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.

Chopper on	ACTIVITY ID: 21NNCHOPON01- START TIME: 99-181/06:21:20.534

Activity ID: Orbit 21 Target N Inst N OAPEL CHOPON SeqNo 01 -

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

Time System	CDS	Load ID		Calendar Date	06/30/99	Week 78

Start	CEE-CDS 00000085:00:0	99-181/06:21:20.534	CEE-000/01:25:56.666
End	CEE-CDS 00000075:00:0	99-181/06:31:27.200	CEE-000/01:15:50.000
Duration	00000010:00:0	000/00:10:06.666	000/00:10:06.666

Top Label 21NNCHOPON01-
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	50	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	ALL	DMS	No

Observation Objective

Turn on NIMS Chopper

Design Detail

Galileo Activity Plan Form   05/04/99 14:29:49   rev 6/95

This page BLANK

NIMS Real-Time Software Reload	ACTIVITY ID: 21NNRELOAD01- START TIME: 99-181/06:42:33.200

Activity ID: Orbit 21 Target N Inst N OAPEL RELOAD SeqNo 01 -

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

Time System	CDS	Load ID		Calendar Date	06/30/99	Week	78

Start	CEE-CDS 00000064:02:0	99-181/06:42:33.200	CEE-000/01:04:44.000
End	CEE-CDS 00000061:00:0	99-181/06:45:36.534	CEE-000/01:01:40.666
Duration	00000003:02:0	000/00:03:03.334	000/00:03:03.334

Top Label	21NNRELOAD01-
Bottom Label	

Plot Key	NIMS	Type	SCI		
CDS Bytes	150	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 C21 reload OAPELS are:
    21NNRELOAD01, 21NNRELOAD02, 21NNRELOAD04, 21NNRELOAD05,
    21NNRELOAD06.
    21NNRELOAD06 occurs outbound just before 21NNCHOPOF01

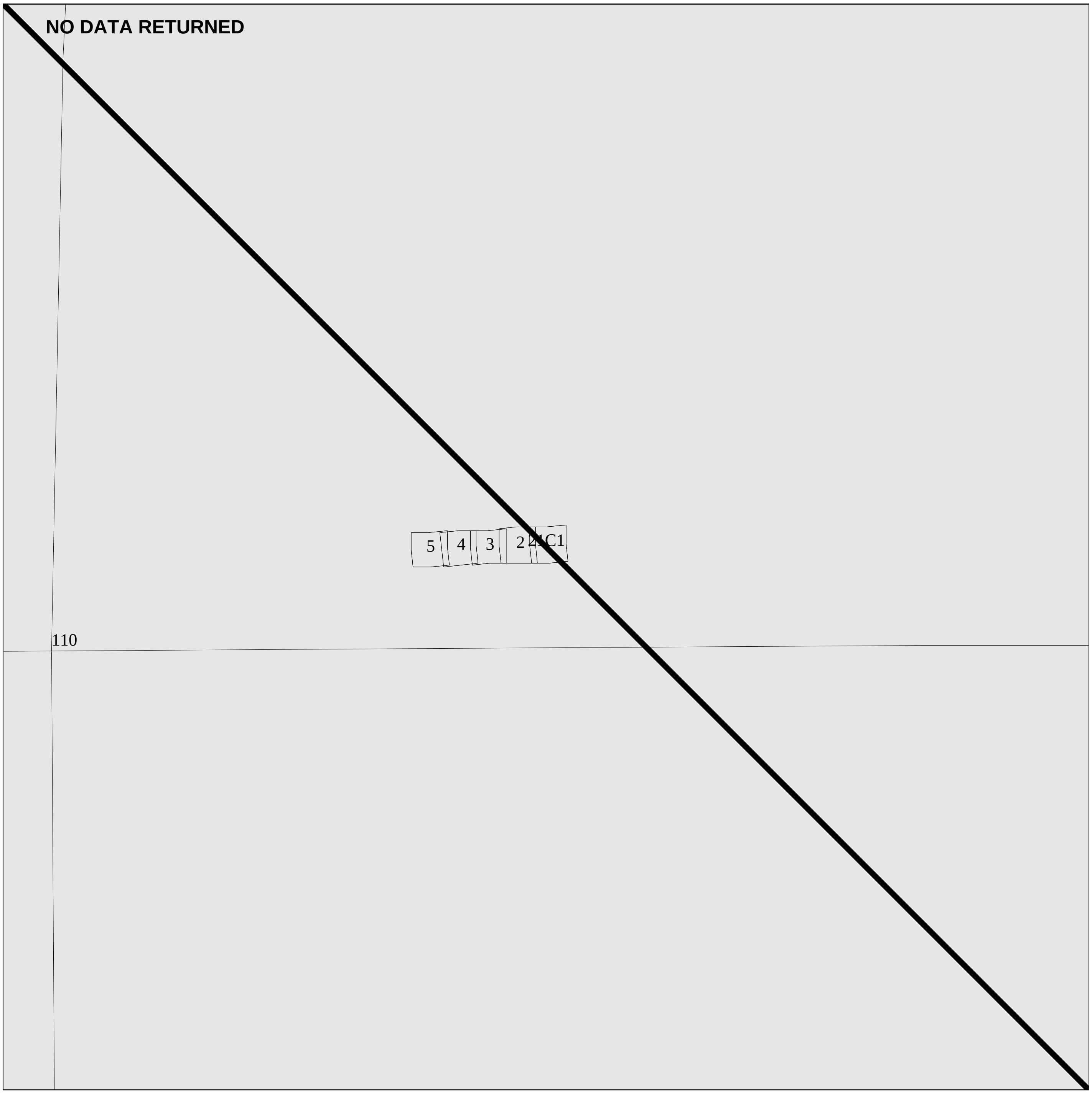
    21CNFEATRE03, 21CNFEATRE04, 21CNFEATRE01, 21CNFEATRE02,
    21NNRCTRLT01 did not have reloads.

