Chapter 5 - Detailed Observation Designs

Contents

Introduction to Chapter 5

Detailed Observation Designs

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

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

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

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

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

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

Grating Step Test #1	ACTIVITY ID: 24NNDETECT01- START TIME: 99-284/00:30:17.400

Activity ID: Orbit 24 Target N Inst N OAPEL DETECT SeqNo 01 -

Title	Grating Step Test #1			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	10/11/99	Week	41

Start	IEE-CDS 00000240:00:0	99-284/00:30:17.400	IEE-000/04:02:40.000
End	IEE-CDS 00000220:00:0	99-284/00:50:30.734	IEE-000/03:42:26.666
Duration	00000020:00:0	000/00:20:13.334	000/00:20:13.334

Top Label	24NNDETECT01-
Bottom Label	

Plot Key	NIMS	Type	SCI		
CDS Bytes	0	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Store NIMS Housekeeping Bytes in CDS memory to measure the NIMS Grating Cycle in engineering units.

This will help in the NIMS grating calibration.

No Data Returned

Design Detail

Use 6MCOPY command to copy NIMS Housekeeping values from NIMS RAM to CDS RAM.

This process collects data equivalent to two full long map grating cycles. The data are collected over a 13 RIM period.

The NIMS Houskeeping will be returned via CDS MRO sometime after the I24 encounter period.

This first of three tests captures NIMS Housekeeping about 1 to 2 hours before J24 Perijove.

This calibration did not take place due to spacecraft safing

Grating Step Test #2	ACTIVITY ID: 24NNDETECT02- START TIME: 99-284/03:42:24.067

Activity ID: Orbit 24 Target N Inst N OAPEL DETECT SeqNo 02 -

Title	Grating Step Test #2			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	10/11/99	Week	41

Start	IEE-CDS 00000050:00:0	99-284/03:42:24.067	IEE-000/00:50:33.333
End	IEE-CDS 00000030:00:0	99-284/04:02:37.400	IEE-000/00:30:20.000
Duration	00000020:00:0	000/00:20:13.333	000/00:20:13.333

Top Label	24NNDETECT02-
Bottom Label	

Plot Key	NIMS	Type	SCI		
CDS Bytes	0	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Store NIMS Housekeeping Bytes in CDS memory to measure the NIMS Grating Cycle in engineering units.

This will help in the NIMS grating calibration.

Data Returned

Design Detail

Use 6MCOPY command to copy NIMS Housekeeping values from NIMS RAM to CDS RAM.

This process collects data equivalent to two full long map grating cycles. The data are collected over a 13 RIM period.

The NIMS Houskeeping will be returned via CDS MRO sometime after the I24 encounter period.

This second of three tests captures NIMS Housekeeping about 1 hour before I24 and 1.5 hours after J24 Perijove.

Galileo Activity Plan Form 09/28/99 10:48:23 rev 1/99

NIMS Software Reload	ACTIVITY ID: 24NNLOKIRA01- START TIME: 99-181/06:42:33.200

Activity ID: Orbit 24 Target N Inst N OAPEL LOKIRA SeqNo 01 -

Title	NIMS Software Reload			Instrument	NIMS
Requestor	NIMS-AWG/K. BAINES	Team	NIMS	Working Group	AWG

Time System CDS Load ID Calendar Date 10/11/99 Week 41

Start	IEE-CDS 00000016:00:0	99-284/04:16:46.734	IEE-000/00:16:10.666
End	IEE-CDS 00000014:00:0	99-284/04:18:48.067	IEE-000/00:14:09.333
Duration	00000002:00:0	000/00:02:01.333	000/00:02:01.333

Top Label 24NNLOKIRA01-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	0	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

NIMS reload

Each NIMS GEM observation will have an instrument reload before the start of each observation. Each reload has its own OAPEL form, but only this first form is included in the NIMSGUIDE.

The NIMS I24 reload OAPELS are:
24NNLOKIRA01, 24NNPILLAN01, 24NNZAMAMA01, 24NNPROMTH01,
24NNCOLCHS02, 24NNNTOHIL01, 24NNPROMTH02, 24NNZAMAMA02,
24NNDORIAN01, 24NNAMSKGI01, 24NNTERMAP01, 24NNREGION01,
24NNPPLUME01, 24NNPELEPM01, 24NNREGION02, 24NNRELOAD01

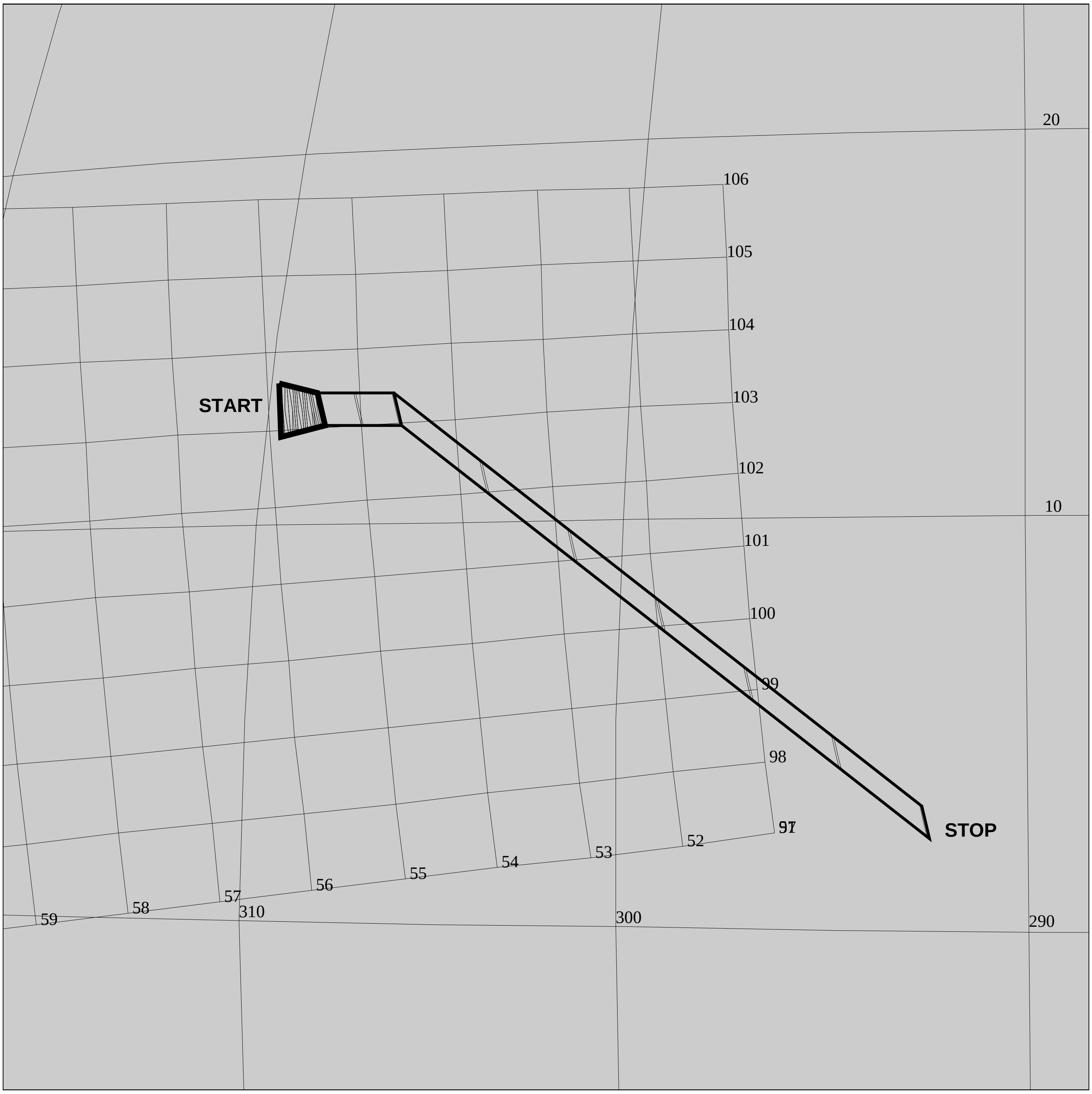
24INHSPELE01, 24INCOLCHS01, 24NNPCTRLT01 and 24NNRCTRTL01 did not have reloads.

Design Detail

Use a standard set of commands to halt the instrument, load the software and reinitialize the instrument.

37PL - Halt NIMS Processor
37MRL - Memory Reallocate
6MCOPY - Copy flight software from CDS to NIMS 1000
6MCOPY - Copy flight software from CDS to NIMS 1598
37IRT - Instrument Reset
37MN - Memory Normal
37IST - Chopper Reference.

Galileo Activity Plan Form 09/28/99 10:48:23 rev 1/99



165DA:TT= 0 TMC= 1 C= 4.00 XC= 0.00 BS= 0/0318 TC= 1(13 309)
A= 182 pD= 800 SR=17.450 RA50=265.40 DEC50=-22.15 cone= 55.87 clock=103.25
117DA:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/0318
1:#s= 1 Cs= -7.90 XCs= 0.00 Cr= 0.00 XCr= -0.60 sD= 808 rD= 20

24INLOKIRA01

TARGET G3.1 lisac: 9/24/1999 10:48:44

FILE:P.24INLOKIRA01

TARGET BODY : IO

MINI:m.target

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

START:IEE 99-284/04:32:57.400 -CDS 11:00:0

OBSERVATION:24INLOKIRA01

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 800 S= 3.000

DESCRIP:I24_LOKI_HOT_SPOT_01

Io Loki Obs	ACTIVITY ID: 24INLOKIRA01- START TIME: 99-284/04:20:49.400

Activity ID: Orbit 24 Target I Inst N OAPEL LOKIRA SeqNo 01 -

Title	Io Loki Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date 10/11/99	Week 41

Start	IEE-CDS 00000012:00:0	99-284/04:20:49.400	IEE-000/00:12:08.000
End	IEE-CDS 00000005:00:0	99-284/04:27:54.067	IEE-000/00:05:03.333
Duration	00000007:00:0	000/00:07:04.667	000/00:07:04.667

Top Label 24INLOKIRA01-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Nightside observation of Loki to search for thermal emission from the caldera.

Data Returned

Design Detail

BTG=2.16 MB, TICS=266 FMT=MPW
Mosaic part of Loki's caldera.
Gain state 4

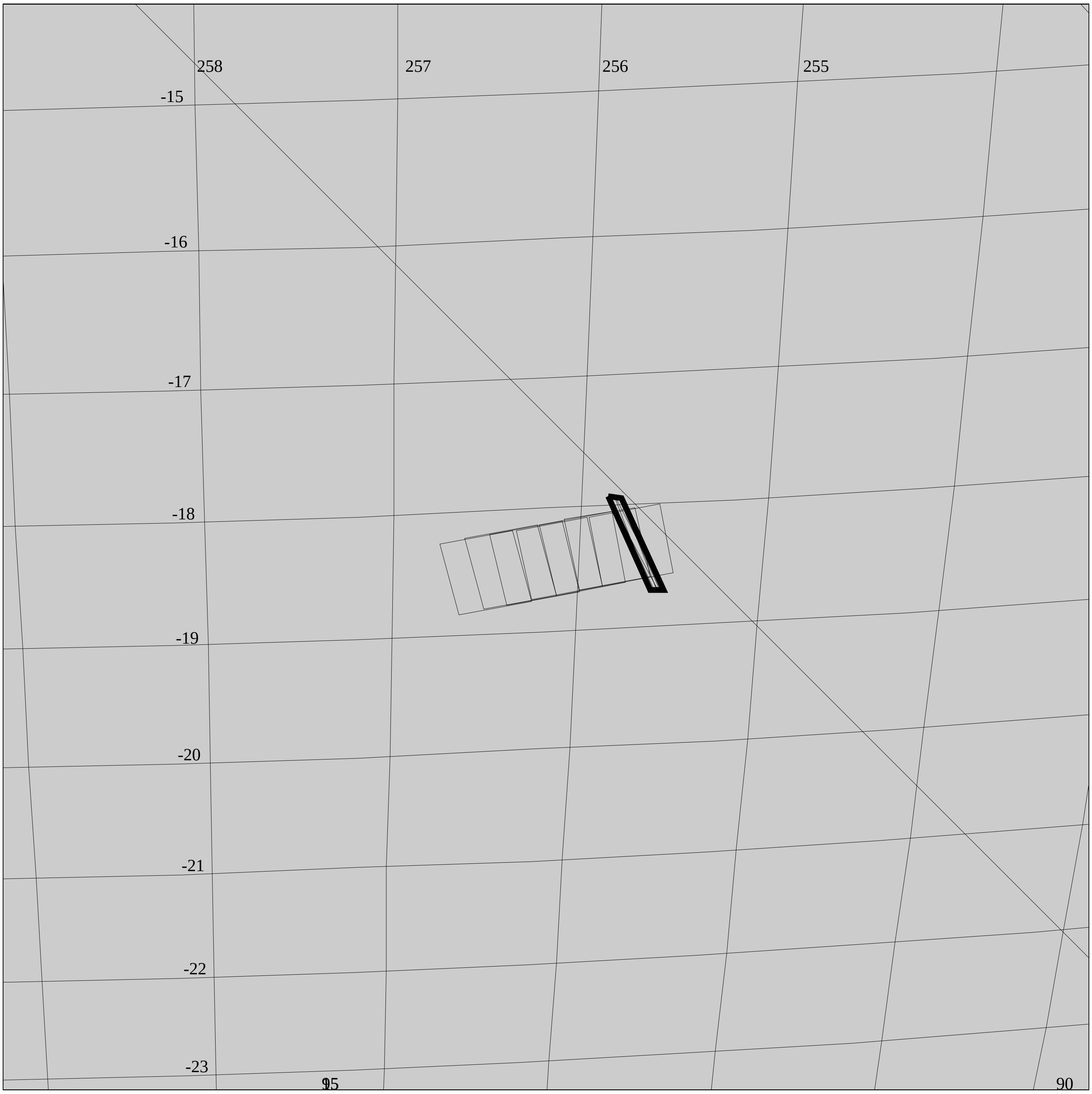
The mosaic covered the 'island' in the center of Loki's caldera. NIMS data were recorded past the end of the CSMOS. At that time TMC was turned off and soon afterwards the scan platform started its reposition slew to target the next observation.

After TMC was turned off but before the target reposition, the NIMS FOV drifted eastward across the dark caldera. The reposition took NIMS at a fast rate across the surrounding terrain.

Grating Stuck

Fixed Long Map (XLM), Gain 4, Grating Start 0, MPW, ILM442, ILM360

Galileo Activity Plan Form 09/28/99 10:48:23 rev 1/99



165IA:TT= 0 TMC= 1 C= 0.00 XC= 0.00 BS=43/1410 TC= 1(-18.3 255.7)
A= 364 pD= 294 SR= 6.000 RA50=268.99 DEC50=-49.81 cone= 64.36 clock= 72.56
116IA:OR= 8.750 Cs= 17.50 XCs= 0.00 sD= 16 BS=30/1592 TF=N
117IA:#SB= 1 OR= 1.160 RR=12.000 BM=F RC= 1 BS=47/1592
1:#s= 1 Cs= -35.00 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 104 rD= 2

24INHSPELE01

DESIGN G3.2 lisac: 9/17/1999 12:14:24

FILE:P.24ISPELE__01

TARGET BODY : IO

MINI:m.24ISPELE__01

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

THINNING:NIM 2

START:IEE 99-284/04:32:57.400 -CDS 05:00:0

BODY PLOT TIME:99-284/04:29:38.000 D= 294 S= 10.000

OBSERVATION:24ISPELE__01

DESCRIP:PELE IN DARKNESS

Io Pele Obs		ACTIVITY ID:	24INHSPELE01-
		START TIME:	99-284/04:27:54.067

Activity ID: Orbit 24 Target I Inst N OAPEL HSPELE SeqNo 01 -

Title	Io Pele Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	10/11/99	Week	41

Start	IEE-CDS 00000005:00:0	99-284/04:27:54.067	IEE-000/00:05:03.333
End	IEE-CDS 00000003:61:0	99-284/04:29:14.734	IEE-000/00:03:42.666
Duration	00000001:30:0	000/00:01:20.667	000/00:01:20.667

Top Label	24INHSPELE01-
Bottom Label	

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Nightside observation of Pele to search for thermal emission from the caldera.

