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.

NIMS Software Reload	ACTIVITY ID: 31NNTHRMAL01- START TIME: 01-218/04:26:26.800

Activity ID: Orbit 31 Target N Inst N OAPEL THRMAL SeqNo 01 -

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

Time System CDS Load ID Calendar Date 08/06/01 Week 32

Start	IEE-CDS 00000000:00:0	01-218/04:26:26.800	IEE-000/00:00:00.000
End	IEE-CDS 00000000:00:0	01-218/04:29:26.800	IEE-000/00:00:00.000
Duration	00000000:00:0	000/00:03:00.000	000/00:00:00.000

Top Label 31NNTHRMAL01-
Bottom Label

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

Observation Objective

NIMS reload
Each NIMS GMM observation will have an instrument reload before the start of each observation. Each reload has its own OAPEL form, but only this first is included in the NIMSGUIDE. The NIMS I31 reload OAPELs are:

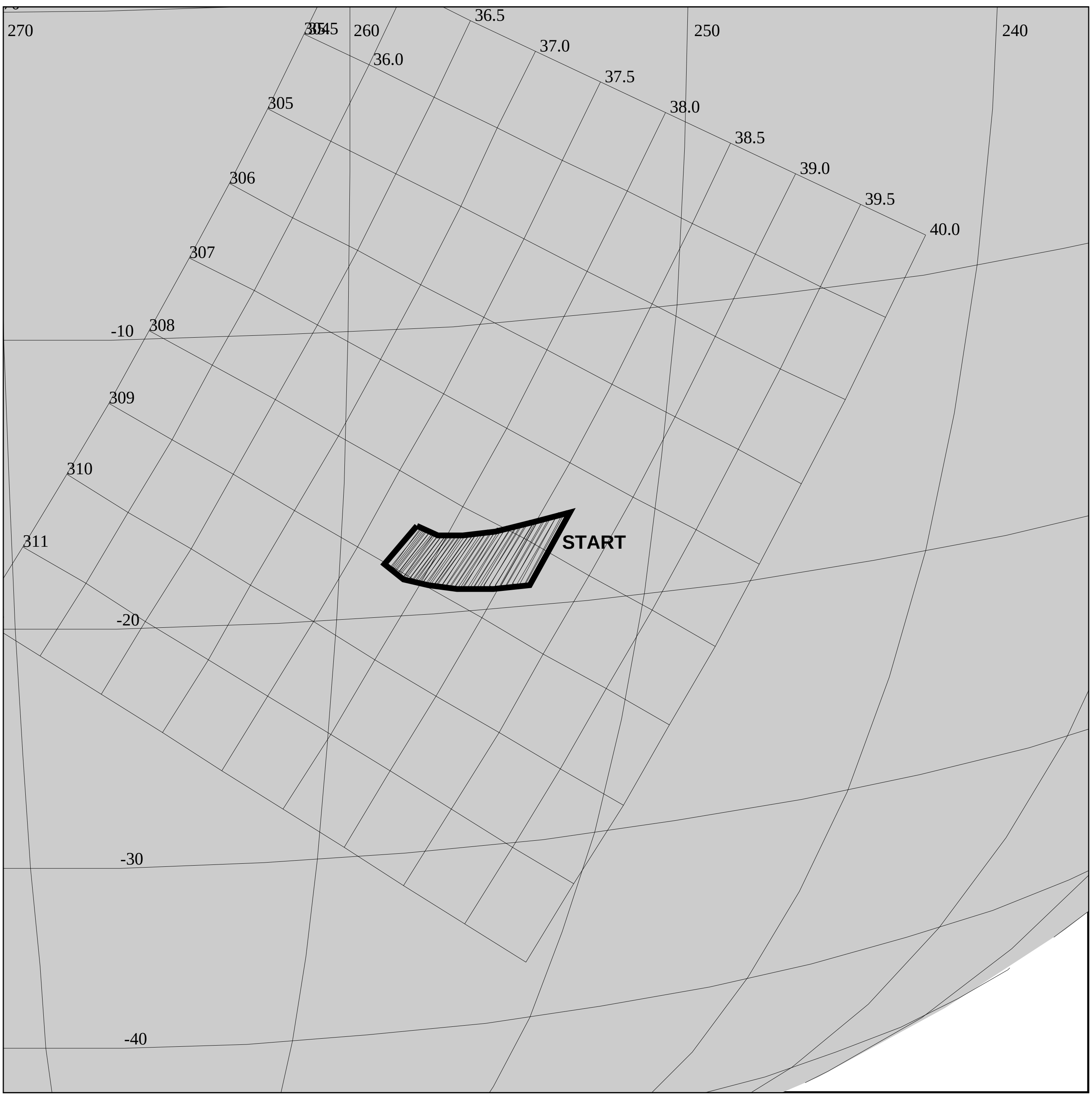
31NNTHRMAL01, 31NNSO2MAP01, 31NNTVASHT01, 31NNGISHBR01, 31NNAMRANI01, 31NNREGION01, 31NNREGION02, 31NNGRSPOT01, 31NNGRSPOT02, 31NNRELOAD01.

31INHSISUM01 does not have a software reload.

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.



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

31INTHRMAL01

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

FILE:P.31INTHRMAL01

TARGET BODY : IO

MINI:m.31INTHRMAL01

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

PERIAPSIS:

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

OBSERVATION:31INTHRMAL01

THINNING:NIM 2

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

DESCRIP:IO_THERMAL

Io Thermal Map		ACTIVITY ID:	31INTHRMAL01-
		START TIME:	01-218/04:33:31.467

Activity ID: Orbit 31 Target I Inst N OAPEL THRMAL SeqNo 01 -

Title	Io Thermal Map			Instrument	NIMS
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS	Working Group	SWG

Time System CDS Load ID Calendar Date 08/06/01 Week 32

Start	IEE-CDS	00000025:00:0	01-218/04:33:31.467	IEE-000/00:25:16.666
End	IEE-CDS	00000011:00:0	01-218/04:47:40.800	IEE-000/00:11:07.333
Duration		00000014:00:0	000/00:14:09.333	000/00:14:09.333

Top Label 31INTHRMAL01-
Bottom Label

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

Observation Objective

A nightside view of the Pele and Pillan region to search for thermal anomalities and volcanic activity.

Data Returned

Design Detail

BTG=3.46 MB, TICS=530, FMT=MPW, LM, Gain State 1

-18 degrees South latitude, 256 degrees West longitude.

Single swath across Pele’s hotspot.

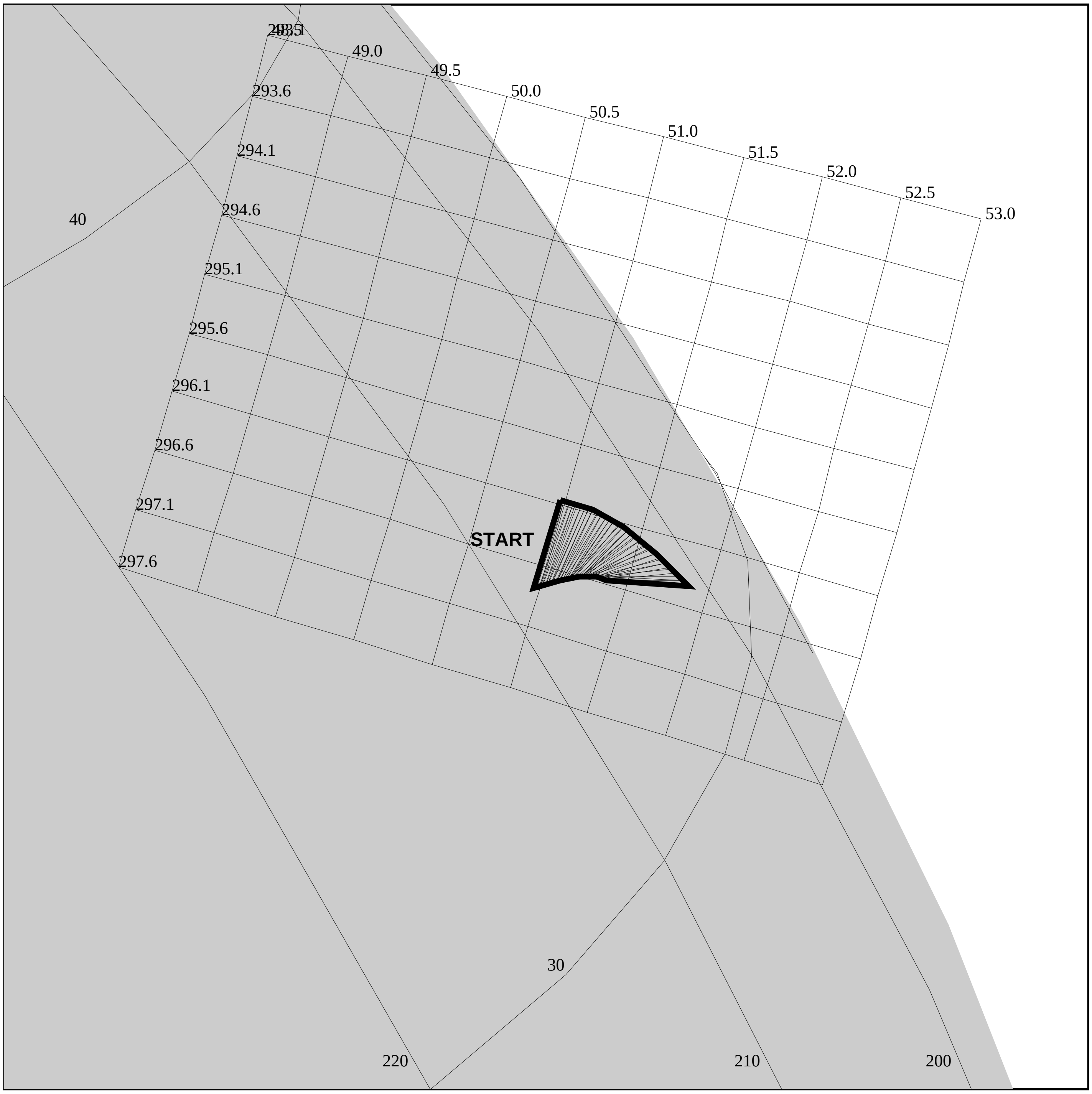
Gain state 1 to avoid high temperature saturation.

