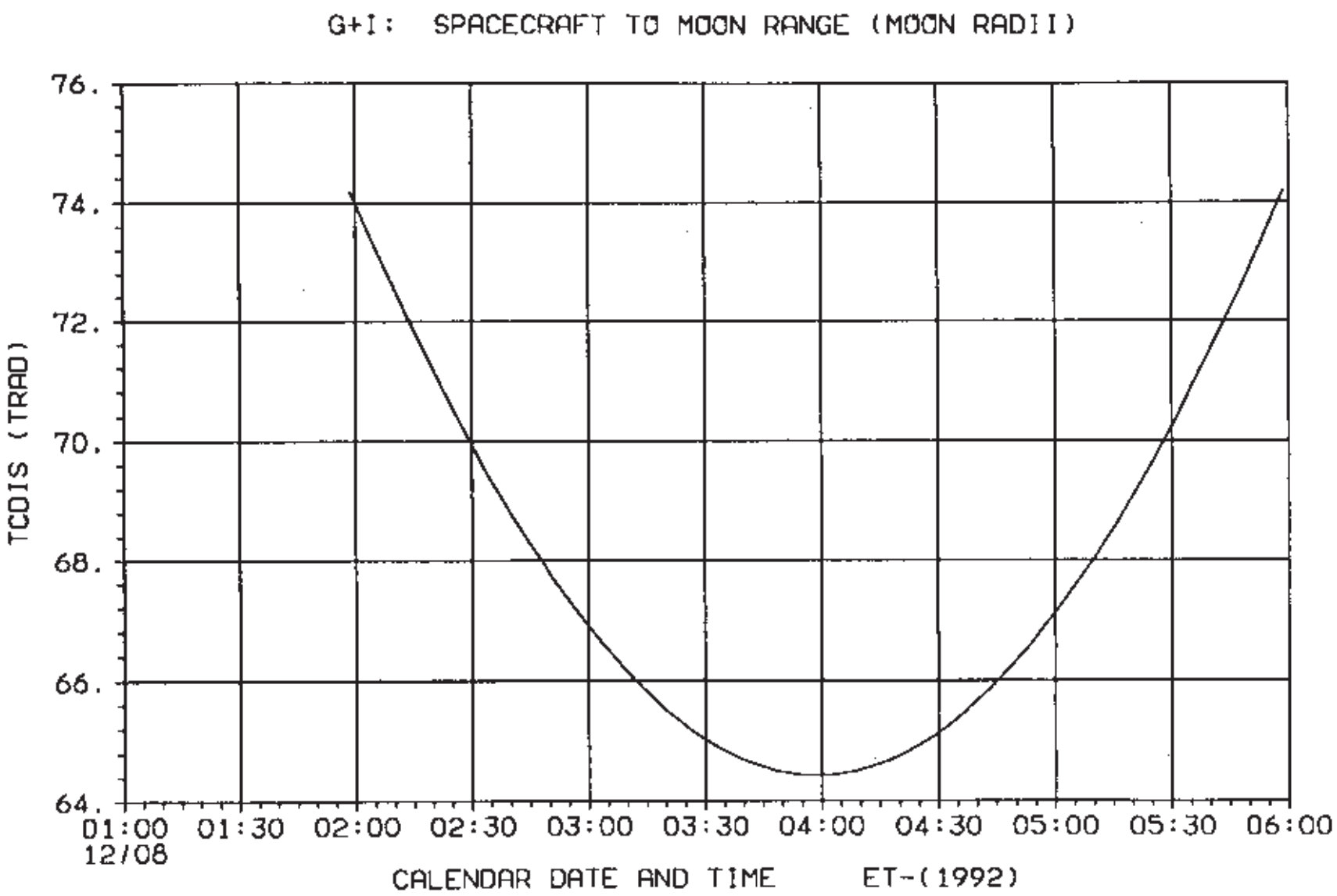
Day of Turn	Turn Target	Turn RA	Turn Dec
Incoming Attitude	Minimum off-Sun angle for PCT on 330	236.44	-26.60
DOY 335	Sun @ 338	248.845	-23.665
DOY 345 * (to be verified)	EUV * Cal	260.24	-19.49
DOY 351	Sun @ 358	274.0	-24.0
DOY 363	Sun @ 366	288.0	-18.0
DOY 004	Sun @ 009	298.0	-19.0

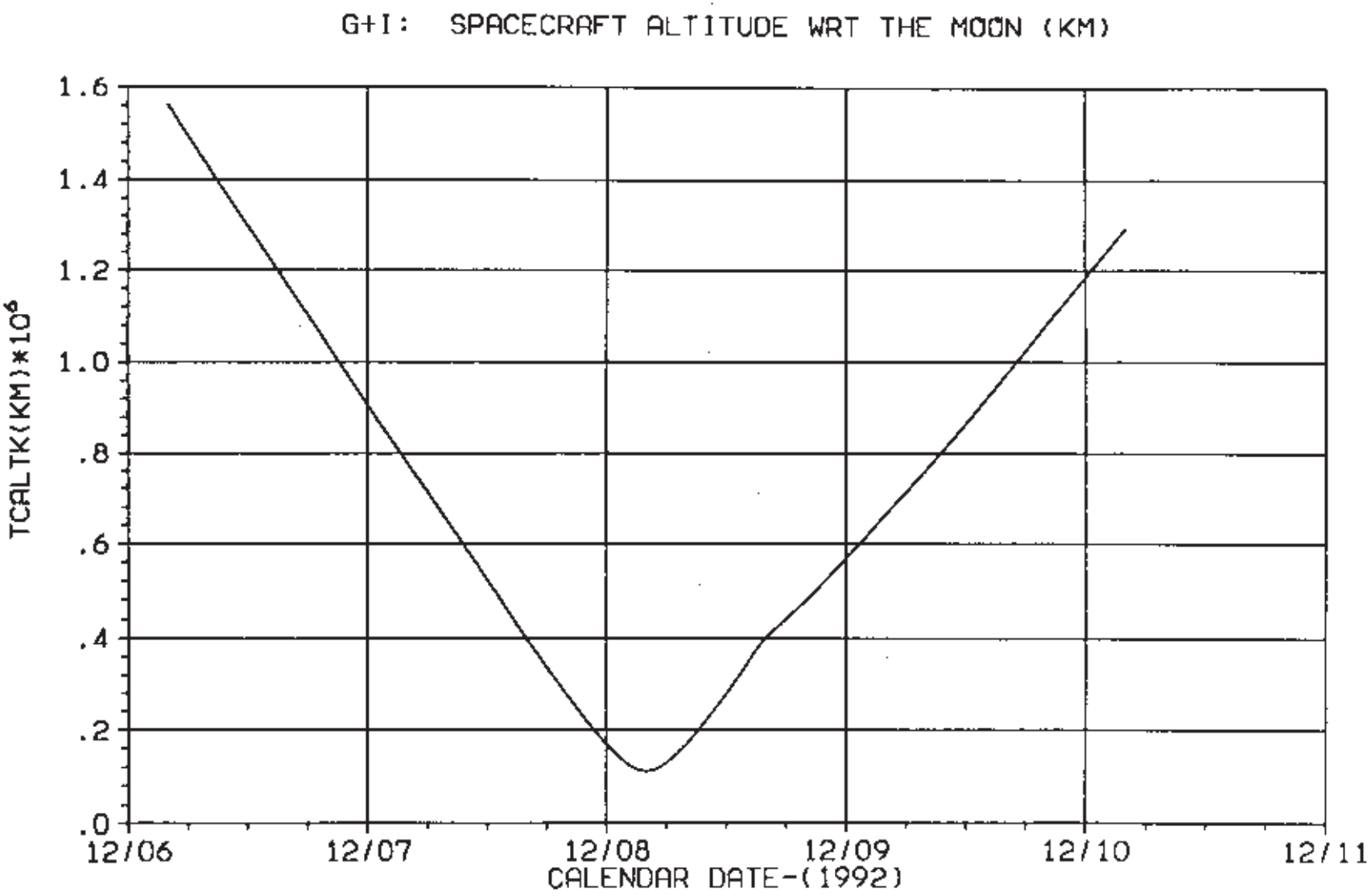

G+I; MOON AT EARTH #2: TRAJECTORY POLE VIEW, -2 TO +2 DAYS
MOON
SUN
TIME TICKS EVERY 4 HOURS
1992 Dec 8 03:58:43

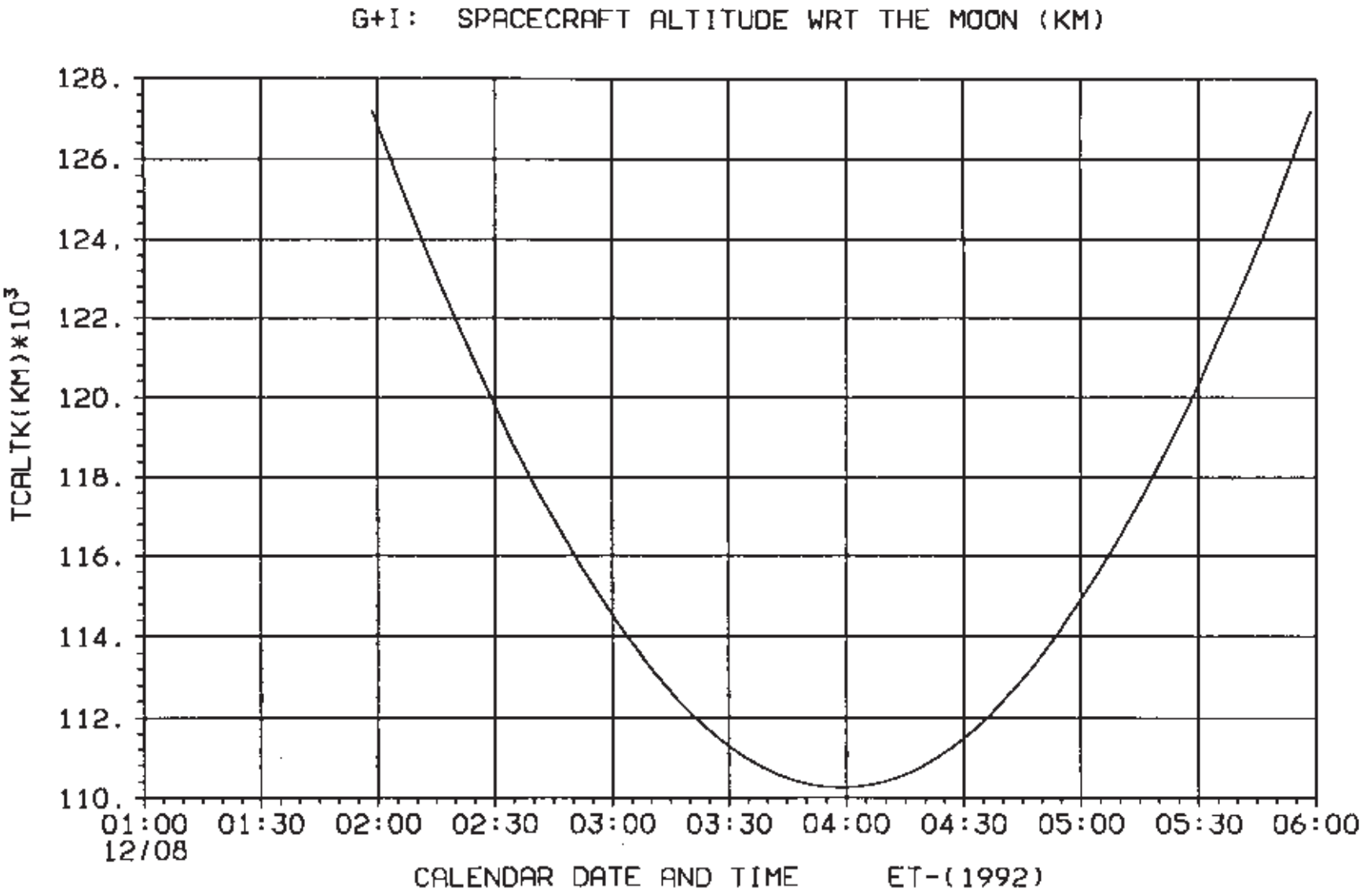
G+I: S/C GROUNDTRACK ON MOON - NEAR MOON 2 FLYBY

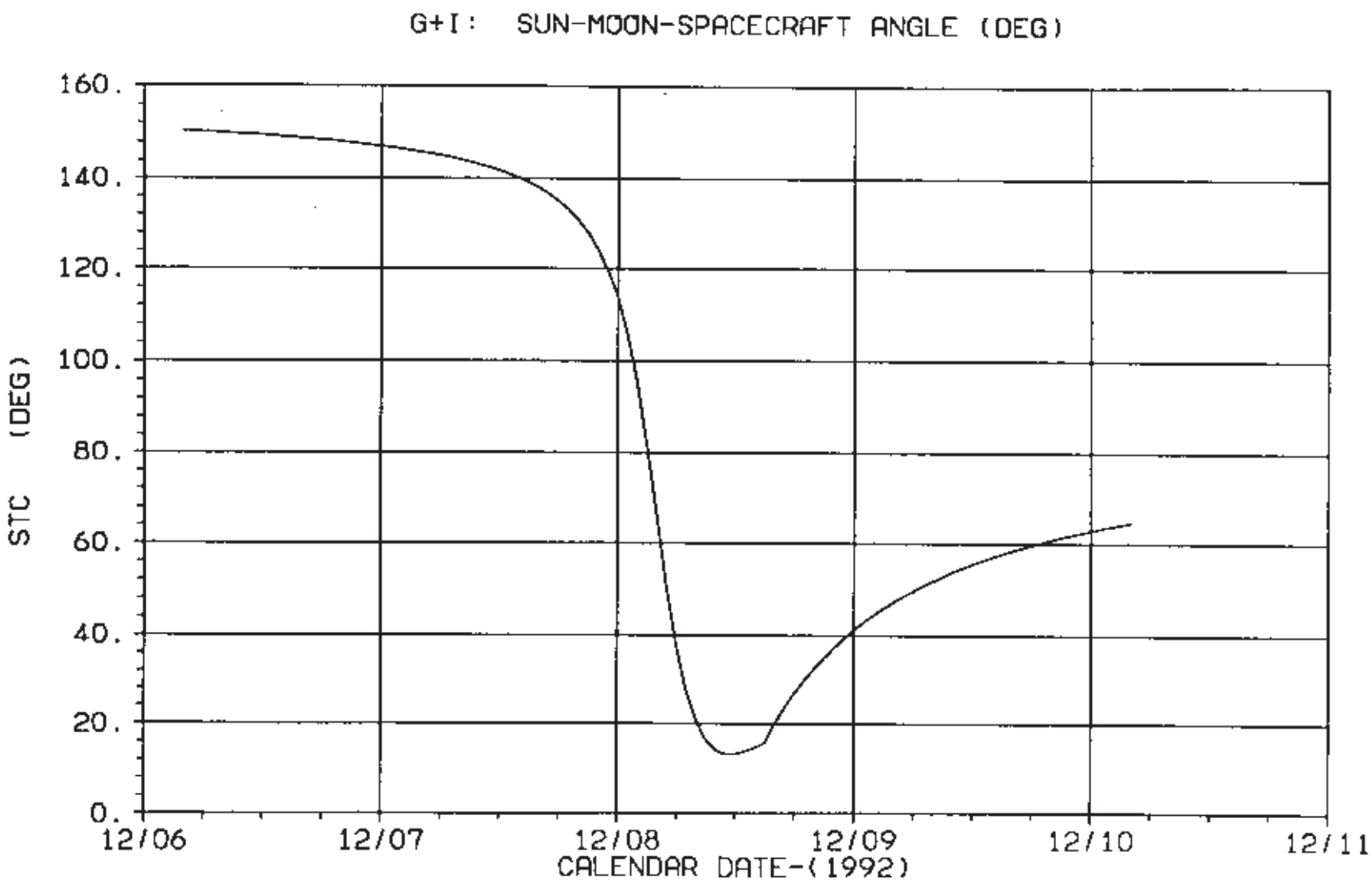


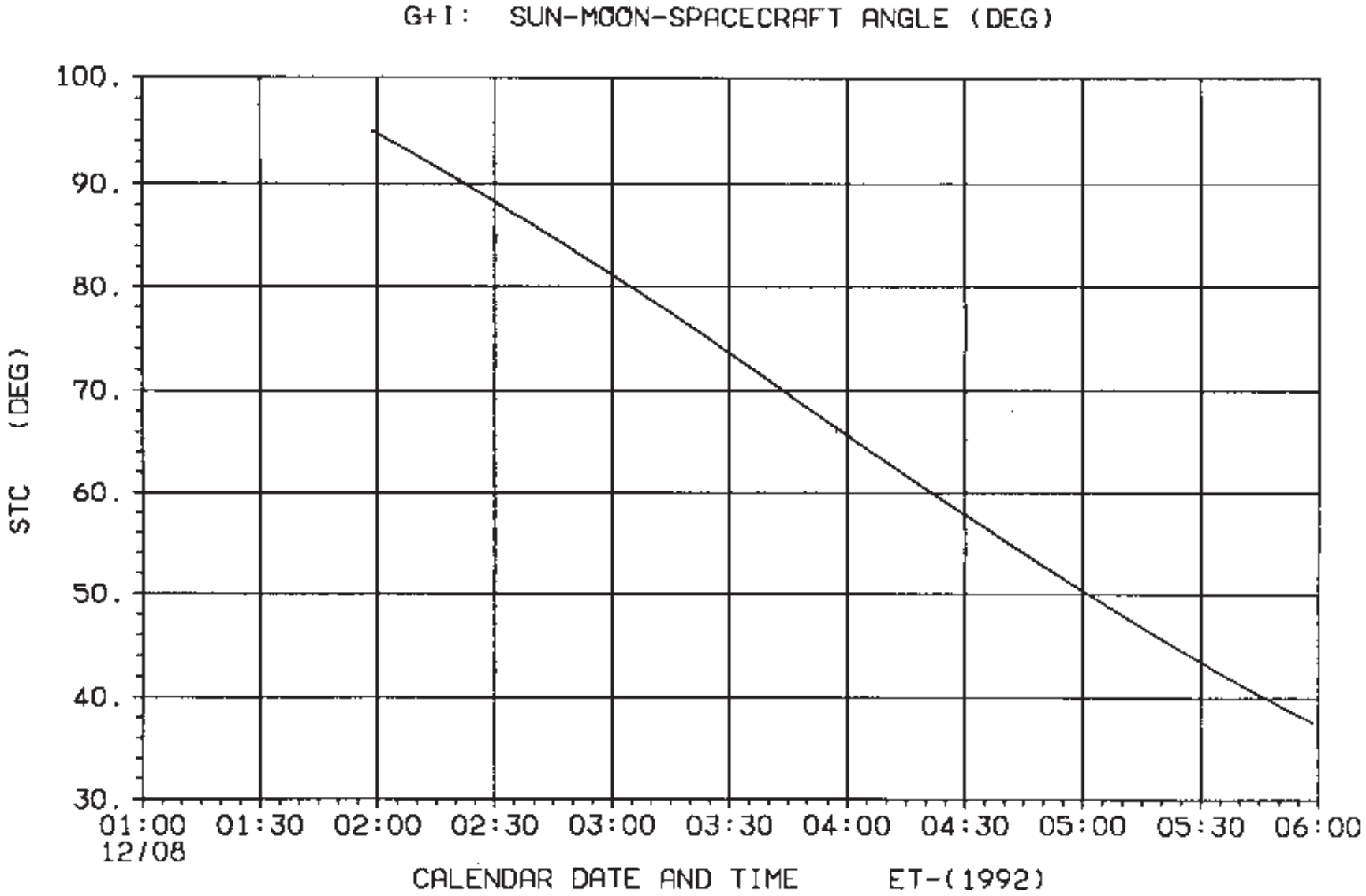

G+I: SPACECRAFT TO MOON RANGE (MOON RADII)
900.
800.
700.
600.
500.
400.
300.
200.
100.
0.
TCDIS (TRAD)
12/06
12/07
12/08
12/09
12/10
12/11
CALENDAR DATE-(1992)

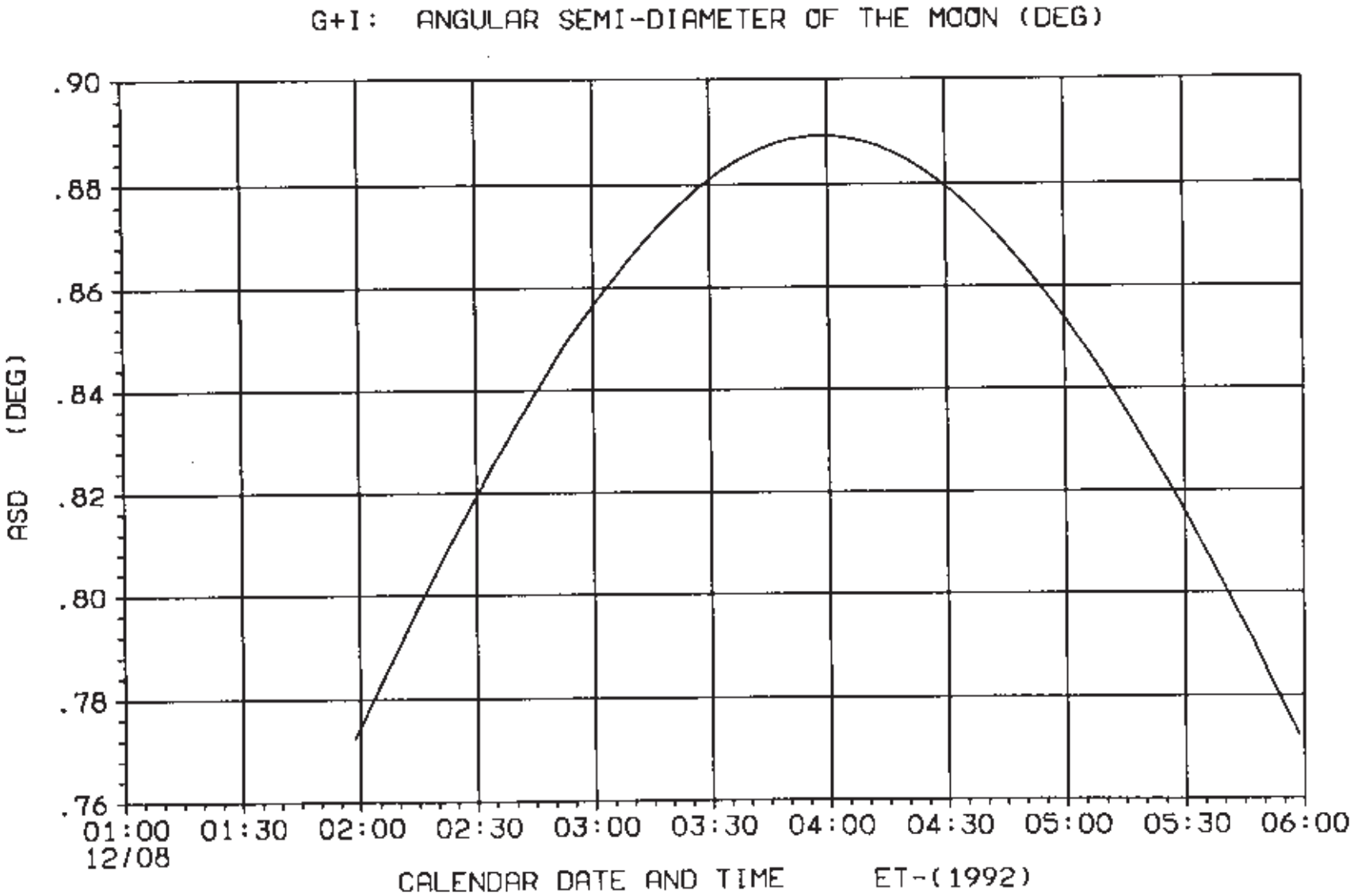

G+I: SPACECRAFT TO MOON RANGE (MOON RADII)
76.
74.
72.
70.
68.
66.
64.
TCDIS (TRAD)
01:00
12/08
01:30
02:00
02:30
03:00
03:30
04:00
04:30
05:00
05:30
06:00
CALENDAR DATE AND TIME
ET-(1992)

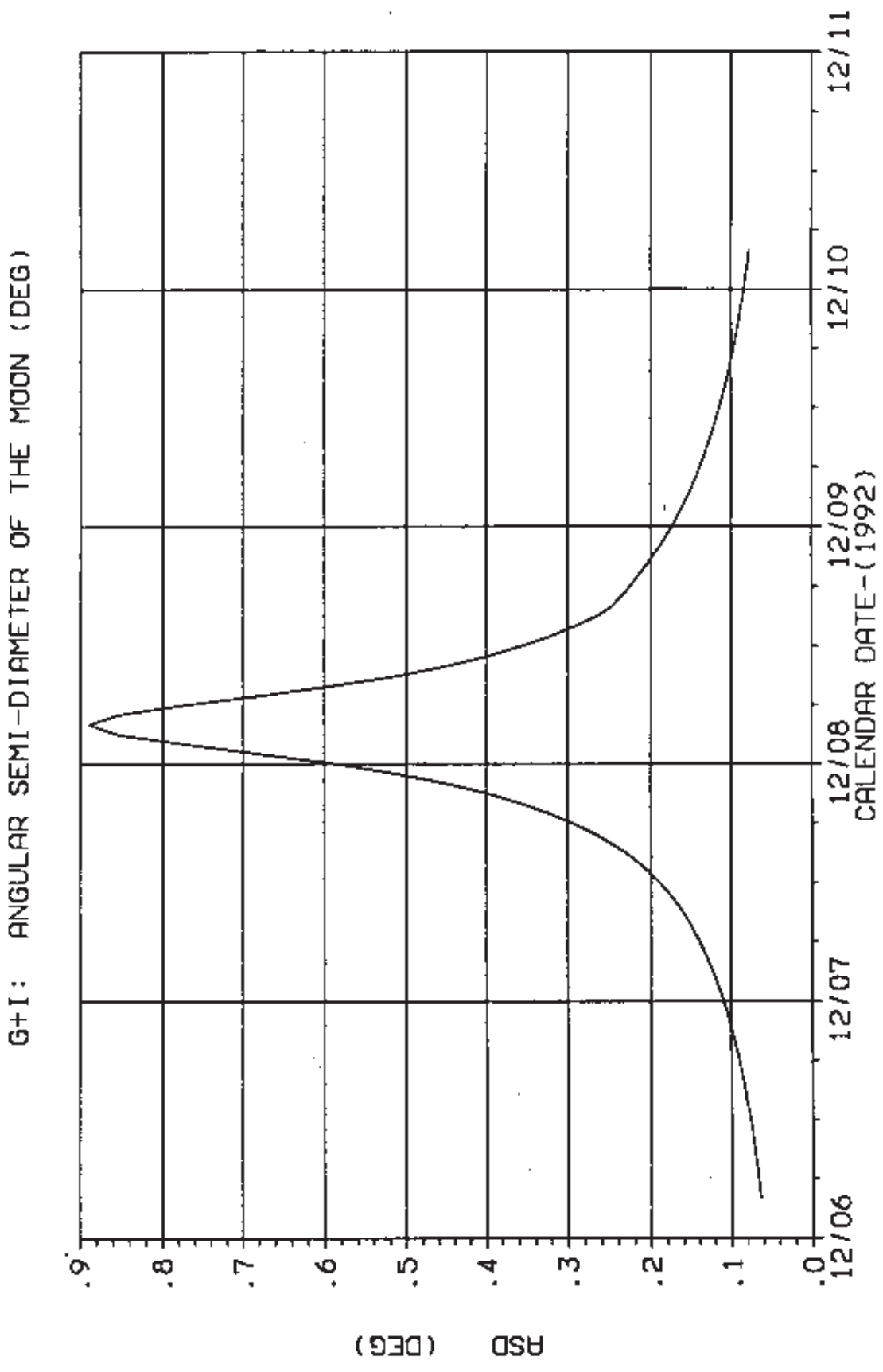

G+I: SPACECRAFT ALTITUDE WRT THE MOON (KM)
TCALTK(KM)*10⁶
1.6
1.4
1.2
1.0
.8
.6
.4
.2
.0
12/06
12/07
12/08
12/09
12/10
12/11
CALENDAR DATE-(1992)


G+I: SPACECRAFT ALTITUDE WRT THE MOON (KM)
TCALTK(KM)*10³
128.
126.
124.
122.
120.
118.
116.
114.
112.
110.
01:00
12/08
01:30
02:00
02:30
03:00
03:30
04:00
04:30
05:00
05:30
06:00
CALENDAR DATE AND TIME ET-(1992)

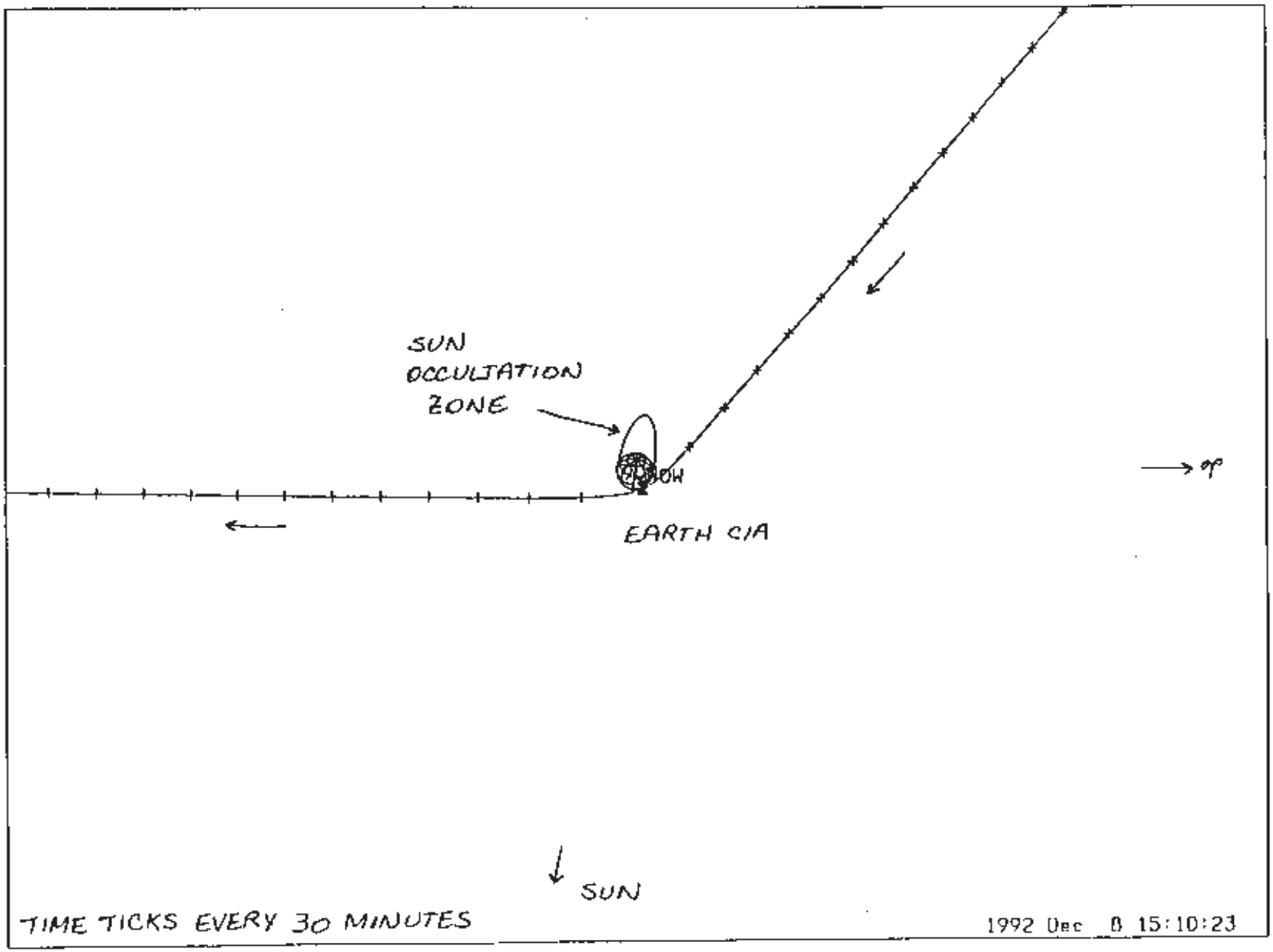

G+I: SUN-MOON-SPACECRAFT ANGLE (DEG)
160.
140.
120.
100.
80.
60.
40.
20.
0.
STC (DEG)
12/06
12/07
12/08
12/09
12/10
12/11
CALENDAR DATE-(1992)

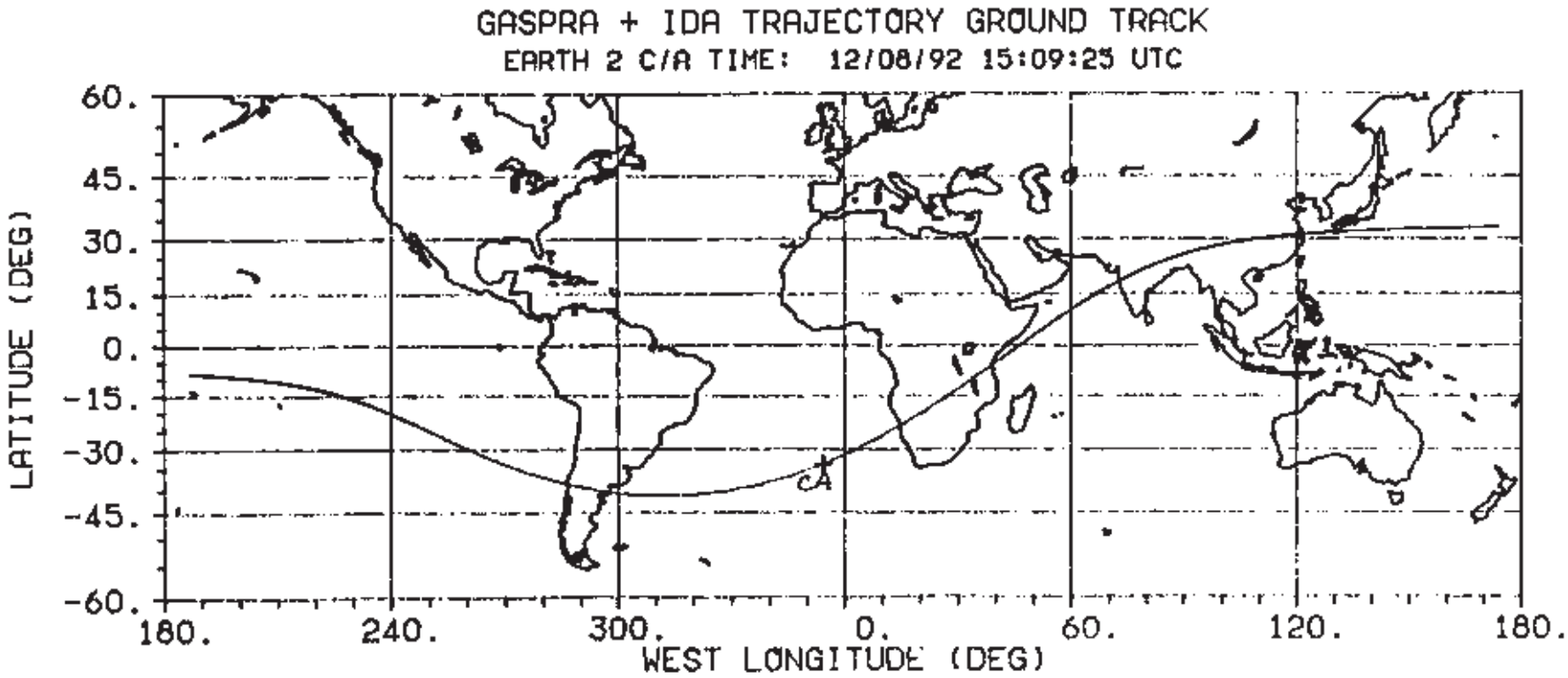

G+I: SUN-MOON-SPACECRAFT ANGLE (DEG)
100.
90.
80.
70.
60.
50.
40.
30.
STC (DEG)
01:00
12/08
01:30
02:00
02:30
03:00
03:30
04:00
04:30
05:00
05:30
06:00
CALENDAR DATE AND TIME
ET-(1992)


G+I: ANGULAR SEMI-DIAMETER OF THE MOON (DEG)
.90
.88
.86
.84
.82
.80
.78
.76
ASD (DEG)
01:00
12/08
01:30
02:00
02:30
03:00
03:30
04:00
04:30
05:00
05:30
06:00
CALENDAR DATE AND TIME ET-(1992)

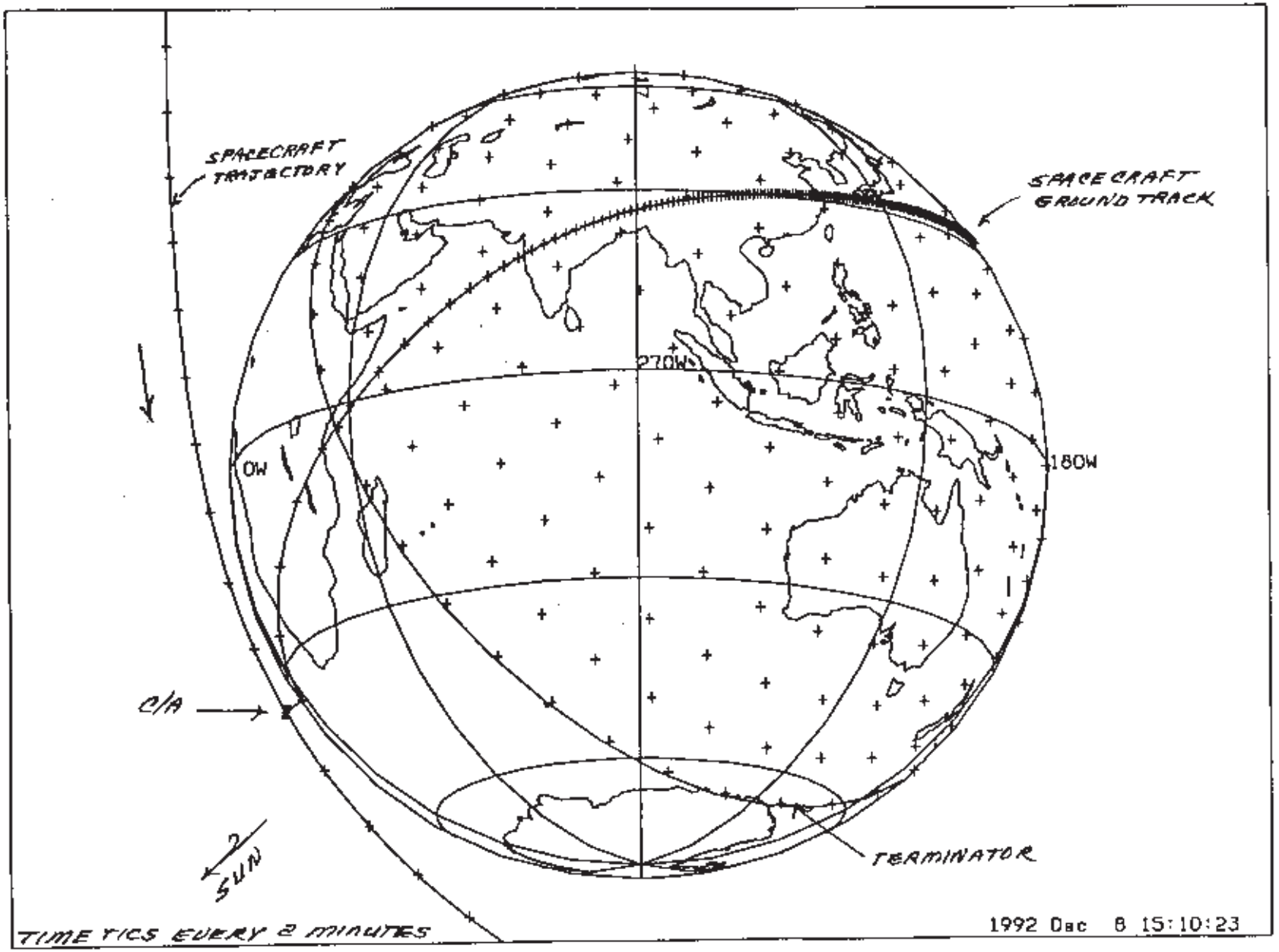

G+I: ANGULAR SEMI-DIAMETER OF THE MOON (DEG)
RSD (DEG)
.0
.1
.2
.3
.4
.5
.6
.7
.8
.9
12/06
12/07
12/08
12/09
12/10
12/11
CALENDAR DATE-(1992)

G+I EARTH #2 FLYBY: TRAJECTORY POLE VIEW, -6 TO +6 HOURS

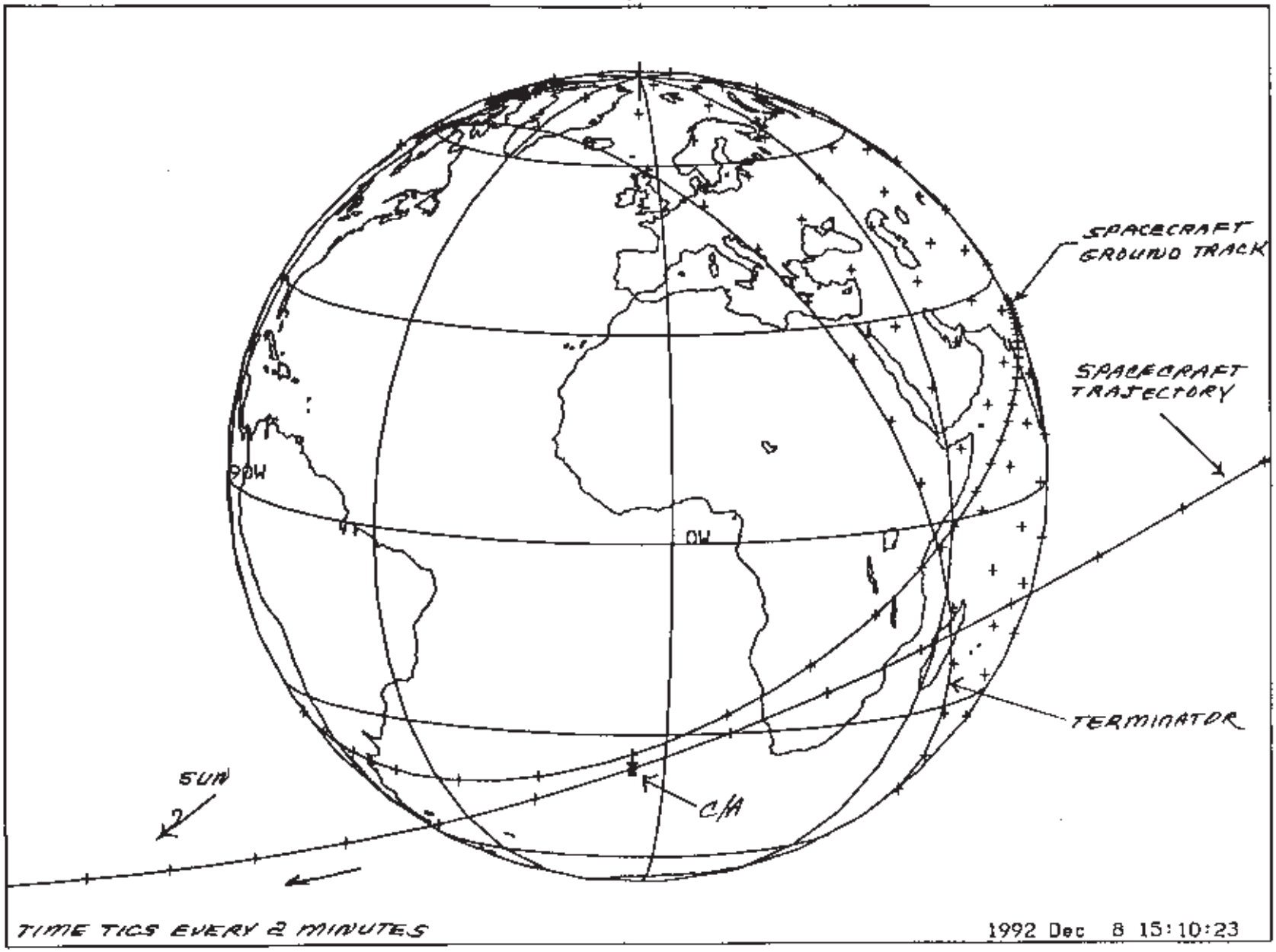



GASPRA + IDA TRAJECTORY GROUND TRACK
EARTH 2 C/A TIME: 12/08/92 15:09:25 UTC
60.
45.
30.
15.
0.
-15.
-30.
-45.
-60.
LATITUDE (DEG)
180.
240.
300.
0.
60.
120.
180.
WEST LONGITUDE (DEG)

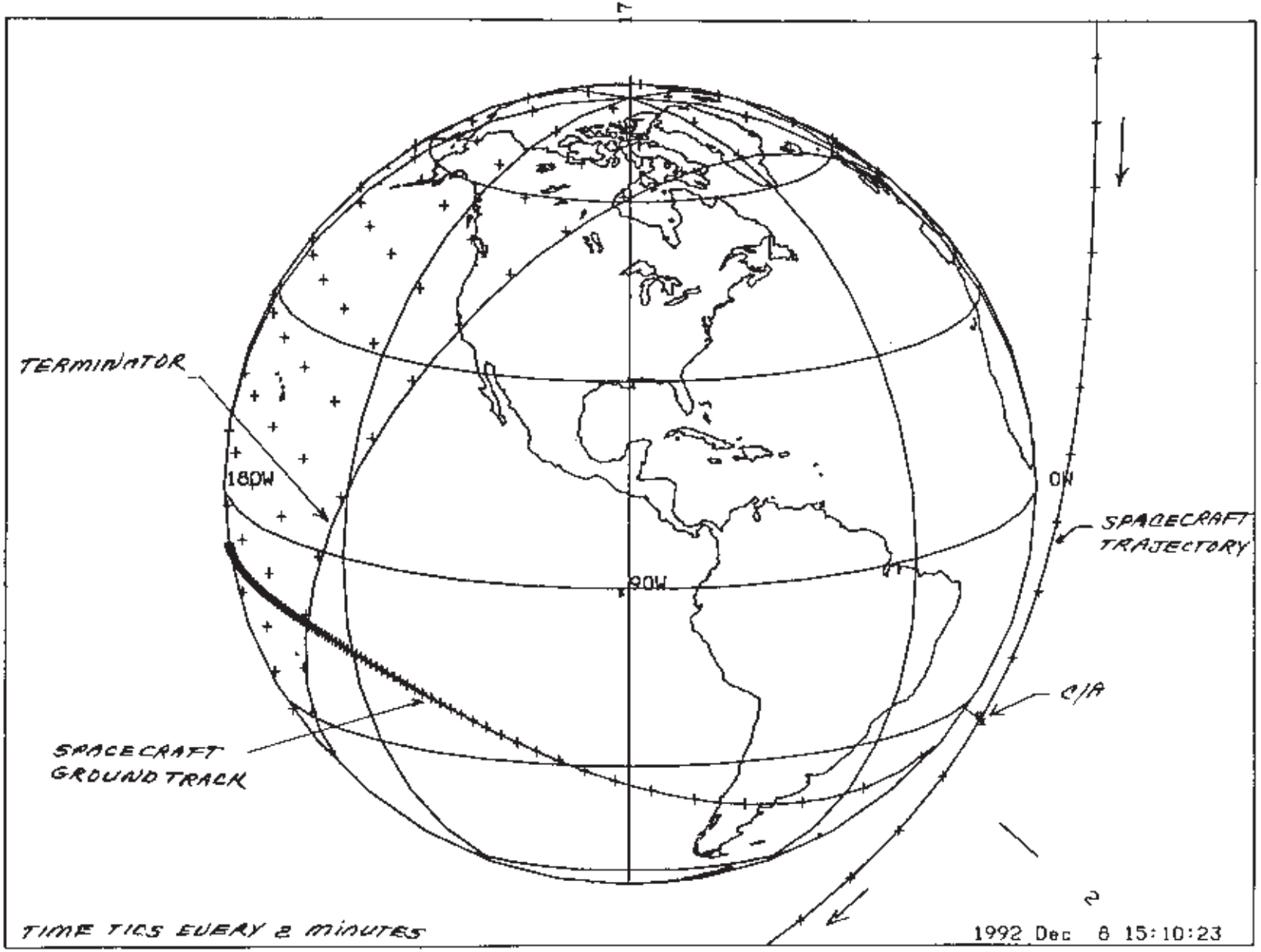
GASPRA + IDA EARTH 2 FLYBY (BEFORE CLOSEST APPROACH)

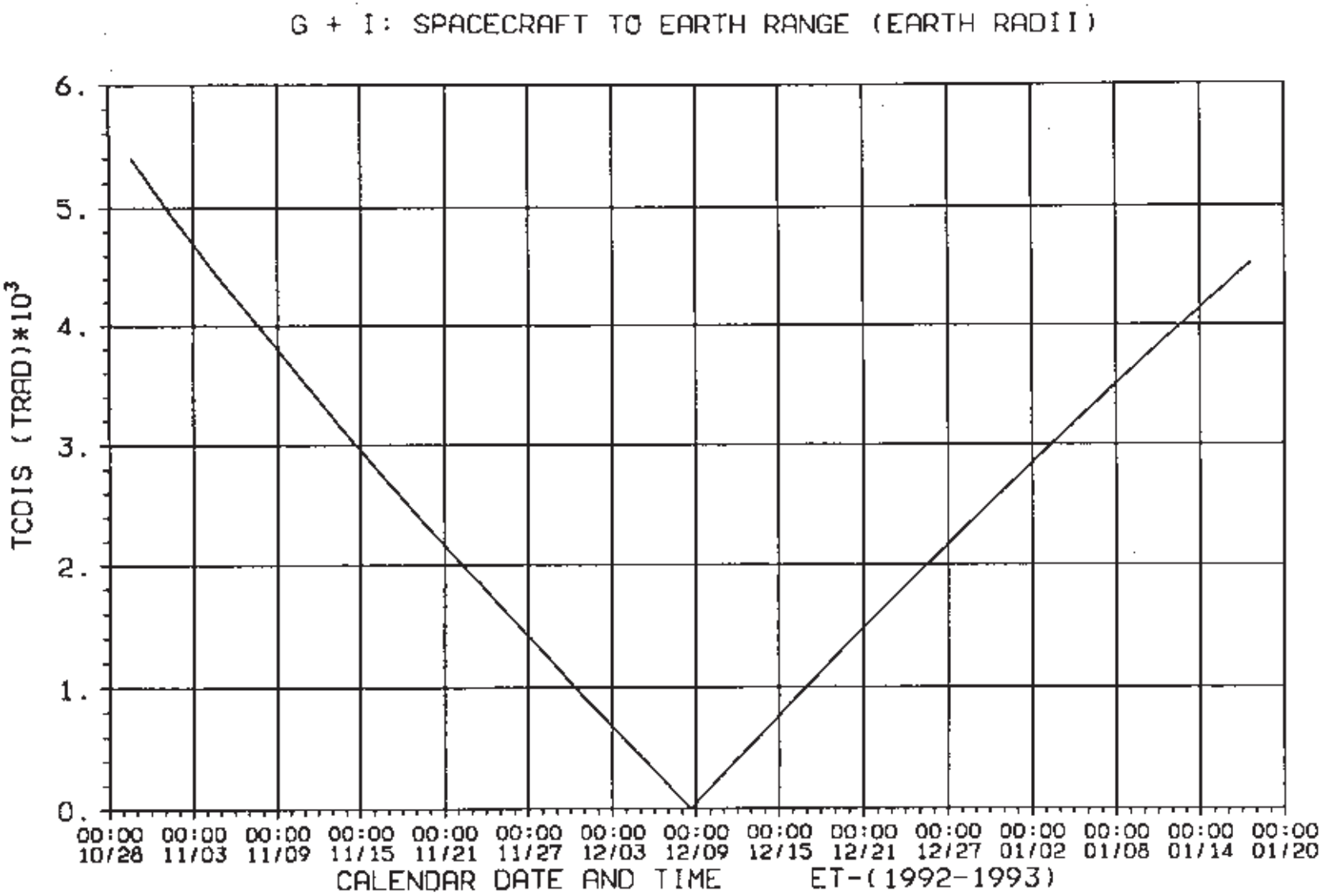


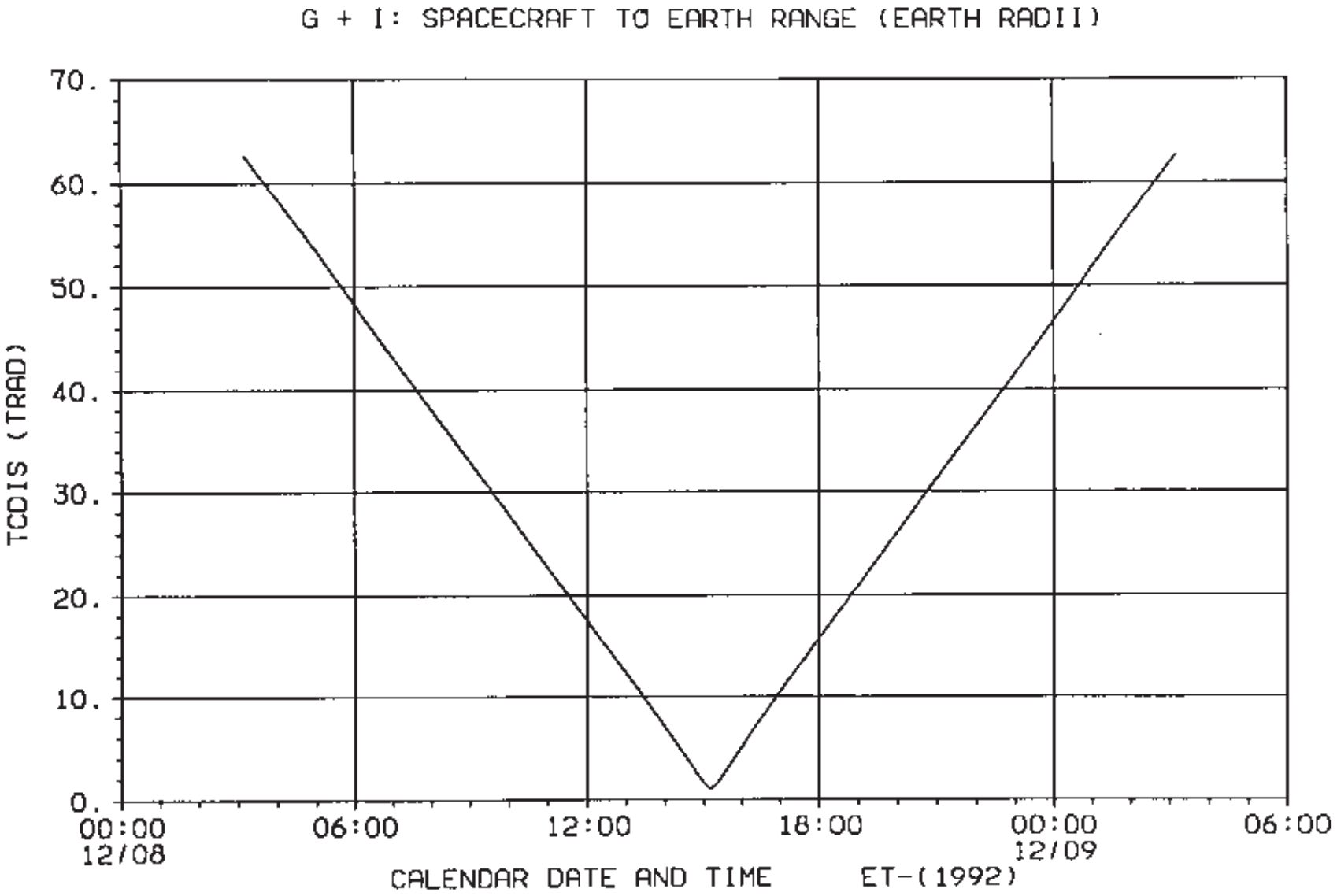
GASPRA + IDA EARTH 2 FLYBY (CLOSEST APPROACH)

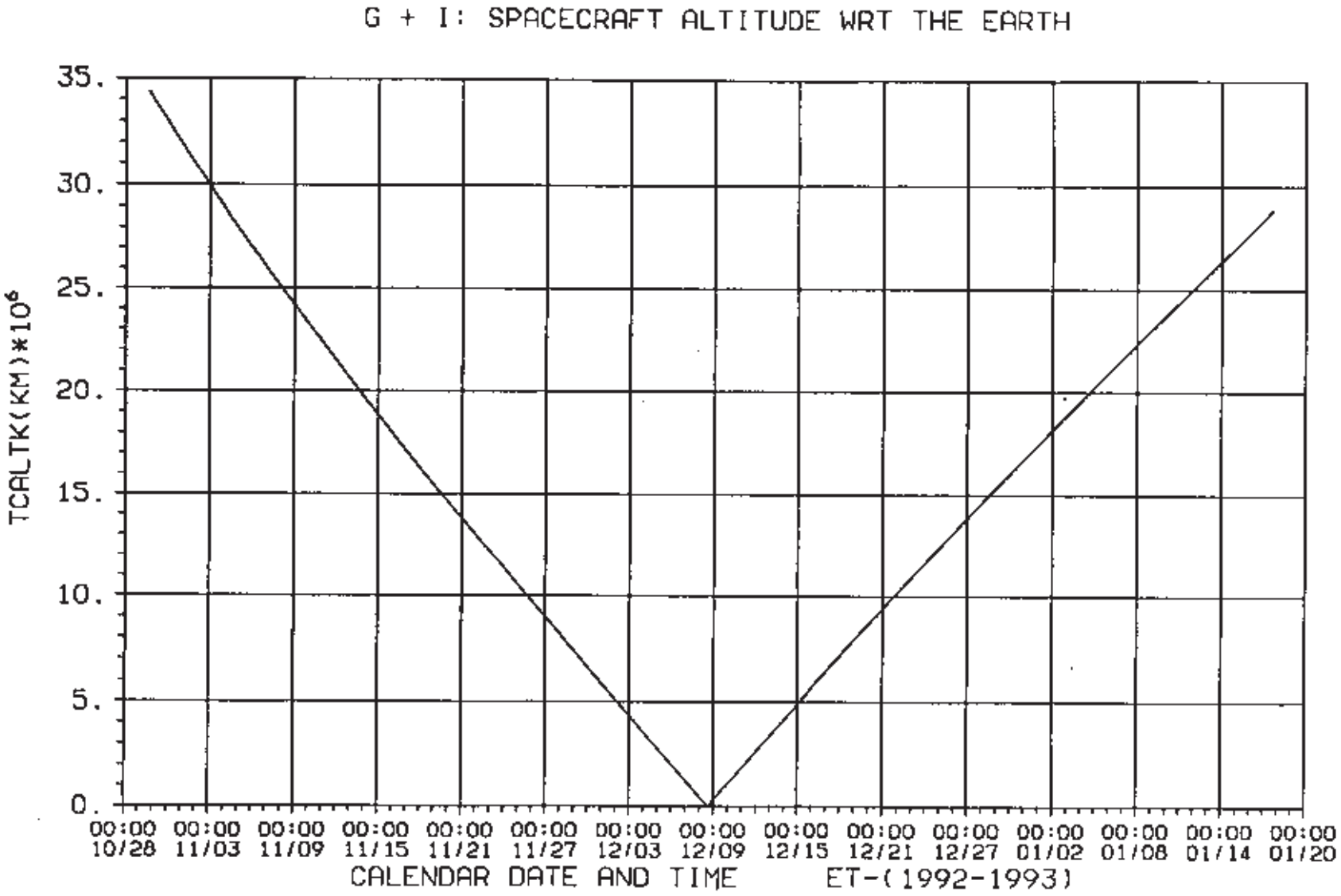


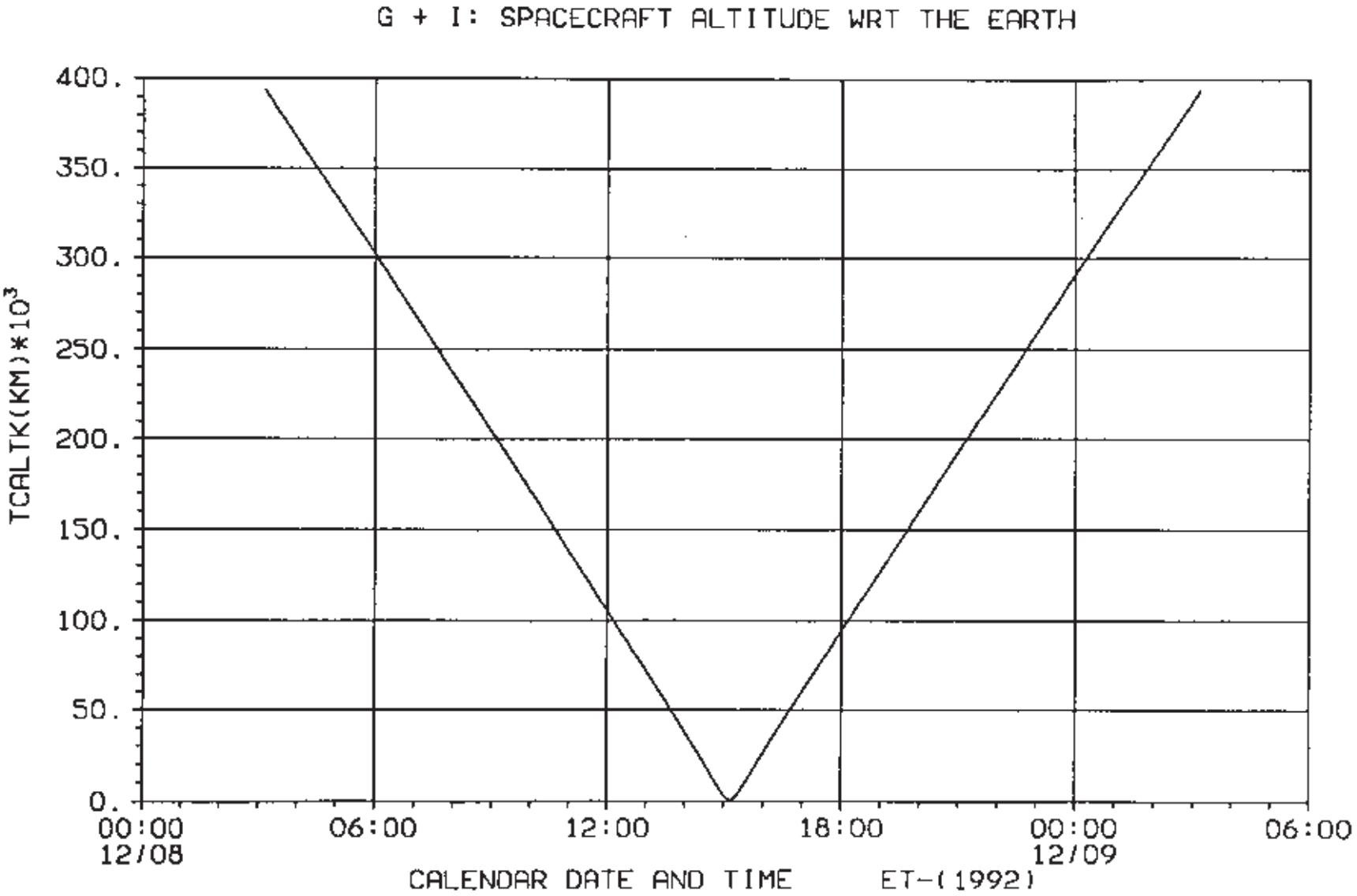
GASPRA + IDA EARTH 2 FLYBY (AFTER CLOSEST APPROACH)

