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: 20NNHRSPEC01- START TIME: 99-122/19:49:38.800

Activity ID: Orbit 20 Target N Inst N OAPEL HRSPEC 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 05/02/99 Week 70

Start	IEE-CDS 00000003:00:0	99-122/19:49:38.800	IEE-000/00:03:02.000
End	IEE-CDS 00000001:00:0	99-122/19:51:40.134	IEE-000/00:01:00.666
Duration	00000002:00:0	000/00:02:01.334	000/00:02:01.334

Top Label 20NNHRSPEC01-
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 real-time software reload

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

The NIMS C20 reload OAPELS are:
20NNHRSPEC01, 20NNECLPSE01, 20NNJUPRTS01, 20NNJUPRTS02, 20NNGRWAKE01, 20NNHOTMAP01, 20NNGRWAKE03, 20NNHOTMAP02, 20NNJUPRTS03, 20NNCATMOS01, 20NNFEATRE02, 20NNFEATRE03, 20NNBRANCR01, 20NNGLOBAL02

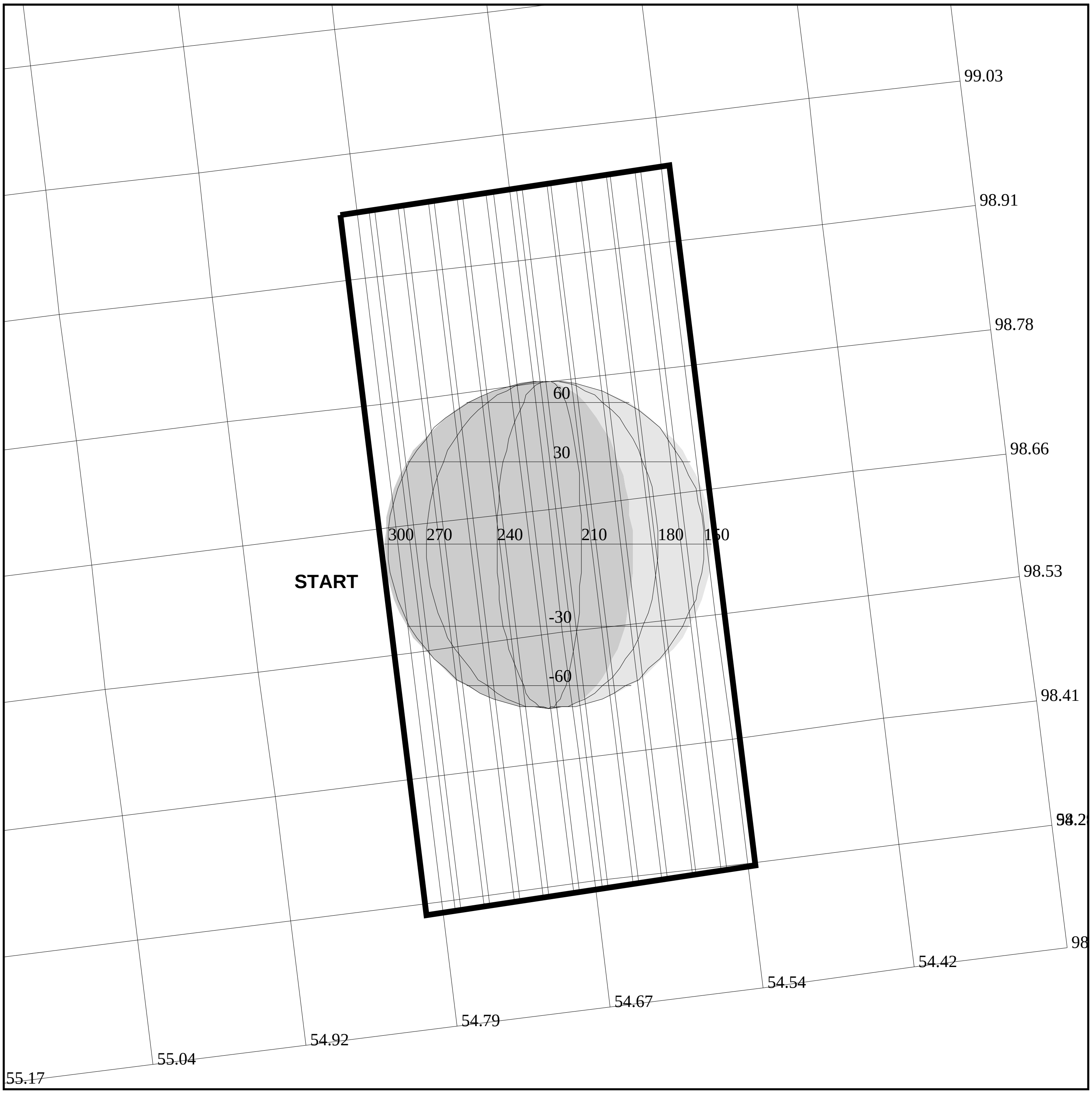
20JNGRWAKE02, 20CNFEATRE01 did not have reloads.

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 03/29/99 12:47:00 rev 6/95



165DA:TT=   0 TMC= 1 C=   2.23 XC=   0.00 BS= 0/8198 TC= 3
A= 728 pD=   0 SR=17.450 RA50=250.81 DEC50=-24.31 cone= 54.80 clock= 98.62
117DA:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/8198
1:#s= 1 Cs=   -5.43 XCs=   0.00 Cr=   0.00 XCr=   0.00 sD=   546 rD=   2

20INHRSPEC01

DESIGN G3.2 lisac: 4/21/1999 16:22:18

FILE:P.20INHRSPEC01

TARGET BODY :   IO

MINI:m.20INHRSPEC01

S/C EPH:/DATA/NAVIO/990201-tour.NS

PERIAPSIS:

START:IEE 99-122/19:52:40.800   +CDS 4:00:0

OBSERVATION:20INHRSPEC01

THINNING:NIM   2

BODY PLOT TIME:TARGET-TIME D=   0 S= 0.300

DESCRIP:Io_Monitoring_at_High_Spec_Res

Io Monitoring at High Spectral Resolutio	ACTIVITY ID: 20INHRSPEC01*
	START TIME: 99-122/19:52:40.800

Activity ID: Orbit 20 Target I Inst N OAPEL HRSPEC SeqNo 01 *

Title	Io Monitoring at High Spectral Resolutio	Instrument	NIMS
Requestor	NIMS-SWG/R.	Team NIMS Working Group	SWG

Time System CDS Load ID Calendar Date 05/02/99 Week 70

Start	IEE+CDS 0:00:0	99-122/19:52:40.800	IEE+000/00:00:00.000
End	IEE+CDS 00000007:00:0	99-122/19:59:45.466	IEE+000/00:07:04.666
Duration	00000007:00:0	000/00:07:04.666	000/00:07:04.666

Top Label 20INHRSPEC01-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	150	Report Options	BOTH	Scan Platform	Yes
CDS Source	OAP	Spin State	DUAL	DMS	Yes

Observation Objective

Io monitoring at high spectral resolution. Phase angle is 120 degrees.
Best nightside coverage of Prometheus Hemisphere.

Data Returned

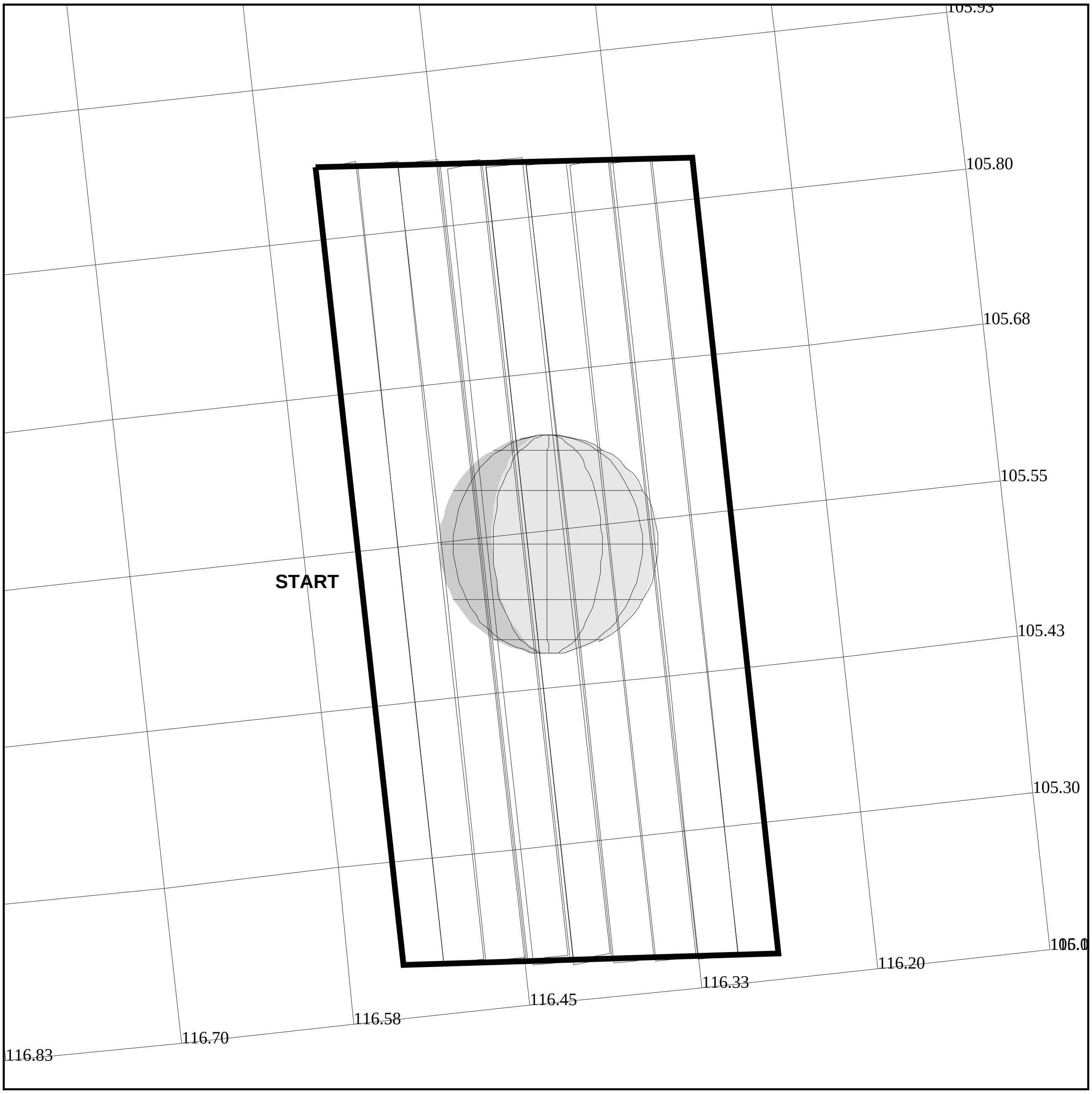
Design Detail

NIMS Resolution 400 km/pixel.
Central longitude is approximately 180 degrees West.
Global Mosaic in Long Map, 228 wavelengths, record mode is LPU.
TICS= 58, FMT= LPU, MBTG= 0.82, PPR_RA=0.060

Cone angle about 57 degrees. Expect Boom Obscuration.

Long Map (LM), Gain 4, Grating Start 0, LPU, ILMDK243AD, ILMDK228D

Galileo Activity Plan Form 03/29/99 12:47:00 rev 6/95



165DB:TT=   0 TMC= 1 C=   2.25 XC=   0.00 BS= 0/5528 TC= 3
A= 728 pD=   0 SR=17.450 RA50=317.34 DEC50=-17.16 cone=116.53 clock=105.54
117DB:#SB= 1 OR= 0.010 RR=12.000 BM=F RC= 1 BS= 0/5528
1:#s= 2 Cs=   -0.85 XCs=   0.00 Cr=   0.90 XCr=   0.00 sD=   262 rD=   20

20ENECLPSE01

TARGET G3.1 lisac: 4/16/1999 13: 4:30

FILE:P.20ENECLPSE01

TARGET BODY :   EUROPA

MINI:m.target

S/C EPH:/DATA/NAVIO/990201-tour.NS

PERIAPSIS:

START:EEE 99-123/12:37:43.466   -CDS 675:00:0

OBSERVATION:20ENECLPSE01

THINNING:NIM   2

BODY PLOT TIME:TARGET-TIME D=   0 S= 0.200

DESCRIP:Europa_Global_Observation_01

Europa Eclipse Obs		ACTIVITY ID:	20ENECLPSE01*
		START TIME:	99-123/01:11:10.800

Activity ID: Orbit 20 Target E Inst N OAPEL ECLPSE SeqNo 01 *

Title	Europa Eclipse Obs			Instrument	NIMS
Requestor	NIMS-SWG/R. CARLSON	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID	Calendar Date	05/03/99	Week 70

Start	EEE-CDS 00000679:00:0	99-123/01:11:10.800	EEE-000/11:26:32.666
End	EEE-CDS 00000672:00:0	99-123/01:18:15.466	EEE-000/11:19:28.000
Duration	00000007:00:0	000/00:07:04.666	000/00:07:04.666

Top Label   20ENECLPSE01-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	150	Report Options	BOTH	Scan Platform	Yes
CDS Source	OAP	Spin State	DUAL	DMS	Yes

Observation Objective

20ENECLIPSE01 is designed to detect subtle emission features from Europa's atmosphere or surface. These are best seen during eclipse, in the absence of solar illumination of the body.