Data Returned

Design Detail

BTG=0.37 MB, TICS=48, FMT=MPW
Collaborative nightside observation with SSI obs 24ISPELE__01.
Gain state 4.

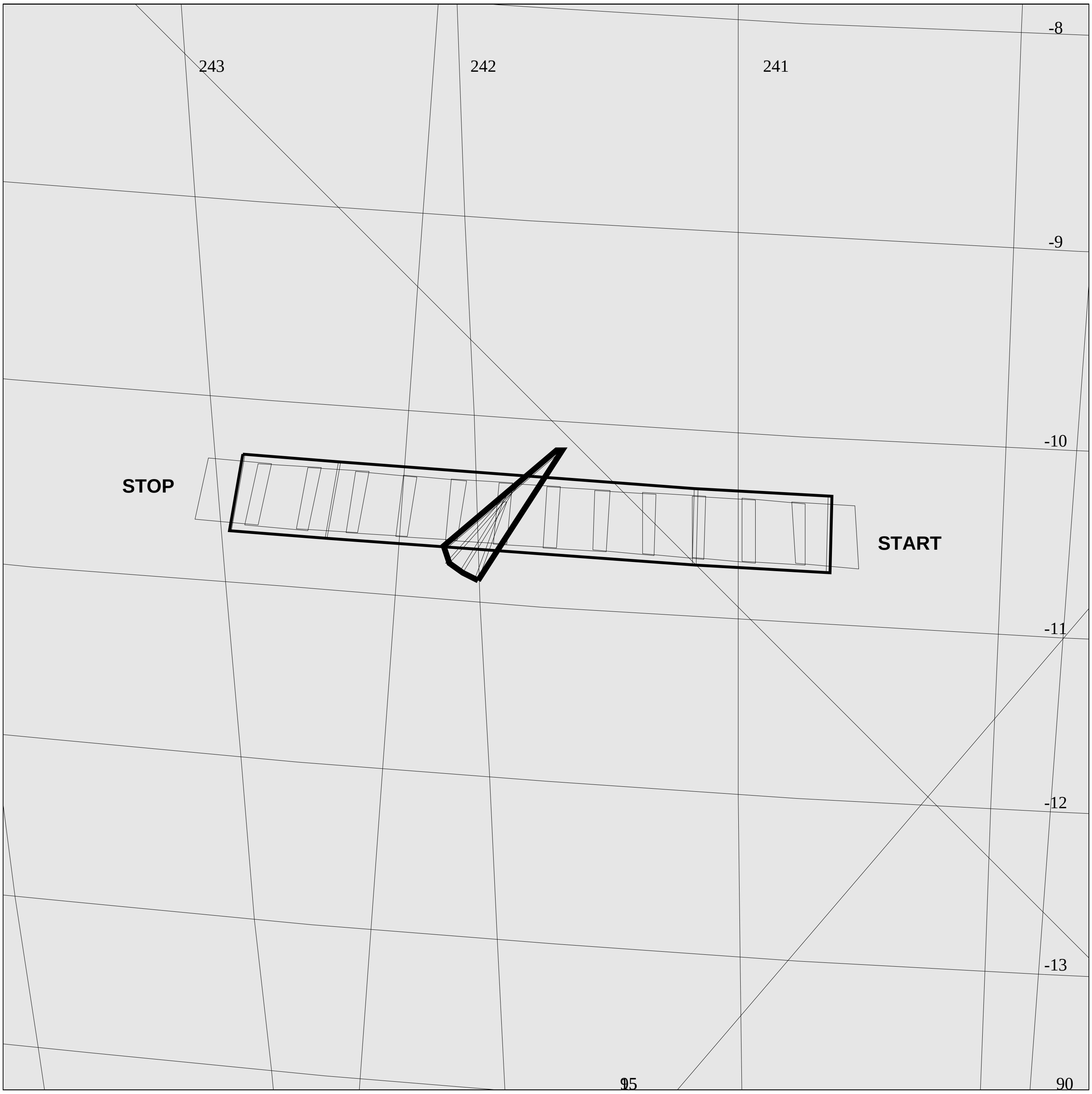
Point and Stare observation to build up NIMS spectra.

Ride-along behind SSI not returned due to NIMS Reload activity.

Grating Stuck

Fixed Long Map (XLM), Gain 4, Grating Start 0, MPW, ILM442, ILM360

Galileo Activity Plan Form   09/28/99 10:48:23   rev 1/99



165IB:TT= 0 TMC= 1 C= -40.00 XC= 0.00 BS=47/1956 TC= 1(-10.5 241.8)
A= 232 pD= 306 SR=17.450 RA50=318.94 DEC50=-53.17 cone= 94.76 clock= 68.56
117IB:#SB= 1 OR= 2.740 RR=12.000 BM=F RC= 1 BS=47/1956
1:#s= 1 Cs= 78.00 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 106 rD= 2
116DC:OR=17.000 Cs= -35.00 XCs= -4.00 sD= 40 BS=11/2138 TF=N

24INPILLAN01

DESIGN G3.2 lisac: 9/17/1999 12:14:53

FILE:P.24ISPILLAN01

TARGET BODY : IO

MINI:m.24ISPILLAN01

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

THINNING:NIM 2

START:IEE 99-284/04:32:57.400 -CDS 02:00:0

BODY PLOT TIME:99-284/04:31:38.000 D= 306 S= 10.000

OBSERVATION:24ISPILLAN01

DESCRIP:PILLAN PATERA

Io Pillan Obs		ACTIVITY ID:	24INPILLAN01-
		START TIME:	99-284/04:31:11.400

Activity ID: Orbit 24 Target I Inst N OAPEL PILLAN SeqNo 01 -

Title	Io Pillan Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date 10/11/99	Week 41

Start	IEE-CDS 00000001:68:0	99-284/04:31:11.400	IEE-000/00:01:46.000
End	IEE+CDS 00000000:28:0	99-284/04:33:16.066	IEE+000/00:00:18.666
Duration	00000002:05:0	000/00:02:04.666	000/00:02:04.666

Top Label	24INPILLAN01-
Bottom Label	

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Dayside observation of Pillan caldera to search for thermal emission from the caldera.

Data Returned

Design Detail

BTG=0.37 MB, TICS=48, FMT=MPW
Collaborative nightside observation with SSI obs 24ISPILLAN01.
Gain state 4.

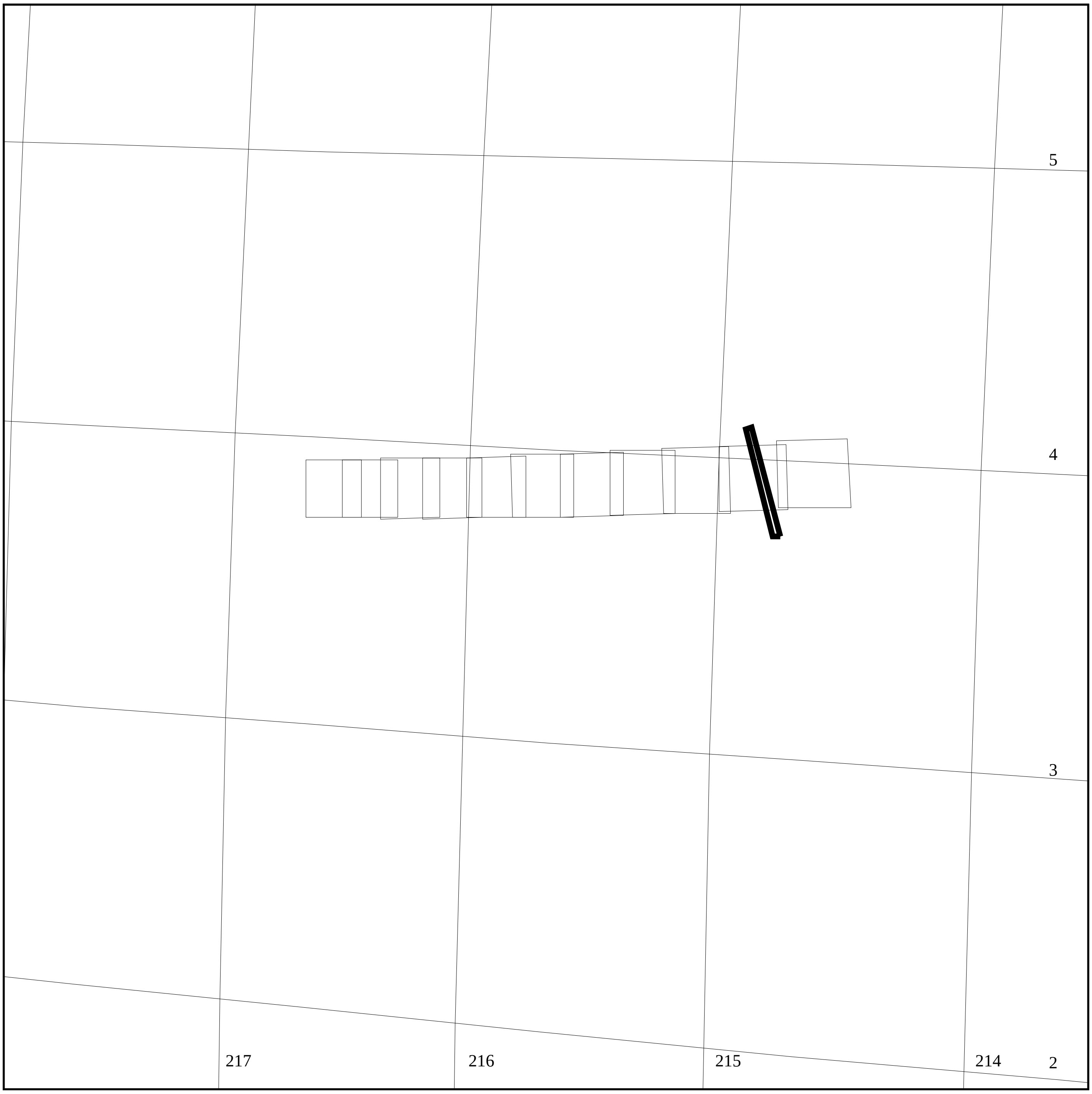
Point and Stare observation to build up NIMS spectra.

Ride-along behind SSI also returned for context.

Grating Stuck

Fixed Long Map (XLM), Gain 4, Grating Start 0, AI8, ILM442, ILM360
Fixed Long Map (XLM), Gain 4, Grating Start 0, MPW, ILM442, ILM360

Galileo Activity Plan Form 09/28/99 10:48:23 rev 1/99



165IC:TT= 0 TMC= 1 C= 33.00 XC= -1.50 BS=54/2502 TC= 1(+3.9 215.7)
A= 232 pD= 238 SR=17.450 RA50= 2.98 DEC50= -3.43 cone=151.54 clock=100.01
117IC:#SB= 1 OR= 2.670 RR=12.000 BM=F RC= 1 BS=54/2502
1:#s= 1 Cs= -64.00 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 94 rD= 2
116DD:OR=14.300 Cs= 18.00 XCs= -29.00 sD= 44 BS=12/2684 TF=N

24INCOLCHS01

DESIGN G3.2 lisac: 9/17/1999 12:13:10

FILE:P.24ISCOLCHS01

TARGET BODY : IO

MINI:m.24ISCOLCHS01

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

THINNING:NIM 2

START:IEE 99-284/04:32:57.400 +CDS 01:00:0

BODY PLOT TIME:99-284/04:34:44.000 D= 238 S= 10.000

OBSERVATION:24ISCOLCHS01

DESCRIP:COLCHIS MONTES

Io Colchis Obs		ACTIVITY ID:	24INCOLCHS01-
		START TIME:	99-284/04:35:05.400

Activity ID: Orbit 24 Target I Inst N OAPEL COLCHS SeqNo 01 -

Title	Io Colchis Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System CDS Load ID Calendar Date 10/11/99 Week 41

Start	IEE+CDS 00000002:10:0	99-284/04:35:05.400	IEE+000/00:02:08.000
End	IEE+CDS 00000003:26:0	99-284/04:36:16.733	IEE+000/00:03:19.333
Duration	00000001:16:0	000/00:01:11.333	000/00:01:11.333

Top Label 24INCOLCHS01-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Dayside observation of Colchis region
to investigate surface composition.

Data Returned

Design Detail

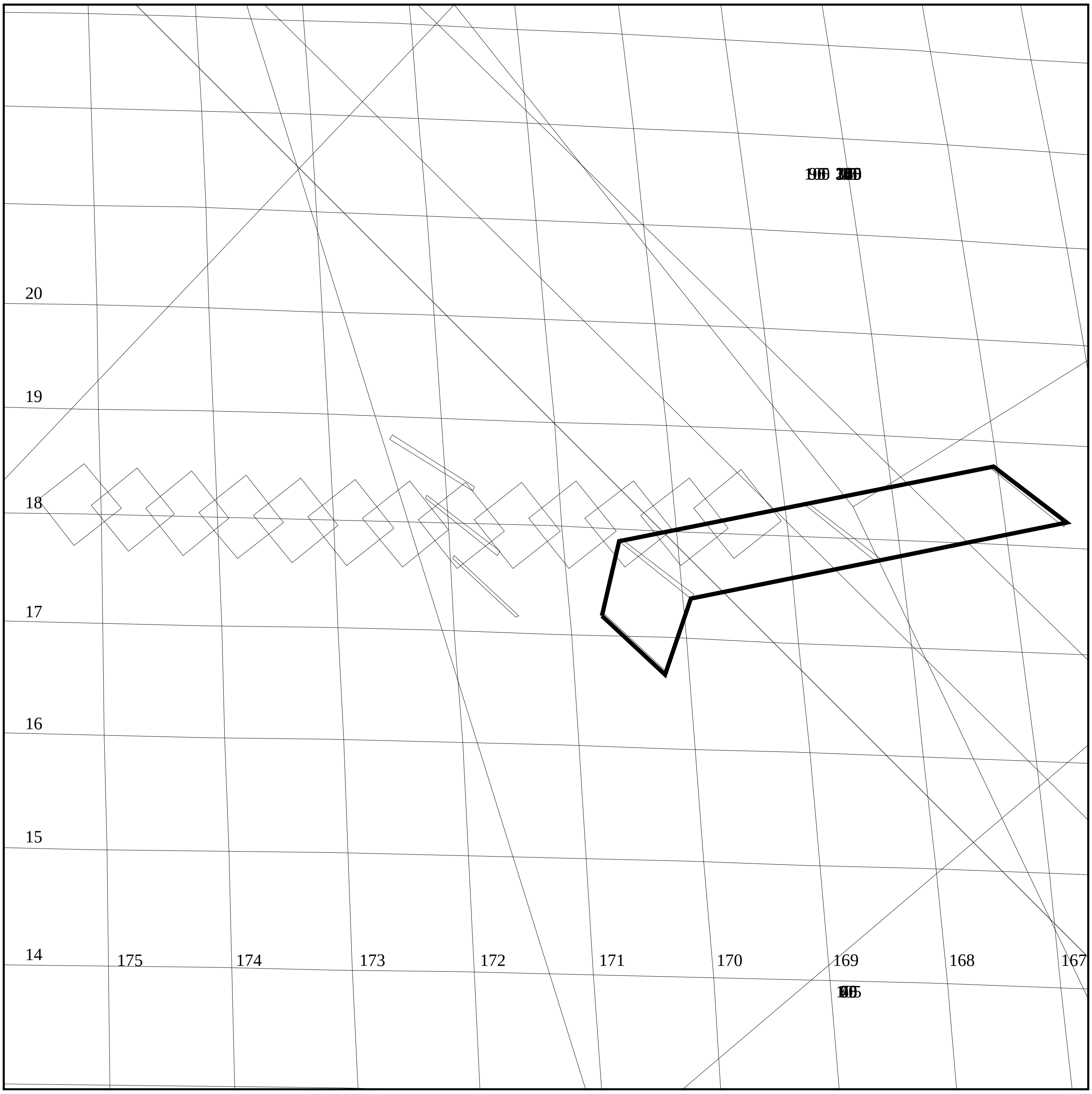
BTG=0.37 MB, TICS=48, FMT=MPW
Collaborative dayside observation with SSI obs 24ISCOLCHS01.
Gain state 2.