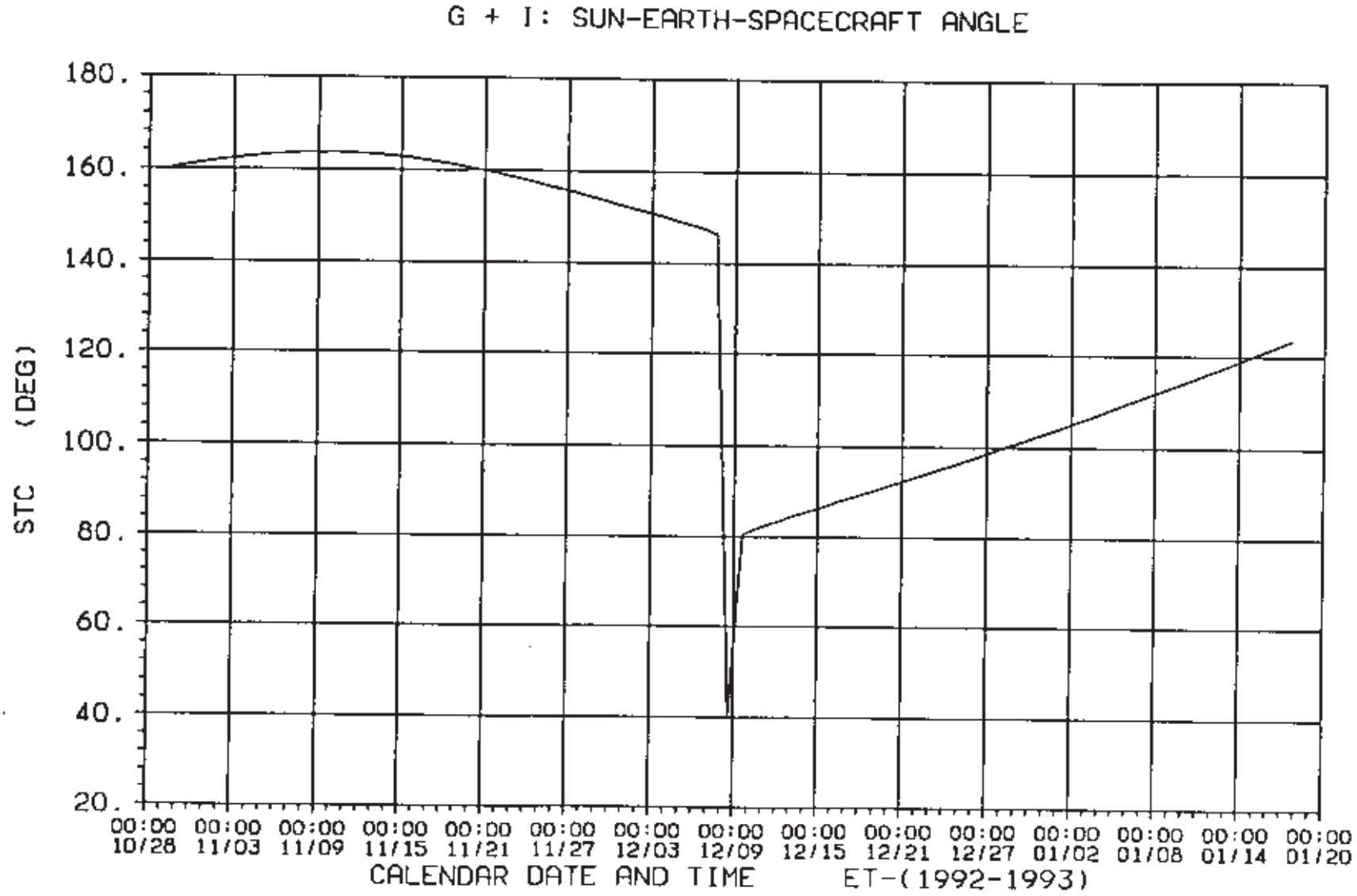


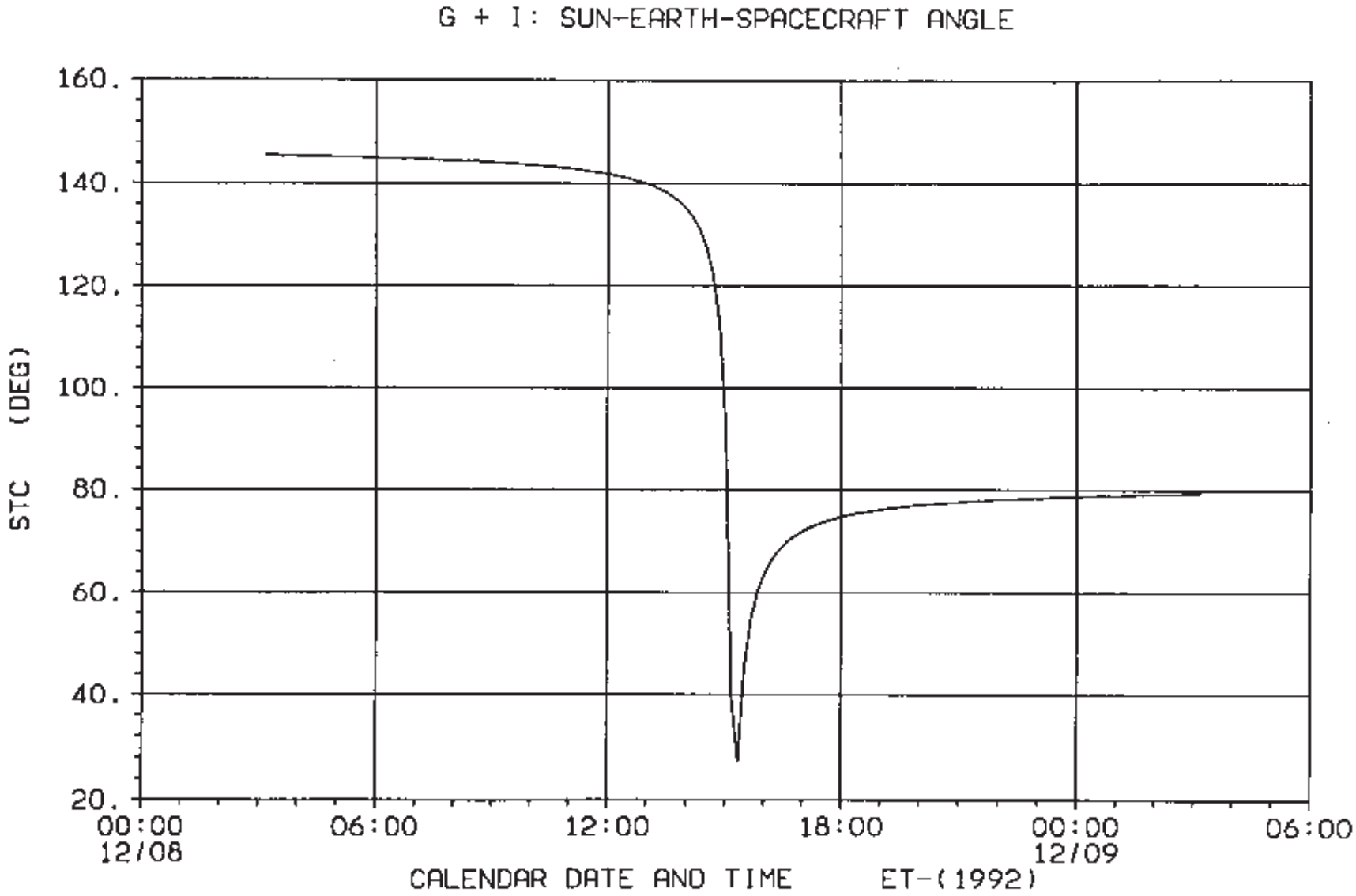

G + I: SPACECRAFT TO EARTH RANGE (EARTH RADII)
TCDIS (TRAD)*10³
6.
5.
4.
3.
2.
1.
0.
00:00 10/28
00:00 11/03
00:00 11/09
00:00 11/15
00:00 11/21
00:00 11/27
00:00 12/03
00:00 12/09
00:00 12/15
00:00 12/21
00:00 12/27
00:00 01/02
00:00 01/08
00:00 01/14
00:00 01/20
CALENDAR DATE AND TIME
ET-(1992-1993)

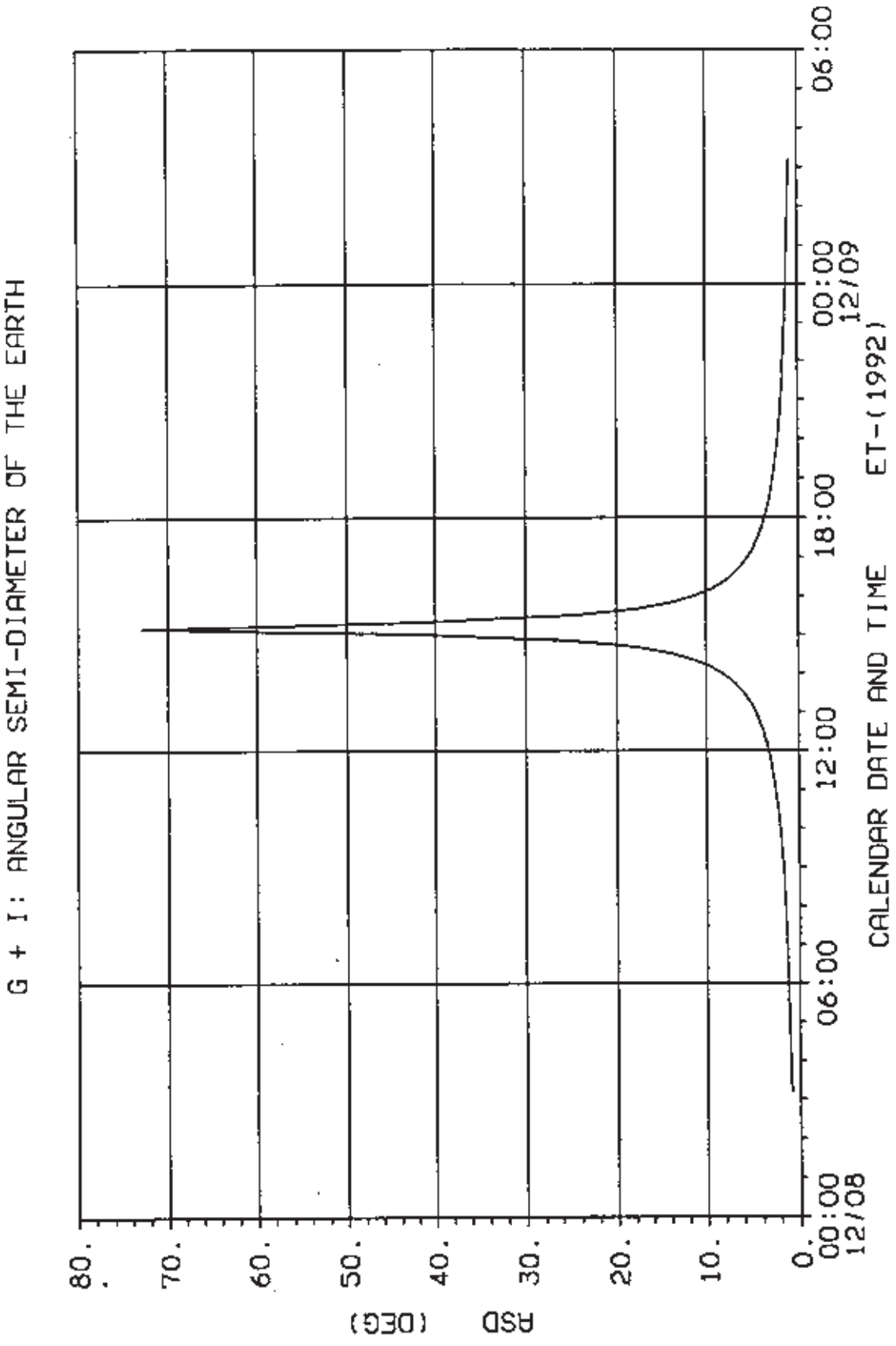

G + I: SPACECRAFT TO EARTH RANGE (EARTH RADII)
TCDIS (TRAD)
70.
60.
50.
40.
30.
20.
10.
0.
00:00
12/08
06:00
12:00
18:00
00:00
12/09
06:00
CALENDAR DATE AND TIME ET-(1992)

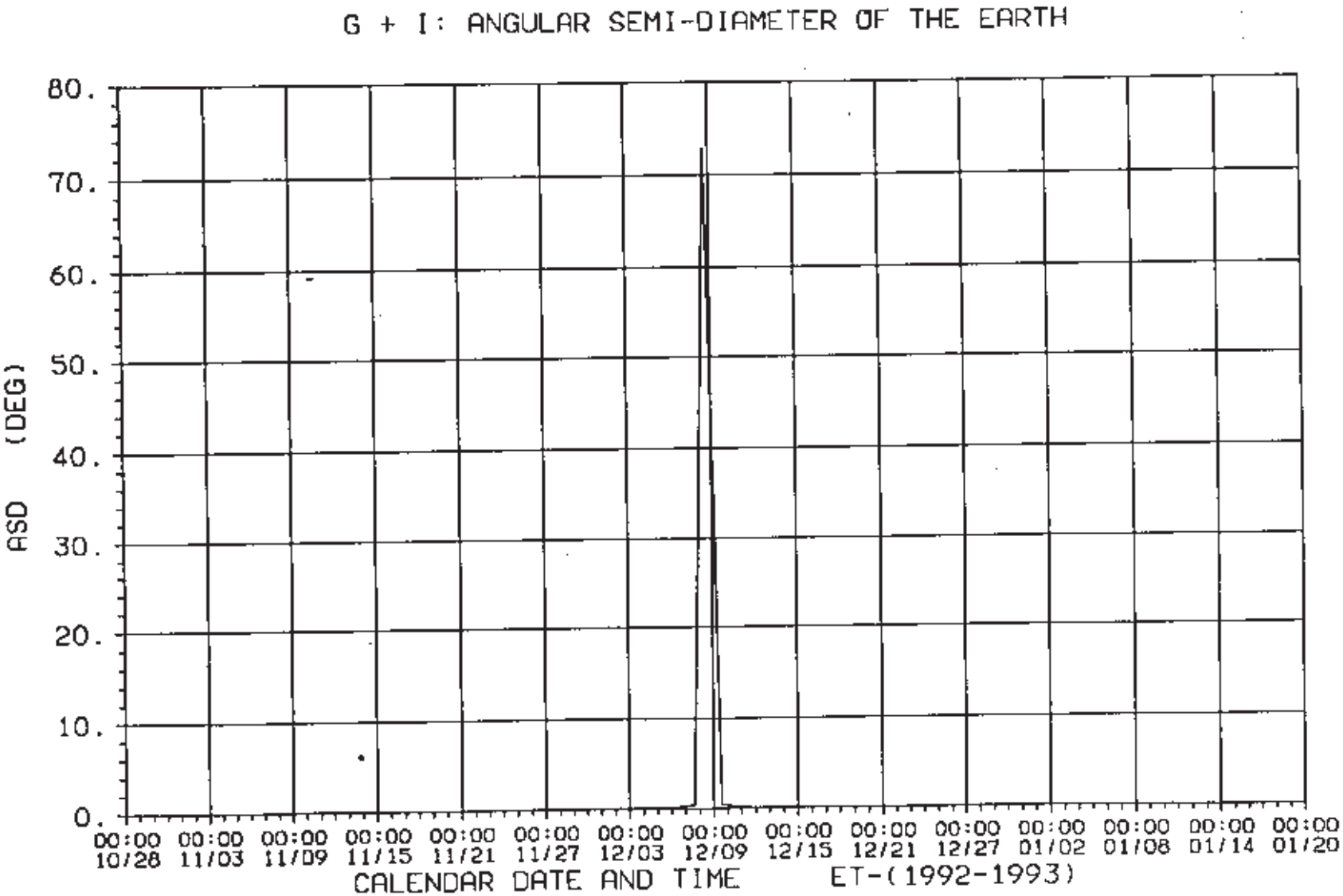

G + I: SPACECRAFT ALTITUDE WRT THE EARTH
TCALTK(KM)*10⁶
35.
30.
25.
20.
15.
10.
5.
0.
00:00 10/28
00:00 11/03
00:00 11/09
00:00 11/15
00:00 11/21
00:00 11/27
00:00 12/03
00:00 12/09
00:00 12/15
00:00 12/21
00:00 12/27
00:00 01/02
00:00 01/08
00:00 01/14
00:00 01/20
CALENDAR DATE AND TIME ET-(1992-1993)


G + I: SPACECRAFT ALTITUDE WRT THE EARTH
TCALTK(KM)*10³
400.
350.
300.
250.
200.
150.
100.
50.
0.
00:00
12/08
06:00
12:00
18:00
00:00
12/09
06:00
CALENDAR DATE AND TIME
ET-(1992)


G + I: SUN-EARTH-SPACECRAFT ANGLE
STC (DEG)
180.
160.
140.
120.
100.
80.
60.
40.
20.
00:00 10/28
00:00 11/03
00:00 11/09
00:00 11/15
00:00 11/21
00:00 11/27
00:00 12/03
00:00 12/09
00:00 12/15
00:00 12/21
00:00 12/27
00:00 01/02
00:00 01/08
00:00 01/14
00:00 01/20
CALENDAR DATE AND TIME
ET-(1992-1993)


G + I: SUN-EARTH-SPACECRAFT ANGLE
160.
140.
120.
100.
80.
60.
40.
20.
STC (DEG)
00:00
12/08
06:00
12:00
18:00
00:00
12/09
06:00
CALENDAR DATE AND TIME ET-(1992)


G + I: ANGULAR SEMI-DIAMETER OF THE EARTH
80.
70.
60.
50.
40.
30.
20.
10.
0.
RSD (DEG)
00:00
12/08
06:00
12:00
18:00
00:00
12/09
06:00
CALENDAR DATE AND TIME ET-(1992)


G + I: ANGULAR SEMI-DIAMETER OF THE EARTH
ASD (DEG)
80.
70.
60.
50.
40.
30.
20.
10.
0.
00:00 10/28
00:00 11/03
00:00 11/09
00:00 11/15
00:00 11/21
00:00 11/27
00:00 12/03
00:00 12/09
00:00 12/15
00:00 12/21
00:00 12/27
00:00 01/02
00:00 01/08
00:00 01/14
00:00 01/20
CALENDAR DATE AND TIME ET-(1992-1993)

Chapter 4 - NIMS Spreadsheet for Earth/Moon 2 Encounter

Contents

Chapter 4

Introduction

The NIMS E2 spreadsheet consists of 4 pages. It is a rather comprehensive listing of design details for each observation. The NIMS Oapel name (NIMS alias) is given in the first column with the team responsible for the design in the second. The official OAPEL name (i.e. the name in the SROP Oapel dictionary) is in the third column. The fourth column gives the start time for the observation which, for most observations, is the end of the target slew which positions the instrument on the scan platform before the observation proper begins. The end slew time, that is, the time of the end of the last slew is considered to be the observation end in most cases. For observations that lack these targets or slews, the start time of the observation will usually be the start of the first instrument change and the end time which has been determined by the designer. Note that the times in the third and fourth columns were mostly taken from the Science Observation Design Package (SODP) and Opsgen reports. As a result, discrepancies may exist between these times and times within the Spacecraft Event File (SEF) or other files. Discrepancies on the order of rims have been found for some cases. The Opsgen report was used because it specifies the end of the target or mosaic slew - two quantities considered useful for timing purposes. For observations where Opsgen did not have the time listed, times from the SEF were used.

Where appropriate, the latitude (LAT) and west longitude (WLONG) of the observed body is given. The phase angle for the beginning and end of the observation and the starting cone angle, as given in the SODP and Opsgen report are included. The NIMS resolution is only approximated for the start of the observation.

The instrument state is given for each observation and the acronyms are decoded as follows:

SAFE - NIMS is in SAFE Mode
ALL - Every NIMS state is tested.
XM - Fixed Map; 17 wavelengths.
SM - Short Map; 102 wavelengths.
FM - Full Map; 204 wavelengths.
LM - Long Map; 408 wavelengths.
XS - Fixed Spectrometer; 17 wavelengths.
SS - Special Sequence; a modified Instrument Mode (see the OBSTAB for details).
SEL - Selected NIMS states are used.

Gain states are also included in the spreadsheet. Slew rates are given in the column to the right of the instrument state. The fourth column from the right, labeled "DN or N", shows whether the slew rate of the observation is at the Nyquist rate or the Double Nyquist rate. Grating start position and chopper mode are also listed. Finally, a brief objective is given for each observation.

NIMS E2 SPREADSHEET

NIMS	TEAM	OAPEL	OBSERVATION	OBSERVATION	LAT	W. LONG	PHASE	PHASE	CONE	NIMS	INST	GAIN	SLEW RATE	DN	GRAT	CHOP	OBJECTIVE
OAPEL NAME		NAME	START	END	(DEG)	(DEG)	START	END	ANGLE	RES	MODE	STATE	MRAD/SEC	OR	STRT	MODE	
			(TARGET TIME)	(END SLEW TIME)			(DEG)	(DEG)	(START)	(KM)			/ TYPE	N	POS		
NNNIMS0N01	NIMS		1629550:00		-	-	-	-	-	-	SAFE	-	-	-	-	63	NIMS ON
			92-328/14:59:57														
NNQUICAL01	NIMS		1631235:94		-	-	-	-	-	-	SAFE	4	-	-	-	63	LISTEN/UVS
			92-329/18:39:04														
NNPCT___01	NIMS		1632666:84	1632816:84	-	-	-	-	-	-	ALL	ALL	-	-	SEL	SEL	FULL PCT -
			92-330/18:45:57	92-330/21:17:37													CAL
HNSTARFL01	NIMS	HPTSTARS02	1640053:41	1640156:01	-	-	-	-	128.9	-	XM	4	0.02/0.04	DN	6	63	BORESIGHT
			92-335/23:14:33	92-336/00:58:15									/CSMOS				& FLOODMODE
HNNSTAR_01	PPR		1640158:67	1640245:43	-	-	-	-	155.2	-	XM	4	0.02/CSMOS	DN	6	63	STAR CAL
			92-336/01:01:01	92-336/02:28:43													
NNMRO___01	NIMS		1640251:01	1640255:01	-	-	-	-	-	-	SAFE	4	-	-	-	63	MEMORY -
			92-336/02:34:21	92-336/02:38:24													READOUT
NNRCTON_01	NIMS		1641091:00	1641744:01	-	-	-	-	-	-	SAFE	4	-	-	-	63	RCT WARMUP
			92-336/16:43:48	92-337/03:43:54													
NNQUICAL02	NIMS	NMINTCAL04	1641382:12	1641388:06	-	-	-	-	-	-	SAFE	4	-	-	-	63	LISTEN/MAG
			92-336/21:38:00	92-336/21:44:00													
NNRCTCAL01	NIMS		1641470:89	1641744:01	-	-	-	-	0.0		ALL	ALL	-	-	SEL	SEL	FULL RCT -
			92-336/23:07:50	92-337/03:43:54													CAL
NNLOAD__01	NIMS		1641846:84	1641847:04	-	-	-	-	-	-	SAFE	4	-	-	-	63	MEMORY -
			92-337/05:27:57	92-337/05:28:04													LOAD
NNQUICAL03	MAG	NMINTCAL07	1642531:33	1642537:27	-	-	-	-	-	-	SAFE	4	-	-	-	63	LISTEN/MAG
			92-337/17:00:00	92-337/17:06:00													
NNQUICAL04	SSI	HSSTRCAL01	1643786:90	1643799:59	-	-	-	-	-	-	SAFE	4	-	-	-	63	LISTEN/SSI
		HSSTRCAL02	1643800:89	1643812:05	-	-	-	-	-	-	"	"	-	-	-	"	"
		HSSTRCAL03	1643814:89	1643856:60	-	-	-	-	-	-	"	"	-	-	-	"	"
		HSSTRCAL04	1643856:89	1643872:51	-	-	-	-	-	-	"	"	-	-	-	"	"
		HSSTRCAL05	1643872:90	1643883:68	-	-	-	-	-	-	"	"	-	-	-	"	"
		HSSTRCAL06	1643886:79	1643898:20	-	-	-	-	-	-	"	"	-	-	-	"	"

NIMS	TEAM	OAPEL	OBSERVATION	OBSERVATION	LAT	W. LONG	PHASE	PHASE	CONE	NIMS	INST	GAIN	SLEW RATE	DN	GRAT	CHOP	OBJECTIVE
OAPEL NAME		NAME	START	END	(DEG)	(DEG)	START	END	ANGLE	RES	MODE	STATE	MRAD/SEC	OR	STRT	MODE	
			(TARGET TIME)	(END SLEW TIME)			(DEG)	(DEG)	(START)	(KM)			/ TYPE	N	POS		
NNQUICAL05	NIMS	NDNOISE_04	1643955:49	1643956:03	-	-	-	-	-	-	SAFE	4	-	-	-	63	LISTEN/DDS
			92-338/17:00:00	92-338/17:00:30													
NNBOOM__01	NIMS	NMMAGSP_03	1644144:01	1644683:01	-	-	-	-	120.0	-	XM	1	0.07/CONE	-	0	63	BOOM MAP 1
			92-338/20:10:36	92-339/05:15:36													
NNBOOM__02	NIMS	NMMAGSP_04	1645232:01	1646004:01	-	-	-	-	90.0	-	XM	1	0.07/CONE	-	0	63	BOOM MAP 2
			92-339/14:30:42	92-340/03:31:17													
NNQUICAL06	PPR	WPNITLIT01	1649824:90	1649851:40	20.71	312.66	145.95	146.13	29.26	-	SAFE	4		-	-	63	LISTEN/EPD
			92-342/19:54:	92-342/20:28:38													
NNQUICAL07	PPR	LPLUNFAZ02	1649858:54	1649966:81	-48.6	187.6	128.8	60.	47.4	115	SM	1	0.06/CSMOS	DN	2	63	LISTEN/PPR
			92-342/20:28:38	92-342/22:18:08													
LNPHASE_01	SSI*	LSLUNMOS01	1649972:01	1650030:01	2.82	293.15	122.8	25.52	53.4	40	SM	1	0.06/CSMOS	DN	2	63	MOON PHASE
			92-342/22:23:22	92-342/23:22:21													
LN4GAIN_01	NIMS		1650016:72	1650025:57	24.98	250.02	118.9	118.21	57.36	94	XM	ALL	FIXED	-	6	63	4 GAIN CAL
			92-342/23:08:36	92-342/23:18:33								1	0.01/CSMOS	DN			& LIMB SCAN
LNPHASE_02	SSI*	LSLUNMOS02	1650028:38	1650076:43	-0.1	295.3	117.7	111.7	58.5	84	FM	1	0.03/SMOS	-	0	63	MOON PHASE
			92-342/23:20:21	92-343/00:08:57													
LNPHASE_03	SSI*	LSLUNMOS03	1650087:36	1650217:17	-7.2	292.5	111.4	84.6	65.	68	SM	1	0.06/SMOS	DN	2	63	MOON PHASE
			92-343/00:19:59	92-343/02:31:13													
LNPHASE_04	UVS	LULNRLMB01	1650232:49	1650251:84	2.5	176.5	81.4	81.4	95.2	57	XM	1	.074 DRIFT	DN	6	63	LIMB SCAN
			92-343/02:46:44	92-343/03:06:20													
LNPHASE_05	SSI*	LSLUNMOS04	1650256:09	1650272:48	-24.	293.7	78.5	73.8	98.3	56	XS	1	1.2 (SSI)	DN	6	63	MOON PHASE
			92-343/03:10:34	92-343/03:27:12													
LNHIRES_01	NIMS		1650274:60	1650331:00	3.4	29.8	74.2	58.2	102.5	55	FM	1	0.03/CSMOS	DN	0	63	MOON HIRES
			92-343/03:29:20	92-343/04:26:09													
LNPHASE_06	SSI*	LSLUNMOS05	1650332:29	1650348:48	-32.3	291.3	58.4	53.3	118.7	56	XS	1	1.2 (SMOS)	DN	6	63	MOON PHASE
			92-343/04:27:38	92-343/04:44:01													
LNPHASE_07	NIMS		1650350:67	1650380:86	-38.1	308.	54.2	45.6	122.9	58	SM	1	0.06/CSMOS	DN	2	63	MOON PHASE
			92-343/04:46:15	92-343/05:16:48													

NIMS	TEAM	OAPEL	OBSERVATION	OBSERVATION	LAT	W. LONG	PHASE	PHASE	CONE	NIMS	INST	GAIN	SLEW RATE	DN	GRAT	CHOP	OBJECTIVE
OAPEL NAME		NAME	START	END	(DEG)	(DEG)	START	END	ANGLE	RES	MODE	STATE	MRAD/SEC	OR	STRT	MODE	
			(TARGET TIME)	(END SLEW TIME)			(DEG)	(DEG)	(START)	(KM)			/ TYPE	N	POS		
LNPHASE_08	SSI*	LSLUNMOS06	1650382:16	1650488:00	-37.9	291.2	46.1	26.5	131.3	65	SM	1	0.06/SMOS	DN	2	63	MOON PHASE
			92-343/05:18:03	92-343/07:05:02													
LNPHASE_09	PPR	LPFOVMAP01	1650490:35	1650519:81	-64.5	345.8	27.5	23.2	150.8	80	XM	1	0.12/CSMOS	DN	6	63	MOON PHASE
			92-343/07:07:27	92-343/07:37:17													
LNPHASE_10	SSI*	LSLUNMOS07	1650541:18	1650635:00	-40.7	277.4	21.4	14.1	157.8	95	FM	1	0.03/SMOS	DN	0	63	MOON PHASE
			92-343/07:58:50	92-343/09:33:40													
LNPHASE_11	NIMS		1650638:90	1650667:00	-41.3	274.3	15.4	13.6	165.7	109	FM	1	0.03/CSMOS	DN	0	63	MOON PHASE
			92-343/09:37:42	92-343/10:06:02													
WNLOWCAL01	NIMS		1650672:74	1650730:00	54.2	339.5	144.5	143.	30.1	80	SS	4	0.12/CSMOS	N	11	63	CAL/AURORA
			92-343/10:11:54	92-343/11:09:44													
NNNOOBS_01	NIMS		1650796:05	-	-	-	-	-	60./97.	-	SS	1	-	-	11	63	AVOID HEAT
NNNOOBS_02	NIMS		1650965:05	-	-	-	-	-	2./79.	-	SS	1	-	-	11	63	"
NNNOOBS_03	NIMS		1650972:27	-	-	-	-	_	2./10.	-	SS	1	-	-	11	63	"
NNNOOBS_04	NIMS		1650974:54	-	-	-	-	-	2./344.	-	SS	1	-	-	11	63	"
NNNOOBS_05	NIMS		1650993:43	-	-	-	-	-	60./295.	-	SS	1	-	-	11	63	"
WNANDES_01	SSI	WSANDES_01	1651002:83	1651013:11	-23.8	67.1	72.2	73.5	113.6	10	LM	1	4.86/SMOS	-	0	63	ANDES MOS.
			92-343/15:45:40	92-343/15:56:00													
WNHAWAUR01	SSI	WSHAWAUR01	1651025:75	1651036:75	18.6	155.7	60.8	66.2	93.1	15	XM	1	0.55/SMOS	-	0	63	DARK HAWAII
			92-343/16:08:50	92-343/16:19:58													& AURORA
WNANTAR_01	NIMS		1651102:47	1651149:00	-71.	56.2	76.6	75.2	109.2	40	LM	1	0.02/CSMOS	DN	0	63	ANTARCTICA
			92-343/17:26:23	92-343/18:13:23													
WNLTNINS01	SSI	WSLTNING01	1651283:18	1651302:11	5.	238.5	76.34	76.28	109.6	88	XM	1	0.55/SMOS	-	0	63	LIGHTNING
			92-343/20:29:05	92-343/20:48:13													
WNAUSIE_01	NIMS		1651303:57	1651340:05	-38.7	207.1	78.2	77.7	107.7	95	LM	1	0.02/CSMOS	DN	0	63	AUSTRALIA
			92-343/20:49:44	92-343/21:26:34													
WNINDO__01	NIMS		1651405:21	1651426:40	-7.7	231.9	78.55	78.3	107.4	121	LM	1	0.03/CSMOS	DN	0	63	INDONESIA
			92-343/22:32:38	92-343/22:53:54													

NIMS	TEAM	OAPEL	OBSERVATION	OBSERVATION	LAT	W. LONG	PHASE	PHASE	CONE	NIMS	INST	GAIN	SLEW RATE	DN	GRAT	CHOP	OBJECTIVE
OAPEL NAME		NAME	START	END	(DEG)	(DEG)	START	END	ANGLE	RES	MODE	STATE	MRAD/SEC	OR	STRT	MODE	
			(TARGET TIME)	(END SLEW TIME)			(DEG)	(DEG)	(START)	(KM)			/ TYPE	N	POS		
WNGMOS__01	NIMS		1651439:06	1651738:50	66.3	322.4	77.2	80.5	108.8	130	LM	1	0.03/CSMOS	N	0	63	GLOBAL MOS
			92-343/23:06:36	92-344/04:09:29													
WNGMOS__02	SSI	WSZOOMMV01	1651859:43	1652156:50	16.6	322.4	77.2	80.5	108.8	130	LM	1	4.86/SMOS	-	0	63	GLOBAL MOS
			92-344/06:11:45	92-344/11:12:08													
WNGOPEX_01	SSI	WSGOPEX_01	1652157:90	1652335:50	-12.85	111.52	80.	80.34	106.3	343	LM	1	-	-	0	63	GLOBAL MOS
			92-344/11:13:35	92-344/14:13:07													
WNGMOS__03	SSI	WSZOOMMV02	1652338:61	1652569:50	4.9	73.2	80.8	81.	105.9	375	LM	1	SSI DESIGN	-	-	63	GLOBAL MOS
			92-344/14:16:17	92-344/18:09:43													
WNGMOS__04	SSI	WSZOOMMV03	1652705:32	1653573:10	6.7	173.9	81.1	81.8	105.8	540	LM	1	4.86/SMOS	-	0	63	GLOBAL MOS
			92-344/20:28:40	92-345/11:04:26													
WNGOPEX_02	SSI	WSGOPEX_02	1653574:73	1653695:68	-33.7	165.	81.5	81.9	106.	-	LM	1	-	-	0	63	GLOBAL MOS
			92-345/11:06:08	92-345/13:08:26													
NNPCTMIN01	NIMS		1654847:84	1654861:84	-	-	-	-	-	-	SEL	SEL	-	-	0	63/REF	PARTIAL PCT
			92-346/03:33:24	92-346/08:47:37													CALIBRATION
NNRCTON_01	NIMS		1655003:01	1655420:01	-	-	-	-	-	-	-	-	-	-	-	63	RCT ON
			92-346/11:10:15	92-346/18:11:51													
NNRCTMIN01	NIMS		1655390:84	1655419:81	-	-	-	-	-	-	SEL	SEL	-	-	0	63/REF	PARTIAL RCT
			92-346/17:42:26	92-346/18:11:44													CALIBRATION
NNMIRCAL01	NIMS		1655429:84	1655768:00	-	-	-	-	-	-	SS	-	-	-	0	63	MIRROR CAL
			92-346/18:21:52	92-347/00:03:42													
NNNIMOFF01	NIMS		1655472:53	-	-	-	-	-	-	-	-	-	-	-	-	-	NIMS OFF

Chapter 5 - EE9

Contents

Chapter 5

EE9

The EE9 sequence is the first of three sequences in the second Galileo Earth/Moon Encounter (E2). The EE9 sequence takes place when the Galileo spacecraft is approaching the Earth. At this time the spacecraft is close enough to the Earth to provide high-rate real-time transmission of data. This sequence is used for calibration purposes. NIMS took advantage of this sequence to do extensive RCT and PCT calibrations as well as star calibrations on two stars: Sirius (boresight calibration) and Betelgeuse (spectral calibration).

This chapter is divided into four parts: The NIMS Sequence Summary, The NIMS PA Summary, The NIMS Obstab, and the NIMS Detailed Observation Designs.

The NIMS Sequence Summary is a time-ordered listing of all spacecraft activity pertinent to NIMS operations for the EE9 Sequence. The information in this summary is derived from the EE9 SEF (Spacecraft Event File) with inputs from the NIMS Science Coordinators regarding the start time and duration of the NIMS observations.

The NIMS PA Summary is a time-ordered list of all Profile Activities (PAs) listed in the EE9 SEF which affect NIMS observations.

The NIMS Obstab is a time-ordered table of the NIMS observation parameters for use by downlink data processing. It is also derived from the EE9 SEF. The Calibration observations have been expanded to show details of each Calibration sequence (mode change, gain change, etc.).

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.

NIMS SEQUENCE SUMMARY

EE9

The NIMS Sequence Summary is a time-ordered listing of all spacecraft activity pertinent to NIMS operations for the EE9 Sequence. The information in this summary is derived from the EE9 SEF (Spacecraft Event File) with inputs from the NIMS Science Coordinators regarding the start time and duration of the NIMS observations.

There are 6 columns of information in this table:

DOY	-	Day of Year
Time	-	SCET Time (UTC)
PSID	-	Parameter Set ID of the SEF line
Command	-	Command name from the SEF
Parameters	-	Parameters from the above Command Line
Description	-	Description of the above Command for NIMS
GCM	-	NIMS Gain, Chopper Mode, Instrument Mode Gain = 1,2,3 or 4 Chopper Mode = R (Reference) or 6 (63Hz) Instrument Mode = 0-15
RIM	-	SCLK of the Command Line (RIM:MF)

Also, an additional line is inserted into this table at the start and stop times of each NIMS Observation (Oapel) to bracket the commands which affect each NIMS Observation

Sequence: EE09GK Created: 09/18/92 Begin: 92-328/14:00:00.000 Finish: 92-340/07:00:01.000

DOY	Time	PSID	Command	Parameters	Description	GCM	RIM
328	14:14:24.933	192MA4A	7CONE	17.45,165.0	Check S/P Position		1,629,550:00
328	14:59:57.000	E2NNNIMSON01	-21372	-----START------			1,629,595:01
	15:00:02.933	20ZU3Q	37HR	CMD,37HR,20ZU3Q,	Replacement Heaters OFF		1,629,595:12
	15:00:30.933	20ZU3R	37A	CMD,37A,20ZU3R,,	NIMS Power ON	260	1,629,595:54
328	15:02:32.266	20ZU4A	37IST	1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)	2R0	1,629,597:54
		E2NNNIMSON01		-----STOP-------		2R0	1,629,605:01
328	15:10:05.600	20C3A	37F2PR	1	Shield Flash Heater OFF (primary relay)	2R0	1,629,605:06
328	15:10:10.933	20C3B	37F2PR	2	Shield Flash Heater OFF (primary relay)	2R0	1,629,605:14
328	15:11:54.266	260PA476A6A	6TMCHG	MPP	NO DNLNK	2R0	1,629,606:78
328	16:07:56.933	424NA476A6A	6TMCHG	MPB	NO DNLNK	2R0	1,629,662:26
328	17:19:26.933	192MB4A	7CONE	17.45,30.0	Check S/P Position	2R0	1,629,733:00
328	21:10:04.266	20Q4B	7SAFE	UNSTOW	Check S/P Position	2R0	1,629,961:08
328	23:34:34.266	192MD4A	7CONE	17.45,75.0	Check S/P Position	2R0	1,630,104:00
329	02:24:52.200	424NB476A6A	6TMCHG	MPB	NO DNLNK	2R0	1,630,272:39
329	02:39:36.200	192ME4A	7CONE	17.45,105.0	Check S/P Position	2R0	1,630,287:00
329	05:44:38.200	192MF4A	7CONE	17.45,135.0	Check S/P Position	2R0	1,630,470:00
329	08:03:00.866	260PB476A6A	6TMCHG	MPP	NO DNLNK	2R0	1,630,606:78
329	14:59:44.200	192MG4A	7CONE	17.45,179.0	Check S/P Position	2R0	1,631,019:00
329	18:13:51.533	190PA4B	7MODE	CRU	Dual-Spin Mode	2R0	1,631,210:90
329	18:13:52.200	190PA4C	7SAFE	UNSTOW	Check S/P Position	2R0	1,631,211:00
329	18:17:48.866	190PA4D	7MODE	SPNL	All-Spin Mode	2R0	1,631,214:82
329	18:25:54.200	190PA4E	7SAFE	UNSTOW	Check S/P Position	2R0	1,631,222:82
329	18:30:54.866	260PC476A6A	6TMCHG	MPP	NO DNLNK	2R0	1,631,227:78
329	18:34:05.533	192PA4A	7CONE	17.4,70.2	Check S/P Position	2R0	1,631,231:00
329	18:34:06.200	192PA4B	7CLK	17.4,180.0	Check S/P Position	2R0	1,631,231:01
329	18:39:04.200	157KR156A121A4A	37IST	0,0,0,OFF,0,1,1	Gain State 4	4R0	1,631,235:84
329	19:58:00.866	192PA4C	7CONE	17.4,80.0	Check S/P Position	4R0	1,631,314:00
329	21:16:52.866	192PA4D	7CONE	17.4,90.0	Check S/P Position	4R0	1,631,392:00
329	22:35:44.866	192PA4E	7CONE	17.4,90.5	Check S/P Position	4R0	1,631,470:00
329	23:16:11.533	192PA4F	7CONE	17.4,100.0	Check S/P Position	4R0	1,631,510:00
330	00:35:03.533	192PA4G	7CONE	17.4,110.0	Check S/P Position	4R0	1,631,588:00
330	01:29:56.866	424NC476A6A	6TMCHG	MPB	NO DNLNK	4R0	1,631,642:26
330	01:53:55.533	192PA4H	7CONE	17.4,130.0	Check S/P Position	4R0	1,631,666:00
330	03:12:47.533	192PA4I	7CONE	17.4,140.0	Check S/P Position	4R0	1,631,744:00
330	04:31:39.533	192PA4J	7CONE	17.4,150.0	Check S/P Position	4R0	1,631,822:00
330	05:50:31.466	192PA4K	7CONE	17.4,120.0	Check S/P Position	4R0	1,631,900:00
330	05:55:05.466	20D3A	40T1PR	1	PCT Heater 1 OFF (primary relay)	4R0	1,631,904:47
330	05:55:10.800	20D3B	40T1PR	2	PCT Heater 1 OFF (primary relay)	4R0	1,631,904:55
330	05:58:06.133	20D3C	40T2R	1	PCT Heater 2 OFF	4R0	1,631,907:45
330	05:58:11.466	20D3D	40T2R	2	PCT Heater 2 OFF	4R0	1,631,907:53

DOY	Time	PSID	Command	Parameters	Description	GCM	RIM
330	06:58:07.466	260PD476A6A	6TMCHG	MPP	NO DNLNK	4R0	1,631,966:78
330	15:57:54.800	260PE476A6A	6TMCHG	MPW	Dnlnk OK	4R0	1,632,500:65
330	15:59:12.800	192PB4A	7CONE	17.4,160.0	Check S/P Position	4R0	1,632,502:00
330	16:00:15.667	E2NNQUICAL01	-18464	-----START------		4R0	1,632,503:01
330	17:15:02.800	192PB4B	7CONE	17.4,170.0	Check S/P Position	4R0	1,632,577:00
		E2NNQUICAL01		-----STOP-------		4R0	1,632,651:01
330	18:35:45.466	20PB4B	7SAFE	UNSTOW	Check S/P Position	4R0	1,632,656:75
330	18:39:58.800	192JA4A	7CONE	17.0,120.0	Check S/P Position	4R0	1,632,661:00
330	18:39:59.466	192JA4B	7CLK	17.0,244.07	Check S/P Position	4R0	1,632,661:01
330	18:40:10.000	E2NNPCT 01	-18306	-----START------		4R0	1,632,661:01
330	18:45:58.133	157JA156A121A4A	37IOP	4,0	Long Spectrometer, Grating Start Position =0	4R4	1,632,666:84
330	18:46:58.800	157JA156A121B4A	37IST	1,0,0,OFF,0,1,0	Chopper ON, Sync, 63Hz (Ref) Gain State 2	264	1,632,667:84
330	18:50:00.800	157JA156A121C4A	37IST	0,0,0,OFF,0,1,1	Gain State 4	464	1,632,670:84
330	18:53:02.800	157JA156A121D4A	37IST	0,0,0,OFF,0,1,3	Gain State 1	164	1,632,673:84
330	18:56:04.800	157JA156A121E4A	37IST	0,0,0,OFF,0,1,2	Gain State 3	364	1,632,676:84
330	18:59:06.800	157JA156A121F4A	37IST	0,0,1,OFF,1,1,1	OPCAL Gain State 4	464	1,632,679:84
330	19:02:08.800	157JA156A121G4A	37IST	0,0,1,ON,0,1,3	ECAL Gain State 1	164	1,632,682:84
330	19:05:10.800	157JA156A121H4A	37IST	0,0,1,ON,0,1,0	ECAL Gain State 2	264	1,632,685:84
330	19:08:12.800	157JA156A121I4A	37IST	1,2,0,OFF,0,1,0	Chopper ON, Sync, Chopper (Ref) Gain State 2	2R4	1,632,688:84
330	19:15:17.466	157JA156A121J4A	37IST	0,0,0,OFF,0,1,1	Gain State 4	4R4	1,632,695:84
330	19:18:19.466	157JA156A121K4A	37IST	0,0,0,OFF,0,1,3	Gain State 1	1R4	1,632,698:84
330	19:21:21.466	157JA156A121L4A	37IST	0,0,0,OFF,0,1,2	Gain State 3	3R4	1,632,701:84
330	19:24:23.466	157JA156A121M4A	37IST	0,0,1,OFF,1,1,1	OPCAL Gain State 4	4R4	1,632,704:84
330	19:27:25.466	157JA156A121N4A	37IST	0,0,1,ON,0,1,0	ECAL Gain State 2	2R4	1,632,707:84
330	19:31:28.133	157JA156A121O4A	37IST	0,0,1,ON,0,1,3	ECAL Gain State 1	1R4	1,632,711:84
330	19:34:30.133	157JA156A121P4A	37IOP	3,0	Long Map, Grating Start Position =0	1R3	1,632,714:84
330	19:37:32.133	157JA156A121Q4A	37GOF	3	Sets the Grating Offset reference	1R3	1,632,717:84
330	19:41:34.800	157JB156A121A4A	37GOF	5	Sets the Grating Offset reference	1R3	1,632,721:84
330	19:44:36.800	157JB156A121B4A	37GOF	6	Sets the Grating Offset reference	1R3	1,632,724:84
330	19:47:38.800	157JB156A121C4A	37GOF	4	Sets the Grating Offset reference	1R3	1,632,727:84
330	19:48:39.466	157JB156A121D4A	37IOP	1,0	Full Map, Grating Start Position =0	1R1	1,632,728:84
330	19:51:41.466	157JB156A121E4A	37IOP	5,0	Short Map, Grating Start Position =0	1R5	1,632,731:84
330	19:54:43.466	157JB156A121F4A	37IOP	8,0	Band Edge Map, Grating Start Position =0	1R8	1,632,734:84
330	19:57:45.466	157JB156A121G4A	37IOP	7,0	Fixed Map, Grating Start Position =0	1R7	1,632,737:84
330	20:00:52.133	192JA4C	7CONE	13.0,54.88	Check S/P Position	1R7	1,632,741:00
330	20:00:52.800	192JA4D	7CLK	13.0,244.07	Check S/P Position	1R7	1,632,741:01
330	20:06:51.466	157JB156A121H4A	37IST	0,0,1,ON,0,1,3	ECAL Gain State 1	1R7	1,632,746:84
330	20:09:53.466	157JB156A121I4A	37IST	0,0,1,OFF,1,1,1	OPCAL Gain State 4	4R7	1,632,749:84
330	20:12:55.466	157JB156A121J4A	37IST	0,0,0,OFF,0,1,2	Gain State 3	3R7	1,632,752:84
330	20:15:57.466	157JB156A121K4A	37IST	0,0,0,OFF,0,1,1	Gain State 4	4R7	1,632,755:84
330	20:18:59.466	157JB156A121L4A	37IST	0,0,0,OFF,0,1,0	Gain State 2	2R7	1,632,758:84
330	20:22:01.466	157JB156A121M4A	37IST	0,0,0,OFF,0,1,3	Gain State 1	1R7	1,632,761:84

DOY	Time	PSID	Command	Parameters	Description	GCM	RIM
330	20:25:03.466	157JB156A121N4A	37IOP	3,0	Long Map, Grating Start Position =0	1R3	1,632,764:84
330	20:28:05.466	157JB156A121O4A	37GOF	3	Sets the Grating Offset reference	1R3	1,632,767:84
330	20:31:07.466	157JB156A121P4A	37GOF	5	Sets the Grating Offset reference	1R3	1,632,770:84
330	20:34:09.466	157JB156A121Q4A	37GOF	6	Sets the Grating Offset reference	1R3	1,632,773:84
330	20:37:11.466	157JB156A121R4A	37GOF	4	Sets the Grating Offset reference	1R3	1,632,776:84
330	20:39:12.800	157JC156A121A4A	37IOP	1,0	Full Map, Grating Start Position =0	1R1	1,632,778:84
330	20:42:14.800	157JC156A121B4A	37IOP	5,0	Short Map, Grating Start Position =0	1R5	1,632,781:84
330	20:45:16.800	157JC156A121C4A	37IOP	8,0	Band Edge Map, Grating Start Position =0	1R8	1,632,784:84
330	20:48:18.800	157JC156A121D4A	37IOP	7,0	Fixed Map, Grating Start Position =0	1R7	1,632,787:84
330	20:51:20.800	157JC156A121E4A	37IOP	4,0	Long Spectrometer, Grating Start Position =0	1R4	1,632,790:84
330	20:55:23.466	157JC156A121F4A	37IST	1,0,0,OFF,0,1,0	Chopper ON, Sync, 63Hz (Ref) Gain State 2	264	1,632,794:84
330	20:58:25.466	157JC156A121G4A	37IST	0,0,0,OFF,0,1,3	Gain State 1	164	1,632,797:84
330	21:01:27.466	157JC156A121H4A	37IST	0,0,0,OFF,0,1,2	Gain State 3	364	1,632,800:84
330	21:04:29.466	157JC156A121I4A	37IST	0,0,1,OFF,1,1,1	OPCAL Gain State 4	464	1,632,803:84
330	21:07:31.466	157JC156A121J4A	37IST	0,0,1,ON,0,1,3	ECAL Gain State 1	164	1,632,806:84
330	21:10:33.466	157JC156A121K4A	37IST	0,0,1,ON,0,1,0	ECAL Gain State 2	264	1,632,809:84
330	21:13:35.466	157JC156A121L4A	37IST	0,0,0,OFF,0,1,1	Gain State 4	464	1,632,812:84
330	21:16:37.466	157JC156A121M4A	37IOP	7,0	Fixed Map, Grating Start Position =0	467	1,632,815:84
330	21:17:38.133	157JC156A121N4A	37IST	0,0,0,OFF,0,1,3	Gain State 1	167	1,632,816:84
330	21:19:44.133	192JA4E	7CONE	0.6,54.88	Check S/P Position	167	1,632,819:00
330	21:19:44.800	192JA4F	7CLK	0.6,264.0	Check S/P Position	167	1,632,819:01
330	21:30:51.466	192JA4G	7CONE	0.6,54.88	Check S/P Position	167	1,632,830:00
330	21:30:52.133	192JA4H	7CLK	0.6,224.0	Check S/P Position	167	1,632,830:01
330	21:52:05.466	192JA4I	7CONE	13.0,66.0	Check S/P Position	167	1,632,851:00
330	21:52:06.133	192JA4J	7CLK	13.0,244.07	Check S/P Position	167	1,632,851:01
330	21:54:06.800	192JA4K	7CONE	0.6,36.0	Check S/P Position	167	1,632,853:00
330	21:54:07.466	192JA4L	7CLK	0.6,244.07	Check S/P Position	167	1,632,853:01
		E2NNPCT 01		-----STOP-------		167	1,632,878:01
330	22:20:06.133	20E3A	40T1P	1	PCT Heater 1 ON (primary relay)	167	1,632,878:64
330	22:20:11.466	20E3B	40T1P	2	PCT Heater 1 ON (primary relay)	167	1,632,878:72
330	22:20:24.133	192RB4A	7CONE	17.0,60.36	Check S/P Position	167	1,632,879:00
330	22:20:24.800	192RB4B	7CLK	17.0,243.619999	Check S/P Position	167	1,632,879:01
330	22:20:26.333	E2SAFE 01	-18088	-----START------		167	1,632,879:01
330	22:24:22.133	128AG149A131A4A	37IOP	0,0	Safe, Grating Start Position =0	160	1,632,882:84
330	22:25:22.800	128AG149A131B4A	37IST	1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)	1R0	1,632,883:84
330	22:25:27.466	176RA476A6A	6TMCHG	XPWHCM	Dnlnk OK	1R0	1,632,884:00
330	22:49:43.466	192LE4A	7CONE	17.45,46.82	Check S/P Position	1R0	1,632,908:00
330	22:49:44.133	192LE4B	7CLK	17.45,250.929998	Check S/P Position	1R0	1,632,908:01
330	22:50:44.133	192LE4C	7CONE	0.16,54.82	Check S/P Position	1R0	1,632,909:00
330	22:57:48.800	424RA476A6A	6TMCHG	XPB	NO DNLNK	1R0	1,632,916:00
330	23:08:56.133	192LE4D	7CONE	17.45,50.82	Check S/P Position	1R0	1,632,927:00
330	23:08:56.800	192LE4E	7CLK	17.45,240.929998	Check S/P Position	1R0	1,632,927:01

DOY	Time	PSID	Command	Parameters	Description	GCM	RIM
330	23:09:57.466	192LE4F	7CLK	0.16,260.929996	Check S/P Position	1R0	1,632,928:01
330	23:49:22.800	192RC4A	7CONE	17.0,60.36	Check S/P Position	1R0	1,632,967:00
330	23:49:23.466	192RC4B	7CLK	17.0,243.619999	Check S/P Position	1R0	1,632,967:01
330	23:50:23.466	176RC6A	6TMCHG	XCM	Dnlnk OK	1R0	1,632,968:00
331	01:41:36.800	176RD6A	6TMCHG	XPWAI8	Dnlnk OK	1R0	1,633,078:00
331	01:46:40.133	191RA4A	7SAFE	UNSTOW	Check S/P Position	1R0	1,633,083:00
331	01:50:42.800	191RA4B	7MODE	CRU	Dual-Spin Mode	1R0	1,633,087:00
331	02:02:50.800	424RB476A6A	6TMCHG	XPB	NO DNLNK	1R0	1,633,099:00
331	02:40:00.800	498A4B	7SAFE	UNSTOW	Check S/P Position	1R0	1,633,135:69
331	02:44:00.133	498A4D	7MODE	SPNL	All-Spin Mode	1R0	1,633,139:64
331	03:04:20.800	498A4H	7MODE	SPNH	All-Spin Mode	1R0	1,633,159:75
331	03:14:38.133	176YA6A	6TMCHG	XPW	Dnlnk OK	1R0	1,633,170:00
331	03:16:40.800	498A4I	7MODE	SPNL	All-Spin Mode	1R0	1,633,172:02
331	03:29:00.800	498A4K	7MODE	SPNH	All-Spin Mode	1R0	1,633,184:20
331	03:41:20.800	498A4L	7MODE	SPNL	All-Spin Mode	1R0	1,633,196:38
331	03:53:40.800	498A4M	7MODE	CRU	Dual-Spin Mode	1R0	1,633,208:56
331	04:21:40.800	498A4O	7MODE	INT	Dual-Spin Mode	1R0	1,633,236:28
331	04:28:42.133	498A4Q	7BURN	LAT,179.745998,-	ALERT -- Thruster firing	1R0	1,633,243:23
331	04:42:06.800	498A4R	7BURN	LAT,0.0,90.0,1,0	ALERT -- Thruster firing	1R0	1,633,256:47
331	04:55:32.133	498A4T	7BURN	PULZ,0.0,90.0,1,	ALERT -- Thruster firing	1R0	1,633,269:72
331	05:08:52.133	498A4V	7BURN	PULZ,0.0,90.0,1,	ALERT -- Thruster firing	1R0	1,633,282:89
331	05:50:03.466	20T4A	7MODE	CRU	Dual-Spin Mode	1R0	1,633,323:65
331	07:24:22.800	176PB476A6A	6TMCHG	MPP	NO DNLNK	1R0	1,633,417:00
333	14:20:53.333	476A6A	6TMCHG	LRS	NO DNLNK	1R0	1,636,677:26
334	00:35:04.600	20AH4B	7SAFE	UNSTOW	Check S/P Position	1R0	1,637,284:66
334	05:29:35.266	176PC476A6A	6TMCHG	XPW	Dnlnk OK	1R0	1,637,576:00
335	15:20:03.200	20U4B	7SAFE	UNSTOW	Check S/P Position	1R0	1,639,584:14
335	16:27:00.533	490A412A4C	7MODE	INT	Dual-Spin Mode	1R0	1,639,650:34
335	16:29:57.200	490A476A6A	6TMCHG	EHRLRS	NO DNLNK	1R0	1,639,653:26
335	16:30:05.866	176YB476A6A	6TMCHG	HPWHPW	Dnlnk OK	1R0	1,639,653:39
335	16:32:00.533	490A412A4E	7SAFE	UNSTOW	Check S/P Position	1R0	1,639,655:29
335	16:36:14.533	490A412A4G	7TURN	2,MVR	ALERT -- Thruster firing	1R0	1,639,659:46
335	18:20:03.866	20R4B	7CONE	17.45,175.0	Check S/P Position	1R0	1,639,762:17
335	18:21:50.533	20R4C	7CONE	5.236,145.0	Check S/P Position	1R0	1,639,763:86
335	18:24:50.533	20R4D	7CONE	5.236,0.0	Check S/P Position	1R0	1,639,766:83
335	18:33:50.533	20R4E	7CONE	6.981,124.0	Check S/P Position	1R0	1,639,775:74
335	18:40:00.533	20R4F	7CONE	6.981,175.0	Check S/P Position	1R0	1,639,781:83
335	18:40:05.866	20F3A	40T1PR	1	PCT Heater 1 OFF (primary relay)	1R0	1,639,782:00
335	18:40:11.200	20F3B	40T1PR	2	PCT Heater 1 OFF (primary relay)	1R0	1,639,782:08
335	18:43:00.533	20R4G	7SAFE	UNSTOW	Check S/P Position	1R0	1,639,784:80
335	18:49:11.866	192MC4A	7CONE	17.45,60.0	Check S/P Position	1R0	1,639,791:00
335	23:12:05.200	176LA476A6A	6TMCHG	HIM	Dnlnk OK	1R0	1,640,051:00

DOY	Time	PSID	Command	Parameters	Description	GCM	RIM
335	23:14:05.866	165NK4B	7SCAN	NORM,100.813,-16	Check S/P Position	1R0	1,640,052:90
335	23:17:03.866	128CS149A131A4A	37IOP	7,6	Fixed Map, Grating Start Position =6	1R7	1,640,055:84
335	23:18:04.533	128CS149A131B4A	37IST	0,0,0,OFF,0,1,1	Gain State 4	4R7	1,640,056:84
		E2SAFE 01		-----STOP-------		4R7	1,640,058:01
335	23:20:13.000	E2STAR/FLOOD	-10908	-----START------		4R7	1,640,059:01
		E2STAR/FLOOD		-----STOP-------		4R7	1,640,157:01
336	01:00:15.866	165LO4B	7SCAN	NORM,88.417999,7	Check S/P Position	4R7	1,640,157:90
336	01:00:19.000	E2NNSTAR 01	-10809	-----START------		4R7	1,640,158:01
336	01:04:19.200	176RF6A	6TMCHG	HCM	Dnlnk OK	4R7	1,640,162:00
		E2NNSTAR 01		-----STOP-------		4R7	1,640,248:01
336	02:32:16.533	165LS4B	7SCAN	NORM,24.168,-58.	Check S/P Position	4R7	1,640,248:90
336	02:34:21.000	E2NNMRO 01	-10716	-----START------		4R7	1,640,251:01
336	02:36:15.200	128BH149A131A4A	37IOP	0,0	Safe, Grating Start Position =0	4R0	1,640,252:84
		E2NNMRO 01		-----STOP-------		4R0	1,640,255:01
336	03:56:12.533	176YR6A	6TMCHG	HPWIM4	Dnlnk OK	4R0	1,640,332:00
336	04:02:16.533	176RG6A	6TMCHG	NCGIM8	Dnlnk OK	4R0	1,640,338:00
336	04:22:29.866	176RH6A	6TMCHG	NCGAI8	Dnlnk OK	4R0	1,640,358:00
336	05:20:12.533	20PC4A	7SAFE	UNSTOW	Check S/P Position	4R0	1,640,415:07
336	07:02:58.466	260PH476A6A	6TMCHG	HPW	Dnlnk OK	4R0	1,640,516:65
336	14:35:14.466	276MA4A	7CONE	17.45,120.0	Check S/P Position	4R0	1,640,964:01
336	15:43:59.133	424RL476A6A	6TMCHG	HPB	NO DNLNK	4R0	1,641,032:00
336	16:42:40.333	E2NNRCTON 01	-9877	-----START------		4R0	1,641,090:01
336	16:43:38.466	185JA10A3A	40HRP	1	RCT Heater ON (primary relay)	4R0	1,641,091:00
336	21:23:43.133	176PF6A	6TMCHG	HPW	Dnlnk OK	4R0	1,641,368:00
336	21:27:48.333	E2NNQUICAL02	-9595	-----START------		4R0	1,641,372:01
336	23:07:51.133	165JA4B	7SCAN	NORM,60.0,81.0,1	Check S/P Position	4R0	1,641,470:90
		E2NNQUICAL02		-----STOP-------		4R0	1,641,472:01
336	23:11:49.800	128A149A131A4A	37IST	1,0,0,OFF,0,1,1	Chopper ON, Sync, 63Hz (Ref) Gain State 4	460	1,641,474:84
		E2NNRCTON 01		-----STOP-------		460	1,641,476:01
336	23:13:58.333	E2NNRCTCAL01	-9490	-----START------		460	1,641,477:01
336	23:14:51.800	157JD156A121A4A	37IOP	4,0	Long Spectrometer, Grating Start Position =0	464	1,641,477:84
336	23:15:52.466	157JD156A121B4A	37IST	0,0,1,OFF,1,0,1	OPCAL	464	1,641,478:84
336	23:16:53.133	157JD156A121C4A	37IST	0,0,0,OFF,0,1,0	Gain State 2	264	1,641,479:84
336	23:18:54.466	157JD156A121D4A	37IST	0,0,1,ON,0,1,3	ECAL Gain State 1	164	1,641,481:84
336	23:19:55.133	157JD156A121E4A	37IST	0,0,0,OFF,0,1,2	Gain State 3	364	1,641,482:84
336	23:21:56.466	157JD156A121F4A	37IST	0,0,1,ON,0,1,0	ECAL Gain State 2	264	1,641,484:84
336	23:22:57.133	157JD156A121G4A	37IST	0,0,0,OFF,0,1,1	Gain State 4	464	1,641,485:84
336	23:24:58.466	157JD156A121H4A	37IST	0,0,0,OFF,0,1,3	Gain State 1	164	1,641,487:84
336	23:27:04.466	192JB4A	7CONE	14.0,0.0	Check S/P Position	164	1,641,490:00
336	23:32:03.133	157JD156A121I4A	37IST	0,0,0,OFF,0,1,0	Gain State 2	264	1,641,494:84
336	23:34:04.466	157JD156A121J4A	37IST	0,0,0,OFF,0,1,2	Gain State 3	364	1,641,496:84
336	23:36:05.800	157JD156A121K4A	37IST	0,0,0,OFF,0,1,1	Gain State 4	464	1,641,498:84