BOOMS - cone angle = 38 degrees.

SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT

Fixed Long Map (XLM), Gain 1, Grating Start 0, MPW, ILM408, ILM144A
Fixed Long Map (XLM), Gain 1, Grating Start 0, MPW, ILM408, ILM144B
Fixed Long Map (XLM), Gain 1, Grating Start 0, MPW, ILM408, ILM288

Galileo Activity Plan Form 12/01/00 00:00:00 rev 6/95



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

31INHSISUM01

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

FILE:P.31INHSISUM01

TARGET BODY : IO

MINI:m.31INHSISUM01

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

PERIAPSIS:

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

OBSERVATION:31INHSISUM01

THINNING:NIM 2

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

DESCRIP:IO-ISUM

Io Isum Obs		ACTIVITY ID:	31INHSISUM01-
		START TIME:	01-218/04:47:40.800

Activity ID: Orbit 31 Target I Inst N OAPEL HSISUM SeqNo 01 -

Title	Io Isum Obs			Instrument	NIMS
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	08/06/01	Week	32

Start	IEE-CDS	00000011:00:0	01-218/04:47:40.800	IEE-000/00:11:07.333
End	IEE-CDS	00000005:00:0	01-218/04:53:44.800	IEE-000/00:05:03.333
Duration		00000006:00:0	000/00:06:04.000	000/00:06:04.000

Top Label	31INHSISUM01-
Bottom Label	

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

Observation Objective

A nightside view of the Isum region to search for thermal anomalities and volcanic activity.

Data Returned

Design Detail

BTG=1.73 MB, TICS=266, FMT=MPW, LM, Gain State 1

33 degrees North latitude, 203 degrees West longitude.

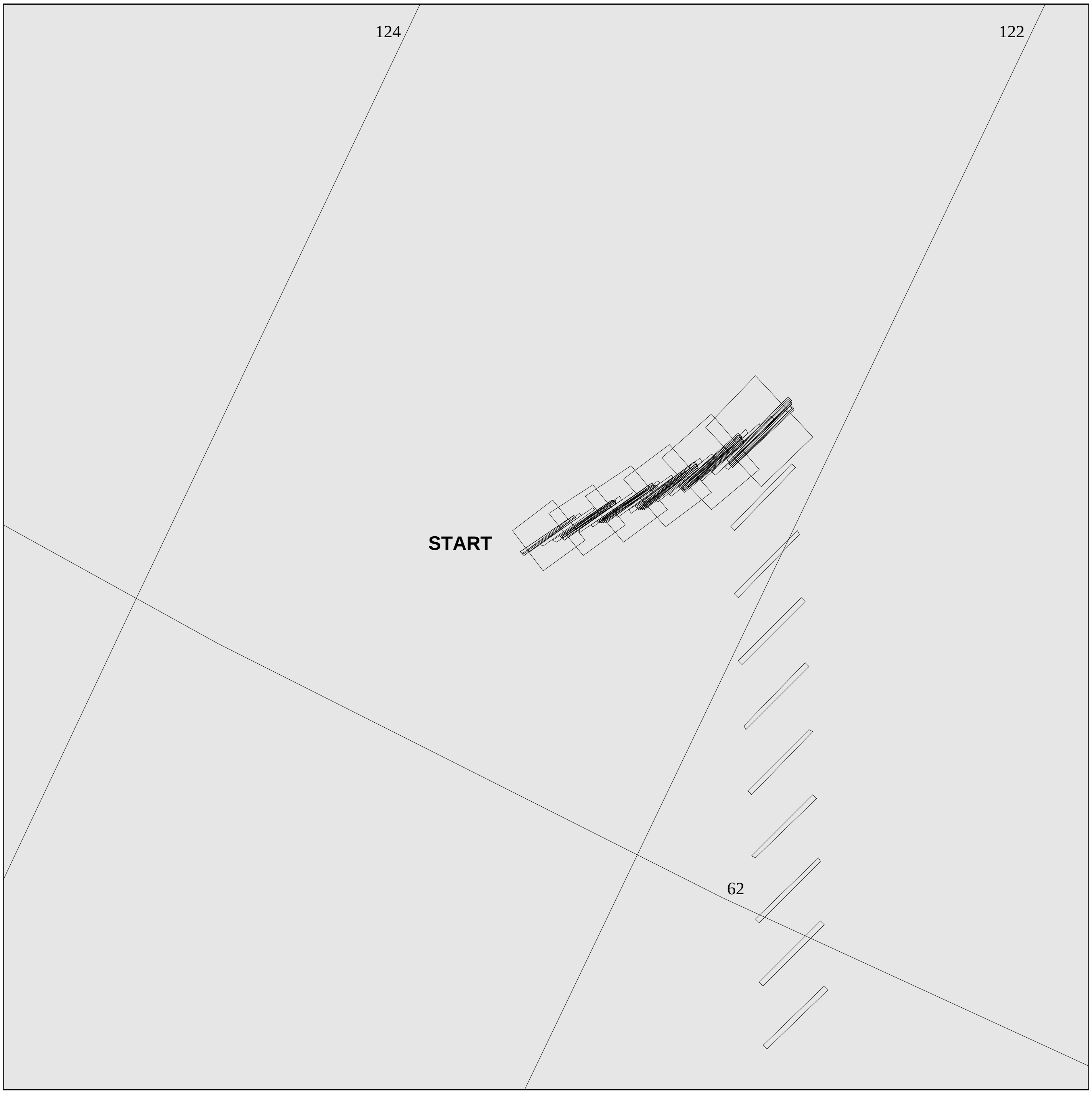
Single swath across Isum’s hotspot.

Gain state 1 to avoid high temperature saturation.

SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT

Fixed Long Map (XLM), Gain 1, Grating Start 0, MPW, ILM408, ILM144A
Fixed Long Map (XLM), Gain 1, Grating Start 0, MPW, ILM408, ILM144B
Fixed Long Map (XLM), Gain 1, Grating Start 0, MPW, ILM408, ILM288

Galileo Activity Plan Form 12/01/00 00:00:00 rev 6/95



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

31INTVASHT02

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

FILE:P.31ISTVASHT01

TARGET BODY : IO

MINI:m.31ISTVASHT01

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

PERIAPSIS:

THINNING:NIM 2

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

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

OBSERVATION:31ISTVASHT01

DESCRIP:TVASHTAR LAVA FLOWS

Tvashtar Lava Flows	ACTIVITY ID:	31INTVASHT02+
	START TIME:	01-218/04:59:48.799

Activity ID: Orbit 31 Target I Inst N OAPEL TVASHT SeqNo 02 +

Title	Tvashtar Lava Flows			Instrument	NIMS
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	08/06/01	Week	32

Start	IEE+CDS	00000001:00:0	01-218/04:59:48.799	IEE+000/00:01:00.666
End	IEE+CDS	00000003:00:0	01-218/05:01:50.133	IEE+000/00:03:02.000
Duration		00000002:00:0	000/00:02:01.334	000/00:02:01.334

Top Label	31INTVASHT02+
Bottom Label	

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

Observation Objective

High spatial resolution scan across the Tvashtar lava flows.
Ride-along behind SSI.