Point and Stare observation to build up NIMS spectra.

Ride-along behind SSI not returned.

Grating Stuck

Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM442, ILM360



165ID:TT= 0 TMC= 1 C= 35.00 XC= 29.00 BS=47/3230 TC= 1(+18.1 172.5)
A= 404 pD= 302 SR=17.450 RA50= 4.31 DEC50= 15.72 cone=155.08 clock=142.90
117ID:#SB= 1 OR= 5.570 RR=12.000 BM=F RC= 1 BS=47/3230
1:#s= 1 Cs= -61.00 XCs= -75.00 Cr= 0.00 XCr= 0.00 sD= 108 rD= 2
116DE:OR=15.000 Cs= 37.00 XCs= 7.50 sD= 34 BS=12/3412 TF=N

24INZAMAMA01

DESIGN G3.2 lisac: 9/17/1999 12:23:43

FILE:P.24ISZAMAMA01

TARGET BODY : IO

MINI:m.24ISZAMAMA01

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

THINNING:NIM 2

START:IEE 99-284/04:32:57.400 +CDS 05:00:0

BODY PLOT TIME:TARGET-TIME D= 302 S= 9.000

OBSERVATION:24ISZAMAMA01

DESCRIP:ZAMAMA

Io ZAMAMA OBS		ACTIVITY ID:	24INZAMAMA01-
		START TIME:	99-284/04:39:08.066

Activity ID: Orbit 24 Target I Inst N OAPEL ZAMAMA SeqNo 01 -

Title	Io Zamama Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	10/11/99	Week	41

Start	IEE+CDS 00000006:10:0	99-284/04:39:08.066	IEE+000/00:06:10.666
End	IEE+CDS 00000008:05:0	99-284/04:41:06.066	IEE+000/00:08:08.666
Duration	00000001:86:0	000/00:01:58.000	000/00:01:58.000

Top Label	24INZAMAMA01-
Bottom Label	

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Dayside observation of Zamama hot spot
to investigate surface composition.

Data Returned

Design Detail

BTG=0.37 MB, TICS=48, FMT=MPW
Collaborative dayside observation with SSI obs 24ISZAMAMA01.
Gain state 2.

Point and Stare observation to build up NIMS spectra in the center of the SSI mosaic.
Ride-along behind SSI not returned.

The scan platform did not reposition to the planned lat/lon after the SSI observation.
Also, the scan platform drifted away from the target area during the observation.

Grating Stuck

Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM442, ILM360

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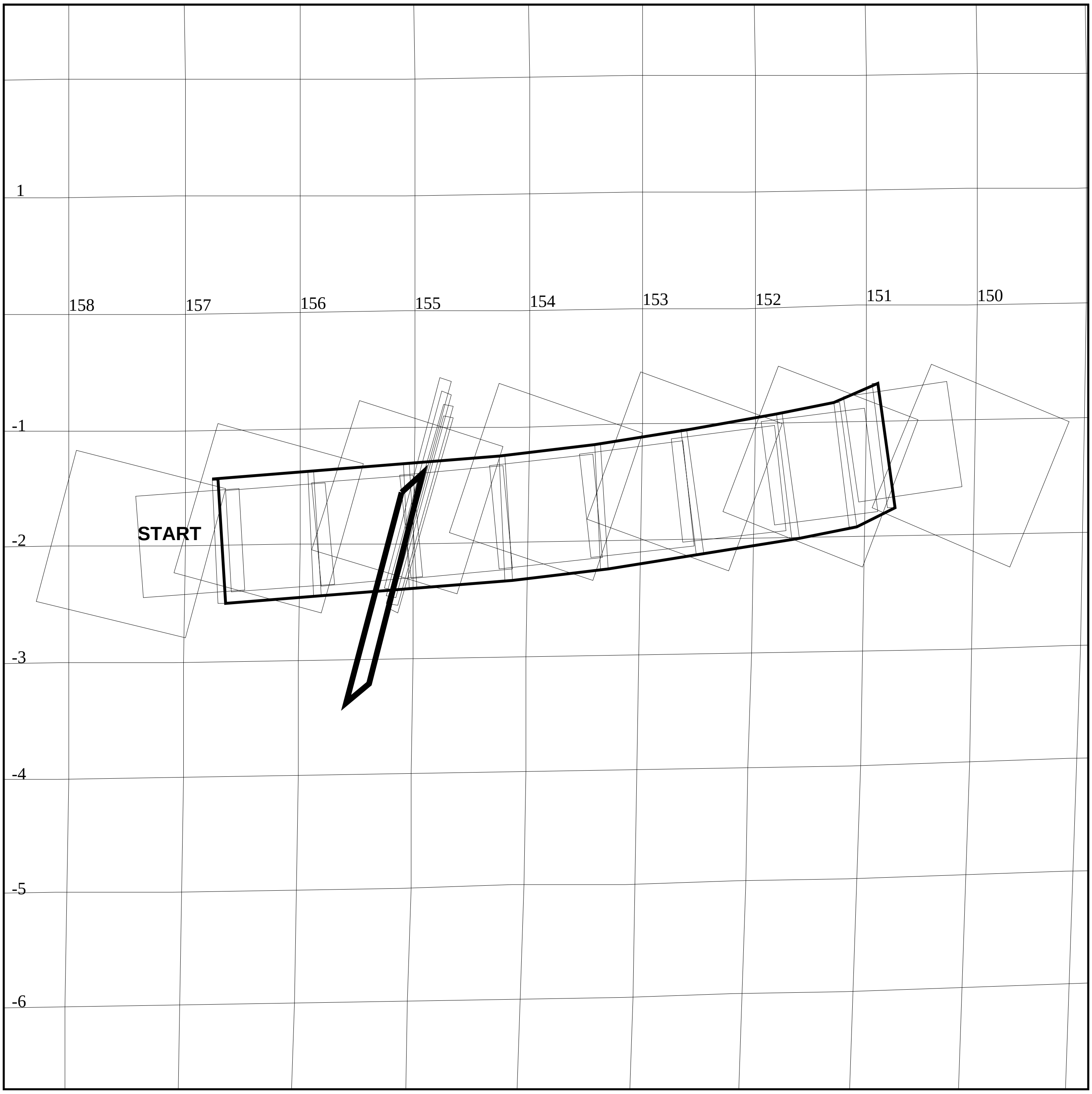

165IE:TT= 0 TMC= 1 C= 31.00 XC= -1.00 BS=61/3958 TC= 1(-1.7 153.8)
A= 292 pD= 100 SR=17.450 RA50= 24.66 DEC50= 7.32 cone=175.68 clock=105.82
117IE:#SB= 1 OR= 3.060 RR= 4.000 BM=F RC= 1 BS=61/3958
1:#s= 1 Cs= -58.50 XCs= -1.50 Cr= 0.00 XCr= 0.00 sD= 100 rD= 2
165IF:TT= 0 TMC= 1 C= -25.25 XC= 9.00 BS=65/4686 TC= 1(-1.7 153.8)
A= 616 pD= 310 SR=17.450 RA50= 34.96 DEC50= 12.85 cone=172.67 clock=269.15
117IF:#SB= 1 OR=11.000 RR= 4.000 BM=F RC= 1 BS=65/4686
1:#s= 1 Cs= 47.00 XCs= -14.00 Cr= 0.00 XCr= 0.00 sD= 100 rD= 2
116DF:OR=17.000 Cs= -27.50 XCs= 11.50 sD= 46 BS=28/4868 TF=N

24INPROMTH01

DESIGN G3.2 lisac: 9/17/1999 12:21:19

FILE:P.24ISPROMTH01

TARGET BODY : IO

MINI:m.24ISPROMTH01

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

START:IEE 99-284/04:32:57.400 +CDS 09:00:0

OBSERVATION:24ISPROMTH01

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 310 S= 8.000

DESCRIP:PROMETHEUS

Io Prometheus Obs	ACTIVITY ID: 24INPROMTH01-
	START TIME: 99-284/04:47:24.733

Activity ID: Orbit 24 Target I Inst N OAPEL PROMTH SeqNo 01 -

Title	Io Prometheus Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System CDS Load ID Calendar Date 10/11/99 Week 41

Start	IEE+CDS 00000014:27:0	99-284/04:47:24.733	IEE+000/00:14:27.333
End	IEE+CDS 00000017:00:0	99-284/04:50:08.733	IEE+000/00:17:11.333
Duration	00000002:64:0	000/00:02:44.000	000/00:02:44.000

Top Label 24INPROMTH01-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Dayside observation of Prometheus hot spot
to investigate surface composition.

Data Returned

Design Detail

BTG=0.37 MB, TICS=48, FMT=MPW
Collaborative dayside observation with SSI obs 24ISPROMTH01.
Gain state 2.

Point and Stare observation to build up NIMS spectra in the center of the SSI mosaic.
Ride-along behind first SSI mosaic also returned.

The scan platform did not reposition to the planned lat/lon after the SSI observation.

Grating Stuck

Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM442, ILM360

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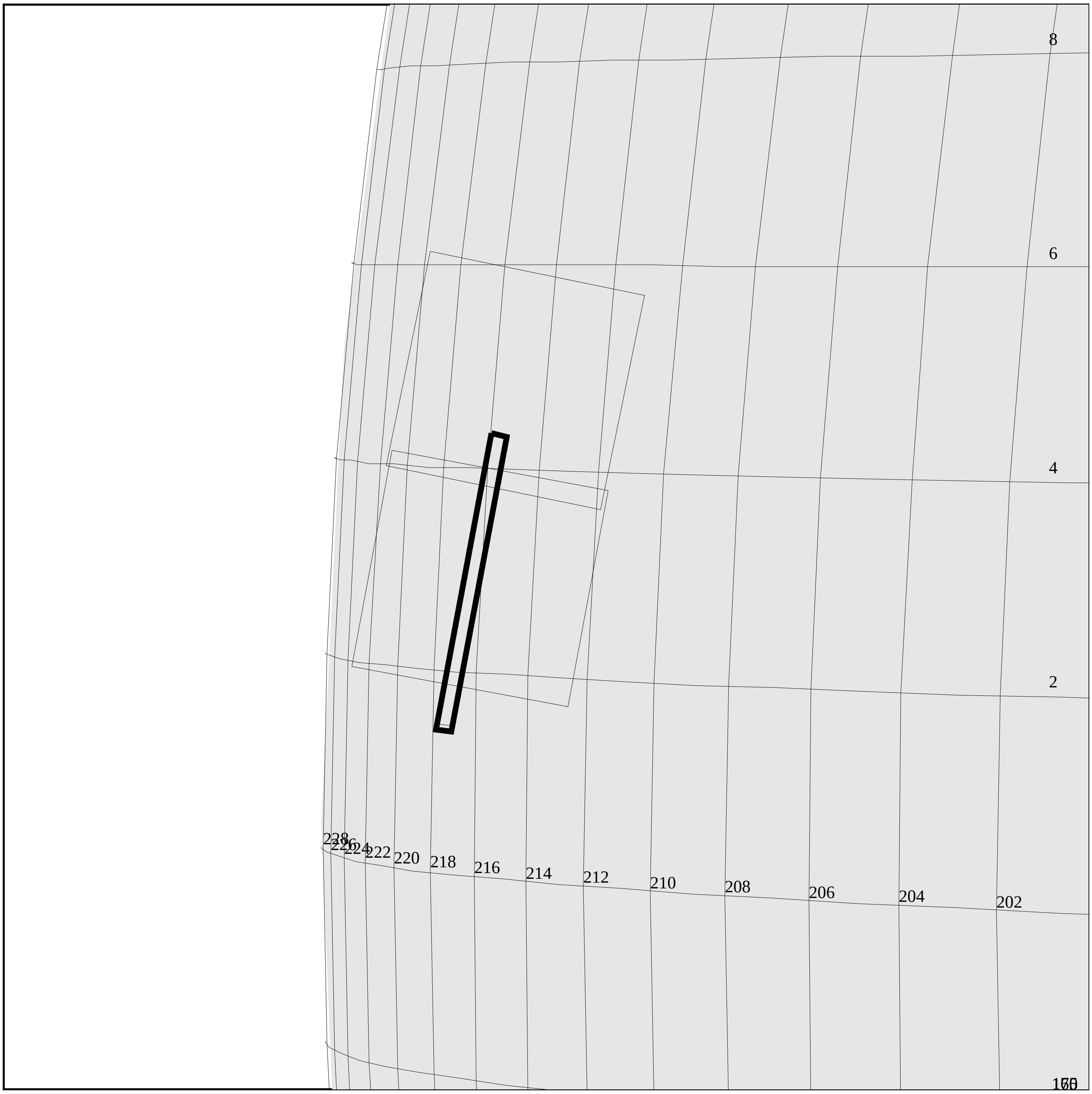


165IG:TT= 0 TMC= 1 C= 0.00 XC= -10.00 BS= 2/5596 TC= 1(+3.9 215.7)
A= 182 pD= 406 SR=17.450 RA50= 48.77 DEC50= 20.32 cone=157.49 clock=270.93
117IG:#SB= 1 OR= 8.400 RR=12.000 BM=F RC= 1 BS= 2/5596
1:#s= 1 Cs= 0.60 XCs= 18.00 Cr= 0.00 XCr= 0.00 sD= 48 rD= 2
116DG:OR= 2.300 Cs= -0.50 XCs= -4.75 sD= 42 BS=36/5596 TF=N

24INCOLCHS02

DESIGN G3.2 lisac: 9/17/1999 12:12:54

FILE:P.24ISCOLCHS02

TARGET BODY : IO

MINI:m.24ISCOLCHS02

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

THINNING:NIM 2

START:IEE 99-284/04:32:57.400 +CDS 18:00:0

BODY PLOT TIME:TARGET-TIME D= 406 S= 10.000

OBSERVATION:24ISCOLCHS02

DESCRIP:COLCHIS MONTES

Io Colchis Obs	ACTIVITY ID: 24INCOLCHS02- START TIME: 99-284/06:42:33.200

Activity ID: Orbit 24 Target I Inst N OAPEL COLCHS SeqNo 02 -

Title	Io Colshis Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	10/11/99	Week	41

Start	IEE+CDS 00000018:27:0	99-284/04:51:27.400	IEE+000/00:18:30.000
End	IEE+CDS 00000020:36:0	99-284/04:53:34.733	IEE+000/00:20:37.333
Duration	00000002:09:0	000/00:02:07.333	000/00:02:07.333

Top Label	24INCOLCHS02-
Bottom Label	

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Dayside observation of Colchis Montes region
to investigate surface composition.