DOY	Time	PSID	Command	Parameters	Description	GCM	RIM
336	23:38:11.800	192JB4B	7CONE	14.0,122.879999	Check S/P Position	464	1,641,501:00
336	23:59:21.133	157JD156A121L4A	37IST	1,2,0,OFF,0,1,1	Chopper ON, Sync, Chopper (Ref) Gain State 4	4R4	1,641,521:84
337	00:03:23.800	157JD156A121M4A	37IST	0,0,1,OFF,1,0,1	OPCAL	4R4	1,641,525:84
337	00:04:24.466	157JD156A121N4A	37IST	0,0,0,OFF,0,1,0	Gain State 2	2R4	1,641,526:84
337	00:06:25.800	157JD156A121O4A	37IST	0,0,1,ON,0,1,3	ECAL Gain State 1	1R4	1,641,528:84
337	00:07:26.466	157JD156A121P4A	37IST	0,0,0,OFF,0,1,2	Gain State 3	3R4	1,641,529:84
337	00:09:27.800	157JD156A121Q4A	37IST	0,0,1,ON,0,1,0	ECAL Gain State 2	2R4	1,641,531:84
337	00:10:33.133	192JB4C	7CONE	14.0,0.0	Check S/P Position	2R4	1,641,533:00
337	00:15:31.800	157JD156A121R4A	37IST	0,0,0,OFF,0,1,2	Gain State 3	3R4	1,641,537:84
337	00:17:33.133	157JE156A121A4A	37IST	0,0,0,OFF,0,1,1	Gain State 4	4R4	1,641,539:84
337	00:19:39.133	192JB4D	7CONE	14.0,122.879999	Check S/P Position	4R4	1,641,542:00
337	00:37:46.466	157JE156A121B4A	37IST	0,0,0,OFF,0,1,3	Gain State 1	1R4	1,641,559:84
337	00:39:47.800	157JE156A121C4A	37IOP	3,0	Long Map, Grating Start Position =0	1R3	1,641,561:84
337	00:41:49.133	157JE156A121D4A	37GOF	3	Sets the Grating Offset reference	1R3	1,641,563:84
337	00:43:55.133	192JB4E	7CONE	14.0,0.0	Check S/P Position	1R3	1,641,566:00
337	00:48:53.800	157JE156A121E4A	37GOF	4	Sets the Grating Offset reference	1R3	1,641,570:84
337	00:50:55.133	157JE156A121F4A	37IOP	4,0	Long Spectrometer, Grating Start Position =0	1R4	1,641,572:84
337	00:53:01.133	192JB4F	7CONE	14.0,122.879999	Check S/P Position	1R4	1,641,575:00
337	01:11:08.466	157JE156A121G4A	37IOP	3,1	Long Map, Grating Start Position =1	1R3	1,641,592:84
337	01:13:09.800	157JE156A121H4A	37IOP	3,2	Long Map, Grating Start Position =2	1R3	1,641,594:84
337	01:15:11.133	157JE156A121I4A	37IOP	1,0	Full Map, Grating Start Position =0	1R1	1,641,596:84
337	01:17:17.133	192JB4G	7CONE	14.0,0.0	Check S/P Position	1R1	1,641,599:00
337	01:22:15.800	157JE156A121J4A	37IOP	3,2	Long Map, Grating Start Position =2	1R3	1,641,603:84
337	01:24:17.133	157JE156A121K4A	37IOP	3,1	Long Map, Grating Start Position =1	1R3	1,641,605:84
337	01:26:23.133	192JB4H	7CONE	14.0,122.879999	Check S/P Position	1R3	1,641,608:00
337	01:44:30.466	157JE156A121L4A	37IOP	5,2	Short Map, Grating Start Position =2	1R5	1,641,625:84
337	01:46:31.800	157JE156A121M4A	37IOP	7,6	Fixed Map, Grating Start Position =6	1R7	1,641,627:84
337	01:48:33.133	157JE156A121N4A	37IOP	8,0	Band Edge Map, Grating Start Position =0	1R8	1,641,629:84
337	01:50:39.133	192JB4I	7CONE	14.0,0.0	Check S/P Position	1R8	1,641,632:00
337	01:55:37.800	157JE156A121O4A	37IOP	5,2	Short Map, Grating Start Position =2	1R5	1,641,636:84
337	01:57:39.133	157JE156A121P4A	37IOP	7,6	Fixed Map, Grating Start Position =6	1R7	1,641,638:84
337	01:59:45.133	192JB4J	7CONE	14.0,122.879999	Check S/P Position	1R7	1,641,641:00
337	02:17:52.466	157JE156A121Q4A	37IST	0,0,0,OFF,0,1,0	Gain State 2	2R7	1,641,658:84
337	02:17:57.133	192JB4K	7CONE	14.0,30.0	Check S/P Position	2R7	1,641,659:00
337	02:20:59.133	192JB4L	7CONE	0.15,0.0	Check S/P Position	2R7	1,641,662:00
337	03:40:51.800	192JB4M	7CONE	17.0,153.0	Check S/P Position	2R7	1,641,741:00
337	03:43:53.800	185JA10B3A	40HRPR	1	RCT Heater OFF (primary relay)	2R7	1,641,744:00
		E2NNRCTCAL01		-----STOP-------		2R7	1,641,744:01
337	03:44:54.466	192LC4A	7CONE	17.45,113.0	Check S/P Position	2R7	1,641,745:00
337	03:45:50.466	157LA156A121A4A	37IOP	0,0	Safe, Grating Start Position =0	2R0	1,641,745:84
337	03:45:55.133	192LC4B	7CONE	1.12,0.0	Check S/P Position	2R0	1,641,746:00
337	04:31:25.133	192LC4C	7CONE	17.45,120.0	Check S/P Position	2R0	1,641,791:00

DOY	Time	PSID	Command	Parameters	Description	GCM	RIM
337	04:48:36.466	192LC4D	7CONE	17.45,0.0	Check S/P Position	2R0	1,641,808:00
337	05:15:59.133	20LB4A	7SAFE	UNSTOW	Check S/P Position	2R0	1,641,835:07
337	05:16:57.667	E2NNLOAD 01	-9131	-----START------		2R0	1,641,836:01
	05:17:55.133	20JA5A	37PL	CMD,37PL,20JA5A,	Program Load (halts microprocessor & unwrite-protec)	2R0	1,641,836:90
		E2NNLOAD 01		-----STOP-------		2R0	1,641,838:01
		20JA4B	37DML		Direct Memory Load (loads data into NIMS RAM)	2R0	1,641,838:03
		20JA4C	37DML		Direct Memory Load (loads data into NIMS RAM)	2R0	1,641,838:49
		20JA4D	37DML		Direct Memory Load (loads data into NIMS RAM)	2R0	1,641,839:03
		20JA4E	37DML		Direct Memory Load (loads data into NIMS RAM)	2R0	1,641,839:49
337	05:20:59.800	20JA4F	37DML	1100,1E,C0,10,51	Direct Memory Load (loads data into NIMS RAM)	2R0	1,641,840:03
		20JA4G	37DML		Direct Memory Load (loads data into NIMS RAM)	2R0	1,641,840:49
		20JA4H	37DML		Direct Memory Load (loads data into NIMS RAM)	2R0	1,641,841:03
		20JA4I	37DML		Direct Memory Load (loads data into NIMS RAM)	2R0	1,641,841:49
		20JA4J	37DML		Direct Memory Load (loads data into NIMS RAM)	2R0	1,641,842:03
		20JA4K	37DML		Direct Memory Load (loads data into NIMS RAM)	2R0	1,641,842:49
337	05:24:01.800	20JA5G	37IRT		Instrument Reset (goes into POR state)	260	1,641,843:03
337	05:27:57.800	128B149A131A4A	37IST	1,2,0,OFF,0,1,1	Chopper ON, Sync, Chopper (Ref) Gain State 4	4R0	1,641,846:84
337	16:49:34.333	E2NNQUICAL03	-8446	-----START------		4R0	1,642,521:01
		E2NNQUICAL03		-----STOP-------		4R0	1,642,547:01
337	17:29:58.400	176YG476A6A	6TMCHG	MPRMPR	Dnlnk OK	4R0	1,642,561:00
337	18:21:58.400	450XJ476A6A	6TMCHG	MPRMPR	Dnlnk OK	4R0	1,642,612:39
337	21:29:36.400	176PG476A6A	6TMCHG	HPW	Dnlnk OK	4R0	1,642,798:00
338	14:00:32.333	E2NNQUICAL04	-7189	-----START------		4R0	1,643,778:01
338	14:06:33.066	165JL4B	7SCAN	NORM,25.417,-16.	Check S/P Position	4R0	1,643,783:90
338	14:10:36.400	176RJ6A	6TMCHG	HPWIM4	Dnlnk OK	4R0	1,643,788:00
338	14:24:45.733	176RK6A	6TMCHG	HCM	Dnlnk OK	4R0	1,643,802:00
338	14:33:51.066	165JM4B	7SCAN	NORM,339.742996,	Check S/P Position	4R0	1,643,810:90
338	15:20:21.733	165JN4B	7SCAN	NORM,141.282,-8.	Check S/P Position	4R0	1,643,856:90
338	15:37:42.400	176RL6A	6TMCHG	HPWIM4	Dnlnk OK	4R0	1,643,874:13
338	15:47:39.733	165JO4B	7SCAN	NORM,11.522,7.31	Check S/P Position	4R0	1,643,883:90
		E2NNQUICAL04		-----STOP-------		4R0	1,643,892:01
338	15:59:51.000	E2NNQUICAL05	-7071	-----START------		4R0	1,643,896:01
338	16:03:51.066	176RM6A	6TMCHG	HCM	Dnlnk OK	4R0	1,643,900:00
338	16:22:02.333	165JP4B	7SCAN	NORM,95.710999,-	Check S/P Position	4R0	1,643,917:90
338	17:00:27.666	165LQ4B	7SCAN	NORM,56.17,23.78	Check S/P Position	4R0	1,643,955:90
338	17:00:28.333	176GA6A	6TMCHG	HCMNCG	Dnlnk OK	4R0	1,643,956:00
338	17:32:23.000	165NO4B	7SCAN	NORM,55.72,24.17	Check S/P Position	4R0	1,643,987:51
338	17:51:35.666	165NP4B	7SCAN	NORM,55.48,24.17	Check S/P Position	4R0	1,644,006:51
338	17:52:02.333	176RN6A	6TMCHG	HPWAI8	Dnlnk OK	4R0	1,644,007:00
338	17:56:04.333	165JR4B	7SCAN	NORM,27.969,20.5	Check S/P Position	4R0	1,644,010:90
338	18:01:03.666	128J149A131A4A	37IST	1,0,0,ON,0,1,3	Chopper ON, Sync, 63Hz (Ref) Gain State 1	160	1,644,015:84
338	18:02:04.333	128J149A131B4A	37IOP	7,0	Fixed Map, Grating Start Position =0	167	1,644,016:84

DOY	Time	PSID	Command	Parameters	Description	GCM	RIM
338	18:02:09.000	176RO6A	6TMCHG	HCM	Dnlnk OK	167	1,644,017:00
		E2NNQUICAL05		-----STOP-------		167	1,644,017:01
338	18:48:39.000	165LU4B	7SCAN	NORM,189.289999,	Check S/P Position	167	1,644,062:90
338	18:48:39.666	176GB6A	6TMCHG	HCMNCG	Dnlnk OK	167	1,644,063:00
338	20:07:31.666	176PH6A	6TMCHG	HPW	Dnlnk OK	167	1,644,141:00
338	20:10:36.333	E2BOOM 01	-6823	-----START------		167	1,644,144:01
338	20:24:43.000	192MH4A	7CONE	17.45,0.0	Check S/P Position	167	1,644,158:00
338	20:26:05.666	20G3A	40T1P	1	PCT Heater 1 ON (primary relay)	167	1,644,159:33
338	20:26:11.000	20G3B	40T1P	2	PCT Heater 1 ON (primary relay)	167	1,644,159:41
338	20:29:06.333	20G3C	40T2	1	PCT Heater 2 ON	167	1,644,162:31
338	20:29:11.666	20G3D	40T2	2	PCT Heater 2 ON	167	1,644,162:39
338	23:29:45.000	192MI4A	7CONE	17.45,120.0	Check S/P Position	167	1,644,341:00
339	00:00:05.000	424RC476A6A	6TMCHG	HPB	NO DNLNK	167	1,644,371:00
339	02:34:47.000	192MJ4A	7CONE	0.07,90.0	Check S/P Position	167	1,644,524:00
339	02:44:53.666	176PI6A	6TMCHG	HPW	Dnlnk OK	167	1,644,534:00
		E2BOOM 01		-----STOP-------		167	1,644,683:01
339	14:29:38.333	192MK4A	7CONE	0.07,45.0	Check S/P Position	167	1,645,231:00
339	14:30:39.000	176RQ6A	6TMCHG	HCM	Dnlnk OK	167	1,645,232:00
339	14:30:41.667	E2BOOM 02	-5735	-----START------		167	1,645,232:01
339	18:34:19.666	176PJ6A	6TMCHG	HPW	Dnlnk OK	167	1,645,473:00
339	22:04:38.266	192ML4A	7CONE	0.07,15.0	Check S/P Position	167	1,645,681:00
340	00:05:03.600	20AZ4A	7MODE	CRU	Dual-Spin Mode	167	1,645,800:09
340	03:13:57.600	128C149A131A4A	37IOP	0,0	Safe, Grating Start Position =0	160	1,645,986:84
340	03:14:58.266	128C149A131B4A	37IST	1,2,0,OFF,0,1,1	Chopper ON, Sync, Chopper (Ref) Gain State 4	4R0	1,645,987:84
340	03:15:04.266	20NK4A	7SAFE	UNSTOW	Check S/P Position	4R0	1,645,988:02
		E2BOOM 02		-----STOP-------		4R0	1,646,004:01

PA SUMMARY TABLE

This summary is a listing of the PAs (Profile Activities) used by NIMS during EE9.

INPUT SEF FILE: EE9_920918.SEF

OAPEL	PA	PSID	SCLK1	SCLK2	SCET1	TARGET
ENGR	UTILITY	20ZU	01629595:08	01629597:74	92-328/15:00:00	NIMS_ON
ENGR	UTILITY	20C	01629604:89	01629606:87	92-328/15:10:00	SHIELD HTR
	ALSPINSP	192JA	01632661:00	01632878:00	92-330/18:39:58	PCT
E2NNPCT___01	CMDRS	157JA	01632665:00	01632721:00	92-330/18:44:01	PCT
E2NNPCT___01	CMDRS	157JB	01632721:00	01632778:00	92-330/19:40:38	PCT
E2NNPCT___01	CMDRS	157JC	01632778:00	01632819:00	92-330/20:38:16	PCT
E2HPTSTARS02	SCITLM	176LA	01640051:00	01640054:00	92-335/23:12:05	SKY
E2HPTSTARS02	TARGET	165NK	01640052:89	01640058:00	92-335/23:14:05	SKY
E2HPTSTARS02	INITRS	128CS	01640055:84	01640057:03	92-335/23:17:03	SKY
E2HPTSTARS02	SSI	147EH	01640056:76	01640156:89	92-335/23:17:59	SKY
E2HPTSTARS02	CSMOS	117BD	01640056:77	01640064:87	92-335/23:17:59	SKY
E2HPTSTARS02	CSMOS	117BE	01640065:77	01640156:08	92-335/23:27:05	SKY
E2HPTSTARS02	CMDRS	157MA	01640156:00	01640158:00	92-336/00:58:15	SKY
E2HNNSTAR_01	TARGET	165LO	01640157:89	01640163:00	92-336/01:00:15	SKY
E2HNNSTAR_01	INITRS	128BC	01640160:89	01640162:03	92-336/01:03:17	SKY
E2HNNSTAR_01	SSI	147CD	01640161:76	01640245:89	92-336/01:04:09	SKY
E2HNNSTAR_01	CSMOS	117AC	01640161:77	01640245:38	92-336/01:04:09	SKY
E2HUUSTAR_01	TARGET	165LS	01640248:89	01640253:00	92-336/02:32:15	SKY
E2HUUSTAR_01	INITRS	128BH	01640251:90	01640253:03	92-336/02:35:18	SKY
E2HUUSTAR_01	CSMOS	117AG	01640252:77	01640411:71	92-336/02:36:10	SKY
E2HUUSTAR_01	SSI	147CJ	01640331:76	01640334:63	92-336/03:56:02	SKY
E2HUUSTAR_01	CMDRS	157LQ	01640413:00	01640415:00	92-336/05:18:06	SKY
E2HUUSTAR_01	UTILITY	20PC	01640415:03	01640416:03	92-336/05:20:09	SKY
E2NNRCTCAL01	TARGET	165JA	01641470:89	01641475:00	92-336/23:07:50	RCT
E2NNRCTCAL01	INITRS	128A	01641474:84	01641475:04	92-336/23:11:49	RCT
E2NNRCTCAL01	CMDRS	157JD	01641477:00	01641539:00	92-336/23:13:55	RCT
	ALSPINSP	192JB	01641477:00	01641744:00	92-336/23:13:55	RCT
E2NNRCTCAL01	CMDRS	157JE	01641539:00	01641665:00	92-337/00:16:37	RCT
E2NNLOAD__01	UTILITY	20JA	01641836:03	01641844:03	92-337/05:16:57	LOAD
E2NNLOAD__01	INITRS	128B	01641846:84	01641847:03	92-337/05:27:57	LOAD
E2NNSAFE__01	INITRS	128C	01645986:84	01645988:86	92-340/03:13:57	NIMS_SAFE

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 Heading             Columns     Comments
-------------------------------------------------------------------------
  OAPEL               1 -  12     .Oapel Name from SEF (no aliases yet)
  EXT                14 -  14     .Extension (allow for split OAPELs)
  PSID               16 -  17     .2 Letter ID for the OAPEL
  SCLK1              19 -  29     .Start time of OBS in SCLK
  SCLK2              31 -  41     .STOP time of OBS in SCLK
  MODE               43 -  44     .NIMS Instrument MODE
  GAIN               46 -  47     .Gain State (true value)
  CHOP               49 -  50     .Chopper State (1=Ref,2=63Hz,3=FreeRun,4=Off)
  GRAT_OFF           52 -  53     .Grating Offset
  PTAB_A(6)          55 -  71     .First PTAB  (repeat count,mirror op,autobias...
  PTAB_B(6)          73 -  89     .Second PTAB (...grating start, grating delta...
                                  .             (...number of grating postions)
  ECAL               92 -  92     .Electronics Calibration Active (1=yes)
  OPCAL              94 -  94     .Optics Calibration active (1=yes)
  UTC1               96 - 112     .Start time of OBS in UTC (from SEF - ISO STANDARD)
  REAL_TIME         115 - 115     .NIMS in Real-Time Telemetry (1=yes)
  RECORD            117 - 117     .NIMS in Record Telemetry(1=yes)
  TARGET            120 - 127     .Primary Target of OBS
                                   CALIBRATION - N - Non-Science
  (the single letter abbreviation appears as the third character in the OBSNAME (OAPEL Name) ).
 INPUT SEF FILE: EE9_920918.SEF
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OAPEL, EXT, PSID, SCLK1, SCLK2, MODE, GAIN, CHOP, GRAT_OFF, PTAB_A(6), PTAB_B(6), ECAL, OPCAL, UTC1, REAL_TIME, RECORD, TARGET

OAPEL      EXT PSID SCLK1       SCLK2       M  G  C  O  |    PTAB A    | |    PTAB B    | E O      UTC1          R T  TARGET
-------------------------------------------------------------------------------------------------------------------------------
E2NWPWUMAP01 G KR 01632500:65 01632660:63  0  4  1  4  1  0  0  0  0 12  1  0  0  0  0 12  0 0 1992-330T15:57:54  1 0  CAL
E2NNPCT___01 A JA 01632665:00 01632666:90  0  4  1  4  1  0  0  0  0 12  1  0  0  0  0 12  0 0 1992-330T18:44:01  1 0  DARK
E2NNPCT___01 B JA 01632667:00 01632667:90  4  4  1  4  1  0  0  0  1 24  1  0  0  0  1 24  0 0 1992-330T18:45:58  1 0  DARK
E2NNPCT___01 C JA 01632668:00 01632670:90  4  2  2  4  1  0  0  0  1 24  1  0  0  0  1 24  0 0 1992-330T18:46:58  1 0  DARK
E2NNPCT___01 D JA 01632671:00 01632673:90  4  4  2  4  1  0  0  0  1 24  1  0  0  0  1 24  0 0 1992-330T18:50:00  1 0  DARK
E2NNPCT___01 E JA 01632674:00 01632676:90  4  1  2  4  1  0  0  0  1 24  1  0  0  0  1 24  0 0 1992-330T18:53:02  1 0  DARK
E2NNPCT___01 F JA 01632677:00 01632679:90  4  3  2  4  1  0  0  0  1 24  1  0  0  0  1 24  0 0 1992-330T18:56:04  1 0  DARK
E2NNPCT___01 G JA 01632680:00 01632680:90  4  4  2  4  1  0  0  0  1 24  1  0  0  0  1 24  0 1 1992-330T18:59:06  1 0  DARK
E2NNPCT___01 H JA 01632681:00 01632682:90  4  4  2  4  1  0  0  0  1 24  1  0  0  0  1 24  0 0 1992-330T19:00:06  1 0  DARK
E2NNPCT___01 I JA 01632683:00 01632683:90  4  1  2  4  1  0  0  0  1 24  1  0  0  0  1 24  1 0 1992-330T19:02:08  1 0  DARK
E2NNPCT___01 J JA 01632684:00 01632685:90  4  1  2  4  1  0  0  0  1 24  1  0  0  0  1 24  0 0 1992-330T19:03:08  1 0  DARK
E2NNPCT___01 K JA 01632686:00 01632686:90  4  2  2  4  1  0  0  0  1 24  1  0  0  0  1 24  1 0 1992-330T19:05:10  1 0  DARK
E2NNPCT___01 L JA 01632687:00 01632688:90  4  2  2  4  1  0  0  0  1 24  1  0  0  0  1 24  0 0 1992-330T19:06:10  1 0  DARK
E2NNPCT___01 M JA 01632689:00 01632695:90  4  2  1  4  1  0  0  0  1 24  1  0  0  0  1 24  0 0 1992-330T19:08:12  1 0  DARK
E2NNPCT___01 N JA 01632696:00 01632698:90  4  4  1  4  1  0  0  0  1 24  1  0  0  0  1 24  0 0 1992-330T19:15:17  1 0  DARK
E2NNPCT___01 O JA 01632699:00 01632701:90  4  1  1  4  1  0  0  0  1 24  1  0  0  0  1 24  0 0 1992-330T19:18:19  1 0  DARK
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OAPEL	EXT	PSID	SCLK1	SCLK2	M	G	C	O	PTAB A						PTAB B						E	O	UTC1	R	T	TARGET
E2NNPCT	01	P	JA 01632702:00	01632704:90	4	3	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-330T19:21:21	1	0	DARK
E2NNPCT	01	Q	JA 01632705:00	01632705:90	4	4	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	1	1992-330T19:24:23	1	0	DARK
E2NNPCT	01	R	JA 01632706:00	01632707:90	4	4	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-330T19:25:23	1	0	DARK
E2NNPCT	01	S	JA 01632708:00	01632708:90	4	2	1	4	1	0	0	0	1	24	1	0	0	0	1	24	1	0	1992-330T19:27:25	1	0	DARK
E2NNPCT	01	T	JA 01632709:00	01632711:90	4	2	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-330T19:28:25	1	0	DARK
E2NNPCT	01	U	JA 01632712:00	01632712:90	4	1	1	4	1	0	0	0	1	24	1	0	0	0	1	24	1	0	1992-330T19:31:28	1	0	DARK
E2NNPCT	01	V	JA 01632713:00	01632714:90	4	1	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-330T19:32:28	1	0	DARK
E2NNPCT	01	W	JA 01632715:00	01632717:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-330T19:34:30	1	0	DARK
E2NNPCT	01	X	JA 01632718:00	01632721:90	3	1	1	3	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-330T19:37:32	1	0	DARK
E2NNPCT	01	Y	JA 01632722:00	01632724:90	3	1	1	5	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-330T19:41:34	1	0	DARK
E2NNPCT	01	Z	JA 01632725:00	01632727:90	3	1	1	6	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-330T19:44:36	1	0	DARK
E2NNPCT	01	A	JA 01632728:00	01632728:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-330T19:47:38	1	0	DARK
E2NNPCT	01	B	JA 01632729:00	01632731:90	1	1	1	4	1	1	0	0	2	12	1	1	0	0	2	12	0	0	1992-330T19:48:39	1	0	DARK
E2NNPCT	01	C	JA 01632732:00	01632734:90	5	1	1	4	1	1	0	0	4	6	1	1	0	0	4	6	0	0	1992-330T19:51:41	1	0	DARK
E2NNPCT	01	D	JA 01632735:00	01632737:90	8	1	1	4	1	1	0	0	0	1	1	1	0	0	0	1	0	0	1992-330T19:54:43	1	0	DARK
E2NNPCT	01	E	JA 01632738:00	01632740:90	7	1	1	4	1	1	0	0	0	12	1	1	0	0	0	12	0	0	1992-330T19:57:45	1	0	DARK
E2NNPCT	01	F	JA 01632741:00	01632746:90	7	1	1	4	1	1	0	0	0	12	1	1	0	0	0	12	0	0	1992-330T20:00:52	1	0	PCT
E2NNPCT	01	G	JA 01632747:00	01632747:90	7	1	1	4	1	1	0	0	0	12	1	1	0	0	0	12	1	0	1992-330T20:06:51	1	0	PCT
E2NNPCT	01	H	JA 01632748:00	01632749:90	7	1	1	4	1	1	0	0	0	12	1	1	0	0	0	12	0	0	1992-330T20:07:51	1	0	PCT
E2NNPCT	01	I	JA 01632750:00	01632750:90	7	4	1	4	1	1	0	0	0	12	1	1	0	0	0	12	0	1	1992-330T20:09:53	1	0	PCT
E2NNPCT	01	J	JA 01632751:00	01632752:90	7	4	1	4	1	1	0	0	0	12	1	1	0	0	0	12	0	0	1992-330T20:10:53	1	0	PCT
E2NNPCT	01	K	JA 01632753:00	01632755:90	7	3	1	4	1	1	0	0	0	12	1	1	0	0	0	12	0	0	1992-330T20:12:55	1	0	PCT
E2NNPCT	01	L	JA 01632756:00	01632758:90	7	4	1	4	1	1	0	0	0	12	1	1	0	0	0	12	0	0	1992-330T20:15:57	1	0	PCT
E2NNPCT	01	M	JA 01632759:00	01632761:90	7	2	1	4	1	1	0	0	0	12	1	1	0	0	0	12	0	0	1992-330T20:18:59	1	0	PCT
E2NNPCT	01	N	JA 01632762:00	01632764:90	7	1	1	4	1	1	0	0	0	12	1	1	0	0	0	12	0	0	1992-330T20:22:01	1	0	PCT
E2NNPCT	01	O	JA 01632765:00	01632767:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-330T20:25:03	1	0	PCT
E2NNPCT	01	P	JA 01632768:00	01632770:90	3	1	1	3	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-330T20:28:05	1	0	PCT
E2NNPCT	01	Q	JA 01632771:00	01632773:90	3	1	1	5	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-330T20:31:07	1	0	PCT
E2NNPCT	01	R	JA 01632774:00	01632776:90	3	1	1	6	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-330T20:34:09	1	0	PCT
E2NNPCT	01	S	JA 01632777:00	01632778:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-330T20:37:11	1	0	PCT
E2NNPCT	01	T	JA 01632779:00	01632781:90	1	1	1	4	1	1	0	0	2	12	1	1	0	0	2	12	0	0	1992-330T20:39:12	1	0	PCT
E2NNPCT	01	U	JA 01632782:00	01632784:90	5	1	1	4	1	1	0	0	4	6	1	1	0	0	4	6	0	0	1992-330T20:42:14	1	0	PCT
E2NNPCT	01	V	JA 01632785:00	01632787:90	8	1	1	4	1	1	0	0	0	1	1	1	0	0	0	1	0	0	1992-330T20:45:16	1	0	PCT
E2NNPCT	01	W	JA 01632788:00	01632790:90	7	1	1	4	1	1	0	0	0	12	1	1	0	0	0	12	0	0	1992-330T20:48:18	1	0	PCT
E2NNPCT	01	X	JA 01632791:00	01632794:90	4	1	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-330T20:51:20	1	0	PCT
E2NNPCT	01	Y	JA 01632795:00	01632797:90	4	2	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-330T20:55:23	1	0	PCT
E2NNPCT	01	Z	JA 01632798:00	01632800:90	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-330T20:58:25	1	0	PCT
E2NNPCT	01	A	JA 01632801:00	01632803:90	4	3	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-330T21:01:27	1	0	PCT
E2NNPCT	01	B	JA 01632804:00	01632804:90	4	4	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	1	1992-330T21:04:29	1	0	PCT
E2NNPCT	01	C	JA 01632805:00	01632806:90	4	4	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-330T21:05:29	1	0	PCT
E2NNPCT	01	D	JA 01632807:00	01632807:90	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	1	0	1992-330T21:07:31	1	0	PCT
E2NNPCT	01	E	JA 01632808:00	01632809:90	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-330T21:08:31	1	0	PCT

OAPEL	EXT	PSID	SCLK1	SCLK2	M	G	C	O	PTAB A						PTAB B						E	O	UTC1	R	T	TARGET
E2NNPCT___01	F	JA	01632810:00	01632810:90	4	2	2	4	1	0	0	0	1	24	1	0	0	0	1	24	1	0	1992-330T21:10:33	1	0	PCT
E2NNPCT___01	G	JA	01632811:00	01632812:90	4	2	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-330T21:11:33	1	0	PCT
E2NNPCT___01	H	JA	01632813:00	01632815:90	4	4	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-330T21:13:35	1	0	PCT
E2NNPCT___01	I	JA	01632816:00	01632816:90	7	4	2	4	1	1	0	0	0	12	1	1	0	0	0	12	0	0	1992-330T21:16:37	1	0	PCT
E2NNPCT___01	J	JA	01632817:00	01632819:00	7	1	2	4	1	1	0	0	0	12	1	1	0	0	0	12	0	0	1992-330T21:17:38	1	0	PCT
E2HPTSTARS02	A	LA	01640051:00	01640055:90	0	1	1	4	1	0	0	0	0	12	1	0	0	0	0	12	0	0	1992-335T23:12:05	1	0	SKY
E2HPTSTARS02	B	LA	01640056:00	01640056:90	7	1	1	4	1	1	0	6	0	12	1	1	0	6	0	12	0	0	1992-335T23:17:03	1	0	SKY
E2HPTSTARS02	C	LA	01640057:04	01640158:00	7	4	1	4	1	1	0	6	0	12	1	1	0	6	0	12	0	0	1992-335T23:18:04	1	0	SKY
E2HNNSTAR_01	A	LO	01640157:89	01640245:89	7	4	1	4	1	1	0	6	0	12	1	1	0	6	0	12	0	0	1992-336T01:00:15	1	0	SKY
E2HUUSTAR_01	A	LS	01640248:89	01640252:90	7	4	1	4	1	1	0	6	0	12	1	1	0	6	0	12	0	0	1992-336T02:32:15	1	0	SKY
E2HUUSTAR_01	B	LS	01640253:00	01640416:03	0	4	1	4	1	0	0	0	0	12	1	0	0	0	0	12	0	0	1992-336T02:36:15	1	0	SKY
E2NNRCTCAL01	A	JA	01641470:89	01641474:90	0	4	1	4	1	0	0	0	0	12	1	0	0	0	0	12	0	0	1992-336T23:07:50	1	0	DARK
E2NNRCTCAL01	B	JA	01641475:00	01641477:90	0	4	2	4	1	0	0	0	0	12	1	0	0	0	0	12	0	0	1992-336T23:11:49	1	0	DARK
E2NNRCTCAL01	C	JA	01641478:00	01641478:90	4	4	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-336T23:14:51	1	0	DARK
E2NNRCTCAL01	D	JA	01641479:00	01641479:90	4	4	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	1	1992-336T23:15:52	1	0	DARK
E2NNRCTCAL01	E	JA	01641480:00	01641481:90	4	2	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-336T23:16:53	1	0	DARK
E2NNRCTCAL01	F	JA	01641482:00	01641482:90	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	1	0	1992-336T23:18:54	1	0	DARK
E2NNRCTCAL01	G	JA	01641483:00	01641484:90	4	3	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-336T23:19:55	1	0	DARK
E2NNRCTCAL01	H	JA	01641485:00	01641485:90	4	2	2	4	1	0	0	0	1	24	1	0	0	0	1	24	1	0	1992-336T23:21:56	1	0	DARK
E2NNRCTCAL01	I	JA	01641486:00	01641487:90	4	4	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-336T23:22:57	1	0	DARK
E2NNRCTCAL01	J	JA	01641488:00	01641489:90	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-336T23:24:58	1	0	DARK
E2NNRCTCAL01	K	JA	01641490:00	01641494:90	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-336T23:27:04	1	0	RCT
E2NNRCTCAL01	L	JA	01641495:00	01641496:90	4	2	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-336T23:32:03	1	0	RCT
E2NNRCTCAL01	M	JA	01641497:00	01641498:90	4	3	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-336T23:34:04	1	0	RCT
E2NNRCTCAL01	N	JA	01641499:00	01641500:90	4	4	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-336T23:36:05	1	0	RCT
E2NNRCTCAL01	O	JA	01641501:00	01641521:90	4	4	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-336T23:38:11	1	0	DARK
E2NNRCTCAL01	P	JA	01641522:00	01641525:90	4	4	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-336T23:59:21	1	0	DARK
E2NNRCTCAL01	Q	JA	01641526:00	01641526:90	4	4	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	1	1992-337T00:03:23	1	0	DARK
E2NNRCTCAL01	R	JA	01641527:00	01641528:90	4	2	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-337T00:04:24	1	0	DARK
E2NNRCTCAL01	S	JA	01641529:00	01641529:90	4	1	1	4	1	0	0	0	1	24	1	0	0	0	1	24	1	0	1992-337T00:06:25	1	0	DARK
E2NNRCTCAL01	T	JA	01641530:00	01641531:90	4	3	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-337T00:07:26	1	0	DARK
E2NNRCTCAL01	U	JA	01641532:00	01641532:90	4	2	1	4	1	0	0	0	1	24	1	0	0	0	1	24	1	0	1992-337T00:09:27	1	0	DARK
E2NNRCTCAL01	V	JA	01641533:00	01641537:90	4	2	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-337T00:10:33	1	0	RCT
E2NNRCTCAL01	W	JA	01641538:00	01641539:90	4	3	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-337T00:15:31	1	0	RCT
E2NNRCTCAL01	X	JA	01641540:00	01641541:90	4	4	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-337T00:17:33	1	0	RCT
E2NNRCTCAL01	Y	JA	01641542:00	01641559:90	4	4	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-337T00:19:39	1	0	DARK
E2NNRCTCAL01	Z	JA	01641560:00	01641561:90	4	1	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-337T00:37:46	1	0	DARK
E2NNRCTCAL01	A	JA	01641562:00	01641563:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-337T00:39:47	1	0	DARK
E2NNRCTCAL01	B	JA	01641564:00	01641565:90	3	1	1	3	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-337T00:41:49	1	0	DARK
E2NNRCTCAL01	C	JA	01641566:00	01641570:90	3	1	1	3	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-337T00:43:55	1	0	RCT
E2NNRCTCAL01	D	JA	01641571:00	01641572:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-337T00:48:53	1	0	RCT
E2NNRCTCAL01	E	JA	01641573:00	01641574:90	4	1	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-337T00:50:55	1	0	RCT

OAPEL	EXT	PSID	SCLK1	SCLK2	M	G	C	O	PTAB A						PTAB B						E	O	UTC1	R	T	TARGET
E2NNRCTCAL01	F	JA	01641575:00	01641592:90	4	1	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-337T00:53:01	1	0	DARK
E2NNRCTCAL01	G	JA	01641593:00	01641594:90	3	1	1	4	1	1	0	1	1	24	1	1	0	1	1	24	0	0	1992-337T01:11:08	1	0	DARK
E2NNRCTCAL01	H	JA	01641595:00	01641596:90	3	1	1	4	1	1	0	2	1	24	1	1	0	2	1	24	0	0	1992-337T01:13:09	1	0	DARK
E2NNRCTCAL01	I	JA	01641597:00	01641598:90	1	1	1	4	1	1	0	0	2	12	1	1	0	0	2	12	0	0	1992-337T01:15:11	1	0	DARK
E2NNRCTCAL01	J	JA	01641599:00	01641603:90	1	1	1	4	1	1	0	0	2	12	1	1	0	0	2	12	0	0	1992-337T01:17:17	1	0	RCT
E2NNRCTCAL01	K	JA	01641604:00	01641605:90	3	1	1	4	1	1	0	2	1	24	1	1	0	2	1	24	0	0	1992-337T01:22:15	1	0	RCT
E2NNRCTCAL01	L	JA	01641606:00	01641607:90	3	1	1	4	1	1	0	1	1	24	1	1	0	1	1	24	0	0	1992-337T01:24:17	1	0	RCT
E2NNRCTCAL01	M	JA	01641608:00	01641625:90	3	1	1	4	1	1	0	1	1	24	1	1	0	1	1	24	0	0	1992-337T01:26:23	1	0	DARK
E2NNRCTCAL01	N	JA	01641626:00	01641627:90	5	1	1	4	1	1	0	2	4	6	1	1	0	2	4	6	0	0	1992-337T01:44:30	1	0	DARK
E2NNRCTCAL01	O	JA	01641628:00	01641629:90	7	1	1	4	1	1	0	6	0	12	1	1	0	6	0	12	0	0	1992-337T01:46:31	1	0	DARK
E2NNRCTCAL01	P	JA	01641630:00	01641631:90	8	1	1	4	1	1	0	0	0	1	1	1	0	0	0	1	0	0	1992-337T01:48:33	1	0	DARK
E2NNRCTCAL01	Q	JA	01641632:00	01641636:90	8	1	1	4	1	1	0	0	0	1	1	1	0	0	0	1	0	0	1992-337T01:50:39	1	0	RCT
E2NNRCTCAL01	R	JA	01641637:00	01641638:90	5	1	1	4	1	1	0	2	4	6	1	1	0	2	4	6	0	0	1992-337T01:55:37	1	0	RCT
E2NNRCTCAL01	S	JA	01641639:00	01641640:90	7	1	1	4	1	1	0	6	0	12	1	1	0	6	0	12	0	0	1992-337T01:57:39	1	0	RCT
E2NNRCTCAL01	T	JA	01641641:00	01641658:90	7	1	1	4	1	1	0	6	0	12	1	1	0	6	0	12	0	0	1992-337T01:59:45	1	0	DARK
E2NNRCTCAL01	U	JA	01641659:00	01641665:00	7	2	1	4	1	1	0	6	0	12	1	1	0	6	0	12	0	0	1992-337T02:17:52	1	0	RCT MAP
E2NNLOAD__01	A	A	01641836:03	01641844:03	0	2	1	4	1	0	0	0	0	12	1	0	0	0	0	12	0	0	1992-337T05:16:57	1	0	CAL
E2NNLOAD__01	A	B	01641846:84	01641847:03	0	4	1	4	1	0	0	0	0	12	1	0	0	0	0	12	0	0	1992-337T05:27:57	1	0	CAL
E2NNBOOM__01	A	MC	01644534:00	01645986:90	7	1	2	4	1	1	0	0	0	12	1	1	0	0	0	12	0	0	1992-339T02:44:53	1	0	CAL
E2NNSAFE__01	A	C	01645987:00	01645987:90	0	1	2	4	1	0	0	0	0	12	1	0	0	0	0	12	0	0	1992-340T03:13:57	1	0	CAL
E2NNSAFE__01	B	C	01645988:00	01645988:86	0	4	1	4	1	0	0	0	0	12	1	0	0	0	0	12	0	0	1992-340T03:14:58	1	0	CAL

DETAILED OBSERVATION DESIGNS

EE9

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.

NIMS POWER ON

ACTIVITY ID: E2NNNIMSON01-
START TIME: ECA-CDS 00021372:00:0

Activity ID Orbit E2 Target N Inst N OAPEL NIMSON SeqNo 01 Multi -
Title NIMS POWER ON
Requestor R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE9 Calendar Date / / Week

Start	ECA-CDS 00021372:00:0	92-328/14:59:57	ECA-015/00:09:28
End	ECA-CDS 00021362:00:0	92-328/15:10:04	ECA-014/23:59:21
Duration	00000010:00:0	000/00:10:07	000/00:10:07

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

To power NIMS instrument on.

Design Detail

CDS 67 POINTER Design N Frames 0.00 Exc Alias

Library sequence.

Created on	02/24/92	Version	11	07/18/94
Last Changed	10/02/92	Changed By	R. LOPES	14:52:21

Galileo Activity Plan Form rev 6/93

NIMS QUIET TEST — ACTIVITY ID: E2NNQUICAL01*
1 OF 7 — START TIME: ECA-CDS 00018464:26:0

Activity ID Orbit E2 Target N Inst N OAPEL QUICAL SeqNo 01 Multi *
Title NIMS Quiet Test
Requestor J. HUI — Working Group
Bottom Label — Plot Key NIMS — Science Team NIMS

Time System UTC — Load ID EE09 — Calendar Date / / — Week

Start	ECA-CDS 00018464:26:0	92-330/16:00:00	ECA-012/23:09:25
End	ECA-CDS 00018315:85:0	92-330/18:30:00	ECA-012/20:39:25
Duration	00000148:32:0	000/02:30:00	000/02:30:00

Inertial SP N Earth Ref N Spin Stat A Coop Imag F DSP .F. RSTrack

RECORD: Format — Record Duration — Tic Duration
Multiple Records — Acq Start/Stop Cycles 0 — Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS T	EUV F	EPD F	NIM%	UVS T
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT — RTS Rate — Playback — Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 — Bits-to-Ground 0 — Playback S/S Cycles 0

Observation Objective

NIMS will listen for noise from the UVS grating motor.

Design Detail

CDS 14 POINTER Design N Frames 0.00 Exc Alias E2NWPWUMA001

NIMS is riding along with the PWS/UVS interference calibration. NIMS is in Safe Mode to listen for noise. NIMS does not require scan platform motion; all NIMS needs is to be in the correct telemetry mode.

This is part of the full NIMS Quiet test which consists of listening for noise from the UVS grating motor, MAG inboard and outboard flippers, MAG internal and external calibration coils, SSI filter wheel, DDS high voltage setting 4, PPR filter wheel and EPD stepper motor.

Created on	02/25/92	Version	19	07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE	14:49:40

Galileo Activity Plan Form — rev 6/93

NIMS FULL PHOTOMETRIC CALIBRATION ACTIVITY ID: E2NNPCT 01-
START TIME: ECA-CDS 00018306:00:0

Activity ID Orbit E2 Target N Inst N OAPEL PCT SeqNo 01 Multi -
Title NIMS Full Photometric Calibration
Requestor R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE9 Calendar Date / / Week

Start	ECA-CDS 00018306:00:0	92-330/18:40:01	ECA-012/20:29:24
End	ECA-CDS 00018089:00:0	92-330/22:19:26	ECA-012/16:49:59
Duration	00000217:00:0	000/03:39:25	000/03:39:25

Inertial SP Y Earth Ref N Spin Stat A Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

To observe the PCT with NIMS to check flatness of field, contamination on the PCT, and consistency of gain states.

Design Detail

CDS 872 POINTER Design N Frames 0.00 Exc Alias

Observe PCT in Long Spectrometer mode (gain states 1 through 4), Long Map (gain state 4), Full Map (gain state 4), Short Map (gain state 4), Fixed Map (gain state 4) and Band Edge (gain state 4).

Observe target center.
Move to dark sky to get dark level and to avoid overheating instrument.

Notes:
- the PCT must be observed in the Single Spin (ALLSPIN) state.
- the PCT heater must be off for 6 hours before calibration begins.
- pointing constraint (< 5.5 deg off Sun) can be relaxed to < 6 deg.

Created on	02/05/92	Version	13		07/18/94
Last Changed	08/21/92	Changed By	R. LOPES		14:52:25

Galileo Activity Plan Form rev 6/93

PUT NIMS IN SAFE MODE — ACTIVITY ID: E2NNSAFE 01-
START TIME: ECA-CDS 00018088:00:0

Activity ID Orbit E2 Target N Inst N OAPEL SAFE SeqNo 01 Multi -
Title Put NIMS in Safe Mode
Requestor J. HUI — Working Group
Bottom Label — Plot Key NIMS — Science Team NIMS

Time System CDS — Load ID EE09 — Calendar Date / / — Week

Start	ECA-CDS 00018088:00:0	92-330/22:20:27	ECA-012/16:48:58
End	ECA-CDS 00010909:00:0	92-335/23:19:13	ECA-007/15:50:12
Duration	00007179:00:0	005/00:58:46	005/00:58:46

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format — Record Duration — Tic Duration
Multiple Records — Acq Start/Stop Cycles 0 — Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT — RTS Rate — Playback — Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 — Bits-to-Ground 0 — Playback S/S Cycles 0

Observation Objective

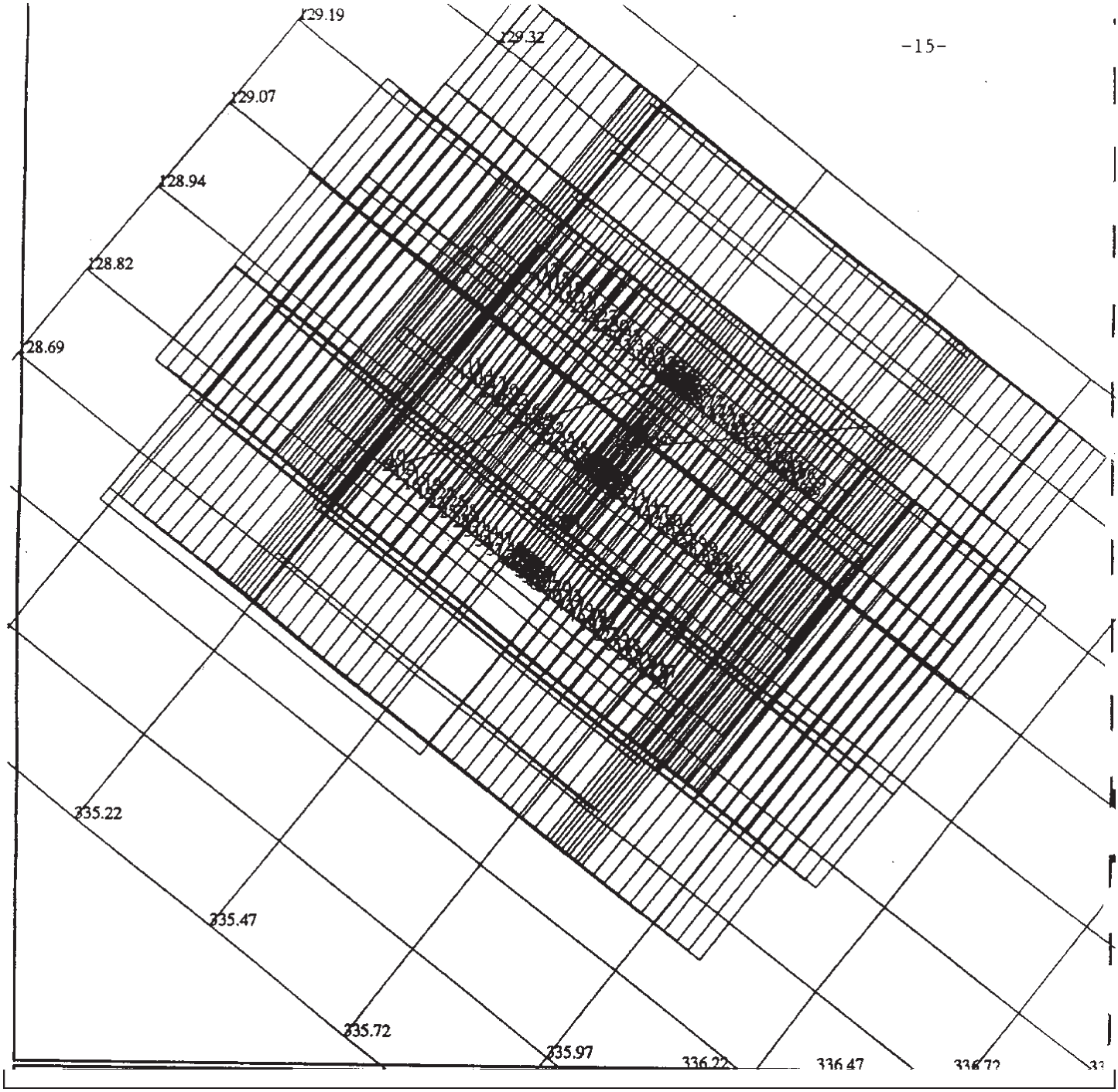
To put NIMS in SAFE mode for a long duration where NIMS is not doing anything.

Design Detail

CDS 14 POINTER Design N Frames 0.00 Exc Alias

Created on	08/28/92	Version 2	07/18/94
Last Changed	08/28/92	Changed By J. HUI	14:49:44

Galileo Activity Plan Form — rev 6/93



E2HNSTARFL01

POINTER C5.1

FILE:P.E2HPTSTARS02

CENTRAL BODY: EARTH

MINI:m.E2HPTSTARS02

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:EFT 92-343/15:09:25.000 -CDS 10910:00:0

ACTIVITY:E2HPTSTARS02 **DESCRIP:TARGET FOR TSTARS**

TSTAR AND FLOOD MODE OBSERVATION ACTIVITY ID: E2HNSTARFL01*
START TIME: ECA-CDS 00010908:00:0

Activity ID Orbit E2 Target H Inst N OAPEL STARFL SeqNo 01 Multi *
Title Tstar and Flood Mode observation
Requestor J. HUI Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE09 Calendar Date / / Week

Start	ECA-CDS 00010908:00:0	92-335/23:20:13	ECA-007/15:49:12
End	ECA-CDS 00010810:00:0	92-336/00:59:19	ECA-007/14:10:06
Duration	00000098:00:0	000/01:39:06	000/01:39:06

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS	F	SSI	T	PWS	F	EUV	F	EPD	F	NIM%	UVS T
MAG	F	AACS		PWSW		HIC	F	PPR	T	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

A joint star calibration of Sirius (RA/DEC = 100.73/ -16.66) between the remote science instruments. The flood mode will also be used to get high rate AACS date for pointing calibration. This also serves as a boresight calibration. Flood mode AACS data consists of 6 parameters of AACS data telemetered every RTI instead of the normal once per MF. The AACS flood mode data are acquired through CDS MROs (Memory ReadOuts).

Design Detail

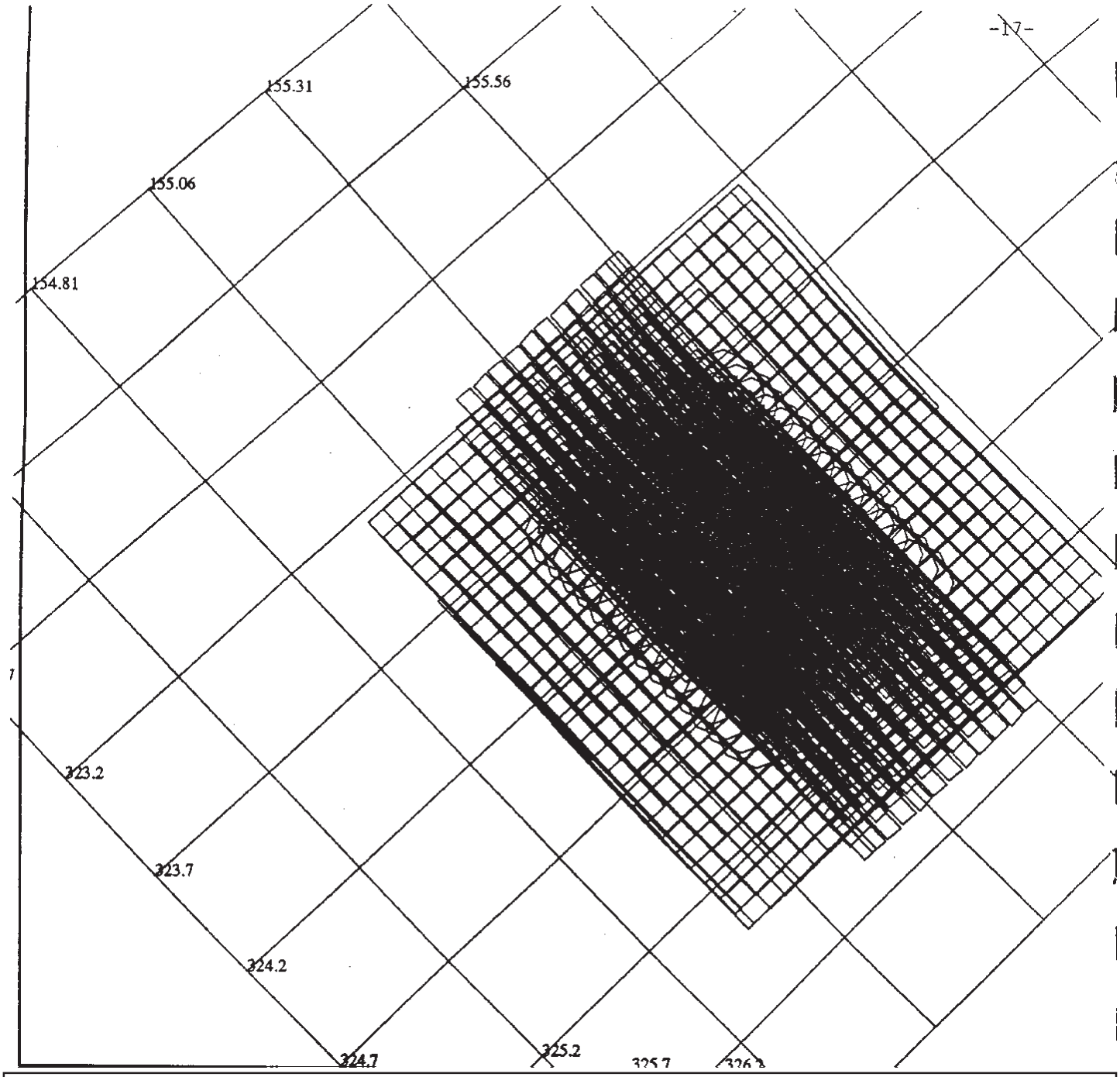
CDS 28 POINTER Design Y Frames 0.00 Exc Alias E2HPSTARS02
(L. Tamppari)

The design of the TSTARS observation is similar to the Earth 1 design, except that the pointing error will be 1.9 mrad in cone and 1.7 mrad in clock and only the length of the NIMS slit will be covered in the cross-cone direction. The mosaic will be 32 swaths long. Two swaths will be at a rate of .02 mrad/s and will cover the NIMS slit plus pointing error. Thirty swaths will be at a rate of 0.04 mrad/s and will cover the width of the PPR FOV plus .2 mrad on either side of the FOV and a total of 3.8 mrad possible pointing error in the cone direction. The first 10 swaths will step down by .3 mrad, the next 10 at .1 mrad and the last 11 at .3 mrad. The ~40 sec of flood mode data will be taken during the time of highest probability of acquiring the star in the instruments' FOV. We will have cooperative imaging in the LOW mode.

Fixed Map (XM), Gain State 4, Grating Start Pos 6, Chopper Reference

Created on	08/28/92	Version	5	07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE	14:49:48

Galileo Activity Plan Form rev 6/93



E2HNNSTAR_01

POINTER C5.1

FILE:P.E2HNNSTAR_01

CENTRAL BODY: EARTH

MINI:m.E2HNNSTAR_01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:EFT 92-343/15:09:25.000 -CDS 10805:00:0

ACTIVITY:E2HNNSTAR_01 **DESCRIP:TARGET TO BETELGEUSE ORI**

NIMS STAR CALIBRATION

ACTIVITY ID: E2HNNSTAR 01*
START TIME: ECA-CDS 00010809:00:0

Activity ID Orbit E2 Target H Inst N OAPEL NSTAR SeqNo 01 Multi *
Title NIMS Star Calibration
Requestor J. HUI Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System	CDS	Load ID EE09	Calendar Date / /	Week
Start	ECA-CDS	00010809:00:0	92-336/01:00:19	ECA-007/14:09:06
End	ECA-CDS	00010719:00:0	92-336/02:31:19	ECA-007/12:38:06
Duration		00000090:00:0	000/01:31:00	000/01:31:00

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS	F	SSI	T	PWS	F	EUV	F	EPD	F	NIM%	UVS F
MAG	F	AACS		PWSW		HIC	F	PPR	T	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

NIMS spectral and spatial calibration.

Design Detail
CDS 183 POINTER Design Y Frames 0.00 Exc Alias

NIMS will have 14 swaths covering the star Betelgeuse Ori (RA = 88.1, Dec = 7.4). Each swath will be separated by 0.7 mrad in x-cone direction. NIMS will be in Fixed Map (XM) slewing at a rate of 0.02 mrad/sec for proper registration of data. PPR will be riding along in this observation. This observation takes place within the cone pole region (cone> 150 degrees).

Fixed Map (XM)
Gain State 4
Grating Start Position 6
Chopper Mode Reference

NIMS will require cooperative images; at least one in the middle of each swath.

Created on	02/24/92	Version	16		07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE		14:49:52

Galileo Activity Plan Form rev 6/93

NIMS MEMORY READOUT

ACTIVITY ID: E2NNMRO 01-
START TIME: ECA-CDS 00010716:00:0

Activity ID Orbit E2 Target N Inst N OAPEL MRO SeqNo 01 Multi -
Title NIMS Memory Readout
Requestor R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE9 Calendar Date / / Week

Start	ECA-CDS 00010716:00:0	92-336/02:34:21	ECA-007/12:35:04
End	ECA-CDS 00010712:00:0	92-336/02:38:24	ECA-007/12:31:01
Duration	00000004:00:0	000/00:04:03	000/00:04:03

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS F	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

To verify that NIMS on-board software (3 K bytes) agrees with NIMS ground memory map.

Design Detail

CDS 34 POINTER Design N Frames 0.00 Exc Alias

This activity can be done in either Dual or Allspin mode.

Created on	02/05/92	Version	9	07/18/94
Last Changed	10/02/92	Changed By	R. LOPES	14:52:29

Galileo Activity Plan Form rev 6/93

NIMS RCT TURN ON

ACTIVITY ID: E2NNRCTON 01-
START TIME: ECA-CDS 00009877:00:0

Activity ID Orbit E2 Target N Inst N OAPEL RCTON SeqNo 01 Multi -
Title NIMS RCT Turn On
Requestor J. HUI Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE09 Calendar Date / / Week

Start	ECA-CDS 00009877:00:0	92-336/16:42:41	ECA-006/22:26:44
End	ECA-CDS 00009491:00:0	92-336/23:12:58	ECA-006/15:56:27
Duration	00000386:00:0	000/06:30:17	000/06:30:17

Inertial SP Y Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS F	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

Turn on the RCT heater for the NIMS RCT calibration.

Design Detail

CDS 20 POINTER Design N Frames 0.00 Exc Alias

FR requires turning on the NIMS RCT heater 6.5 hours before the NIMS RCT calibration. NIMS boresight must be greater than 109 degrees cone. RCT is to be turned off after the last RCT observation by NIMS.

Created on	02/24/92	Version	10		07/18/94
Last Changed	08/28/92	Changed By	J. HUI		14:49:56

Galileo Activity Plan Form rev 6/93

NIMS QUIET TEST — ACTIVITY ID: E2NNQUICAL02*
2 OF 7 — START TIME: ECA-CDS 00009595:00:0

Activity ID Orbit E2 Target N Inst N OAPEL QUICAL SeqNo 02 Multi *
Title NIMS Quiet Test
Requestor J. HUI — Working Group
Bottom Label — Plot Key NIMS — Science Team NIMS

Time System CDS — Load ID EE09 — Calendar Date / / — Week

Start	ECA-CDS 00009595:00:0	92-336/21:27:49	ECA-006/17:41:36
End	ECA-CDS 00009495:00:0	92-336/23:08:55	ECA-006/16:00:30
Duration	00000100:00:0	000/01:41:06	000/01:41:06

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format — Record Duration — Tic Duration
Multiple Records — Acq Start/Stop Cycles 0 — Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG T	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT — RTS Rate — Playback — Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 — Bits-to-Ground 0 — Playback S/S Cycles 0

Observation Objective

NIMS will listen for noise from the MAG inboard flipper and its internal calibration coils.

Design Detail

CDS 0 POINTER Design N Frames 0.00 Exc Alias E2NMINTCAL04

NIMS is riding along with the MAP interference calibration to listen for noise. NIMS will be in Safe Mode to listen for noise which does not require any scan platform motion; all NIMS needs is to be in the correct telemetry mode.
This is part of the full NIMS Quiet test which consists of listening for noise from the UVS grating motor, MAG inboard and outboard flippers, MAG internal and external calibration coils, SSI filter wheel, DDS high voltage setting 4, PPR filter wheel and EPD stepper motor.

Created on	02/25/92	Version	19	07/18/94
Last Changed	11/11/92	Changed By	J. HUI	14:50:00

Galileo Activity Plan Form — rev 6/93

NIMS RCT CALIBRATION

ACTIVITY ID: E2NNRCTCAL01-
START TIME: ECA-CDS 00009490:00:0

Activity ID Orbit E2 Target N Inst N OAPEL RCTCAL SeqNo 01 Multi -
Title NIMS RCT Calibration
Requestor J. HUI Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE09 Calendar Date / / Week

Start	ECA-CDS 00009490:00:0	92-336/23:13:59	ECA-006/15:55:26
End	ECA-CDS 00009223:00:0	92-337/03:43:57	ECA-006/11:25:28
Duration	00000267:00:0	000/04:29:58	000/04:29:58

Inertial SP Y Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

Calibrate NIMS performance in the long wavelength region and relate NIMS data (in DN) to radiance for all modes and gain states.

Design Detail

CDS 1163 POINTER Design N Frames 0.00 Exc Alias

The calibration will start after the RCT has been on for at least 6.5 hours. Dark sky (greater than 100 degrees cone) will be observed first, executing all 22 NIMS states that will be used in the NIMS RCT calibration. NIMS can only observe the RCT for a maximum of 6 Rims at a time. Within the 6 Rims, NIMS will execute 3 states, 2 Rims for each. After the 6 Rims, NIMS will slew away to a cone angle greater than 100 degrees (dark sky) and cool down for 12 Rims. This observing cycle continues until all 22 states have been calibrated. After all 22 states have been calibrated, NIMS will map the RCT from 30 degrees to 0 degrees cone for edge and heating effects. At the end NIMS will slew to a safe-unstow position at 153 degrees cone. The slew rate for going between dark sky and RCT can be done at 14 mrad/sec; the slew rate for mapping the RCT in Fixed Map will be at 0.15 mrad/sec (Nyquist rate).

Created on	02/24/92	Version	7		07/18/94
Last Changed	08/28/92	Changed By	J. HUI		14:50:04

Galileo Activity Plan Form rev 6/93

NIMS MEMORY LOAD — ACTIVITY ID: E2NNLOAD 01-
START TIME: ECA-CDS 00009131:00:0

Activity ID Orbit E2 Target N Inst N OAPEL LOAD SeqNo 01 Multi -
Title NIMS Memory Load
Requestor R. LOPES — Working Group
Bottom Label — Plot Key NIMS — Science Team NIMS

Time System CDS — Load ID EE9 — Calendar Date / / — Week

Start	ECA-CDS 00009131:00:0	92-337/05:16:58	ECA-006/09:52:27
End	ECA-CDS 00009129:00:0	92-337/05:18:59	ECA-006/09:50:26
Duration	00000002:00:0	000/00:02:01	000/00:02:01

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format — Record Duration — Tic Duration
Multiple Records — Acq Start/Stop Cycles 0 — Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT — RTS Rate — Playback — Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 — Bits-to-Ground 0 — Playback S/S Cycles 0

Observation Objective

Load software for EE11 mirror scan calibration.

Design Detail

CDS 425 POINTER Design N Frames 0.00 Exc Alias

Mirror scan calibration will require reprogramming NIMS. Largest byte cost of the whole calibration will come from this activity, loading a new program into NIMS.

Created on	02/05/92	Version	15	07/18/94
Last Changed	10/23/92	Changed By	R. LOPES	14:52:33

Galileo Activity Plan Form — rev 6/93

NIMS QUIET TEST — ACTIVITY ID: E2NNQUICAL03*
3 OF 7 — START TIME: ECA-CDS 00008446:00:0

Activity ID Orbit E2 Target N Inst N OAPEL QUICAL SeqNo 03 Multi *
Title NIMS Quiet Test
Requestor J. HUI — Working Group
Bottom Label — Plot Key NIMS — Science Team NIMS

Time System CDS — Load ID EE09 — Calendar Date / / — Week

Start	ECA-CDS 00008446:00:0	92-337/16:49:35	ECA-005/22:19:50
End	ECA-CDS 00008420:00:0	92-337/17:15:52	ECA-005/21:53:33
Duration	00000026:00:0	000/00:26:17	000/00:26:17

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format — Record Duration — Tic Duration
Multiple Records — Acq Start/Stop Cycles 0 — Start Tics 0 — Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG T	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT — RTS Rate — Playback — Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 — Bits-to-Ground 0 — Playback S/S Cycles 0

Observation Objective

NIMS will listen for noise from the MAG outboard flipper.

Design Detail

CDS 0 POINTER Design N Frames 0.00 Exc Alias E2NMINTCAL07

NIMS is riding along with the MAP interference calibration to listen for noise. NIMS will be in Safe Mode. All NIMS needs is to be in the correct telemetry mode.

This is part of the full NIMS Quiet test which consists of listening for noise from the UVS grating motor, MAG inboard and outboard flippers, MAG internal and external calibration coils, SSI filter wheel, DDS high voltage setting 4, PPR filter wheel and EPD stepper motor.

Created on	02/25/92	Version	16	07/18/94
Last Changed	11/11/92	Changed By	J. HUI	14:50:08

Galileo Activity Plan Form — rev 6/93

NIMS QUIET TEST — ACTIVITY ID: E2NNQUICAL04*
4 OF 7 — START TIME: ECA-CDS 00007189:00:0

Activity ID Orbit E2 Target N Inst N OAPEL QUICAL SeqNo 04 Multi *
Title NIMS Quiet Test
Requestor J. HUI — Working Group
Bottom Label — Plot Key NIMS — Science Team NIMS

Time System CDS — Load ID EE09 — Calendar Date / / — Week

Start	ECA-CDS 00007189:00:0	92-338/14:00:33	ECA-005/01:08:52
End	ECA-CDS 00007075:00:0	92-338/15:55:49	ECA-004/23:13:36
Duration	00000114:00:0	000/01:55:16	000/01:55:16

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format — Record Duration — Tic Duration
Multiple Records — Acq Start/Stop Cycles 0 — Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT — RTS Rate — Playback — Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 — Bits-to-Ground 0 — Playback S/S Cycles 0

Observation Objective

NIMS will listen for noise from the SSI filter wheel.

Design Detail

CDS 0 POINTER Design N Frames 0.00 Exc — Alias E2HSSTRCAL01, 02,03,04,05,06

NIMS is riding along with the SSI star calibration. NIMS will be in Safe Mode for listening to noise. All NIMS needs is to be in the correct telemetry mode.