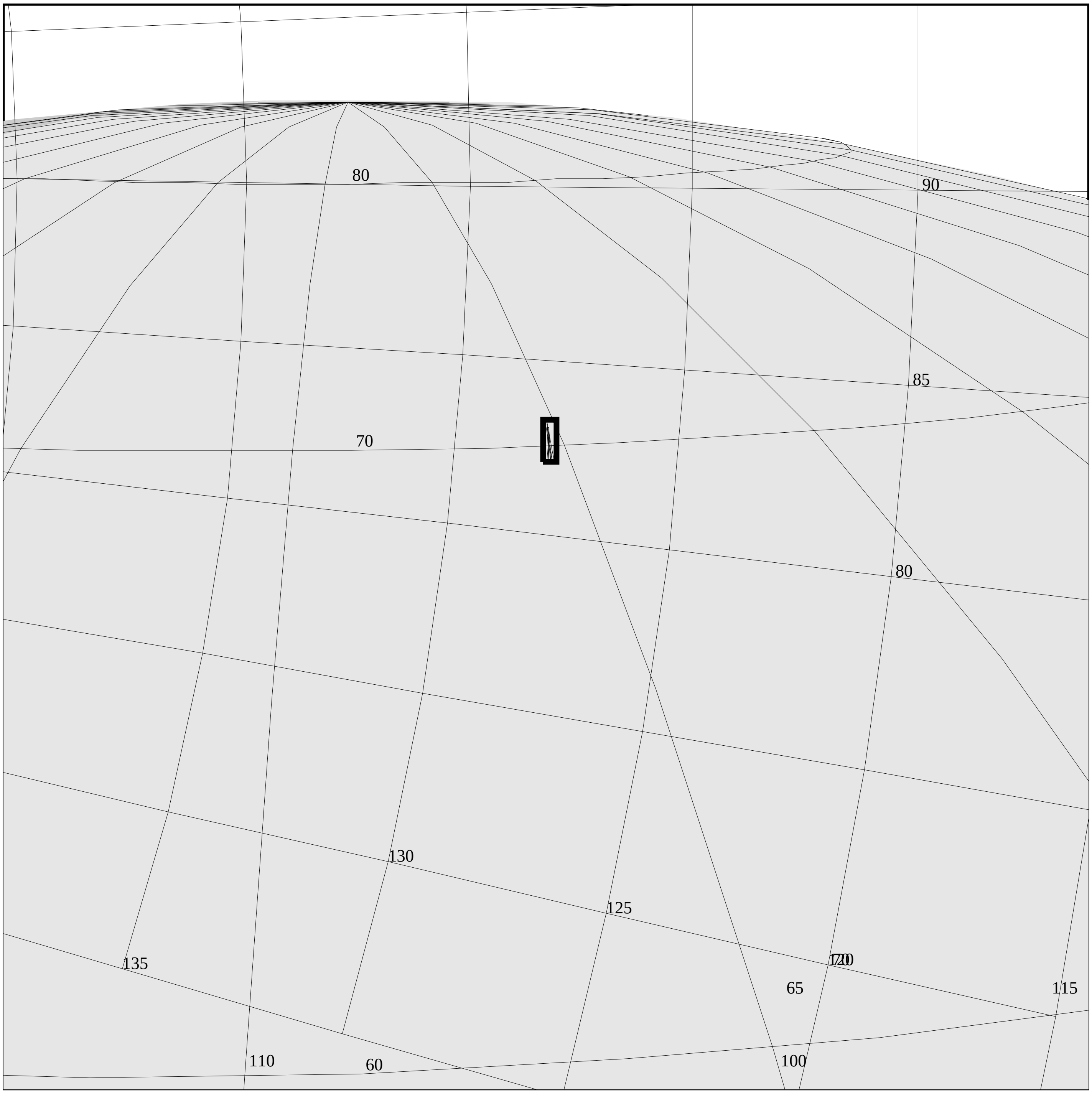
No Data Returned

Design Detail

Alias: 31ISTVASHT01-
High spatial resolution SSI mosaic across the Tvashtar lava flow region.
Single swath across the Tvashtar caldera complex.

Fixed Long Map (XLM), Gain 1, Grating Start 0, IM4, ILM408

Galileo Activity Plan Form   12/01/00 00:00:00   rev 6/95



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

31INSO2MAP01

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

FILE:P.31INSO2MAP01

TARGET BODY : IO

MINI:m.31INSO2MAP01

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

PERIAPSIS:

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

OBSERVATION:31INSO2MAP01

THINNING:NIM 2

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

DESCRIP:IO_SO2_MAP

Io SO2 Map	ACTIVITY ID: 31INSO2MAP01- START TIME: 01-218/05:01:50.133

Activity ID: Orbit 31 Target I Inst N OAPEL SO2MAP SeqNo 01 -

Title	Io SO2 Map			Instrument	NIMS
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS	Working Group	SWG

Time System CDS Load ID Calendar Date 08/06/01 Week 32

Start	IEE+CDS	00000003:00:0	01-218/05:01:50.133	IEE+000/00:03:02.000
End	IEE+CDS	00000009:00:0	01-218/05:07:54.133	IEE+000/00:09:06.000
Duration		00000006:00:0	000/00:06:04.000	000/00:06:04.000

Top Label 31INSO2MAP01-
Bottom Label

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

Observation Objective

To provide a means of SO2 mapping over high northern latitude terrain.

Data Returned

Design Detail

BTG=1.73 MB, TICS=266, FMT=MPW, LM, Gain State 2

70 degrees North latitude, 100 degrees West longitude.

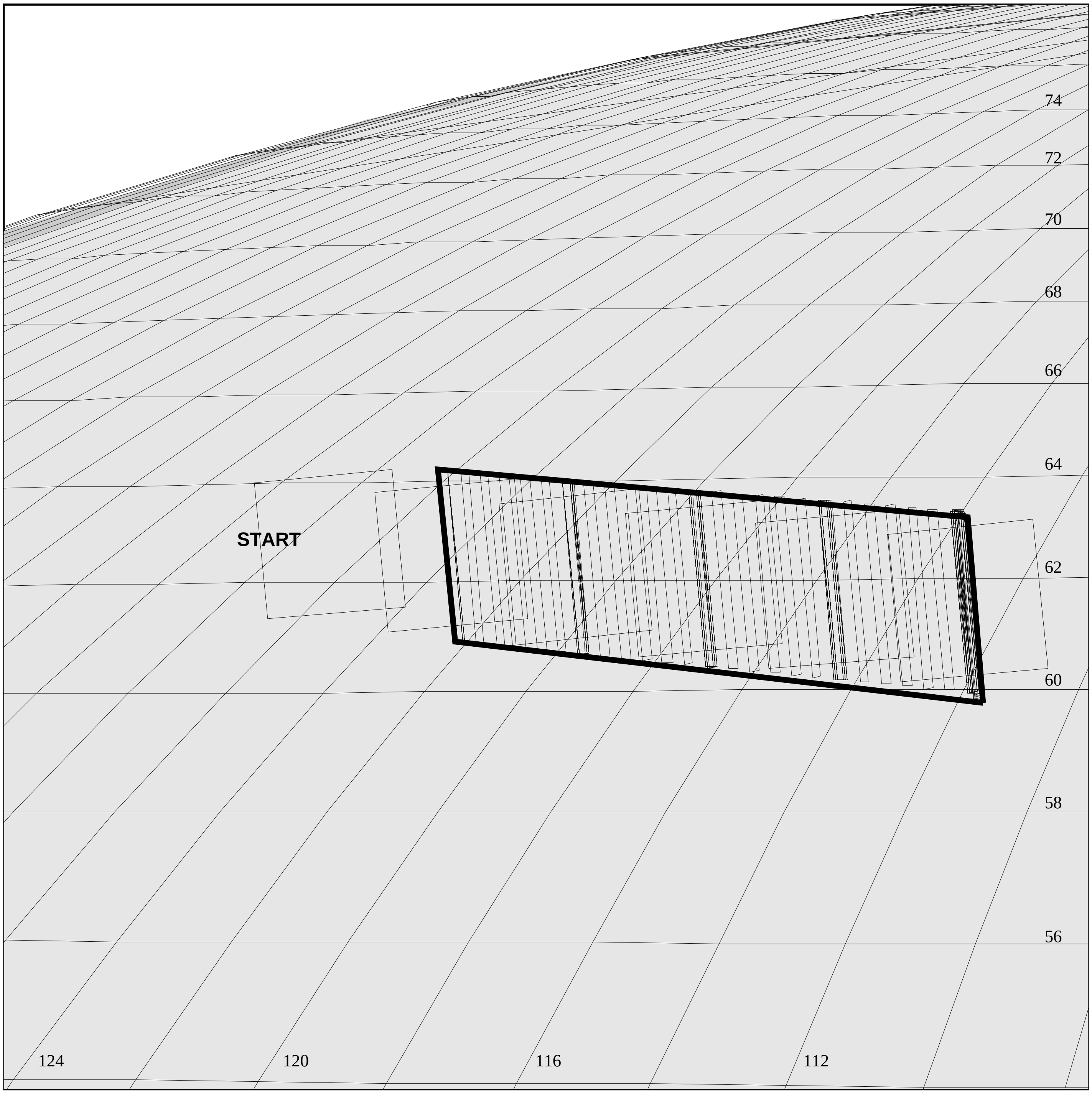
Single compressed swath across a region of high SO2 concentration.

SCAN PLATFORM MOVED TO A SAFE CONE/CLOCK POSITION 60 MF AFTER START OF MOSAIC. ONLY FIRST 60 MF ON TARGET REGION. THE REST IS SMEARED ACROSS THE DISK OF IO.

SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT

Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM408, ILM96

Galileo Activity Plan Form 12/01/00 00:00:00 rev 6/95



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

31INTVASHT03

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

FILE:P.31ISTVASHT02

TARGET BODY : IO

MINI:m.31ISTVASHT02

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

PERIAPSIS:

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

OBSERVATION:31ISTVASHT02

THINNING:NIM 1

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

DESCRIP:TVASHTAR CONTEXT

Tvashtar Context	ACTIVITY ID: 31INTVASHT03+ START TIME: 01-218/05:10:42.133

Activity ID: Orbit 31 Target I Inst N OAPEL TVASHT SeqNo 03 +

Title	Tvashtar Context			Instrument	NIMS
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	08/06/01	Week	32

Start	IEE+CDS	00000011:70:0	01-218/05:10:42.133	IEE+000/00:11:54.000
End	IEE+CDS	00000014:00:0	01-218/05:12:57.466	IEE+000/00:14:09.333
Duration		00000002:21:0	000/00:02:15.333	000/00:02:15.333

Top Label	31INTVASHT03+
Bottom Label	

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

Observation Objective

Medium spatial resolution scan across the Tvashtar caldera complex
for context for higher resolution obs.
Ride-along behind SSI.