Data Returned

Design Detail

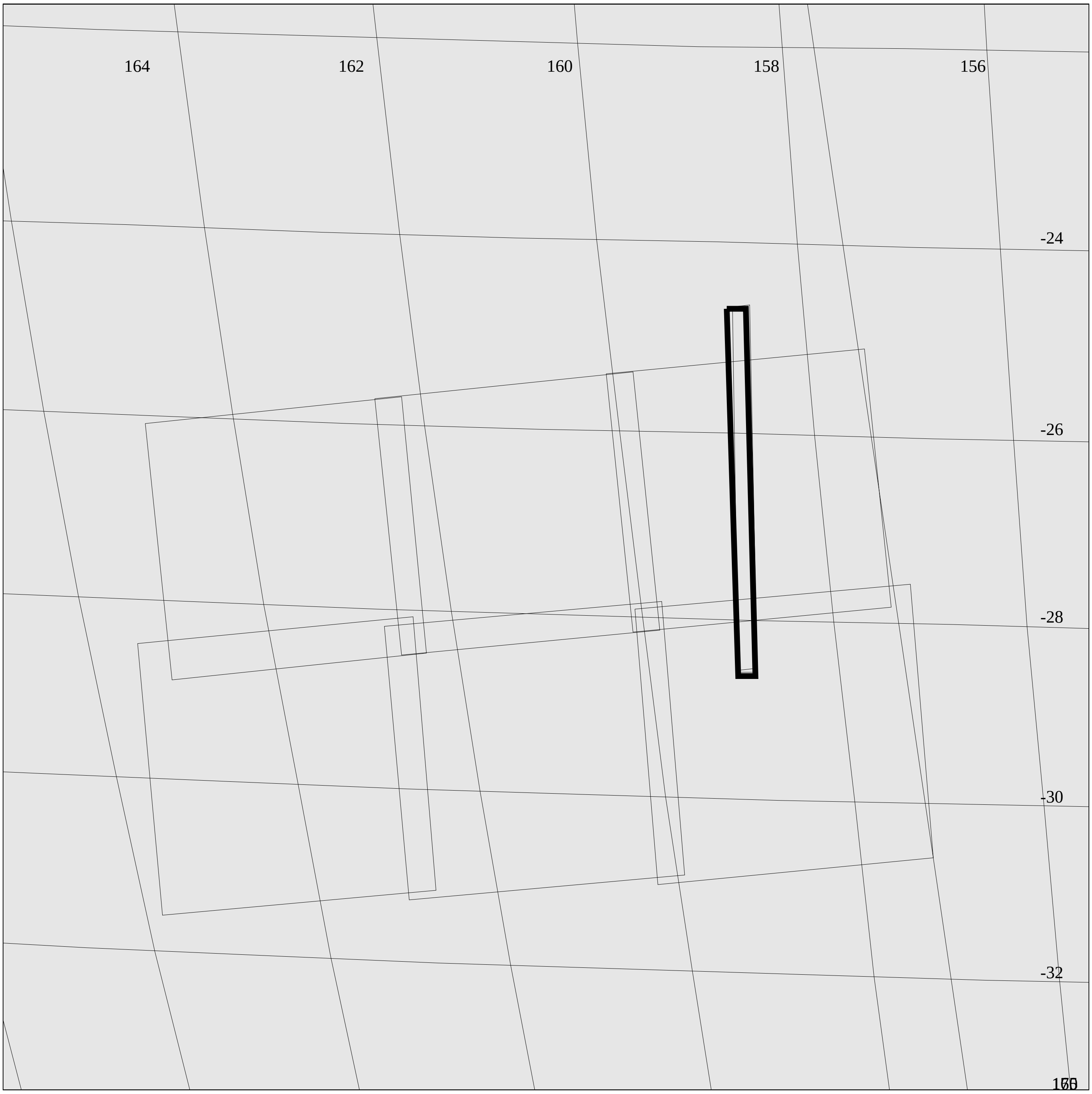
BTG=0.37 MB, TICS=48, FMT=MPW
Collaborative dayside observation with SSI obs 24ISCOLCHS02.
Gain state 2.

Point and Stare observation to build up NIMS spectra in the center of the SSI mosaic.
Ride-along behind SSI not returned.

Grating Stuck

Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM442, ILM360

Galileo Activity Plan Form 09/28/99 10:48:23 rev 1/99



165IH:TT= 0 TMC= 1 C= -12.97 XC= -3.65 BS=47/6142 TC= 1(-28.0 160.0)
A= 202 pD= 660 SR=17.450 RA50= 44.75 DEC50= 12.29 cone=163.91 clock=289.91
117IH:#SB= 1 OR= 3.150 RR= 6.000 BM=F RC= 1 BS=47/6142
1:#s= 2 Cs= 18.20 XCs= 0.00 Cr= -17.90 XCr= 6.70 sD= 40 rD= 212
116DH:OR= 4.000 Cs= -2.50 XCs= -7.50 sD= 44 BS=17/6506 TF=N

24INNTOHIL01

DESIGN G3.2 lisac: 9/17/1999 12:23:11

FILE:P.24ISTOHIL_01

TARGET BODY : IO

MINI:m.24ISTOHIL_01

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

THINNING:NIM 2

START:IEE 99-284/04:32:57.400 +CDS 21:00:0

BODY PLOT TIME:TARGET-TIME D= 660 S= 10.000

OBSERVATION:24ISTOHIL_01

DESCRIP:TOHIL MONS

Io Tohil Obs	ACTIVITY ID:	24INNTOHIL01-
	START TIME:	99-284/04:55:17.400

Activity ID: Orbit 24 Target I Inst N OAPEL NTOHIL SeqNo 01 -

Title	Io Tohil Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	10/11/99	Week	41

Start	IEE+CDS 00000022:08:0	99-284/04:55:17.400	IEE+000/00:22:20.000
End	IEE+CDS 00000025:20:0	99-284/04:58:27.400	IEE+000/00:25:30.000
Duration	00000003:12:0	000/00:03:10.000	000/00:03:10.000

Top Label	24INNTOHIL01-
Bottom Label	

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Dayside observation of Tohil’s colorful deposits
to investigate surface composition.

Data Returned

Design Detail

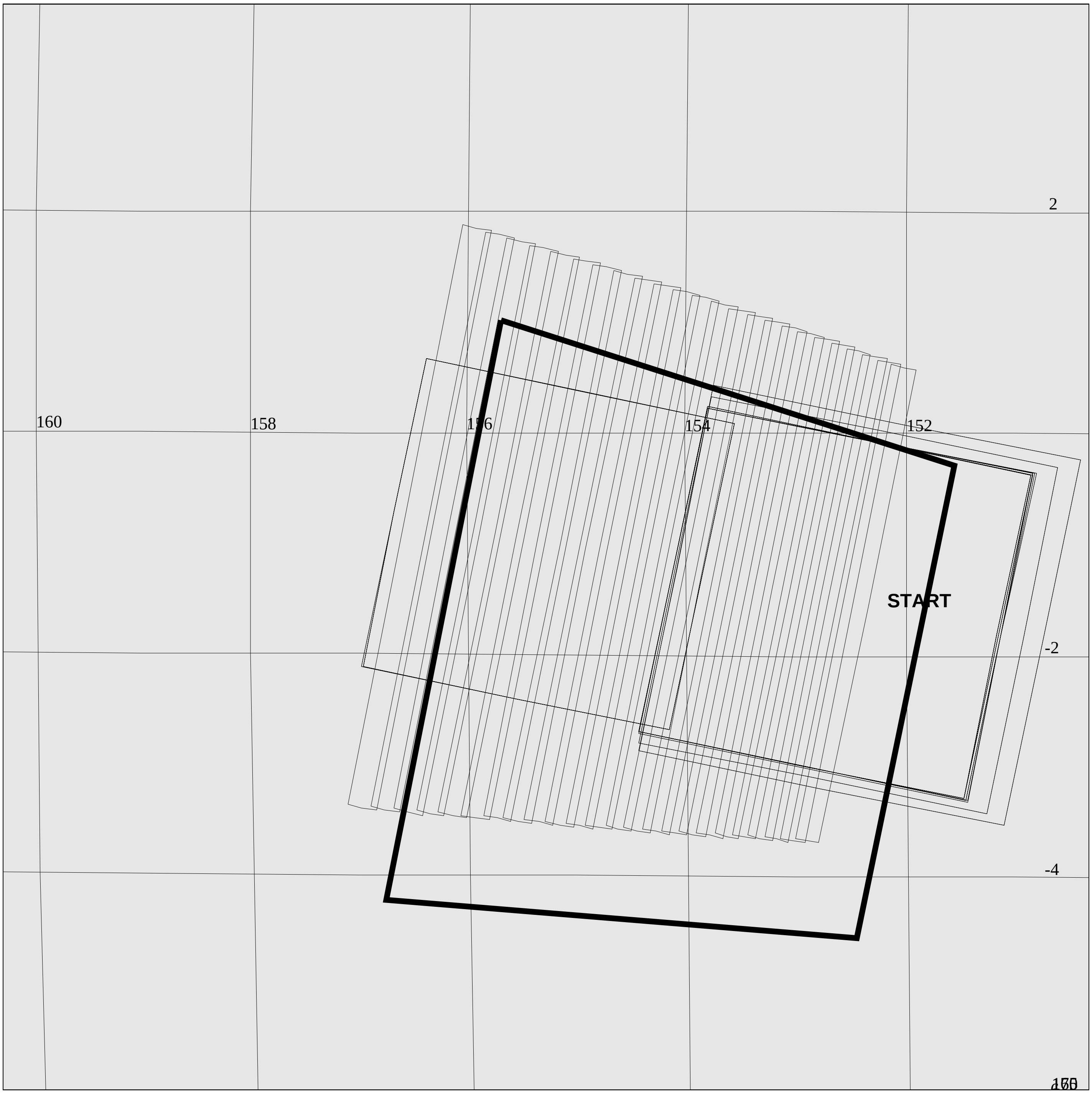
BTG=0.37 MB, TICS=48, FMT=MPW
Collaborative dayside observation with SSI obs 24ISTOHIL_01.
Gain state 2.

Point and Stare observation to build up NIMS spectra in the center of
the SSI mosaic.
Ride-along behind SSI not returned.

Grating Stuck

Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM442, ILM360

Galileo Activity Plan Form   09/28/99 10:48:23   rev 1/99



165II:TT= 0 TMC= 1 C= -3.65 XC= 0.00 BS=42/7052 TC= 1(-1.26 154.0)
A= 222 pD= 2298 SR=17.450 RA50= 44.17 DEC50= 17.73 cone=162.55 clock=271.47
118II:#SB= 1 Cs= 7.31 XCs= 0.00 TPP= 206 SR= 3.600 RR=12.000 BM=F RC= 1 BS=51/7052
1:#s= 2 #p= 1 Cr= 0.00 XCr= 0.00
116DI:OR= 0.020 Cs= -8.40 XCs= 0.00 sD= 1268 BS=11/8144 TF=N

24INPROMTH02

TARGET G3.1 lisac: 9/ 8/1999 11:18: 0

FILE:P.24ISPROMTH02

TARGET BODY : IO

MINI:m.target

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

START:IEE 99-284/04:32:57.400 +CDS 26:00:0

OBSERVATION:24ISPROMTH02

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 2298 S= 10.000

DESCRIP:PROMETHEUS COLOR

Io Prometheus Obs	ACTIVITY ID:	24INPROMTH02-
	START TIME:	99-284/05:00:58.733

Activity ID: Orbit 24 Target I Inst N OAPEL PROMTH SeqNo 02 -

Title	Io Prometheus Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	10/11/99	Week	41

Start	IEE+CDS 00000027:65:0	99-284/05:00:58.733	IEE+000/00:28:01.333
End	IEE+CDS 00000039:20:0	99-284/05:12:36.733	IEE+000/00:39:39.333
Duration	00000011:46:0	000/00:11:38.000	000/00:11:38.000

Top Label   24INPROMTH02-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Dayside observation of Prometheus hot spot
to investigate surface composition.

Data Returned

Design Detail

BTG=3.02 MB, TICS=372, FMT=MPW
Collaborative dayside observation with SSI obs 24ISPROMTH02.
Gain state 2.

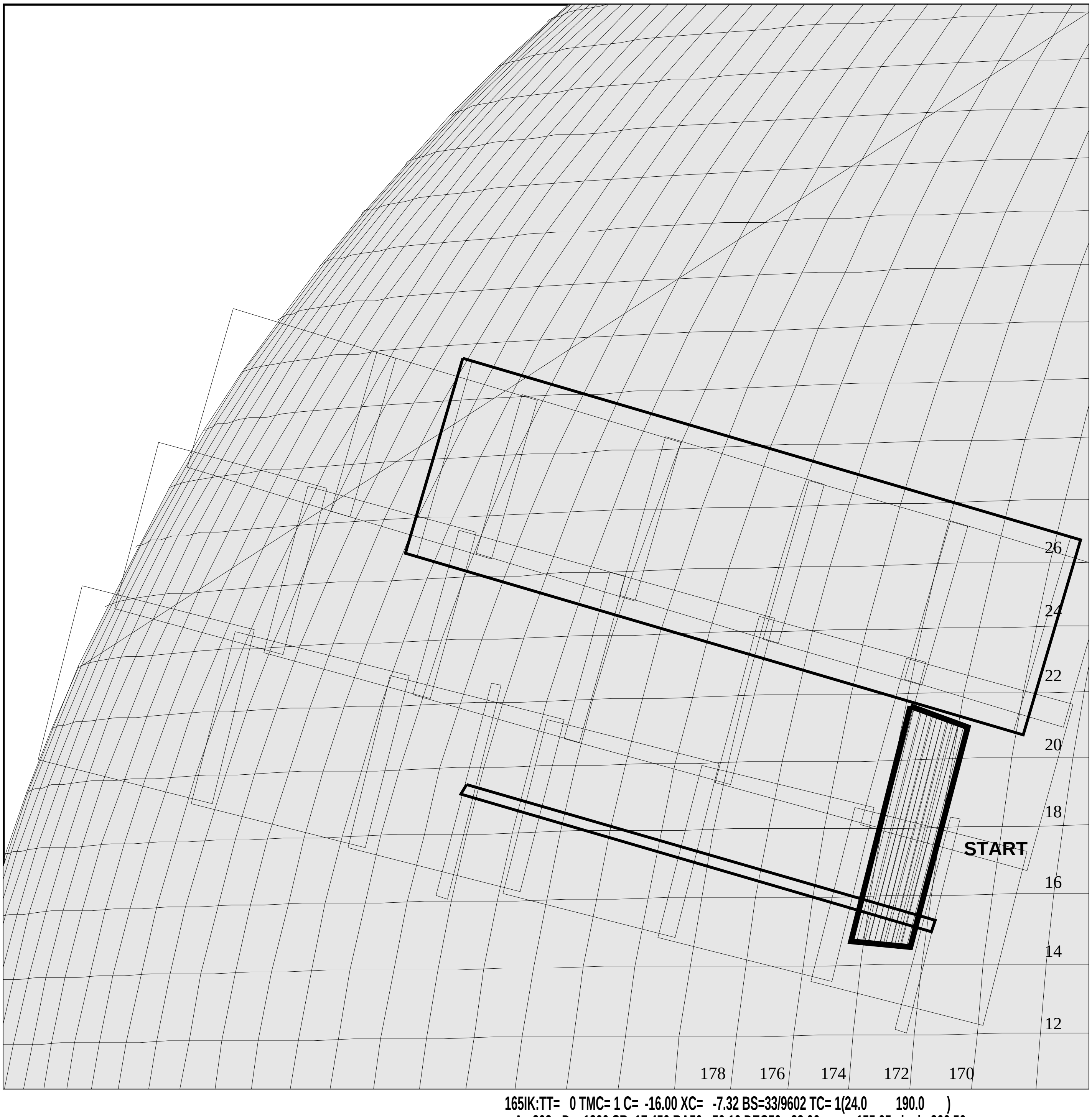
NIMS mosaic to map the Prometheus region, covering terrain similar to
the SSI mosaic.
Ride-along behind SSI not returned.

The scan platform did not reposition to the planned lat/lon after
the SSI observation.