Data Returned

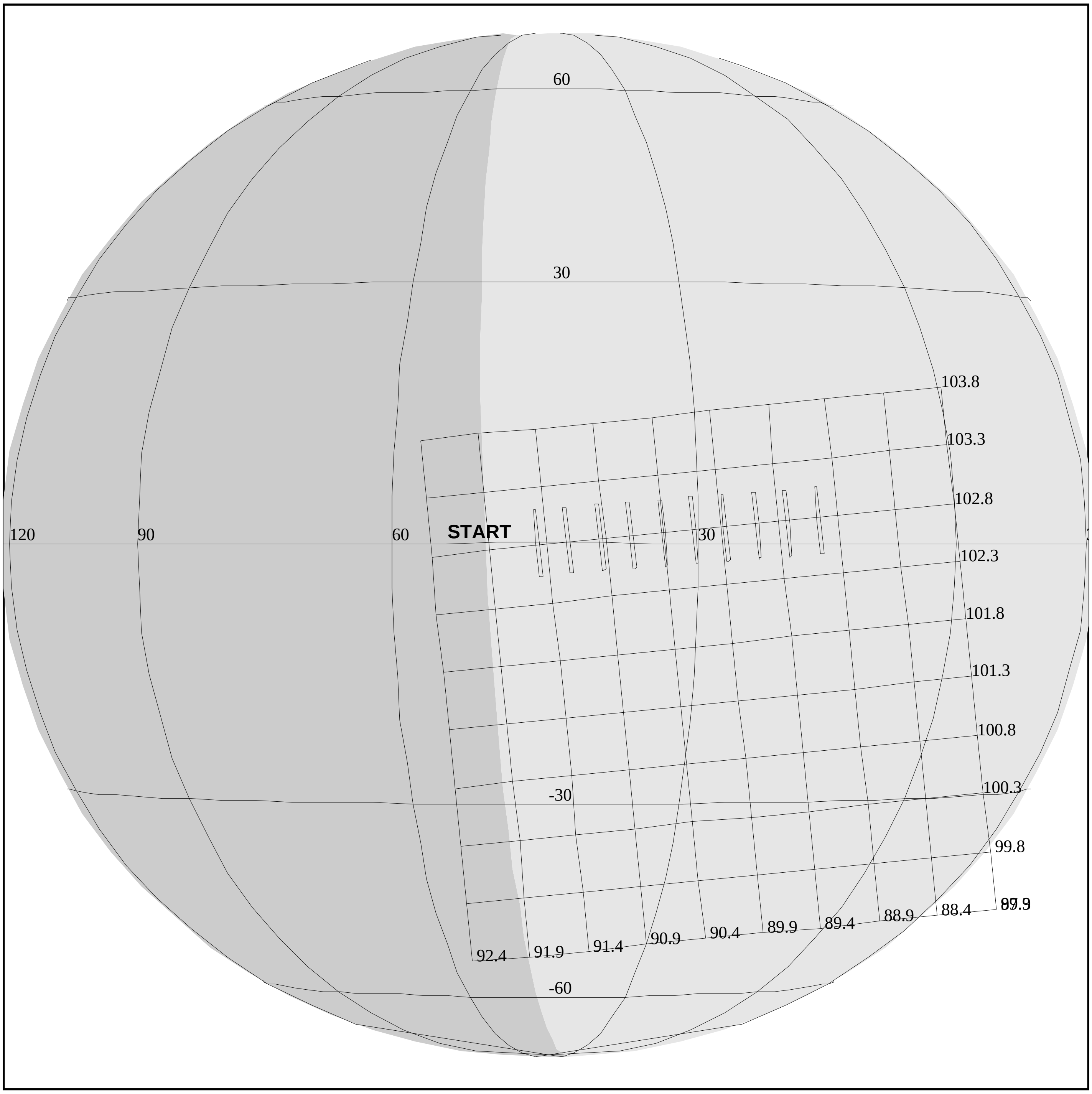
Design Detail

NIMS Mode = LM Record Mode = MPW Gain State = 4 Grating position = 0

A NIMS OPCAL is performed at the end of this observation.

Long Map (LM), Gain 4, Grating Start 0, MPW, ELM442, ELM360
Long Map (LM), Gain 4, Grating Start 0, MPW, PCT252, OPCAL48

Galileo Activity Plan Form   03/29/99 12:47:00   rev 6/95



165DH:TT= 0 TMC= 1 C= 0.00 XC= 0.00 BS= 0/1564 TC= 1(0 46)
A= 728 pD= 1638 SR=17.450 RA50=291.34 DEC50=-23.45 cone= 91.52 clock=102.87
117DH:#SB= 1 OR= 0.060 RR=12.000 BM=F RC= 1 BS= 0/1564
1:#s= 1 Cs= -36.00 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 1820 rD= 40

20JNJUPRTS01

TARGET G3.1 lisac: 4/16/1999 13: 4:30

FILE:P.20JNJUPRTS01

CENTRAL BODY:JUPITER

MINI:m.target

S/C EPH:/DATA/NAVIO/990201-tour.NS

PERIAPSIS:

START:JEE 99-123/17:00:36.800 -CDS 737:00:0

OBSERVATION:20JNJUPRTS01

THINNING:NIM 7

BODY PLOT TIME:TARGET-TIME D= 1638 S= 1.000

DESCRIP:Jupiter_Realtime_Observation

Jupiter Realtime Observation	ACTIVITY ID: 20JNJUPRTS01* START TIME: 99-123/04:31:22.800

Activity ID: Orbit 20 Target J Inst N OAPEL JUPRTS SeqNo 01 *

Title	Jupiter Realtime Observation			Instrument	NIMS
Requestor	NIMS-AWG/A. OCAMPO	Team	NIMS	Working Group	AWG

Time System CDS Load ID Calendar Date 05/03/99 Week 70

Start	JEE-CDS 00000741:00:0	99-123/04:31:22.800	JEE-000/12:29:14.000
End	JEE-CDS 00000727:00:0	99-123/04:45:32.134	JEE-000/12:15:04.666
Duration	00000014:00:0	000/00:14:09.334	000/00:14:09.334

Top Label 20JNJUPRTS01*
Bottom Label

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

Observation Objective

Search for Jupiter composition and thermal variations over time.
FREE_RTS = 0.16 Mbits

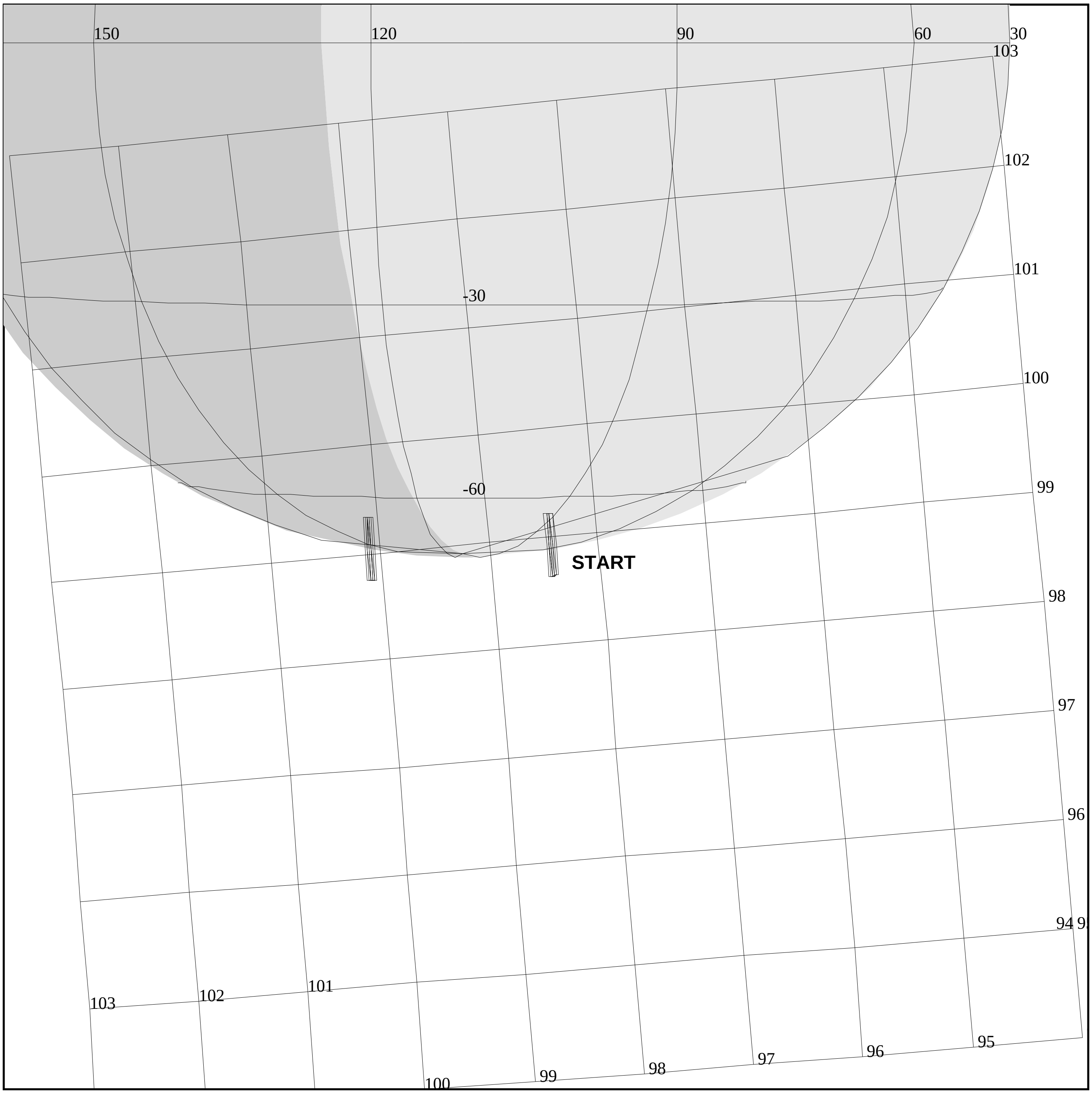
Data Returned

Design Detail

Long map. One scan, ten RIMS long.
Equator - Nyquist sampling not necessary.
Longitude - not dependent. No overlap in FOV.

Mirror Blocked (1B,1B) (11011,11011)

Long Map (LM), Gain 2, Grating Start 0, R/T, JLM408



165DI:TT= 0 TMC= 1 C= 0.00 XC= 0.00 BS= 0/3586 TC= 1(-75 77)
A= 728 pD= 1810 SR=17.450 RA50=299.40 DEC50=-26.65 cone= 98.46 clock= 98.93
117DI:#SB= 1 OR= 0.060 RR=12.000 BM=F RC= 1 BS= 0/3586
1:#s= 2 Cs= 0.00 XCs= 0.00 Cr= 30.00 XCr= 2.00 sD= 870 rD= 36

20JNJUPRTS02

TARGET G3.1 lisac: 4/16/1999 13: 4:30

FILE:P.20JNJUPRTS02

CENTRAL BODY:JUPITER

MINI:m.target

S/C EPH:/DATA/NAVIO/990201-tour.NS

PERIAPSIS: **THINNING:NIM 7**

START:JEE 99-123/17:00:36.800 -CDS 616:00:0 **BODY PLOT TIME:TARGET-TIME D= 1810 S= 1.000**

OBSERVATION:20JNJUPRTS02 **DESCRIP:Jupiter_Realtime_Observation**

Jupiter Realtime Observation	ACTIVITY ID: 20JNJUPRTS02* START TIME: 99-123/06:33:43.467

Activity ID: Orbit 20 Target J Inst N OAPEL JUPRTS SeqNo 02 *

Title	Jupiter Realtime Observation			Instrument	NIMS
Requestor	NIMS-AWG/A. OCAMPO	Team	NIMS	Working Group	AWG

Time System	CDS	Load ID		Calendar Date	05/03/99	Week	70

Start	JEE-CDS 00000620:00:0	99-123/06:33:43.467	JEE-000/10:26:53.333
End	JEE-CDS 00000606:00:0	99-123/06:47:52.800	JEE-000/10:12:44.000
Duration	00000014:00:0	000/00:14:09.333	000/00:14:09.333