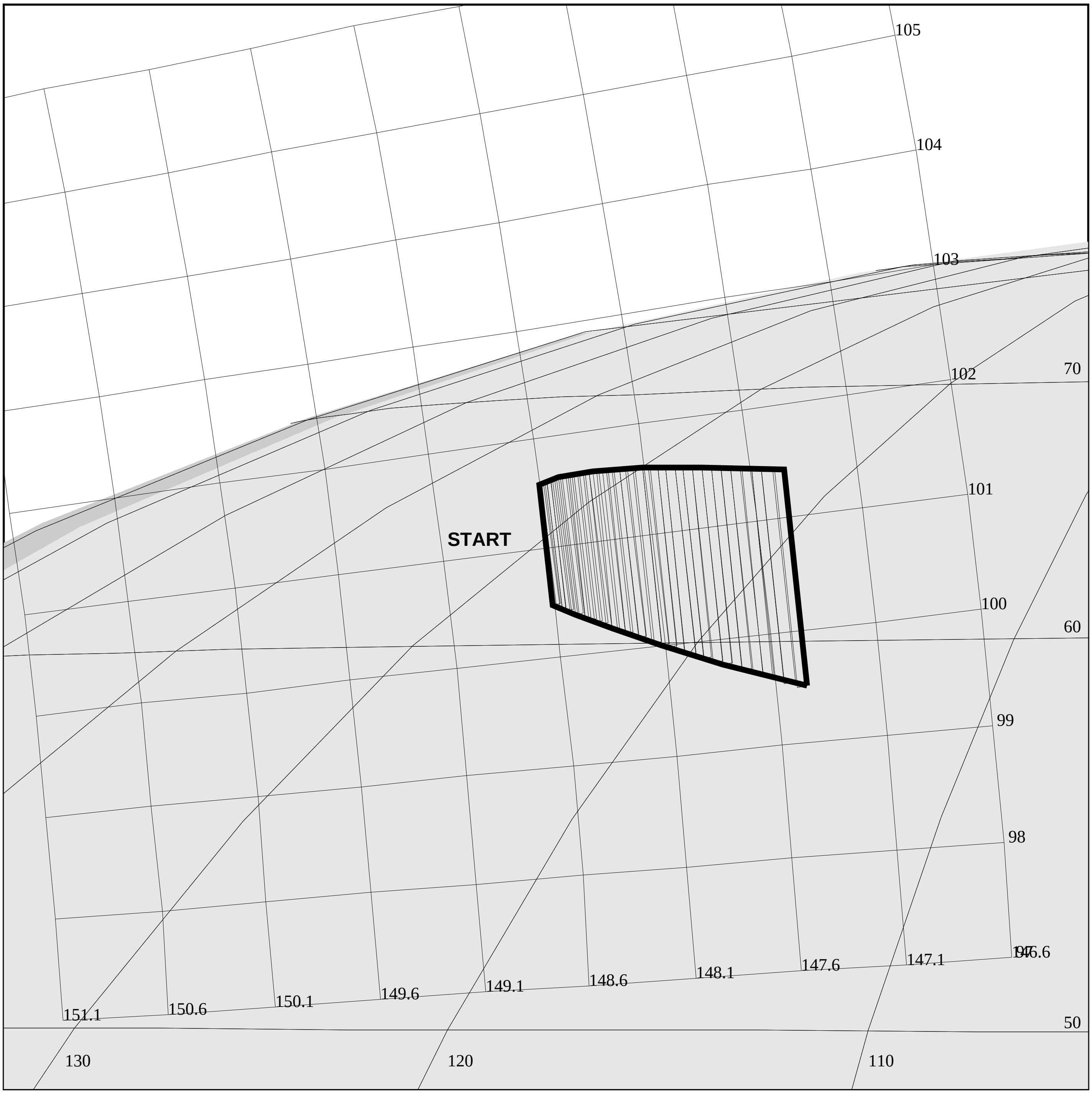
Data Returned

Design Detail

Alias: 31ISTVASHT02-
Moderate spatial resolution SSI mosaic across the Tvashtar calder complex
for context. Single swath across the Tvashtar caldera complex.

SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT

Fixed Long Map (XLM), Gain 2, Grating Start 0, IM8, ILM408, ILM96



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

31INTVASHT01

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

FILE:P.31INTVASHT01

TARGET BODY : IO

MINI:m.31INTVASHT01

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

PERIAPSIS:

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

OBSERVATION:31INTVASHT01

THINNING:NIM 2

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

DESCRIP:PROMETHEUS_PLUME

Io Tvashtar Map	ACTIVITY ID:	31INTVASHT01-
	START TIME:	01-218/05:13:58.133

Activity ID: Orbit 31 Target I Inst N OAPEL TVASHT SeqNo 01 -

Title	Io Tvashtar Observation			Instrument	NIMS
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	08/06/01	Week	32

Start	IEE+CDS	00000015:00:0	01-218/05:13:58.133	IEE+000/00:15:10.000
End	IEE+CDS	00000026:00:0	01-218/05:25:05.466	IEE+000/00:26:17.333
Duration		00000011:00:0	000/00:11:07.333	000/00:11:07.333

Top Label	31INTVASHT01-
Bottom Label	

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

Observation Objective

Compositional and thermal mapping of the Tvashtar region.

Data Returned

Design Detail

BTG=3.46 MB, TICS=530, FMT=MPW, LM, Gain State 2

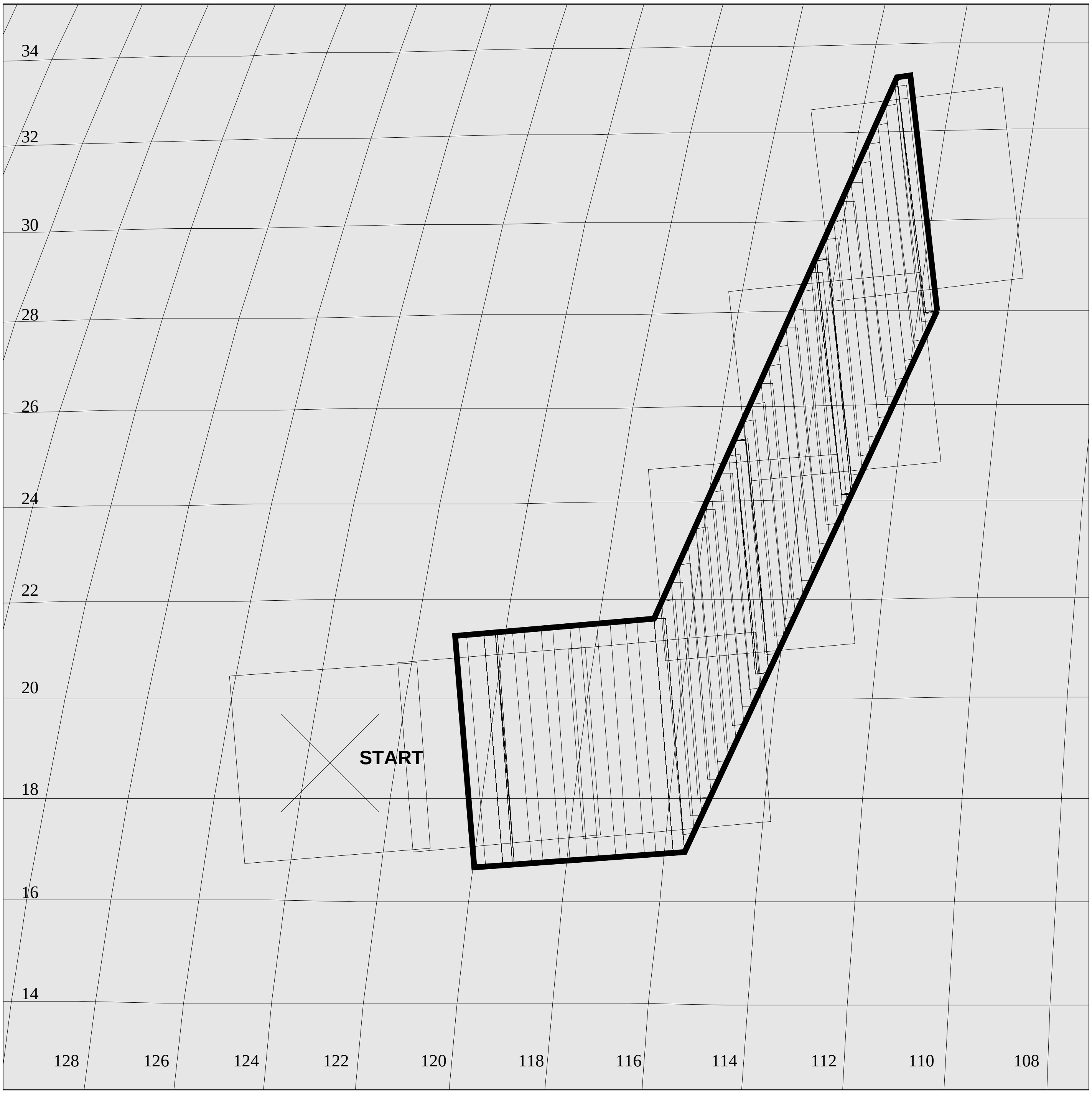
62 degrees North latitude, 120 degrees West longitude.