This is part of the full NIMS Quiet test which consists of listening for noise from the UVS grating motor, MAG inboard and outboard flippers, MAG internal and external calibration coils, SSI filter wheel, DDS high voltage setting 4, PPR filter wheel and EPD stepper motor.

Created on	02/25/92	Version	18	07/18/94
Last Changed	11/11/92	Changed By	J. HUI	14:50:12

Galileo Activity Plan Form — rev 6/93

NIMS QUIET TEST — ACTIVITY ID: E2NNQUICAL05*
5 OF 7 — START TIME: ECA-CDS 00007071:00:0

Activity ID Orbit E2 Target N Inst N OAPEL QUICAL SeqNo 05 Multi *
Title NIMS Quiet Test
Requestor J. HUI — Working Group
Bottom Label — Plot Key NIMS — Science Team NIMS

Time System CDS — Load ID EE09 — Calendar Date / / — Week

Start	ECA-CDS 00007071:00:0	92-338/15:59:51	ECA-004/23:09:34
End	ECA-CDS 00006808:00:0	92-338/20:25:47	ECA-004/18:43:38
Duration	00000263:00:0	000/04:25:56	000/04:25:56

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format — Record Duration — Tic Duration
Multiple Records — Acq Start/Stop Cycles 0 — Start Tics 0 — Track

Instrument Compression:

DDS T	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT — RTS Rate — Playback — Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 — Bits-to-Ground 0 — Playback S/S Cycles 0

Observation Objective

NIMS will listen for noise from the DDS high voltage setting 4.

Design Detail

CDS 0 POINTER Design N Frames 0.00 Exc Alias E2NDNOISE04

NIMS is riding along with the DDS high voltage change calibrations. NIMS will be in Safe Mode for listening to noise. All NIMS requires is to be in the correct telemetry mode.

This is part of the full NIMS Quiet test which consists of listening for noise from the UVS grating motor, MAG inboard and outboard flippers, MAG internal and external calibration coils, SSI filter wheel, DDS high voltage setting 4, PPR filter wheel and EPD stepper motor.

Created on	02/25/92	Version	14	07/18/94
Last Changed	11/11/92	Changed By	J. HUI	14:50:16

Galileo Activity Plan Form — rev 6/93

NIMS BOOM MAP 1 ACTIVITY ID: E2NNBOOM 01*
START TIME: ECA-CDS 00006823:00:0

Activity ID Orbit E2 Target N Inst N OAPEL BOOM SeqNo 01 Multi *
Title NIMS BOOM MAP 1
Requestor C.Polanski/R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE09 Calendar Date / / Week

Start	ECA-CDS 00006823:00:0	92-338/20:10:37	ECA-004/18:58:48
End	ECA-CDS 00006284:00:0	92-339/05:15:36	ECA-004/09:53:49
Duration	00000539:00:0	000/09:04:59	000/09:04:59

Inertial SP Y Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG T	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

To observe spacecraft boom area from cone angle 120 degrees to cone angle 90 degrees.

Design Detail

CDS 0 POINTER Design N Frames 0.00 Exc Alias E2NMMAGSP_03

Ridealong with NMMAGSP03.

MODE: XM, GAIN STATE 1, GRATING START 0, CHOPPER REF

1644534 120 to 90 degrees cone @ 0.07
1645231 90 to 45 degrees cone @ 0.07
1645681 45 to 15 degrees cone @ 0.07
1645800 Cruise Mode
1645987 Safe Mode

Created on	10/23/92	Version	2	07/18/94
Last Changed	10/23/92	Changed By	R. LOPES	14:52:37

Galileo Activity Plan Form rev 6/93

NIMS BOOM MAP 2 ACTIVITY ID: E2NNBOOM 02*
START TIME: ECA-CDS 00005735:00:0

Activity ID Orbit E2 Target N Inst N OAPEL BOOM SeqNo 02 Multi *
Title NIMS BOOM MAP 2
Requestor C.Polanski/R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE09 Calendar Date / / Week

Start	ECA-CDS 00005735:00:0	92-339/14:30:42	ECA-004/00:38:43
End	ECA-CDS 00004963:00:0	92-340/03:31:17	ECA-003/11:38:08
Duration	00000772:00:0	000/13:00:35	000/13:00:35

Inertial SP Y Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG T	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

To observe spacecraft boom area from cone angle 90 degrees to cone angle 45 degrees.

Design Detail

CDS 0 POINTER Design N Frames 0.00 Exc Alias E2NMMAGSP_04

Ridealong with NMMAGSP04.

See E2NNBOOM__01 for details.

Created on	10/23/92	Version	4	07/18/94
Last Changed	10/23/92	Changed By	R. LOPES	14:52:41

Galileo Activity Plan Form rev 6/93

Contents

Chapter 6

EE11

The EE11 sequence is the last of three sequences in the second Galileo Earth/Moon Encounter (E2). The EE11 sequence takes place during Moon closest approach (MCA) and Earth closest approach (ECA). NIMS took data from -1 to +3.5 days relative to ECA. During this sequence, NIMS made various observations of the Moon and Earth as well as mini-calibrations using the RCT and PCT at the end of the sequence. A NIMS mirror calibration was attempted at the end of the sequence using new RAM code to return the physical mirror position for each mirror step in an attempt to measure any mirror offset between mirror scan directions. Note that there isn't a chapter for the second sequence, EE10, even though a large amount of data was collected, since no real observations were planned for that time period.

This chapter is divided into four parts: The NIMS Sequence Summary, The NIMS PA Summary, The NIMS Obstab, and the NIMS Detailed Observation Designs.

The NIMS Sequence Summary is a time-ordered listing of all spacecraft activity pertinent to NIMS operations for the EE11 Sequence. The information in this summary is derived from the EE11 SEF (Spacecraft Event File) with inputs from the NIMS Science Coordinators regarding the start time and duration of the NIMS observations.

The NIMS PA Summary is a time-ordered list of all Profile Activities (PAs) listed in the EE11 SEF which affect NIMS observations.

The NIMS Obstab is a time-ordered table of the NIMS observation parameters for use by downlink data processing. It is also derived from the EE11 SEF. The Calibration observations have been expanded to show details of each Calibration sequence (mode change, gain change, etc.).

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.

NIMS SEQUENCE SUMMARY

EE11

The NIMS Sequence Summary is a time-ordered listing of all spacecraft activity pertinent to NIMS operations for the EE11 Sequence. The information in this summary is derived from the EE11 SEF (Spacecraft Event File) with inputs from the NIMS Science Coordinators regarding the start time and duration of the NIMS observations.

There are 6 columns of information in this table:

DOY	-	Day of Year
Time	-	SCET Time (UTC)
PSID	-	Parameter Set ID of the SEF line
Command	-	Command name from the SEF
Parameters	-	Parameters from the above Command Line
Description	-	Description of the above Command for NIMS
GCM	-	NIMS Gain, Chopper Mode, Instrument Mode Gain = 1,2,3 or 4 Chopper Mode = R (Reference) or 6 (63Hz) Instrument Mode = 0-15
RIM	-	SCLK of the Command Line (RIM:MF)

Also, an additional line is inserted into this table at the start and stop times of each NIMS Observation (Oapel) to bracket the commands which effect each NIMS Observation

Sequence: EE11DD Created: 11/18/92 Begin: 92-342/06:58:00.000 Finish: 92-363/16:29:05.000

DOY	Time	PSID	Command	Parameters	Description	GCM	RIM
342	06:59:09.533	176PK476A6A	6TMCHG	HPW	Dnlnk OK		1,649,058:00
342	07:09:15.533	165MA4B	7SCAN	NORM,217.863998,	Check S/P Position		1,649,067:90
342	07:33:31.466	165LT4B	7SCAN	NORM,101.45,-16.	Check S/P Position		1,649,091:90
342	08:48:05.466	20H3A	40T1PR	1	PCT Heater 1 OFF (primary relay)		1,649,165:67
342	08:48:10.800	20H3B	40T1PR	2	PCT Heater 1 OFF (primary relay)		1,649,165:75
342	08:52:05.466	20H3C	40T2R	1	PCT Heater 2 OFF		1,649,169:63
342	08:52:10.800	20H3D	40T2R	2	PCT Heater 2 OFF		1,649,169:71
342	08:57:27.466	176RR6A	6TMCHG	HCM	Dnlnk OK		1,649,175:00
342	14:12:54.800	165NS4B	7SCAN	NORM,345.897999,	Check S/P Position		1,649,486:90
342	14:37:10.800	165NR4B	7SCAN	NORM,270.0,66.5,	Check S/P Position		1,649,510:90
342	15:01:26.800	165NQ4B	7SCAN	NORM,72.0,16.0,1	Check S/P Position		1,649,534:90
342	15:28:44.800	165JS4B	7SCAN	NORM,27.969,20.5	Check S/P Position		1,649,561:90
342	15:46:56.800	165JT4B	7SCAN	NORM,55.63,24.16	Check S/P Position		1,649,579:90
342	15:56:03.466	176PL6A	6TMCHG	HPW	Dnlnk OK		1,649,589:00
342	16:04:14.133	20RI4A	7SAFE	UNSTOW	Check S/P Position		1,649,597:08
342	19:54:40.133	165MT4B	7SCAN	NORM,217.362,-33	Check S/P Position		1,649,824:90
342	19:58:46.333	E2NNQUICAL06	-1138	-----START------			1,649,829:01
342	20:21:54.133	157LZ156A121A4A	37IST	1,0,0,OFF,0,1,3	Chopper ON, Sync, 63Hz (Ref) Gain State 1	16	1,649,851:84
342	20:22:54.800	157LZ156A121B4A	37IOP	5,2	Short Map, Grating Start Position =2	165	1,649,852:84
		E2NNQUICAL06		-----STOP-------		165	1,649,857:01
342	20:28:02.133	165MB4B	7SCAN	NORM,198.914999,	Check S/P Position	165	1,649,857:90
342	20:32:08.333	E2NNQUICAL07	-1105	-----START------		165	1,649,862:01
342	22:21:17.466	176RS6A	6TMCHG	HCM	Dnlnk OK	165	1,649,970:00
		E2NNQUICAL07		-----STOP-------		165	1,649,971:01
342	22:23:18.133	165ME4B	7SCAN	NORM,189.598999,	Check S/P Position	165	1,649,971:90
342	22:23:21.667	E2LNPHASE 01	-995	-----START------		165	1,649,972:01
		E2LNPHASE 01		-----STOP-------		165	1,650,011:01
342	23:07:43.466	128BK149A131A4A	37IOP	7,6	Fixed Map, Grating Start Position =6	167	1,650,015:84
342	23:08:22.133	165LV4B	7SCAN	NORM,182.785999,	Check S/P Position	167	1,650,016:51
342	23:08:44.133	128BK149A131B4A	37IST	0,0,0,OFF,0,1,1	Gain State 4	467	1,650,016:84
342	23:08:51.667	E2LN4GAIN 01	-950	-----START------		467	1,650,017:01
342	23:09:44.800	157LT156A121A4A	37IST	0,0,0,OFF,0,1,2	Gain State 3	367	1,650,017:84
342	23:10:45.466	157LT156A121B4A	37IST	0,0,0,OFF,0,1,0	Gain State 2	267	1,650,018:84
342	23:11:46.133	157LT156A121C4A	37IST	0,0,0,OFF,0,1,3	Gain State 1	167	1,650,019:84
342	23:18:50.800	157LT156A121D4A	37IOP	1,0	Full Map, Grating Start Position =0	161	1,650,026:84
		E2LN4GAIN 01		-----STOP-------		161	1,650,027:01
342	23:19:55.466	165MF4B	7SCAN	NORM,180.396999,	Check S/P Position	161	1,650,027:90
342	23:19:59.000	E2LNPHASE 02	-939	-----START------		161	1,650,028:01
342	23:23:58.800	176RT6A	6TMCHG	HCM	Dnlnk OK	161	1,650,032:00
		E2LNPHASE 02		-----STOP-------		161	1,650,086:01

DOY	Time	PSID	Command	Parameters	Description	GCM	RIM
343	00:19:34.800	165MG4B	7SCAN	NORM,168.491999,	Check S/P Position	161	1,650,086:90
343	00:19:38.333	E2LNPHASE 03	-880	-----START------		161	1,650,087:01
343	00:20:31.466	128BR149A131A4A	37IOP	5,2	Short Map, Grating Start Position =2	165	1,650,087:84
343	00:20:36.133	176RU6A	6TMCHG	HIM	Dnlnk OK	165	1,650,088:00
		E2LNPHASE 03		-----STOP-------		165	1,650,228:01
343	02:43:10.133	176PN6A	6TMCHG	HPW	Dnlnk OK	165	1,650,229:00
343	02:46:11.466	165MN4B	7SCAN	NORM,118.299,-48	Check S/P Position	165	1,650,231:90
343	02:46:15.000	E2LNPHASE 04	-735	-----START------		165	1,650,232:01
343	02:49:09.466	157LX156A121A4A	37IOP	1,0	Full Map, Grating Start Position =0	161	1,650,234:84
343	02:51:10.800	157LX156A121B4A	37IOP	7,6	Fixed Map, Grating Start Position =6	167	1,650,236:84
343	02:54:17.466	176KB6A	6TMCHG	HCM	Dnlnk OK	167	1,650,240:00
343	03:03:23.466	176PO6A	6TMCHG	HPW	Dnlnk OK	167	1,650,249:00
343	03:06:20.800	157LX156A121C4A	37MPT	1,6,6	Modify Parameter Table (affects scanning modes & au)	167	1,650,251:84
		E2LNPHASE 04		-----STOP-------		167	1,650,255:01
343	03:10:27.466	165MH4B	7SCAN	NORM,113.714,-47	Check S/P Position	167	1,650,255:90
343	03:10:31.000	E2LNPHASE 05	-711	-----START------		167	1,650,256:01
343	03:12:29.466	176RV6A	6TMCHG	NCGIM4	Dnlnk OK	167	1,650,258:00
		E2LNPHASE 05		-----STOP-------		167	1,650,274:01
343	03:29:14.133	165LW4B	7SCAN	NORM,110.768999,	Check S/P Position	167	1,650,274:51
343	03:29:36.133	128BL149A131A4A	37IOP	1,0	Full Map, Grating Start Position =0	161	1,650,274:84
343	03:29:40.800	176JO6A	6TMCHG	HCM	Dnlnk OK	161	1,650,275:00
343	03:29:43.667	E2LNHIRES 01	-692	-----START------		161	1,650,275:00
		E2LNHIRES 01		-----STOP-------		161	1,650,275:01
343	04:27:18.133	165MI4B	7SCAN	NORM,94.978999,-	Check S/P Position	161	1,650,331:90
343	04:27:21.667	E2LNPHASE 06	-635	-----START------		161	1,650,332:01
343	04:28:14.800	128BT149A131A4A	37IOP	7,6	Fixed Map, Grating Start Position =6	167	1,650,332:84
343	04:29:15.466	128BT149A131B4A	37MPT	1,6,6	Modify Parameter Table (affects scanning modes & au)	167	1,650,333:84
343	04:29:20.133	176RW6A	6TMCHG	HPWIM4	Dnlnk OK	167	1,650,334:00
		E2LNPHASE 06		-----STOP-------		167	1,650,350:01
343	04:46:04.800	165LX4B	7SCAN	NORM,92.033999,-	Check S/P Position	167	1,650,350:51
343	04:46:26.800	128BM149A131A4A	37IOP	5,2	Short Map, Grating Start Position =2	165	1,650,350:84
343	04:46:34.333	E2LNPHASE 07	-616	-----START------		165	1,650,351:01
		E2LNPHASE 07		-----STOP-------		165	1,650,381:01
343	05:17:51.466	165MJ4B	7SCAN	NORM,86.559999,-	Check S/P Position	165	1,650,381:90
343	05:17:55.000	E2LNPHASE 08	-585	-----START------		165	1,650,382:01
343	05:19:53.466	176RX6A	6TMCHG	HIM	Dnlnk OK	165	1,650,384:00
		E2LNPHASE 08		-----STOP-------		165	1,650,489:01
343	07:07:03.466	165NL4B	7SCAN	NORM,75.474999,-	Check S/P Position	165	1,650,489:90
343	07:07:07.000	E2LNPHASE 09	-477	-----START------		165	1,650,490:01
343	07:09:00.800	157MB156A121A4A	37IOP	7,6	Fixed Map, Grating Start Position =6	167	1,650,491:84
343	07:13:08.133	176PQ6A	6TMCHG	HPW	Dnlnk OK	167	1,650,496:00
343	07:34:22.133	176PR476A6A	6TMCHG	HRW	Dnlnk OK	167	1,650,517:00

DOY	Time	PSID	Command	Parameters	Description	GCM	RIM
		E2LNPHASE 09		-----STOP-------		167	1,650,520:01
343	07:58:37.466	165MK4B	7SCAN	NORM,71.216999,1	Check S/P Position	167	1,650,540:90
343	07:58:41.000	E2LNPHASE 10	-426	-----START------		167	1,650,541:01
343	07:59:34.133	128BV149A131A4A	37IOP	1,0	Full Map, Grating Start Position =0	161	1,650,541:84
343	07:59:38.800	176RY6A	6TMCHG	HCJ	Dnlnk OK	161	1,650,542:00
		E2LNPHASE 10		-----STOP-------		161	1,650,638:01
343	09:37:16.800	165LY4B	7SCAN	NORM,66.325,9.59	Check S/P Position	161	1,650,638:51
343	09:37:43.466	424RD476A6A	6TMCHG	HPJ	Dnlnk OK	161	1,650,639:00
343	09:47:36.333	E2LNPHASE 11	-328	-----START------		161	1,650,639:01
		E2LNPHASE 11		-----STOP-------		161	1,650,667:01
343	10:09:03.466	165MR4B	7SCAN	NORM,215.831999,	Check S/P Position	161	1,650,669:90
343	10:09:07.000	E2WNLOWCAL01	-297	-----START------		161	1,650,670:01
343	10:10:00.133	128CC149A131A4A	37IST	1,2,0,OFF,0,1,1	Chopper ON, Sync, Chopper (Ref) Gain State 4	4R1	1,650,670:84
343	10:11:00.800	128CC149A131B4A	37SS	0,1,1,0,11,2,6	Special Sequence (loads PTABs for modes 12 to 15 of)	4R1	1,650,671:84
343	10:12:01.466	128CC149A131C4A	37SS	1,1,1,0,11,2,6	Special Sequence (loads PTABs for modes 12 to 15 of)	4R1	1,650,672:84
343	10:13:02.133	128CC149A131D4A	37IOP	12,0	Special Sequence 1, Grating Start Position =0	4RC	1,650,673:84
		E2WNLOWCAL01		-----STOP-------		4RC	1,650,730:01
343	11:10:40.133	157ME156A121A4A	37IST	1,0,0,OFF,0,1,3	Chopper ON, Sync, 63Hz (Ref) Gain State 1	16C	1,650,730:84
343	11:10:44.133	165MC4B	7SCAN	NORM,62.724,15.1	Check S/P Position	16C	1,650,730:90
343	11:57:15.466	260PL476A6A	6TMCHG	HRW	Dnlnk OK	16C	1,650,777:00
343	12:14:26.133	165JB4B	7SCAN	NORM,313.519997,	Check S/P Position	16C	1,650,793:90
343	12:18:32.333	E2NNNOOBS1-3	-169	-----START------		16C	1,650,798:01
		E2NNNOOBS1-3		-----STOP-------		16C	1,650,799:01
343	13:43:25.400	176NA476A6A	6TMCHG	EHRMPP	NO DNLNK	16C	1,650,882:00
343	14:33:58.733	176NF6A	6TMCHG	EHRHPW	NO DNLNK	16C	1,650,932:00
343	14:54:12.066	176TM6A	6TMCHG	EHRHCM	NO DNLNK	16C	1,650,952:00
343	14:54:46.733	176TN6A	6TMCHG	EHRHPW	NO DNLNK	16C	1,650,952:52
343	14:57:14.066	176TO6A	6TMCHG	EHRHCM	NO DNLNK	16C	1,650,955:00
343	14:57:48.733	176TP6A	6TMCHG	EHRHPW	NO DNLNK	16C	1,650,955:52
343	14:59:15.400	176TQ6A	6TMCHG	EHRHCM	NO DNLNK	16C	1,650,957:00
343	14:59:50.066	176TR6A	6TMCHG	EHRHPW	NO DNLNK	16C	1,650,957:52
343	15:01:54.066	165JC4B	7SCAN	NORM,250.799999,	Check S/P Position	16C	1,650,959:56
343	15:08:53.400	165JD4B	7SCAN	NORM,248.609999,	Check S/P Position	16C	1,650,966:48
343	15:13:24.733	176TS6A	6TMCHG	EHRHCM	NO DNLNK	16C	1,650,971:00
343	15:13:59.400	176TT6A	6TMCHG	EHRHPW	NO DNLNK	16C	1,650,971:52
343	15:16:28.733	165JE4B	7SCAN	NORM,247.679998,	Check S/P Position	16C	1,650,974:03
343	15:25:25.000	E2NNNOOBS 04	11	-----START------		16C	1,650,979:01
343	15:25:32.733	176TW6A	6TMCHG	EHRHCM	NO DNLNK	16C	1,650,983:00
		E2NNNOOBS 04		-----STOP-------		16C	1,650,983:01
343	15:25:48.733	165JF4B	7SCAN	NORM,184.019999,	Check S/P Position	16C	1,650,983:24
343	15:26:07.400	176TX6A	6TMCHG	EHRHPW	NO DNLNK	16C	1,650,983:52
343	15:30:36.066	176SC6A	6TMCHG	EHRHCM	NO DNLNK	16C	1,650,988:00

DOY	Time	PSID	Command	Parameters	Description	GCM	RIM
343	15:39:34.000	E2NNNOOBS 05	26	-----START------		16C	1,650,993:01
343	15:36:40.066	176TY6A	6TMCHG	EHRLRS	NO DNLNK	16C	1,650,994:00
343	15:42:18.733	165MU4B	7SCAN	NORM,357.939999,	Check S/P Position	16C	1,650,999:53
343	15:45:41.400	128CD149A131A4A	37IOP	3,0	Long Map, Grating Start Position =0	163	1,651,002:84
343	15:45:49.000	E2ANDES 01	36	-----START------		163	1,651,003:01
		E2NNNOOBS 05		-----STOP-------		163	1,651,003:01
343	15:45:54.733	176SI6A	6TMCHG	EHRIM4	NO DNLNK	163	1,651,003:13
		E2ANDES 01		-----STOP-------		163	1,651,013:01
343	15:56:01.400	176SG6A	6TMCHG	EHRHCM	NO DNLNK	163	1,651,013:13
343	15:56:42.066	165NJ4B	7SCAN	NORM,171.289999,	Check S/P Position	163	1,651,013:74
343	15:59:29.400	176UB6A	6TMCHG	EHRLRS	NO DNLNK	163	1,651,016:52
343	16:03:50.000	E2NNNOOBS 06	50	-----START------		163	1,651,017:01
		E2NNNOOBS 06		-----STOP-------		163	1,651,021:01
343	16:04:58.733	176SJ476A6A	6TMCHG	HCM	Dnlnk OK	163	1,651,022:00
343	16:05:32.066	165NW4B	7SCAN	NORM,9.285,20.01	Check S/P Position	163	1,651,022:50
343	16:08:56.733	128CW149A131A4A	37IOP	7,0	Fixed Map, Grating Start Position =0	167	1,651,025:84
343	16:09:04.333	E2HAWAII/A	59	-----START------		167	1,651,026:01
343	16:20:44.733	165NV4B	7SCAN	NORM,165.379999,	Check S/P Position	167	1,651,037:54
		E2HAWAII/A		-----STOP-------		167	1,651,038:01
343	17:01:35.400	165ML4B	7SCAN	NORM,49.064,21.4	Check S/P Position	167	1,651,077:90
343	17:05:38.733	176SL6A	6TMCHG	HCM	Dnlnk OK	167	1,651,082:00
343	17:25:51.400	165MO4B	7SCAN	NORM,357.653999,	Check S/P Position	167	1,651,101:90
343	17:25:55.000	E2WNANTAR 01	135	-----START------		167	1,651,102:01
343	17:26:48.066	128BZ149A131A4A	37IOP	3,0	Long Map, Grating Start Position =0	163	1,651,102:84
		E2WNANTAR 01		-----STOP-------		163	1,651,146:01
343	18:11:22.066	260PN476A6A	6TMCHG	HIMPW8	Dnlnk OK	163	1,651,147:00
343	18:11:27.400	20JM4A	7SAFE	UNSTOW	Check S/P Position	163	1,651,147:08
343	18:11:48.066	260PO476A6A	6TMCHG	HPWHPW	Dnlnk OK	163	1,651,147:39
343	18:26:32.066	260PN476A6A	6TMCHG	HIMPW8	Dnlnk OK	163	1,651,162:00
343	18:26:58.066	260PO476A6A	6TMCHG	HPWHPW	Dnlnk OK	163	1,651,162:39
343	18:41:42.066	260PN476A6A	6TMCHG	HIMPW8	Dnlnk OK	163	1,651,177:00
343	18:42:08.066	260PO476A6A	6TMCHG	HPWHPW	Dnlnk OK	163	1,651,177:39
343	18:56:52.066	260PN476A6A	6TMCHG	HIMPW8	Dnlnk OK	163	1,651,192:00
343	18:57:18.066	260PO476A6A	6TMCHG	HPWHPW	Dnlnk OK	163	1,651,192:39
343	19:12:02.066	260PN476A6A	6TMCHG	HIMPW8	Dnlnk OK	163	1,651,207:00
343	19:12:28.066	260PO476A6A	6TMCHG	HPWHPW	Dnlnk OK	163	1,651,207:39
343	19:27:12.066	260PN476A6A	6TMCHG	HIMPW8	Dnlnk OK	163	1,651,222:00
343	19:27:38.066	260PO476A6A	6TMCHG	HPWHPW	Dnlnk OK	163	1,651,222:39
343	19:42:22.066	260PN476A6A	6TMCHG	HIMPW8	Dnlnk OK	163	1,651,237:00
343	19:42:48.066	260PO476A6A	6TMCHG	HPWHPW	Dnlnk OK	163	1,651,237:39
343	19:57:32.066	260PN476A6A	6TMCHG	HIMPW8	Dnlnk OK	163	1,651,252:00
343	19:57:58.066	260PO476A6A	6TMCHG	HPWHPW	Dnlnk OK	163	1,651,252:39

DOY	Time	PSID	Command	Parameters	Description	GCM	RIM
343	20:12:42.066	260PN476A6A	6TMCHG	HIMPW8	Dnlnk OK	163	1,651,267:00
343	20:13:08.066	260PO476A6A	6TMCHG	HPWHPW	Dnlnk OK	163	1,651,267:39
343	20:28:52.066	165NF4B	7SCAN	NORM,357.148998,	Check S/P Position	163	1,651,282:90
343	20:29:48.733	128CO149A131A4A	37IOP	7,0	Fixed Map, Grating Start Position =0	167	1,651,283:84
343	20:29:53.400	176SM6A	6TMCHG	HIM	Dnlnk OK	167	1,651,284:00
343	20:29:56.333	E2LIGHTNING	317	-----START------		167	1,651,284:01
		E2LIGHTNING		-----STOP-------		167	1,651,299:01
343	20:49:40.066	165MP4B	7SCAN	NORM,355.803997,	Check S/P Position	167	1,651,303:51
343	20:50:02.066	128CA149A131A4A	37IOP	3,0	Long Map, Grating Start Position =0	163	1,651,303:84
343	20:50:06.733	176JI6A	6TMCHG	HCM	Dnlnk OK	163	1,651,304:00
343	20:50:09.667	E2WNAUSIE 01	337	-----START------		163	1,651,304:01
		E2WNAUSIE 01		-----STOP-------		163	1,651,364:01
343	21:51:46.733	165MM4B	7SCAN	NORM,35.729,18.9	Check S/P Position	163	1,651,364:90
343	21:55:50.066	176SN6A	6TMCHG	HIM	Dnlnk OK	163	1,651,369:00
343	22:31:43.400	165NU4B	7SCAN	NORM,355.238998,	Check S/P Position	163	1,651,404:45
343	22:34:15.400	176YZ6A	6TMCHG	HCM	Dnlnk OK	163	1,651,407:00
343	22:34:18.333	E2WNINDO 01	440	-----START------		163	1,651,407:01
343	22:54:28.733	424EA476A6A	6TMCHG	HPJ	Dnlnk OK	163	1,651,427:00
		E2WNINDO 01		-----STOP-------		163	1,651,427:01
343	23:06:36.066	165MQ4B	7SCAN	NORM,356.067997,	Check S/P Position	163	1,651,438:90
343	23:10:42.333	E2WNGMOS 01	476	-----START------		163	1,651,443:01
344	01:44:20.733	176YK476A6A	6TMCHG	HCM	Dnlnk OK	163	1,651,595:00
		E2WNGMOS 01		-----STOP-------		163	1,651,738:01
344	04:09:56.066	165MS4B	7SCAN	NORM,353.443996,	Check S/P Position	163	1,651,738:90
344	05:20:24.733	484A4B	7SAFE	UNSTOW	Check S/P Position	163	1,651,808:63
344	06:11:16.066	165NX4B	7SCAN	NORM,354.170998,	Check S/P Position	163	1,651,858:90
344	06:15:19.400	176SO6A	6TMCHG	HCM	Dnlnk OK	163	1,651,863:00
344	06:15:22.333	E2GMOS 02	896	-----START------		163	1,651,863:01
		E2GMOS 02		-----STOP-------		163	1,652,157:01
344	11:13:09.400	165MX4B	7SCAN	NORM,354.285999,	Check S/P Position	163	1,652,157:51
344	11:17:31.000	E2WGOPEX 01	1191	-----START------		163	1,652,158:01
		E2WGOPEX 01		-----STOP-------		163	1,652,336:01
344	14:16:10.066	165NG4B	7SCAN	NORM,353.924999,	Check S/P Position	163	1,652,338:51
344	14:16:39.667	E2WNGMOS 03	1372	-----START------		163	1,652,339:01
344	18:10:05.333	20K3A	40T1P	1	PCT Heater 1 ON (primary relay)	163	1,652,569:83
344	18:10:10.666	20K3B	40T1P	2	PCT Heater 1 ON (primary relay)	163	1,652,570:00
		E2WNGMOS 03		-----STOP-------		163	1,652,570:01
344	18:11:10.666	165MD4B	7SCAN	NORM,13.878,12.5	Check S/P Position	163	1,652,570:90
344	18:13:12.666	176SP6A	6TMCHG	HPWAI8	Dnlnk OK	163	1,652,573:00
344	18:14:05.333	20K3C	40T2	1	PCT Heater 2 ON	163	1,652,573:79
344	18:14:10.666	20K3D	40T2	2	PCT Heater 2 ON	163	1,652,573:87
344	18:14:47.333	165NT4B	7SCAN	NORM,13.861,12.5	Check S/P Position	163	1,652,574:51

DOY	Time	PSID	Command	Parameters	Description	GCM	RIM
344	18:15:14.000	176SQ6A	6TMCHG	HIM	Dnlnk OK	163	1,652,575:00
344	20:17:34.666	424RE476A6A	6TMCHG	HPB	NO DNLNK	163	1,652,696:00
344	20:22:38.000	176SR476A6A	6TMCHG	XCM	Dnlnk OK	163	1,652,701:00
344	20:26:40.000	165NH4B	7SCAN	NORM,353.912998,	Check S/P Position	163	1,652,704:90
344	20:28:45.000	E2GMOS 04	1740	-----START------		163	1,652,707:01
		E2GMOS 04		-----STOP-------		163	1,653,574:01
345	11:05:54.000	165MY4B	7SCAN	NORM,353.855,5.6	Check S/P Position	163	1,653,574:51
345	11:10:15.000	E2WGOPEX 02	2608	-----START------		163	1,653,575:01
		E2WGOPEX 02		-----STOP-------		163	1,653,695:01
345	13:08:14.666	165NI4B	7SCAN	NORM,353.862999,	Check S/P Position	163	1,653,695:51
345	15:02:56.666	176YW476A6A	6TMCHG	MPW	Dnlnk OK	163	1,653,809:00
345	15:14:00.000	490B412A4C	7MODE	INT	Dual-Spin Mode	163	1,653,819:85
345	15:16:57.333	490B476A6A	6TMCHG	EHRLRS	NO DNLNK	163	1,653,822:78
345	15:19:00.000	490B412A4E	7SAFE	UNSTOW	Check S/P Position	163	1,653,824:80
345	15:23:14.000	490B412A4G	7TURN	2,MVR	ALERT -- Thruster firing	163	1,653,829:06
345	17:10:20.666	176A476A6A	6TMCHG	XCM	Dnlnk OK	163	1,653,935:00
345	17:18:25.333	165A4B	7SCAN	NORM,353.843998,	Check S/P Position	163	1,653,942:90
346	00:50:23.933	176YC476A6A	6TMCHG	LRSLRS	NO DNLNK	163	1,654,390:00
346	01:17:41.933	176UF476A6A	6TMCHG	LRSHCM	NO DNLNK	163	1,654,417:00
346	01:25:20.600	165NY4B	7SCAN	NORM,353.846996,	Check S/P Position	163	1,654,424:51
346	02:03:05.266	20L3A	40T1PR	1	PCT Heater 1 OFF (primary relay)	163	1,654,461:81
346	02:03:10.600	20L3B	40T1PR	2	PCT Heater 1 OFF (primary relay)	163	1,654,461:89
346	02:07:05.266	20L3C	40T2R	1	PCT Heater 2 OFF	163	1,654,465:77
346	02:07:10.600	20L3D	40T2R	2	PCT Heater 2 OFF	163	1,654,465:85
346	06:14:57.933	424RM476A6A	6TMCHG	MPB	NO DNLNK	163	1,654,711:00
346	08:28:25.933	176JK6A	6TMCHG	MPW	Dnlnk OK	163	1,654,843:00
346	08:28:25.933	192JC4A	7CONE	17.0,54.88	Check S/P Position	163	1,654,843:00
346	08:33:24.600	157JF156A121A4A	37IOP	4,0	Long Spectrometer, Grating Start Position =0	164	1,654,847:84
346	08:34:25.266	157JF156A121B4A	37IST	1,0,0,OFF,0,1,0	Chopper ON, Sync, 63Hz (Ref) Gain State 2	264	1,654,848:84
346	08:37:35.000	E2NNPCTMIN01	3885	-----START------		264	1,654,852:01
346	08:41:29.933	157JF156A121C4A	37IST	0,0,0,OFF,0,1,1	Gain State 4	464	1,654,855:84
346	08:44:31.933	157JF156A121D4A	37IST	0,0,0,OFF,0,1,2	Gain State 3	364	1,654,858:84
346	08:47:33.933	157JF156A121E4A	37IST	0,0,0,OFF,0,1,3	Gain State 1	164	1,654,861:84
		E2NNPCTMIN01		-----STOP-------		164	1,654,942:01
346	10:54:01.933	176SS476A6A	6TMCHG	EHRHCM	NO DNLNK	164	1,654,987:00
346	11:06:09.266	165MZ4B	7SCAN	NORM,354.306,4.2	Check S/P Position	164	1,654,998:90
346	11:10:15.667	E2NNRCTON 01	4036	-----START------		164	1,655,003:01
346	11:11:13.266	185JB10A3A	40HRP	1	RCT Heater ON (primary relay)	164	1,655,004:00
346	12:09:57.933	20RJ4A	7SAFE	UNSTOW	Check S/P Position	164	1,655,062:09
346	15:08:49.933	424RF476A6A	6TMCHG	MPB	NO DNLNK	164	1,655,239:00
346	17:35:25.933	165JG4B	7SCAN	NORM,60.0,81.0,1	Check S/P Position	164	1,655,383:90
346	17:39:29.266	176JL6A	6TMCHG	MPW	Dnlnk OK	164	1,655,388:00

DOY	Time	PSID	Command	Parameters	Description	GCM	RIM
		E2NNRCTON 01		-----STOP-------		164	1,655,389:01
346	17:41:33.667	E2NNRCTMIN01	4423	-----START------		164	1,655,390:01
346	17:42:26.600	157JG156A121A4A	37IOP	4,0	Long Spectrometer, Grating Start Position =0	164	1,655,390:84
346	17:43:27.266	157JG156A121B4A	37IST	0,0,1,OFF,1,1,1	OPCAL Gain State 4	464	1,655,391:84
346	17:44:27.933	157JG156A121C4A	37IST	0,0,0,OFF,0,1,0	Gain State 2	264	1,655,392:84
346	17:45:28.600	157JG156A121D4A	37IST	0,0,1,ON,0,1,3	ECAL Gain State 1	164	1,655,393:84
346	17:46:29.266	157JG156A121E4A	37IST	0,0,0,OFF,0,1,1	Gain State 4	464	1,655,394:84
346	17:47:29.933	157JG156A121F4A	37IST	0,0,0,OFF,0,1,3	Gain State 1	164	1,655,395:84
346	17:48:30.600	157JG156A121G4A	37IST	0,0,0,OFF,0,1,2	Gain State 3	364	1,655,396:84
346	17:49:31.266	157JG156A121H4A	37IST	1,2,0,OFF,0,1,0	Chopper ON, Sync, Chopper (Ref) Gain State 2	2R4	1,655,397:84
346	17:52:33.266	157JG156A121I4A	37IST	0,0,0,OFF,0,1,1	Gain State 4	4R4	1,655,400:84
346	17:53:33.933	157JG156A121J4A	37IST	0,0,0,OFF,0,1,3	Gain State 1	1R4	1,655,401:84
346	17:54:34.600	157JG156A121K4A	37IST	0,0,0,OFF,0,1,2	Gain State 3	3R4	1,655,402:84
346	17:55:39.933	192JD4A	7CONE	17.0,0.0	Check S/P Position	3R4	1,655,404:00
346	17:59:37.933	157JG156A121L4A	37IST	0,0,0,OFF,0,1,3	Gain State 1	1R4	1,655,407:84
346	18:00:38.600	157JG156A121M4A	37IST	0,0,0,OFF,0,1,1	Gain State 4	4R4	1,655,408:84
346	18:01:39.266	157JG156A121N4A	37IST	0,0,0,OFF,0,1,0	Gain State 2	2R4	1,655,409:84
346	18:02:39.933	157JG156A121O4A	37IST	1,0,0,OFF,0,1,2	Chopper ON, Sync, 63Hz (Ref) Gain State 3	364	1,655,410:84
346	18:05:41.933	157JG156A121P4A	37IST	0,0,0,OFF,0,1,3	Gain State 1	164	1,655,413:84
346	18:06:42.600	157JG156A121Q4A	37IST	0,0,0,OFF,0,1,1	Gain State 4	464	1,655,414:84
346	18:07:43.266	157JG156A121R4A	37IST	0,0,0,OFF,0,1,0	Gain State 2	264	1,655,415:84
346	18:08:48.600	192JD4B	7CONE	17.0,153.0	Check S/P Position	264	1,655,417:00
346	18:11:50.600	185JB10B3A	40HRPR	1	RCT Heater OFF (primary relay)	264	1,655,420:00
		E2NNRCTMIN01		-----STOP-------		264	1,655,420:01
346	18:15:52.600	165LR4B	7SCAN	NORM,4.456,12.79	Check S/P Position	264	1,655,423:90
346	18:15:56.333	E2NNMIRCAL01	4457	-----START------		264	1,655,424:01
	18:15:59.266	20JC5A	37PL	CMD,37PL,20JC5A,	Program Load (halts microprocessor & unwrite-protec)	264	1,655,424:09
346	18:17:57.933	20JC5B	37MRL		Memory Realocate (software operates from RAM)	264	1,655,426:05
346	18:18:58.600	20JC5C	37IRT		Instrument Reset (goes into POR state)	260	1,655,427:05
	18:20:59.933	20JC5E	37MN	CMD,37MN,20JC5E,	Memory Normal (software operates from ROM)	260	1,655,429:05
346	18:22:53.266	157LU156A121A4A	37IOP	7,0	Fixed Map, Grating Start Position =0	267	1,655,430:84
346	18:29:57.933	157LU156A121B4A	37IOP	3,0	Long Map, Grating Start Position =0	263	1,655,437:84
346	18:34:08.333	E2NNNIMOFF01	4490	-----START------		263	1,655,442:01
346	18:37:02.600	157LU156A121C4A	37IST	1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)	2R3	1,655,444:84
		E2NNNIMOFF01		-----STOP-------		2R3	1,655,450:01
346	18:47:17.266	20JC5F	37IRT		Instrument Reset (goes into POR state)	260	1,655,455:05
346	18:48:14.600	176KA476A6A	6TMCHG	LRSHCM	NO DNLNK	260	1,655,456:00
		E2NNMIRCAL01		-----STOP-------		260	1,655,456:01
346	19:03:59.933	20YU4A	37IOP	0,0	Safe, Grating Start Position =0	260	1,655,471:53
	19:05:00.600	20YU3A	37AR	CMD,37AR,20YU3A,	NIMS Power OFF		1,655,472:53
	19:05:20.600	20YU3B	37H	CMD,37H,20YU3B,,	Replacement Heaters ON		1,655,472:83
347	10:10:22.533	176ST6A	6TMCHG	LRSHCM	NO DNLNK		1,656,368:00

DOY	Time	PSID	Command	Parameters	Description	GCM	RIM
347	10:21:29.200	165NA4B	7SCAN	NORM,354.255997,	Check S/P Position		1,656,378:90
347	11:25:11.866	424RG476A6A	6TMCHG	BPB	NO DNLNK		1,656,442:00
347	11:32:17.200	276KA4A	7CONE	17.45,90.0	Check S/P Position		1,656,449:01
347	13:25:05.200	20I3A	40T1P	1	PCT Heater 1 ON (primary relay)		1,656,560:52
347	13:25:10.533	20I3B	40T1P	2	PCT Heater 1 ON (primary relay)		1,656,560:60
347	13:29:05.200	20I3C	40T2	1	PCT Heater 2 ON		1,656,564:48
347	13:29:10.533	20I3D	40T2	2	PCT Heater 2 ON		1,656,564:56
347	13:31:35.200	176KC476A6A	6TMCHG	LRSLRS	NO DNLNK		1,656,567:00
348	10:59:44.466	176YM476A6A	6TMCHG	EHR	NO DNLNK		1,657,841:00
348	15:20:36.466	176SU476A6A	6TMCHG	LRSHCM	NO DNLNK		1,658,099:00
349	07:00:56.466	192LA4A	7CONE	17.45,111.0	Check S/P Position		1,659,029:00
349	07:02:57.133	165LZ4B	7SCAN	NORM,356.445,6.0	Check S/P Position		1,659,030:90
349	10:38:19.133	165NB4B	7SCAN	NORM,354.093998,	Check S/P Position		1,659,243:90
349	11:40:06.466	20RK4A	7SAFE	UNSTOW	Check S/P Position		1,659,305:09
349	12:29:33.133	424RH476A6A	6TMCHG	LPB	NO DNLNK		1,659,354:00
349	14:21:47.066	176TA6A	6TMCHG	LRSLRS	NO DNLNK		1,659,465:00
349	23:59:07.733	176YD476A6A	6TMCHG	EHRLRS	NO DNLNK		1,660,036:00
350	03:29:26.400	176YE476A6A	6TMCHG	LRSLRS	NO DNLNK		1,660,244:00
350	08:59:03.733	176YF476A6A	6TMCHG	EHRHCM	NO DNLNK		1,660,570:00
350	10:36:07.066	165NC4B	7SCAN	NORM,354.085999,	Check S/P Position		1,660,665:90
350	11:29:49.066	20RL4A	7SAFE	UNSTOW	Check S/P Position		1,660,719:09
350	12:14:12.400	176C476A6A	6TMCHG	LRSLRS	NO DNLNK		1,660,763:00
350	12:30:23.066	424RI476A6A	6TMCHG	LPB	NO DNLNK		1,660,779:00
350	14:07:27.066	176YH476A6A	6TMCHG	EHRLRS	NO DNLNK		1,660,875:00
350	16:19:54.400	176YO476A6A	6TMCHG	LRS	NO DNLNK		1,661,006:00
350	22:59:17.666	176YN476A6A	6TMCHG	EHR	NO DNLNK		1,661,401:00
351	07:34:59.666	490C412A4C	7MODE	INT	Dual-Spin Mode		1,661,911:03
351	07:37:59.666	490C476A6A	6TMCHG	EHRLRS	NO DNLNK		1,661,914:00
351	07:39:59.666	490C412A4E	7SAFE	UNSTOW	Check S/P Position		1,661,915:89
351	07:44:13.666	490C412A4G	7TURN	2,MVR	ALERT -- Thruster firing		1,661,920:15
351	08:22:29.000	176SW476A6A	6TMCHG	LRSHCM	NO DNLNK		1,661,958:00
351	10:35:56.333	165ND4B	7SCAN	NORM,354.139,4.1	Check S/P Position		1,662,089:90
351	11:29:38.333	20RM4A	7SAFE	UNSTOW	Check S/P Position		1,662,143:09
351	11:59:52.333	424RJ476A6A	6TMCHG	LPB	NO DNLNK		1,662,173:00
351	13:18:44.333	176TB6A	6TMCHG	LRSLRS	NO DNLNK		1,662,251:00
351	15:05:54.333	165MW4B	7SCAN	NORM,353.925999,	Check S/P Position		1,662,356:90
351	15:09:57.666	176SX6A	6TMCHG	LRSHCM	NO DNLNK		1,662,361:00
352	05:15:03.600	20AG4A	7MODE	CRU	Dual-Spin Mode		1,663,196:74
352	05:15:14.266	190RA4B	7MODE	CRU	Dual-Spin Mode		1,663,196:90
352	05:15:14.933	190RA4C	7SAFE	UNSTOW	Check S/P Position		1,663,197:00
352	05:19:11.600	190RA4D	7MODE	SPNL	All-Spin Mode		1,663,200:82
352	05:27:16.933	190RA4E	7SAFE	UNSTOW	Check S/P Position		1,663,208:82

DOY	Time	PSID	Command	Parameters	Description	GCM	RIM
352	05:46:35.600	192RA4A	7CONE	17.0,60.36	Check S/P Position		1,663,228:00
352	05:46:36.266	192RA4B	7CLK	17.0,243.619999	Check S/P Position		1,663,228:01
352	05:50:38.266	176SY6A	6TMCHG	NCGHIM	Dnlnk OK		1,663,232:00
352	06:06:48.933	191RB4A	7SAFE	UNSTOW	Check S/P Position		1,663,248:00
352	06:10:51.600	191RB4B	7MODE	CRU	Dual-Spin Mode		1,663,252:00
352	06:20:58.266	424RK476A6A	6TMCHG	LPB	NO DNLNK		1,663,262:00
352	21:53:12.933	176YP476A6A	6TMCHG	EHR	NO DNLNK		1,664,184:00
353	08:50:05.533	20J3A	37F2P	1	Shield Flash Heater ON (primary relay)		1,664,833:60
353	08:50:10.866	20J3B	37F2P	2	Shield Flash Heater ON (primary relay)		1,664,833:68
353	09:09:59.533	498B4B	7SAFE	UNSTOW	Check S/P Position		1,664,853:31
353	09:13:58.866	498B4D	7MODE	SPNL	All-Spin Mode		1,664,857:26
353	09:34:19.533	498B4H	7MODE	SPNH	All-Spin Mode		1,664,877:37
353	09:46:39.533	498B4I	7MODE	SPNL	All-Spin Mode		1,664,889:55
353	09:58:59.533	498B4K	7MODE	SPNH	All-Spin Mode		1,664,901:73
353	10:11:19.533	498B4L	7MODE	SPNL	All-Spin Mode		1,664,914:00
353	10:23:39.533	498B4M	7MODE	CRU	Dual-Spin Mode		1,664,926:18
353	10:51:39.533	498B4O	7MODE	INT	Dual-Spin Mode		1,664,953:81
353	10:58:40.866	498B4Q	7BURN	LAT,179.745998,-	ALERT -- Thruster firing		1,664,960:76
353	11:12:05.533	498B4R	7BURN	LAT,0.0,90.0,1,0	ALERT -- Thruster firing		1,664,974:09
353	11:25:30.866	498B4T	7BURN	PULZ,0.0,90.0,1,	ALERT -- Thruster firing		1,664,987:34
353	11:38:50.866	498B4V	7BURN	PULZ,0.0,90.0,1,	ALERT -- Thruster firing		1,665,000:51
353	12:45:03.533	20Z4A	7MODE	CRU	Dual-Spin Mode		1,665,066:04
353	12:59:10.200	176YX476A6A	6TMCHG	LRSLRS	NO DNLNK		1,665,080:00
353	14:32:11.533	176YY476A6A	6TMCHG	EHRLRS	NO DNLNK		1,665,172:00
353	15:07:34.866	176D476A6A	6TMCHG	LRSLRS	NO DNLNK		1,665,207:00
353	15:19:51.533	424ND476A6A	6TMCHG	LPB	NO DNLNK		1,665,219:13
354	00:11:33.533	176YQ476A6A	6TMCHG	EHRLRS	NO DNLNK		1,665,745:00
354	02:26:02.200	176E476A6A	6TMCHG	LRSLRS	NO DNLNK		1,665,878:00
354	02:39:54.200	424NG476A6A	6TMCHG	LPB	NO DNLNK		1,665,891:65
354	04:41:31.533	176YV476A6A	6TMCHG	EHRLRS	NO DNLNK		1,666,012:00
357	00:29:56.666	476A6A	6TMCHG	EHRLRS	NO DNLNK		1,670,035:65
357	14:32:55.333	476B6A	6TMCHG	EHRLRS	NO DNLNK		1,670,869:39
358	00:29:54.666	476C6A	6TMCHG	EHRLRS	NO DNLNK		1,671,459:78
358	10:59:58.600	476D6A	6TMCHG	EHRLRS	NO DNLNK		1,672,083:00

PA Summary Table

This summary is a listing of the PAs (Profile Activities) used by NIMS during EE11.

INPUT FILE: EE11_921118.SEF

OAPEL	PA	PSID	SCLK1	SCLK2	SCET1	TARGET
E2LPLUNFAZ01	TARGET	165MA	01649067:89	01649072:00	92-342/07:09:14	MOON
E2LPLUNFAZ01	CSMOS	117AN	01649071:77	01649086:61	92-342/07:13:09	MOON
E2LPLUNFAZ01	CMDRS	157MD	01649072:00	01649074:00	92-342/07:13:18	MOON
E2HUUSTAR_02	TARGET	165LT	01649091:89	01649096:00	92-342/07:33:30	SKY
E2HUUSTAR_02	INITRS	128BI	01649094:89	01649096:04	92-342/07:36:32	SKY
E2HUUSTAR_02	CSMOS	117AH	01649095:77	01649423:71	92-342/07:37:25	SKY
E2HUUSTAR_02	SSI	147CK	01649174:76	01649175:44	92-342/08:57:17	SKY
E2HUUSTAR_02	CMDRS	157LR	01649258:00	01649260:00	92-342/10:21:22	SKY
E2HUUSTAR_02	CMDRS	157LS	01649426:00	01649428:00	92-342/13:11:14	SKY
E2WPNITLIT01	TARGET	165MT	01649824:89	01649829:00	92-342/19:54:39	EARTH
E2WPNITLIT01	CSMOS	117AV	01649828:77	01649851:62	92-342/19:58:34	EARTH
E2WPNITLIT01	CMDRS	157LZ	01649851:00	01649854:00	92-342/20:20:58	EARTH
E2LPLUNFAZ02	TARGET	165MB	01649857:89	01649862:00	92-342/20:28:01	MOON
E2LPLUNFAZ02	CSMOS	117AO	01649861:77	01649963:22	92-342/20:31:56	MOON
E2LPLUNFAZ02	CMDRS	157LV	01649862:00	01649968:00	92-342/20:32:05	MOON
E2LSLUNMOS01	SCITLM	176RS	01649970:00	01649970:13	92-342/22:21:17	MOON
E2LSLUNMOS01	TARGET	165ME	01649971:89	01649974:01	92-342/22:23:17	MOON
E2LSLUNMOS01	INITRS	128BP	01649972:89	01649974:04	92-342/22:24:18	MOON
E2LSLUNMOS01	SSI	147CQ	01649973:76	01650014:89	92-342/22:25:10	MOON
E2LSLUNMOS01	SMOS	118AB	01649973:82	01650014:87	92-342/22:25:14	MOON
E2LN4GAIN_01	INITRS	128BK	01650015:84	01650017:04	92-342/23:07:43	MOON
E2LN4GAIN_01	TARGET	165LV	01650016:50	01650027:00	92-342/23:08:21	MOON
E2LN4GAIN_01	SSI	147EM	01650016:76	01650022:89	92-342/23:08:38	MOON
E2LN4GAIN_01	CMDRS	157LT	01650017:00	01650028:00	92-342/23:08:48	MOON
E2LN4GAIN_01	CSMOS	117AI	01650020:77	01650026:67	92-342/23:12:42	MOON
E2LSLUNMOS02	TARGET	165MF	01650027:89	01650083:00	92-342/23:19:54	MOON
E2LSLUNMOS02	SSI	147CR	01650031:76	01650082:89	92-342/23:23:48	MOON
E2LSLUNMOS02	SCITLM	176RT	01650032:00	01650032:13	92-342/23:23:58	MOON
E2LSLUNMOS02	SMOS	118AC	01650037:04	01650082:52	92-342/23:29:04	MOON
E2LSLUNMOS03	TARGET	165MG	01650086:89	01650228:00	92-343/00:19:34	MOON
E2LSLUNMOS03	SSI	147CS	01650087:76	01650227:89	92-343/00:20:26	MOON
E2LSLUNMOS03	INITRS	128BR	01650087:78	01650088:04	92-343/00:20:27	MOON
E2LSLUNMOS03	SCITLM	176RU	01650088:00	01650088:13	92-343/00:20:36	MOON
E2LSLUNMOS03	SMOS	118AE	01650098:87	01650216:11	92-343/00:31:40	MOON
E2LSLUNMOS03	SMOS	118AV	01650216:87	01650225:11	92-343/02:30:59	MOON
E2LULNRLMB01	TARGET	165MN	01650231:89	01650255:00	92-343/02:46:10	MOON
E2LULNRLMB01	INITRS	128BY	01650231:89	01650233:04	92-343/02:46:10	MOON
E2LULNRLMB01	CMDRS	157LX	01650234:00	01650254:00	92-343/02:48:13	MOON
E2LULNRLMB01	SSI	147CZ	01650239:76	01650247:89	92-343/02:54:07	MOON
E2LULNRLMB01	SCITLM	176KB	01650240:00	01650240:13	92-343/02:54:17	MOON

OAPEL	PA	PSID	SCLK1	SCLK2	SCET1	TARGET
E2LSLUNMOS04	TARGET	165MH	01650255:89	01650274:00	92-343/03:10:26	MOON
E2LSLUNMOS04	INITRS	128BS	01650256:90	01650258:04	92-343/03:11:28	MOON
E2LSLUNMOS04	SSI	147CT	01650257:76	01650273:63	92-343/03:12:19	MOON
E2LSLUNMOS04	SCIREC	175RL	01650257:88	01650273:69	92-343/03:12:27	MOON
E2LSLUNMOS04	SCITLM	176RV	01650258:00	01650258:13	92-343/03:12:29	MOON
E2LSLUNMOS04	SMOS	118AF	01650258:04	01650273:29	92-343/03:12:32	MOON
E2LNHIRES_01	INITRS	128BL	01650273:89	01650275:04	92-343/03:28:38	MOON
E2LNHIRES_01	TARGET	165LW	01650274:50	01650331:00	92-343/03:29:13	MOON
E2LNHIRES_01	SSI	147EN	01650274:76	01650330:89	92-343/03:29:30	MOON
E2LNHIRES_01	CSMOS	117AJ	01650274:77	01650330:80	92-343/03:29:31	MOON
E2LNHIRES_01	SCITLM	176JO	01650275:00	01650275:13	92-343/03:29:40	MOON
E2LSLUNMOS05	TARGET	165MI	01650331:89	01650350:00	92-343/04:27:17	MOON
E2LSLUNMOS05	INITRS	128BT	01650332:84	01650334:04	92-343/04:28:14	MOON
E2LSLUNMOS05	SSI	147CU	01650333:76	01650349:37	92-343/04:29:10	MOON
E2LSLUNMOS05	SCIREC	175RM	01650333:88	01650349:43	92-343/04:29:18	MOON
E2LSLUNMOS05	SCITLM	176RW	01650334:00	01650334:13	92-343/04:29:20	MOON
E2LSLUNMOS05	SMOS	118AG	01650334:04	01650349:29	92-343/04:29:22	MOON
E2LNPHASE_07	TARGET	165LX	01650350:50	01650381:00	92-343/04:46:04	MOON
E2LNPHASE_07	CSMOS	117AK	01650350:77	01650380:88	92-343/04:46:22	MOON
E2LNPHASE_07	INITRS	128BM	01650350:84	01650351:04	92-343/04:46:26	MOON
E2LSLUNMOS06	TARGET	165MJ	01650381:89	01650488:00	92-343/05:17:50	MOON
E2LSLUNMOS06	SSI	147CV	01650383:76	01650487:89	92-343/05:19:43	MOON
E2LSLUNMOS06	INITRS	128BU	01650383:78	01650384:04	92-343/05:19:44	MOON
E2LSLUNMOS06	SCITLM	176RX	01650384:00	01650384:13	92-343/05:19:53	MOON
E2LSLUNMOS06	SMOS	118AH	01650388:87	01650487:11	92-343/05:24:54	MOON
E2LPFOVMAP01	TARGET	165NL	01650489:89	01650491:00	92-343/07:07:02	MOON
E2LPFOVMAP01	SSI	147EI	01650490:76	01650494:89	92-343/07:07:54	MOON
E2LPFOVMAP01	CSMOS	117BF	01650490:77	01650519:76	92-343/07:07:55	MOON
E2LPFOVMAP01	CMDRS	157MB	01650491:00	01650521:00	92-343/07:08:04	MOON
E2LSLUNMOS07	TARGET	165MK	01650540:89	01650635:00	92-343/07:58:36	MOON
E2LSLUNMOS07	INITRS	128BV	01650540:89	01650542:04	92-343/07:58:36	MOON
E2LSLUNMOS07	SSI	147CW	01650541:76	01650634:89	92-343/07:59:28	MOON
E2LSLUNMOS07	SCITLM	176RY	01650542:00	01650542:13	92-343/07:59:38	MOON
E2LSLUNMOS07	SMOS	118AI	01650544:04	01650634:52	92-343/08:01:42	MOON
E2LNPHASE_11	TARGET	165LY	01650638:50	01650667:00	92-343/09:37:16	MOON
E2LNPHASE_11	CSMOS	117AL	01650638:77	01650666:87	92-343/09:37:34	MOON
E2WNLOWCAL01	TARGET	165MR	01650669:89	01650730:00	92-343/10:09:02	EARTH
E2WNLOWCAL01	INITRS	128CC	01650670:84	01650674:04	92-343/10:10:00	EARTH
E2WNLOWCAL01	CSMOS	117AT	01650673:77	01650729:46	92-343/10:12:57	EARTH
E2WNLOWCAL01	CMDRS	157ME	01650730:00	01650732:00	92-343/11:09:44	EARTH
E2LPLUNFAZ06	TARGET	165MC	01650730:89	01650735:00	92-343/11:10:43	MOON
E2LPLUNFAZ06	CSMOS	117AP	01650734:77	01650788:23	92-343/11:14:38	MOON
E2LPLUNFAZ06	CMDRS	157LW	01650735:00	01650792:00	92-343/11:14:47	MOON

OAPEL	PA	PSID	SCLK1	SCLK2	SCET1	TARGET
E2NNNOOBS_01	TARGET	165JB	01650793:89	01650798:00	92-343/12:14:25	NO_OBS
E2NNNOOBS_02	TARGET	165JC	01650959:55	01650965:87	92-343/15:01:53	NO_OBS
E2NNNOOBS_03	TARGET	165JD	01650966:47	01650972:28	92-343/15:08:52	NO_OBS
E2NNNOOBS_04	TARGET	165JE	01650974:02	01650978:04	92-343/15:16:28	NO_OBS
E2NNNOOBS_05	TARGET	165JF	01650983:23	01650993:25	92-343/15:25:48	NO_OBS
E2WSANDES_01	TARGET	165MU	01650999:52	01651013:00	92-343/15:42:18	EARTH
E2WSANDES_01	INITRS	128CD	01651001:90	01651003:04	92-343/15:44:44	EARTH
E2WSANDES_01	SMOS	118AL	01651002:81	01651013:70	92-343/15:45:39	EARTH
E2WSANDES_01	SSI	147DF	01651002:89	01651013:11	92-343/15:45:44	EARTH
E2WSANDES_01	SCIREC	175SH	01651003:10	01651013:17	92-343/15:45:52	EARTH
E2WSANDES_01	SCITLM	176SI	01651003:13	01651003:26	92-343/15:45:54	EARTH
E2WSHAWAUR01	SCITLM	176SJ	01651022:00	01651025:00	92-343/16:04:58	EARTH
E2WSHAWAUR01	TARGET	165NW	01651022:49	01651037:52	92-343/16:05:31	EARTH
E2WSHAWAUR01	INITRS	128CW	01651024:89	01651026:04	92-343/16:07:59	EARTH
E2WSHAWAUR01	SSI	147EP	01651025:76	01651037:89	92-343/16:08:51	EARTH
E2WSHAWAUR01	SMOS	118AW	01651026:04	01651037:52	92-343/16:09:04	EARTH
E2WSHAWAUN01	TARGET	165NV	01651037:53	01651045:55	92-343/16:20:44	EARTH
E2LSLUNMOS08	TARGET	165ML	01651077:89	01651082:06	92-343/17:01:34	MOON
E2LSLUNMOS08	SSI	147CX	01651081:76	01651100:89	92-343/17:05:28	MOON
E2LSLUNMOS08	SMOS	118AJ	01651081:82	01651099:23	92-343/17:05:32	MOON
E2LSLUNMOS08	SCITLM	176SL	01651082:00	01651082:13	92-343/17:05:38	MOON
E2WNANTAR_01	INITRS	128BZ	01651101:89	01651103:04	92-343/17:25:50	EARTH
E2WNANTAR_01	TARGET	165MO	01651101:89	01651149:00	92-343/17:25:50	EARTH
E2WNANTAR_01	SSI	147DA	01651105:76	01651145:89	92-343/17:29:44	EARTH
E2WNANTAR_01	CSMOS	117AQ	01651105:77	01651149:00	92-343/17:29:45	EARTH
E2WSLTNING01	TARGET	165NF	01651282:89	01651303:00	92-343/20:28:51	EARTH
E2WSLTNING01	SSI	147DX	01651283:76	01651302:89	92-343/20:29:43	EARTH
E2WSLTNING01	INITRS	128CO	01651283:78	01651284:04	92-343/20:29:44	EARTH
E2WSLTNING01	SCITLM	176SM	01651284:00	01651284:13	92-343/20:29:53	EARTH
E2WSLTNING01	SMOS	118AP	01651286:87	01651302:11	92-343/20:32:52	EARTH
E2WNAUSIE_01	INITRS	128CA	01651302:89	01651304:04	92-343/20:49:04	EARTH
E2WNAUSIE_01	TARGET	165MP	01651303:50	01651364:00	92-343/20:49:39	EARTH
E2WNAUSIE_01	SSI	147DB	01651303:76	01651363:89	92-343/20:49:56	EARTH
E2WNAUSIE_01	CSMOS	117AR	01651303:77	01651361:08	92-343/20:49:57	EARTH
E2WNAUSIE_01	SCITLM	176JI	01651304:00	01651304:13	92-343/20:50:06	EARTH
E2LSLUNMOS09	TARGET	165MM	01651364:89	01651369:11	92-343/21:51:46	MOON
E2LSLUNMOS09	SSI	147CY	01651368:76	01651403:89	92-343/21:55:40	MOON
E2LSLUNMOS09	SMOS	118AK	01651368:87	01651403:11	92-343/21:55:47	MOON
E2LSLUNMOS09	INITRS	128BX	01651368:90	01651369:04	92-343/21:55:49	MOON
E2LSLUNMOS09	SCITLM	176SN	01651369:00	01651369:13	92-343/21:55:50	MOON
E2WNINDO__01	TARGET	165NU	01651404:44	01651409:00	92-343/22:31:42	EARTH
E2WNINDO__01	INITRS	128CV	01651405:89	01651407:04	92-343/22:33:13	EARTH
E2WNINDO__01	SSI	147EO	01651406:76	01651426:44	92-343/22:34:05	EARTH
E2WNINDO__01	CSMOS	117BI	01651406:77	01651426:48	92-343/22:34:06	EARTH

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OAPEL         PA       PSID    SCLK1       SCLK2         SCET1       TARGET
-------------------------------------------------------------------------
E2WNGMOS__01 TARGET   165MQ 01651438:89 01651444:00 92-343/23:06:35 EARTH
E2WNGMOS__01 INITRS   128CB 01651441:89 01651443:04 92-343/23:09:37 EARTH
E2WNGMOS__01 CSMOS    117AS 01651442:77 01651735:90 92-343/23:10:30 EARTH
E2WNGMOS__01 SSI      147DC 01651604:76 01651672:44 92-344/01:54:17 EARTH
E2WNGMOS__01 SSI      147DD 01651672:76 01651740:89 92-344/03:03:02 EARTH