Top Label 20JNJUPRTS02*
Bottom Label

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

Observation Objective

Search for Jupiter South Aurora composition and height.
FREE_RTS = 0.16 Mbits

Data Returned

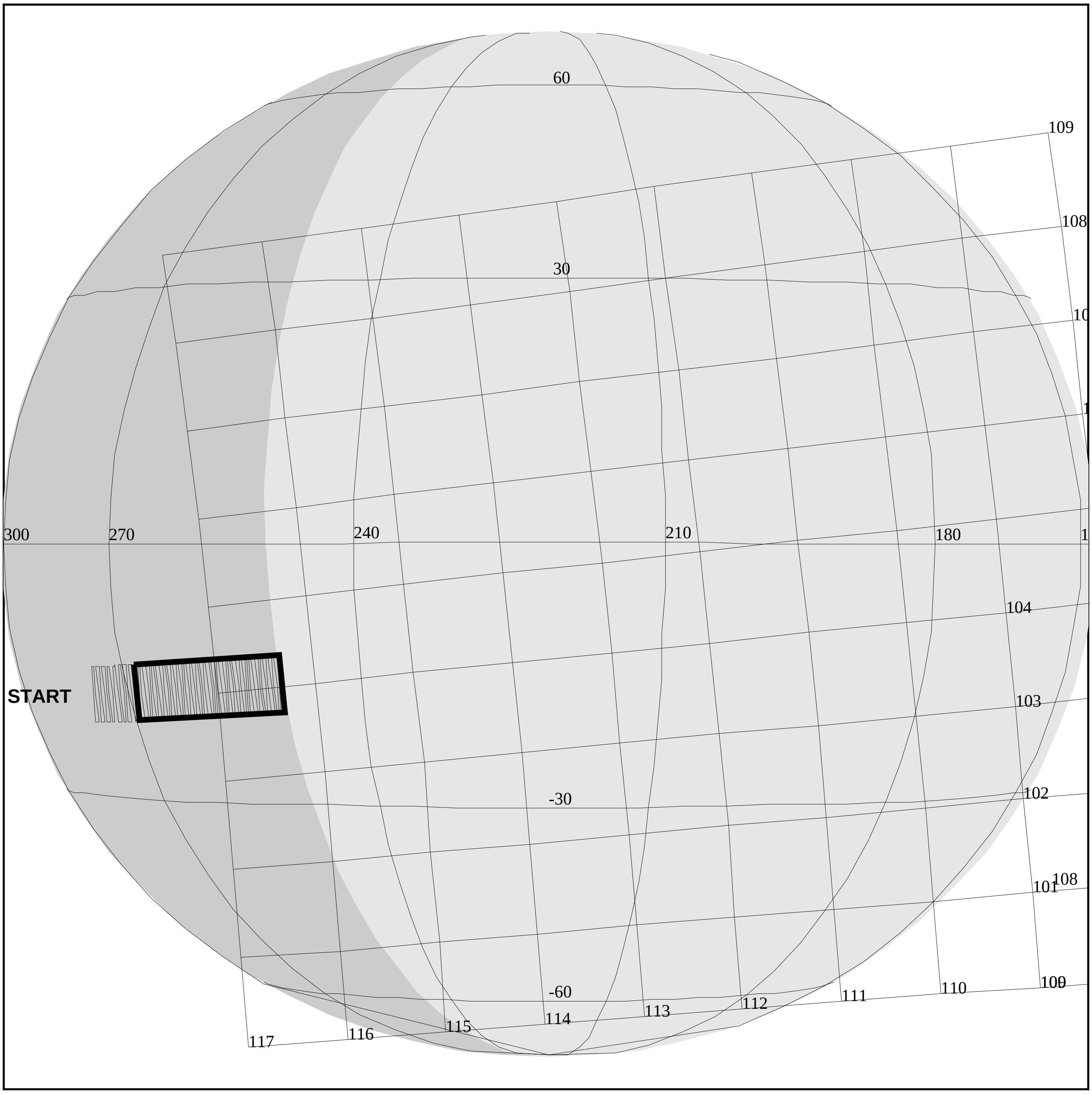
Design Detail

Long map. Three scans, each three RIMS long.
Target to 35 degrees North latitude for first scan.
No scan overlap; Nyquist sampling not necessary - lit surface only.
Not longitudinal dependent. No overlap in FOV.
NIMS R/T only returns every seventh FOV.

Mirror Blocked (13,19) (10011,11001)

Long Map (LM), Gain 2, Grating Start 0, R/T, JLM204

Galileo Activity Plan Form 03/29/99 12:47:01 rev 6/95



165DC:TT= 0 TMC= 1 C= 16.00 XC= 0.00 BS= 0/0714 TC= 1(-16 261)
A= 728 pD= 0 SR=17.450 RA50=319.38 DEC50=-17.99 cone=118.23 clock=104.13
117DC:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/0714
1:#s= 1 Cs= -18.00 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 1820 rD= 40

20JNGRWAKE01

TARGET G3.1 lisac: 4/16/1999 13: 4:30

FILE:P.20JNGRWAKE01

CENTRAL BODY:JUPITER

MINI:m.target

S/C EPH:/DATA/NAVIO/990201-tour.NS

PERIAPSIS:

START:JEE 99-123/17:00:36.800 -CDS 412:00:0

OBSERVATION:20JNGRWAKE01

THINNING:NIM 2

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

DESCRIP:GRWAKE01

GRWAKE01	ACTIVITY ID: 20JNGRWAKE01-
	START TIME: 99-123/09:59:59.467

Activity ID: Orbit 20 Target J Inst N OAPEL GRWAKE SeqNo 01 -

Title	GRWAKE01			Instrument	NIMS
Requestor	NIMS-AWG/M. SEGURA	Team	NIMS	Working Group	AWG

Time System	CDS	Load ID	Calendar Date	05/03/99	Week	70

Start	JEE-CDS 00000416:00:0	99-123/09:59:59.467	JEE-000/07:00:37.333
End	JEE-CDS 00000397:00:0	99-123/10:19:12.134	JEE-000/06:41:24.666
Duration	00000019:00:0	000/00:19:12.667	000/00:19:12.667

Top Label 20JNGRWAKE01-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	0	Report Options	BOTH	Scan Platform	Yes
CDS Source	OAP	Spin State	DUAL	DMS	Yes

Observation Objective

The turbulent wake region downstream of the Great Red Spot is observed at night in this OAPEL. The thermal spectrum will be analyzed to constrain (1) cloud opacity, (2) relative humidity of water and ammonia, and (3) abundance of trace disequilibrium species (phosphine and germaine). Together, these measurements will allow an increased understanding of both local meteorology and regional dynamics in this unusually disturbed region of the planet. A contiguous spectral map of the 4-5.2 um region is obtained, in longmap mode.

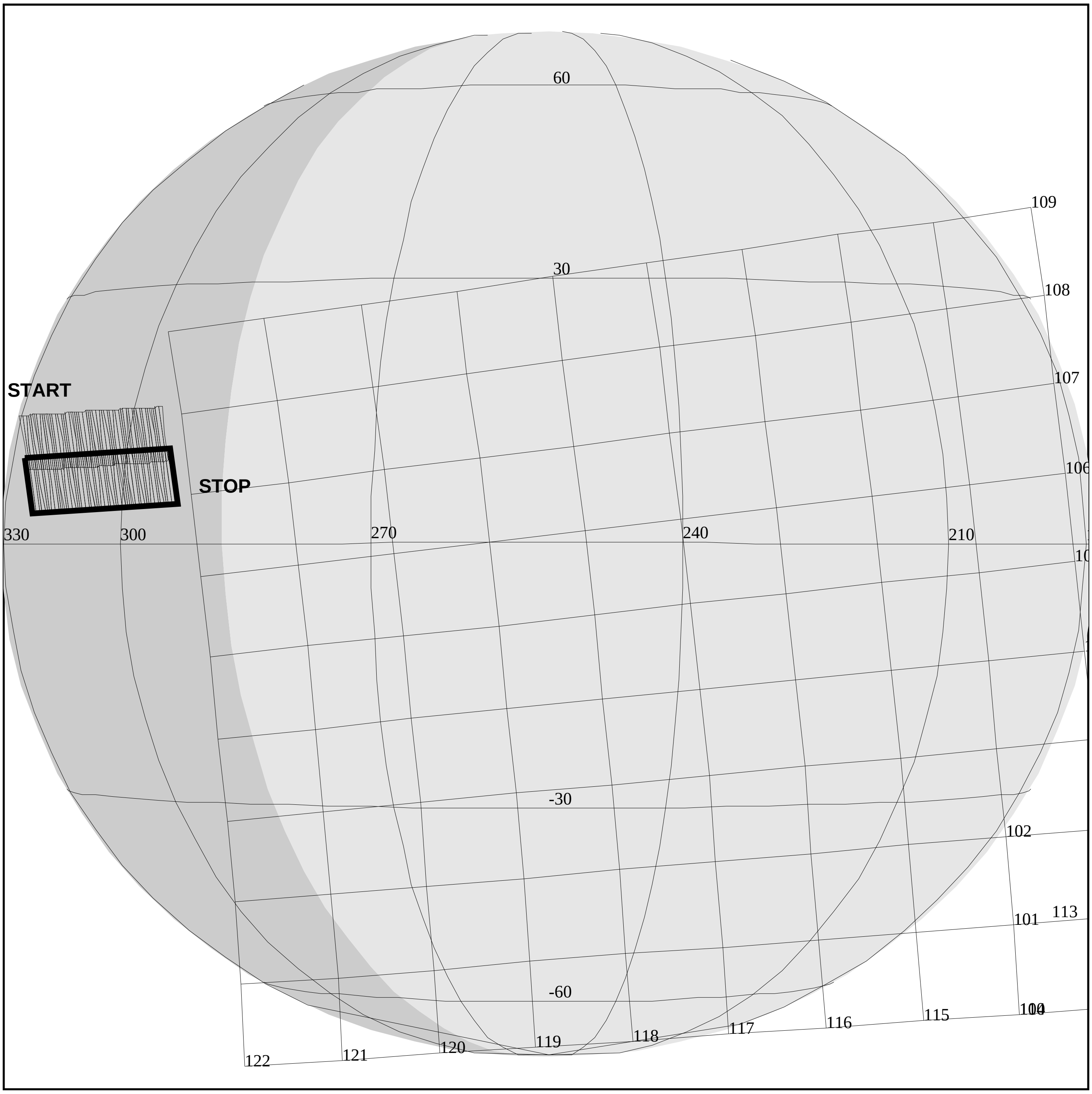
Data Returned

Design Detail

CSMOS PA_TIME: JEE-CDS 412:00:0
Duration: 10 RIMs
Centered at -16 degrees South Latitude, 270 degrees West Longitude.
This is a night-time observation. Long Map mode.
Gain state: 4
Send down 80 wavelengths from 4 - 5.2 um.

Long Map (LM), Gain 4, Grating Start 0, LPU, JHT253A, JHT100A

Galileo Activity Plan Form 03/29/99 12:47:01 rev 6/95



165DD:TT= 0 TMC= 1 C= 3.00 XC= 7.50 BS= 0/1634 TC= 1(7 315)
A= 728 pD= 0 SR=17.450 RA50=324.06 DEC50=-13.60 cone=123.64 clock=107.89
117DD:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/1634
1:#s= 2 Cs= -13.40 XCs= 0.00 Cr= 25.00 XCr= -6.00 sD= 1344 rD= 40

20JNHOTMAP01

TARGET G3.1 lisac: 4/16/1999 13: 4:30

FILE:P.20JNHOTMAP01

CENTRAL BODY:JUPITER

MINI:m.target

S/C EPH:/DATA/NAVIO/990201-tour.NS

PERIAPSIS:

START:JEE 99-123/17:00:36.800 -CDS 352:00:0

OBSERVATION:20JNHOTMAP01

THINNING:NIM 1

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

DESCRIP:Jupiter_Hot_Map

NIMS Jupiter HotMap	ACTIVITY ID: 20JNHOTMAP01-
	START TIME: 99-123/11:00:39.467

Activity ID: Orbit 20 Target J Inst N OAPEL HOTMAP SeqNo 01 -

Title	NIMS Jupiter HotMap			Instrument	NIMS
Requestor	NIMS-AWG/K. BAINES	Team	NIMS	Working Group	AWG

Time System CDS Load ID Calendar Date 05/03/99 Week 70

Start	JEE-CDS 00000356:00:0	99-123/11:00:39.467	JEE-000/05:59:57.333
End	JEE-CDS 00000337:00:0	99-123/11:19:52.134	JEE-000/05:40:44.666
Duration	00000019:00:0	000/00:19:12.667	000/00:19:12.667

Top Label 20JNHOTMAP01-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	150	Report Options	BOTH	Scan Platform	Yes
CDS Source	OAP	Spin State	DUAL	DMS	Yes

Observation Objective

The hotspot region observed in E19 is observed again at nighttime to look for temporal changes. The thermal spectrum will be analyzed to constrain (1) cloud opacity, (2) relative humidity of water and ammonia, and (3) abundance of trace disequilibrium species (phosphine and germane). Together, these measurements will allow an increased understanding of both local meteorology and regional dynamics in these unusually 5-micron-bright, nearly cloud-free regions of purported downdrafts. As well, nearby plumes of purported updraft material may be observed and studied with this same spectral map. A contiguous spectral map of the 4-5.2 um region is obtained, in longmap mode.