Grating Stuck

Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM442, ILM360

Galileo Activity Plan Form   09/28/99 10:48:23   rev 1/99



165IK:TT= 0 TMC= 1 C= -16.00 XC= -7.32 BS=33/9602 TC= 1(24.0 190.0)
A= 202 pD= 1300 SR=17.450 RA50= 50.10 DEC50= 23.06 cone=155.05 clock=266.56
117IK:#SB= 1 OR= 3.140 RR= 6.700 BM=F RC= 1 BS=33/9602
1:#s= 3 Cs= 40.50 XCs= 0.00 Cr= -41.50 XCr= 7.31 sD= 60 rD= 220
116DJ:OR= 4.800 Cs= -2.75 XCs= -3.75 sD= 40 BS= 0/0330 TF=N
116EJ:OR= 0.020 Cs= -3.12 XCs= 0.00 sD= 476 BS=81/0330 TF=N

24INZAMAMA02

DESIGN G3.2 herb : 9/14/1999 14:32:38

FILE:P.24ISZAMAMA02

TARGET BODY : IO

MINI:m.24ISZAMAMA02

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

START:IEE 99-284/04:32:57.400 +CDS 40:00:0

OBSERVATION:24ISZAMAMA02

THINNING:NIM 2

BODY PLOT TIME:CENTER-TIME D= 1300 S= 3.500

DESCRIP:ISUM/ZAMAMA CONTEXT

Io Zamama Obs	ACTIVITY ID: 24INZAMAMA02- START TIME: 99-284/05:17:13.400

Activity ID: Orbit 24 Target I Inst N OAPEL ZAMAMA SeqNo 02 -

Title	Io Zamama Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System CDS Load ID Calendar Date 10/11/99 Week 41

Start	IEE+CDS 00000043:71:0	99-284/05:17:13.400	IEE+000/00:44:16.000
End	IEE+CDS 00000047:50:0	99-284/05:21:02.066	IEE+000/00:48:04.666
Duration	00000003:70:0	000/00:03:48.666	000/00:03:48.666

Top Label 24INZAMAMA02-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Dayside observation of Zamama hot spot
to investigate surface composition.

Data Returned

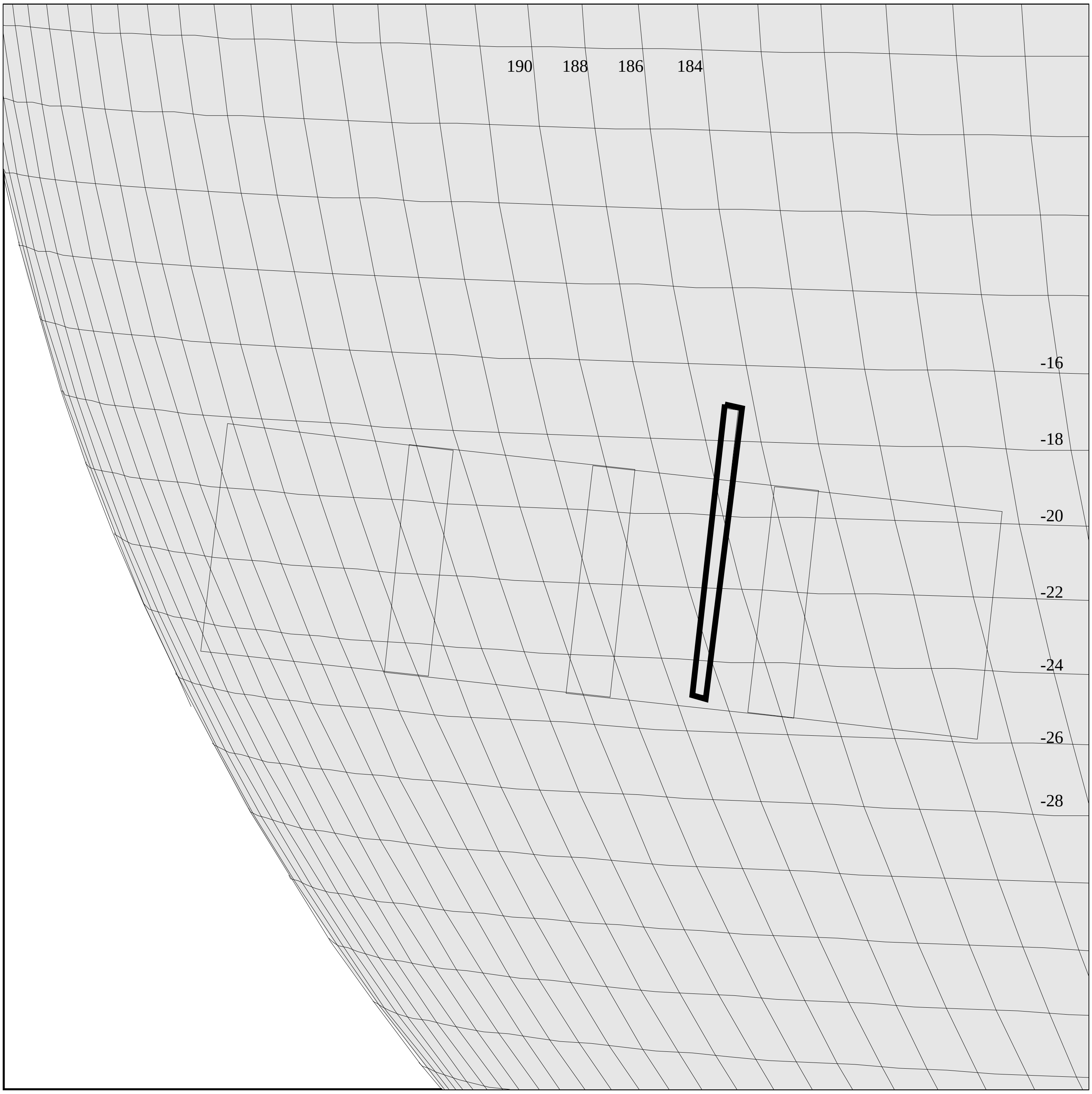
Design Detail

BTG=1.12 MB, TICS=139, FMT=MPW
Collaborative dayside observation with SSI obs 24ISZAMAMA01.
Gain state 2.

Nims mosaic to map part of the Zamama region, covering part of the terrain covered by the SSI mosaic.
Ride-along behind SSI also returned:
(B) SSI Swath 1 in XLM,
SSI Swath 2, NIMS halted, no return,
(C) SSI Swath 3, NIMS in XS (Safe mode).

Grating Stuck
Fixed Spectrometer (XS), Gain 2, Grating Start 0, MPW, ILM017, ILM015
Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM442, ILM360

Galileo Activity Plan Form 09/28/99 10:48:23 rev 1/99




```
165IM:TT=   0 TMC= 1 C=  -13.00 XC=    0.00 BS=68/1056 TC= 1(-22.0       190.0      )
   A= 202 pD=   414 SR=17.450 RA50= 51.94 DEC50= 18.82 cone=155.39 clock=277.46
117IM:#SB= 1 OR= 2.790 RR=12.000 BM=F RC=  1 BS=68/1056
   1:#s=  1 Cs=   25.00 XCs=    0.00 Cr=    0.00 XCr=    0.00 sD=    48 rD=     2
116DK:OR= 4.500 Cs=   -9.50 XCs=   -1.50 sD=    30 BS= 0/1420 TF=N
```

24INDORIAN01

DESIGN G3.2 lisac: 9/17/1999 12:13:53

FILE:P.24ISDORIAN01

TARGET BODY : IO

MINI:m.24ISDORIAN01

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

START:IEE 99-284/04:32:57.400 +CDS 48:00:0

OBSERVATION:24ISDORIAN01

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 414 S= 4.000

DESCRIP:DORIAN MONS

Io Dorian Obs	ACTIVITY ID: 24INDORIAN01-
	START TIME: 99-284/06:42:33.200

Activity ID: Orbit 24 Target I Inst N OAPEL DORIAN SeqNo 01 -

Title	Io Dorian Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	10/11/99	Week	41

Start	IEE+CDS	00000049:02:0	99-284/05:22:31.400	IEE+000/00:49:34.000
End	IEE+CDS	00000051:15:0	99-284/05:24:41.400	IEE+000/00:51:44.000
Duration		00000002:13:0	000/00:02:10.000	000/00:02:10.000

Top Label 24INDORIAN01-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Dayside observation of green deposits ("Golf course")
to investigate surface composition.

Data Returned

Design Detail

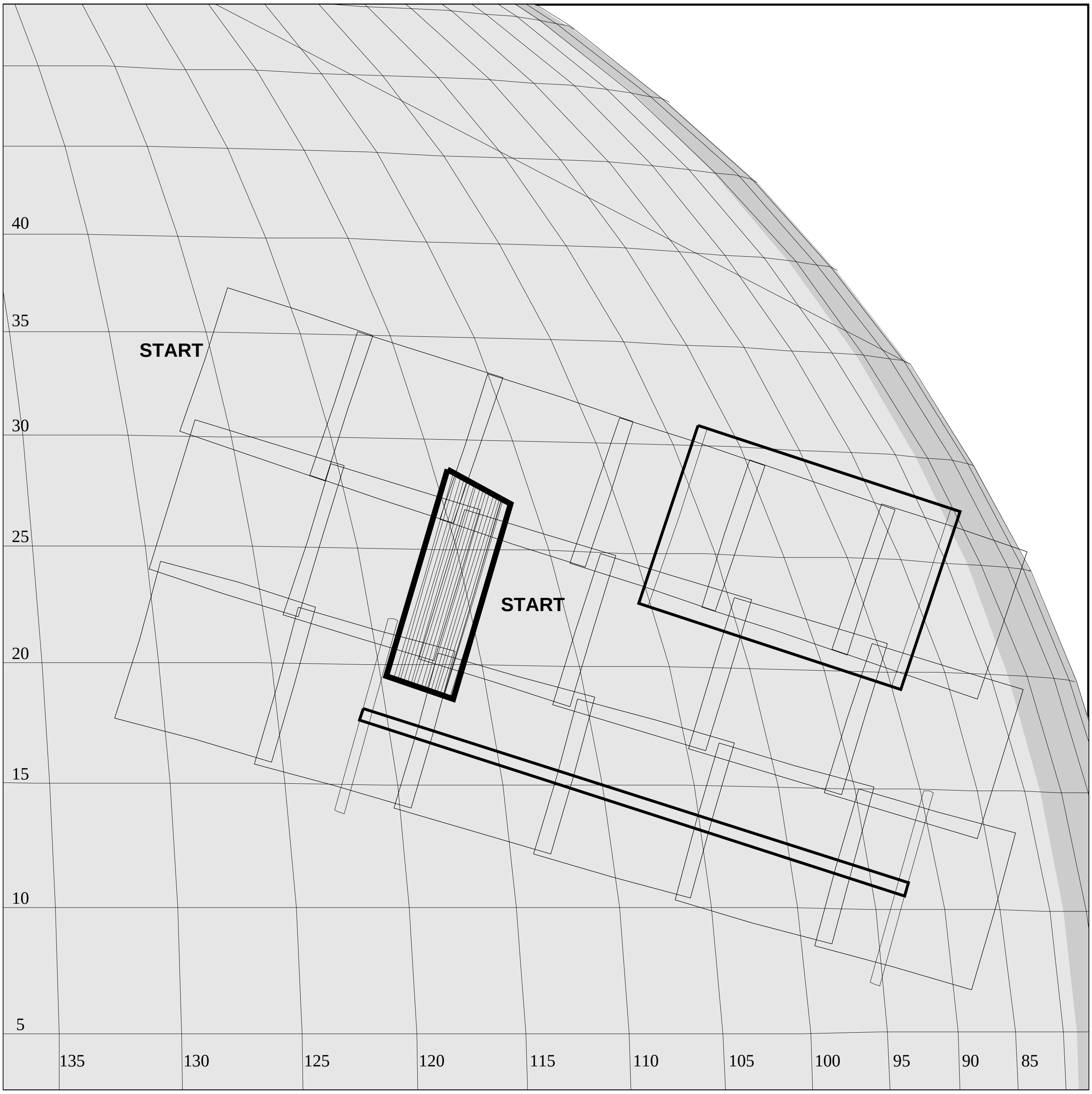
BTG=0.37 MB, TICS=48, FMT=MPW
Collaborative dayside observation with SSI obs 24ISDORIAN01.
Gain state 2.

Point and Stare observation to build up NIMS spectra in the center of
the SSI mosaic.
Ride-along behind SSI not returned.

Grating Stuck

Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM442, ILM360

Galileo Activity Plan Form 09/28/99 10:48:23 rev 1/99



165IN:TT=   0 TMC= 1 C= -12.96 XC=   -5.65 BS=26/1784 TC= 1(25.0   116.0   )
A= 202 pD= 1300 SR=17.450 RA50= 45.87 DEC50= 21.48 cone=159.18 clock=264.39
117IN:#SB= 1 OR= 3.140 RR= 6.700 BM=F RC= 1 BS=26/1784
1:#s= 3 Cs=   40.50 XCs=   0.00 Cr= -39.50 XCr=   7.20 sD=   60 rD=   220
116DL:OR= 1.000 Cs= -27.00 XCs=   -7.00 sD=   164 BS=73/2330 TF=N
116EL:OR= 0.020 Cs=   -3.12 XCs=   -0.50 sD=   476 BS=74/2512 TF=N

24INAMSKGI01

TARGET G3.1 lisac: 9/ 8/1999 11:18: 0

FILE:P.24ISAMSKGI01

TARGET BODY :   IO

MINI:m.target

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

THINNING:NIM   2

START:IEE 99-284/04:32:57.400   +CDS 52:00:0

BODY PLOT TIME:CENTER-TIME D= 1300 S= 2.500

OBSERVATION:24ISAMSKGI01

DESCRIP:AMIRANI/SKYTHIA/GISH BAR

Io Amirani Obs ACTIVITY ID: 24INAMSKGI01-
START TIME: 99-284/05:29:17.400

Activity ID: Orbit 24 Target I Inst N OAPEL AMSKGI SeqNo 01 -

Title	Io Amarani Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System CDS Load ID Calendar Date 10/11/99 Week 41

Start	IEE+CDS 00000055:65:0	99-284/05:29:17.400	IEE+000/00:56:20.000
End	IEE+CDS 00000059:40:0	99-284/05:33:03.400	IEE+000/01:00:06.000
Duration	00000003:66:0	000/00:03:46.000	000/00:03:46.000

Top Label 24INAMSKGI01-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Dayside observation of Amiriani hot spot
to investigate surface composition.