E2WPBUDLIT01 TARGET   165MS 01651738:89 01651743:00 92-344/04:09:55 EARTH
E2WPBUDLIT01 SSI      147DE 01651742:76 01651794:89 92-344/04:13:49 EARTH
E2WPBUDLIT01 CSMOS    117AU 01651742:77 01651794:68 92-344/04:13:50 EARTH
E2WPBUDLIT01 CMDRS    157LY 01651743:00 01651745:00 92-344/04:13:59 EARTH

E2WSZOOMMV01 TARGET   165NX 01651858:89 01651864:00 92-344/06:11:15 EARTH
E2WSZOOMMV01 INITRS   128CX 01651861:89 01651863:04 92-344/06:14:17 EARTH
E2WSZOOMMV01 SSI      147EQ 01651862:76 01651960:44 92-344/06:15:09 EARTH
E2WSZOOMMV01 SCITLM   176SO 01651863:00 01651863:13 92-344/06:15:19 EARTH
E2WSZOOMMV01 SMOS     118AX 01651865:81 01652157:01 92-344/06:18:14 EARTH
E2WSZOOMMV01 SSI      147ER 01651960:76 01652058:44 92-344/07:54:14 EARTH
E2WSZOOMMV01 SSI      147EV 01652058:76 01652156:89 92-344/09:33:20 EARTH

E2WSGOPEX_01 TARGET   165MX 01652157:50 01652159:00 92-344/11:13:08 EARTH
E2WSGOPEX_01 SSI      147DO 01652157:76 01652247:44 92-344/11:13:26 EARTH
E2WSGOPEX_01 CSMOS    117AW 01652157:77 01652337:66 92-344/11:13:26 EARTH
E2WSGOPEX_01 SSI      147DP 01652247:76 01652335:89 92-344/12:44:26 EARTH

E2WSZOOMMV02 TARGET   165NG 01652338:50 01652340:00 92-344/14:16:09 EARTH
E2WSZOOMMV02 SSI      147DY 01652338:76 01652457:44 92-344/14:16:26 EARTH
E2WSZOOMMV02 SMOS     118AQ 01652341:82 01652569:84 92-344/14:19:32 EARTH
E2WSZOOMMV02 SSI      147DZ 01652457:76 01652569:89 92-344/16:16:46 EARTH

E2LSLUNCAL01 TARGET   165MD 01652570:89 01652574:00 92-344/18:11:10 MOON
E2LSLUNCAL01 INITRS   128BN 01652571:90 01652573:05 92-344/18:12:11 MOON
E2LSLUNCAL01 SSI      147CO 01652572:76 01652573:26 92-344/18:13:02 MOON
E2LSLUNCAL01 SCIREC   175SI 01652572:84 01652573:32 92-344/18:13:08 MOON
E2LSLUNCAL01 SCITLM   176SP 01652573:00 01652573:13 92-344/18:13:12 MOON

E2LSLUNCAL02 TARGET   165NT 01652574:50 01652575:11 92-344/18:14:46 MOON
E2LSLUNCAL02 SSI      147CP 01652574:76 01652694:89 92-344/18:15:04 MOON
E2LSLUNCAL02 SMOS     118AA 01652574:87 01652694:11 92-344/18:15:11 MOON
E2LSLUNCAL02 INITRS   128BO 01652574:90 01652575:05 92-344/18:15:13 MOON
E2LSLUNCAL02 SCITLM   176SQ 01652575:00 01652575:13 92-344/18:15:14 MOON

E2WSZOOMMV03 SCITLM   176SR 01652701:00 01652704:00 92-344/20:22:38 EARTH
E2WSZOOMMV03 TARGET   165NH 01652704:89 01652708:00 92-344/20:26:39 EARTH
E2WSZOOMMV03 SSI      147EB 01652706:76 01652922:89 92-344/20:28:32 EARTH
E2WSZOOMMV03 INITRS   128CQ 01652706:90 01652707:05 92-344/20:28:41 EARTH
E2WSZOOMMV03 SMOS     118AR 01652712:88 01653574:12 92-344/20:34:44 EARTH
E2WSZOOMMV03 SSI      147EC 01652923:76 01653139:89 92-345/00:07:56 EARTH
E2WSZOOMMV03 SSI      147ED 01653140:76 01653356:89 92-345/03:47:21 EARTH
E2WSZOOMMV03 SSI      147ES 01653357:76 01653573:89 92-345/07:26:46 EARTH

E2WSGOPEX_02 TARGET   165MY 01653574:50 01653576:00 92-345/11:05:53 EARTH
E2WSGOPEX_02 SSI      147DQ 01653574:76 01653694:89 92-345/11:06:10 EARTH
E2WSGOPEX_02 CSMOS    117AX 01653574:82 01653694:71 92-345/11:06:14 EARTH
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OAPEL        PA       PSID    SCLK1       SCLK2         SCET1       TARGET
-------------------------------------------------------------------------
E2WSZOOMMV00 TARGET   165NI 01653695:50 01653697:00 92-345/13:08:14 EARTH
E2WSZOOMMV00 SSI      147EE 01653695:76 01653807:89 92-345/13:08:31 EARTH
E2WSZOOMMV00 SMOS     118AS 01653701:88 01653807:12 92-345/13:14:43 EARTH

E2WSZOOMMV04 SCITLM   176A  01653935:00 01653938:00 92-345/17:10:20 EARTH
E2WSZOOMMV04 TARGET   165A  01653942:89 01653947:00 92-345/17:18:24 EARTH
E2WSZOOMMV04 SSI      147EF 01653946:76 01654155:89 92-345/17:22:18 EARTH
E2WSZOOMMV04 SMOS     118A  01653952:88 01654366:12 92-345/17:28:30 EARTH
E2WSZOOMMV04 SSI      147EG 01654156:76 01654369:89 92-345/20:54:38 EARTH

E2WSZOOMMV05 SCITLM   176UF 01654417:00 01654420:00 92-346/01:17:41 EARTH
E2WSZOOMMV05 INITRS   128CY 01654423:89 01654425:05 92-346/01:24:45 EARTH
E2WSZOOMMV05 TARGET   165NY 01654424:50 01654709:00 92-346/01:25:19 EARTH
E2WSZOOMMV05 SSI      147ET 01654424:76 01654540:89 92-346/01:25:37 EARTH
E2WSZOOMMV05 SCIREC   175WX 01654425:44 01654429:02 92-346/01:26:16 EARTH
E2WSZOOMMV05 SCIREC   175WY 01654481:44 01654485:02 92-346/02:22:53 EARTH
E2WSZOOMMV05 SCIREC   175WZ 01654537:44 01654541:02 92-346/03:19:31 EARTH
E2WSZOOMMV05 SSI      147EU 01654592:76 01654708:89 92-346/04:15:29 EARTH
E2WSZOOMMV05 SCIREC   175XA 01654593:44 01654597:02 92-346/04:16:08 EARTH
E2WSZOOMMV05 SCIREC   175XB 01654649:44 01654653:02 92-346/05:12:45 EARTH
E2WSZOOMMV05 SCIREC   175XC 01654705:44 01654709:02 92-346/06:09:23 EARTH

             ALSPINSP 192JC 01654843:00 01654846:00 92-346/08:28:25 PCT
E2NNPCTMIN01 SCITLM   176JK 01654843:00 01654843:13 92-346/08:28:25 PCT
E2NNPCTMIN01 CMDRS    157JF 01654847:00 01654938:00 92-346/08:32:28 PCT

E2WSGOPEX_03 SCITLM   176SS 01654987:00 01654990:00 92-346/10:54:01 EARTH
E2WSGOPEX_03 TARGET   165MZ 01654998:89 01655004:00 92-346/11:06:08 EARTH
E2WSGOPEX_03 INITRS   128CI 01655001:89 01655003:05 92-346/11:09:10 EARTH
E2WSGOPEX_03 SSI      147DR 01655002:76 01655060:89 92-346/11:10:02 EARTH
E2WSGOPEX_03 CSMOS    117AY 01655002:77 01655060:50 92-346/11:10:03 EARTH
E2WSGOPEX_03 SCIREC   175SK 01655002:90 01655003:48 92-346/11:10:11 EARTH
             RADHTR   185JB 01655004:00 01655420:01 92-346/11:11:13 RCT_ON
E2WSGOPEX_03 SCIREC   175SL 01655005:90 01655006:48 92-346/11:13:13 EARTH
E2WSGOPEX_03 SCIREC   175SM 01655008:90 01655009:48 92-346/11:16:15 EARTH
E2WSGOPEX_03 SCIREC   175SN 01655011:90 01655012:48 92-346/11:19:17 EARTH
E2WSGOPEX_03 SCIREC   175SO 01655014:90 01655015:48 92-346/11:22:19 EARTH
E2WSGOPEX_03 SCIREC   175SP 01655017:90 01655018:48 92-346/11:25:21 EARTH
E2WSGOPEX_03 SCIREC   175SQ 01655020:90 01655021:48 92-346/11:28:23 EARTH
E2WSGOPEX_03 SCIREC   175SR 01655023:90 01655024:48 92-346/11:31:25 EARTH
E2WSGOPEX_03 SCIREC   175SS 01655026:90 01655027:48 92-346/11:34:27 EARTH
E2WSGOPEX_03 SCIREC   175ST 01655029:90 01655030:48 92-346/11:37:29 EARTH
E2WSGOPEX_03 SCIREC   175SU 01655032:90 01655033:48 92-346/11:40:31 EARTH
E2WSGOPEX_03 SCIREC   175SV 01655035:90 01655036:48 92-346/11:43:33 EARTH
E2WSGOPEX_03 SCIREC   175SW 01655038:90 01655039:48 92-346/11:46:35 EARTH
E2WSGOPEX_03 SCIREC   175SX 01655041:90 01655042:48 92-346/11:49:37 EARTH
E2WSGOPEX_03 SCIREC   175SY 01655044:90 01655045:48 92-346/11:52:39 EARTH
E2WSGOPEX_03 SCIREC   175SZ 01655047:90 01655048:48 92-346/11:55:41 EARTH
E2WSGOPEX_03 SCIREC   175TA 01655050:90 01655051:48 92-346/11:58:43 EARTH
E2WSGOPEX_03 SCIREC   175TB 01655053:90 01655054:48 92-346/12:01:45 EARTH
E2WSGOPEX_03 SCIREC   175TC 01655056:90 01655057:48 92-346/12:04:47 EARTH
E2WSGOPEX_03 SCIREC   175TD 01655059:90 01655060:48 92-346/12:07:49 EARTH
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OAPEL        PA       PSID    SCLK1       SCLK2         SCET1       TARGET
-------------------------------------------------------------------------
E2NNRCTMIN01 TARGET   165JG 01655383:89 01655388:00 92-346/17:35:25 RCT
E2NNRCTMIN01 SCITLM   176JL 01655388:00 01655388:13 92-346/17:39:29 RCT
             ALSPINSP 192JD 01655390:00 01655420:00 92-346/17:41:30 RCT
E2NNRCTMIN01 CMDRS    157JG 01655390:00 01655421:00 92-346/17:41:30 RCT

E2HUSYSCAN01 TARGET   165LR 01655423:89 01655428:04 92-346/18:15:51 SKY
E2HUSYSCAN01 CMDRS    157MF 01655427:00 01655429:00 92-346/18:18:55 SKY
E2HUSYSCAN01 CSMOS    117AF 01655427:77 01656361:00 92-346/18:19:46 SKY

E2HNMIRCAL01 CMDRS    157LU 01655430:00 01655452:00 92-346/18:21:57 SKY
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Heading	Columns	Comments
OAPEL	1 - 12	.Oapel Name from SEF (no aliases yet)
EXT	14 - 14	.Extension (allow for split OAPELs)
PSID	16 - 17	.2 Letter ID for the OAPEL
SCLK1	19 - 29	.Start time of OBS in SCLK
SCLK2	31 - 41	.STOP time of OBS in SCLK
MODE	43 - 44	.NIMS Instrument MODE
GAIN	46 - 47	.Gain State (true value)
CHOP	49 - 50	.Chopper State (1=Ref,2=63Hz,3=FreeRun,4=Off)
GRAT_OFF	52 - 53	.Grating Offset
PTAB_A(6)	55 - 71	.First PTAB (repeat count,mirror op,autobias...
PTAB_B(6)	73 - 89	.Second PTAB (...grating start, grating delta...
		. (...number of grating postions)
ECAL	92 - 92	.Electronics Calibration Active (1=yes)
OPCAL	94 - 94	.Optics Calibration active (1=yes)
UTC1	96 - 112	.Start time of OBS in UTC (from SEF - ISO STANDARD)
REAL_TIME	115 - 115	.NIMS in Real-Time Telemetry (1=yes)
RECORD	117 - 117	.NIMS in Record Telemetry(1=yes)
TARGET	120 - 127	.Primary Target of OBS
		EARTH - W - Earth
		MOON - L - Moon
		SKY - H - Stellar Sky
		CALIBRATION - N - Non-Science

(the single letter abbreviation appears as the third character in the OBSNAME (OAPEL Name)).

INPUT SEF FILE: EE11_921118.SEF

OAPEL, EXT, PSID, SCLK1, SCLK2, MODE, GAIN, CHOP, GRAT_OFF, PTAB_A(6), PTAB_B(6), ECAL, OPCAL, UTC1, REAL_TIME, RECORD, TARGET

OAPEL	EXT	PSID	SCLK1	SCLK2	M	G	C	O	PTAB A						PTAB B						E	O	UTC1	R	T	TARGET
E2LPLUNFAZ01	A	AN	01649071:77	01649086:61	0	4	1	4	1	0	0	0	0	12	1	0	0	0	0	12	0	0	1992-342T07:13:09	1	0	MOON
E2HUUSTAR_02	A	AH	01649095:77	01649423:71	0	4	1	4	1	0	0	0	0	12	1	0	0	0	0	12	0	0	1992-342T07:37:25	1	0	SKY
E2HSSTRCAL13	A	T	01649565:76	01649579:89	0	4	1	4	1	0	0	0	0	12	1	0	0	0	0	12	0	0	1992-342T15:32:38	1	0	SKY
E2HSSTRCAL14	A	U	01649583:76	01649587:89	0	4	1	4	1	0	0	0	0	12	1	0	0	0	0	12	0	0	1992-342T15:50:50	1	0	SKY
E2WPNITLIT01	A	AV	01649828:77	01649851:62	0	4	1	4	1	0	0	0	0	12	1	0	0	0	0	12	0	0	1992-342T19:58:34	1	0	EARTH
E2LPLUNFAZ02	A	AO	01649861:77	01649963:22	5	1	2	4	1	1	0	2	4	6	1	1	0	2	4	6	0	0	1992-342T20:31:56	1	0	MOON
E2LSLUNMOS01	A	AB	01649973:82	01650014:87	5	1	2	4	1	1	0	2	4	6	1	1	0	2	4	6	0	0	1992-342T22:25:14	1	0	MOON
E2LN4GAIN_01	A	BK	01650016:00	01650016:90	7	1	2	4	1	1	0	6	0	12	1	1	0	6	0	12	0	0	1992-342T23:07:43	1	0	MOON
E2LN4GAIN_01	B	LV	01650017:00	01650017:90	7	4	2	4	1	1	0	6	0	12	1	1	0	6	0	12	0	0	1992-342T23:08:44	1	0	MOON
E2LN4GAIN_01	C	LV	01650018:00	01650018:90	7	3	2	4	1	1	0	6	0	12	1	1	0	6	0	12	0	0	1992-342T23:09:44	1	0	MOON
E2LN4GAIN_01	D	LV	01650019:00	01650019:90	7	2	2	4	1	1	0	6	0	12	1	1	0	6	0	12	0	0	1992-342T23:10:45	1	0	MOON
E2LN4GAIN_01	E	LV	01650020:00	01650026:90	7	1	2	4	1	1	0	6	0	12	1	1	0	6	0	12	0	0	1992-342T23:11:46	1	0	MOON
E2LN4GAIN_01	F	LV	01650027:00	01650027:89	1	1	2	4	1	1	0	0	2	12	1	1	0	0	2	12	0	0	1992-342T23:18:50	1	0	MOON

OAPEL	EXT	PSID	SCLK1	SCLK2	M	G	C	O	PTAB A						PTAB B						E	O	UTC1	R	T	TARGET
E2LSLUNMOS02	A	AC	01650037:04	01650082:52	1	1	2	4	1	1	0	0	2	12	1	1	0	0	2	12	0	0	1992-342T23:29:04	1	0	MOON
E2LSLUNMOS03	A	AE	01650098:87	01650216:11	5	1	2	4	1	1	0	2	4	6	1	1	0	2	4	6	0	0	1992-343T00:31:40	1	0	MOON
E2LSLUNMOS03	B	AV	01650216:87	01650225:11	5	1	2	4	1	1	0	2	4	6	1	1	0	2	4	6	0	0	1992-343T02:30:59	1	0	MOON
E2LULNRLMB01	A	MN	01650231:89	01650234:90	5	1	2	4	1	1	0	2	4	6	1	1	0	2	4	6	0	0	1992-343T02:46:10	1	0	MOON
E2LULNRLMB01	B	MN	01650235:00	01650236:90	1	1	2	4	1	1	0	0	2	12	1	1	0	0	2	12	0	0	1992-343T02:49:09	1	0	MOON
E2LULNRLMB01	C	MN	01650237:00	01650251:90	7	1	2	4	1	1	0	6	0	12	1	1	0	6	0	12	0	0	1992-343T02:51:10	1	0	MOON
E2LULNRLMB01	D	MN	01650252:00	01650255:00	7	1	2	4	1	0	0	6	0	12	1	0	0	6	0	12	0	0	1992-343T03:06:20	1	0	MOON
E2LSLUNMOS04	A	AF	01650258:04	01650273:29	7	1	2	4	1	0	0	6	0	12	1	0	0	6	0	12	0	0	1992-343T03:12:32	1	1	MOON
E2LNHIRES_01	C	BL	01650275:00	01650331:00	1	1	2	4	1	1	0	0	2	12	1	1	0	0	2	12	0	0	1992-343T03:29:40	1	0	MOON
E2LSLUNMOS05	A	AG	01650334:04	01650349:29	7	1	2	4	1	0	0	6	0	12	1	0	0	6	0	12	0	0	1992-343T04:29:22	1	1	MOON
E2LNPHASE_07	A	AK	01650351:00	01650380:88	5	1	2	4	1	1	0	2	4	6	1	1	0	2	4	6	0	0	1992-343T04:46:26	1	0	MOON
E2LSLUNMOS06	A	AH	01650388:87	01650487:11	5	1	2	4	1	1	0	2	4	6	1	1	0	2	4	6	0	0	1992-343T05:24:54	1	0	MOON
E2LPFOVMAP01	A	BF	01650490:77	01650491:90	5	1	2	4	1	1	0	2	4	6	1	1	0	2	4	6	0	0	1992-343T07:07:55	1	0	MOON
E2LPFOVMAP01	B	BF	01650492:00	01650519:76	7	1	2	4	1	1	0	6	0	12	1	1	0	6	0	12	0	0	1992-343T07:09:00	1	0	MOON
E2LSLUNMOS07	A	AI	01650544:04	01650634:52	1	1	2	4	1	1	0	0	2	12	1	1	0	0	2	12	0	0	1992-343T08:01:42	1	0	MOON
E2LNPHASE_11	A	AL	01650638:77	01650666:87	1	1	2	4	1	1	0	0	2	12	1	1	0	0	2	12	0	0	1992-343T09:37:34	1	0	MOON
E2WNLOWCAL01	A	AT	01650674:00	01650729:46	12	4	1	4	1	1	0	11	2	6	1	1	0	11	2	6	0	0	1992-343T10:13:02	1	0	EARTH
E2LPLUNFAZ06	A	AP	01650734:77	01650788:23	12	1	2	4	1	1	0	11	2	6	1	1	0	11	2	6	0	0	1992-343T11:14:38	1	1	MOON
E2NNNOOBS_01	A	JB	01650793:89	01650798:00	12	1	2	4	1	1	0	11	2	6	1	1	0	11	2	6	0	0	1992-343T12:14:25	1	0	NO_OBS
E2NNNOOBS_02	A	JC	01650959:55	01650965:87	12	1	2	4	1	1	0	11	2	6	1	1	0	11	2	6	0	0	1992-343T15:01:53	0	1	NO_OBS
E2NNNOOBS_03	A	JD	01650966:47	01650972:28	12	1	2	4	1	1	0	11	2	6	1	1	0	11	2	6	0	0	1992-343T15:08:52	0	1	NO_OBS
E2NNNOOBS_04	A	JE	01650974:02	01650978:04	12	1	2	4	1	1	0	11	2	6	1	1	0	11	2	6	0	0	1992-343T15:16:28	0	1	NO_OBS
E2NNNOOBS_05	A	JF	01650983:23	01650984:88	12	1	2	4	1	1	0	11	2	6	1	1	0	11	2	6	0	0	1992-343T15:25:48	0	1	NO_OBS
E2NNNOOBS_05	B	JF	01650985:05	01650993:25	12	1	2	4	1	1	0	11	2	6	1	1	0	11	2	6	0	0	1992-343T15:27:37	0	1	NO_OBS
E2WSANDES_01	A	AL	01651003:15	01651009:69	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-343T15:45:56	0	1	EARTH
E2WSANDES_01	B	AL	01651009:79	01651013:13	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-343T15:52:43	0	1	EARTH
E2WSANDESN01	A	NJ	01651013:77	01651016:47	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-343T15:56:44	0	1	EARTH
E2WSHAWAUR01	A	AW	01651026:04	01651037:52	7	1	2	4	1	1	0	0	0	12	1	1	0	0	0	12	0	0	1992-343T16:09:04	1	0	EARTH
E2LSLUNMOS08	A	AJ	01651081:82	01651099:23	7	1	2	4	1	1	0	0	0	12	1	1	0	0	0	12	0	0	1992-343T17:05:32	1	0	MOON
E2WNANTAR_01	A	AQ	01651105:77	01651149:00	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-343T17:29:45	1	0	EARTH
E2WSLTNING01	A	AP	01651286:87	01651302:11	7	1	2	4	1	1	0	0	0	12	1	1	0	0	0	12	0	0	1992-343T20:32:52	1	0	EARTH
E2WNAUSIE_01	B	AR	01651304:00	01651361:08	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-343T20:50:02	1	0	EARTH
E2LSLUNMOS09	A	AK	01651368:87	01651403:11	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-343T21:55:47	1	0	MOON
E2WNINDO__01	A	BI	01651406:77	01651426:48	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-343T22:34:06	1	0	EARTH
E2WNGMOS__01	A	AS	01651442:77	01651619:15	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-343T23:10:30	1	0	EARTH
E2WNGMOS__01	B	AS	01651619:15	01651735:90	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-344T02:08:46	1	0	EARTH
E2WPBUDLIT01	A	AU	01651742:77	01651794:68	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-344T04:13:50	1	0	EARTH
E2WSZOOMMV01	A	AX	01651865:81	01652157:01	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-344T06:18:14	1	0	EARTH
E2WSGOPEX_01	A	AW	01652157:77	01652337:66	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-344T11:13:26	1	0	EARTH
E2WSZOOMMV02	A	AQ	01652341:82	01652569:90	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-344T14:19:32	1	0	EARTH
E2LSLUNCAL01	A	CO	01652572:76	01652573:26	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-344T18:13:02	1	0	MOON
E2LSLUNCAL02	A	AA	01652574:87	01652694:11	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-344T18:15:11	1	0	MOON

OAPEL	EXT	PSID	SCLK1	SCLK2	M	G	C	O	PTAB A						PTAB B						E	O	UTC1	R	T	TARGET
E2WSZOOMMV03	A	AR	01652712:88	01653574:12	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-344T20:34:44	1	0	EARTH
E2WSGOPEX_02	A	AX	01653574:82	01653694:71	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-345T11:06:14	1	0	EARTH
E2WSZOOMMV00	A	AS	01653701:88	01653807:12	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-345T13:14:43	1	0	EARTH
E2WSZOOMMV04	A	A	01653952:88	01654366:12	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-345T17:28:30	1	0	EARTH
E2WSZOOMMV05	A	ET	01654425:50	01654429:00	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-346T01:26:20	0	1	EARTH
E2WSZOOMMV05	B	ET	01654481:50	01654485:00	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-346T02:22:57	0	1	EARTH
E2WSZOOMMV05	C	ET	01654537:50	01654540:89	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-346T03:19:35	0	1	EARTH
E2WSZOOMMV05	D	EU	01654593:50	01654597:00	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-346T04:16:12	0	1	EARTH
E2WSZOOMMV05	E	EU	01654649:50	01654653:00	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-346T05:12:49	0	1	EARTH
E2WSZOOMMV05	F	EU	01654705:50	01654708:89	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-346T06:09:27	0	1	EARTH
E2NNPCTMIN01	A	JK	01654843:00	01654843:13	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-346T08:28:25	1	0	PCT
E2NNPCTMIN01	A	JF	01654847:00	01654847:90	3	1	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-346T08:32:28	1	0	PCT
E2NNPCTMIN01	B	JF	01654848:00	01654848:90	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T08:33:24	1	0	PCT
E2NNPCTMIN01	C	JF	01654849:00	01654855:90	4	2	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T08:34:25	1	0	PCT
E2NNPCTMIN01	D	JF	01654856:00	01654858:90	4	4	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T08:41:29	1	0	PCT
E2NNPCTMIN01	E	JF	01654859:00	01654861:90	4	3	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T08:44:31	1	0	PCT
E2NNPCTMIN01	F	JF	01654862:00	01654938:00	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T08:47:33	1	0	PCT
E2WSGOPEX_03	A	AY	01655003:05	01655003:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T11:10:15	0	1	EARTH
E2WSGOPEX_03	B	AY	01655006:05	01655006:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T11:13:17	0	1	EARTH
E2WSGOPEX_03	C	AY	01655009:05	01655009:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T11:16:19	0	1	EARTH
E2WSGOPEX_03	D	AY	01655012:05	01655012:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T11:19:21	0	1	EARTH
E2WSGOPEX_03	E	AY	01655015:05	01655015:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T11:22:23	0	1	EARTH
E2WSGOPEX_03	F	AY	01655018:05	01655018:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T11:25:25	0	1	EARTH
E2WSGOPEX_03	G	AY	01655021:05	01655021:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T11:28:27	0	1	EARTH
E2WSGOPEX_03	H	AY	01655024:05	01655024:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T11:31:29	0	1	EARTH
E2WSGOPEX_03	I	AY	01655027:05	01655027:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T11:34:31	0	1	EARTH
E2WSGOPEX_03	J	AY	01655030:05	01655030:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T11:37:33	0	1	EARTH
E2WSGOPEX_03	K	AY	01655033:05	01655033:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T11:40:35	0	1	EARTH
E2WSGOPEX_03	L	AY	01655036:05	01655036:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T11:43:37	0	1	EARTH
E2WSGOPEX_03	M	AY	01655039:05	01655039:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T11:46:39	0	1	EARTH
E2WSGOPEX_03	N	AY	01655042:05	01655042:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T11:49:41	0	1	EARTH
E2WSGOPEX_03	O	AY	01655045:05	01655045:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T11:52:43	0	1	EARTH
E2WSGOPEX_03	P	AY	01655048:05	01655048:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T11:55:45	0	1	EARTH
E2WSGOPEX_03	Q	AY	01655051:05	01655051:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T11:58:47	0	1	EARTH
E2WSGOPEX_03	R	AY	01655054:05	01655054:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T12:01:49	0	1	EARTH
E2WSGOPEX_03	S	AY	01655057:05	01655057:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T12:04:51	0	1	EARTH
E2WSGOPEX_03	T	AY	01655060:05	01655060:46	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T12:07:53	0	1	EARTH
E2NNRCTMIN01	A	JG	01655390:00	01655391:90	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T17:41:30	1	0	DARK
E2NNRCTMIN01	B	JG	01655392:00	01655392:90	4	4	2	4	1	0	0	0	1	24	1	0	0	0	1	24	1	0	1992-346T17:43:27	1	0	DARK
E2NNRCTMIN01	C	JG	01655393:00	01655393:90	4	2	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T17:44:27	1	0	DARK
E2NNRCTMIN01	D	JG	01655394:00	01655394:90	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	1	1992-346T17:45:28	1	0	DARK
E2NNRCTMIN01	E	JG	01655395:00	01655395:90	4	4	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T17:46:29	1	0	DARK

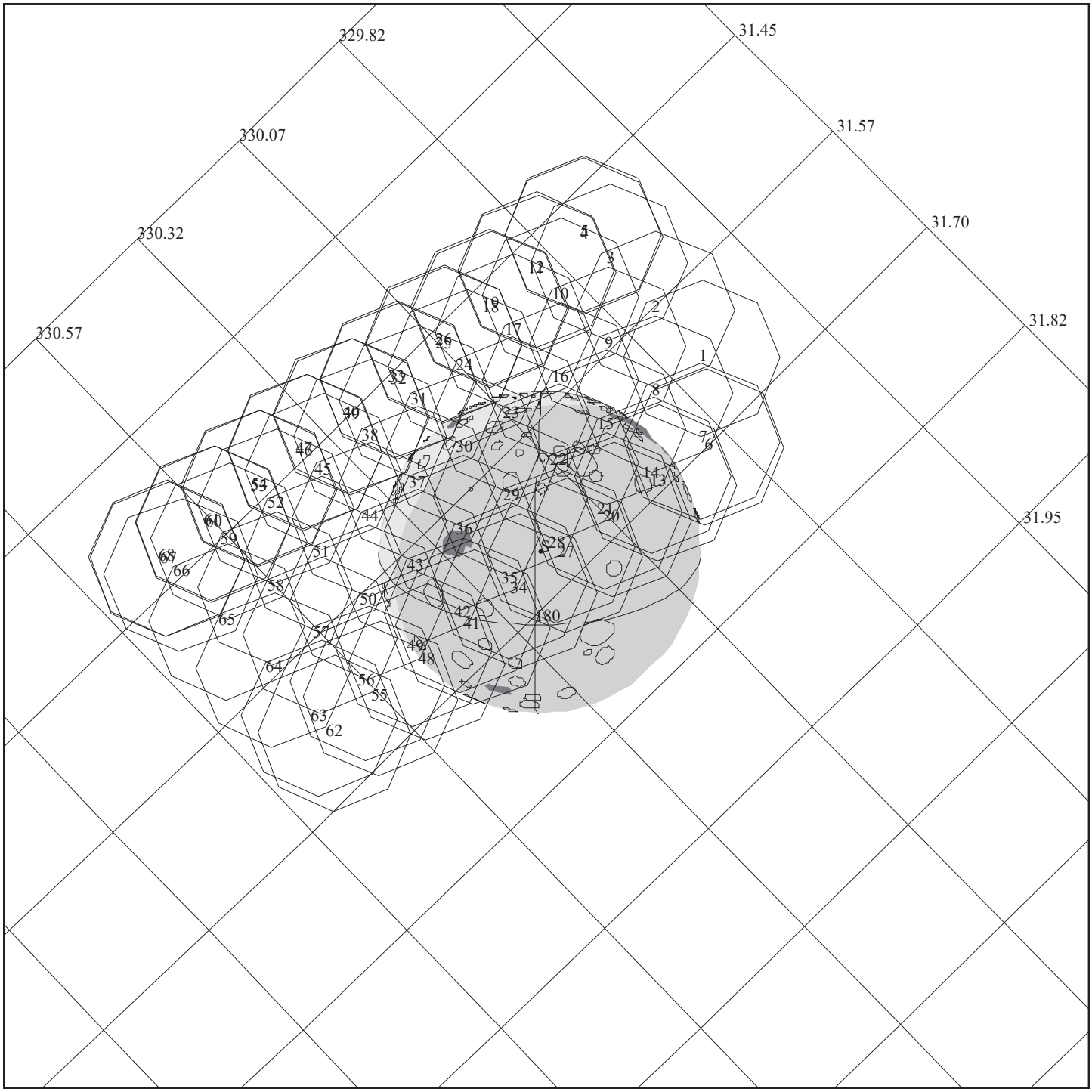
OAPEL	EXT	PSID	SCLK1	SCLK2	M	G	C	O	PTAB A						PTAB B						E	O	UTC1	R	T	TARGET
E2NNRCTMIN01	F	JG	01655396:00	01655396:90	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T17:47:29	1	0	DARK
E2NNRCTMIN01	G	JG	01655397:00	01655397:90	4	3	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T17:48:30	1	0	DARK
E2NNRCTMIN01	H	JG	01655398:00	01655400:90	4	2	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T17:49:31	1	0	DARK
E2NNRCTMIN01	I	JG	01655401:00	01655401:90	4	4	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T17:52:33	1	0	DARK
E2NNRCTMIN01	J	JG	01655402:00	01655402:90	4	1	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T17:53:33	1	0	DARK
E2NNRCTMIN01	K	JG	01655403:00	01655404:00	4	3	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T17:54:34	1	0	DARK
E2NNRCTMIN01	L	JG	01655404:00	01655407:90	4	3	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T17:55:39	1	0	RCT
E2NNRCTMIN01	M	JG	01655408:00	01655408:90	4	1	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T17:59:37	1	0	RCT
E2NNRCTMIN01	N	JG	01655409:00	01655409:90	4	4	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T18:00:38	1	0	RCT
E2NNRCTMIN01	O	JG	01655410:00	01655410:90	4	2	1	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T18:01:39	1	0	RCT
E2NNRCTMIN01	P	JG	01655411:00	01655413:90	4	3	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T18:02:39	1	0	RCT
E2NNRCTMIN01	Q	JG	01655414:00	01655414:90	4	1	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T18:05:41	1	0	RCT
E2NNRCTMIN01	R	JG	01655415:00	01655415:90	4	4	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T18:06:42	1	0	RCT
E2NNRCTMIN01	S	JG	01655416:00	01655417:00	4	2	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T18:07:43	1	0	RCT
E2NNRCTMIN01	T	JG	01655417:00	01655421:00	4	2	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T18:08:48	1	0	DARK
E2HNMIRCAL01	A	LU	01655424:00	01655430:90	4	2	2	4	1	0	0	0	1	24	1	0	0	0	1	24	0	0	1992-346T18:15:56	1	0	SKY
E2HNMIRCAL01	B	LU	01655431:00	01655437:90	7	2	2	4	1	1	0	0	0	12	1	1	0	0	0	12	0	0	1992-346T18:22:53	1	0	SKY
E2HNMIRCAL01	C	LU	01655438:00	01655444:90	3	2	2	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-346T18:29:57	1	0	SKY
E2HNMIRCAL01	D	LU	01655445:00	01655452:00	3	2	1	4	1	1	0	0	1	24	1	1	0	0	1	24	0	0	1992-346T18:37:02	1	0	SKY

DETAILED OBSERVATION DESIGNS

EE11

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.

Some additional observations have been added to the original E2 Nimsguide. These are observations where NIMS is riding along behind either PPR or SSI. For these observations, the pointer plots show the footprint of the primary instrument (PPR UVS or SSI). Since these observations were not considered as NIMS observations during the E2 planning stage, pointer plots using the NIMS footprint were never produced.



E2LPLUNFAZ01

POINTER C5.1

FILE:P.E2LPLUNFAZ01

CENTRAL BODY: MOON

MINI:m.E2LPLUNFAZ01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-342/07:14:00.800

ACTIVITY:E2LPLUNFAZ01 **DESCRIP:144 DEG PHASE**

PPR LUNAR PHASE ANGLE CALIBRATION SET ACTIVITY ID: E2LPLUNFAZ01-
START TIME: ECA-CDS 00001424:00:0

Activity ID Orbit E2 Target L Inst P OAPEL LUNFAZ SeqNo 01 Multi -
Title PPP Lunar Phase Angle Calibration Set
Requestor L. TAMPARRI Working Group
Bottom Label Plot Key PPR Science Team PPR

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00001424:00:0	92-342/15:09:36	ECA-000/23:59:49
End	ECA-CDS 00001409:00:0	92-342/15:24:46	ECA-000/23:44:39
Duration	00000015:00:0	000/00:15:10	000/00:15:10

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD T	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR T	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

The Lunar Phase Angle Calibration Set is a set of observations spaced in roughly 30 degree phase angle increments. The objective is to observe a known body (Earth's moon) in polarimetry/photometry mode to understand the polarization data from the PPR. This will enable the interpretation of similar data taken on the Galilean satellites.

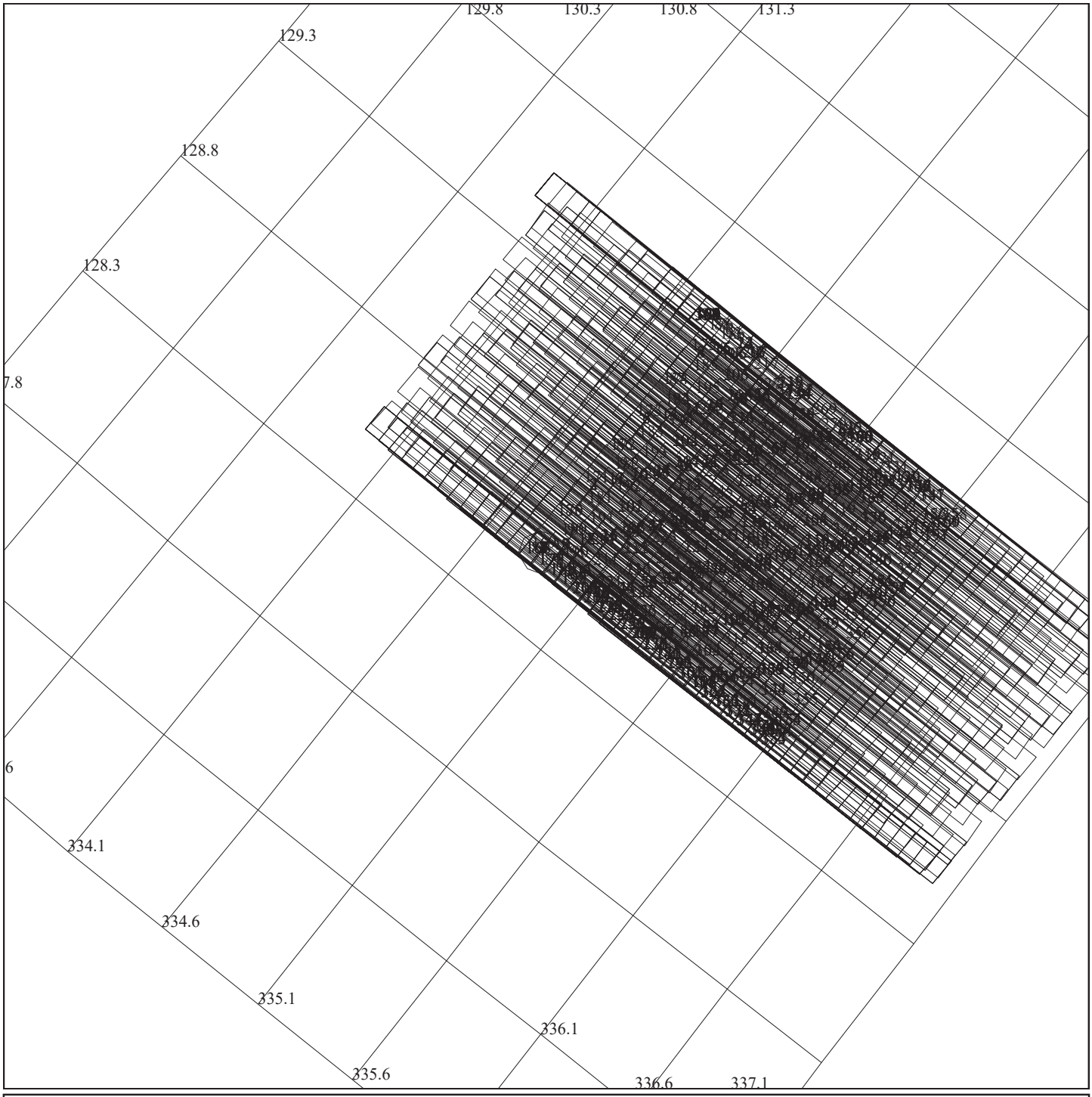
Design Detail

CDS 128 POINTER Design N Frames 0.00 Exc Alias

This observation of the moon will be at about 138 degrees phase. It will be one mosaic of the lit crescent of the moon using the polarimetry/photometry mode. The scan rate will be approximately 0.1 mrad/sec.

Created on	02/20/92	Version	3	07/18/94
Last Changed	03/12/92	Changed By	L. TAMPPARI	14:50:20

Galileo Activity Plan Form rev 6/93



E2HUUSTAR_02

POINTER C5.1

FILE:P.E2HUUSTAR_02

CENTRAL BODY:EARTH

MINI:m.E2HUUSTAR_02

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-342/07:37:37.466

ACTIVITY:E2HUUSTAR_02 **DESCRIP:UVS STARCAL ON SIRIUS**

UVS STAR CALIBRATION 2 (SIRIUS) ACTIVITY ID: E2HUUSTAR_02-
START TIME: ECA-CDS 00001404:00:0

Activity ID Orbit E2 Target H Inst U OAPEL USTAR SeqNo 02 Multi -
Title UVS Star Calibration (Sirius)
Requestor UVS Working Group
Bottom Label Plot Key UVS Science Team UVS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00001404:00:0	92-342/15:29:59	ECA-000/23:39369
End	ECA-CDS 00001166:00:0	92-342/19:30:28	ECA-000/19:38:57
Duration	00000238:00:0	000/04:00:39	000/04:00:39

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD T	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR T	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

Star Calibration on Alpha-CMa (Sirius) at
RA 06h 45m
Dec -16d 43m

Design Detail

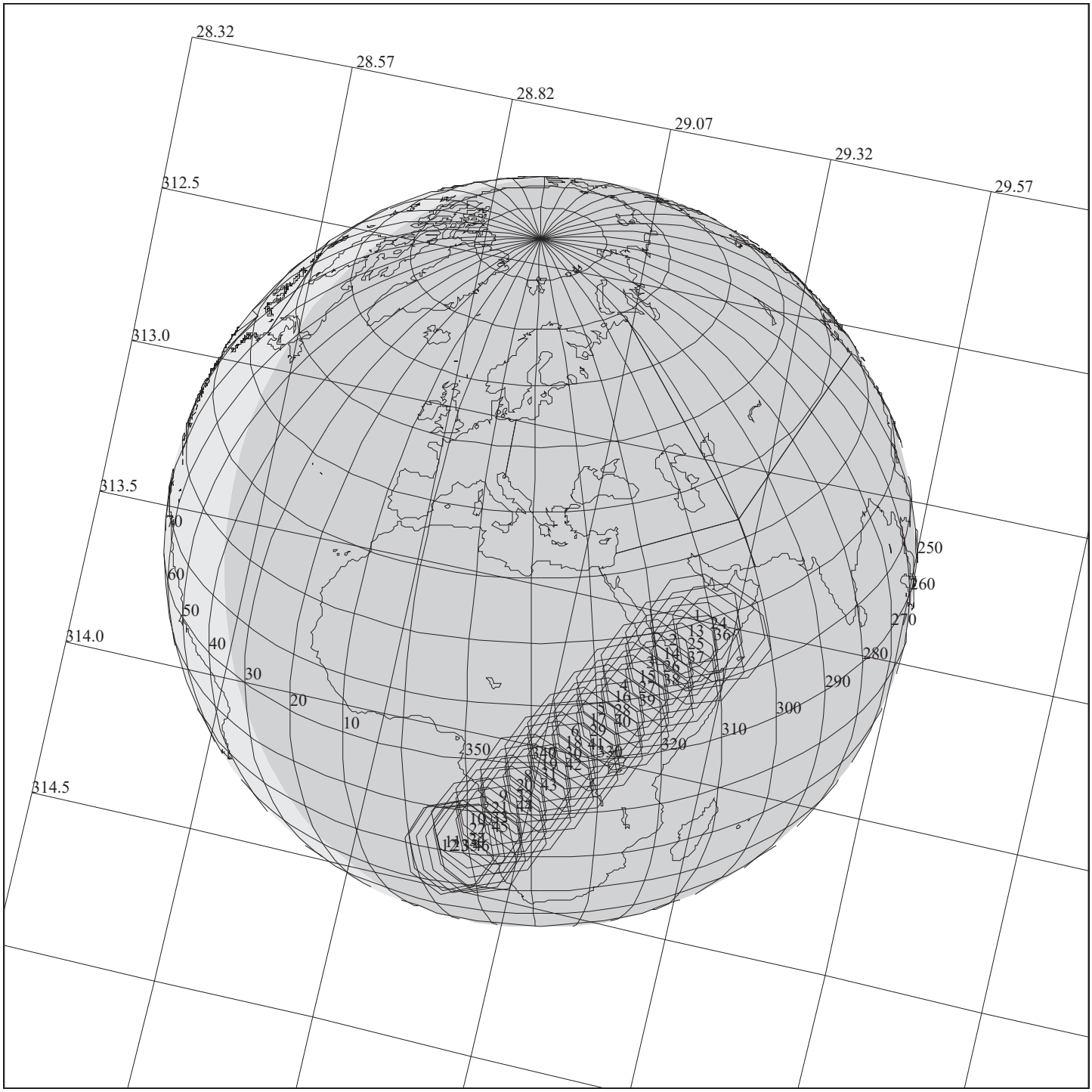
CDS 275 POINTER Design N Frames 0.00 Exc Alias

Rectangular raster scan, approximately 0.4 by 0.8 deg, slewing in cone. Step size 0.05 deg and slew rate approximately 10 microradians/sec.

Note: The cone resolution (about 1 mrad) in this mosaic is about ten times larger than the smallest step size used in the EE9 Sirius starcal observation E2HNSTARFL01 (alias E2HPTSTARS02).

Created on	02/20/92	Version	3		07/18/94
Last Changed	03/12/92	Changed By	L. TAMPPARI		14:50:20

Galileo Activity Plan Form rev 6/93



E2NNQUICAL06

POINTER C5.1

FILE:P.E2WPNITLIT01

CENTRAL BODY:EARTH

MINI:m.E2WPNITLIT01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-342/19:58:46.133

ACTIVITY:E2WPNITLIT01 **DESCRIP:LIGHTNING SEARCH**

NIMS QUIET TEST — ACTIVITY ID: E2NNQUICAL06*
6 OF 7 — START TIME: ECA-CDS 00001138:00:0

Activity ID Orbit E2 Target N Inst N OAPEL QUICAL SeqNo 06 Multi *
Title NIMS Quiet Test
Requestor J. HUI — Working Group
Bottom Label — Plot Key NIMS — Science Team NIMS

Time System	CDS	Load ID EE11	Calendar Date / /	Week
Start	ECA-CDS	00001138:00:0	92-342/19:58:47	ECA-000/19:10:38
End	ECA-CDS	00001110:00:0	92-342/20:27:05	ECA-000/18:42:20
Duration		00000028:00:0	000/00:28:18	000/00:28:18

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format — Record Duration — Tic Duration
Multiple Records — Acq Start/Stop Cycles 0 — Start Tics 0 — Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD T	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR T	NIMS T	PLS F

REALTIME: RTS FORMAT — RTS Rate — Playback — Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 — Bits-to-Ground 0 — Playback S/S Cycles 0

Observation Objective

NIMS will listen for noise from the EPD stepper motor.

Design Detail

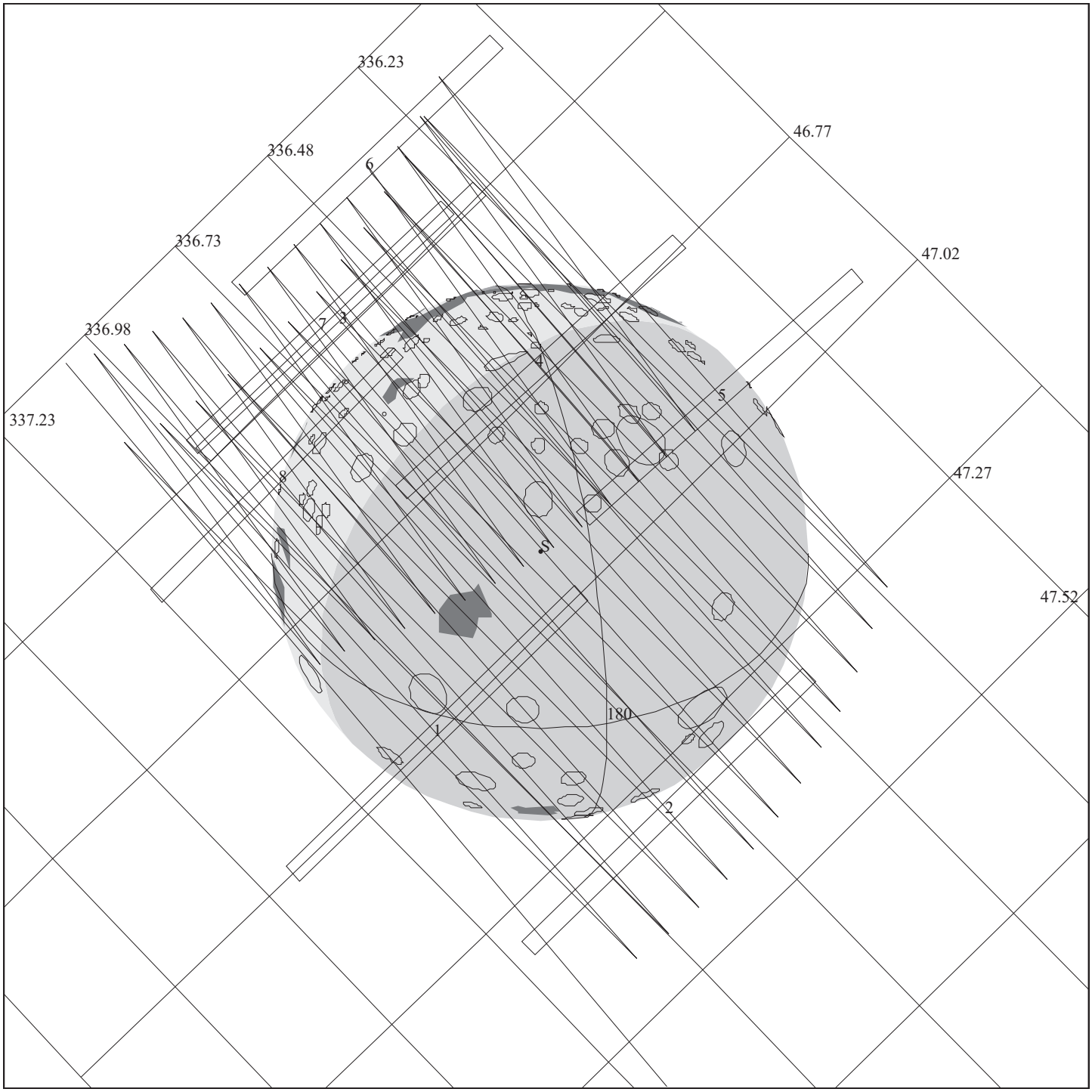
CDS 56 POINTER Design N Frames 0.00 Exc Alias E2WPNITLIT01

NIMS is riding along with the PPR WPNITLIT and EPD E2MEEPSCAN01 observations, NIMS is in Safe Mode for listening to noise from the EPD stepper motor. All NIMS requires is to be in the correct telemetry mode.

This is part of the full NIMS Quiet test which consists of listening for noise from the UVS grating motor, MAG inboard and outboard flippers, MAG internal and external calibration coils, SSI filter wheel, DDS high voltage setting 4, PPR filter wheel and EPD stepper motor.
Safe Mode (XS) 17 wavelengths
Gain State 4
Grating Start Position 0
Chopper Mode Reference
SSI PICNOS: None

Created on	02/25/92	Version	17	07/18/94
Last Changed	11/11/92	Changed By	J. HUI	14:50:20

Galileo Activity Plan Form — rev 6/93



E2NNQUICAL07

POINTER C5.1

FILE:P.E2LPLUNFAZ02

CENTRAL BODY: MOON

MINI:m.E2LPLUNFAZ02

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-342/20:32:08.133

ACTIVITY:E2LPLUNFAZ02 **DESCRIP:125-120 DEG PHASE**

NIMS QUIET TEST — ACTIVITY ID: E2NNQUICAL07*
7 OF 7 — START TIME: ECA-CDS 00001105:00:0

Activity ID Orbit E2 Target N Inst N OAPEL QUICAL SeqNo 07 Multi *
Title NIMS Quiet Test
Requestor J. HUI — Working Group
Bottom Label — Plot Key NIMS — Science Team NIMS

Time System	CDS	Load ID EE11	Calendar Date / /	Week
Start	ECA-CDS	00001105:00:0	92-342/20:32:09	ECA-000/18:37:16
End	ECA-CDS	00000996:00:0	92-342/22:22:21	ECA-000/16:47:04
Duration		00000109:00:0	000/01:50:12	000/01:50:12

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format — Record Duration — Tic Duration
Multiple Records — Acq Start/Stop Cycles 0 — Start Tics 0 — Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR T	NIMS T	PLS F

REALTIME: RTS FORMAT — RTS Rate — Playback — Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 — Bits-to-Ground 0 — Playback S/S Cycles 0

Observation Objective

NIMS will listen for noise from the PPR filter wheel. At the same time NIMS is getting an image of the Moon in SM mode.

Design Detail

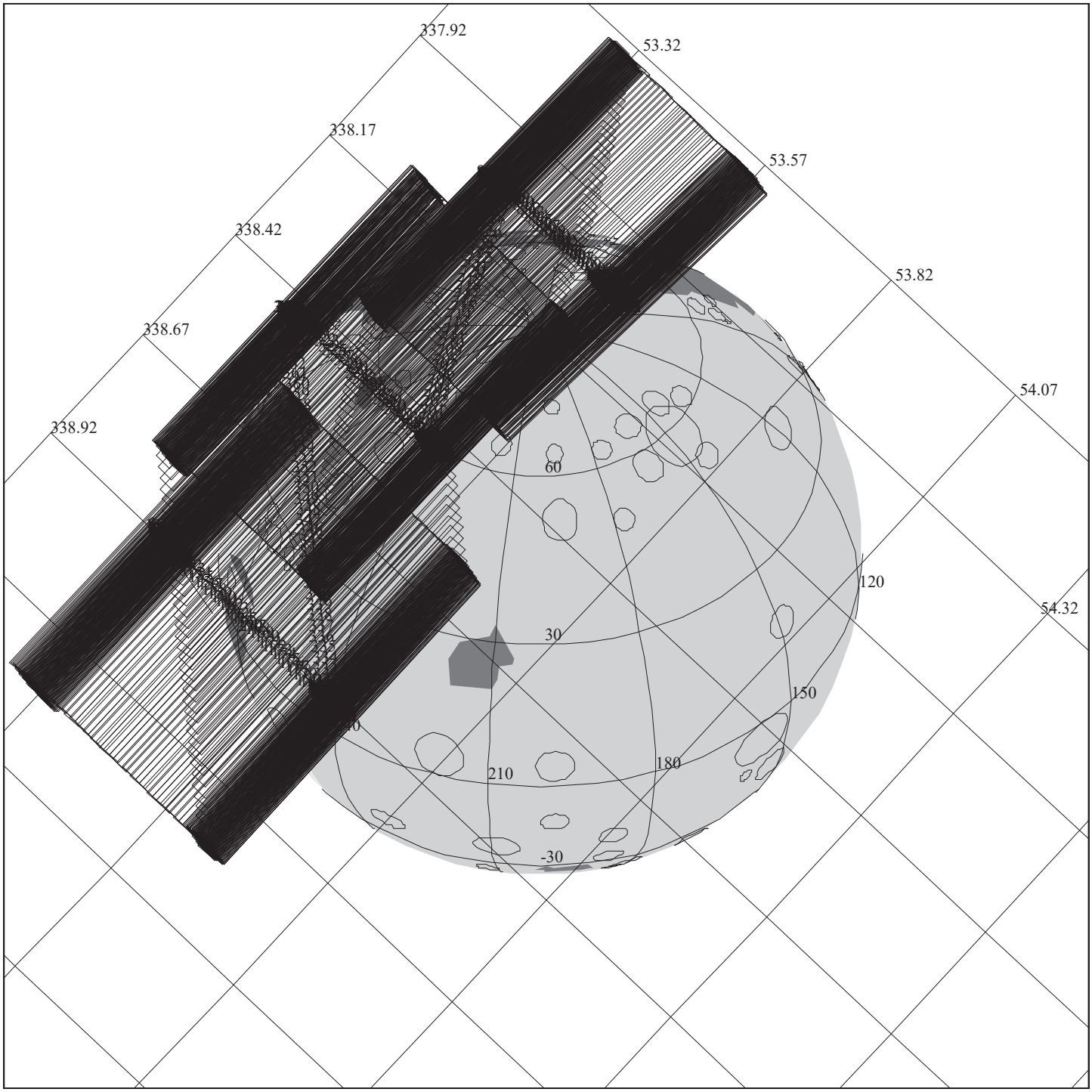
CDS 0 POINTER Design N Frames 0.00 Exc Alias E2LPLUNFAZ02

NIMS is riding along with the PPR LPLUNFAZ02 observations. NIMS is in Short Map Mode for listening to noise from the PPR filter wheel and mapping the entire moon at the save time.

This is part of the full NIMS Quiet test which consists of listening for noise from the UVS grating motor, MAG inboard and outboard flippers, MAG internal and external calibration coils, SSI filter wheel, DDS high voltage setting 4, PPR filter wheel and EPD stepper motor.
Short Map (SM) 102 wavelengths
Gain State 1
Grating Start Position 2
Chopper Mode 63Hz
SSI PICNOS: None

Created on	02/25/92	Version	17		07/18/94
Last Changed	11/11/92	Changed By	J. HUI		14:50:24

Galileo Activity Plan Form — rev 6/93



E2LNPHASE_01

POINTER C5.1

FILE:P.E2LSLUNMOS01

CENTRAL BODY: MOON

MINI:m.E2LSLUNMOS01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-342/22:25:22.800

ACTIVITY:E2LSLUNMOS01 **DESCRIP:SSI PHASE ANGLE CVG/PHOTOMETRIC**

NIMS LUNAR POLAR AND PHASE COVERAGE ACTIVITY ID: E2LNPHASE 01*
1 OF 11 START TIME: ECA-CDS 00000995:00:0

Activity ID Orbit E2 Target L Inst N OAPEL PHASE SeqNo 01 Multi *
Title NIMS Lunar Polar and Phase Coverage
Requestor J. HUI Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00000995:00:0	92-342/22:23:22	ECA-000/16:46:03
End	ECA-CDS 00000937:00:0	92-342/23:22:01	ECA-000/15:47:24
Duration	00000058:00:0	000/00:58:39	000/00:58:39

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

Lunar phase coverage and polar observation. Phase range from 131.2 degrees to 128.4 degrees for part of phase curve.

Design Detail

CDS 14 POINTER Design Y Frames 0.00 Exc Alias E2LSLUNMOS01

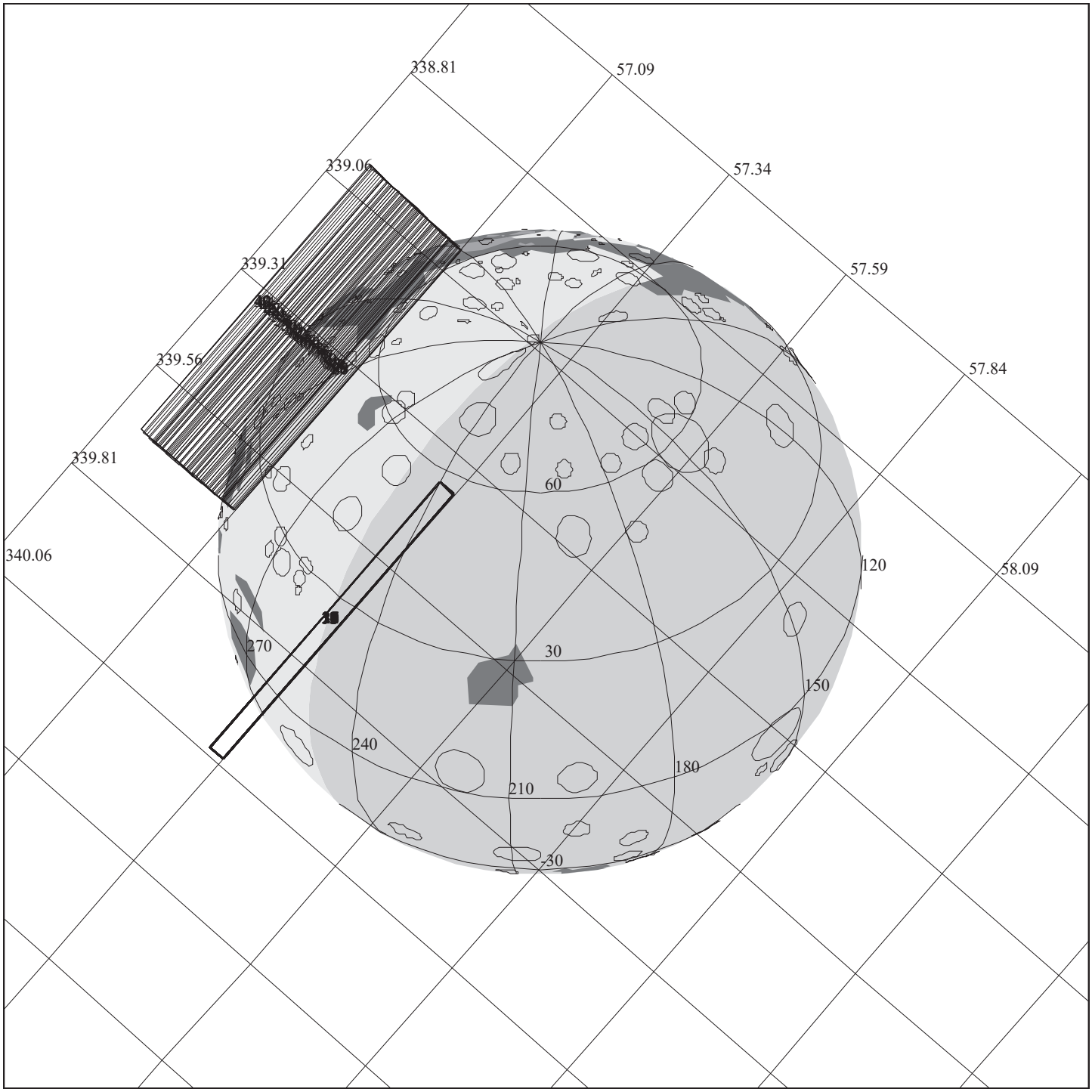
This IS a joint observation between NIMS and SSI. The observation covers the illuminated side of the Moon, including the North Pole. The scan rate is 0.06 mrad/sec (Double Nyquist slew rate for proper registration). The mosaic is 3 swaths in Short Map Mode (SM), 102 wavelengths.

Short Map (SM) 102 wavelengths.
Gain State 1
Grating Start Position 2
Chopper Mode 63 Hz

Mosaic: Three swaths, limb to terminator, Z scan, starting near the left side of the pointer plot near cone 53.32, clock 338.92.
SSI PICNOS: E2L0001 - E2L0082

Created on	02/24/92	Version	22		07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE		14:50:28

Galileo Activity Plan Form rev 6/93



E2LN4GAIN_01

POINTER C5.1

FILE:P.E2LN4GAIN_01

CENTRAL BODY: MOON

MINI:m.E2LN4GAIN_01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-342/23:08:51.466

ACTIVITY:E2LN4GAIN_01 **DESCRIP:TARGET TO LAT/LON ON MOON**

NIMS 4 GAIN STATE CALIBRATION ACTIVITY ID: E2LN4GAIN 01-
START TIME: ECA-CDS 00000950:00:0

Activity ID Orbit E2 Target L Inst N OAPEL 4GAIN SeqNo 01 Multi -
Title NIMS 4 Gain State Calibration
Requestor J. HUI Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00000950:00:0	92-342/23:08:52	ECA-000/16:00:33
End	ECA-CDS 00000940:00:0	92-342/23:18:59	ECA-000/15:50:26
Duration	00000010:00:0	000/00:10:07	000/00:10:07

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

NIMS calibration of the the 4 different gain states in NIMS with the Moon as a calibrating target. Also the limb scan will help with the pointing calibration.