Data Returned

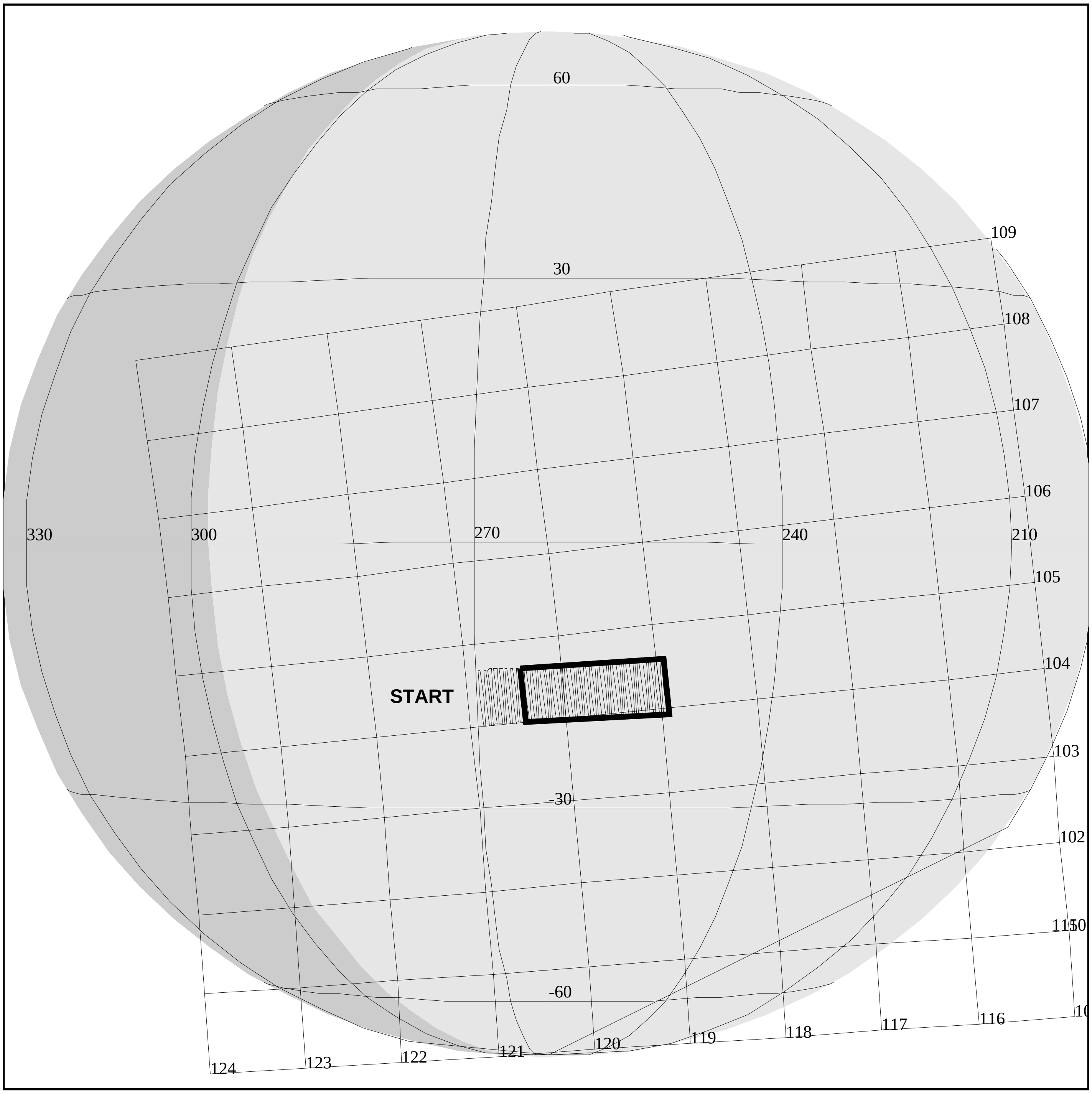
Design Detail

CSMOS PA_TIME: JEE-CDS 352:00:0
Duration: About 15 RIMs
Centered at +7 degrees North Latitude, 315 degrees West Longitude.
This is a night-time observation. Long Map mode.
Gain state 4. Send down 80 wavelengths from 4 - 5.2 um.

Design modified so that the second swath is centered at +7 degrees N.
Only enough BTG to return 1 swath, so return the second swath.

Long Map (LM), Gain 4, Grating Start 0, LPU, JHT253A, JHT100A

Galileo Activity Plan Form 03/29/99 12:47:01 rev 6/95



165DE:TT= 0 TMC= 1 C= 16.00 XC= 0.00 BS= 0/5092 TC= 1(-16 261)
A= 728 pD= 0 SR=17.450 RA50=322.02 DEC50=-17.17 cone=120.87 clock=104.35
117DE:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/5092
1:#s= 1 Cs= -18.00 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 1820 rD= 40

20JNGRWAKE02

TARGET G3.1 lisac: 4/16/1999 13: 4:30

FILE:P.20JNGRWAKE02

CENTRAL BODY:JUPITER

MINI:m.target

S/C EPH:/DATA/NAVIO/990201-tour.NS

PERIAPSIS:

START:JEE 99-123/17:00:36.800 -CDS 333:00:0

OBSERVATION:20JNGRWAKE02

THINNING:NIM 2

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

DESCRIP:GRWAKE02

GRWAKE02

ACTIVITY ID: 20JNGRWAKE02-
START TIME: 99-123/11:19:52.134

Activity ID: Orbit 20 Target J Inst N OAPEL GRWAKE SeqNo 02 -

Title	GRWAKE02			Instrument	NIMS
Requestor	NIMS-AWG/M. SEGURA	Team	NIMS	Working Group	AWG

Time System CDS Load ID Calendar Date 05/03/99 Week 70

Start	JEE-CDS 00000337:00:0	99-123/11:19:52.134	JEE-000/05:40:44.666
End	JEE-CDS 00000318:00:0	99-123/11:39:04.800	JEE-000/05:21:32.000
Duration	00000019:00:0	000/00:19:12.666	000/00:19:12.666

Top Label 20JNGRWAKE02-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	0	Report Options	BOTH	Scan Platform	Yes
CDS Source	OAP	Spin State	DUAL	DMS	Yes

Observation Objective

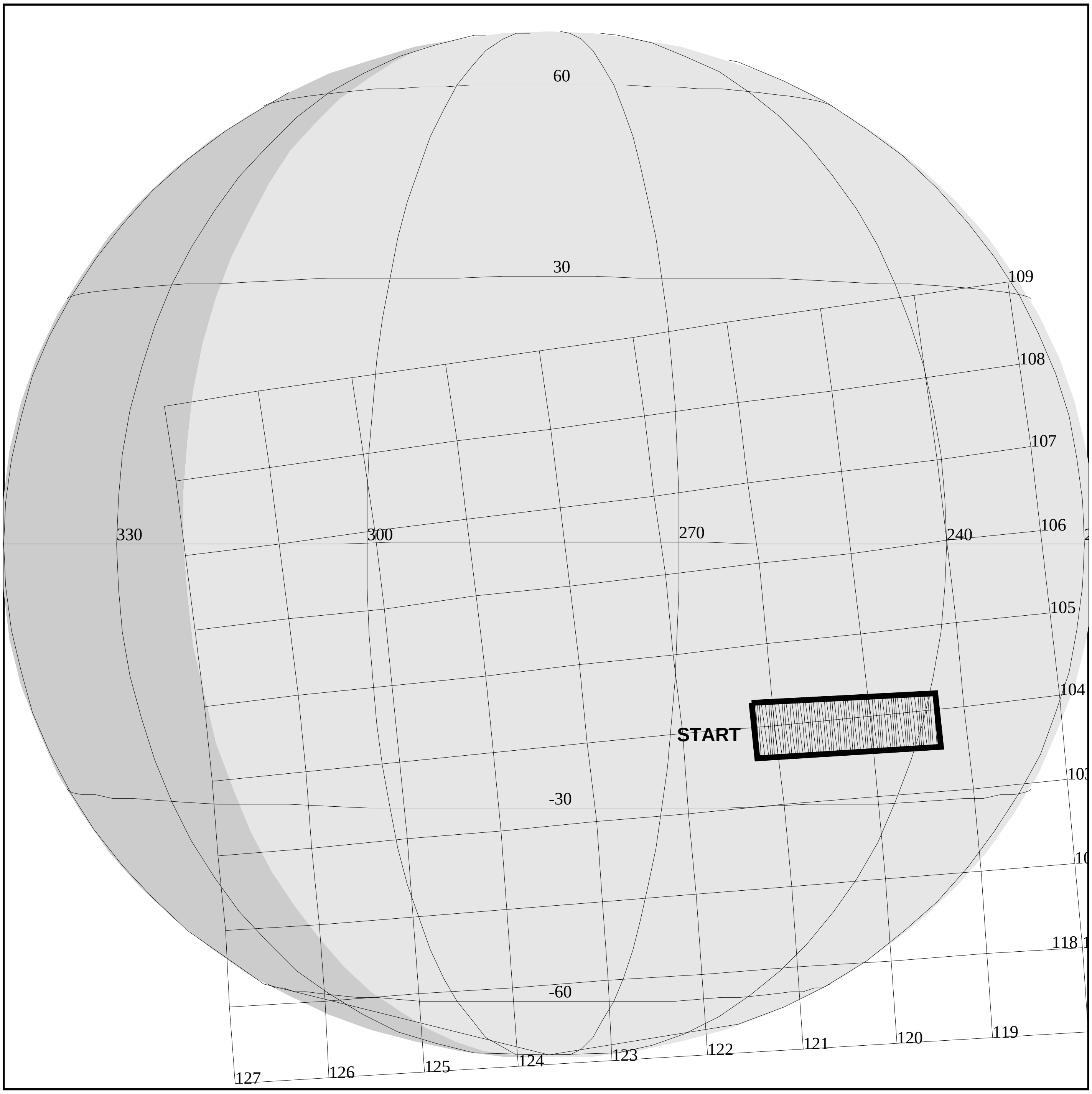
The turbulent wake region downstream of the Great Red Spot is observed during daylight near minimum airmass. The reflected spectrum will be analyzed to constrain (1) microphysical cloud properties, such as particle size and wavelength-dependent single-scattering albedo - key clues for the determination of particle composition, (2) the vertical distribution of clouds and hazes materials, and their spatial variability - clues to the nature of vertical dynamics and wave motions, and (3) the spatial variability of ammonia abundances, the primary condensate materials forming the uppermost clouds. Sub-spectra are sent back which include the most diagnostic methane, ammonia, and hydrogen absorption wavelengths, as well as nearby pseudo-continua.

Data Returned

Design Detail

CSMOS PA_TIME: JEE-CDS 333:00:0
Duration: 10 RIMs
Centered at -16 degrees South Latitude, 270 degrees West Longitude.
A near-zenith view during daytime. Long map mode.
Gain state 2. Record at least 253 wavelengths to try to send down

Long Map (LM), Gain 2, Grating Start 0, LPU, JSB253C, JSB140C



165DF:TT= 0 TMC= 1 C= 16.00 XC= 0.00 BS= 0/1826 TC= 1(-20 251)
A= 728 pD= 0 SR=17.450 RA50=322.45 DEC50=-17.41 cone=121.21 clock=103.95
117DF:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/1826
1:#s= 1 Cs= -18.00 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 1820 rD= 40

20JNGRWAKE03

TARGET G3.1 lisac: 4/16/1999 13: 4:30

FILE:P.20JNGRWAKE03

CENTRAL BODY:JUPITER

MINI:m.target

S/C EPH:/DATA/NAVIO/990201-tour.NS

PERIAPSIS:

START:JEE 99-123/17:00:36.800 -CDS 296:00:0

OBSERVATION:20JNGRWAKE03

THINNING:NIM 2

BODY PLOT TIME:99-123/12:01:28.333 D= 0 S= 1.000

DESCRIP:GRWAKE03

GRWAKE03		ACTIVITY ID:	20JNGRWAKE03-
		START TIME:	99-123/12:05:22.134

Activity ID: Orbit 20 Target J Inst N OAPEL GRWAKE SeqNo 03 -

Title	GRWAKE03			Instrument	NIMS
Requestor	NIMS-AWG/M. SEGURA	Team	NIMS	Working Group	AWG

Time System	CDS	Load ID		Calendar Date	05/03/99	Week	70

Start	JEE-CDS 00000292:00:0	99-123/12:05:22.134	JEE-000/04:55:14.666
End	JEE-CDS 00000273:00:0	99-123/12:24:34.800	JEE-000/04:36:02.000
Duration	00000019:00:0	000/00:19:12.666	000/00:19:12.666

Top Label   20JNGRWAKE03-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	0	Report Options	BOTH	Scan Platform	Yes
CDS Source	OAP	Spin State	DUAL	DMS	Yes

Observation Objective

A cross section through the Great Red Spot (GRS) is observed, spanning the region just overlapping the south-eastern border of the wake region observed in the previous Wake #2 OAPEL and extending to near the core of the GRS. This extends the studies of aerosol microphysical properties, aerosol vertical distributions, and ammonia abundances to this largest anti-cyclonic feature on the planet. Sub-spectra are sent back which include the most diagnostic methane, ammonia, and hydrogen absorption wavelengths, as well as nearby pseudo-continua.