Data Returned

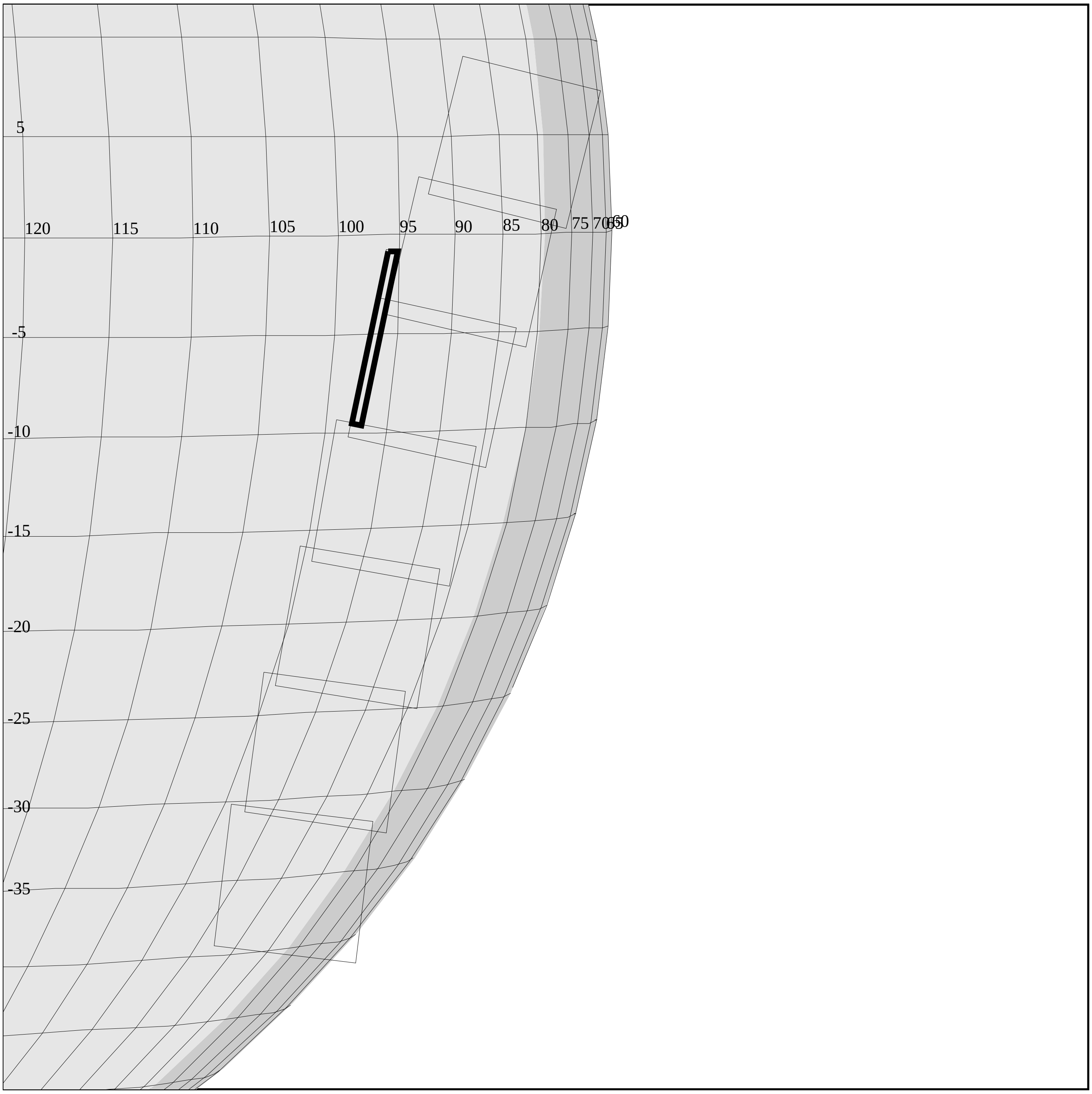
Design Detail

BTG=1.12 MB, TICS=139, FMT=MPW
Collaborative dayside observation with SSI obs 24ISAMSKGI01.
Gain state 2.

Nims mosaic to map part of the Amirani region, covering part of the
terrain covered by the SSI mosaic.
Ride-along behind SSI also returned:
(B) SSI Swath 1 in XLM,
SSI Swath 2, NIMS halted, no return,
(C) SSI Swath 3, NIMS in XS (Safe mode).

Grating Stuck
Fixed Spectrometer (XS), Gain 2, Grating Start 0, MPW, ILM017, ILM015
Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM442, ILM360

Galileo Activity Plan Form 09/28/99 10:48:23 rev 1/99



165IP:TT= 0 TMC= 1 C= -1.50 XC= -21.70 BS=65/3240 TC= 1(-10.0 85.0)
A= 222 pD= 446 SR=17.450 RA50= 45.08 DEC50= 19.45 cone=160.93 clock=268.15
117IP:#SB= 1 OR= 9.450 RR= 6.700 BM=F RC= 1 BS=65/3240
1:#s= 1 Cs= -1.80 XCs= 49.00 Cr= 0.00 XCr= 0.00 sD= 82 rD= 2
116DM:OR=13.400 Cs= -3.50 XCs= -31.10 sD= 80 BS=25/3422 TF=N

24INTERMAP01

DESIGN G3.2 lisac: 9/17/1999 12:22:44

FILE:P.24ISTERMAP01

TARGET BODY : IO

MINI:m.24ISTERMAP01

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

START:IEE 99-284/04:32:57.400 +CDS 60:00:0

OBSERVATION:24ISTERMAP01

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 446 S= 2.000

DESCRIP:TERMINATOR STRIP WITH HI'IAKA

Io Terminator Obs	ACTIVITY ID: 24INTERMAP01- START TIME: 99-284/05:35:38.733

Activity ID: Orbit 24 Target I Inst N OAPEL TERMAP SeqNo 01 -

Title	Io Terminator Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	10/11/99	Week 41

Start	IEE+CDS 00000062:00:0	99-284/05:35:38.733	IEE+000/01:02:41.333
End	IEE+CDS 00000064:00:0	99-284/05:37:40.066	IEE+000/01:04:42.666
Duration	00000002:00:0	000/00:02:01.333	000/00:02:01.333

Top Label   24INTERMAP01-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Near-Terminator observation of dark caldera.

Data Returned

Design Detail

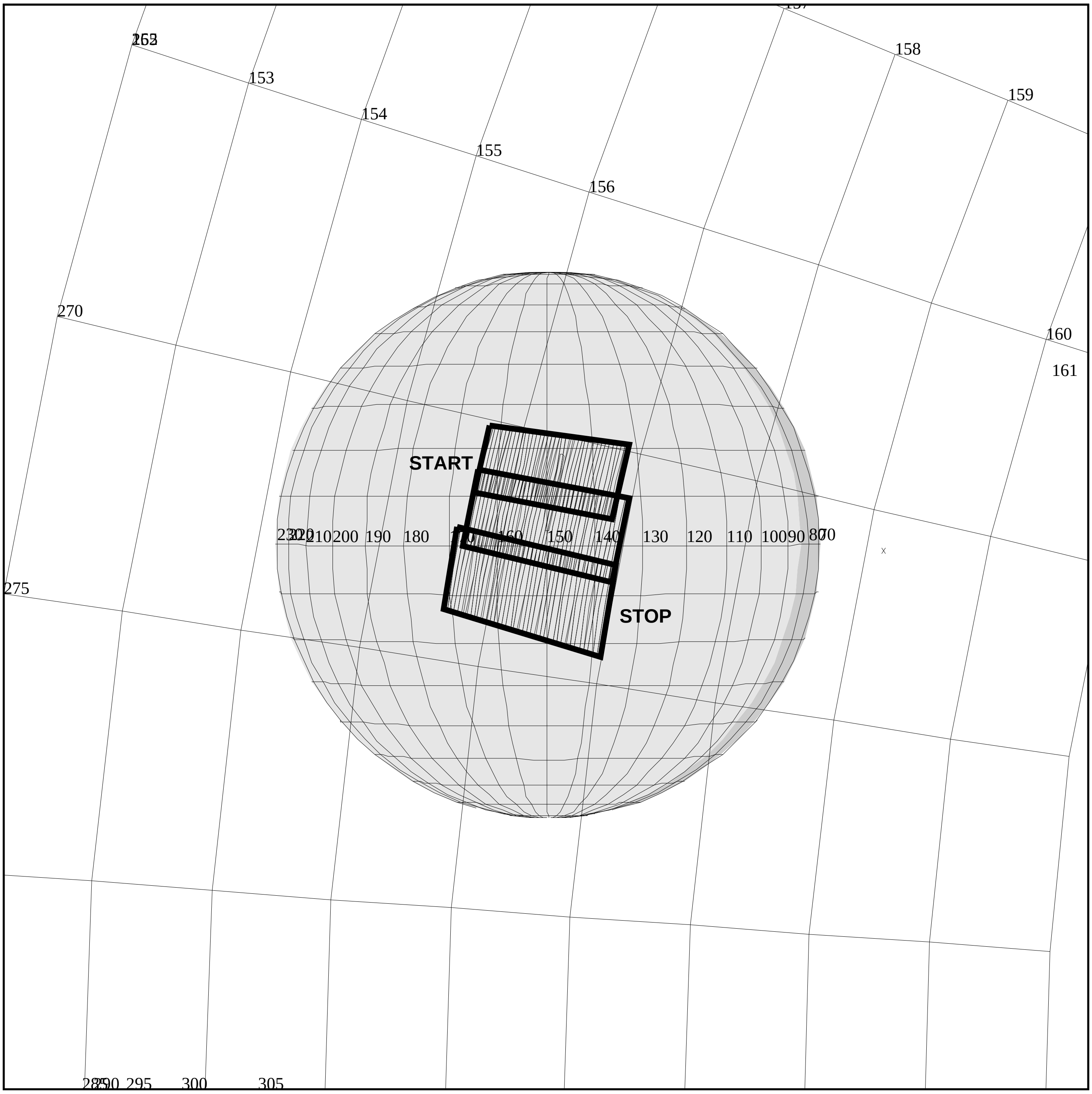
BTG=0.37 MB, TICS=48, FMT=MPW
Collaborative dayside observation with SSI obs 24ISTERMAP01.
Gain state 2.

Point and Stare observation to build up NIMS spectra near the SSI mosaic.
Ride-along behind SSI not returned.

Grating Stuck

Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM442, ILM360

Galileo Activity Plan Form   09/28/99 10:48:23   rev 1/99



165DN:TT=   0 TMC= 1 C= -12.00 XC= -10.00 BS= 0/9610 TC= 3
A= 182 pD= 5996 SR=17.450 RA50= 50.42 DEC50= 21.18 cone=155.72 clock=270.84
117DN:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/9610
1:#s= 3 Cs=   19.65 XCs=   0.00 Cr= -18.40 XCr=   7.50 sD= 1976 rD=   32

24INREGION01

TARGET G3.1 lisac: 9/24/1999 10:48:44

FILE:P.24INREGION01

TARGET BODY :   IO

MINI:m.target

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

START:IEE 99-284/04:32:57.400   +CDS 95:00:0

OBSERVATION:24INREGION01

THINNING:NIM   2

BODY PLOT TIME:TARGET-TIME D= 5996 S= 0.500

DESCRIP:NIMS_I24_IO_REGION_01

Io Regional Obs		ACTIVITY ID:	24INREGION01-
		START TIME:	99-284/06:42:33.200

Activity ID: Orbit 24 Target I Inst N OAPEL REGION SeqNo 01 -

Title	Io Regional Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	10/11/99	Week	41

Start	IEE+CDS 00000094:00:0	99-284/06:08:066734	IEE+000/01:35:02.666
End	IEE+CDS 00000127:00:0	99-284/06:41:22.066	IEE+000/02:08:24.666
Duration	00000033:00:0	000/00:33:22.000	000/00:33:22.000

Top Label   24INREGION01-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Regional Mosaic centered about 150 degrees West Longitude, 0 degrees Latitude to investigate surface composition and search for thermal emission.

Data Returned

Design Detail

BTG=15.87 MB, TICS=1690, FMT=MPW
Mosaic of 3 swaths.
Gain state 2.

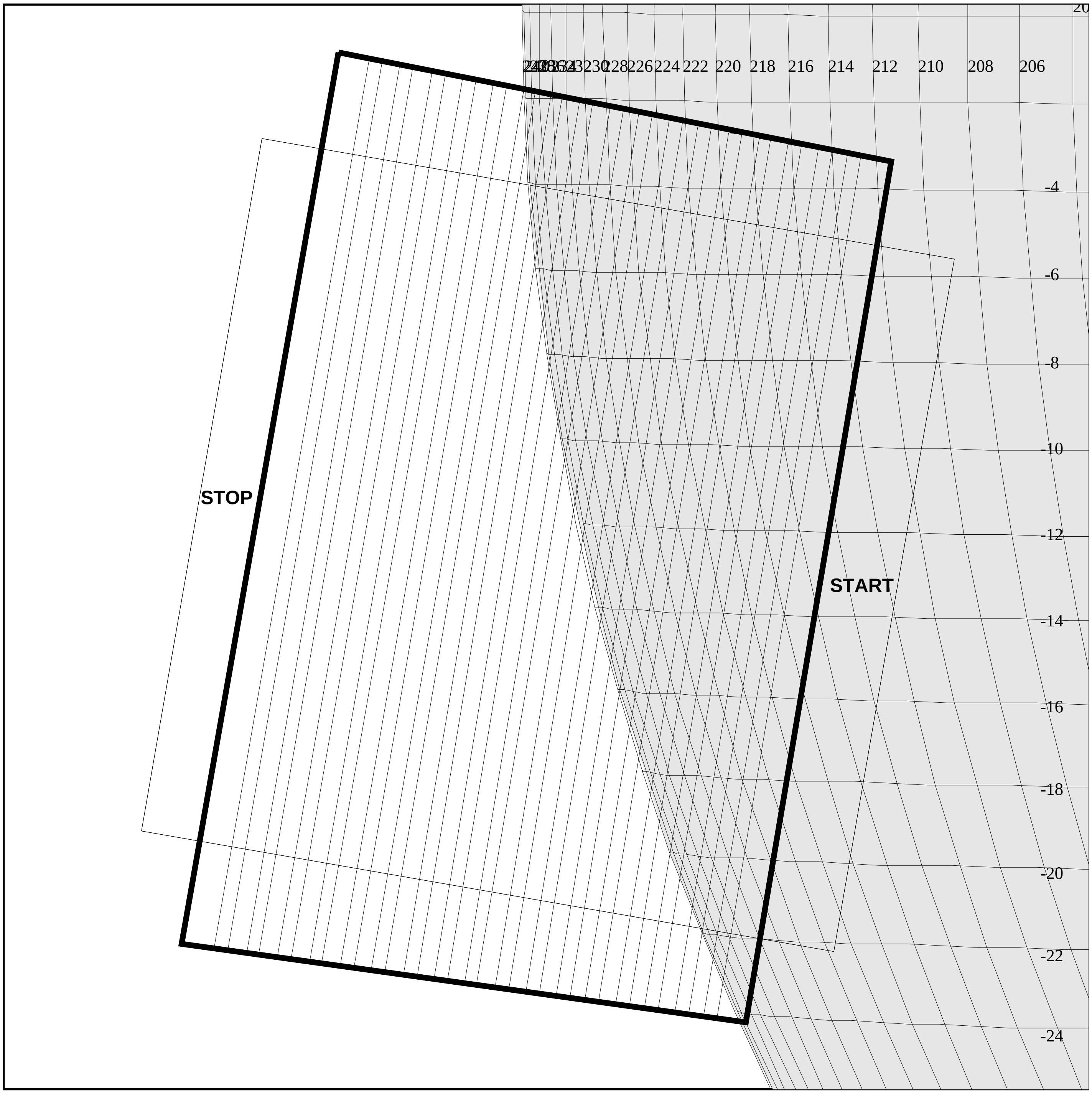
Mosaic of the terrain surrounding Prometheus,
centered at 0 deg Latitude, 150 deg W. Longitude.

Regional map of hotspots.

Grating Stuck

Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM442, ILM360

Galileo Activity Plan Form   09/28/99 10:48:23   rev 1/99



165IQ:TT= 0 TMC= 1 C= 0.00 XC= 1.00 BS= 0/6346 TC= 1(-10.5 242.0)
A= 182 pD= 1116 SR=17.450 RA50= 52.10 DEC50= 20.57 cone=154.57 clock=273.78
116IQ:OR= 1.000 Cs= 3.00 XCs= 0.00 sD= 182 BS= 9/6346 TF=N
116JQ:OR= 0.020 Cs= -6.00 XCs= 0.00 sD= 910 BS=12/6528 TF=N

24INPPLUME01

DESIGN G3.2 herb : 9/16/1999 9:49:12

FILE:P.24ISPILLAN02

TARGET BODY : IO

MINI:m.24ISPILLAN02

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

START:IEE 99-284/04:32:57.400 +CDS 132:00:0

OBSERVATION:24ISPILLAN02

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 1116 S= 4.500

DESCRIP:PILLAN PLUME

Io Pillan Plume Obs	ACTIVITY ID: 24INPPLUME01- START TIME: 99-284/06:46:27.400

Activity ID: Orbit 24 Target I Inst N OAPEL PPLUME SeqNo 01 -

Title	Io Pillan Plume Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	10/11/99	Week 41

Start	IEE+CDS 00000132:03:0	99-284/06:46:27.400	IEE+000/02:13:30.000
End	IEE+CDS 00000138:00:0	99-284/06:52:29.400	IEE+000/02:19:32.000
Duration	00000005:88:0	000/00:06:02.000	000/00:06:02.000

Top Label 24INPPLUME01-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Mosaic going from Pillan hot spot onto the limb
to detect the Pillan plume if active.