Design Detail

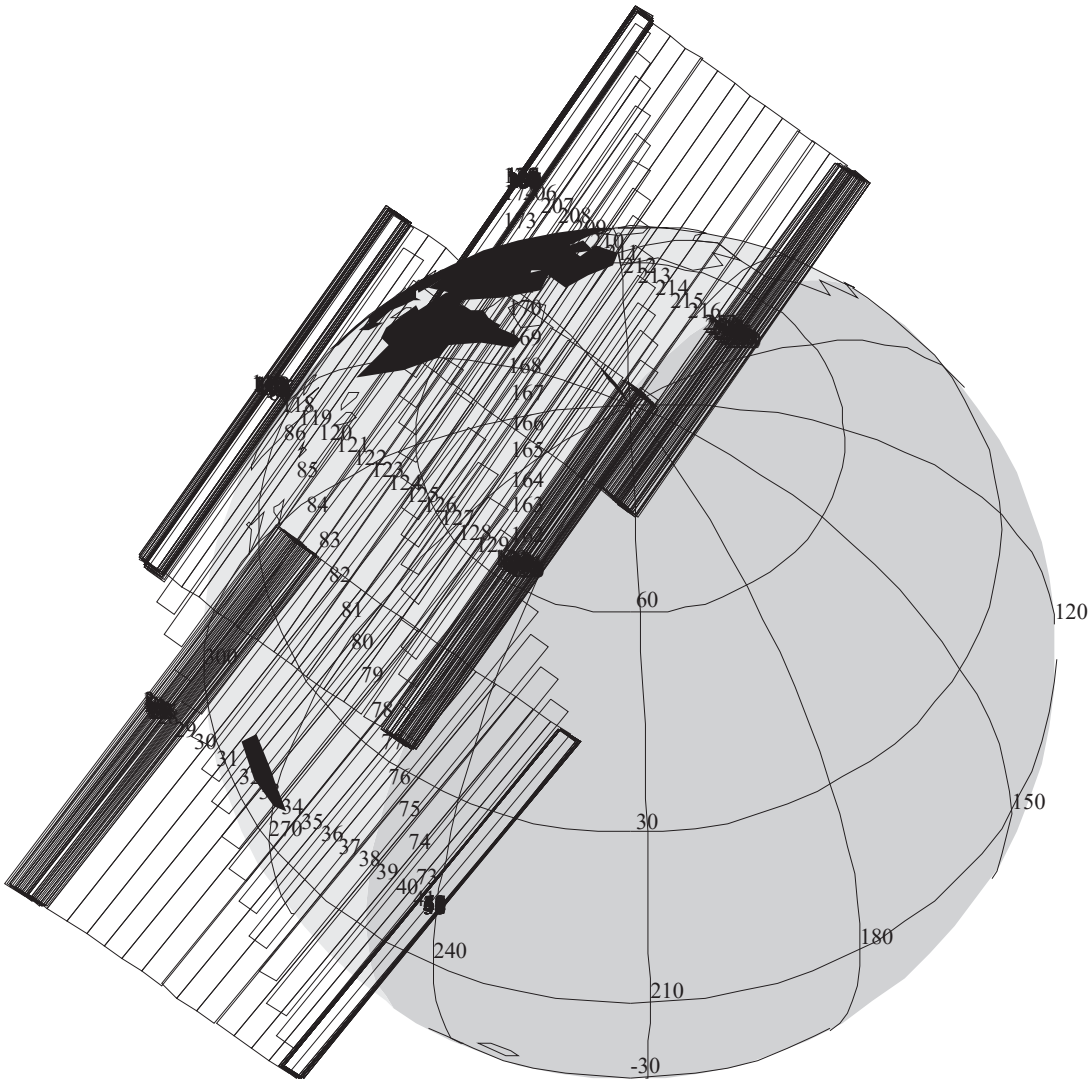
CDS 320 POINTER Design Y Frames 0.00 Exc Alias

There are two parts to this observation. Cooperative images are required.
1) NIMS will point at one spot near the Moon's Terminator and observe one Rim per NIMS gain state, all gain states, in Fixed Map mode (XM) for a total of 4 Rims.
2) NIMS will point at a bright limb that is parallel to the x-cone direction and slew in cone at 0.01 mrad/sec in Fixed Map mode (XM) over 3 Rims in gain state 1. The slew direction is from dark to moon.

Fixed Map (XM)
Gain States 4,3,2,1
Grating Start Position 6
Chopper Mode 63 Hz
SSI PICNOS: E2L0090 - E2L0101

Created on	02/24/92	Version	13	07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE	14:50:32

Galileo Activity Plan Form rev 6/93



E2LNPHASE_02

POINTER C5.1

FILE:P.E2LSLUNMOS02

CENTRAL BODY: MOON

MINI:m.E2LSLUNMOS02

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-342/23:24:01.466

ACTIVITY:E2LSLUNMOS02 **DESCRIP:SSI PHASE ANGLE CVG/PHOTOMETRIC**

NIMS LUNAR POLAR AND PHASE COVERAGE ACTIVITY ID: E2LNPHASE 02*
2 OF 11 START TIME: ECA-CDS 00000939:00:0

Activity ID Orbit E2 Target L Inst N OAPEL PHASE SeqNo 02 Multi *
Title NIMS Lunar Polar and Phase Coverage
Requestor J. HUI Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00000939:00:0	92-342/23:19:59	ECA-000/15:49:26
End	ECA-CDS 00000881:00:0	92-343/00:18:38	ECA-000/14:50:47
Duration	00000058:00:0	000/00:58:39	000/00:58:39

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

Lunar polar observation and phase coverage for part of the phase curve; phase range from 117.7 degrees to 111.22 degrees.

Design Detail

CDS 0 POINTER Design Y Frames 0.00 Exc Alias E2LSLUNMOS02

The mosaic will cover the illuminated side of the Moon with three swaths, scanning at 0.03 mrad/sec (Double Nyquist slew rate for proper registration).

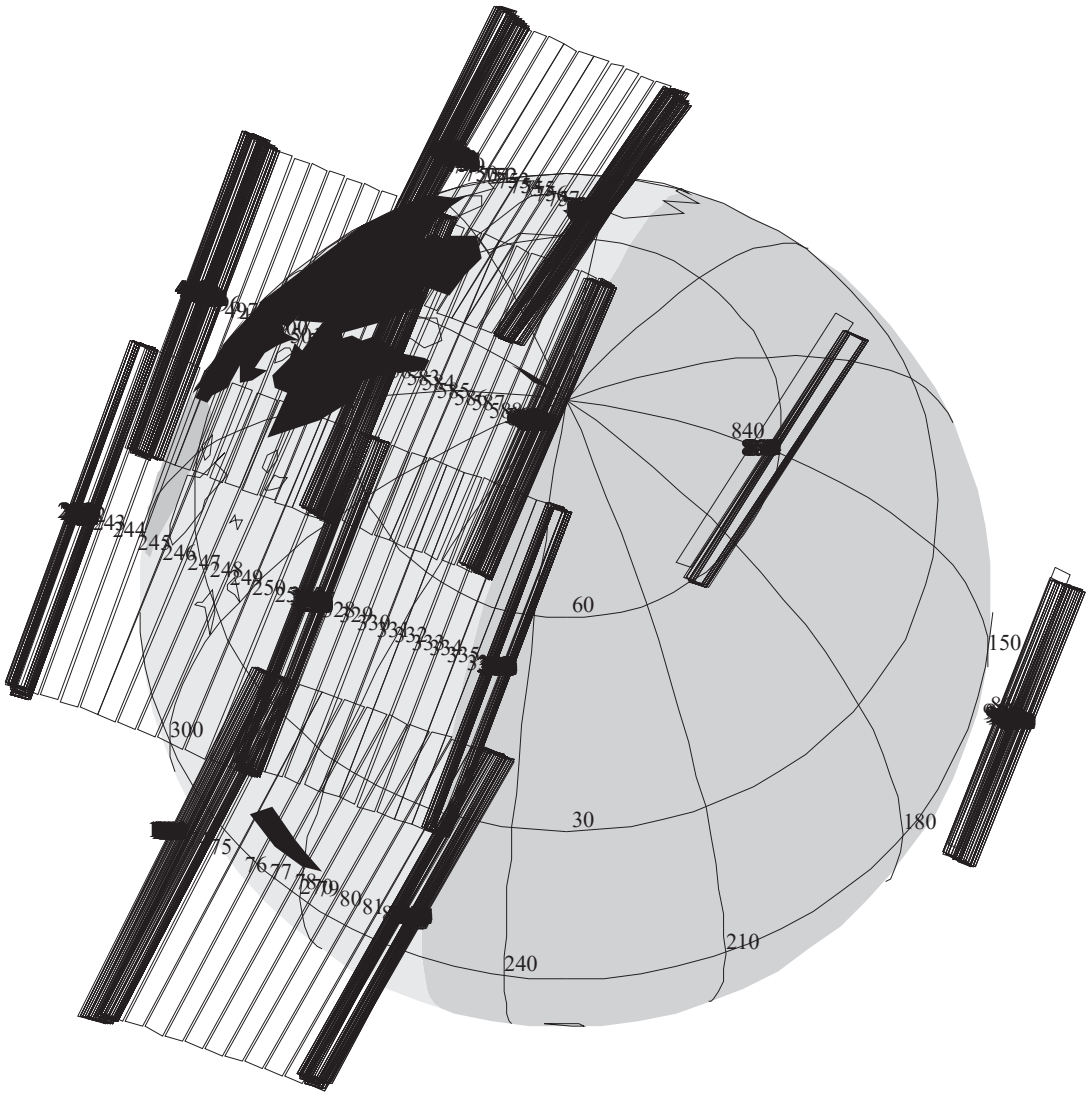
Full Map (FM) 204 wavelengths
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

Mosaic: Three swaths, limb to terminator, Z scan, starting near the lower left side of the pointer plot. The mosaic is very similar to the mosaic in E2LNPHASE01.

SSI PICNOS: E2L0100 - E2L0201

Created on	02/24/92	Version	19	07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE	14:50:36

Galileo Activity Plan Form rev 6/93



E2LNPHASE_03

POINTER C5.1

FILE:P.E2LSLUNMOS03

CENTRAL BODY: MOON

MINI:m.E2LSLUNMOS03

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/00:20:38.800

ACTIVITY:E2LSLUNMOS03 **DESCRIP:SSI PHASE ANGLE CVG/PHOTOMETRIC**

NIMS LUNAR POLAR AND PHASE COVERAGE ACTIVITY ID: E2LNPHASE 03*
3 OF 11 START TIME: ECA-CDS 00000880:00:0

Activity ID Orbit E2 Target L Inst N OAPEL PHASE SeqNo 03 Multi *
Title NIMS Lunar Polar and Phase Coverage
Requestor J. HUI Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00000880:00:0	92-343/00:19:39	ECA-000/14:49:46
End	ECA-CDS 00000739:00:0	92-343/02:42:13	ECA-000/12:27:12
Duration	00000141:00:0	000/02:22:34	000/02:22:34

Inertial SP Y Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR T	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

Lunar polar observation and phase coverage as part of the phase curve; the phase angle ranges from 111 to 85 degrees.

Design Detail

CDS 14 POINTER Design Y Frames 0.00 Exc Alias E2LSLUNMOS03

The mosaic will cover the illuminated side of the Moon with four swaths, scanning at 0.06 mrad/sec (Double Nyquist slew rate for proper registration).

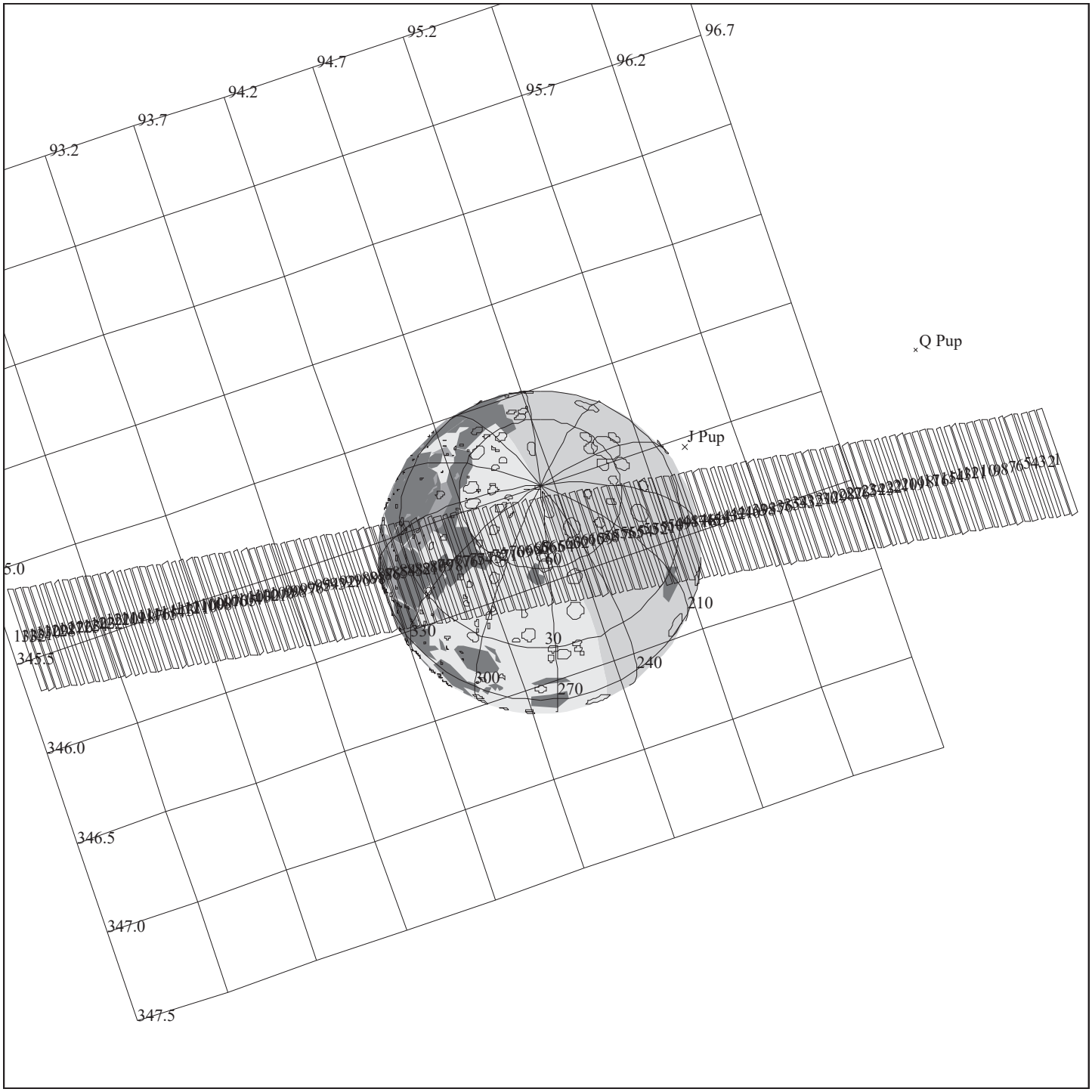
Short Map (SM) 102 wavelengths
Gain State 1
Grating Start Position 2
Chopper Mode 63 Hz

Mosaic: Four swaths, limb to terminator, Z scan, starting near the lower left side of the pointer plot. This mosaic is very similar to the mosaic in E2LNPHASE01 but with an extra swath.

SSI PICNOS: E2L0210 - E2L0345

Created on	02/24/92	Version	24		07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE		14:50:40

Galileo Activity Plan Form rev 6/93



E2LNPHASE_04

POINTER C5.1

FILE:P.E2LULNRLMB01

CENTRAL BODY: MOON

MINI:m.E2LULNRLMB01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/02:47:15.466

ACTIVITY:E2LULNRLMB01 **DESCRIP:TARGET FOR UVS LNRLMB**

NIMS LUNAR POLAR AND PHASE COVERAGE ACTIVITY ID: E2LNPHASE 04*
4 OF 11 START TIME: ECA-CDS 00000735:00:0

Activity ID Orbit E2 Target L Inst N OAPEL PHASE SeqNo 04 Multi *
Title NIMS Lunar Polar and Phase Coverage
Requestor J. HUI Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00000735:00:0	92-343/02:46:15	ECA-000/12:23:10
End	ECA-CDS 00000712:00:0	92-343/03:09:31	ECA-000/11:59:54
Duration	00000023:00:0	000/00:23:16	000/00:23:16

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS T
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

This is a ride along with the UVS limb DRIFT observation. NIMS will do the HNDARK calibration for each of the modes used on all the Lunar observations.

NIMS Lunar polar observation and phase coverage for part of the phase curve; the phase angle ranges from 84.5 to 78.7 degrees.

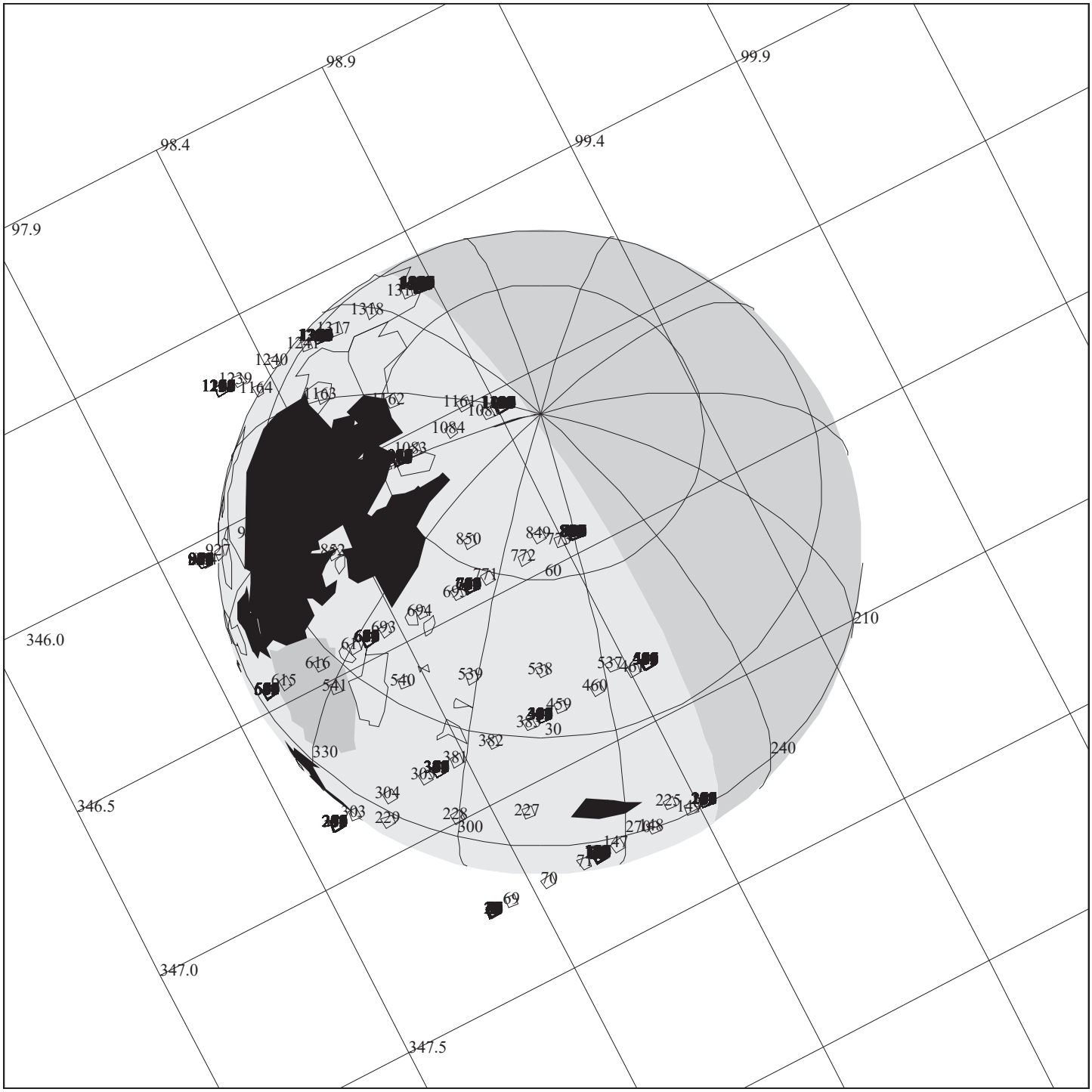
Design Detail

CDS 42 POINTER Design Y Frames 0.00 Exc Alias E2LULNRLMB01

This observation drifts across the moon without a CSMOS with a single swath covering the North Pole as well as both dark and bright limbs. The drift rate of 0.074 mrad/sec requires NIMS to be in Fixed Map mode (XM) for proper registration. Dark values are also acquired for all modes used in lunar observations: Short Map (SM), Full Map (FM), Fixed Map (XM) and Fixed Spectrometer (XS)
Fixed Map (XM) (Actually on the Moon)
Gain State 1
Grating Start Position 6
Chopper Mode 63 Hz
Mosaic: A single swath drifts across the northern hemisphere of the moon from darkside limb to dayside limb. Dark acquired before the drift start.
SSI PICNOS: E2L0340 - E2L0355

Created on	02/24/92	Version	25	07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE	14:50:44

Galileo Activity Plan Form rev 6/93



E2LNPHASE_05

POINTER C5.1

FILE:P.E2LSLUNMOS04

CENTRAL BODY: MOON

MINI:m.E2LSLUNMOS04

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/03:12:32.133

ACTIVITY:E2LSLUNMOS04 **DESCRIP:SSI HIGHEST PRIORITY-6 COLOR LUN**

NIMS LUNAR POLAR AND PHASE COVERAGE ACTIVITY ID: E2LNPHASE 05*
5 OF 11 START TIME: ECA-CDS 00000711:00:0

Activity ID Orbit E2 Target L Inst N OAPEL PHASE SeqNo 05 Multi *
Title NIMS Lunar Polar and Phase Coverage
Requestor J. HUI Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00000711:00:0	92-343/03:10:31	ECA-000/11:58:54
End	ECA-CDS 00000693:00:0	92-343/03:28:43	ECA-000/11:40:42
Duration	00000018:00:0	000/00:18:12	000/00:18:12

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

NIMS Lunar polar observation and phase coverage for part of the phase curve; the phase angle ranges from 78.3 to 73.8 degrees.

Design Detail

CDS 0 POINTER Design Y Frames 0.00 Exc Alias E2LSLUNMOS04

NIMS is in Fixed Spectrometer mode (XS) with a slew rate of 1.2 mrad/sec.
NIMS will get a jailbars observation over the illuminated side of the moon.

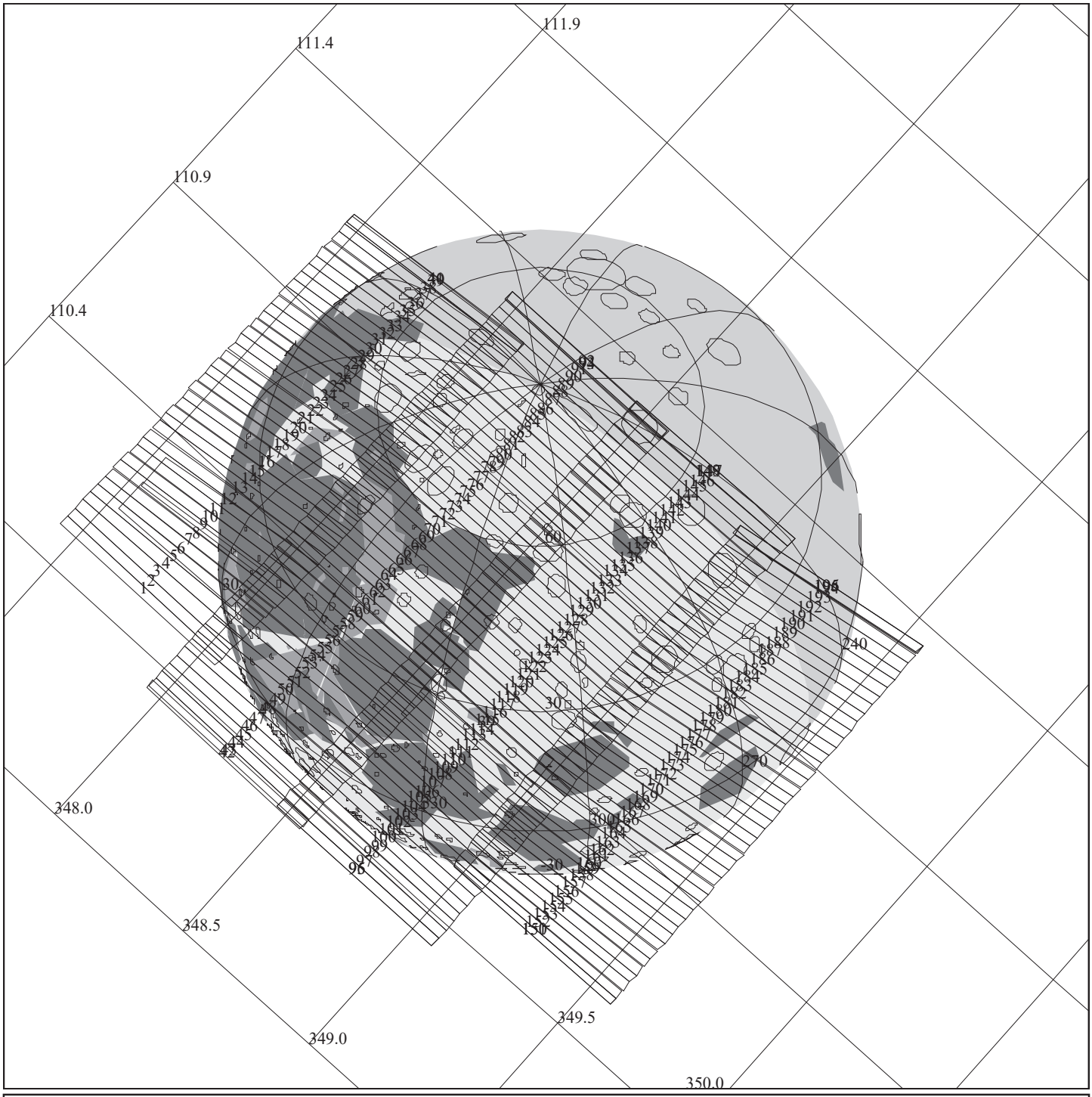
Fixed Spectrometer (XS) (XM with MPT to turn off mirror scan)
Gain State 1
Grating Start Position 6
Chopper Mode 63 Hz

Mosaic: Five swaths, limb to terminator, Z scan, starting near the lower left side of the pointer plot.

SSI PICNOS: E2L0360 - E2L0469

Created on	02/24/92	Version	27	07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE	14:50:48

Galileo Activity Plan Form rev 6/93



E2LNHIRES_01

POINTER C5.1

FILE:P.E2LNHIRES_01

CENTRAL BODY: MOON

MINI:m.E2LNHIRES_01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/03:29:43.466

ACTIVITY:E2LNHIRES_01 **DESCRIP:TARGET TO MOON FOR HIRES**

NIMS HI SPATIAL-RESOLUTION MOON OBS. ACTIVITY ID: E2LNHIRES 01*
START TIME: ECA-CDS 00000692:00:0

Activity ID Orbit E2 Target L Inst N OAPEL HIRES SeqNo 01 Multi *
Title NIMS Hi Spatial-Resolution Moon Obs.
Requestor J. HUI Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00000692:00:0	92-343/03:29:44	ECA-000/11:39:41
End	ECA-CDS 00000636:00:0	92-343/04:26:21	ECA-000/10:43:04
Duration	00000056:00:0	000/00:56:37	000/00:56:37

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR T	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

NIMS highest spatial resolution polar view and part of phase curve; phase angle ranges from 73.4 to 58.7 degrees.

Design Detail

CDS 290 POINTER Design Y Frames 0.00 Exc Alias

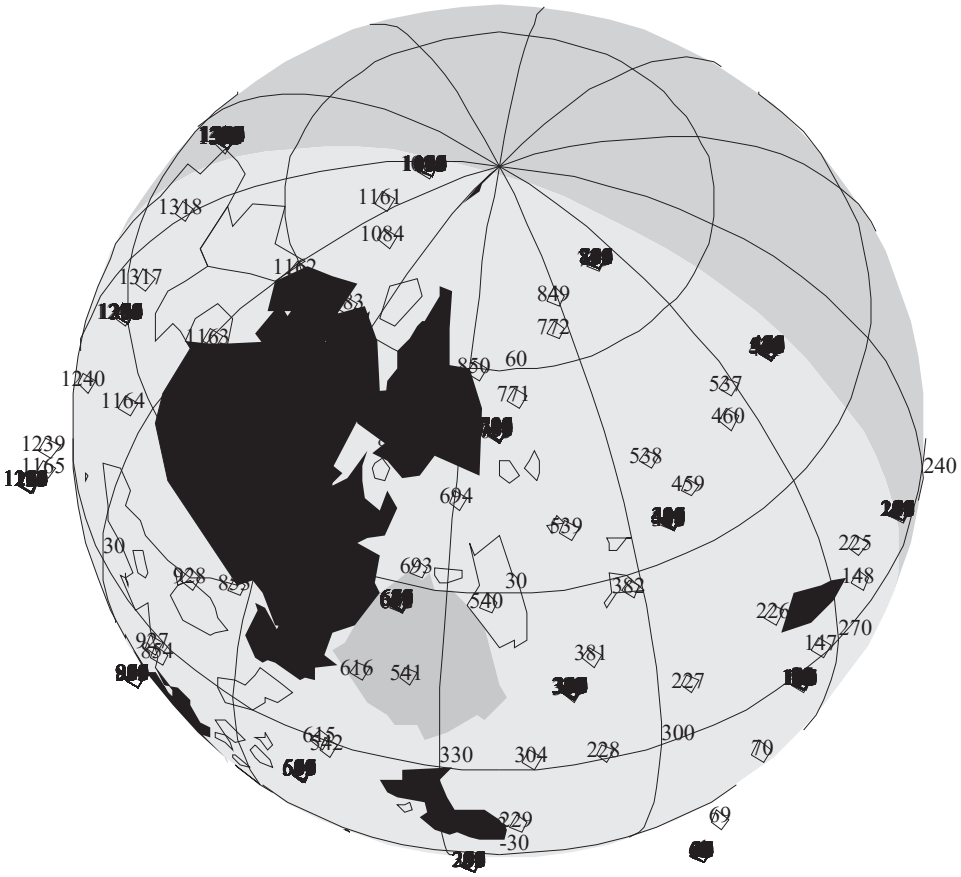
This observation covers all of the illuminated side of the Moon and the North pole with a spatial resolution of 56 km. The scan is at 0.03 mrad/sec (Double Nyquist slew rate for proper registration) with 4 swaths in Full Map mode (FM), 204 wavelengths, over 56 Rims.

Full Map (FM), 204 wavelengths
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

Mosaic: Four swaths, limb to terminator, Z scan, starting at the far left side of the pointer plot.
SSI PICNOS: E2L0480 - E2L0591

Created on	02/24/92	Version	27		07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE		14:50:52

Galileo Activity Plan Form rev 6/93



E2LNPHASE_06

POINTER C5.1

FILE:P.E2LSLUNMOS05

CENTRAL BODY: MOON

MINI:m.E2LSLUNMOS05

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/04:29:22.800

ACTIVITY:E2LSLUNMOS05 **DESCRIP:SSI HIGHEST PRIORITY-6 COLOR LUN**

NIMS LUNAR POLAR AND PHASE COVERAGE ACTIVITY ID: E2LNPHASE 06*
6 OF 11 START TIME: ECA-CDS 00000635:00:0

Activity ID Orbit E2 Target L Inst N OAPEL PHASE SeqNo 06 Multi *
Title NIMS Lunar Polar and Phase Coverage
Requestor J. HUI Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00000635:00:0	92-343/04:27:22	ECA-000/10:42:03
End	ECA-CDS 00000617:00:0	92-343/04:45:34	ECA-000/10:23:51
Duration	00000018:00:0	000/00:18:12	000/00:18:12

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

NIMS Lunar polar observation and phase coverage for part of the phase curve; the phase angle ranges from 58.4 to 54 degrees.

Design Detail

CDS 23 POINTER Design Y Frames 0.00 Exc Alias E2LSLUNMOS05

NIMS is in Fixed Spectrometer mode (XS) with a slew rate of 1.2 mrad/sec. NIMS will get a jailbars observation over the illuminated side of the moon.

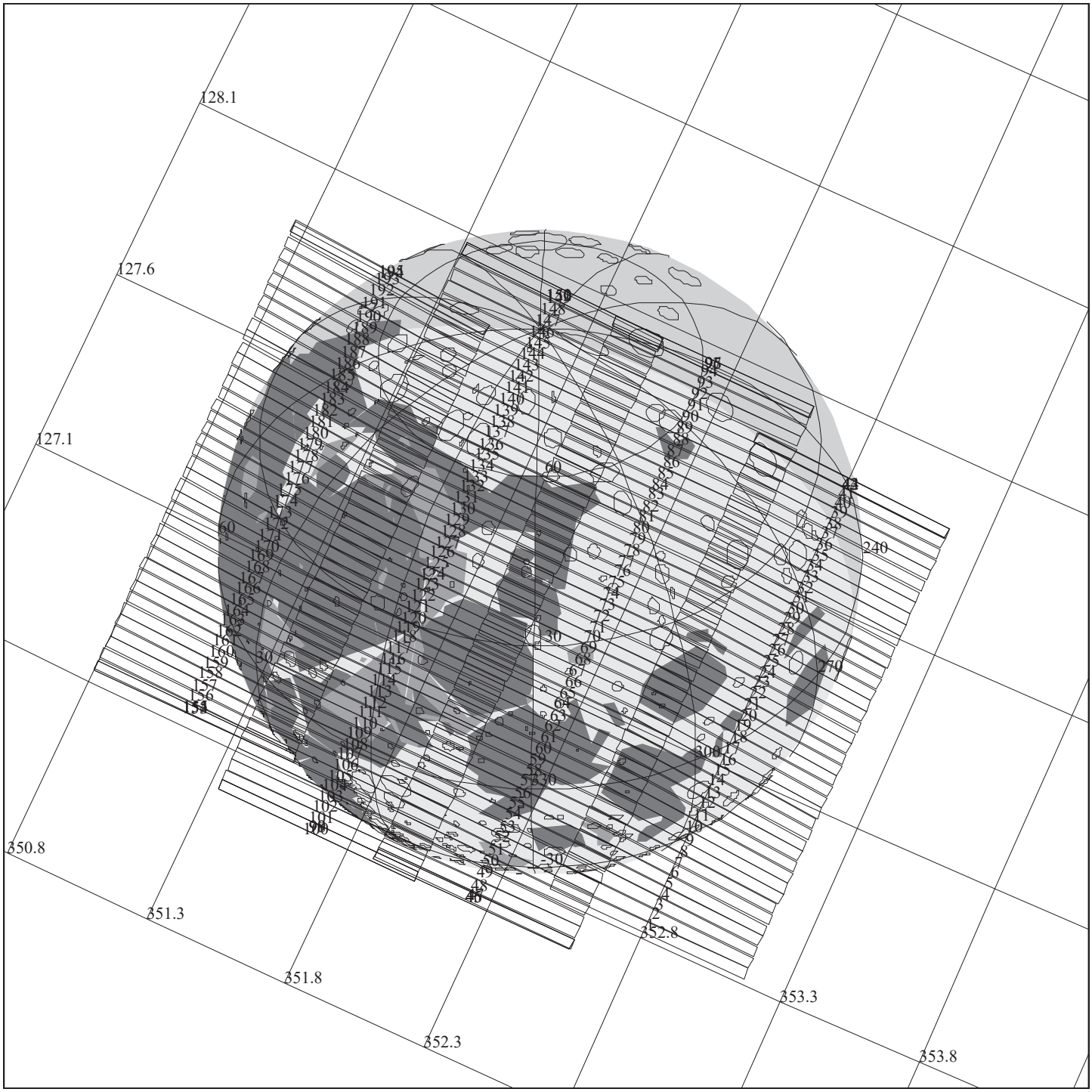
Fixed Spectrometer (XS) (XM with MPT to turn off mirror scan)
Gain State 1
Grating Start Position 6
Chopper Mode 63 Hz

Mosaic: Five swaths, limb to terminator, Z scan, starting near the lower right side of the pointer plot.

SSI PICNOS: E2L0600 - E2L0707

Created on	02/24/92	Version	16	07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE	14:50:56

Galileo Activity Plan Form rev 6/93



E2LNPHASE_07

POINTER C5.1

FILE:P.E2LNPHASE_07

CENTRAL BODY: MOON

MINI:m.E2LNPHASE_07

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/04:46:34.133

ACTIVITY:E2LNPHASE_07 **DESCRIP:TARGET TO MOON FOR PHASE7**

NIMS LUNAR POLAR AND PHASE COVERAGE ACTIVITY ID: E2LNPHASE 07-
7 OF 11 START TIME: ECA-CDS 00000616:00:0

Activity ID Orbit E2 Target L Inst N OAPEL PHASE SeqNo 07 Multi -
Title NIMS Lunar Polar and Phase Coverage
Requestor J. HUI Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00000616:00:0	92-343/04:46:35	ECA-000/10:22:50
End	ECA-CDS 00000586:00:0	92-343/05:16:55	ECA-000/09:52:30
Duration	00000030:00:0	000/00:30:20	000/00:30:20

Inertial SP Y Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

NIMS Lunar polar observation and phase coverage for part of the phase curve; phase angle ranges from 53.3 to 46 degrees.

Design Detail

CDS 240 POINTER Design Y Frames 0.00 Exc Alias

This observation covers all of the illuminated side of the Moon and the North Pole scanning at 0.06 mrad/sec (Double Nyquist slew rate for proper registration) with 4 swaths in Short Map mode (SM), 102 wavelengths.

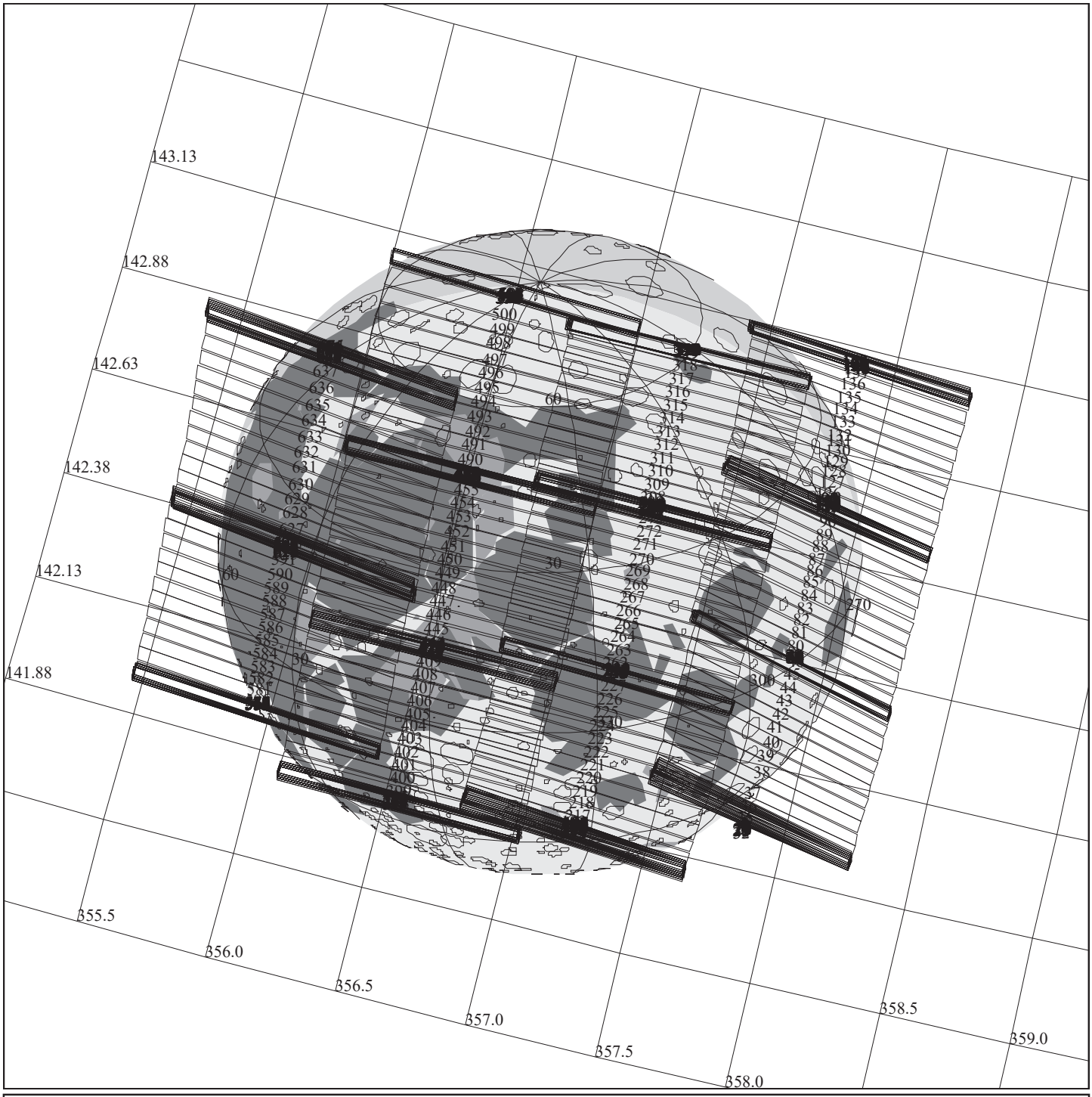
Short Map (SM) 102 wavelengths
Gain State 1
Grating Start Position 2
Chopper Mode 63 Hz

Mosaic: Four swaths, limb to terminator, Z scan, starting at the lower right side of the pointer plot.

SSI PICNOS: None

Created on	02/24/92	Version	19		07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE		14:50:59

Galileo Activity Plan Form rev 6/93



E2LNPHASE_08

POINTER C5.1

FILE:P.E2LSLUNMOS06

CENTRAL BODY: MOON

MINI:m.E2LSLUNMOS06

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/05:19:56.133

ACTIVITY:E2LSLUNMOS06 **DESCRIP:SSI PHASE ANGLE CVG/PHOTOMETRIC**

NIMS LUNAR POLAR AND PHASE COVERAGE ACTIVITY ID: E2LNPHASE 08*
8 OF 11 START TIME: ECA-CDS 00000585:00:0

Activity ID Orbit E2 Target L Inst N OAPEL PHASE SeqNo 08 Multi *
Title NIMS Lunar Polar and Phase Coverage
Requestor J. HUI Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00000585:00:0	92-343/05:17:55	ECA-000/09:51:30
End	ECA-CDS 00000478:00:0	92-343/07:06:07	ECA-000/08:03:18
Duration	00000107:00:0	000/01:48:12	000/01:48:12

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR T	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

NIMS Lunar polar and phase coverage for phase angle 46 to 26.5 degrees for phase curve.

Design Detail

CDS 0 POINTER Design Y Frames 0.00 Exc Alias E2LSLUNMOS06

This observation covers almost all of the illuminated side of the Moon and the North Pole scanning at 0.06 mrad/sec (Double Nyquist slew rate for proper registration) with 4 swaths in Short Map mode (SM), 102 wavelengths.

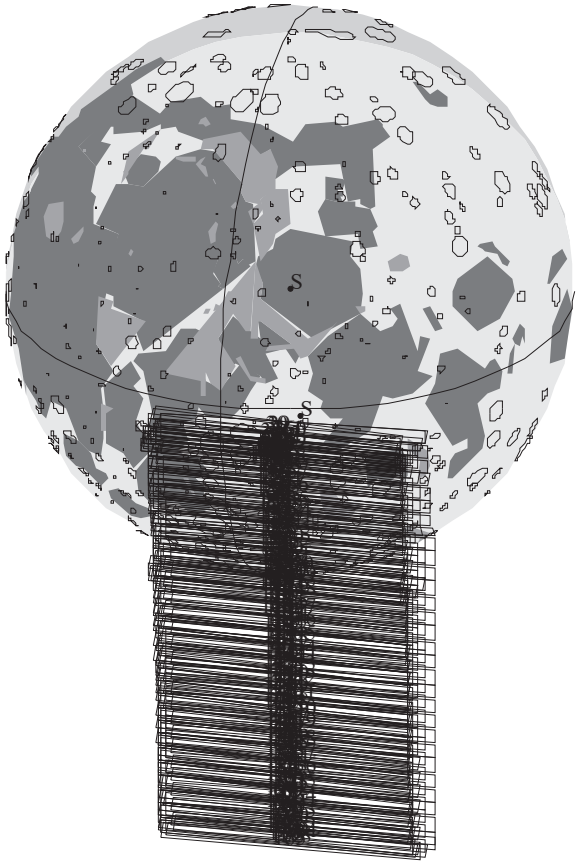
Short Map (SM) 102 wavelengths
Gain State 1
Grating Start Position 2
Chopper Mode 63 Hz

Mosaic: Four swaths, limb to terminator, Z scan, starting at the lower right side of the pointer plot.

SSI PICNOS: E2L0710 - E2L0813

Created on	02/24/92	Version	25		07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE		14:51:03

Galileo Activity Plan Form rev 6/93



E2LNPHASE_09

POINTER C5.1

FILE:P.E2LPFOVMAP01

CENTRAL BODY: MOON

MINI:m.E2LPFOVMAP01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/07:08:07.466

ACTIVITY:E2LPFOVMAP01 **DESCRIP:LIMB CROSSING**

NIMS LUNAR POLAR AND PHASE COVERAGE ACTIVITY ID: E2LNPHASE 09*
9 OF 11 START TIME: ECA-CDS 00000477:00:0

Activity ID Orbit E2 Target L Inst N OAPEL PHASE SeqNo 09 Multi *
Title NIMS Lunar Polar and Phase Coverage
Requestor J. HUI Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00000477:00:0	92-343/07:07:07	ECA-000/08:02:18
End	ECA-CDS 00000447:00:0	92-343/07:37:27	ECA-000/07:31:58
Duration	00000030:00:0	000/00:30:20	000/00:30:20

Inertial SP Y Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR T	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

NIMS Lunar polar and phase coverage for phase angles 26.40 to 23 degrees for part of phase curve.

Design Detail

CDS 14 POINTER Design Y Frames 0.00 Exc Alias E2LPFOVMAP01

This observation consists of seven consecutive limb scans of the south limb of the Moon with the NIMS FOV (x-cone) parallel to the southern limb.

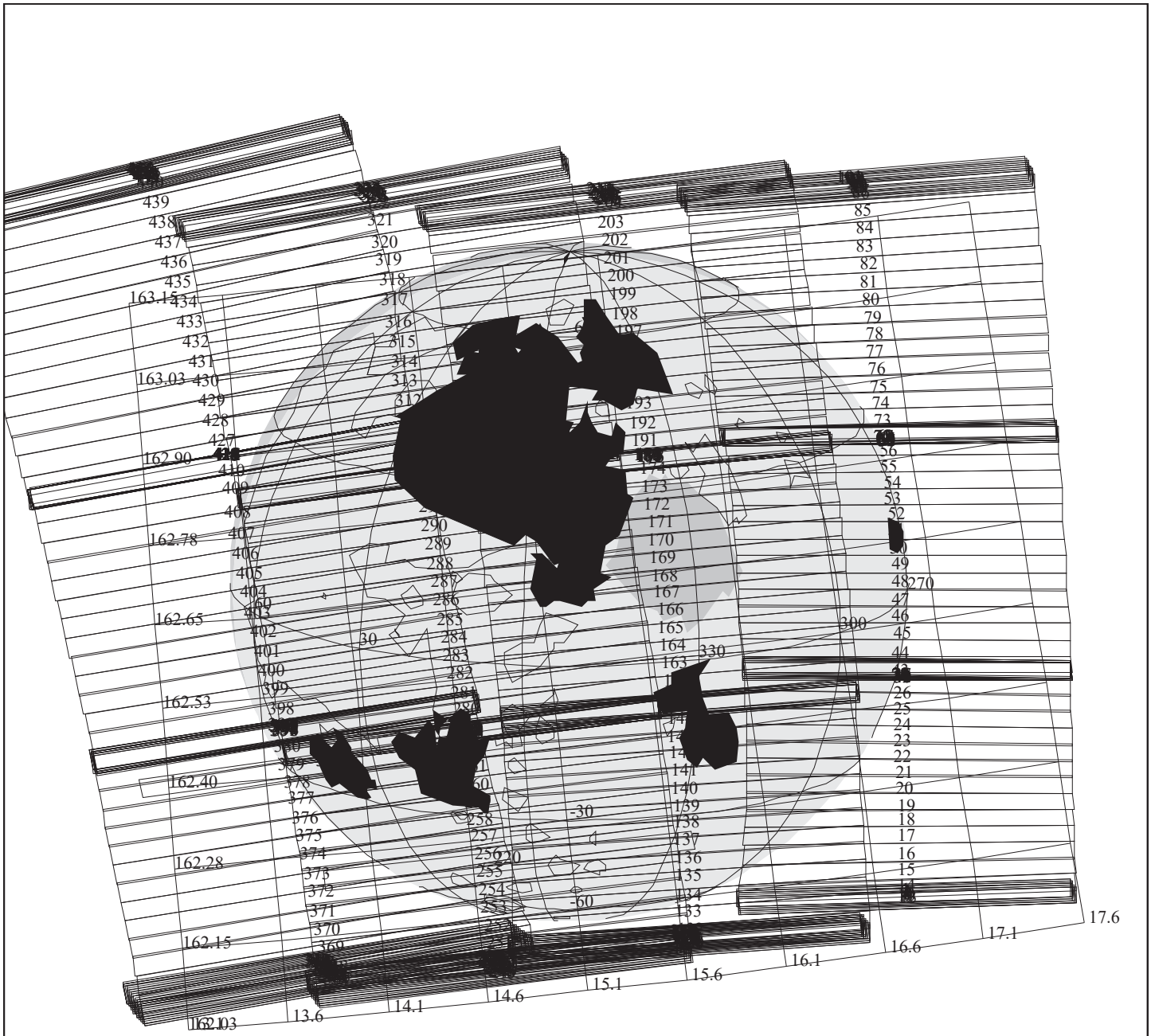
Fixed Map (XM)
Gain State 1
Grating Start Position 6
Chopper Mode 63 Hz

Mosaic: Seven limbs scans from dark to illuminated moon across the southern limb of the moon. The southern limb is parallel to the NIMS FOV (x-cone).

SSI PICNOS: E2L0820 - E2L0823

Created on	02/24/92	Version	17	07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE	14:51:07

Galileo Activity Plan Form rev 6/93



E2LNPHASE_10

POINTER C5.1

FILE:P.E2LSLUNMOS07

CENTRAL BODY: MOON

MINI:m.E2LSLUNMOS07

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/07:59:41.466

ACTIVITY:E2LSLUNMOS07 **DESCRIP:PPP**

NIMS LUNAR POLAR AND PHASE COVERAGE ACTIVITY ID: E2LNPHASE 10*
10 OF 11 START TIME: ECA-CDS 00000426:00:0

Activity ID Orbit E2 Target L Inst N OAPEL PHASE SeqNo 10 Multi *
Title NIMS Lunar Polar and Phase Coverage
Requestor J. HUI Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00000426:00:0	92-343/07:58:41	ECA-000/07:10:44
End	ECA-CDS 00000329:00:0	92-343/09:36:46	ECA-000/05:32:39
Duration	00000097:00:0	000/01:38:05	000/01:38:05

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

NIMS Lunar polar and phase coverage for phase angles 20.9 to 14.8 degrees for phase curve.

Design Detail

CDS 14 POINTER Design Y Frames 0.00 Exc Alias E2LSLUNMOS07

This observation covers all of the illuminated full disk of the Moon scanning at 0.03 mrad/sec (Double Nyquist slew rate for proper registration) with 4 swaths in Full Map mode (FM), 204 wavelengths.

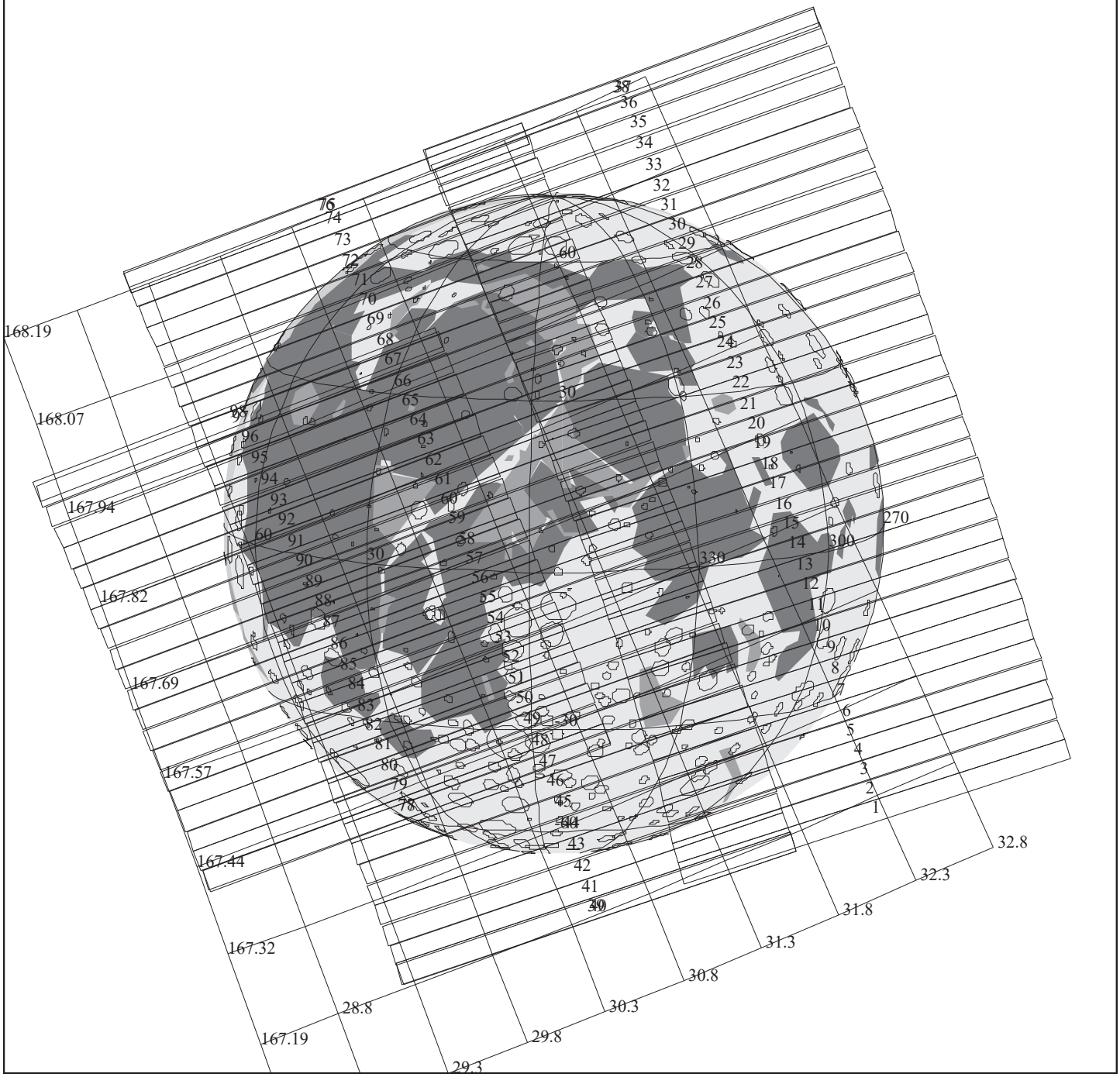
Full Map (FM) 204 wavelengths
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

Mosaic: Four swaths, south to north, Z scan, starting at the lower right side of the pointer plot.

SSI PICNOS: E2L0830 - E2L1015

Created on	02/24/92	Version	25	07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE	14:51:11

Galileo Activity Plan Form rev 6/93



E2LNPHASE_11

POINTER C5.1

FILE:P.E2LNPHASE_11

CENTRAL BODY: MOON

MINI:m.E2LNPHASE_11

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/09:37:46.133

ACTIVITY:E2LNPHASE_11 **DESCRIP:TARGET TO MOON FOR PHASE11**

NIMS LUNAR POLAR AND PHASE COVERAGE ACTIVITY ID: E2LNPHASE 11-
11 OF 11 START TIME: ECA-CDS 00000328:00:0

Activity ID Orbit E2 Target L Inst N OAPEL PHASE SeqNo 11 Multi -
Title NIMS Lunar Polar and Phase Coverage
Requestor J. HUI Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00000328:00:0	92-343/09:37:47	ECA-000/05:31:38
End	ECA-CDS 00000300:00:0	92-343/10:06:05	ECA-000/05:03:20
Duration	00000028:00:0	000/00:28:18	000/00:28:18

Inertial SP Y Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

NIMS Lunar polar observation and phase coverage for part of the phase curve; phase angles range from 14.8 to 14.2 degrees.

Design Detail

CDS 194 POINTER Design Y Frames 0.00 Exc Alias

This observation covers all of the illuminated full disk of the Moon scanning at 0.03 mrad/sec (Double Nyquist slew rate for proper registration) with 3 swaths in Full Map mode (FM), 204 wavelengths.

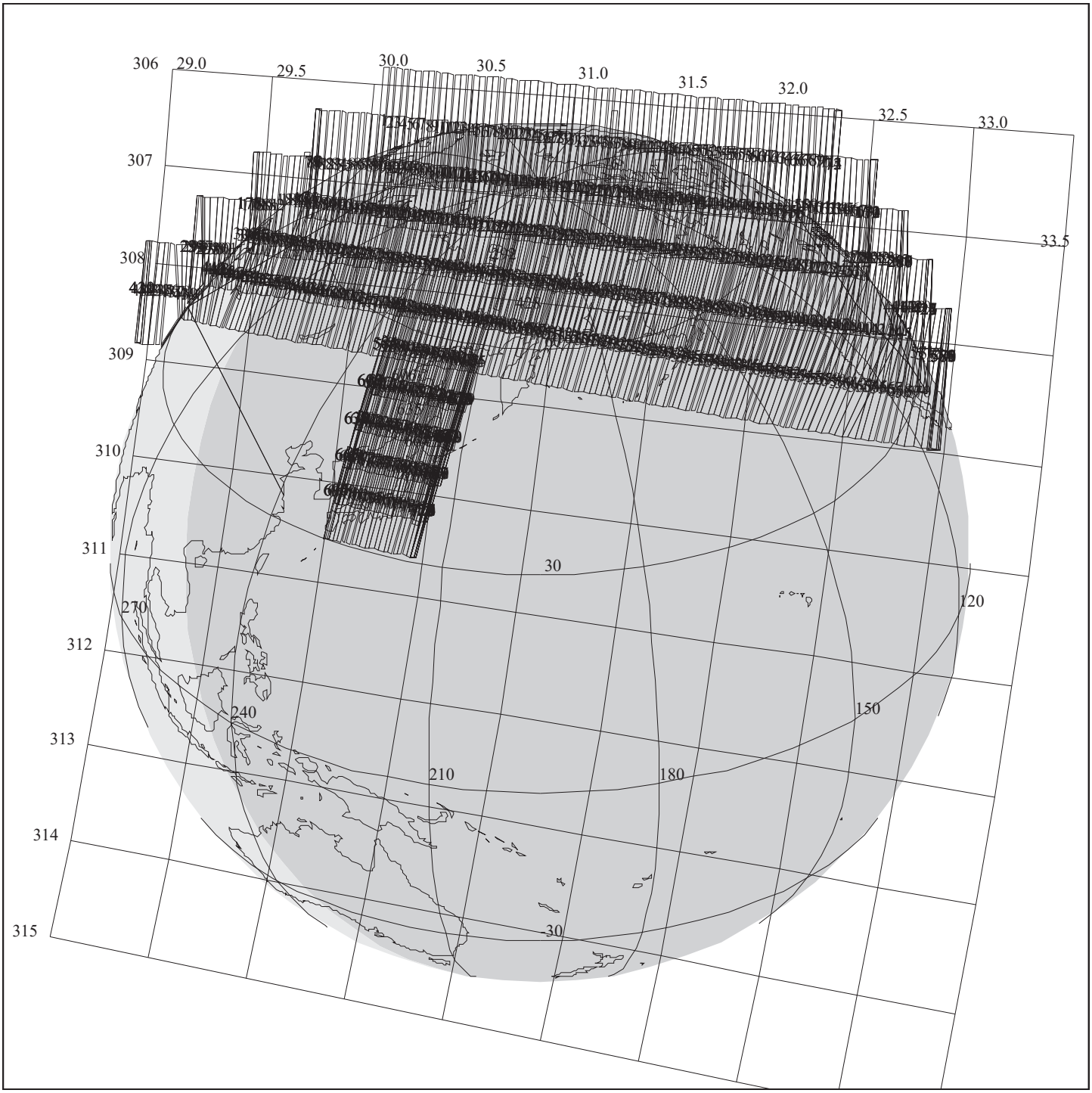
Full Map (FM) 204 wavelengths
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

Mosaic: Three swaths, south to north, Z scan, starting at the lower right side of the pointer plot.

SSI PICNOS: None

Created on	02/24/92	Version	18		07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE		14:51:16

Galileo Activity Plan Form rev 6/93



E2WNLOWCAL

POINTER C5.1

FILE:P.E2WNLOWCAL01

CENTRAL BODY:EARTH

MINI:m.E2WNLOWCAL01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/10:13:09.466

ACTIVITY:E2WNLOWCAL01 **DESCRIP:LOW LIGHT CAL**

NIMS LOW LIGHT CALIBRATION AND AURORA

ACTIVITY ID: E2WNLOWCAL01-
START TIME: ECA-CDS 00000297:00:0

Activity ID Orbit E2 Target W Inst N OAPEL LOWCAL SeqNo 01 Multi -
Title NIMS LOW LIGHT CALIBRATION AND AURORA
Requestor R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00000297:00:0	92-343/10:09:07	ECA-000/05:00:18
End	ECA-CDS 00000237:00:0	92-343/11:09:47	ECA-000/03:59:38
Duration	00000060:00:0	000/01:00:40	000/01:00:40

Inertial SP Y Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

Observation of dark Earth for calibration of NIMS's low light levels and for study of aurora borealis.

Design Detail

CDS 287 POINTER Design Y Frames 0.00 Exc Alias

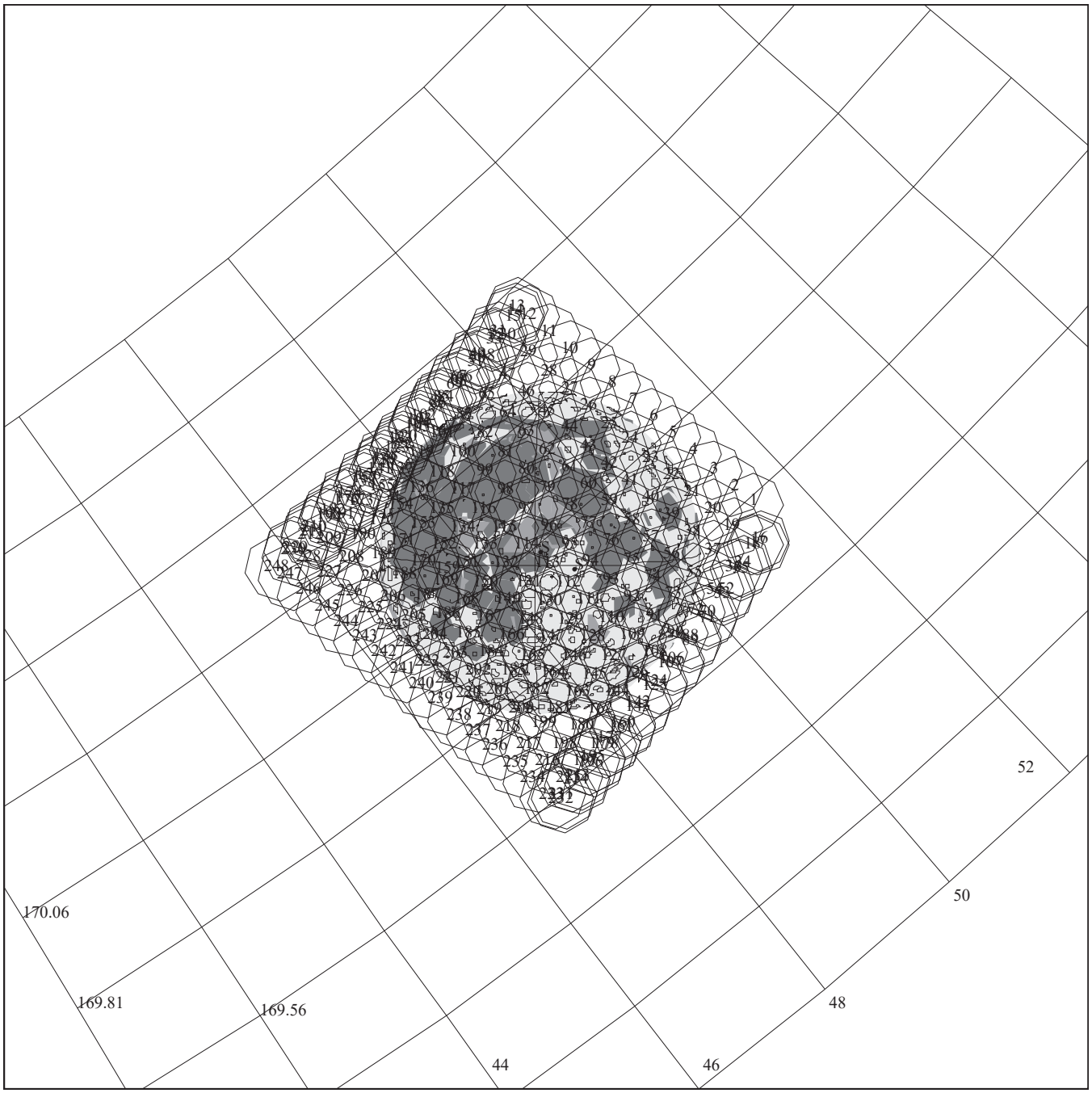
Mosaic of Northern Hemisphere in special sequence mode.