Single swath across the Tvashtar caldera complex.

SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT

Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM408, ILM144

Galileo Activity Plan Form 12/01/00 00:00:00 rev 6/95



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

31INAMRANI02

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

FILE:P.31ISAMRANI01

TARGET BODY : IO

MINI:m.31ISAMRANI01

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

PERIAPSIS:

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

OBSERVATION:31ISAMRANI01

THINNING:NIM 1

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

DESCRIP:AMIRANI

SSI Io Amirani Mosaic	ACTIVITY ID: 31INAMRANI02- START TIME: 01-218/05:33:57.466

Activity ID: Orbit 31 Target I Inst N OAPEL AMRANI SeqNo 02 -

Title	SSI Io Amirani Mosaic			Instrument	SSI
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS	Working Group	SWG

Time System CDS Load ID Calendar Date 08/06/01 Week 32

Start	IEE+CDS	00000034:70:0	01-218/05:33:57.466	IEE+000/00:35:09.333
End	IEE+CDS	00000036:80:0	01-218/05:36:05.466	IEE+000/00:37:17.333
Duration		00000002:10:0	000/00:02:08.000	000/00:02:08.000

Top Label 31INAMRANI02-
Bottom Label

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

Observation Objective

Ride-along with the SSI Amirani observation.

Data Returned

Design Detail

ALIAS: 31ISAMRANI01

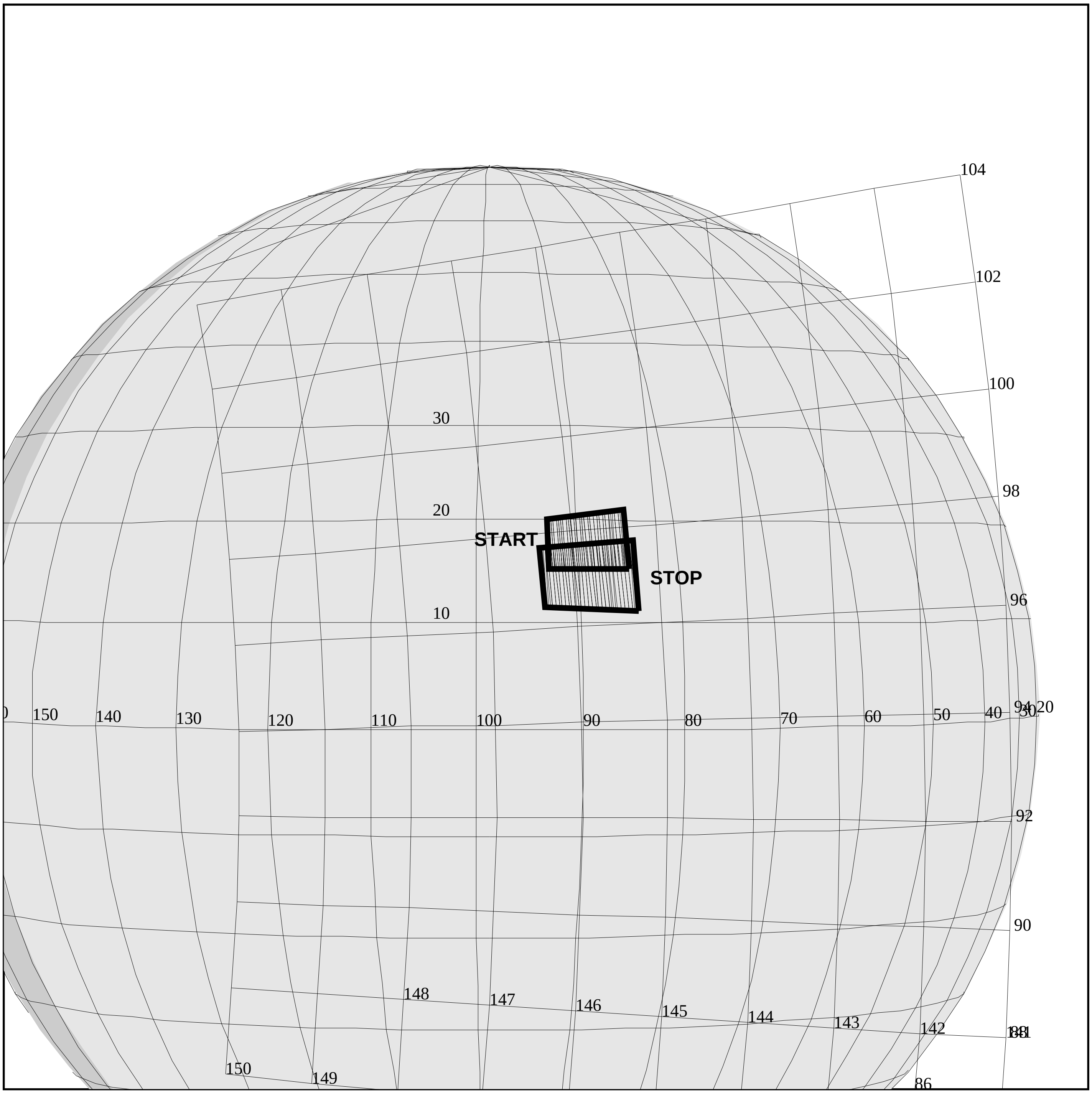
Ride-along with SSi Amirani mosaic.

Similar territory to 31INAMRANI01.

SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT

Fixed Long Map (XLM), Gain 2, Grating Start 0, IM8, ILM408, ILM144

Galileo Activity Plan Form 12/01/00 00:00:00 rev 6/95



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

31INGISHBR01

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

FILE:P.31INGISHBR01

TARGET BODY : IO

MINI:m.31INGISHBR01

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

PERIAPSIS:

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

OBSERVATION:31INGISHBR01

THINNING:NIM 2

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

DESCRIP:IO_GISHBAR

Io Gish Bar Mosaic	ACTIVITY ID: 31INGISHBR01- START TIME: 01-218/05:39:14.799

Activity ID: Orbit 31 Target I Inst N OAPEL GISHBR SeqNo 01 -

Title	Io Gish Bar Mosaic			Instrument	NIMS
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS	Working Group	SWG

Time System CDS Load ID Calendar Date 08/06/01 Week 32

Start	IEE+CDS	00000040:00:0	01-218/05:39:14.799	IEE+000/00:40:26.666
End	IEE+CDS	00000060:00:0	01-218/05:59:28.133	IEE+000/01:00:40.000
Duration		00000020:00:0	000/00:20:13.334	000/00:20:13.334

Top Label 31INGISHBR01-
Bottom Label

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

Observation Objective

To observe the Gish Bar hot spot for thermal, SO2 and 1-micron band mapping.

Data Returned

Design Detail

BTG=4.57 MB, TICS=794, FMT=MPW, LM, Gain State 2

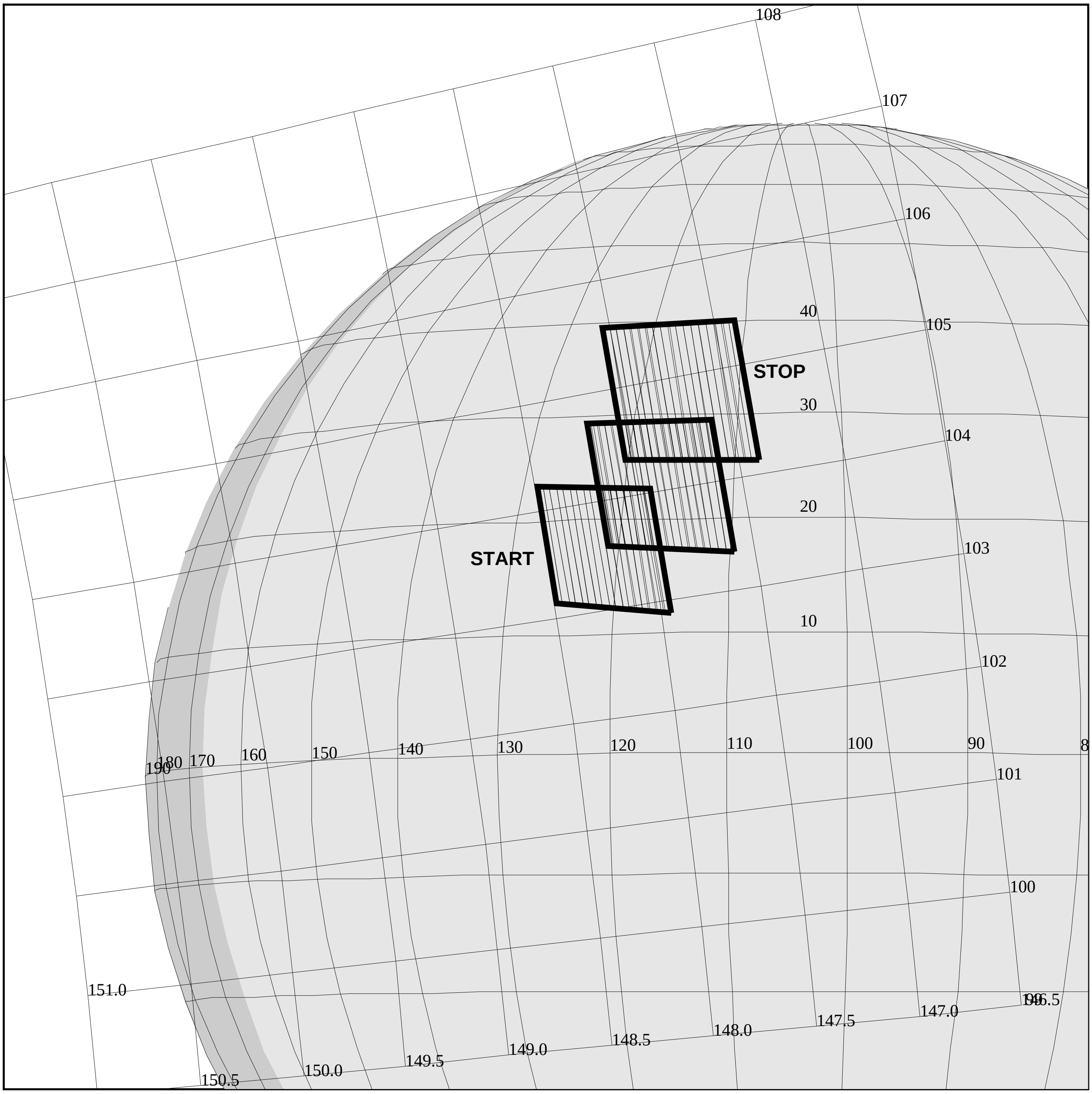
16 degrees North latitude, 91 degrees West longitude.