Collaborative limb observation with SSI obs 24ISPILLAN02.

Data Returned

Design Detail

BTG=2.16 MB, TICS=266, FMT=MPW
Mosaic in Long Map.
Gain state 4.

NIMS mosaic covering area similar to area coverd by SSI
Ride-along behind SSI not returned.

Search for Pillan’s plume.

Grating Stuck

Fixed Long Map (XLM), Gain 4, Grating Start 0, MPW, ILM442, ILM360

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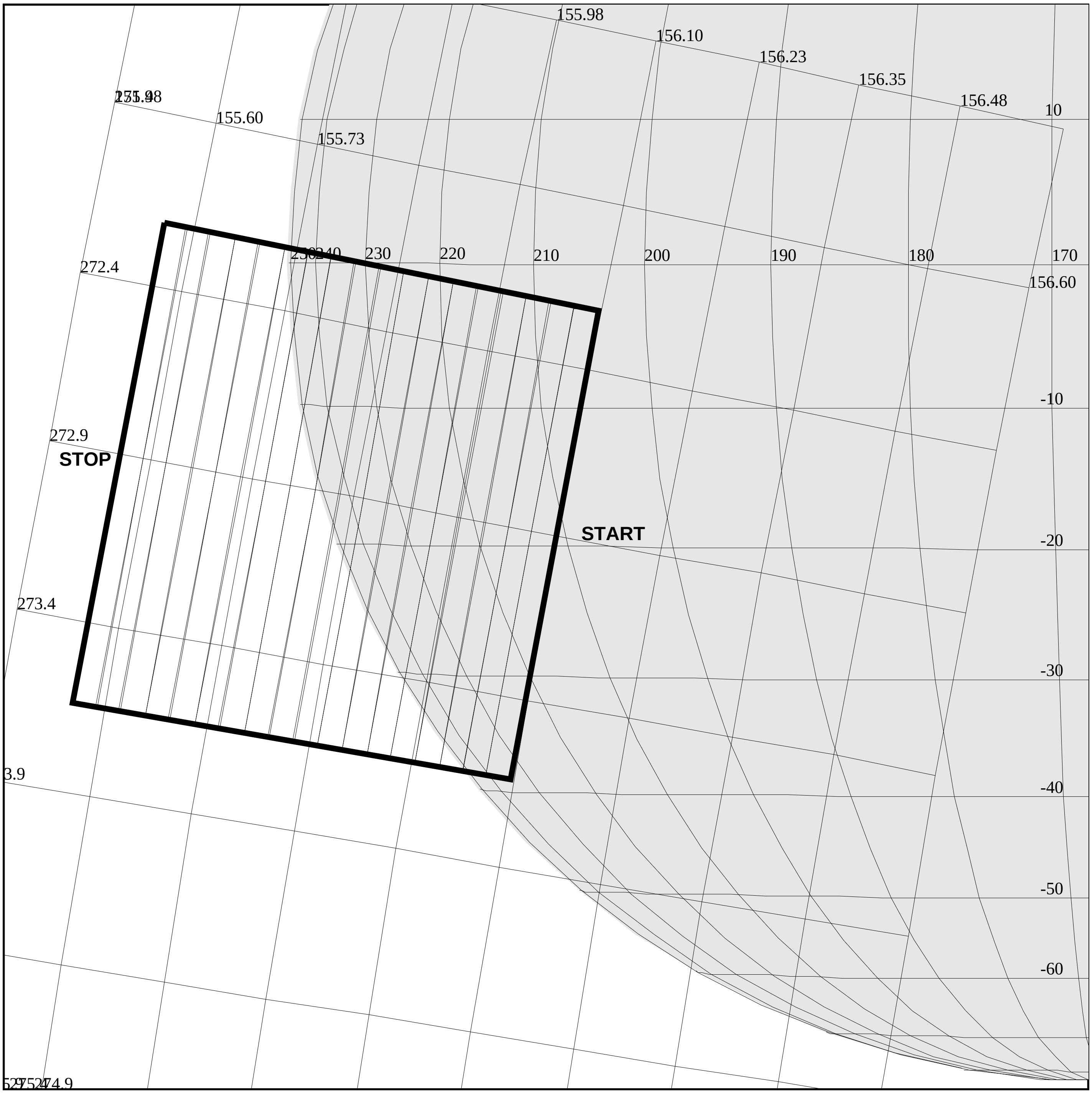

165DP:TT= 0 TMC= 1 C= 3.00 XC= 0.00 BS= 0/0722 TC= 1(-18 229)
A= 182 pD= 900 SR=17.450 RA50= 50.47 DEC50= 20.25 cone=156.09 clock=272.91
117DP:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/0722
1:#s= 1 Cs= -8.90 XCs= 0.00 Cr= 0.00 XCr= -0.60 sD= 900 rD= 20

24INPELEPM01

TARGET G3.1 lisac: 9/24/1999 10:48:44

FILE:P.24INPELEPM01

TARGET BODY : IO

MINI:m.target

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

THINNING:NIM 2

START:IEE 99-284/04:32:57.400 +CDS 211:00:0

BODY PLOT TIME:TARGET-TIME D= 900 S= 1.500

OBSERVATION:24INPELEPM01

DESCRIP:NIMS_I24_PELE_PLUME_01

Io Pele Plume Obs		ACTIVITY ID:	24INPELEPM01-
		START TIME:	99-284/08:05:17.400

Activity ID: Orbit 24 Target I Inst N OAPEL PELEPM SeqNo 01 -

Title	Io Pele Plume Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	10/11/99	Week	41

Start	IEE+CDS 00000210:00:0	99-284/08:05:17.400	IEE+000/03:32:20.000
End	IEE+CDS 00000216:00:0	99-284/08:11:21.400	IEE+000/03:38:24.000
Duration	00000006:00:0	000/00:06:04.000	000/00:06:04.000

Top Label	24INPELEPM01-
Bottom Label	

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Observation of Pele plume on limb against Jupiter’s disk.

Data Returned

Design Detail

BTG=2.16 MB, TICS=266, FMT=MPW
Mosaic extending from Pele hot spot onto limb. Long Map.
Gain state 4.

Grating Stuck

Fixed Long Map (XLM), Gain 4, Grating Start 0, MPW, ILM442, ILM360

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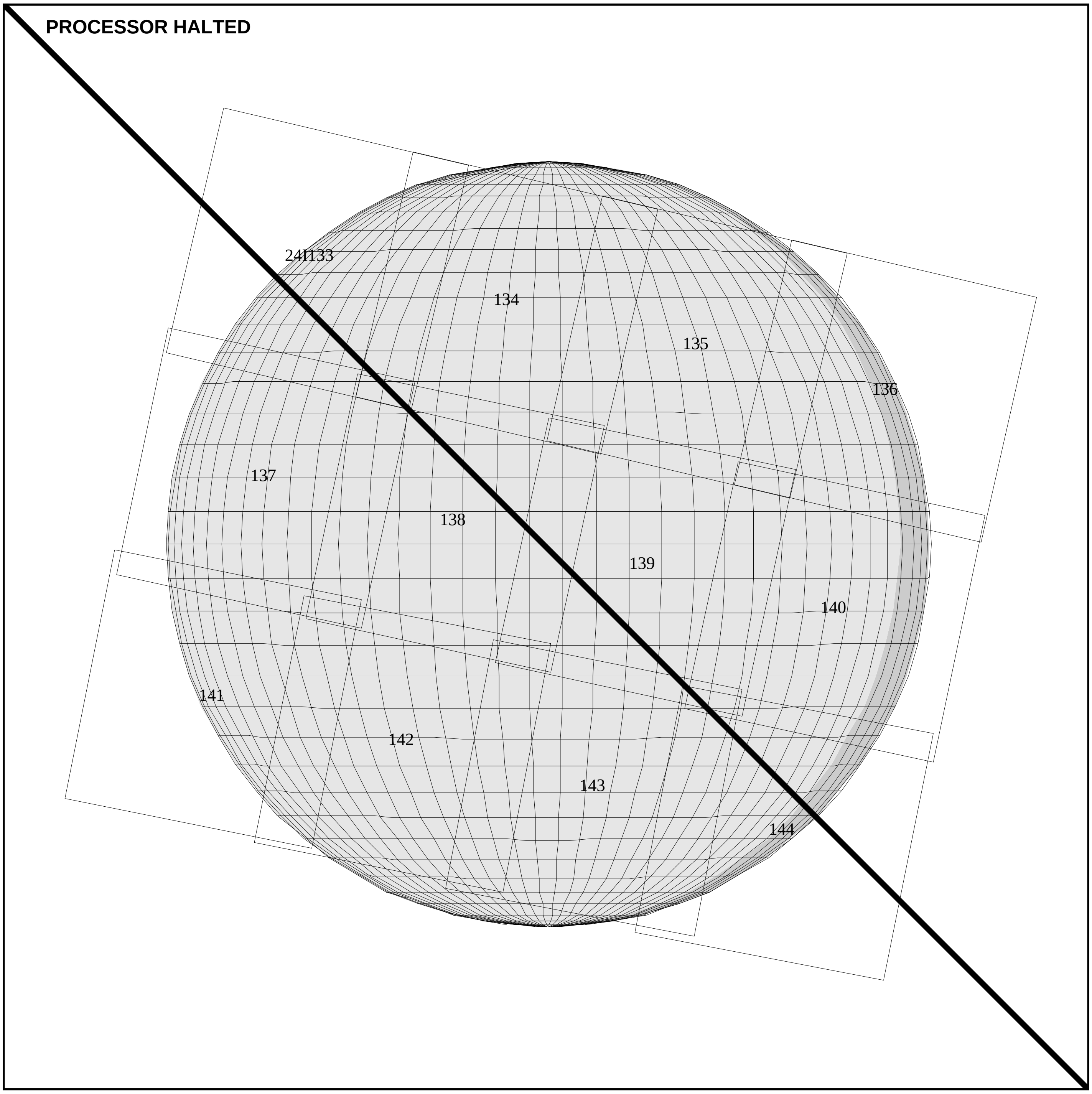


165IR:TT= 0 TMC= 1 C= -9.32 XC= -7.31 BS= 0/3464 TC= 3
A= 222 pD= 292 SR=17.450 RA50= 49.11 DEC50= 20.84 cone=156.96 clock=270.13
118IR:#SB= 1 Cs= 6.30 XCs= 0.00 TPP= 26 SR= 2.500 RR= 5.200 BM=F RC= 1 BS= 3/3464
1:#s= 4 #p= 3 Cr= -18.90 XCr= 7.31

24INSTEREO01

DESIGN G3.2 herb : 9/16/1999 9:50:11

FILE:P.24ISSTEREO01

TARGET BODY : IO

MINI:m.24ISSTEREO01

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

START:IEE 99-284/04:32:57.400 +CDS 281:00:0

OBSERVATION:24ISSTEREO01

THINNING:

BODY PLOT TIME:TARGET-TIME D= 292 S= 0.700

DESCRIP:REGIONAL STEREO

SSI Io Stereo Obs	ACTIVITY ID: 24INSTEREO01- START TIME: 99-284/09:13:02.066

Activity ID: Orbit 24 Target I Inst N OAPEL STEREO SeqNo 01 -

Title	SSI Io Stereo Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System CDS Load ID Calendar Date 10/11/99 Week 41

Start	IEE+CDS 00000277:00:0	99-284/09:13:02.066	IEE+000/04:40:04.666
End	IEE+CDS 00000283:00:0	99-284/09:19:06.066	IEE+000/04:46:08.666
Duration	00000006:00:0	000/00:06:04.000	000/00:06:04.000

Top Label 24INSTEREO01-
Bottom Label

Plot Key		Type	SCI		
CDS Bytes		Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Ride-along with SSI’s Stereo observation.
Full disk covered in three quick scans.

Data Returned, Processor Halted

Design Detail

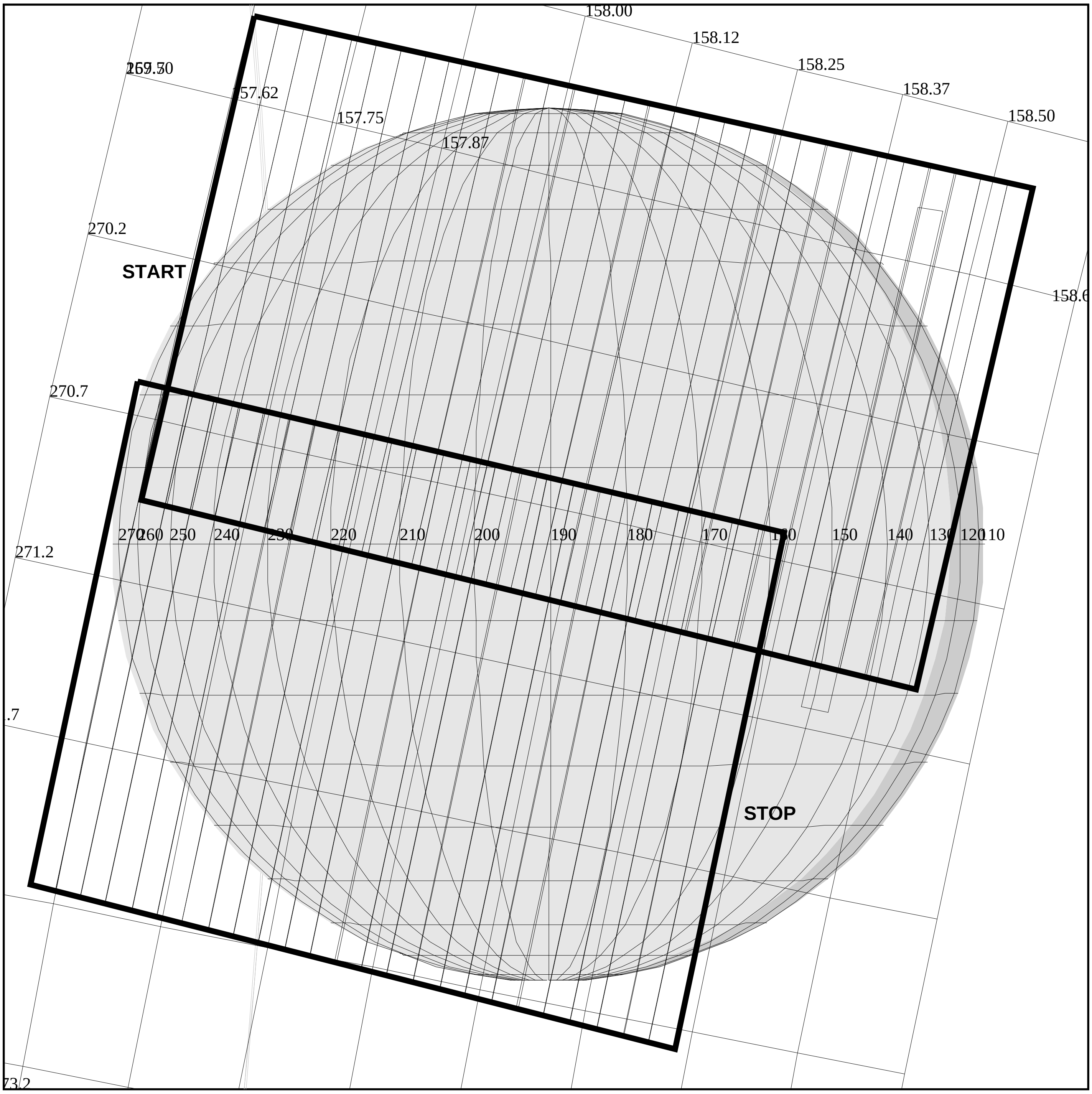
Ride-along behind SSI global observation.