Special Sequence: SM, Grating Step 2 (FM), PTAB: (1 1 0 11 2 6)
Gain State 4 "SM grating cycle with FM grating step"
Grating Start 11
Chopper Mode Reference.
Spectrum: a FM spectrum with first half of each detector range missing.

Mosaic: 6 long WE slews across the dark North polar region starting at the north pole and working towards lower latitudes, followed by 5 short slews across the Japan area. The scan platform enters the cone pole region (cone angle less than 30 degrees) on the west side of the mosaic at the start of each of the 6 long slews. The western limb is dayside.
SSI PICNOS: None

Created on	02/06/92	Version	9		07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE		14:52:45

Galileo Activity Plan Form rev 6/93



E2LPLUNFAZ06

POINTER C5.1

FILE:P.E2LPLUNFAZ06

CENTRAL BODY: MOON

MINI:m.E2LPLUNFAZ06

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/11:14:50.133

ACTIVITY:E2LPLUNFAZ06 **DESCRIP:13 DEG PHASE**

PPR LUNAR PHASE ANGLE CALIBRATION SET ACTIVITY ID: E2LPLUNFAZ06-
START TIME: ECA-CDS 00000241:00:0

Activity ID Orbit E2 Target L Inst P OAPEL LUNFAZ SeqNo 06 Multi -
Title PPP Lunar Phase Angle Calibration Set
Requestor L. TAMPARRI Working Group
Bottom Label Plot Key PPR Science Team PPR

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00000241:00:0	92-342/11:05:45	ECA-000/04:03:40
End	ECA-CDS 00000199:00:0	92-342/11:48:13	ECA-000/03:21:12
Duration	00000042:00:0	000/00:42:28	000/00:42:28

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD T	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR T	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

The Lunar Phase Angle Calibration Set is a set of observations spaced in roughly 30 degree phase angle increments. The objective is to observe a known body (Earth's moon) in polarimetry/photometry mode to understand the polarization data from the PPR. This will enable the interpretation of similar data taken on the Galilean satellites.

Design Detail

CDS 128 POINTER Design N Frames 0.00 Exc Alias

This observation will be at 13 degrees phase (the minimum phase angle on the moon for this encounter). It will be one mosaic of the lit part of the moon. The scan rate will be approximately 0.07 mrad/sec

Created on	02/20/92	Version	2		07/18/94
Last Changed	03/10/92	Changed By	L. TAMPPARI		14:50:20

Galileo Activity Plan Form rev 6/93

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NO OBSERVATION OF EARTH PERIOD ACTIVITY ID: E2ENNOOBS 01-
1 OF 6 START TIME: ECA-CDS 00000168:52:0

Activity ID Orbit E2 Target E Inst N OAPEL NOOBS SeqNo 01 Multi -
Title No Observation of Earth Period
Requestor R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00000168:52:0	92-343/12:18:59	ECA-000/02:50:26
End	ECA-CDS 00000168:48:0	92-343/12:19:01	ECA-000/02:50:24
Duration	00000000:04:0	000/00:00:02	000/00:00:02

Inertial SP Y Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS F	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

No observation of the Earth to be done by any of the scan platform instruments to avoid overheating the NIMS focal plane. If overheated, no NIMS observations will be possible for at least 24 hours.

Design Detail

CDS 35 POINTER Design Y Frames 0.00 Exc Alias

Point scan platform to a safe position so that the Earth lies outside of the NIMS Radiator field of view.

Position is: Cone 60.0, Clock 97.44, RA = 313.52, Dec = -18.71

Slew Rate = 17.45 mrad/sec
Slew allocation = + CDS 4:00:00
Special Sequence: SM, Grating Step 2 (FM), PTAB: (1 1 0 11 2 6)
Gain State 4 "SM grating cycle with FM grating step"
Grating Start 11
Chopper Mode 63 Hz.
Spectrum: a FM spectrum with first half of each detector range missing.
SSI PICNOS: None

Created on	02/05/92	Version	8		07/18/94
Last Changed	10/26/92	Changed By	R. LOPES		14:52:49

Galileo Activity Plan Form rev 6/93

NO OBSERVATION OF EARTH PERIOD ACTIVITY ID: E2ENNOOBS 02-
2 OF 6 START TIME: ECA-CDS 00000001:39:0

Activity ID Orbit E2 Target E Inst N OAPEL NOOBS SeqNo 02 Multi -
Title No Observation of Earth Period
Requestor R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA-CDS 00000001:39:0	92-343/15:07:59	ECA-000/00:01:26
End	ECA-CDS 00000001:33:0	92-343/15:08:03	ECA-000/00:01:22
Duration	00000000:06:0	000/00:00:04	000/00:00:04

Inertial SP Y Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS F	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

No observation of the Earth to be done by any of the scan platform instruments to avoid overheating the NIMS focal plane. If overheated, no NIMS observations will be possible for at least 24 hours.

Design Detail

CDS 35 POINTER Design Y Frames 0.00 Exc Alias

Point scan platform to a safe position so that the Earth lies outside of the NIMS Radiator field of view.

Position is: Cone 2.0, Clock 79.134, RA = 250.80, Dec = -24.56

Slew Rate = 2.94 mrad/sec
Slew allocation = + CDS 6:30:00
Special Sequence: SM, Grating Step 2 (FM), PTAB: (1 1 0 11 2 6)
Gain State 4 "SM grating cycle with FM grating step"
Grating Start 11
Chopper Mode 63 Hz.
Spectrum: a FM spectrum with first half of each detector range missing.
SSI PICNOS: None

Created on	02/05/92	Version	10		07/18/94
Last Changed	10/26/92	Changed By	R. LOPES		14:52:53

Galileo Activity Plan Form rev 6/93

NO OBSERVATION OF EARTH PERIOD ACTIVITY ID: E2ENNOOBS 03-
3 OF 6 START TIME: ECA+CDS 00000005:85:0

Activity ID Orbit E2 Target E Inst N OAPEL NOOBS SeqNo 03 Multi -
Title No Observation of Earth Period
Requestor R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System UTC Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00000005:85:0	92-343/15:15:25	ECA+000/00:06:00
End	ECA+CDS 00000006:74:0	92-343/15:16:17	ECA+000/00:06:52
Duration	00000000:80:0	000/00:00:52	000/00:00:52

Inertial SP Y Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS F	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

No observation of the Earth to be done by any of the scan platform instruments to avoid overheating the NIMS focal plane. If overheated, no NIMS observations will be possible for at least 24 hours.

Design Detail

CDS 35 POINTER Design Y Frames 0.00 Exc Alias

Point scan platform to a safe position so that the Earth lies outside of the NIMS Radiator field of view.

Position is: Cone 2.0, Clock 10.00, RA = 248.61, Dec = -25.64

Slew Rate = 3.63 mrad/sec
Slew allocation = + CDS 5:70:00
Special Sequence: SM, Grating Step 2 (FM), PTAB: (1 1 0 11 2 6)
Gain State 4 "SM grating cycle with FM grating step"
Grating Start 11
Chopper Mode 63 Hz.
Spectrum: a FM spectrum with first half of each detector range missing.
SSI PICNOS: None

Created on	02/05/92	Version	9		07/18/94
Last Changed	10/26/92	Changed By	R. LOPES		14:52:57

Galileo Activity Plan Form rev 6/93

NO OBSERVATION OF EARTH PERIOD ACTIVITY ID: E2ENNOOBS 04-
4 OF 6 START TIME: ECA+CDS 00000011:59:0

Activity ID Orbit E2 Target E Inst N OAPEL NOOBS SeqNo 04 Multi -
Title No Observation of Earth Period
Requestor R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System UTC Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00000011:59:0	92-343/15:21:14	ECA+000/00:11:49
End	ECA+CDS 00000015:65:0	92-343/15:25:18	ECA+000/00:15:53
Duration	00000004:06:0	000/00:04:04	000/00:04:04

Inertial SP Y Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS F	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

No observation of the Earth to be done by any of the scan platform instruments to avoid overheating the NIMS focal plane. If overheated, no NIMS observations will be possible for at least 24 hours.

Design Detail

CDS 35 POINTER Design Y Frames 0.00 Exc Alias

Point scan platform to a safe position so that the Earth lies outside of the NIMS Radiator field of view.

Position is: Cone 2.0, Clock 344.52, RA = 247.68, Dec = -25.36

Slew Rate = 17.45 mrad/sec
Slew allocation = + CDS 4:00:00
Special Sequence: SM, Grating Step 2 (FM), PTAB: (1 1 0 11 2 6)
Gain State 4 "SM grating cycle with FM grating step"
Grating Start 11
Chopper Mode 63 Hz.
Spectrum: a FM spectrum with first half of each detector range missing.
SSI PICNOS: None

Created on	02/05/92	Version	8		07/18/94
Last Changed	10/26/92	Changed By	R. LOPES		14:53:01

Galileo Activity Plan Form rev 6/93

NO OBSERVATION OF EARTH PERIOD ACTIVITY ID: E2ENNOOBS 05-
5 OF 6 START TIME: ECA+CDS 00000026:64:0

Activity ID Orbit E2 Target E Inst N OAPEL NOOBS SeqNo 05 Multi -
Title No Observation of Earth Period
Requestor R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System UTC Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00000026:64:0	92-343/15:36:25	ECA+000/00:27:00
End	ECA+CDS 00000036:64:0	92-343/15:46:33	ECA+000/00:37:08
Duration	00000010:00:0	000/00:10:08	000/00:10:08

Inertial SP Y Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS F	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

No observation of the Earth to be done by any of the scan platform instruments to avoid overheating the NIMS focal plane. If overheated, no NIMS observations will be possible for at least 24 hours.

Design Detail

CDS 35 POINTER Design Y Frames 0.00 Exc Alias

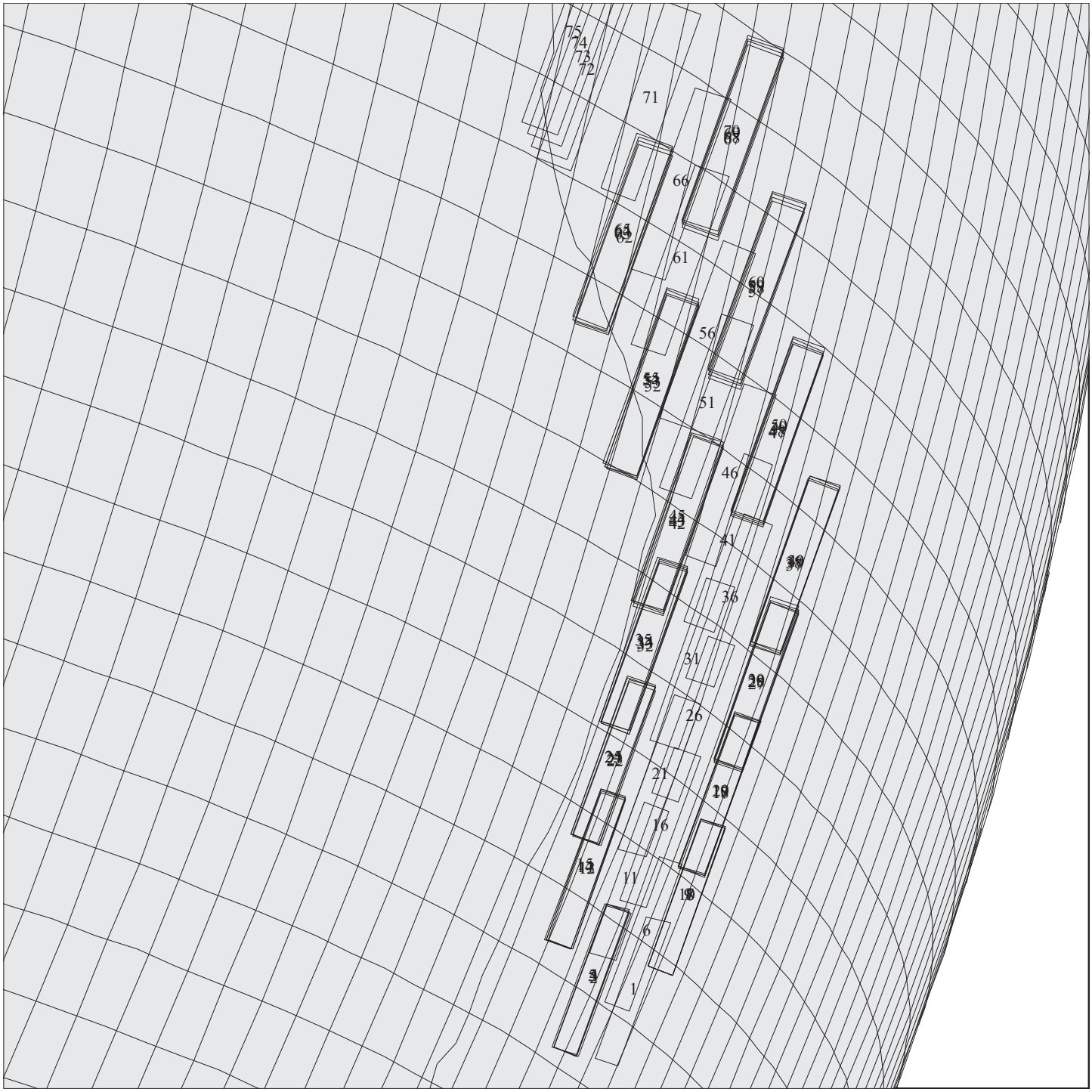
Point scan platform to a safe position so that the Earth lies outside of the NIMS Radiator field of view.

Position is: Cone 60.0, Clock 295.46, RA = 184.02, Dec = -19.19

Slew Rate = 2.29 mrad/sec
Slew allocation = + CDS 10:00:00
Special Sequence: SM, Grating Step 2 (FM), PTAB: (1 1 0 11 2 6)
Gain State 4 "SM grating cycle with FM grating step"
Grating Start 11
Chopper Mode 63 Hz.
Spectrum: a FM spectrum with first half of each detector range missing.
SSI PICNOS: None

Created on	02/05/92	Version	8		07/18/94
Last Changed	10/26/92	Changed By	R. LOPES		14:53:05

Galileo Activity Plan Form rev 6/93



E2WNANDES_01

POINTER C5.1

FILE:P.E2WSANDES_01

CENTRAL BODY:EARTH

MINI:m.E2WSANDES_01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/15:45:48.733

ACTIVITY:E2WSANDES_01 **DESCRIP:ANDES MOSAIC**

MOSAIC OF ANDES

ACTIVITY ID: E2WNANDES 01*
START TIME: ECA+CDS 00000036:00:0

Activity ID Orbit E2 Target W Inst N OAPEL ANDES SeqNo 01 Multi *
Title Mosaic of Andes
Requestor H.Breneman/R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00000036:00:0	92-343/15:45:49	ECA+000/00:36:24
End	ECA+CDS 00000046:00:0	92-343/15:55:55	ECA+000/00:46:30
Duration	00000010:00:0	000/00:10:06	000/00:10:06

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

High resolution mosaic of Andes.

Design Detail

CDS 0 POINTER Design Y Frames 0.00 Exc Alias WSANDES01

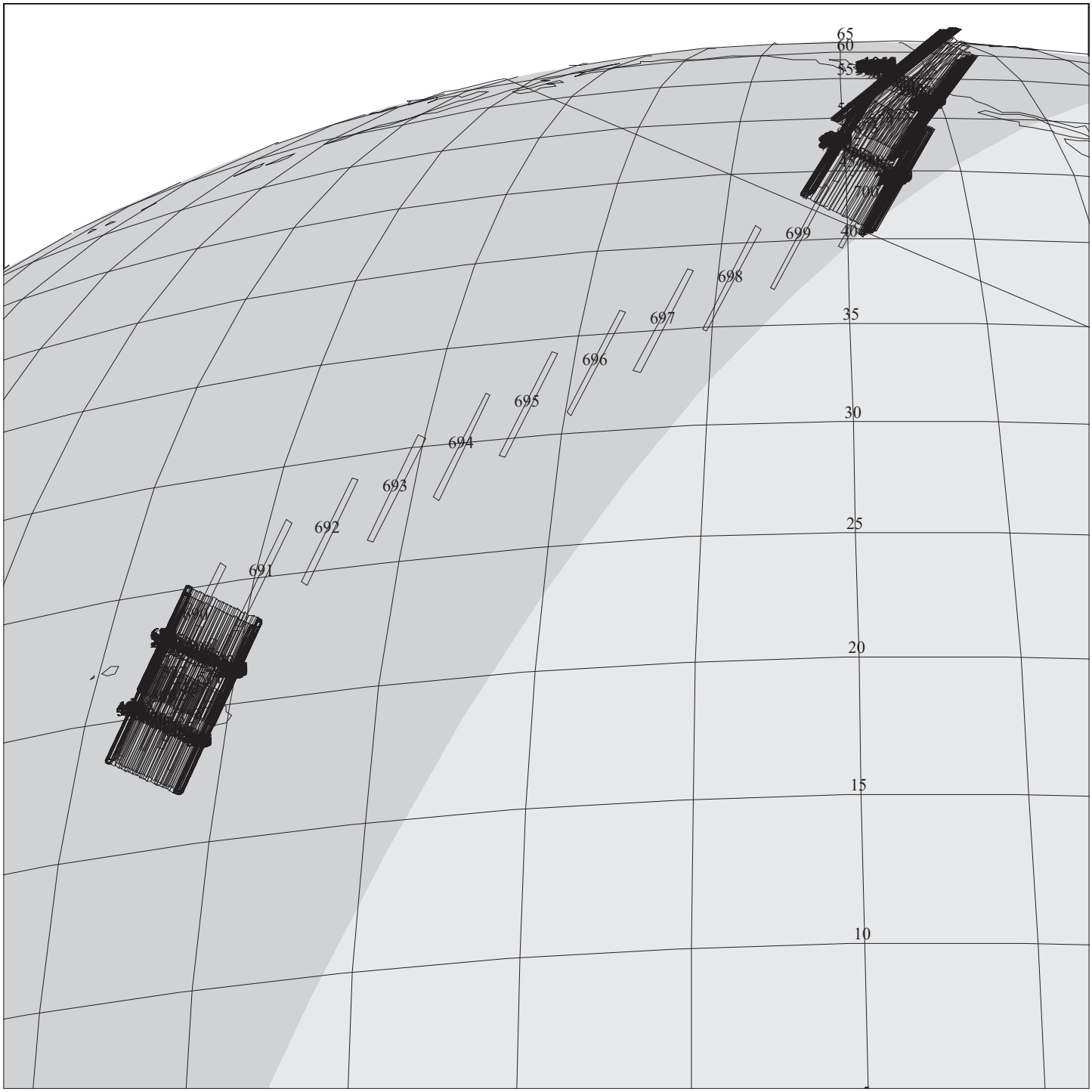
Ridealong with SSI Andes observation. SSI mode 8 2/3 sec, 5 frames in each position (5 x 8 2/3 sec in each position). Slew rate 4.85 mrad/sec

Long Map
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

SSI PICNOS: E2W0001 - E2W0070

Created on	10/23/92	Version	3		07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE		14:53:09

Galileo Activity Plan Form rev 6/93



E2WNHAWAUR01

POINTER C5.1

FILE:P.E2WSHAWAUR01

CENTRAL BODY:EARTH

MINI:m.E2WSHAWAUR01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/16:09:04.066

ACTIVITY:E2WSHAWAUR01 **DESCRIP:DARK HAWAII/AURORA**

HAWAII AND AURORA OBSERVATION

ACTIVITY ID: E2WNHAWAUR01*
START TIME: ECA+CDS 00000059:00:0

Activity ID Orbit E2 Target W Inst N OAPEL HAWAUR SeqNo 01 Multi *
Title Hawaii and aurora observation
Requestor H. Breneman/R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00000059:00:0	92-343/16:09:04	ECA+000/00:59:39
End	ECA+CDS 00000071:00:0	92-343/16:21:12	ECA+000/01:11:47
Duration	00000012:00:0	000/00:12:08	000/00:12:08

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

Nightime observation of Hawaii and aurora borealis

Design Detail

CDS 0 POINTER Design Y Frames 0.00 Exc Alias WSHAWAUR01

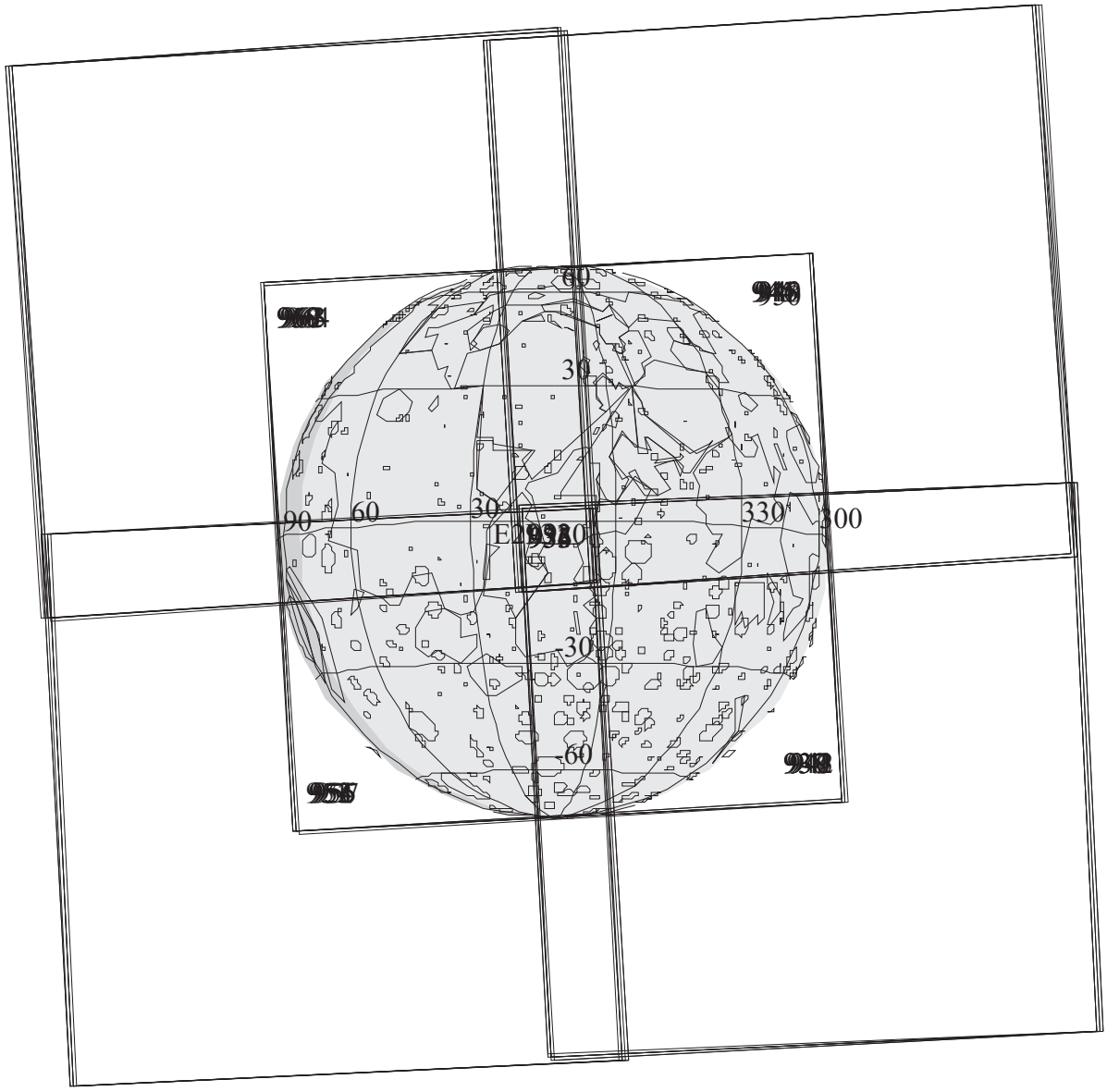
Ridealong with SSI observation. SSI mode 30 1/3 sec, 2 frames in each position, slew rate 0.55 mrad/sec.
Fixed Map
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

Mosaic: 2 swaths over dark Hawaiian Islands region, repeat;
fast slew to northern latitudes;
2 swaths over dark aurora region near the Terminator, repeat.

SSI PICNOS: E2W0080 - E2W0099

Created on	10/23/92	Version	3		07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE		14:53:17

Galileo Activity Plan Form rev 6/93



E2LSLUNMOS08

POINTER C5.1

FILE:P.E2LSLUNMOS08

CENTRAL BODY: MOON

MINI:m.E2LSLUNMOS08

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/17:05:41.400

ACTIVITY:E2LSLUNMOS08 **DESCRIP:SSI CALIBRATION TO EM1 LUNMAP11**

SSI LUNAR PHASE ANGLE COVERAGE — ACTIVITY ID: E2LSLUNMOS08-
START TIME: ECA+CDS 00000113:00:0

Activity ID Orbit E2 Target L Inst S OAPEL LUNMOS SeqNo 08 Multi -
Title SSI Lunar Phase Angle Coverage
Requestor SSI — Working Group
Bottom Label — Plot Key SSI — Science Team SSI

Time System CDS — Load ID EE11 — Calendar Date / / — Week

Start	ECA+CDS 00000113:00:0	92-343/17:03:40	ECA+000/01:54:15
End	ECA+CDS 00000134:00:0	92-343/17:24:54	ECA+000/02:15:29
Duration	00000021:00:0	000/00:21:14	000/00:21:14

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format — Record Duration — Tic Duration
Multiple Records — Acq Start/Stop Cycles 0 — Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD T	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR T	NIMS T	PLS F

REALTIME: RTS FORMAT — RTS Rate — Playback — Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 — Bits-to-Ground 0 — Playback S/S Cycles 0

Observation Objective

Calibration to EM1 LUNMAP12. Provides photometric mapping of the moon and photometry of new areas of the moon. This is needed to obtain the most accurate compositional mapping (and topography from photoclinometry) as well as to derive additional information on surface properties. Will also provide a real test of supposedly physically rigorous photometric models.

Design Detail

CDS 297 POINTER Design N Frames 0.00 Exc Alias

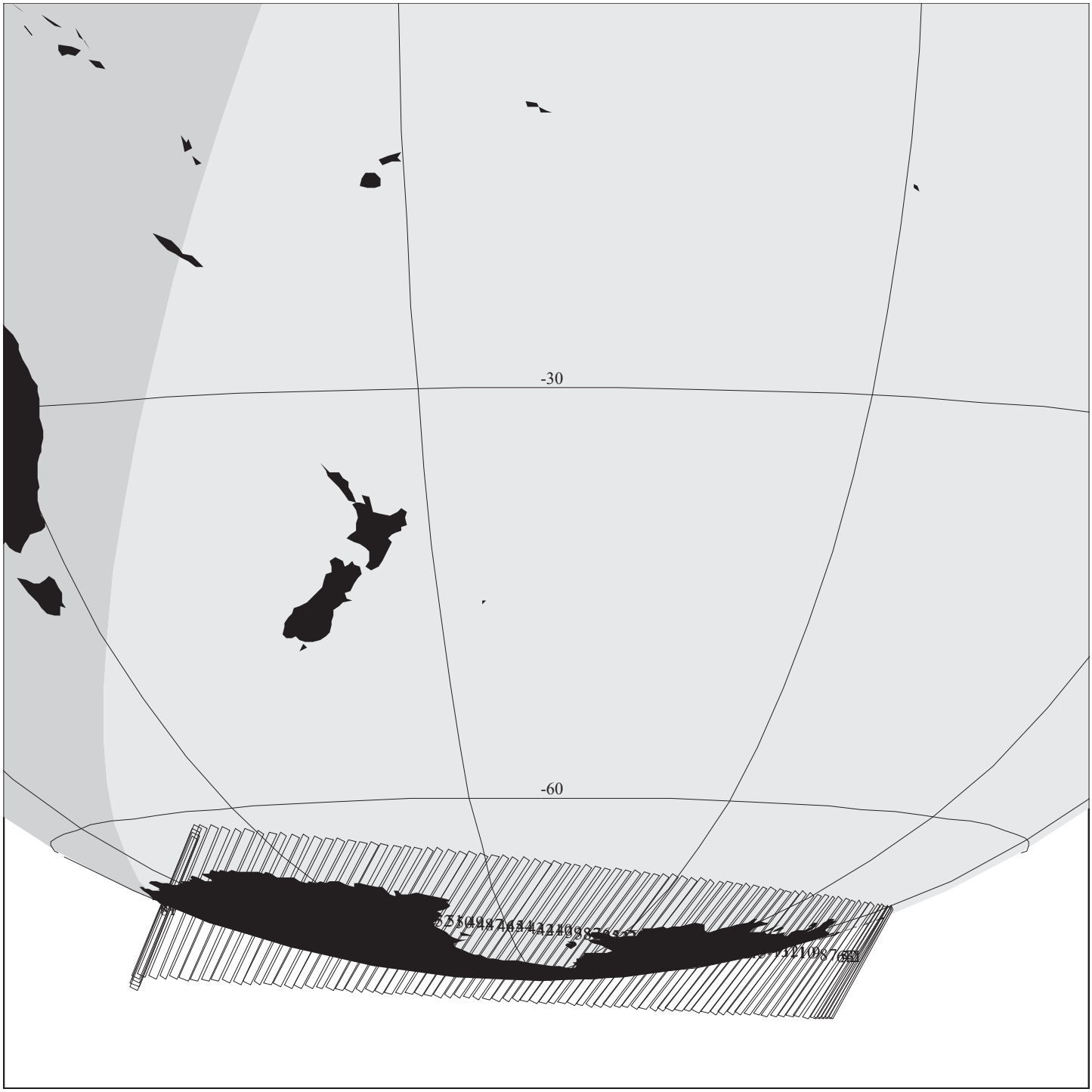
Approximately 21 degrees phase angle, 4.4 km/pix resolution (SSI),
5 mosaic positions through 7 filters (plus 3 dark frames for calibration).
Compressed, real time.
Assumed 2 rims for TARGET PA.

Fixed Map (XM)
Gain State 1
Grating Start Position 0
Chopper Mode 63Hz

SSI PICNOS: E2L0930 - E2L0967

Created on — Version — 07/18/94
Last Changed — Changed By SSI — 14:50:20

Galileo Activity Plan Form — rev 6/93



E2WNANTAR_01

POINTER C5.1

FILE:P.E2WNANTAR_01

CENTRAL BODY:EARTH

MINI:m.E2WNANTAR_01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/17:29:57.400

ACTIVITY:E2WNANTAR_01 **DESCRIP:ANTARCTICA**

ANTARCTICA MOSAIC

ACTIVITY ID: E2WNANTAR 01*
START TIME: ECA+CDS 00000135:00:0

Activity ID Orbit E2 Target W Inst N OAPEL ANTAR SeqNo 01 Multi *
Title Antarctica mosaic
Requestor R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00000135:00:0	92-343/17:25:55	ECA+000/02:16:30
End	ECA+CDS 00000179:00:0	92-343/18:10:24	ECA+000/03:00:59
Duration	00000044:00:0	000/00:44:29	000/00:44:29

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

NIMS observation of Antarctica aiming to detect and characterize polar stratospheric clouds (catalysts for ozone destruction) and to monitor changes since observations were made in 1990, at the same time of the year.

This is the highest priority Earth observation for NIMS.

Design Detail

CDS 234 POINTER Design Y Frames 0.00 Exc Alias

NIMS mosaic of Antarctica using Long Map, Double Nyquist rate (15 micro-radians per second). SSI will ride along and take pictures 'on the fly'.

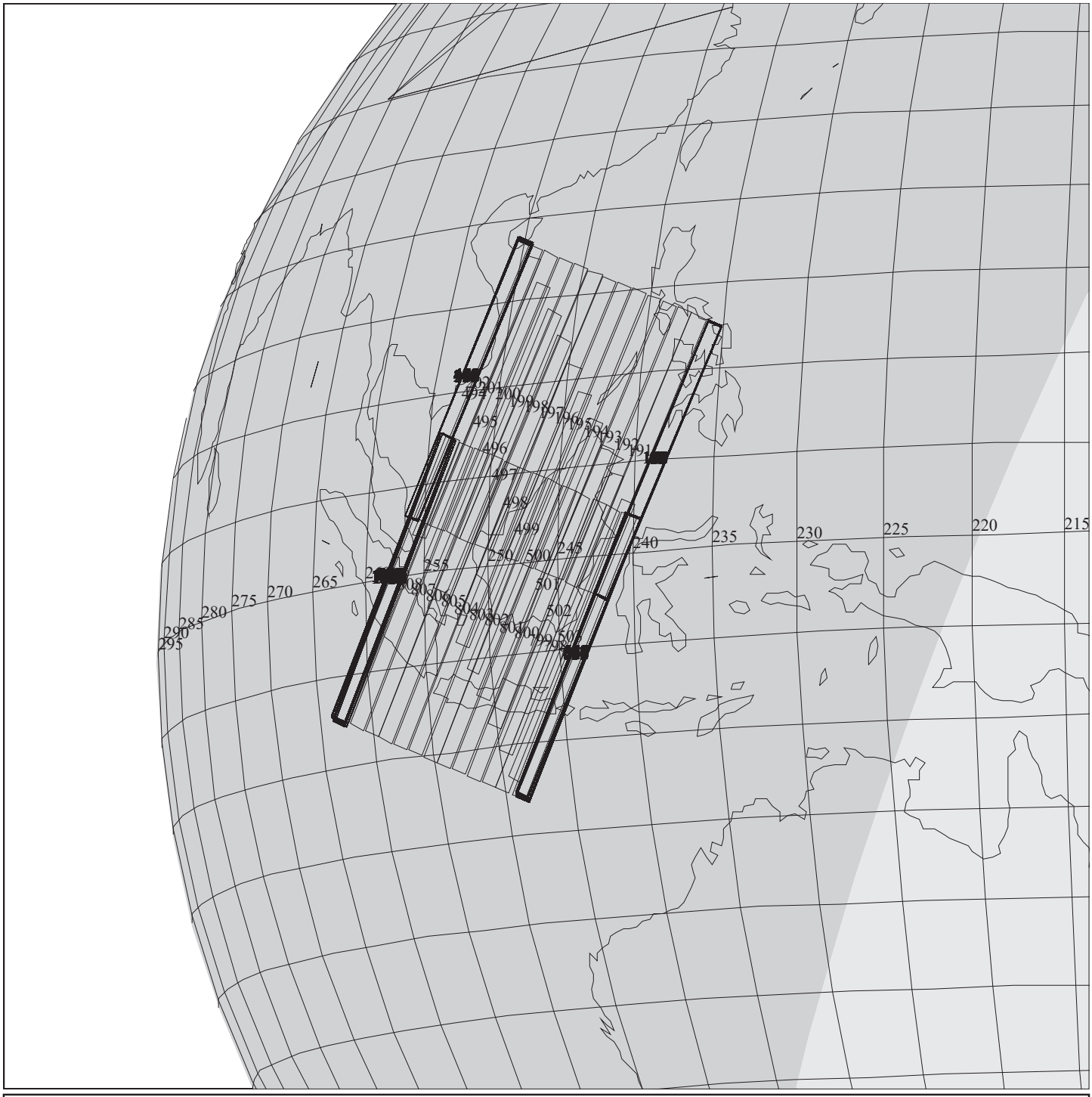
Long Map
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

Mosaic: Single EW swath across Antarctica and the Southern limb.

SSI PICNOS: E2W0110 - E2W0189

Created on	02/06/92	Version	37	07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE	14:53:21

Galileo Activity Plan Form rev 6/93



E2WNLTNING01

POINTER C5.1

FILE:P.E2WSLTNING01

CENTRAL BODY:EARTH

MINI:m.E2WSLTNING01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/20:29:56.066

ACTIVITY:E2WSLTNING01 **DESCRIP:LIGHTNING SEARCH**

LIGHTNING/INDONESIA DARK OBSERVATION ACTIVITY ID: E2WNLTNING01*
START TIME: ECA+CDS 00000317:00:0

Activity ID Orbit E2 Target W Inst N OAPEL LTNING SeqNo 01 Multi *
Title Lightning/Indonesia dark observation
Requestor H. Breneman/R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00000317:00:0	92-343/20:29:56	ECA+000/05:20:31
End	ECA+CDS 00000332:00:0	92-343/20:45:06	ECA+000/05:35:41
Duration	00000015:00:0	000/00:15:10	000/00:15:10

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

Nightime mosaic of Indonesia

Design Detail

CDS 0 POINTER Design Y Frames 0.00 Exc Alias WSLTNING01

Ridealong with SSI observation of lightning over dark Indonesia. Slew rate of 0.55 mrad/sec, SSI mode 60 2.3 sec, 5 frames in each position except for 4th (last) position where only 4 frames are taken (total = 19 SSI frames).

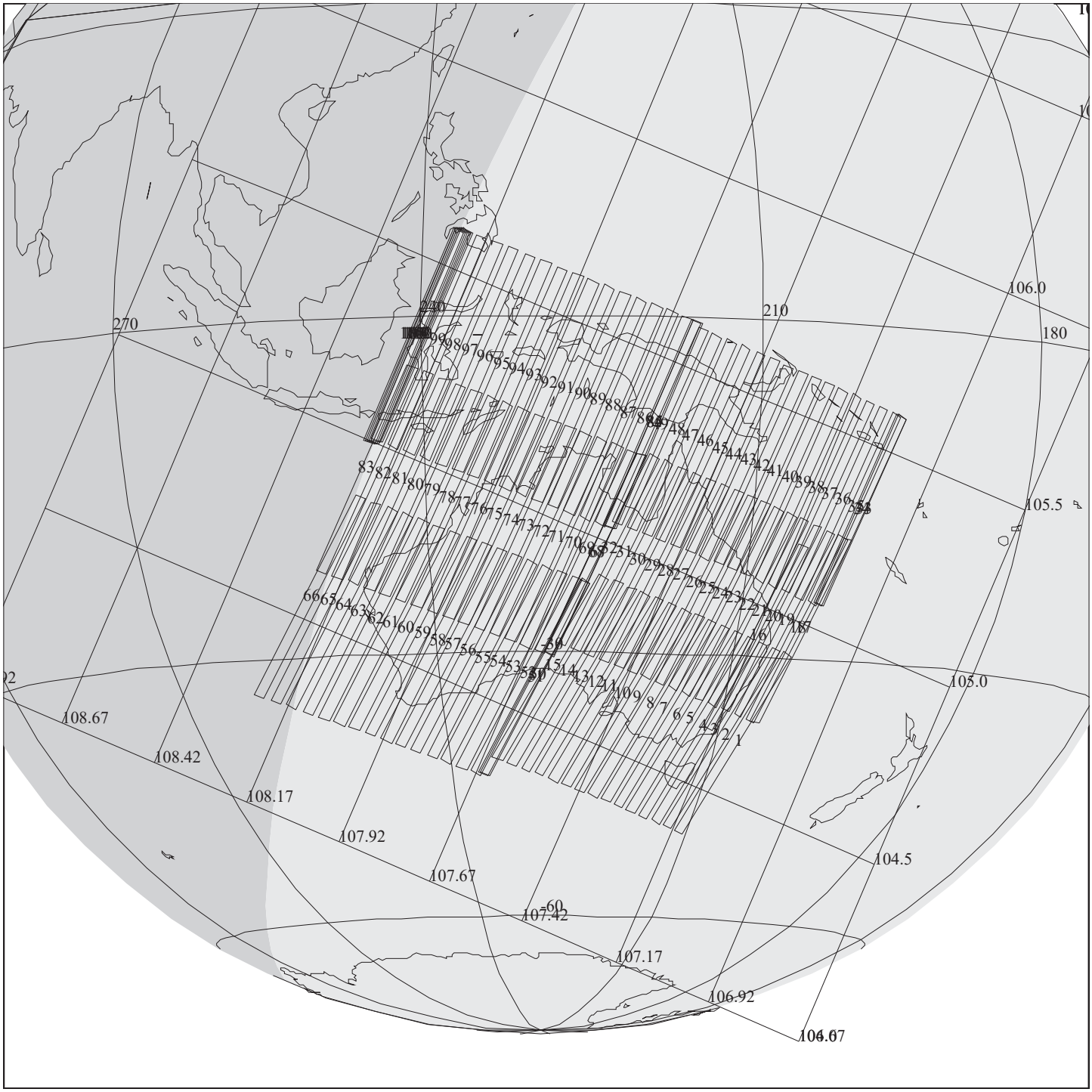
Fixed Map
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

Mosaic: 2 swaths; East to west, north to south.

SSI PICNOS: E2W0200 - E2W0218

Created on	10/23/92	Version	3		07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE		14:53:25

Galileo Activity Plan Form rev 6/93



E2WNAUSIE_01

POINTER C5.1

FILE:P.E2WNAUSIE_01

CENTRAL BODY:EARTH

MINI:m.E2WNAUSIE_01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/20:50:09.400

ACTIVITY:E2WNAUSIE_01 **DESCRIP:AUSTRALIA**

AUSTRALIA MOSAIC

ACTIVITY ID: E2WNAUSIE 01*
START TIME: ECA+CDS 00000337:00:0

Activity ID Orbit E2 Target W Inst N OAPEL AUSIE SeqNo 01 Multi *
Title Australia mosaic
Requestor R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00000337:00:0	92-343/20:50:09	ECA+000/05:40:44
End	ECA+CDS 00000397:00:0	92-343/21:50:49	ECA+000/06:41:24
Duration	00000060:00:0	000/01:00:40	000/01:00:40

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

NIMS observation of Australia, achieved under optimal lighting conditions (phase angle about 78 degrees), which will be used to calibrate NIMS spectra and to obtain unique spectra of the Earth in the 2 to 5 microns region.

Design Detail

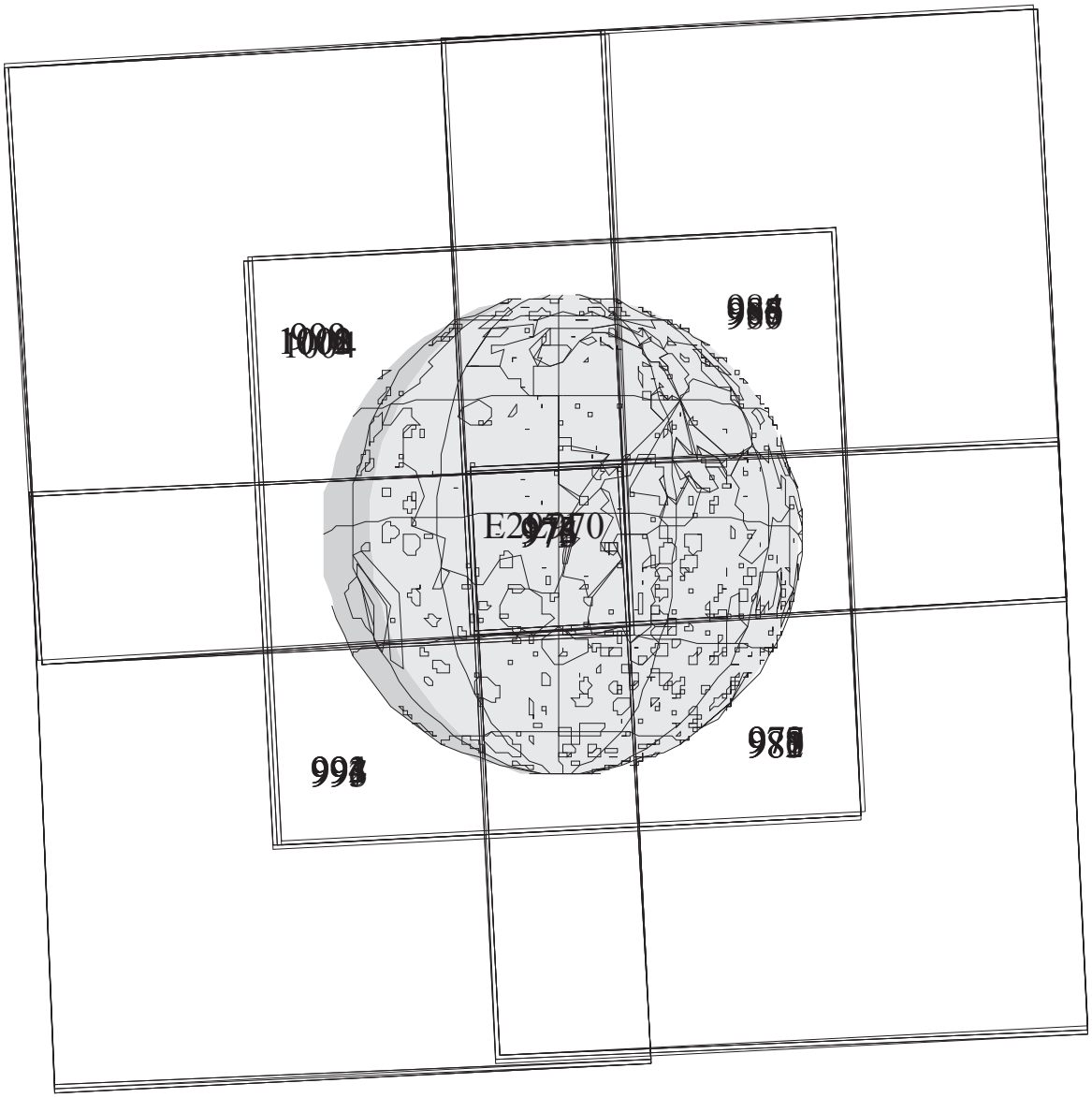
CDS 212 POINTER Design Y Frames 0.00 Exc Alias

Map of illuminated Australian continent extending to Papua - New Guinea in Long Map Double Nyquist mode scanning at 15 microradians per second. SSI will ride along and obtain images 'on the fly'.
Long Map
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

Mosaic: 6 swaths total. Start at SE coast of Australia. Three swaths scan east to west over Eastern Australia, south to north. Reposition to south-central Australia. Three more swaths east to west, south to north, over Western Austalia ending near Borneo. Designed to chase the Terminator.
SSI PICNOS: E2W0220 - E2W0339

Created on	02/06/92	Version	11		07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE		14:53:29

Galileo Activity Plan Form rev 6/93



E2LSLUNMOS09

POINTER C5.1

FILE:P.E2LSLUNMOS09

CENTRAL BODY: MOON

MINI:m.E2LSLUNMOS09

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/21:55:52.733

ACTIVITY:E2LSLUNMOS09 **DESCRIP:SSI CALIBRATION TO EM1 MAPCAL01**

SSI LUNAR PHASE ANGLE COVERAGE — ACTIVITY ID: E2LSLUNMOS09-
START TIME: ECA+CDS 00000371:00:0

Activity ID Orbit E2 Target L Inst S OAPEL LUNMOS SeqNo 09 Multi -
Title SSI Lunar Phase Angle Coverage
Requestor SSI — Working Group
Bottom Label — Plot Key SSI — Science Team SSI

Time System CDS — Load ID EE11 — Calendar Date / / — Week

Start	ECA+CDS 00000371:00:0	92-343/21:24:32	ECA+000/06:15:07
End	ECA+CDS 00000410:00:0	92-343/22:03:58	ECA+000/06:54:33
Duration	00000039:00:0	000/00:39:26	000/00:39:26

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format — Record Duration — Tic Duration
Multiple Records — Acq Start/Stop Cycles 0 — Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD T	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR T	NIMS T	PLS F

REALTIME: RTS FORMAT — RTS Rate — Playback — Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 — Bits-to-Ground 0 — Playback S/S Cycles 0

Observation Objective

Calibration to EM1 MAPCAL01. Provides photometric mapping of the moon and photometry of new areas of the moon. This is needed to obtain the most accurate compositional mapping (and topography from photoclinometry) as well as to derive additional information on surface properties. Will also provide a real test of supposedly physically rigorous photometric models.

Design Detail

CDS 297 POINTER Design N Frames 0.00 Exc Alias

Approximately 32 degrees phase angle, 5.1 km/pix resolution (SSI),
5 mosaic positions through 7 filters.
60 2/3 SEC FRAME RATE, UNCOMPRESSED, real time.
Assumed 4 rims for TARGET PA.

Long Map (LM)
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

SSI PICNOS: E2L0970 - E2L1004

Created on — Version — 07/18/94
Last Changed — Changed By SSI — 14:50:20

Galileo Activity Plan Form — rev 6/93

E2WNINDO__01

POINTER C5.1

FILE:P.E2WNINDO__01

CENTRAL BODY:EARTH

MINI:m.E2WNINDO__01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/22:34:18.066

ACTIVITY:E2WNINDO__01 **DESCRIP:INDONESIA/EAST ASIA**

INDONESIA MOSAIC

ACTIVITY ID: E2WNINDO 01*
START TIME: ECA+CDS 00000440:00:0

Activity ID Orbit E2 Target W Inst N OAPEL INDO SeqNo 01 Multi *
Title Indonesia mosaic
Requestor R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00000440:00:0	92-343/22:34:18	ECA+000/07:24:53
End	ECA+CDS 00000460:00:0	92-343/22:54:31	ECA+000/07:45:06
Duration	00000020:00:0	000/00:20:13	000/00:20:13

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

NIMS mosaic of Indonesia in Long map, with SSI cooperative imaging.

Design Detail

CDS 200 POINTER Design Y Frames 0.00 Exc Alias

Map of illuminated Indonesia, Philippines and Japan near the Terminator.

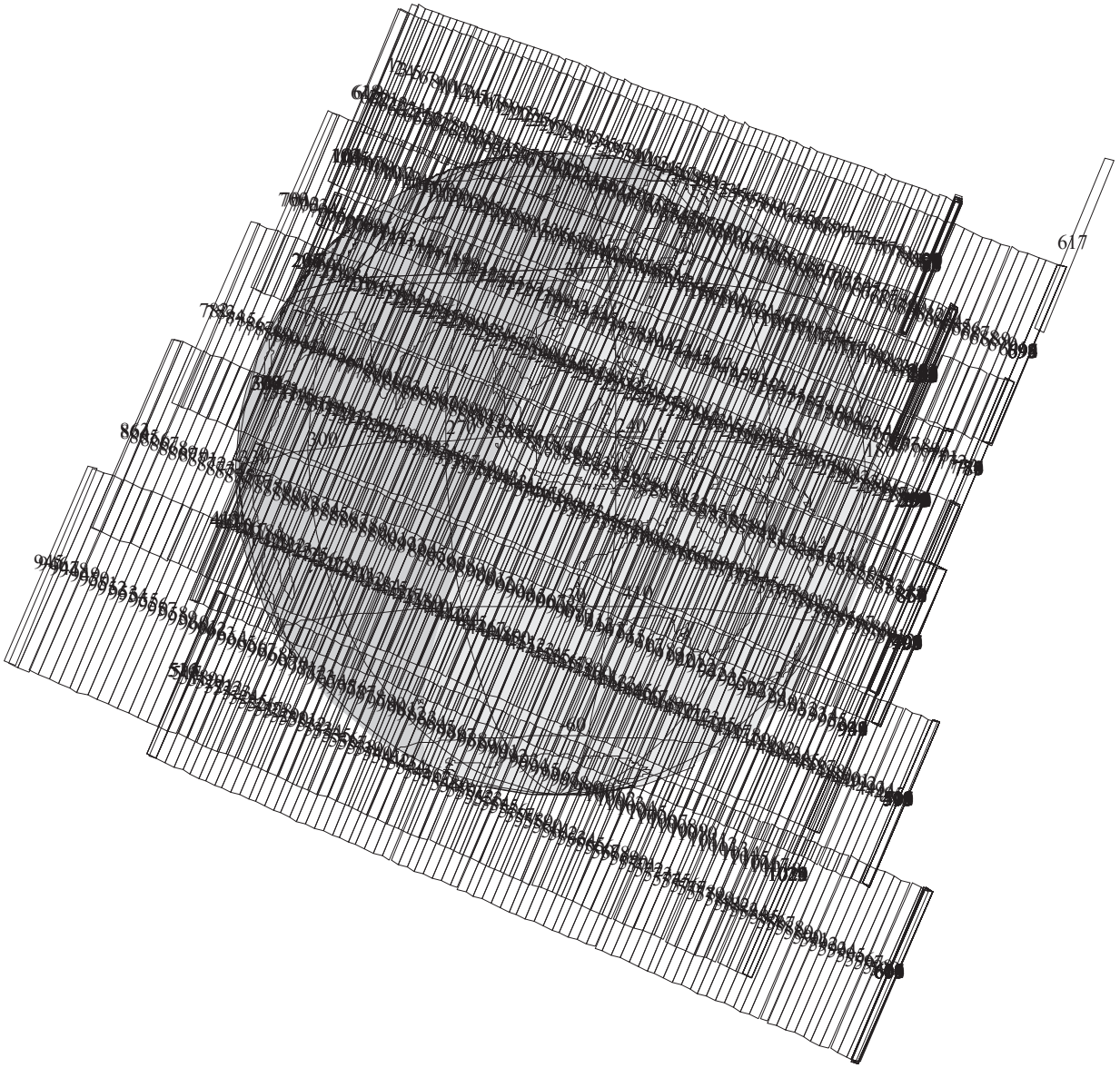
Long Map, Double Nyquist, rate = 0.02 mrad/sec.
Long Map
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

Mosaic: Three swaths east to west. First swath over Indonesia, second swath over the Philippines and the third swath over Japan.

SSI PICNOS: E2W0350 - E2W0388

Created on	10/23/92	Version	3		07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE		14:53:33

Galileo Activity Plan Form rev 6/93



E2WNGMOS__01

POINTER C5.1

FILE:P.E2WNGMOS__01

CENTRAL BODY:EARTH

MINI:m.E2WNGMOS__01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/23:10:42.066

ACTIVITY:E2WNGMOS__01 **DESCRIP:GLOBAL MOSAIC**

GLOBAL MOSAIC OF THE EARTH — ACTIVITY ID: E2WNGMOS 01*
START TIME: ECA+CDS 00000476:00:0

Activity ID Orbit E2 Target W Inst N OAPEL GMOS SeqNo 01 Multi *
Title Global Mosaic of the Earth
Requestor R. LOPES — Working Group
Bottom Label — Plot Key NIMS — Science Team NIMS

Time System CDS — Load ID EE11 — Calendar Date / / — Week

Start	ECA+CDS 00000476:00:0	92-343/23:10:42	ECA+000/08:01:17
End	ECA+CDS 00000771:00:0	92-344/04:08:59	ECA+000/12:59:34
Duration	00000295:00:0	000/04:58:17	000/04:58:17

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format — Record Duration — Tic Duration
Multiple Records — Acq Start/Stop Cycles 0 — Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM% UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS F PLS F

REALTIME: RTS FORMAT — RTS Rate — Playback — Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 — Bits-to-Ground 0 — Playback S/S Cycles 0

Observation Objective

To obtain two NIMS global mosaics of the Earth with SSI cooperative imaging.

Two full mosaics of the Earth, one after the other, are observed here. Each mosaic has a separate entry in the NIMS Obstab.

Design Detail

CDS 125 POINTER Design Y Frames 0.00 Exc Alias

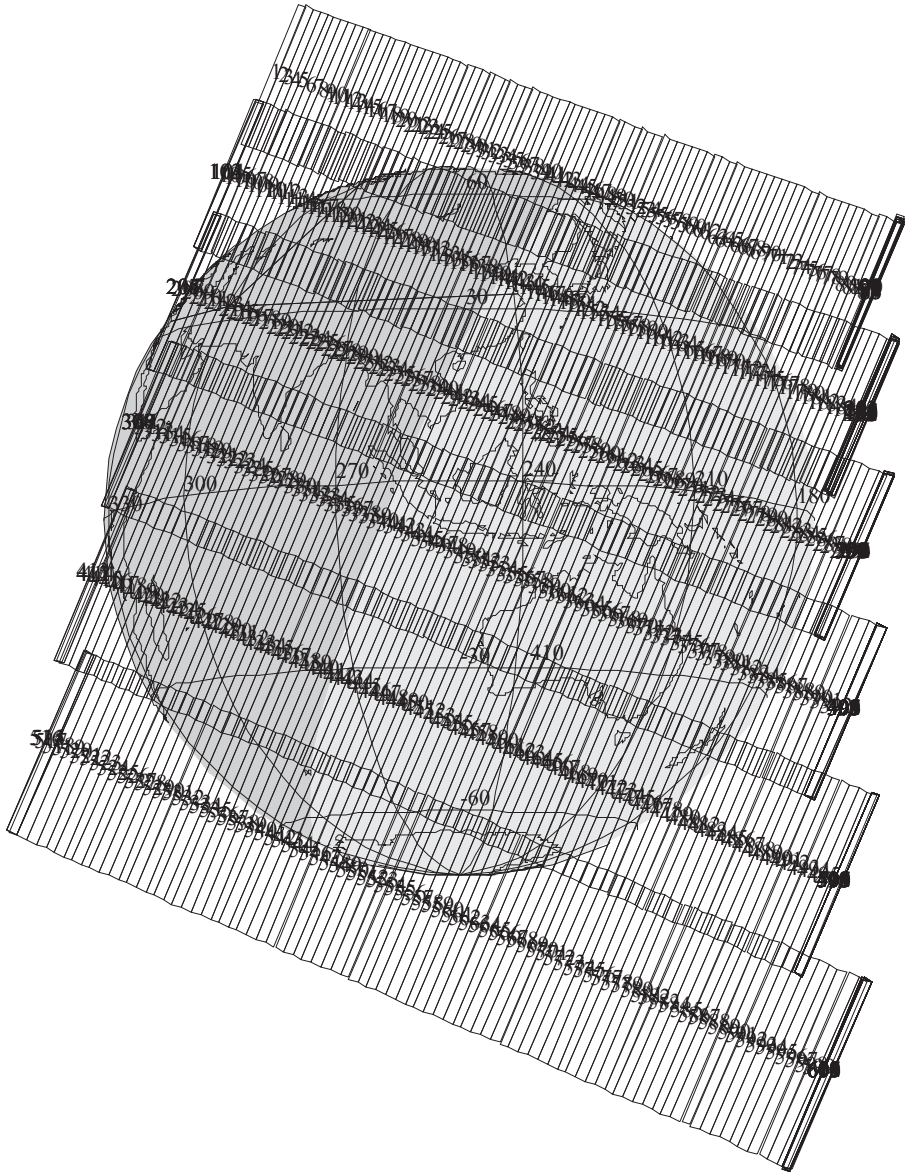
Two complete NIMS mosaics obtained in Long Map for best determination of distributions of gaseous species. Scan rate is 30 microradians/sec. Scans are concentrated near the Terminator for best signal levels. There is at least a 20% overlap between NIMS swaths.
Long Map
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

Pointer Plots for each separate mosaic are plotted on the following two pages.

Mosaic: 6 swaths west to east across the Earth starting at the North pole, north to south to the South pole, followed by 5 more swaths across the Earth in the same manner. Terminator crosses the center of the mosaic.
SSI PICNOS: E2W0420 - E2W0692

Created on	02/05/92	Version	8	07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE	14:53:37

Galileo Activity Plan Form — rev 6/93



E2WNGMOS__01 A

POINTER C5.1

FILE:P.E2WNGMOS__01

CENTRAL BODY:EARTH

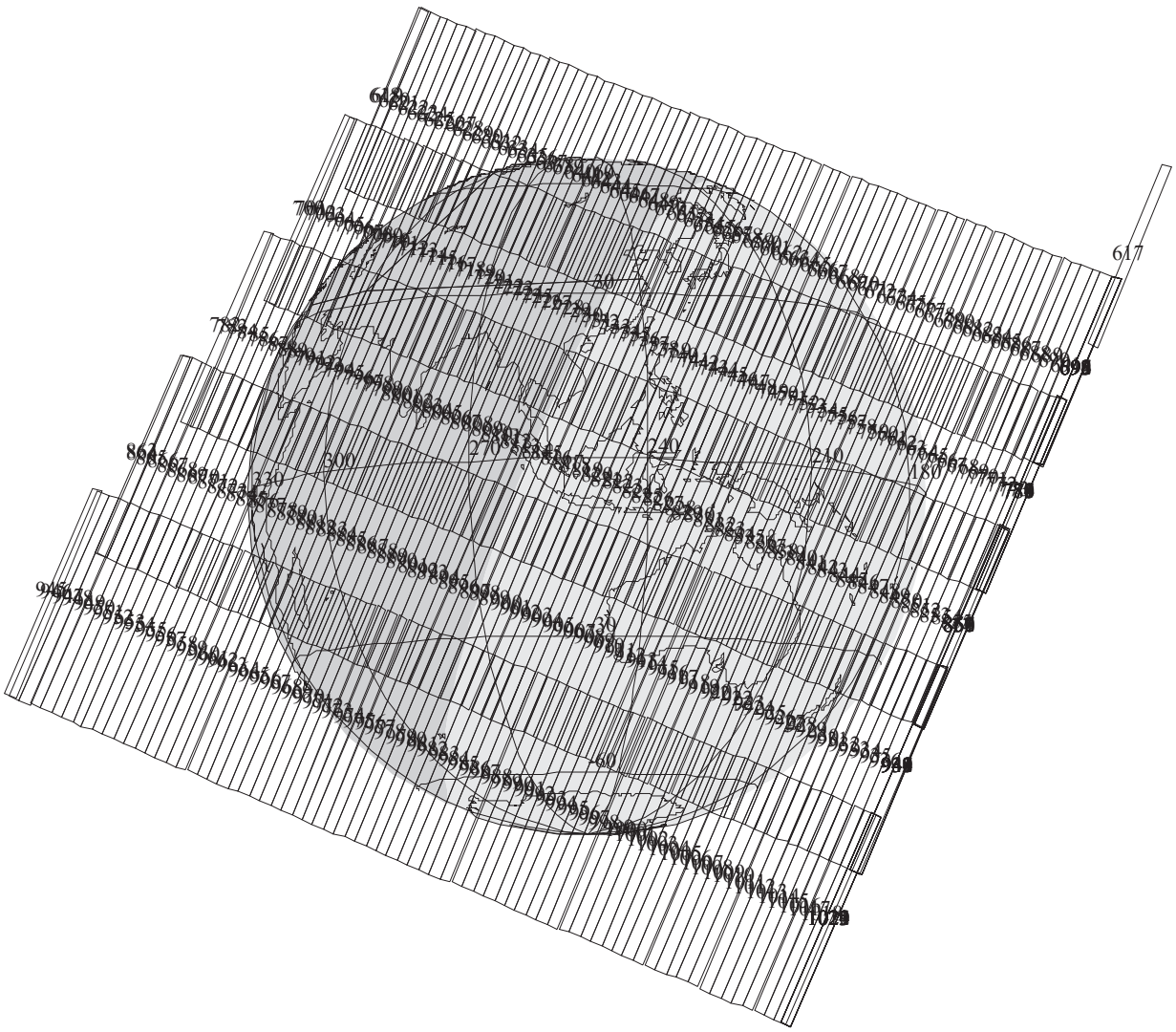
MINI:m.E2WNGMOS__01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/23:10:42.066

ACTIVITY:E2WNGMOS__01 **DESCRIP:GLOBAL MOSAIC**



E2WNGMOS__01 B

POINTER C5.1

FILE:P.E2WNGMOS__01

CENTRAL BODY:EARTH

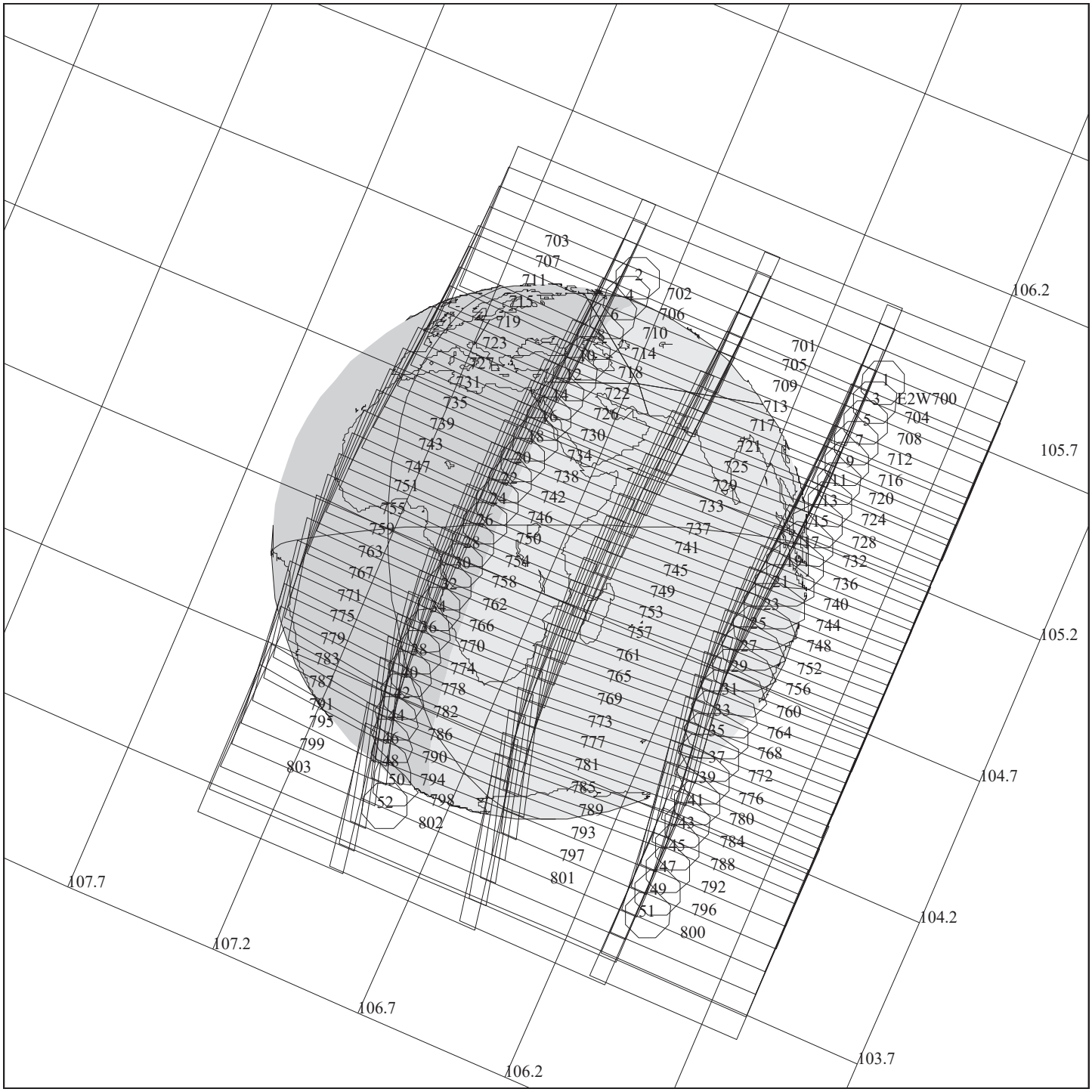
MINI:m.E2WNGMOS__01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-343/23:10:42.066

ACTIVITY:E2WNGMOS__01 **DESCRIP:GLOBAL MOSAIC**



E2WPBUDLIT01

POINTER C5.1

FILE:P.E2WPBUDLIT01

CENTRAL BODY:EARTH

MINI:m.E2WPBUDLIT01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-344/04:14:02.066

ACTIVITY:E2WPBUDLIT01 **DESCRIP:E RAD BUDGET**

EARTH LIGHT SIDE RADIATION BUDGET ACTIVITY ID: E2WPBUDLIT01-
START TIME: ECA+CDS 00000772:00:0

Activity ID Orbit E2 Target W Inst P OAPEL BUDLIT SeqNo 01 Multi -
Title Earth Light Side Radiation Budget
Requestor L. TAMPARRI Working Group
Bottom Label Plot Key PPR Science Team PPR

Time System	CDS	Load ID EE11	Calendar Date / /	Week
Start	ECA+CDS	00000772:00:0	92-344/04:09:59	ECA+000/13:00:34
End	ECA+CDS	00000832:00:0	92-344/05:10:39	ECA+000/13:01:14
Duration		00000060:00:0	000/01:00:40	000/01:00:40

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD T	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR T	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

The objective of this observation is to determine the radiation budget of the Earth, and calibrate this technique for use at Jupiter.