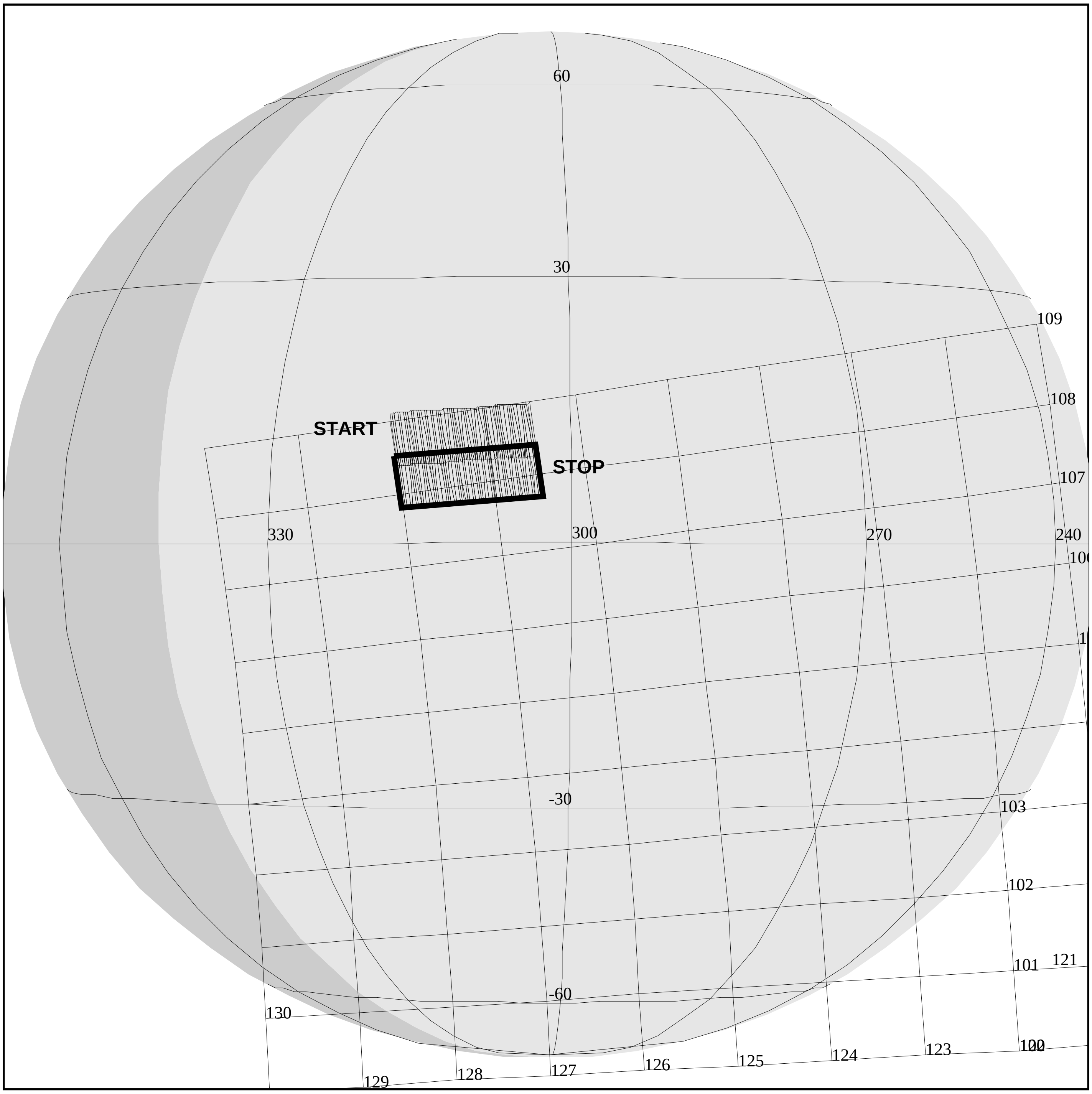
Data Returned

Design Detail

CSMOS PA_TIME: JEE-CDS 288:00:0
Duration: 10 RIMs
Centered at -16 degrees South Latitude, 270 degrees West Longitude.
A low-airmass view during daytime. Long Map mode.
Gain state 2. Record at least 253 wavelengths to try to send down.

Long Map (LM), Gain 2, Grating Start 0, LPU, JSB253C, JSB140C

Galileo Activity Plan Form   03/29/99 12:47:01   rev 6/95



165DG:TT= 0 TMC= 1 C= 3.00 XC= 7.70 BS= 0/8742 TC= 1(7 315)
A= 728 pD= 0 SR=17.450 RA50=328.25 DEC50=-11.91 cone=128.00 clock=108.75
117DG:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/8742
1:#s= 2 Cs= -13.40 XCs= 0.00 Cr= 26.50 XCr= -6.00 sD= 1344 rD= 40

20JNHOTMAP02

TARGET G3.1 lisac: 4/16/1999 13: 4:30

FILE:P.20JNHOTMAP02

CENTRAL BODY:JUPITER

MINI:m.target

S/C EPH:/DATA/NAVIO/990201-tour.NS

PERIAPSIS:

START:JEE 99-123/17:00:36.800 -CDS 258:00:0

OBSERVATION:20JNHOTMAP02

THINNING:NIM 1

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

DESCRIP:Jupiter_Hot_Map

NIMS Jupiter HotMap		ACTIVITY ID:	20JNHOTMAP02-
		START TIME:	99-123/12:35:42.134

Activity ID: Orbit 20 Target J Inst N OAPEL HOTMAP SeqNo 02 -

Title	NIMS Jupiter HotMap			Instrument	NIMS
Requestor	NIMS-AWG/K. BAINES	Team	NIMS	Working Group	AWG

Time System	CDS	Load ID		Calendar Date	05/03/99	Week	70

Start	JEE-CDS 00000262:00:0	99-123/12:35:42.134	JEE-000/04:24:54.666
End	JEE-CDS 00000243:00:0	99-123/12:54:54.800	JEE-000/04:05:42.000
Duration	00000019:00:0	000/00:19:12.666	000/00:19:12.666

Top Label	20JNHOTMAP02
Bottom Label	

Plot Key	NIMS	Type	SCI		
CDS Bytes	150	Report Options	BOTH	Scan Platform	Yes
CDS Source	OAP	Spin State	DUAL	DMS	Yes

Observation Objective

The hotspot region observed in E19 is observed again during daytime to look for temporal changes. Observations are made during daylight near minimum airmass. The reflected spectrum will be analyzed to constrain (1) microphysical cloud properties, such as particle size and wavelength-dependent single-scattering albedo - key clues for the determination of particle composition, (2) the vertical distribution of clouds and hazes materials, and their spatial variability - clues to the nature of vertical dynamics and wave motions, and (3) the spatial variability of ammonia abundances, the primary condensate materials forming the uppermost clouds. Sub-spectra are sent back which include the most diagnostic methane, ammonia, and hydrogen absorption wavelengths, as well as nearby pseudo-continua.

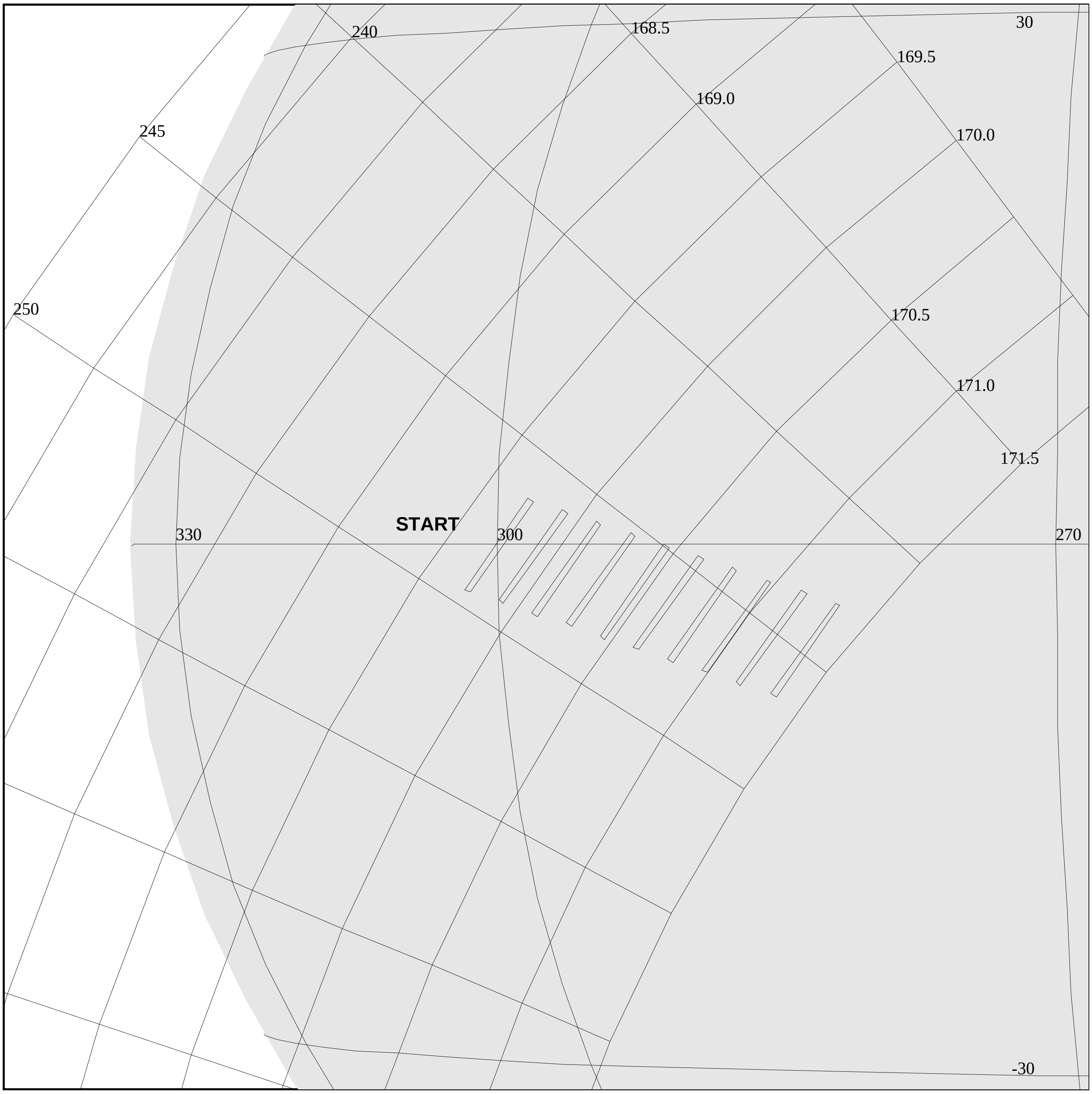
Data Returned

Design Detail

CSMOS PA_TIME: JEE-CDS 258:00:0
Duration: About 15 RIMs.
Centered at +7 degrees North Latitude, 315 degrees West Longitude.
A near-zenith view during daytime. Long Map mode.
Gain state 2. Record at least 253 wavelengths to try to send down.

Design modified so that the second swath is centered at +7 degrees N.
Only enough BTG to return 1 swath, so return the second swath.