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 05/04/99 14:29:49 rev 6/95



165IA:TT= 0 TMC= 1 C= -13.50 XC= -0.10 BS= 0/8971 TC= 1(0.82 106.30)
A= 728 pD= 110 SR=17.450 RA50=307.13 DEC50=-16.97 cone= 97.14 clock=106.00
118IA:#SB= 1 Cs= 6.70 XCs= 0.10 TPP= 26 SR= 3.000 RR= 3.000 BM=F RC= 1 BS= 3/8971
1:#s= 5 #p= 1 Cr= 0.00 XCr= 0.00

21CNDRKMAT01

TARGET G3.1 lisac: 6/11/1999 14:14:44

FILE:P.21CSDRKMAT01

TARGET BODY : CALLISTO

MINI:m.target

S/C EPH:/DATA/NAVIO/990312-tour.NS

PERIAPSIS:

START:CEE 99-181/07:47:17.200 -CDS 04:00:0

OBSERVATION:21CSDRKMAT01

THINNING:

BODY PLOT TIME:TARGET-TIME D= 110 S= 5.000

DESCRIP:CALLISTO_DARK_MATERIAL_01

Calllisto Ride along with SSI		ACTIVITY ID:	21CNDRKMAT01+
		START TIME:	99-181/07:39:11.867

Activity ID: Orbit 21 Target C Inst N OAPEL DRKMAT SeqNo 01 +

Title	Calllisto Ride along with SSI			Instrument	NIMS
Requestor	NIMS-SWG/M. SEGURA	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date	06/30/99	Week	78

Start	CEE-CDS 00000008:00:0	99-181/07:39:11.867	CEE-000/00:08:05.333
End	CEE-CDS 00000003:00:0	99-181/07:44:15.200	CEE-000/00:03:02.000
Duration	00000005:00:0	000/00:05:03.333	000/00:05:03.333

Top Label	21CNDRKMAT01
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

Ride-along with SSI.
To obtain NIMS spectra in conjunction with the planned SSI observation and to further the on going collaborative efforts of the composition/morphology studies.