Design Detail

CDS 173 POINTER Design N Frames 0.00 Exc Alias

This observation will be one mosaic of the entire Earth. It will have cooperative imaging such as to cover the entire Earth. The scan rate will be approximately 0.06 mrad/sec.

Long Map (LM)
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

SSI PICNOS: E2W0700 - E2W0803

Created on	02/20/92	Version	2		07/18/94
Last Changed	03/10/92	Changed By	L. TAMPPARI		14:50:20

Galileo Activity Plan Form rev 6/93

E2WNGMOS__02

POINTER C5.1

FILE:P.E2WSZOOMMV01

CENTRAL BODY:EARTH

MINI:m.E2WSZOOMMV01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-344/06:15:22.066

ACTIVITY:E2WSZOOMMV01 **DESCRIP:ZOOM MOVIE 1**

GLOBAL MOSAIC OF THE EARTH - RIDEALONG

ACTIVITY ID: E2WNGMOS 02*
START TIME: ECA+CDS 00000896:00:0

Activity ID Orbit E2 Target W Inst N OAPEL GMOS SeqNo 02 Multi *
Title Global Mosaic of the Earth - Ridealong
Requestor H. Breneman/R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00000896:00:0	92-344/06:15:22	ECA+000/15:05:57
End	ECA+CDS 00001190:00:0	92-344/11:12:38	ECA+000/20:03:13
Duration	00000294:00:0	000/04:57:16	000/04:57:16

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS F	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

To obtain a NIMS partial global mosaic of the Earth while SSI is doing Zoom movie number 1.

Design Detail

CDS 0 POINTER Design Y Frames 0.00 Exc Alias WSZOOMMV01

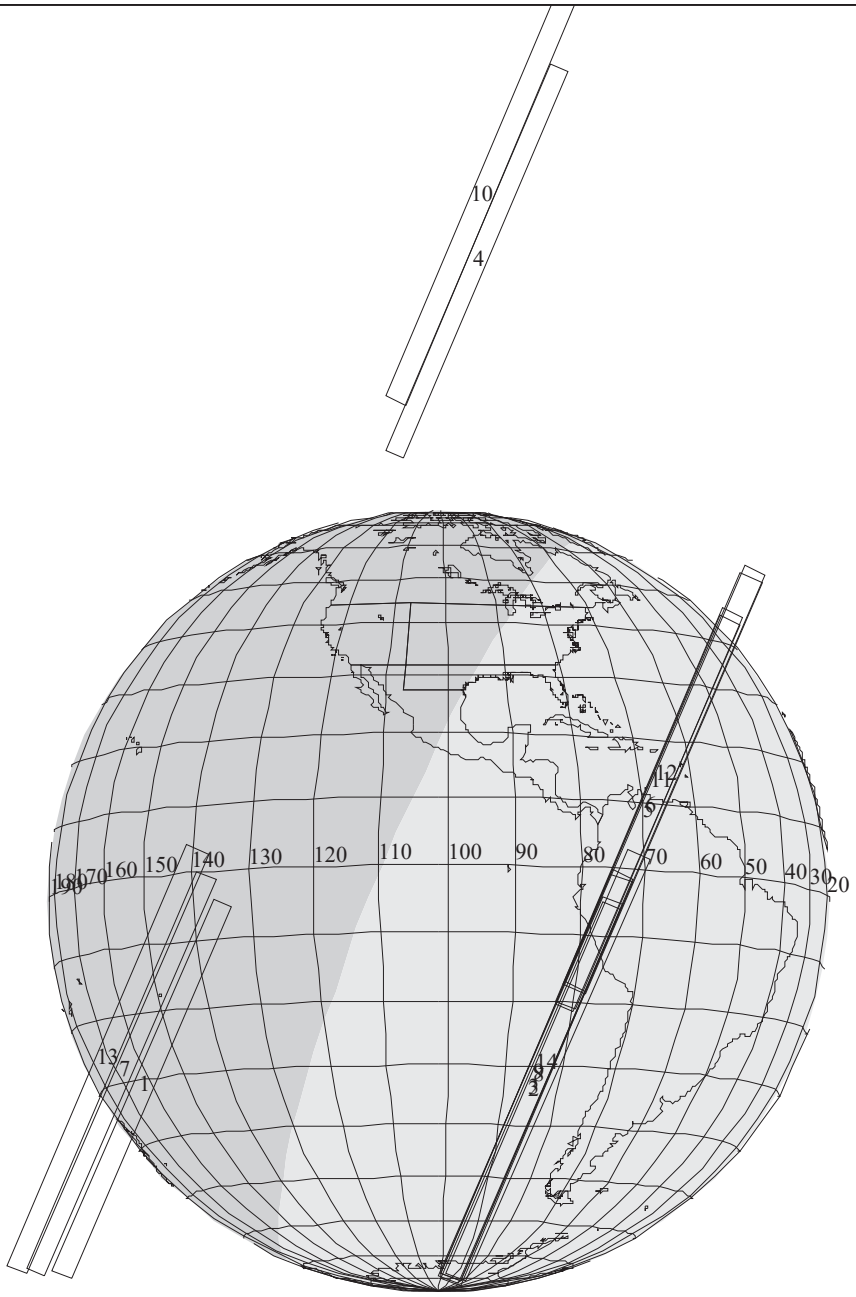
Ridealong with SSI observation. NIMS will be in Long Map mode for best determination of distributions of gaseous species.
Long Map
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

Mosaic: The scan platform is not slewing. The Earth is rotating beneath at a constant distance from the Terminator (illuminated side) for nearly 5 hours. This gives a map of about 1/5 of the Earth at constant light angles.

SSI PICNOS: E2W0800 - E2W1395

Created on	02/05/92	Version	12	07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE	14:53:41

Galileo Activity Plan Form rev 6/93



E2WNGOPEX_01

POINTER C5.1

FILE:P.E2WSGOPEX_01

CENTRAL BODY:EARTH

MINI:m.E2WSGOPEX_01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-344/11:13:38.733

ACTIVITY:E2WSGOPEX_01 **DESCRIP:GLL OPT EXPT 1**

GOPEX OBSERVATION

ACTIVITY ID: E2WNGOPEX 01*
START TIME: ECA+CDS 00001191:00:0

Activity ID Orbit E2 Target W Inst N OAPEL GOPEX SeqNo 01 Multi *
Title GOPEX observation
Requestor H.Breneman/R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00001191:00:0	92-344/11:13:39	ECA+000/20:04:14
End	ECA+CDS 00001369:00:0	92-344/14:13:37	ECA+000/23:04:12
Duration	00000178:00:0	000/02:59:58	000/02:59:58

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

NIMS "partial global mosaic" observation.

Design Detail

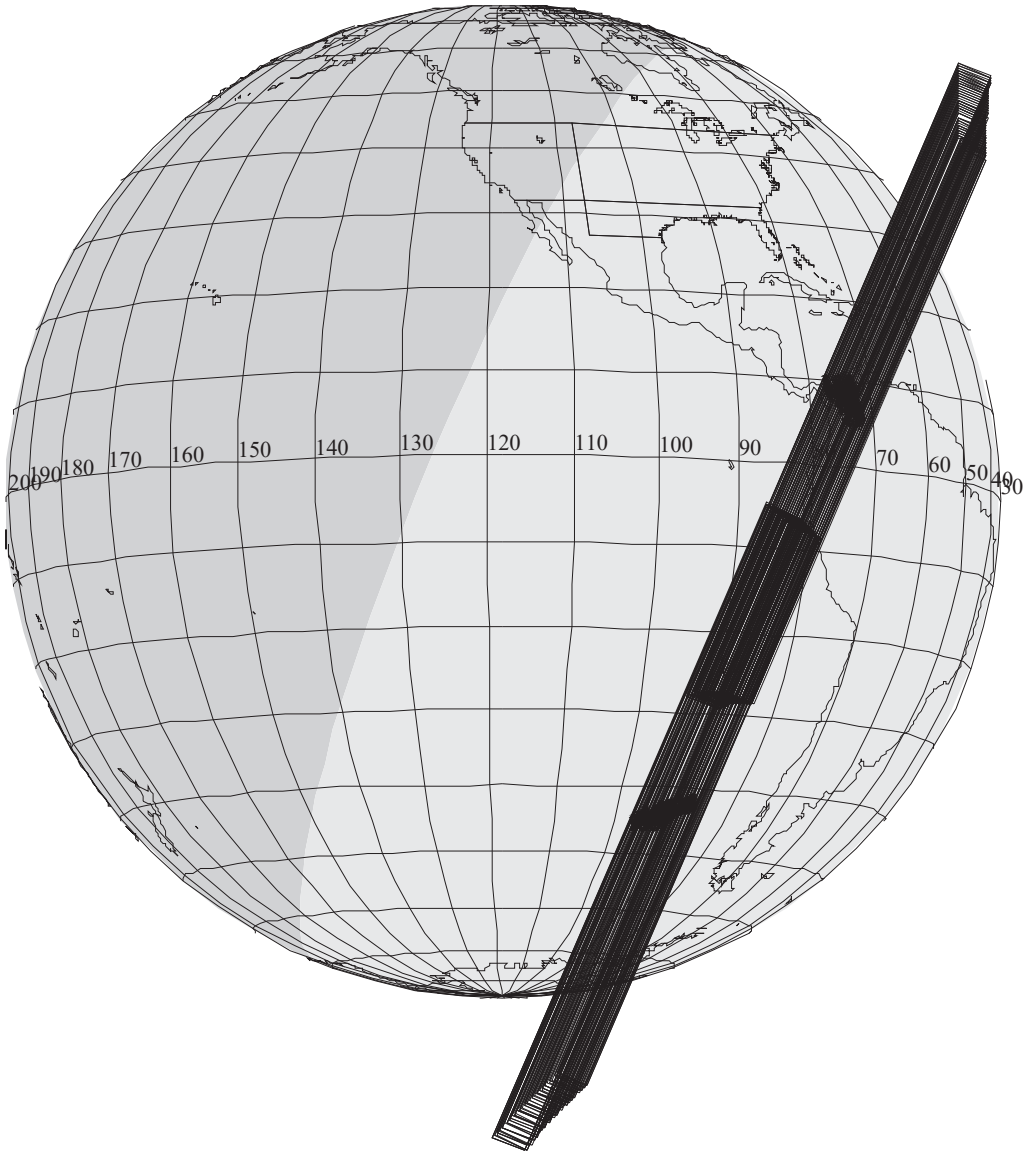
CDS 0 POINTER Design Y Frames 0.00 Exc Alias WSGOPEX_01

Ridealong with SSI Gopex observation (Global Optical Experiment) which will image the whole Earth. NIMS in Long Map mode.
Long Map
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

Mosaic: The scan platform cycles between 4 inertial coordinate locations in a U pattern with the Earth rotating beneath. The two locations on the illuminated side of the Earth are at a constant distance from the Terminator for nearly 3 hours. This gives a map of about 1/8 of the Earth at constant light angles.
SSI PICNOS: E2W1400 - E2W1755

Created on	10/23/92	Version	3		07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE		14:53:49

Galileo Activity Plan Form rev 6/93



E2WNGMOS__03

POINTER C5.1

FILE:P.E2WSZOOMMV02

CENTRAL BODY:EARTH

MINI:m.E2WSZOOMMV02

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-344/14:16:39.400

ACTIVITY:E2WSZOOMMV02 **DESCRIP:ZOOM MOVIE 2**

GLOBAL MOSAIC OF THE EARTH - RIDEALONG

ACTIVITY ID: E2WNGMOS 03*
START TIME: ECA+CDS 00001072:00:0

Activity ID Orbit E2 Target W Inst N OAPEL GMOS SeqNo 03 Multi *
Title Global Mosaic of the Earth - Ridealong
Requestor H. Breneman/R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00001072:00:0	92-344/09:13:19	ECA+000/18:03:54
End	ECA+CDS 00001303:00:0	92-344/13:06:53	ECA+000/21:57:28
Duration	00000231:00:0	000/03:53:34	000/03:53:34

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS F	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

To obtain NIMS partial global mosaic of the Earth while SSI is doing Zoom movie number 2.

Design Detail

CDS 0 POINTER Design Y Frames 0.00 Exc Alias WSZOOMMV02

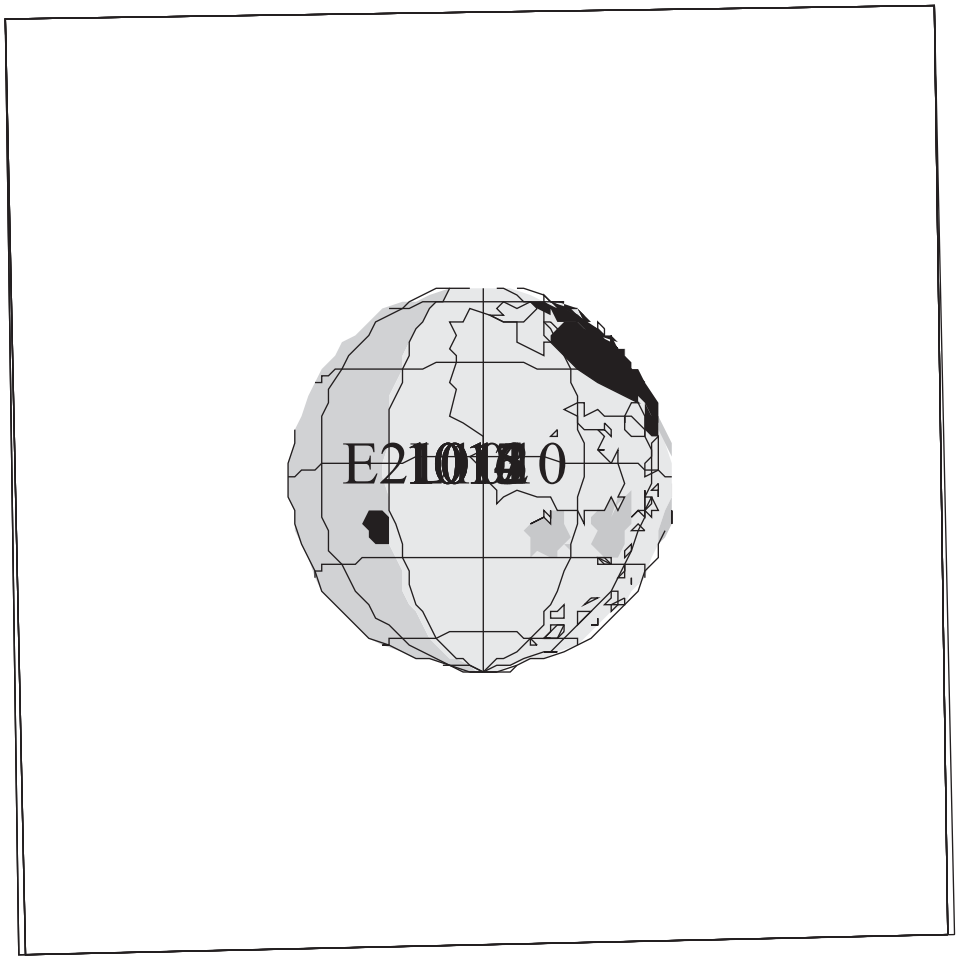
Ridealong with SSI observation. NIMS will be in Long Map mode for best determination of distributions of gaseous species.
Long Map
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

Mosaic: The scan platform is not slewing. The Earth is rotating beneath at a constant distance from the Terminator (illuminated side) for nearly 4 hours. This gives a map of about 1/6 of the Earth at constant light angles.

SSI PICNOS: E2W1760 - E2W2223

Created on	02/05/92	Version	10		07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE		14:53:45

Galileo Activity Plan Form rev 6/93



E2LSLUNCAL01

POINTER C5.1

FILE:P.E2LSLUNCAL01

CENTRAL BODY: MOON

MINI:m.E2LSLUNCAL01

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-344/18:13:16.000

ACTIVITY:E2LSLUNCAL01 **DESCRIP:SSI LUNAR CALIBRATION (MTF)**

SSI PHOTOMETRIC MAPPING

ACTIVITY ID: E2LSLUNCAL01-
START TIME: ECA+CDS 00001602:00:0

Activity ID Orbit E2 Target L Inst S OAPEL LUNMOS SeqNo 08 Multi -
Title SSI Photometric Mapping rage
Requestor SSI Working Group
Bottom Label Plot Key SSI Science Team SSI

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00001602:00:0	92-344/18:09:13	ECA+000/02:59:48
End	ECA+CDS 00001605:00:0	92-344/18:12:15	ECA+000/03:02:50
Duration	00000003:00:0	000/00:03:02	000/00:03:02

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD T	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR T	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

SSI calibration (part of MTF calibration which rquires tape recorder).

Design Detail

CDS 297 POINTER Design N Frames 0.00 Exc Alias

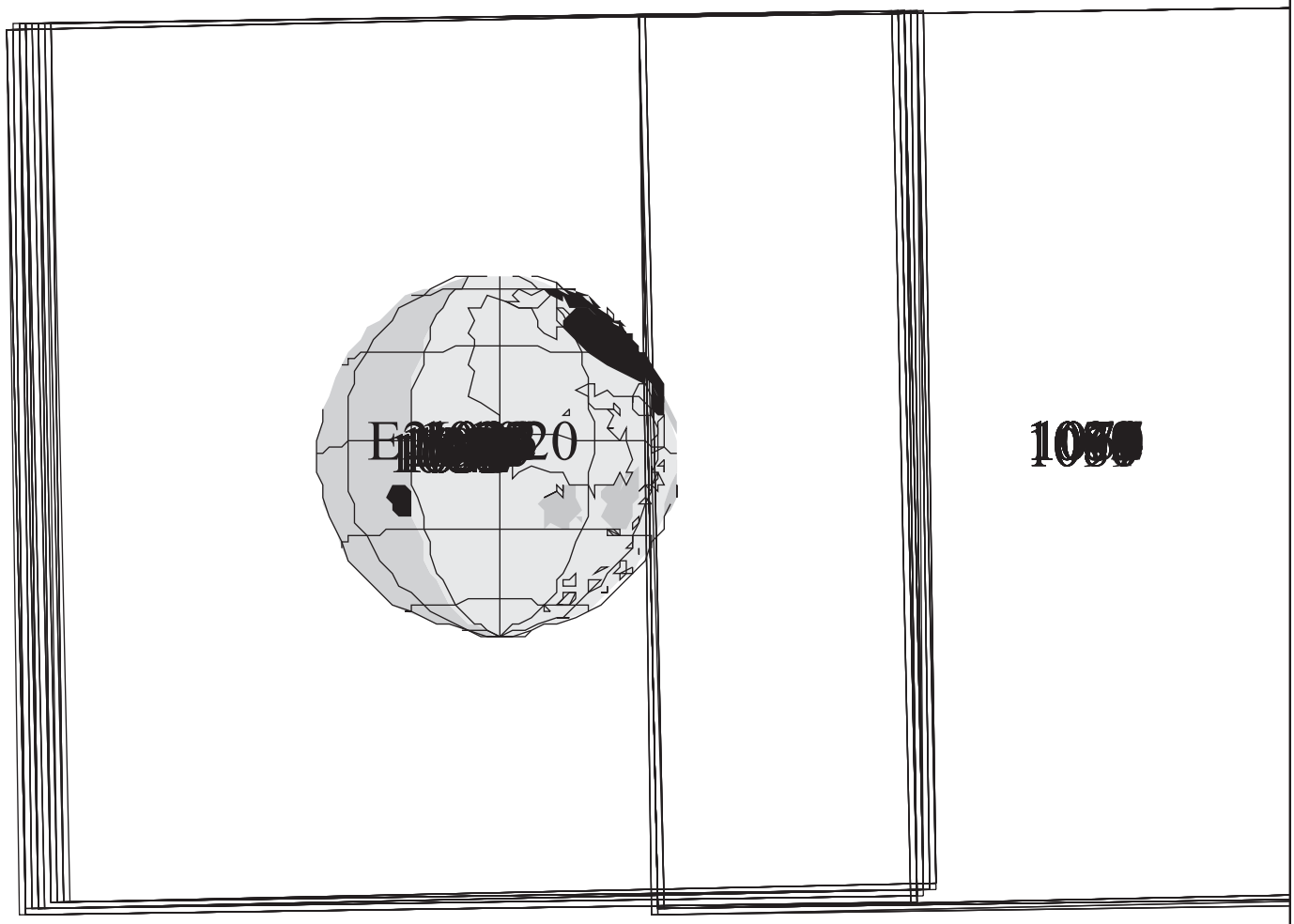
Approximately 60 degrees phase angle, 10.5 km/pix resolution (SSI), single position through all 8 filters in rad (400 e/pix) mode (2 1/3 sec imaging rate - recorded). Requires a lunar diameter of 1/4 to 1/2 SSI FOV between ECA + 22 hours and ECA + 53 hours. No TMC.
Assumed 2 rims for TARGET PA (previously looking at Earth).

Long Map (LM)
Gain State 1
Grating Start Position 0
Chopper Mode 63Hz

SSI PICNOS: E2L1010 - E2L1017

Created on	Version	07/18/94
Last Changed	Changed By SSI	14:50:20

Galileo Activity Plan Form rev 6/93



E2LSLUNCAL02

POINTER C5.1

FILE:P.E2LSLUNCAL02

CENTRAL BODY: MOON

MINI:m.E2LSLUNCAL02

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-344/18:15:17.333

ACTIVITY:E2LSLUNCAL02 **DESCRIP:SSI MTF AND SCATTERED LIGHT CALI**

SSI PHOTOMETRIC MAPPING

ACTIVITY ID: E2LSLUNCAL02-
START TIME: ECA+CDS 00001606:00:0

Activity ID Orbit E2 Target L Inst S OAPEL LUNMOS SeqNo 08 Multi -
Title SSI Photometric Mapping rage
Requestor SSI Working Group
Bottom Label Plot Key SSI Science Team SSI

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00001606:00:0	92-344/18:13:15	ECA+000/03:03:50
End	ECA+CDS 00001726:00:0	92-344/20:14:35	ECA+000/05:05:10
Duration	00000120:00:0	000/02:01:20	000/02:01:20

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD T	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR T	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

Photometric mapping of the moon & SSI calibrations (scattered light and rest of MTF).

Design Detail

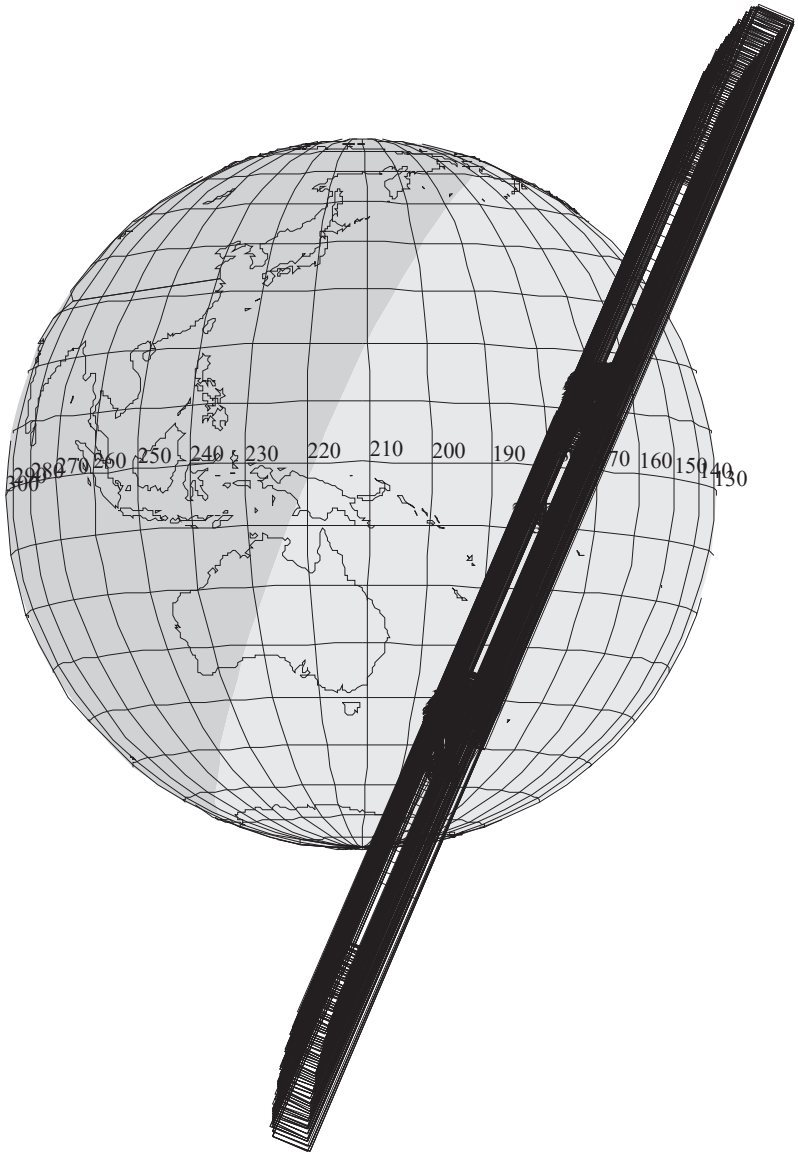
CDS 247 POINTER Design N Frames 0.00 Exc Alias

Approximately 60 degrees phase angle, 10.5 km/pix resolution (SSI), single position through all filters for photometric mapping, and 3 gain states for MTF calibration (24 real time). (1 subSMOS used). Scattered light: 1x4 mosaic - MOON centered in SSI FOV for first position of mosaic then slew off of target. SMOS used, assumed four subSMOS. Assume no TMC. However, the Moon is moving at approximately .0042 mrad/sec with respect to the s/c at this point so no re-target is needed for this observation (first part of TMC calibration occurs just before, lasts 1 rim, and is targeted at same area). Both TMC and scattered light calibrations require a lunar diameter of 1/4 to 1/2 SSI FOV which occurs between ECA + 22 hours and ECA + 53 hours.

Long Map (LM)
Gain State 1
Grating Start Position 0
Chopper Mode 63Hz
SSI PICNOS: E2L1020 - E2L1104

Created on	Version	07/18/94
Last Changed	Changed By SSI	14:50:20

Galileo Activity Plan Form rev 6/93



E2WNGMOS__04

POINTER C5.1

FILE:P.E2WSZOOMMV03

CENTRAL BODY:EARTH

MINI:m.E2WSZOOMMV03

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-344/20:28:45.333

ACTIVITY:E2WSZOOMMV03 **DESCRIP:ZOOM MOVIE 3**

GLOBAL MOSAIC OF THE EARTH - RIDEALONG

ACTIVITY ID: E2WNGMOS 04*
START TIME: ECA+CDS 00001740:00:0

Activity ID Orbit E2 Target W Inst N OAPEL GMOS SeqNo 04 Multi *
Title Global Mosaic of the Earth - Ridealong
Requestor H. Breneman/R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00001740:00:0	92-344/20:28:45	ECA+001/05:19:20
End	ECA+CDS 00002607:00:0	92-344/11:05:23	ECA+001/19:55:58
Duration	00000867:00:0	000/14:36:38	000/14:36:38

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS F	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

To obtain NIMS partial global mosaic of the Earth while SSI is doing Zoom movie number 3.

Design Detail

CDS 0 POINTER Design Y Frames 0.00 Exc Alias WSZOOMMV03

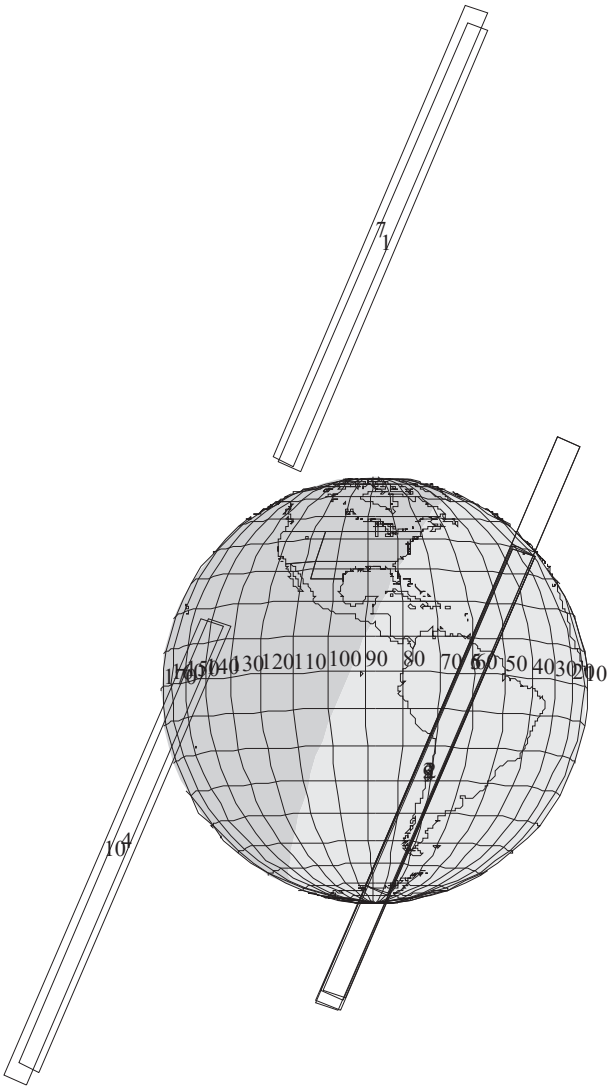
Ridealong with SSI observation. NIMS will be in Long Map mode for best determination of distributions of gaseous species.
Long Map
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

Mosaic: The scan platform is not slewing. The Earth is rotating beneath at a constant distance from the Terminator (illuminated side) for nearly 15 hours. This gives a map of about 5/8 of the Earth at constant light angles.

SSI PICNOS: E2W2240 - E2W3115

Created on	02/05/92	Version	10	07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE	14:53:45

Galileo Activity Plan Form rev 6/93



E2WNGOPEX_02

POINTER C5.1

FILE:P.E2WSGOPEX_02

CENTRAL BODY:EARTH

MINI:m.E2WSGOPEX_02

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-345/11:06:24.000

ACTIVITY:E2WSGOPEX_02 **DESCRIP:GLL OPT EXPT 2**

GOPEX OBSERVATION

ACTIVITY ID: E2WNGOPEX 02*
START TIME: ECA+CDS 00002608:00:0

Activity ID Orbit E2 Target W Inst N OAPEL GOPEX SeqNo 02 Multi *
Title GOPEX observation
Requestor H.Breneman/R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00002608:00:0	92-345/11:06:23	ECA+001/19:56:58
End	ECA+CDS 00002728:00:0	92-345/13:07:43	ECA+001/21:58:18
Duration	00000120:00:0	000/02:01:20	000/02:01:20

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM% UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

NIMS "partial global mosaic" observation.

Design Detail

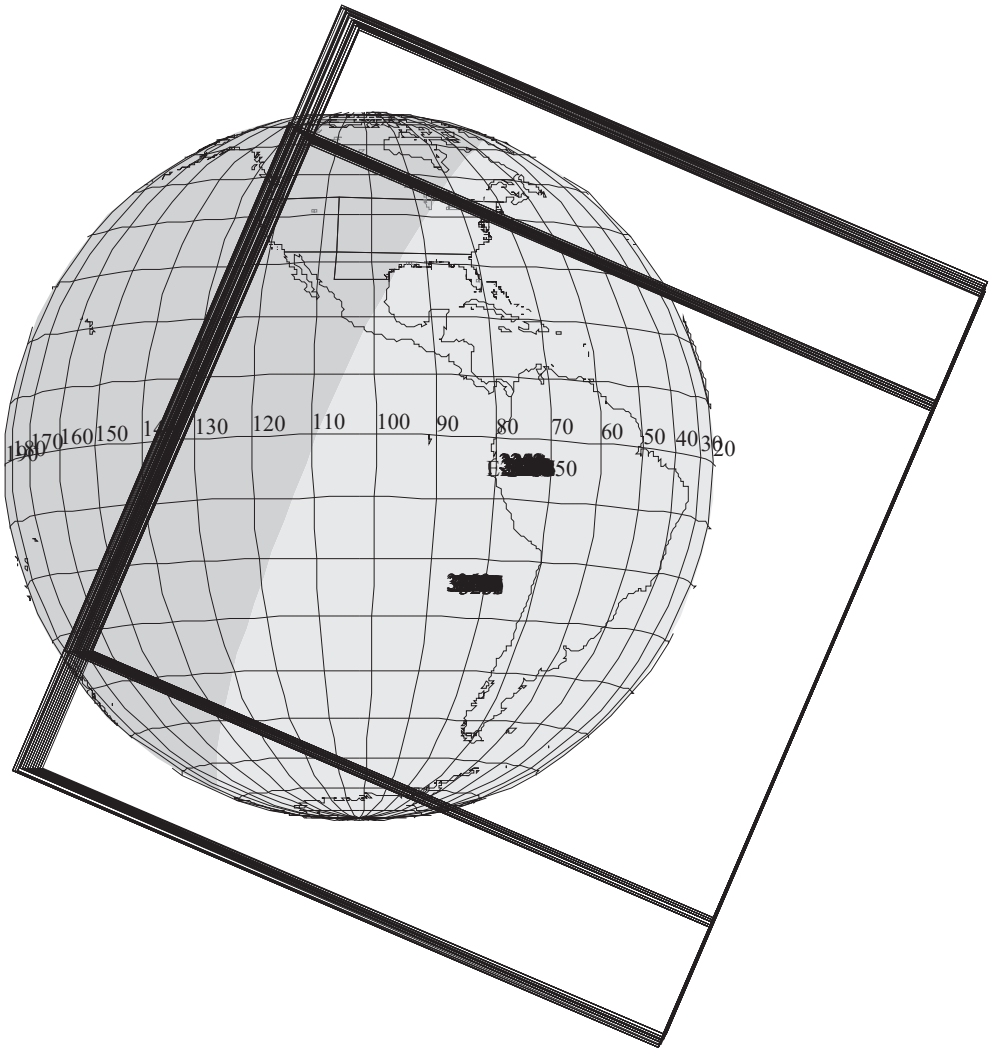
CDS 0 POINTER Design Y Frames 0.00 Exc Alias WSGOPEX_02

Ridealong with SSI Gopex observation (Global Optical Experiment) which will image the whole Earth. NIMS in Long Map mode.
Long Map
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

Mosaic: The scan platform cycles between 4 inertial coordinate locations in a U pattern with the Earth rotating beneath. The two locations on the illuminated side of the Earth are at a constant distance from the Terminator for nearly 2 hours. This gives a map of about 1/12 of the Earth at constant light angles.
SSI PICNOS: E2W3120 - E2W3239

Created on	10/23/92	Version	3	07/18/94
Last Changed	11/30/92	Changed By	C. BYRNE	14:53:53

Galileo Activity Plan Form rev 6/93



E2WNGMOS__05

POINTER C5.1

FILE:P.E2WSZOOMMV00

CENTRAL BODY:EARTH

MINI:m.E2WSZOOMMV00

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-345/13:08:44.666

ACTIVITY:E2WSZOOMMV00 **DESCRIP:ZOOM MOVIE 4**

GLOBAL MOSAIC OF THE EARTH - RIDEALONG

ACTIVITY ID: E2WNGMOS 05*
START TIME: ECA+CDS 00002729:00:0

Activity ID Orbit E2 Target W Inst N OAPEL GMOS SeqNo 05 Multi *
Title Global Mosaic of the Earth - Ridealong
Requestor Working Group
Bottom Label Plot Key SSI Science Team SSI

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00002729:00:0	92-345/13:08:14	ECA+001/21:58:49
End	ECA+CDS 00002841:00:0	92-345/15:01:54	ECA+001/23:52:29
Duration	00000122:00:0	000/01:53:40	000/01:53:40

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS F	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

To obtain NIMS partial global mosaic of the Earth while SSI is doing Zoom movie number 0.

Design Detail

CDS 0 POINTER Design Y Frames 0.00 Exc Alias WSZOOMMV00

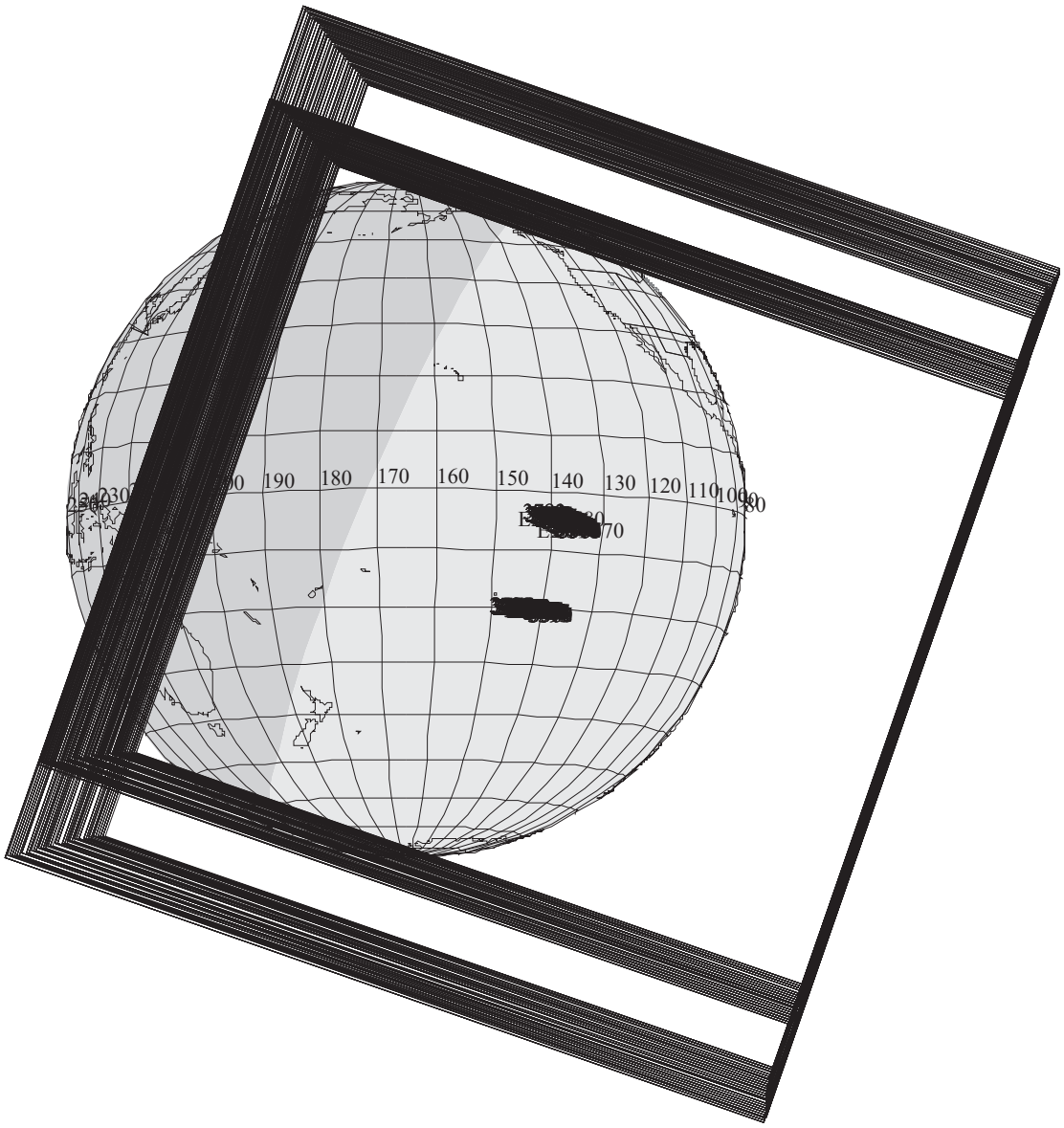
Ridealong with SSI observation. NIMS will be in Long Map mode for best determination of distributions of gaseous species.
Long Map
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

Mosaic: The scan platform is not slewing. The Earth is rotating beneath at a constant distance from the Terminator (illuminated side) for nearly 2 hours. This gives a map of about 1/12 of the Earth at constant light angles.

SSI PICNOS: E2W3250 - E2W3361

Created on	Version	07/18/94
Last Changed	Changed By	14:53:41

Galileo Activity Plan Form rev 6/93



E2WNGMOS__06

POINTER C5.1

FILE:P.E2WSZOOMMV04

CENTRAL BODY:EARTH

MINI:m.E2WSZOOMMV04

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-345/17:22:32.000

ACTIVITY:E2WSZOOMMV04 **DESCRIP:ZOOM MOVIE 4**

GLOBAL MOSAIC OF THE EARTH - RIDEALONG

ACTIVITY ID: E2WNGMOS 06*
START TIME: ECA+CDS 00002968:00:0

Activity ID Orbit E2 Target W Inst N OAPEL GMOS SeqNo 06 Multi *
Title Global Mosaic of the Earth - Ridealong
Requestor Working Group
Bottom Label Plot Key SSI Science Team SSI

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00002968:00:0	92-345/17:10:20	ECA+002/02:00:55
End	ECA+CDS 00003403:00:0	92-346/00:30:09	ECA+002/09:20:44
Duration	00000435:00:0	000/07:19:49	000/07:19:49

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS F	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

To obtain NIMS partial global mosaic of the Earth while SSI is doing Zoom movie number 4.

Design Detail

CDS 0 POINTER Design Y Frames 0.00 Exc Alias WSZOOMMV04

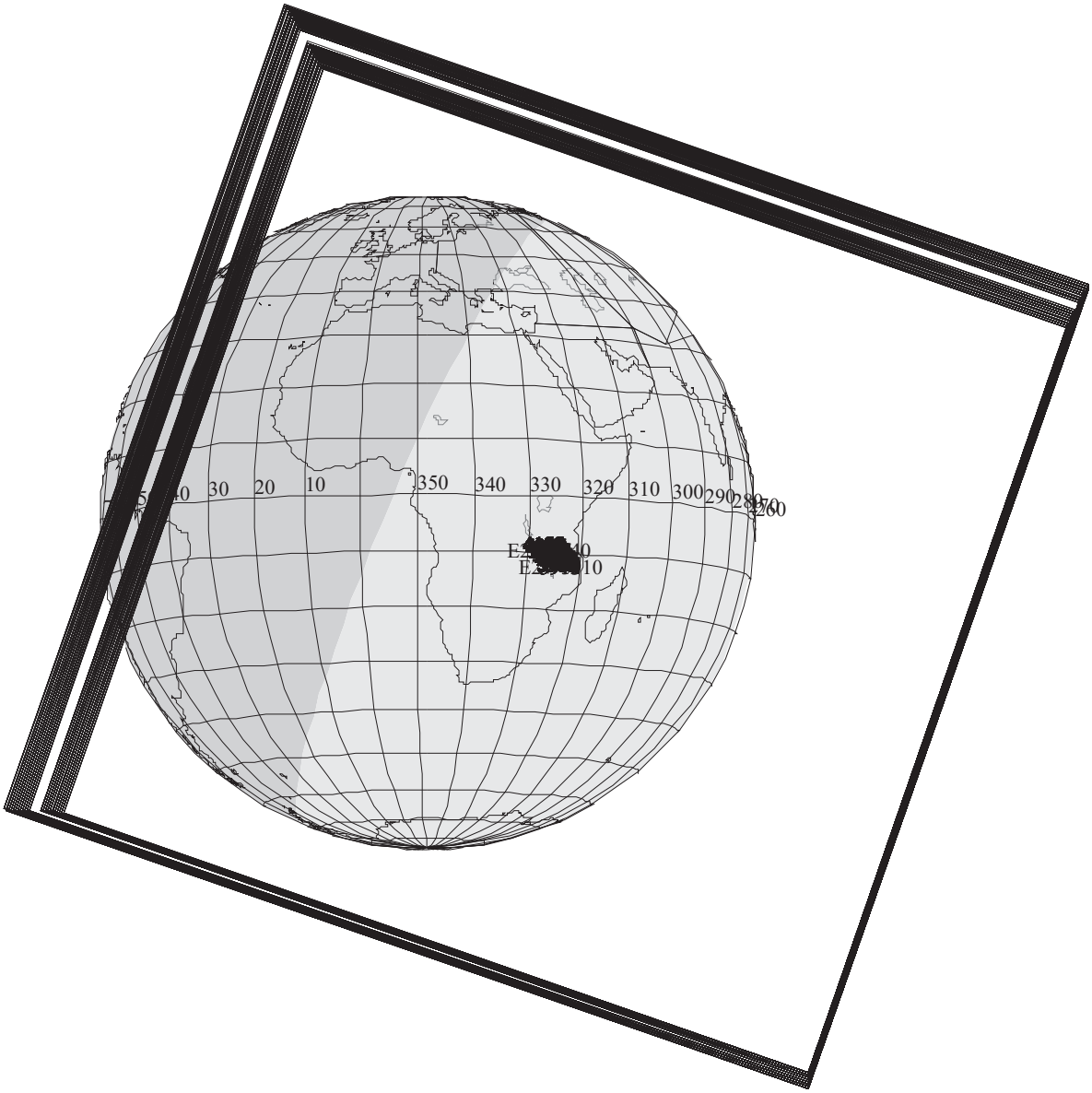
Ridealong with SSI observation. NIMS will be in Long Map mode for best determination of distributions of gaseous species.
Long Map
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

Mosaic: The scan platform is not slewing. The Earth is rotating beneath at a constant distance from the Terminator (illuminated side) for nearly 7 1/2 hours. This gives a map of about 1/3 of the Earth at constant light angles.

SSI PICNOS: E2W3370 - E2W3792

Created on	Version	07/18/94
Last Changed	Changed By	14:53:41

Galileo Activity Plan Form rev 6/93



E2WNGMOS__07

POINTER C5.1

FILE:P.E2WSZOOMMV05

CENTRAL BODY:EARTH

MINI:m.E2WSZOOMMV05

S/C EPH:/gptr/eph/E2IDA-111491.t

PERIAPSIS:92-343/15:10:23

START:92-346/01:25:50.600

ACTIVITY:E2WSZOOMMV05 **DESCRIP:ZOOM MOVIE 5**

GLOBAL MOSAIC OF THE EARTH - RIDEALONG

ACTIVITY ID: E2WNGMOS 07*
START TIME: ECA+CDS 00003450:00:0

Activity ID Orbit E2 Target W Inst N OAPEL GMOS SeqNo 07 Multi *
Title Global Mosaic of the Earth - Ridealong
Requestor Working Group
Bottom Label Plot Key SSI Science Team SSI

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00003450:00:0	92-346/01:17:41	ECA+002/10:08:16
End	ECA+CDS 00003742:00:0	92-346/06:12:57	ECA+002/15:03:32
Duration	00000292:00:0	000/04:55:16	000/04:55:16

Inertial SP Y Earth Ref N Spin Stat D Coop Imag T DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI T	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS F	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

To obtain NIMS partial global mosaic of the Earth while SSI is doing Zoom movie number 5.

Design Detail

CDS 0 POINTER Design Y Frames 0.00 Exc Alias WSZOOMMV05

Ridealong with SSI observation. NIMS will be in Long Map mode for best determination of distributions of gaseous species.
Long Map
Gain State 1
Grating Start Position 0
Chopper Mode 63 Hz

Mosaic: The scan platform is not slewing. The Earth is rotating beneath at a constant distance from the Terminator (illuminated side) for nearly 5 hours. This gives a map of about 1/5 of the Earth at constant light angles.

SSI PICNOS: E2W3910 - E2W3960

Created on	Version	07/18/94
Last Changed	Changed By	14:53:41

Galileo Activity Plan Form rev 6/93

NIMS PARTIAL PHOTOMETRIC CALIBRATION ACTIVITY ID: E2NNPCTMIN01-
START TIME: ECA+CDS 00003885:00:0

Activity ID Orbit E2 Target N Inst N OAPEL PCTMIN SeqNo 01 Multi -
Title NIMS Partial Photometric Calibration
Requestor R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00003885:00:0	92-346/08:37:35	ECA+002/17:28:10
End	ECA+CDS 00003975:00:0	92-346/10:08:35	ECA+002/18:59:10
Duration	00000090:00:0	000/01:31:00	000/01:31:00

Inertial SP Y Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

To observe the PCT with NIMS to check flatness of field, contamination of the target, and consistency of NIMS gain states. This partial calibration complements the Full PCT calibration in EE9.

Design Detail

CDS 184 POINTER Design N Frames 0.00 Exc Alias

'Flying' PCT Calibration.

Observe PCT using 6 NIMS modes.

Observe target center.
Move to dark sky to get dark level and to avoid overheating instrument.

Notes:
- this calibration is done in Dual-Spin mode.
- the PCT heater must be off for 6 hours before calibration begins.
- pointing constraint (<5.5 deg off Sun) can be relaxed to < 6 deg.

Created on	02/05/92	Version	14		07/18/94
Last Changed	10/02/92	Changed By	R. LOPES		14:53:57

Galileo Activity Plan Form rev 6/93

NIMS RCT HEATER ON

ACTIVITY ID: E2NNRCTON 02-
START TIME: ECA+CDS 00004036:00:0

Activity ID Orbit E2 Target N Inst N OAPEL RCTON SeqNo 02 Multi -
Title NIMS RCT Heater On
Requestor J. HUI Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00004036:00:0	92-346/11:10:15	ECA+002/20:00:50
End	ECA+CDS 00004422:00:0	92-346/17:40:33	ECA+003/02:31:08
Duration	00000386:00:0	000/06:30:18	000/06:30:18

Inertial SP Y Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS F	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

NIMS RCT heater on for the NIMS RCT calibration.

Design Detail

CDS 20 POINTER Design N Frames 0.00 Exc Alias

FR requires turn on of the NIMS RCT heater 6.5 hours before the NIMS RCT calibration. The NIMS boresight must be greater than 109 degrees in cone. The RCT heater is turned off after the last RCT observation by NIMS.

Created on	02/24/92	Version	12		07/18/94
Last Changed	08/28/92	Changed By	J. HUI		14:51:19

Galileo Activity Plan Form rev 6/93

NIMS PARTIAL RCT CALIBRATION — ACTIVITY ID: E2NNRCTMIN01-
START TIME: ECA+CDS 00004423:00:0

Activity ID Orbit E2 Target N Inst N OAPEL RCTMIN SeqNo 01 Multi -
Title NIMS Partial RCT Calibration
Requestor J. HUI — Working Group
Bottom Label — Plot Key NIMS — Science Team NIMS

Time System CDS — Load ID EE11 — Calendar Date / / — Week

Start	ECA+CDS 00004423:00:0	92-346/17:41:33	ECA+003/02:32:08
End	ECA+CDS 00004453:00:0	92-346/18:11:53	ECA+003/03:02:28
Duration	00000030:00:0	000/00:30:20	000/00:30:20

Inertial SP Y Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format — Record Duration — Tic Duration
Multiple Records — Acq Start/Stop Cycles 0 — Start Tics 0 — Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS T	PLS F

REALTIME: RTS FORMAT — RTS Rate — Playback — Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 — Bits-to-Ground 0 — Playback S/S Cycles 0

Observation Objective

Intended for calibrating NIMS performance in the long wavelength region and relate NIMS data (in DN) to radiance for modes and gain states that will be used in Jupiter operation.

Design Detail

CDS 340 POINTER Design N Frames 0.00 Exc Alias

This calibration starts after the RCT has been on for at least 6.5 hours. Dark sky (cone angle greater than 100 degrees) will be observed first, executing all states that are used in the RCT calibration. During the dark sky calibration, NIMS will execute 12 modes, 1 Rim each. NIMS will slew to the RCT and repeat the 12 modes at 1 Rim per mode. At the end, NIMS will slew to a safe-unstow position at 153 degrees cone. The slew rate for going between darks sky and RCT is 17.4 mrad/sec.

Created on	02/24/92	Version	8	07/18/94
Last Changed	08/28/92	Changed By	J. HUI	14:51:23

Galileo Activity Plan Form — rev 6/93

NIMS MIRROR SCAN CALIBRATION

ACTIVITY ID: E2NNMIRCAL01-
START TIME: ECA+CDS 00004457:00:0

Activity ID Orbit E2 Target N Inst N OAPEL MIRCAL SeqNo 01 Multi -
Title NIMS Mirror Scan Calibration
Requestor R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System	CDS	Load ID EE11 Calendar Date / /	Week
Start	ECA+CDS	00004457:00:0 92-346/18:15:56	ECA+003/03:06:31
End	ECA+CDS	00004489:00:0 92-346/18:48:17	ECA+003/03:38:52
Duration		00000032:00:0 000/00:32:21	000/00:32:21

Inertial SP N Earth Ref N Spin Stat D Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS F	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

To calibrate the detailed motion of the NIMS scan mirror.

Design Detail

CDS 65 POINTER Design N Frames 0.00 Exc Alias

Move the NIMS scanning mirror and read out the position of each of the 20 mirror locations.

This required reprogramming NIMS. The required software was loaded during EE9.

After calibration, an instrument reset was commanded.

Created on	02/05/92	Version	9	07/18/94
Last Changed	10/02/92	Changed By	R. LOPES	14:54:01

Galileo Activity Plan Form rev 6/93

NIMS POWER OFF

ACTIVITY ID: E2NNNIMOFF01-
START TIME: ECA+CDS 00004475:00:0

Activity ID Orbit E2 Target N Inst N OAPEL NIMOFF SeqNo 01 Multi -
Title NIMS POWER OFF
Requestor R. LOPES Working Group
Bottom Label Plot Key NIMS Science Team NIMS

Time System CDS Load ID EE11 Calendar Date / / Week

Start	ECA+CDS 00004475:00:0	92-346/18:34:08	ECA+003/03:24:43
End	ECA+CDS 00004483:00:0	92-346/18:42:13	ECA+003/03:32:48
Duration	00000008:00:0	000/00:08:05	000/00:08:05

Inertial SP N Earth Ref N Spin Stat A Coop Imag F DSP .F. RSTrack

RECORD: Format Record Duration Tic Duration
Multiple Records Acq Start/Stop Cycles 0 Start Tics 0 Track

Instrument Compression:

DDS F	SSI F	PWS F	EUV F	EPD F	NIM%	UVS F
MAG F	AACS	PWSW	HIC F	PPR F	NIMS F	PLS F

REALTIME: RTS FORMAT RTS Rate Playback Duration

DDS	EUV	PLS	EPD	NIMS
MAG	HIC	PWS	UVS	OPNAV

Tracks 0.0000 Bits-to-Ground 0 Playback S/S Cycles 0

Observation Objective

Power NIMS instrument off.

Design Detail

CDS 50 POINTER Design N Frames 0.00 Exc Alias

Library sequence.

Created on	02/25/92	Version	6		07/18/94
Last Changed	10/02/92	Changed By	R. LOPES		14:54:05

Galileo Activity Plan Form rev 6/93

JET PROPULSION LABORATORY NIMS 92-031-PW: Revised

June 10, 1992

To: Karen Buxbaum/Bob Carlson

From: Paul Weissman

Subject: NIMS Earth Avoidance Strategy -- Revised

This memorandum provides a revised thermal safeing plan for NIMS with minor changes in the timing of two of the TARGET PAs and some additional information on the TARGET slews. The target slews have been optimized to minimize the time spent at low cone angles during Earth closest approach, where some spacecraft heating is expected.

During the Galileo Earth-2 encounter closest approach, it is necessary to avoid pointing the NIMS radiator at the Earth for a period of +/- 3 hours, to prevent overheating of the NIMS focal plane. If the NIMS focal plane temperature exceeds 90 K, the data taken with the detectors is too noisy to be useful.

The NIMS radiator has a full width field of view of 144 degrees, centered on a point in the cone slewing plane, 62.5 degrees from the NIMS optical boresight. Note, that as a result of this large FOV, the NIMS radiator view includes whatever NIMS or any other scan platform instrument is viewing at any time. If the target to be imaged is either very warm, very bright or has a large angular extent (or any combination of the three), then the NIMS focal plane will heat. Thus, observations at both Venus and Earth (at E-1) heated the focal plane to temperatures in excess of 115 K, whereas the Gaspra encounter had no noticeable effect (Gaspra subtended a very small solid angle). Cooling times for the radiator and focal plane to return to their optimum temperature range are on the order of 12 - 24 hours.

Although the primary goal is to keep insolation from directly impinging on the radiator plate, it is also necessary to limit reflected energy off the inside of the NIMS radiator shield. The shield interior has an FOV of 180 degrees and at a minimum, we would like to protect 170 degrees of its FOV from any sources, or a half angle of 85 degrees.

Thus, for the Earth-2 encounter, a careful strategy of scan platform pointing has been formulated to keep the radiator from seeing the Earth. This strategy is complicated by the rapidly changing geometry during the Earth flyby and by the large angular diameter of the Earth at closest approach (nearly 150 deg.). It is also complicated by the fact that we are not free to point the radiator anywhere in cone-clock space due to the limited cone motion of the scan platform, and by the fact that the spacecraft itself is a heat source and some platform positions allow the radiator to view warm/bright spacecraft structures, such as the Photometric Calibration Target.

A minimum of five scan platform positions, requiring five TARGET PA’s, have been identified for keeping the NIMS radiator viewing deep space as much as possible. The TARGET PAs are required because of the large angular distances between successive positions. Each TARGET PA is referenced to a right ascension and declination in inertial space. In the following, times are given in the format h:mm:ss relative to closest approach.

The first NIMS thermal safeing position is assumed following the last lunar observation, at approximately CA-2:50:00 (note, Galileo never gets close enough to the Moon for it to be a thermal problem). The position is chosen to be at a cone angle of 60 degrees, and at a clock angle exactly opposite that of the Earth. The 60 degree angle is chosen to be the minimum cone angle that NIMS can be placed at without viewing warm/bright spacecraft structures. The clock position, which is slowly varying during the hyperbolic approach, is chosen so that NIMS and its radiator view as far away from Earth as possible. The precise clock angle is chosen as that of the Earth+180 degrees, at the last time that this position is useable (see below). That time is approximately CA-0:07:20.

At CA-0:07:20, the spacecraft has begun to pass on the dayside of the Earth. Because of the Earth's large angular size at this time, the radiator and shield, which can see out to effective cone angles of 207.5 degrees, can just begin to see the dark limb of the Earth. The platform must be moved to lower cone angles to avoid Earth-viewing. Thus, the platform is moved to a cone angle of only 2 degrees, and a clock position 180 degrees from the Earth, again at the last time that this position is viable. This results in a slow heating of the radiator because of viewing of warm spacecraft structures, but it is less than would be obtained from viewing the Earth. The slew rate for this TARGET is chosen to move the platform at a rate fast enough so that the Earth does not enter the radiator's FOV, but slow enough to minimize the time spent at low cone angles.

As the trajectory continues to carry the spacecraft around the Earth, even this new position becomes untenable. At approximately CA-0:00:30 the spacecraft is in front of the Earth's lit disk, so that the Earth fills a large fraction of the anti-sun hemisphere. The angular diameter of the Earth is so large that no accessible position of the scan platform can prevent some Earth viewing. However, because the trajectory carries the spacecraft over the southern hemisphere, the minimum Earth exposure is obtained by pointing the scan platform southward, approximately 70 degrees in clock from the previous position, while still at a very low cone angle. The radiator will view a small portion of the Earth's southern limb which may be fairly cool, but unfortunately includes the high albedo Antarctic continent. Because of the continued low cone angle, some heating from spacecraft structures is also expected. The TARGET slew rate is chosen to roughly track the changing Earth geometry.

This position is maintained while the spacecraft sweeps across the lit hemisphere of the Earth. At approximately CA+0:07:20, the spacecraft is almost past the Earth and the radiator can once again obtain a clear view of space by being turned an additional 36 degrees in clock, but keeping it at 2 degrees cone angle. The radiator still views spacecraft structure but can no longer see the Earth. Movement to this position is at the maximum platform slew rate.

Finally, at CA+0:26:00, the trajectory has carried the spacecraft far enough past the Earth where the scan platform can be safely moved to a large cone angle where the radiator does not see either the Earth or any warm spacecraft structures. The slew to this position is again done slowly so that the radiator never views the Earth, but also so that it spends minimal time at low cone angles. This is the final safe position and is maintained until CA+3:00:00 when the NIMS Antarctic mosaic begins. The only exceptions to this are an SSI observation of the Andes which begins at CA+34 RIMs and lasts approximately 10 RIMs, and an optional SSI observation of Hawaii and aurora which may be included if the total NIMS heating from all three observations does not exceed an allowable limit of 13.4 K. However, at the end of each of these observations it is necessary that the scan platform

immediately be returned to a thermal safe position; such positions for each of the SSI observations have been provided to the SSI team.

Note that any significant changes in the spacecraft attitude, trajectory, or the arrival time at closest approach will require a redetermination and tweaking of the pointing directions and timing given in Tables 1 and 2 for the five TARGET PAs.

The strategy described above has been worked out considering the thermal needs of NIMS and the observational requirements of SSI. The five TARGET PA calls are believed to be the minimum that can be used to achieve the desired protection for NIMS. Use of mosaic slews are precluded by the large angular distances through which the platform must be moved between successive positions.

Table 1. NIMS Thermal Safe Positions During Earth-2 Closest Approach

Position	Start time	Cone	Clock	R.A.	Dec.
1	CA-2:50:00	60.0	97.44	313.52	-18.71
2	CA-0:01:30	2.0	79.13	250.80	-24.56
3	CA+0:05:00	2.0	10.0	248.61	-25.64
4	CA+0:07:20	2.0	344.52	247.68	-25.36
5	CA+0:26:00	60.0	295.46	184.02	-19.19

Table 2. Target slews to positions

Position	Rate (mrad/s)	Slew duration / max angle / axis (sec)	(degrees)	
1	17.45	180	< 180	either
2	2.88	352	58	cone
3	3.66	330	69	clock
4	17.45	26	26	clock
5	1.70	596	58	cone

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