Long Map (LM), Gain 2, Grating Start 0, LPU, JSB253C, JSB140C



165DJ:TT= 0 TMC= 1 C= 0.00 XC= 0.00 BS= 0/1218 TC= 1(0 300)
A= 728 pD= 0 SR=17.450 RA50= 23.80 DEC50= 11.78 cone=169.74 clock=247.94
117DJ:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/1218
1:#s= 1 Cs= 18.00 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 1820 rD= 40

20JNJUPRTS03

DESIGN G3.2 lisac: 4/21/1999 16:21:51

FILE:P.20JNJUPRTS03

CENTRAL BODY:JUPITER III

MINI:m.20JNJUPRTS03

S/C EPH:/DATA/NAVIO/990201-tour.NS

PERIAPSIS:

START:JEE 99-123/17:00:36.800 +CDS 360:00:0

OBSERVATION:20JNJUPRTS03

THINNING:NIM 7

BODY PLOT TIME:TARGET-TIME D= 0 S= 2.000

DESCRIP:Jupiter_Realtime_Observation

```
Jupiter Realtime Observation             ACTIVITY ID:   20JNJUPRTS03*
                                          START TIME:   99-123/23:00:34.133

Activity ID: Orbit 20  Target J  Inst N  OAPEL JUPRTS  SeqNo 03 *

Title        Jupiter Realtime Observation           Instrument       NIMS
Requestor    NIMS-AWG/A. OCAMPO        Team   NIMS  Working Group    AWG

Time System  CDS       Load ID         Calendar Date  05/03/99  Week  70

Start        JEE+CDS 00000356:00:0 99-123/23:00:34.133   JEE+000/05:59:57.333
End          JEE+CDS 00000370:00:0 99-123/23:14:43.466   JEE+000/06:14:06.666
Duration            00000014:00:0     000/00:14:09.333       000/00:14:09.333

Top Label    20JNJUPRTS03*
Bottom Label

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

Observation Objective

Search for Jupiter composition and thermal variations over time.
FREE_RTS = 0.16 Mbits

Data Returned

Design Detail

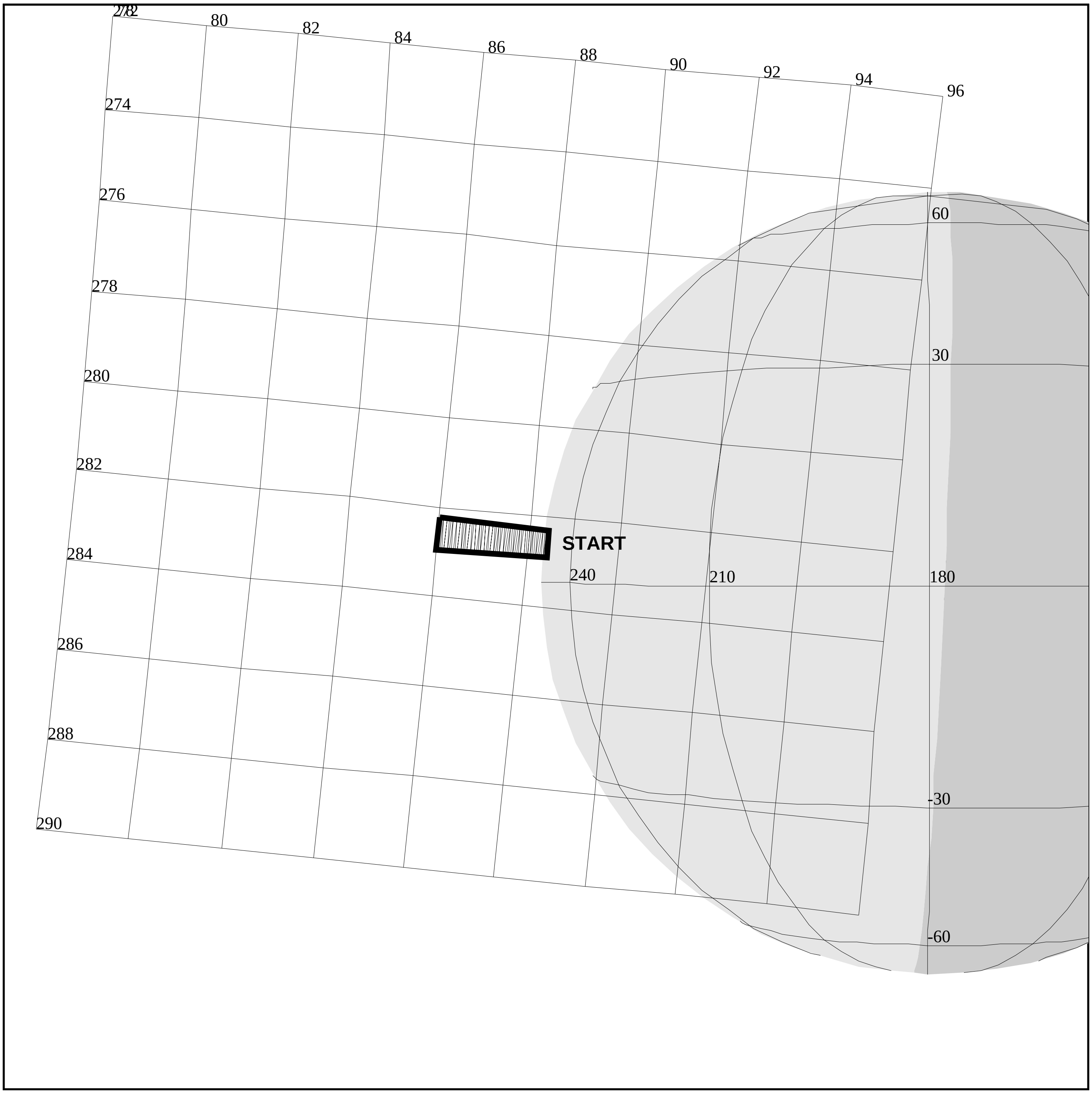
Long map. One scan, ten RIMS long.
Equator - Nyquist sampling not necessary.
Longitude - not dependent. No overlap in FOV.

Mirror Blocked (1B,1B) (11011,11011)

Observation in the Cone Pole.

Long Map (LM), Gain 2, Grating Start 0, R/T, JLM408

Galileo Activity Plan Form   03/29/99 12:47:02   rev 6/95



165DO:TT= 0 TMC= 1 C= -146.00 XC= 0.00 BS= 0/6552 TC= 3
A= 524 pD= 1810 SR= 8.000 RA50=111.40 DEC50= 23.72 cone= 88.45 clock=282.60

20CNCATMOS01

DESIGN G3.2 lisac: 4/21/1999 8:56:38

FILE:P.20CNCATMOS01

TARGET BODY : CALLISTO

MINI:m.20CNCATMOS01

S/C EPH:/DATA/NAVIO/990201-tour.NS

PERIAPSIS:

START:CEE 99-125/13:56:14.000 +CDS 31:00:0

OBSERVATION:20CNCATMOS01

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 1810 S= 0.700

DESCRIP:NIMS_CALLISTO_LIMB_DRIFT

Callisto Limb Scan

ACTIVITY ID: 20CNCATMOS01-
START TIME: 99-125/14:24:32.666

Activity ID: Orbit 20 Target C Inst N OAPEL CATMOS SeqNo 01 -

Title	Callisto Limb Scan			Instrument	NIMS
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	05/05/99	Week	70

Start	CEE+CDS 00000028:00:0	99-125/14:24:32.666	CEE+000/00:28:18.666
End	CEE+CDS 00000041:00:0	99-125/14:37:41.333	CEE+000/00:41:27.333
Duration	00000013:00:0	000/00:13:08.667	000/00:13:08.667

Top Label 20CNCATMOS01-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	0	Report Options	BOTH	Scan Platform	Yes
CDS Source	OAP	Spin State	DUAL	DMS	Yes

Observation Objective

Callisto atmospheric limbscan. Search for carbon dioxide molecules and other constituents in Callisto’s tenuous atmosphere. This observation is a view of the trailing side versus the leading side view in C10/prime mission.

Data Returned

Design Detail

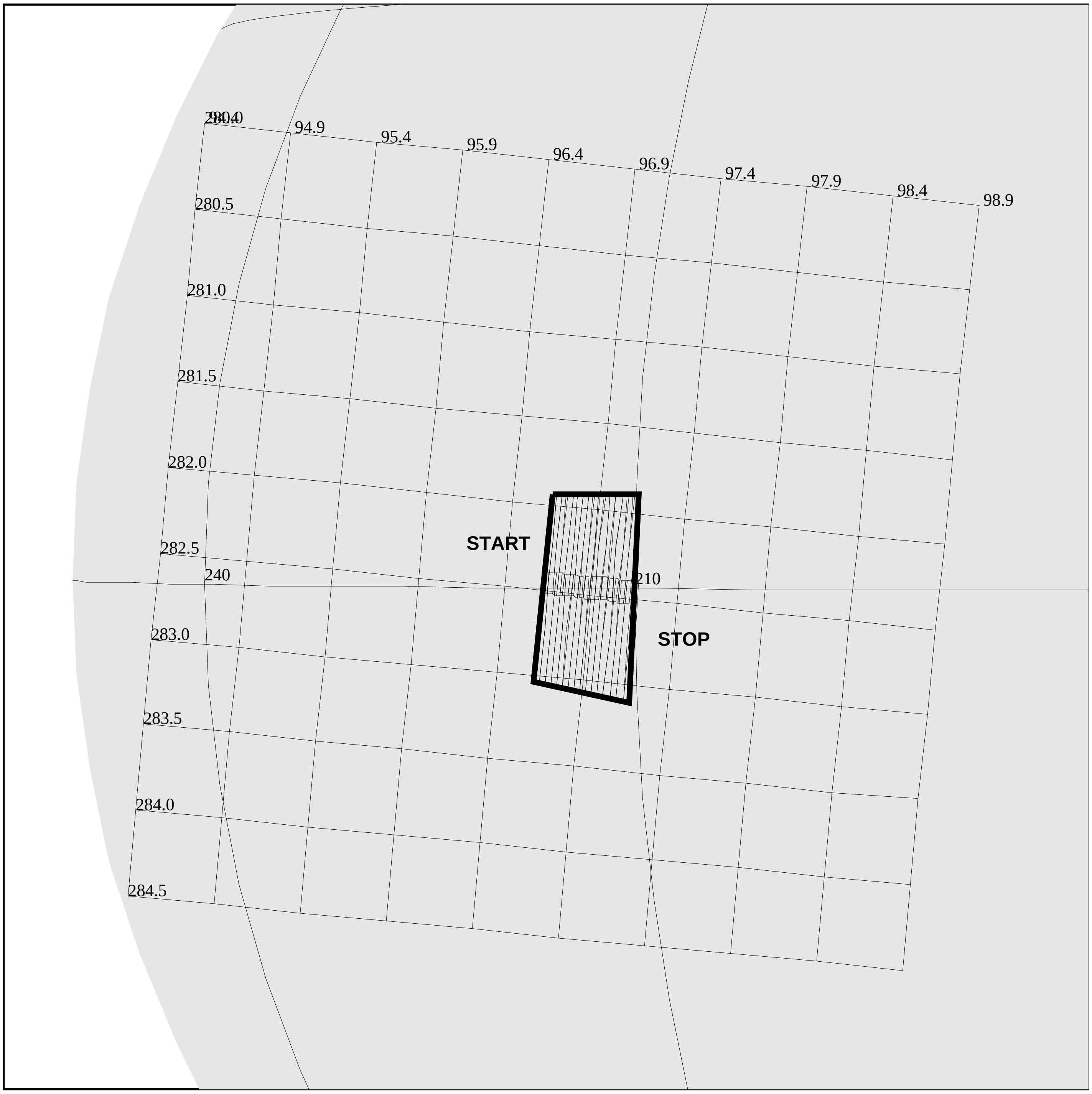
Limb Scan
3 RIMS targeting time
CSMOS duration: 10 RIMs

NOTE: An icy satellite, either Europa or Ganymede, is visible in part of the limb scan!

SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT

Long Map (LM), Gain 4, Grating Start 0, LPU, CLM247L, CLM228L

Galileo Activity Plan Form 03/29/99 12:47:02 rev 6/95



165DK:TT= 0 TMC= 1 C= -4.50 XC= -4.00 BS= 0/8554 TC= 1(0 212.5)
A= 182 pD= 1810 SR=17.450 RA50=102.44 DEC50= 24.37 cone= 96.64 clock=282.26
117DK:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/8554
1:#s= 2 Cs= 8.00 XCs= 0.00 Cr= -7.60 XCr= 8.00 sD= 806 rD= 32

20CNFEATRE01

TARGET G3.1 lisac: 4/16/1999 13: 4:30

FILE:P.20CNFEATRE01

TARGET BODY : CALLISTO

MINI:m.target

S/C EPH:/DATA/NAVIO/990201-tour.NS

PERIAPSIS:

THINNING:NIM 2

START:CEE 99-125/13:56:14.000 +CDS 42:00:0

BODY PLOT TIME:TARGET-TIME D= 1810 S= 2.000

OBSERVATION:20CNFEATRE01

DESCRIP:NIMS_CALLISTO_FEATURE

Callisto Feature		ACTIVITY ID:	20CNFEATRE01-
		START TIME:	99-125/14:37:41.333

Activity ID: Orbit 20 Target C Inst N OAPEL FEATRE SeqNo 01 -

Title	Callisto Feature			Instrument	NIMS
Requestor	NIMS-SWG/M.SEGURA	Team	NIMS	Working Group	SWG

Time System CDS Load ID Calendar Date 05/05/99 Week 70

Start	CEE+CDS 00000041:00:0	99-125/14:37:41.333	CEE+000/00:41:27.333
End	CEE+CDS 00000052:00:0	99-125/14:48:48.666	CEE+000/00:52:34.666
Duration	00000011:00:0	000/00:11:07.333	000/00:11:07.333