Two swath mosaic across the Gish Bar hot spot and surrounding terrain.

SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT

Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM408, ILM144

Galileo Activity Plan Form 12/01/00 00:00:00 rev 6/95



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

31INAMRANI01

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

FILE:P.31INAMRANI01

TARGET BODY : IO

MINI:m.31INAMRANI01

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

PERIAPSIS:

THINNING:NIM 2

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

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

OBSERVATION:31INAMRANI01

DESCRIP:IO_AMIRANI

Io Amirani Mosaic

ACTIVITY ID: 31INAMRANI01-
START TIME: 01-218/06:19:41.466

Activity ID: Orbit 31 Target I Inst N OAPEL AMRANI SeqNo 01 -

Title	Io Amirani Mosaic			Instrument	NIMS
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS	Working Group	SWG

Time System CDS Load ID Calendar Date 08/06/01 Week 32

Start	IEE+CDS	00000080:00:0	01-218/06:19:41.466	IEE+000/01:20:53.333
End	IEE+CDS	00000097:00:0	01-218/06:36:52.799	IEE+000/01:38:04.666
Duration		00000017:00:0	000/00:17:11.333	000/00:17:11.333

Top Label 31INAMRANI01-
Bottom Label

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

Observation Objective

To observe the Amirani hot spot and the Maui region for thermal, SO2 and 1-micron band mapping to look for changes since I27.

Data Returned

Design Detail

BTG=4.57 MB, TICS=794, FMT=MPW, LM, Gain State 2

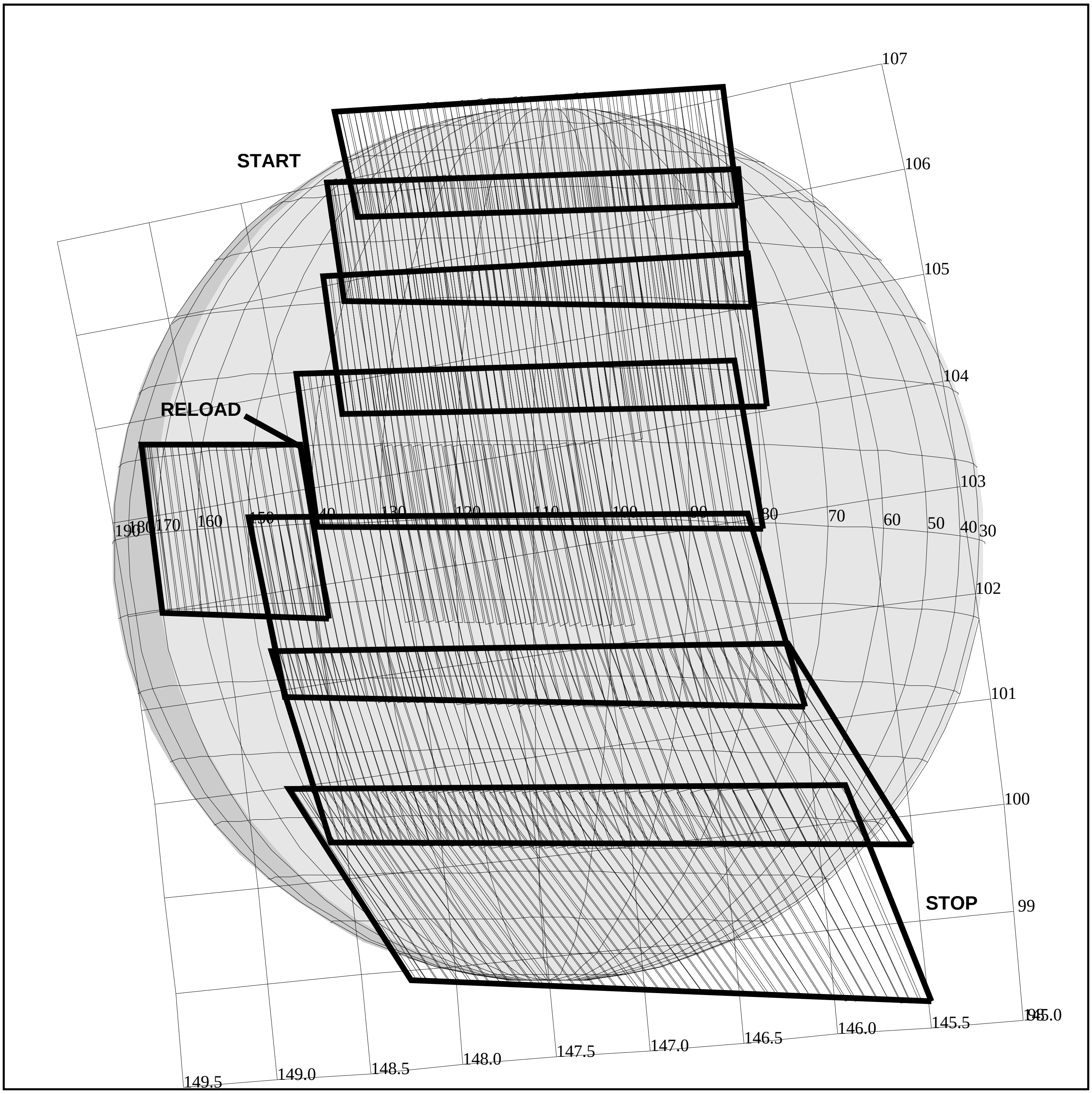
25 degrees North latitude, 115 degrees West longitude.

Three swath mosaic across the Amirani hot spot and surrounding terrain. Maui and Dusura hot spots also observed.

SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT

Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM408, ILM36
Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM408, ILM108
Fixed Long Map (XLM), Gain 2, Grating Start 0, MPW, ILM408, ILM144

Galileo Activity Plan Form 12/01/00 00:00:00 rev 6/95




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

31INREGION01

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

FILE:P.31INREGION01

TARGET BODY : IO

MINI:m.31INREGION01

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

PERIAPSIS:

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

OBSERVATION:31INREGION01

THINNING:NIM 2

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

DESCRIP:IO_REGION_01

Io Regional Map		ACTIVITY ID:	31INREGION01-
		START TIME:	01-218/06:50:01.466

Activity ID: Orbit 31 Target I Inst N OAPEL REGION SeqNo 01 -

Title	Io Regional Map			Instrument	NIMS
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	08/06/01	Week 32

Start	IEE+CDS	00000110:00:0	01-218/06:50:01.466	IEE+000/01:51:13.333
End	IEE+CDS	00000144:00:0	01-218/07:24:24.133	IEE+000/02:25:36.000
Duration		00000034:00:0	000/00:34:22.667	000/00:34:22.667

Top Label   31INREGION01-
Bottom Label

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

Observation Objective

Thermal, SO2 and 1-micron band mapping on a regional scale.
This observaion encompasses the Prometheus/Emakong region as well as some new territory to assess changes since I27 and investigate the new active region detected in observations in the previous orbit.