No Data Returned

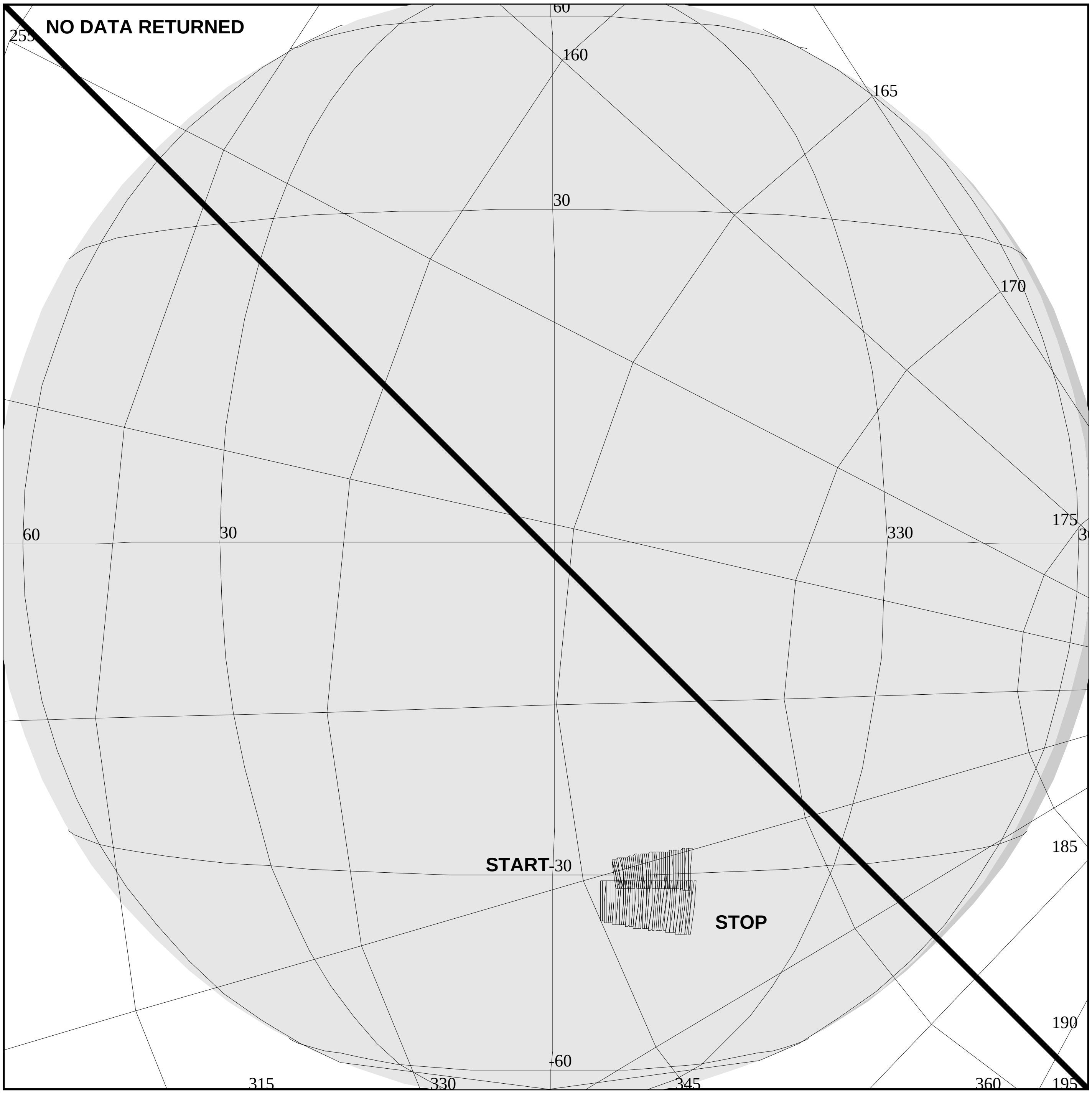
Design Detail

Long Map, ride along

Latitude   1 N
Longitude 106 W

Long Map (LM), Gain 4, Grating Start 0, IM8, CLM442, CLM360

Galileo Activity Plan Form   05/04/99 14:29:49   rev 6/95



165DZ:TT= 0 TMC= 1 C= 0.00 XC= 0.00 BS= 0/3521 TC= 2(168 265.60)
A= 546 pD= 0 SR= 8.000 RA50= 36.25 DEC50= 17.09 cone=168.00 clock=265.60
165DC:TT= 0 TMC= 1 C= 0.00 XC= 0.00 BS= 0/3885 TC= 1(-30 354)
A= 360 pD= 3628 SR= 8.000 RA50= 42.64 DEC50= 11.68 cone=164.05 clock=296.07
117DC:#SB= 1 OR= 0.030 RR= 4.000 BM=F RC= 1 BS= 0/3885
1:#s= 2 Cs= 17.85 XCs= 0.00 Cr= -21.00 XCr= 6.00 sD= 1798 rD= 38

21CNFEATRE03

TARGET G3.1 lisac: 6/11/1999 14:14:44

FILE:P.21CNFEATRE03

TARGET BODY : CALLISTO

MINI:m.target

S/C EPH:/DATA/NAVIO/990312-tour.NS

PERIAPSIS:

START:CEE 99-181/07:47:17.200 +CDS 21:00:0

OBSERVATION:21CNFEATRE03

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 3628 S= 1.000

DESCRIP:POLAR_CROSSING_PREPOSITION

Callisto Feature Observation	ACTIVITY ID: 21CNFEATRE03- START TIME: 99-181/08:07:30.533

Activity ID: Orbit 21 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 06/30/99 Week 78

Start	CEE+CDS 00000020:00:0	99-181/08:07:30.533	CEE+000/00:20:13.333
End	CEE+CDS 00000045:00:0	99-181/08:32:47.200	CEE+000/00:45:30.000
Duration	00000025:00:0	000/00:25:16.667	000/00:25:16.667

Top Label 21CNFEATRE03-
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

Obtain high-resolution spectral and spatial data of Callisto’s surface in order to further the on going compositional studies started in Galileo’s prime mission.