Top Label 20CNFEATRE01-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	150	Report Options	BOTH	Scan Platform	Yes
CDS Source	OAP	Spin State	DUAL	DMS	Yes

Observation Objective

To determine minor surface constituents on the trailing hemisphere of Callisto.
TICS=530, FMT=MPW, MBTG= 1.6, PPR_RA= 0.0

Data Returned

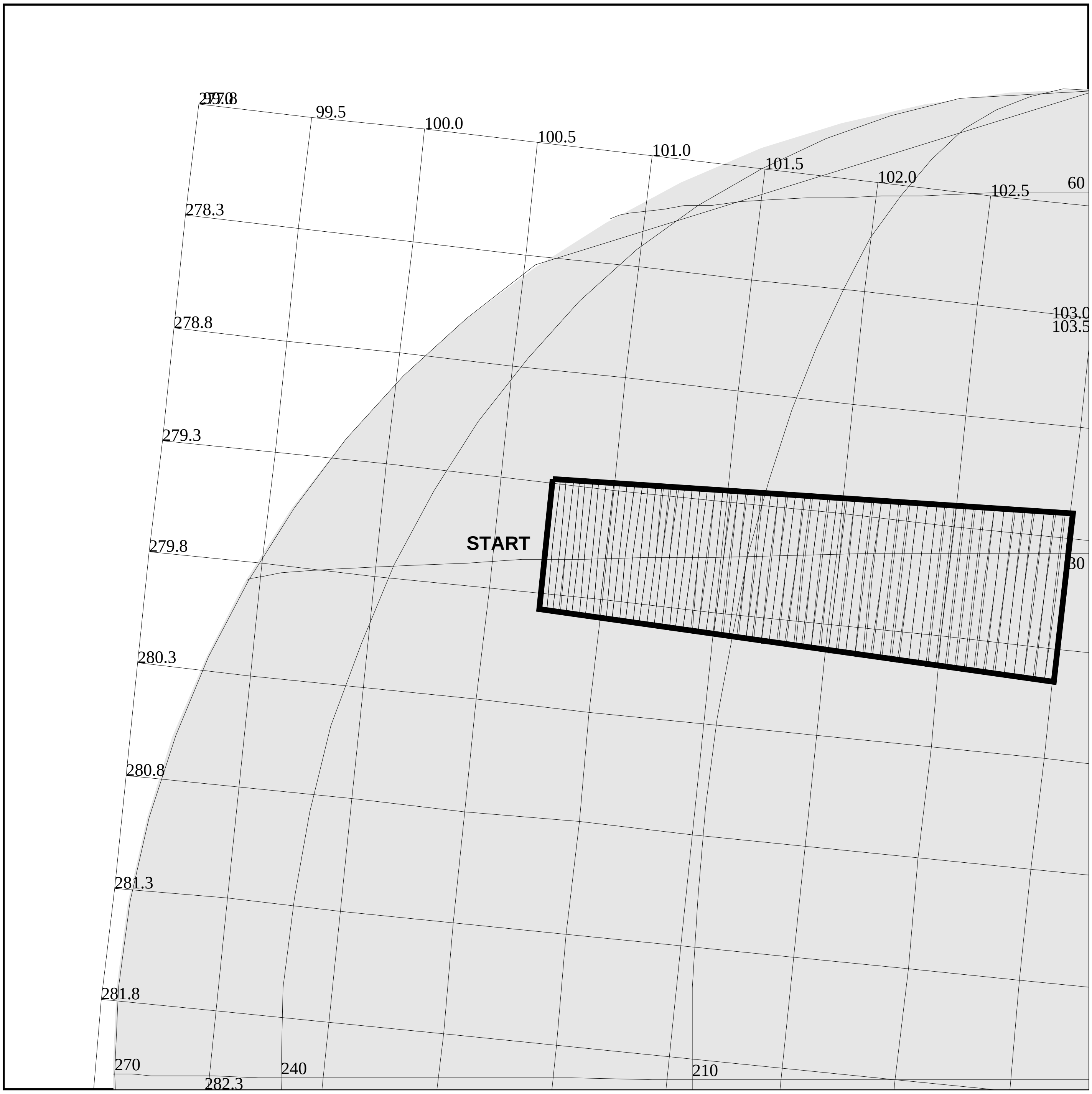
Design Detail

Instrument mode = LM.
Gain state = 4.
Nyquist sampling, two scans at equator over lit longitudes.
1 RIM targeting time
CSMOS Duration: 10 RIMs

SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT

Long Map (LM), Gain 4, Grating Start 0, MPW, CLM442, CLM228D_1

Galileo Activity Plan Form 03/29/99 12:47:02 rev 6/95



165DL:TT= 0 TMC= 1 C= -9.00 XC= 0.00 BS= 0/2194 TC= 1(30 216)
A= 728 pD= 3266 SR=17.450 RA50= 97.84 DEC50= 27.00 cone=100.75 clock=279.54
117DL:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/2194
1:#s= 1 Cs= 32.50 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 3266 rD= 2

20CNFEATRE02

TARGET G3.1 lisac: 4/16/1999 13: 4:30

FILE:P.20CNFEATRE02

TARGET BODY : CALLISTO

MINI:m.target

S/C EPH:/DATA/NAVIO/990201-tour.NS

PERIAPSIS:

START:CEE 99-125/13:56:14.000 +CDS 62:00:0

OBSERVATION:20CNFEATRE02

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 3266 S= 1.800

DESCRIP:NIMS_CALLISTO_FEATURE

Callisto Feature	ACTIVITY ID: 20CNFEATRE02-
	START TIME: 99-125/14:54:52.666

Activity ID: Orbit 20 Target C Inst N OAPEL FEATRE SeqNo 02 -

Title	Callisto Feature			Instrument	NIMS
Requestor	NIMS-SWG/M.SEGURA	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	05/05/99 Week 70

Start	CEE+CDS 00000058:00:0	99-125/14:54:52.666	CEE+000/00:58:38.666
End	CEE+CDS 00000072:00:0	99-125/15:09:02.000	CEE+000/01:12:48.000
Duration	00000014:00:0	000/00:14:09.334	000/00:14:09.334

Top Label	20CNFEATRE02-
Bottom Label	

Plot Key	NIMS	Type	SCI		
CDS Bytes	150	Report Options	BOTH	Scan Platform	Yes
CDS Source	OAP	Spin State	DUAL	DMS	Yes

Observation Objective

To determine minor surface constituents on the trailing hemisphere of Callisto.
TICS=971, FMT=MPW, MBTG= 2.0, PPR_RA= 0.0

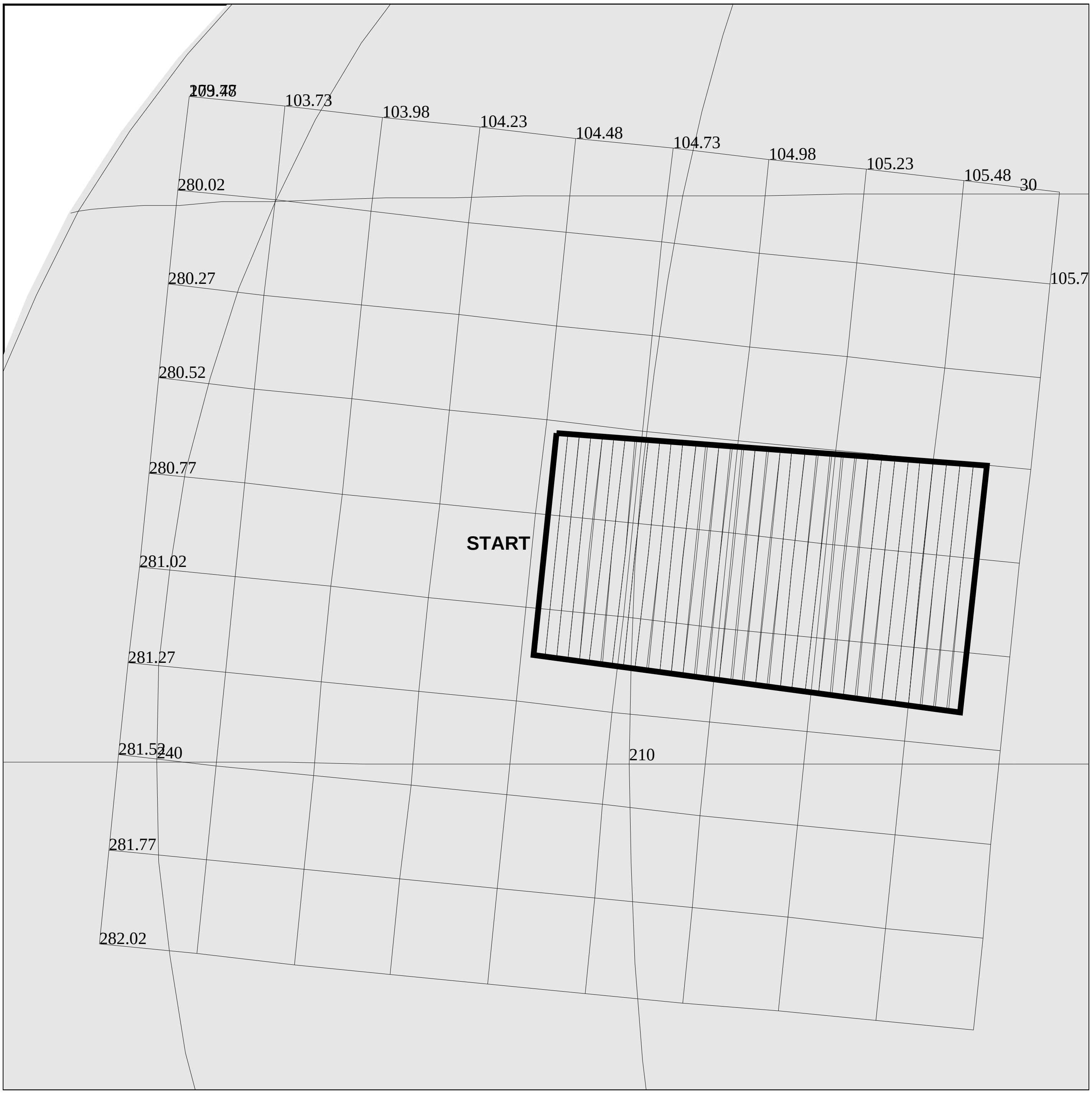
Data Returned

Design Detail

Instrument mode = LM.
Gain state = 4.
Nyquist sampling, two scans at equator over lit longitudes.
1 RIM targeting time
CSMOS Duration: 10 RIMs

SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT

Long Map (LM), Gain 4, Grating Start 0, MPW, CLM442, CLM228D_1



165DM:TT= 0 TMC= 1 C= -9.00 XC= 0.00 BS= 0/8382 TC= 1(10 204)
A= 728 pD= 1810 SR= 8.000 RA50= 93.71 DEC50= 25.54 cone=104.52 clock=280.85
117DM:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/8382
1:#s= 1 Cs= 18.00 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 1810 rD= 2

20CNFEATRE03

TARGET G3.1 lisac: 4/16/1999 13: 4:30

FILE:P.20CNFEATRE03

TARGET BODY : CALLISTO

MINI:m.target

S/C EPH:/DATA/NAVIO/990201-tour.NS

PERIAPSIS:

START:CEE 99-125/13:56:14.000 +CDS 96:00:0

OBSERVATION:20CNFEATRE03

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 1810 S= 2.000

DESCRIP:NIMS_CALLISTO_FEATURE

Callisto Feature Observation — ACTIVITY ID: 20CNFEATRE03- — START TIME: 99-125/15:29:15.333

Activity ID: Orbit 20 Target C Inst N OAPEL FEATRE SeqNo 03 -

Title	Callisto Feature Observation			Instrument	NIMS
Requestor	NIMS-SWG/M.SEGURA	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	05/05/99 Week 70

Start	CEE+CDS 00000092:00:0	99-125/15:29:15.333	CEE+000/01:33:01.333
End	CEE+CDS 00000106:00:0	99-125/15:43:24.666	CEE+000/01:47:10.666
Duration	00000014:00:0	000/00:14:09.333	000/00:14:09.333

Top Label	20CNFEATRE03-
Bottom Label	

Plot Key	NIMS	Type	SCI		
CDS Bytes	150	Report Options	BOTH	Scan Platform	Yes
CDS Source	OAP	Spin State	DUAL	DMS	Yes

Observation Objective

To determine minor surface constituents on the trailing hemisphere of Callisto.
TICS=530, FMT=MPW, MBTG= 1.7, PPR_RA= 0.0

Data Returned

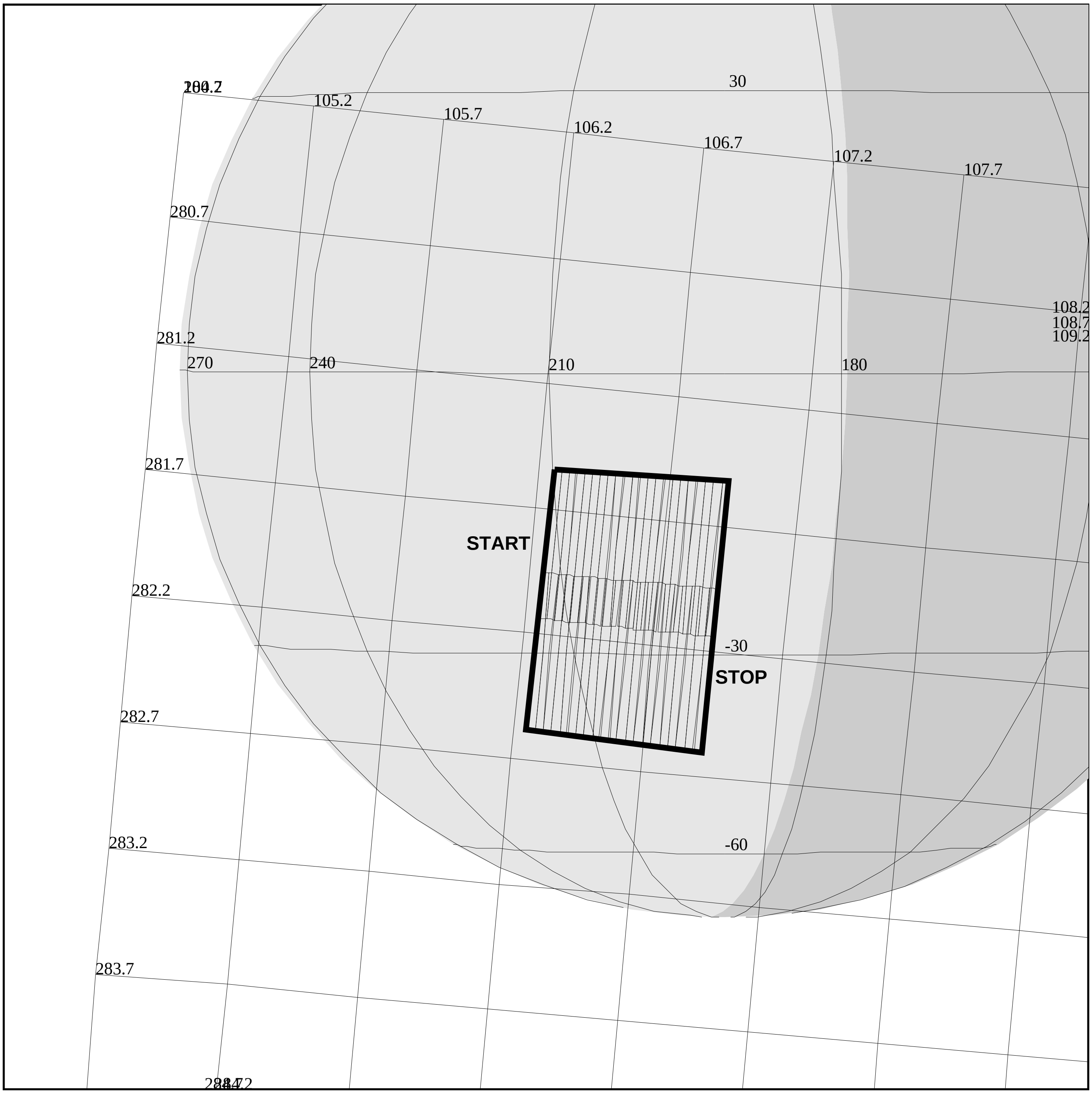
Design Detail

Instrument mode = LM.
Gain state = 4.
Nyquist sampling, two scans at equator over lit longitudes.
1 RIM targeting time
CSMOS Duration: 10 RIMs

SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT

Long Map (LM), Gain 4, Grating Start 0, MPW, CLM442, CLM228D_1

Galileo Activity Plan Form   03/29/99 12:47:02   rev 6/95



165DP:TT= 0 TMC= 1 C= -5.00 XC= -3.50 BS= 0/4388 TC= 1(-24.2 204)
A= 728 pD= 2366 SR=17.450 RA50= 91.85 DEC50= 24.43 cone=106.28 clock=281.88
117DP:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/4388
1:#s= 2 Cs= 11.00 XCs= 0.00 Cr= -11.00 XCr= 7.00 sD= 1104 rD= 32

20CNBRANCR01

TARGET G3.1 lisac: 4/16/1999 13: 4:30

FILE:P.20CNBRANCR01

TARGET BODY : CALLISTO

MINI:m.target

S/C EPH:/DATA/NAVIO/990201-tour.NS

PERIAPSIS:

START:CEE 99-125/13:56:14.000 +CDS 129:00:0

OBSERVATION:20CNBRANCR01

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 2366 S= 1.000

DESCRIP:NIMS_CALLISTO_FEATURE