Data Returned

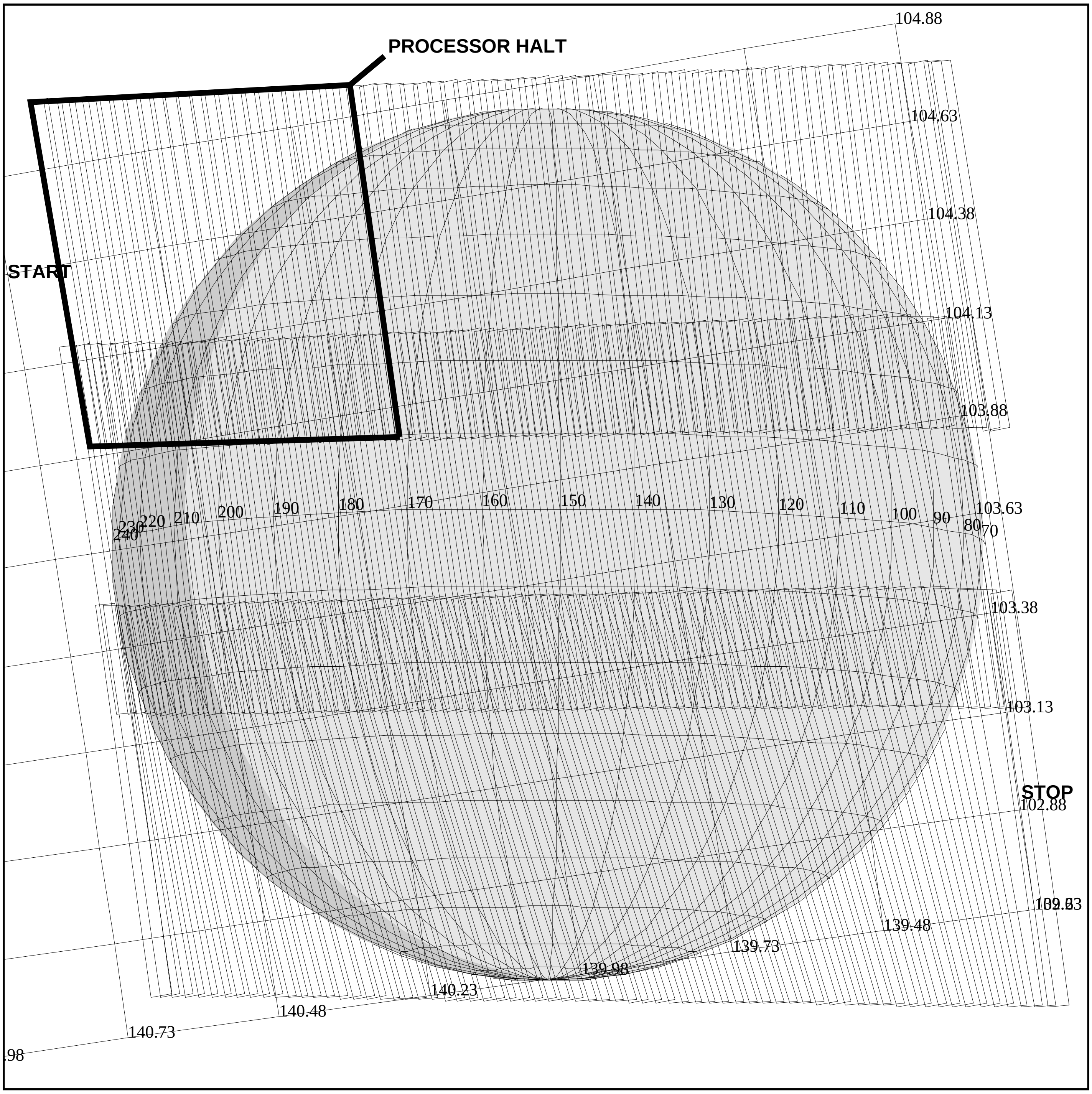
Design Detail

BTG=10.66 MB, TICS=1628, FMT=LPU, LM, Gain State 2

Disk centered at 0 North latitude, 108 degrees West longitude.

Eight swath mosaic across the central portion of the disk from pole to pole.
The fifth swath was shifted to the West to map the Prometheus region.
A second software reload was inserted in the middle of the fifth swath to protect the second half of the obseration from a software halt.
The reload was placed in a mosaic overlap region so that no spatial coverage would be lost. Record mode changed from MPW to LPU to maximize spatial coverage.
SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT

Fixed Long Map (XLM), Gain 2, Grating Start 0, LPU, ILM252, ILM36 A, C
Fixed Long Map (XLM), Gain 2, Grating Start 0, LPU, ILM252, ILM48 B, D
Fixed Long Map (XLM), Gain 2, Grating Start 0, LPU, ILM252, ILM84 I, J



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

31INREGION02

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

FILE:P.31INREGION02

TARGET BODY : IO

MINI:m.31INREGION02

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

PERIAPSIS:

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

OBSERVATION:31INREGION02

THINNING:NIM 2

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

DESCRIP:IO_REGION_02

Io Regional Map	ACTIVITY ID: 31INREGION02- START TIME: 01-218/07:24:24.133

Activity ID: Orbit 31 Target I Inst N OAPEL REGION SeqNo 02 -

Title	Io Regional Map			Instrument	NIMS
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	08/06/01	Week 32

Start	IEE+CDS	00000144:00:0	01-218/06:50:01.466	IEE+000/01:51:13.333
End	IEE+CDS	00000178:00:0	01-218/07:24:24.133	IEE+000/02:25:36.000
Duration		00000034:00:0	000/00:34:22.667	000/00:34:22.667

Top Label	31INREGION02-
Bottom Label	

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

Observation Objective

Regional map for thermal, SO2 and 1-micron band mapping.
This observaion will be used to asses surface changes from data obtained in previous orbits and search for new activity.

Data Returned until Processor Halt

Design Detail

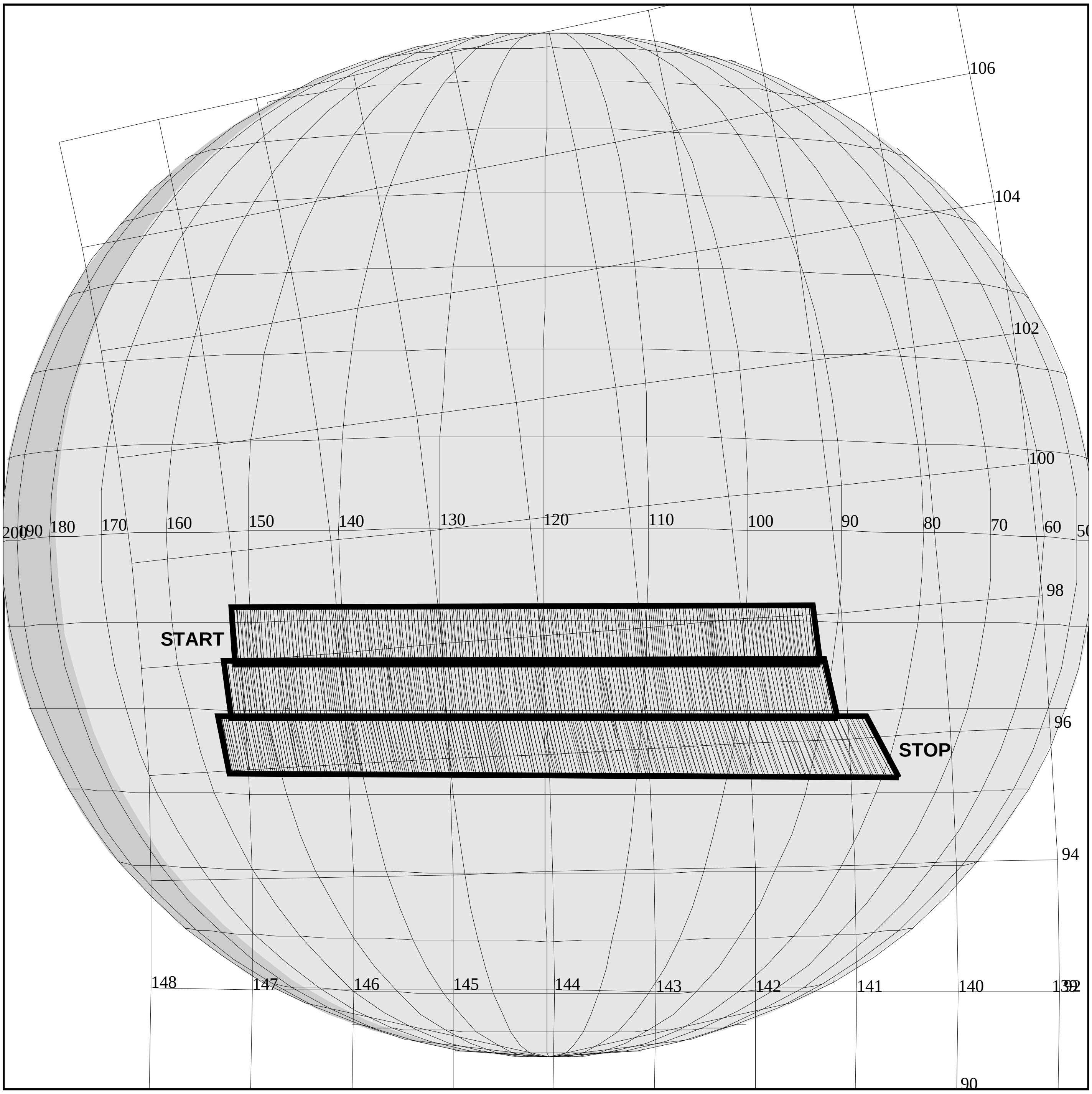
BTG=10.66 MB, TICS=1628, FMT=LPU, LM, Gain State 2

Disk centered at 0 North latitude, 151 degrees West longitude.

Three swath mosaic across the entire disk.
This observation is actually a 3-swath global mosaic.
Prometheus is in the center of the disk.