NIMS packets did not decompress properly.

We assume that NIMS had halted.

Grating Stuck

Fixed Long Map (XLM), Gain 2, Grating Start 0, IM4, ILM442, ILM360



165DZ:TT= 0 TMC= 1 C= -8.00 XC= -4.00 BS= 0/9478 TC= 3
A= 728 pD= 0 SR=17.450 RA50= 48.49 DEC50= 20.49 cone=157.63 clock=270.19
117DZ:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/9478
1:#s= 2 Cs= 16.00 XCs= 0.00 Cr= -16.00 XCr= 7.60 sD= 1616 rD= 40

24INREGION02

DESIGN G3.2 lisac: 9/27/1999 14:39:21

FILE:P.24INREGION02

TARGET BODY : IO

MINI:m.24INREGION02

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

THINNING:NIM 2

START:IEE 99-284/04:32:57.400 +CDS 369:00:0

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

OBSERVATION:24INREGION02

DESCRIP:IO_MONITORING

Io Regional Obs	ACTIVITY ID: 24INREGION02- START TIME: 99-284/10:42:00.733

Activity ID: Orbit 24 Target I Inst N OAPEL REGION SeqNo 02 -

Title	Io Regional Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System CDS Load ID Calendar Date 10/11/99 Week 41

Start	IEE+CDS 00000365:00:0	99-284/10:42:00.733	IEE+000/06:09:03.333
End	IEE+CDS 00000389:00:0	99-284/11:06:16.733	IEE+000/06:33:19.333
Duration	00000024:00:0	000/00:24:16.000	000/00:24:16.000

Top Label 24INREGION02-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Mosiac of Io’s surface to investigate surface composition
and to search for thermal emission.

Data Returned

Design Detail

BTG=7.28 MB, TICS=869, FMT=MPW
Long Map, Gain state 2.

Full-disk mosaic in two swaths.
Last two Rims of the mosaic were not recorded due to insertion of a DMS D-Turn

Mosaic centered at about 190 degrees West Longitude, 0 degrees Latitude.

Grating Stuck

Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM442, ILM360

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Grating Step Test #3		ACTIVITY ID:	24NNDETECT03-
		START TIME:	99-284/11:17:24.066

Activity ID: Orbit 24 Target N Inst N OAPEL DETECT SeqNo 03 -

Title	Grating Step Test #3			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	10/11/99	Week 41

Start	IEE+CDS 00000400:00:0	99-284/11:17:24.066	IEE+000/06:44:26.666
End	IEE+CDS 00000420:00:0	99-284/11:37:37.400	IEE+000/07:04:40.000
Duration	00000020:00:0	000/00:20:13.334	000/00:20:13.334

Top Label	24NNDETECT03-
Bottom Label	

Plot Key	NIMS	Type	SCI		
CDS Bytes	0	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Store NIMS Housekeeping Bytes in CDS memory to measure the NIMS Grating Cycle in engineering units.

This will help in the NIMS grating calibration.

Design Detail

Use 6MCOPY command to copy NIMS Housekeeping values from NIMS RAM to CDS RAM.

This process collects data equivalent to two full long map grating cycles. The data are collected over a 13 RIM period.

The NIMS Houskeeping will be returned via CDS MRO sometime after the I24 encounter period.

This third of three tests captures NIMS Housekeeping about 30 minutes after th last NIMS I24 observation.

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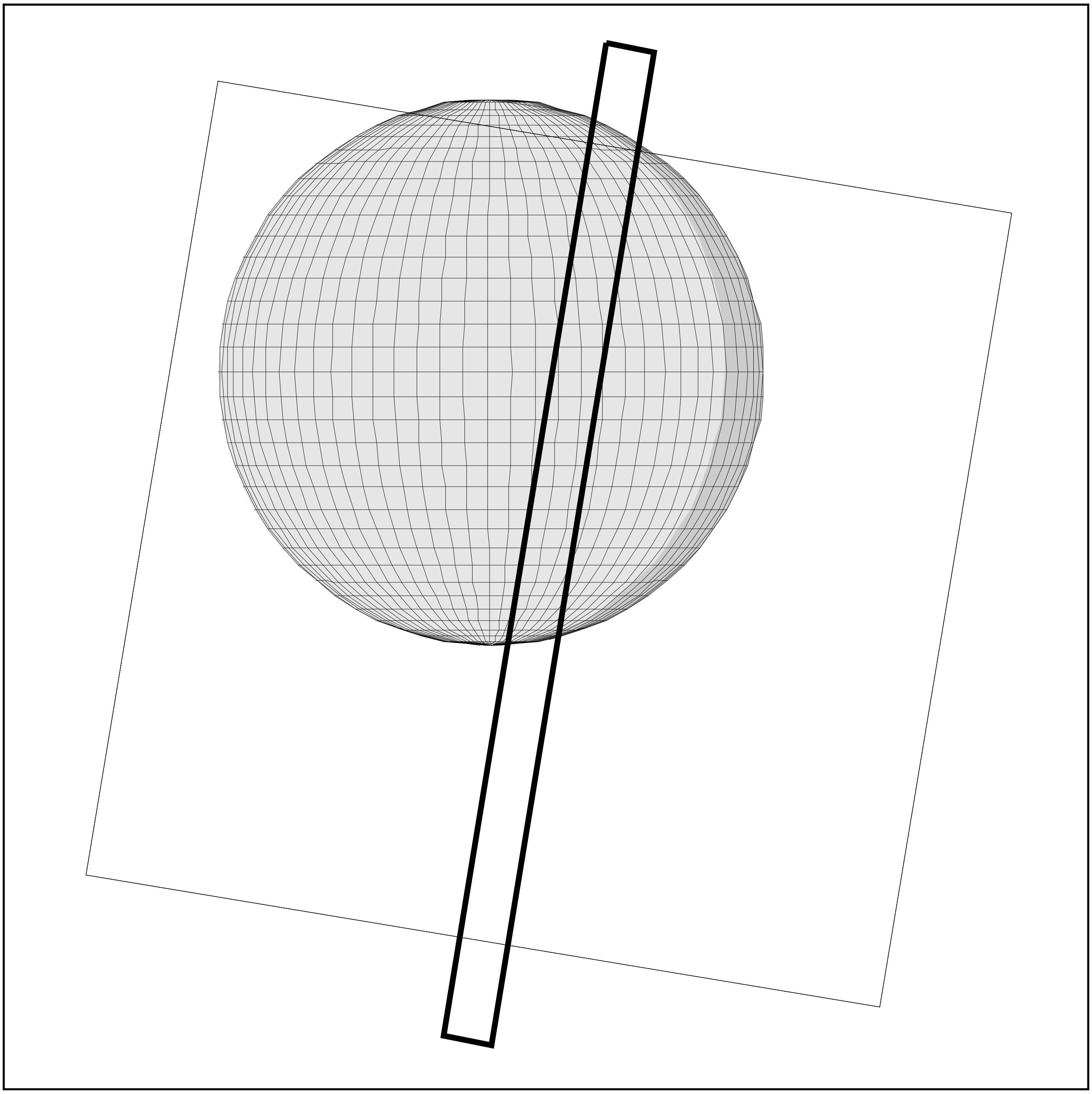

165IS:TT= 0 TMC= 1 C= 0.00 XC= 0.00 BS=26/8468 TC= 3
A= 60 pD= 138 SR=17.450 RA50= 56.64 DEC50= 22.15 cone=150.06 clock=274.26

24ISGLOCOL01

DESIGN G3.2 herb : 9/16/1999 9:50:55

FILE:P.24ISGLOCOL01

TARGET BODY : IO

MINI:m.24ISGLOCOL01

S/C EPH:/DATA/NAVIO/990607-tour.NS

PERIAPSIS:

START:IEE 99-284/04:32:57.400 +CDS 803:00:0

OBSERVATION:24ISGLOCOL01

THINNING:

BODY PLOT TIME:TARGET-TIME D= 138 S= 0.500

DESCRIP:FULL-DISK COLOR

SSI Io Global Color — ACTIVITY ID: 24INGLOCOL01-
START TIME: 99-284/18:04:52.733

Activity ID: Orbit 24 Target I Inst N OAPEL GLOCOL SeqNo 01 -

Title	SSI Io Global Color			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	10/11/99	Week	41

Start	IEE+CDS 00000803:00:0	99-284/18:04:52.733	IEE+000/13:31:55.333
End	IEE+CDS 00000806:00:0	99-284/18:07:54.733	IEE+000/13:34:57.333
Duration	00000003:00:0	000/00:03:02.000	000/00:03:02.000

Top Label 24INGLOCOL01-
Bottom Label

Plot Key		Type	SCI		
CDS Bytes		Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Ride-along with SSI’s global color observation.
NIMS returns single scan north/south across center of disk.

Data Returned

Design Detail

Long Map, Gain state 2.

Ride-along behind SSI global color observation.

Centered at about 245 degrees West Longitude, 0 degrees Latitude.

NIMS returns a single north/south jailbar across center of disk.

Pointing problems caused the observation to not be centered on Io’s disk.

Grating Stuck

Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM442, ILM360

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NIMS Software Reload		ACTIVITY ID:	24INRELOAD01-
		START TIME:	99-285/04:17:36.733

Activity ID: Orbit 24 Target I Inst N OAPEL RELOAD SeqNo 01 -

Title	NIMS Software Reload			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID	Calendar Date	10/11/99	Week 41

Start	IEE+CDS 00001409:00:0	99-285/04:17:36.733	IEE+000/23:44:39.333
End	IEE+CDS 00001415:00:0	99-285/04:23:40.733	IEE+000/23:50:43.333
Duration	00000006:00:0	000/00:06:04.000	000/00:06:04.000

Top Label	24INRELOAD01-
Bottom Label	

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Reload NIMS Software after the spaecraft is outbound outside of Ganymede’s orbit.

Design Detail

Use a standard set of commands to halt the instrument, load the software and reinitialize the instrument.

37PL - Halt NIMS Processor
37MRL - Memory Reallocate
6MCOPY - Copy flight software from CDS to NIMS 1000
6MCOPY - Copy flight software from CDS to NIMS 1598
37IRT - Instrument Reset
37MN - Memory Normal
37IST - Chopper Reference.

NIMS Chopper Off		ACTIVITY ID:	24INCHOPOF01-
		START TIME:	99-285/04:23:40.733

Activity ID: Orbit 24 Target I Inst N OAPEL CHOPOF SeqNo 01 -

Title	NIMS Chopper Off			Instrument	NIMS
Requestor	NIMS-SWG/M. Segura	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	10/11/99	Week	41

Start	IEE+CDS 00001415:00:0	99-285/04:23:40.733	IEE+000/23:50:43.333
End	IEE+CDS 00001425:00:0	99-285/04:33:47.400	IEE+001/00:00:50.000
Duration	00000010:00:0	000/00:10:06.667	000/00:10:06.667

Top Label	24INCHOPOF01-
Bottom Label	

Plot Key	NIMS	Type	SCI		
CDS Bytes	300	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Turn Off the NIMS Chopper.

Design Detail

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NIMS Real-Time PCT Calibration		ACTIVITY ID:	24NNPCTRLT01-
		START TIME:	99-295/08:59:56.866

Activity ID: Orbit 24 Target N Inst N OAPEL PCTRLT SeqNo 01 -

Title	NIMS Real-Time PCT Calibration			Instrument	NIMS
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS	Working Group	SWG

Time System CDS Load ID Calendar Date 10/22/99 Week 43

Start	PCT+CDS 0:00:0	99-295/08:59:56.866	PCT+000/00:00:00.000
End	PCT+CDS 00000465:00:0	99-295/16:50:06.866	PCT+000/07:50:10.000
Duration	00000465:00:0	000/07:50:10.000	000/07:50:10.000

Top Label 24NNPCTRLT01-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	275	Report Options	BOTH	Scan Platform	Yes
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

This observation is an NIMS photometric calibration usint the PCT target.
The data will be used to calibrate the NIMS visible detectors.
The calibration data will be returned using Real-Time telemetry.
At this time the off sun angle is about 2.0 degrees.

Data Returned

Design Detail

1) Turn off PCT heaters 6 hours before calibration.
2) Scan Platform is at Safe/Unstow (cone = 153.00, clock = 0.00)
3) Chopper on, Gain State 4,
4) Set NIMS to Long Map Mode, ETB = PCT252,
   Mirror Blocking (1B, 1B) (11011, 11011)
5) Select 2 RIMs of Dark in Real-Time (Return 2 LM grating cycle)
6) Slew to PCT (cone 54.88, clock = 244.07)
7) Select 10 RIMS of PCT in Real-Time (Return 10 LM grating cycles)
8) Slew to Safe (cone = 153.00, clock = 0.00)
9) NIMS to Safe Mode, Reset Mirror Blocking (00,00) (00000, 00000)
10) Chopper Off.

Grating Stuck

Fixed Long Map (XLM), Gain 4, Grating Start 0, R/T, PCT252

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NIMS RCT Real Time Calibration	ACTIVITY ID:	24NNRCTRLT01-
	START TIME:	99-312/17:59:52.666

Activity ID: Orbit 24 Target N Inst N OAPEL RCTRLT SeqNo 01 -

Title	NIMS RCT Real Time Calibration			Instrument	NIMS
Requestor	NIMS-AWG/K. BAINES	Team	NIMS	Working Group	AWG

Time System	CDS	Load ID		Calendar Date	11/18/99	Week	82

Start	RTA+CDS 00000000:00:0	99-312/17:59:52.666	RTA+000/00:00:00.000
End	RTA+CDS 00000787:00:0	99-313/07:15:37.332	RTA+000/13:15:14.666
Duration	00000787:00:0	000/13:21:48.666	000/13:15:14.666

Top Label   24NNRCTRLT01-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	450	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

This observation is a NIMS radiometric calibration using the RCT target.
The data will be used to calibrate the NIMS thermal detectors.
The calibration data will be returned using Real-time Telemetry

The NIMS OPCAL has been included in the RCT calibration for GEM.
Perform NIMS Optical Calibration to calibrate the NIMS grating.

This is a GEM Library Sequence
The Dark cone angle must be selected using Pointer.

Data Returned

Design Detail

1) Turn on RCT Heaters for 12 hours.
2) Set Engineering Variable Map to return NIMS Temps more frequently.
3) Set NIMS to Long Map Mode, Gain state 1, Chopper Reference, Mirror Blocking (11011,11011), ETB=RCT252.
4) Pause playback before using scan platform.
5) Slew to Dark (cone = 119.7), return 1 grating cycle (12 mf) in R/T
6) Slew to RCT (cone = 0.0), return 2 grating cycles (12 mf) in R/T
7) Slew to Dark (cone = 119.7), return 1 grating cycle (12 mf) in R/T
8) Slew to Safe (cone = 153.0)
9) Long Map, gain state 4, ETB=OPCAL48.
10) Use 37IST to turn on OPCAL Lamp (two times).
11) Select NIMS Real Time 1 Rim OPCAL, 1 Rim Dark, 1 Rim OPCAL
12) Set NIMS to Safe Mode and turn off Chopper.
13) Resume Playback after using scan platform.

Fixed Long Map (XLM), Gain 1, Grating Start 0, R/T, RCT252
Fixed Long Map (XLM), Gain 4, Grating Start 0, R/T, OPCAL48

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