Bran Crater	ACTIVITY ID: 20CNBRANCR01- START TIME: 99-125/16:02:37.333

Activity ID: Orbit 20 Target C Inst N OAPEL BRANCR SeqNo 01 -

Title	Bran Crater			Instrument	NIMS
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	05/05/99	Week 70

Start	CEE+CDS 00000125:00:0	99-125/16:02:37.333	CEE+000/02:06:23.333
End	CEE+CDS 00000185:00:0	99-125/17:03:17.333	CEE+000/03:07:03.333
Duration	00000060:00:0	000/01:00:40.000	000/01:00:40.000

Top Label	20CNBRANCR01-
Bottom Label	

Plot Key	NIMS	Type	SCI		
CDS Bytes	0	Report Options	BOTH	Scan Platform	Yes
CDS Source	OAP	Spin State	DUAL	DMS	Yes

Observation Objective

Observe Bran crater and surrounding area to determine chemical composition and variations of the surface.

Data Returned

Design Detail

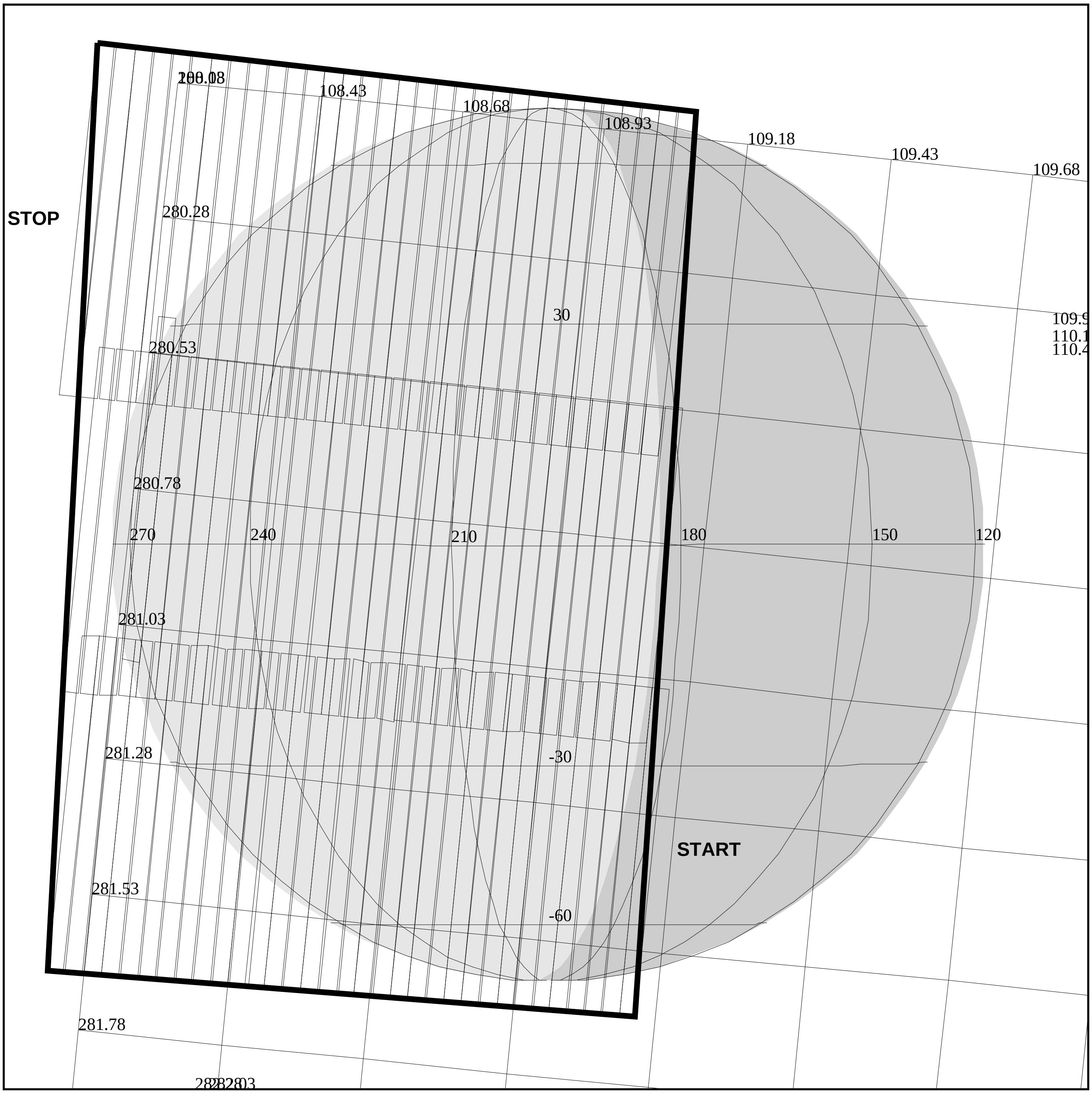
Long Map, Nyquist sampling
Observation center: -24.2 degrees latitude, 204.0 degrees longitude
2 scans with 20% overlap
Cover 20 degrees of longitude per scan

NOTE - use as much time as necessary

SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT

Long Map (LM), Gain 4, Grating Start 0, MPW, CLM442, CLM228D_1

Galileo Activity Plan Form 03/29/99 12:47:02 rev 6/95



165DN:TT= 0 TMC= 1 C= 4.00 XC= 9.00 BS= 0/5338 TC= 3
A= 728 pD= 0 SR=17.450 RA50= 88.67 DEC50= 24.70 cone=109.14 clock=281.35
117DN:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/5338
1:#s= 3 Cs= -16.80 XCs= 0.00 Cr= 16.80 XCr= -8.50 sD= 1684 rD= 20

20CNGLOBAL01

DESIGN G3.2 lisac: 4/21/1999 16:21:26

FILE:P.20CNGLOBAL01

TARGET BODY : CALLISTO

MINI:m.20CNGLOBAL01

S/C EPH:/DATA/NAVIO/990201-tour.NS

PERIAPSIS:

THINNING:NIM 2

START:CEE 99-125/13:56:14.000 +CDS 354:00:0

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

OBSERVATION:20CNGLOBAL01

DESCRIP:Callisto_Global_Map

Callisto Global Map ACTIVITY ID: 20CNGLOBAL01-
START TIME: 99-125/19:50:07.333

Activity ID: Orbit 20 Target C Inst N OAPEL GLOBAL SeqNo 01 -

Title	Callisto Global Map			Instrument	NIMS
Requestor	NIMS-SWG/M.SEGURA	Team	NIMS	Working Group	SWG

Time System CDS Load ID Calendar Date 05/05/99 Week 70

Start	CEE+CDS 00000350:00:0	99-125/19:50:07.333	CEE+000/05:53:53.333
End	CEE+CDS 00000382:00:0	99-125/20:22:28.666	CEE+000/06:26:14.666
Duration	00000032:00:0	000/00:32:21.333	000/00:32:21.333

Top Label 20CNGLOBAL02-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	150	Report Options	BOTH	Scan Platform	Yes
CDS Source	OAP	Spin State	DUAL	DMS	Yes

Observation Objective

This observation will allow for trailing side compositional mapping. Prime mission observations as well as VGR and IUE observations have indicated compositional differences from leading side to trailing side.

TICS=1426, FMT=MPW, MBTG=3.528, PPR_RA=0.26

Data Returned

Design Detail

Instrument Mode = LM. Scan rate = 0.03 mrad,
Nyquist sampling, twenty percent overlap.
Phase angle = 16.82 degrees. Cone angle = 168.43 degrees.
Resolution = 102 km/pixel.

A NIMS OPCAL is performed at the end of this observation.

SPACECRAFT IN CRUISE MODE - UNCOMPENSATED SPACECRAFT WOBBLE PRESENT

Long Map (LM), Gain 4, Grating Start 0, LPU, CLM243D, CLM228D_0
Long Map (LM), Gain 4, Grating Start 0, LPU, PCT252, OPCAL48

NIMS Chopper Off	ACTIVITY ID: 20NNCHOPOF01- START TIME: 99-125/20:38:39.333

Activity ID: Orbit 20 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 05/05/99 Week 70

Start	CEE+CDS 00000398:00:0	99-125/20:38:39.333	CEE+000/06:42:25.333
End	CEE+CDS 00000408:00:0	99-125/20:48:46.000	CEE+000/06:52:32.000
Duration	00000010:00:0	000/00:10:06.667	000/00:10:06.667

Top Label 20NNCHOPOF01-
Bottom Label

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

Observation Objective

NIMS Chopper Off

Design Detail

Galileo Activity Plan Form   03/29/99 12:47:03   rev 6/95

NIMS Real-Time PCT Calibration	ACTIVITY ID:	20NNPCTRLT01-
	START TIME:	99-138/18:29:56.666

Activity ID: Orbit 20 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 05/18/99 Week 72

Start	PCT+CDS 0:00:0	99-138/18:29:56.666	PCT+000/00:00:00.000
End	PCT+CDS 00000465:00:0	99-139/02:20:06.666	PCT+000/07:50:10.000
Duration	00000465:00:0	000/07:50:10.000	000/07:50:10.000

Top Label 20NNPCTRLT01-
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 5 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.

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

NIMS RCT Real Time Calibration	ACTIVITY ID: 20NNRCTRLT01- START TIME: 99-157/12:00:00.000

Activity ID: Orbit 20 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	06/06/99	Week	75

Start	RTA+CDS 0:00:0	99-157/12:00:00.000	RTA+000/00:00:00.000
End	RTA+CDS 00000787:00:0	99-158/01:15:44.666	RTA+000/13:15:44.666
Duration	00000787:00:0	000/13:15:44.666	000/13:15:44.666

Top Label 20NNRCTRLT01-
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.

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