CDS BUS RESET RESULTING IN NIMS PROCESSOR HALT OCCURRED 6:28 INTO THE OBSERVATION. ONLY UPPER LEFT CORNER OF MOSAIC RETURNED.
ISUM REGION VISIBLE IN NIGHTSIDE PORTION.
SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT

Fixed Long Map (XLM), Gain 2, Grating Start 0, LPU, ILM252, ILM36A
Fixed Long Map (XLM), Gain 2, Grating Start 0, LPU, ILM252, ILM36B
Fixed Long Map (XLM), Gain 2, Grating Start 0, LPU, ILM252, ILM72



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

31JNGRSPOT01

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

FILE:P.31JNGRSPOT01

CENTRAL BODY:JUPITER III

MINI:m.31JNGRSPOT01

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

PERIAPSIS:

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

OBSERVATION:31JNGRSPOT01

THINNING:NIM   2

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

DESCRIP:JUPITER_GRS_01

Jupiter GRS Obs	ACTIVITY ID: 31JNGRSPOT01- START TIME: 01-218/16:09:10.132

Activity ID: Orbit 31 Target J Inst N OAPEL GRSPOT SeqNo 01 -

Title	Jupiter GRS Obs			Instrument	NIMS
Requestor	NIMS-AWG/M. SEGURA	Team	NIMS	Working Group	AWG

Time System CDS Load ID Calendar Date 08/06/01 Week 32

Start	JEE+CDS	00000670:00:0	01-218/16:09:10.132	JEE+000/11:17:26.666
End	JEE+CDS	00000714:00:0	01-218/16:53:39.466	JEE+000/12:01:56.000
Duration		00000044:00:0	000/00:44:29.334	000/00:44:29.334

Top Label 31JNGRSPOT01-
Bottom Label

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

Observation Objective

To determine compositional variations and to continue the study of cloud dynamics of the Great Red Spot turbulent wake region.

Data Returned

Design Detail

BTG=3.64 MB, TICS=213, FMT=LPU, SM, Gain State 2

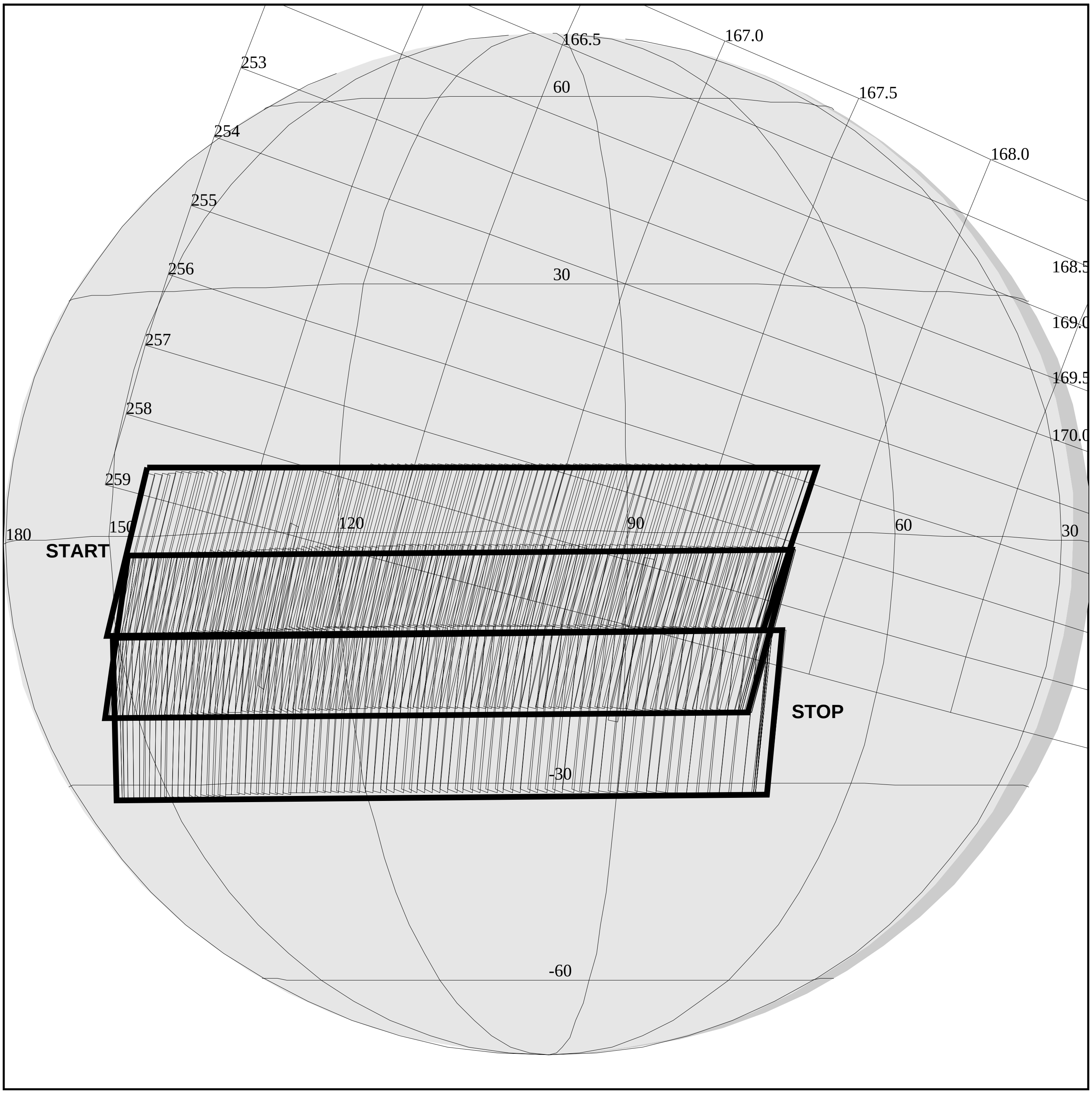
Three swath mosaic across the Great Red Spot region.

Latitude coverage from -28 to -8 degrees.
Longitude coverage 90 to 150 degrees West.

SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT

Fixed Short Map (XSM), Gain 2, Grating Start 0, LPU, JSM60, JSM54

Galileo Activity Plan Form 12/01/00 00:00:00 rev 6/95



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

31JNGRSPOT02

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

FILE:P.31JNGRSPOT02

CENTRAL BODY:JUPITER III

MINI:m.31JNGRSPOT02

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

PERIAPSIS: **THINNING:NIM 2**

START:JEE 01-218/04:51:43.466 +CDS 3070:00:0 **BODY PLOT TIME:TARGET-TIME D= 0 S= 1.000**

OBSERVATION:31JNGRSPOT02 **DESCRIP:JUPITER_GRS_02**

Jupiter GRS Obs	ACTIVITY ID: 31JNGRSPOT02- START TIME: 01-220/08:31:47.466

Activity ID: Orbit 31 Target J Inst N OAPEL GRSPOT SeqNo 02 -

Title	Jupiter GRS Obs			Instrument	NIMS
Requestor	NIMS-AWG/M. SEGURA	Team	NIMS	Working Group	AWG

Time System	CDS	Load ID		Calendar Date	08/08/01	Week 32

Start	JEE+CDS	00003066:00:0	01-220/08:31:47.466	JEE+002/03:40:04.000
End	JEE+CDS	00003110:00:0	01-220/09:16:17.799	JEE+002/04:24:33.333
Duration		00000044:00:0	000/00:44:29.333	000/00:44:29.333

Top Label	31JNGRSPOT02-
Bottom Label	

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

Observation Objective

To determine compositional variations and to continue the study of cloud dynamics of the Great Red Spot turbulent wake region.

Data Returned

Design Detail

BTG=3.64 MB, TICS=213, FMT=LPU, LM, Gain State 2

Three swath mosaic across the Great Red Spot region.

Latitude coverage from -32 to +8 degrees.
Longitude coverage 70 to 140 degrees West.

SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT

Fixed Long Map (XLM), Gain 2, Grating Start 0, LPU, JLM240, JLM54

NIMS Chopper Off		ACTIVITY ID:	31NNCHOPOF01-
		START TIME:	01-220/10:04:40.066

Activity ID: Orbit 31 Target N Inst N OAPEL CHOPOF SeqNo 01 -

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

Time System	CDS	Load ID		Calendar Date	08/08/01	Week	32

Start	JEE+CDS	00000000:00:0	01-220/10:04:40.066	JEE+000/00:00:00.000
End	JEE+CDS	00000000:00:0	01-220/10:08:42.733	JEE+000/00:00:00.000
Duration		00000000:00:0	000/00:04:02.666	000/00:00:00.000

Top Label   31NNCHOPOF01-
Bottom Label

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

Observation Objective

Turn off NIMS Chopper.

Design Detail

NIMS RCT Real Time Calibration	ACTIVITY ID: 31NNRCTRLT01- START TIME: 01-238/22:00:29.700

Activity ID: Orbit 31 Target N Inst N OAPEL RCTRLT SeqNo 01 -

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

Time System	CDS	Load ID		Calendar Date	07/10/00	Week 28

Start	RTA+CDS	00000000:00:0	00-238/22:00:29.700	RTA+000/00:00:00.000
End	RTA+CDS	00000000:00:0	00-239/11:02:57.200	RTA+000/00:00:00.000
Duration		00000000:00:0	000/12:02:27.500	000/00:00:00.000

Top Label   31NNRCTRLT01-
Bottom Label

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

Observation Objective

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 RCT Heaters cannot be on while that scan platform is in use.
The RCT calibration Library Sequence has been modified to turn off
the RCT heaters before slewing to zero cone to observe.
Hence the RCT is observed as it cools, instead of at a steady temperature.

This is a GMM 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) Turn off RCT Heaters.
6) Slew to RCT (cone = 0.0), return 8 grating cycles (12 mf) in R/T
7) Slew to Dark (cone = 119.7), return 2 grating cycle (12 mf) in R/T
8) Slew to Safe (cone = 153.0)
9) Set NIMS to Safe Mode and turn off Chopper.
10) Resume Playback after using scan platform.

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