TICS=1163, FMT=MPW, MBTG= 2.400, PPR_RA=0.116

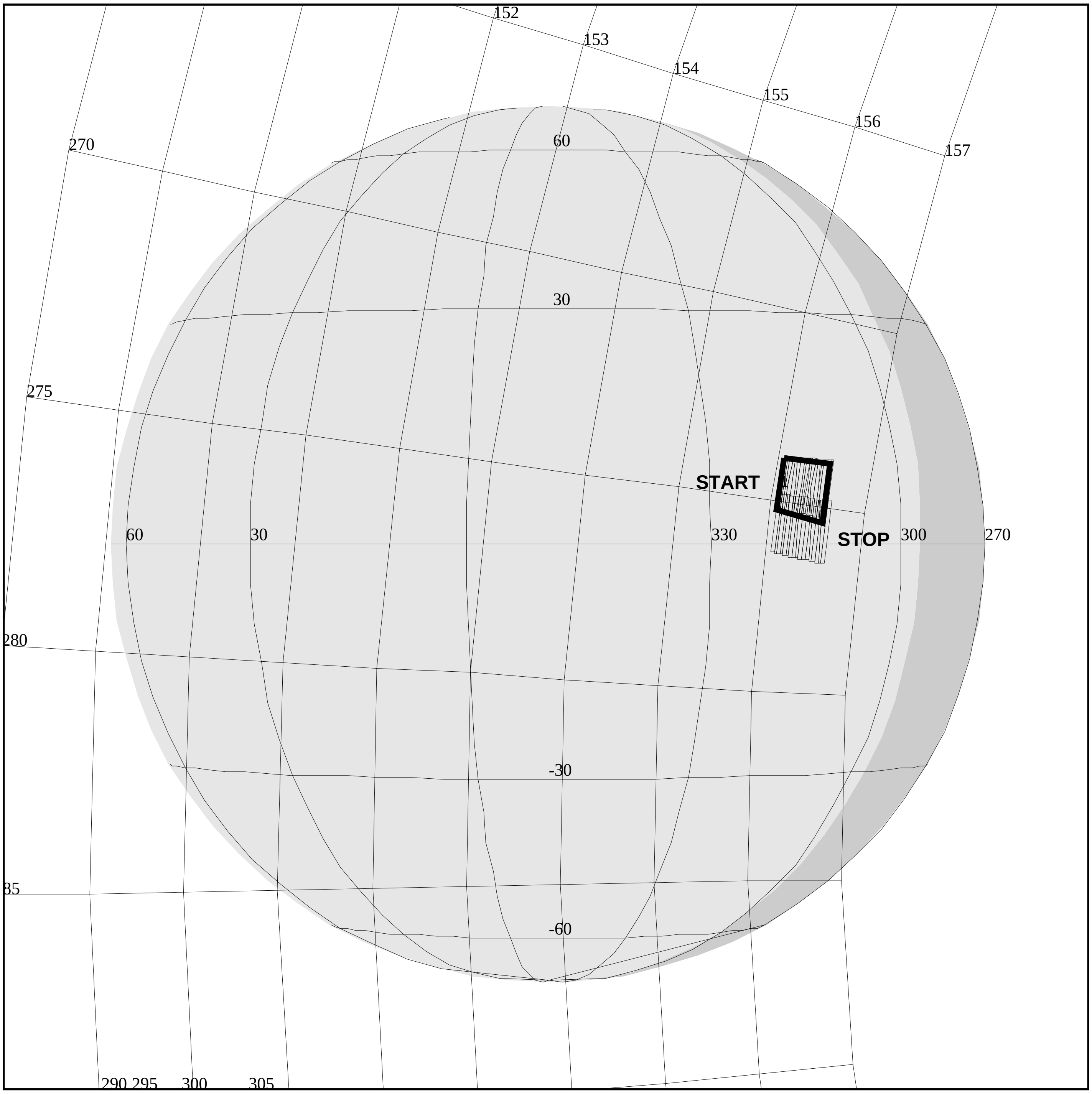
No Data Returned

Design Detail

Latitude -28 to -35
Longitude 345 to 355 W

Long Map (LM), Gain 4, Grating Start 0, MPW, CLM442, CLM360

Galileo Activity Plan Form 05/04/99 14:29:49 rev 6/95



165DD:TT= 0 TMC= 1 C= -4.50 XC= -3.00 BS= 0/0073 TC= 1(5 317)
A= 728 pD= 1810 SR= 8.000 RA50= 48.55 DEC50= 20.77 cone=156.09 clock=274.51
117DD:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/0073
1:#s= 2 Cs= 8.85 XCs= 0.00 Cr= -8.85 XCr= 7.00 sD= 888 rD= 36

21CNFEATRE04

TARGET G3.1 lisac: 6/11/1999 14:14:44

FILE:P.21CNFEATRE04

TARGET BODY : CALLISTO

MINI:m.target

S/C EPH:/DATA/NAVIO/990312-tour.NS

PERIAPSIS: **THINNING:NIM 2**

START:CEE 99-181/07:47:17.200 +CDS 57:00:0 **BODY PLOT TIME:TARGET-TIME D= 1810 S= 0.800**

OBSERVATION:21CNFEATRE04 **DESCRIP:CALLISTO_FEATURE_OBSERVATION_S**

Callisto Feature Observation	ACTIVITY ID: 21CNFEATRE04- START TIME: 99-181/08:44:55.200

Activity ID: Orbit 21 Target C Inst N OAPEL FEATRE SeqNo 04 -

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

Time System	CDS	Load ID		Calendar Date	06/30/99	Week 78

Start	CEE+CDS 00000057:00:0	99-181/08:44:55.200	CEE+000/00:57:38.000
End	CEE+CDS 00000067:00:0	99-181/08:55:01.866	CEE+000/01:07:44.666
Duration	00000010:00:0	000/00:10:06.666	000/00:10:06.666

Top Label	21CNFEATRE04-
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

Obtain high-resolution spectral and spatial data of Callisto’s surface in order to further the on going compositional studies started in Galileo’s prime mission.

TICS=530, FMT=MPW, MBTG= 2.040, PPR_RA=0.053

Data Returned

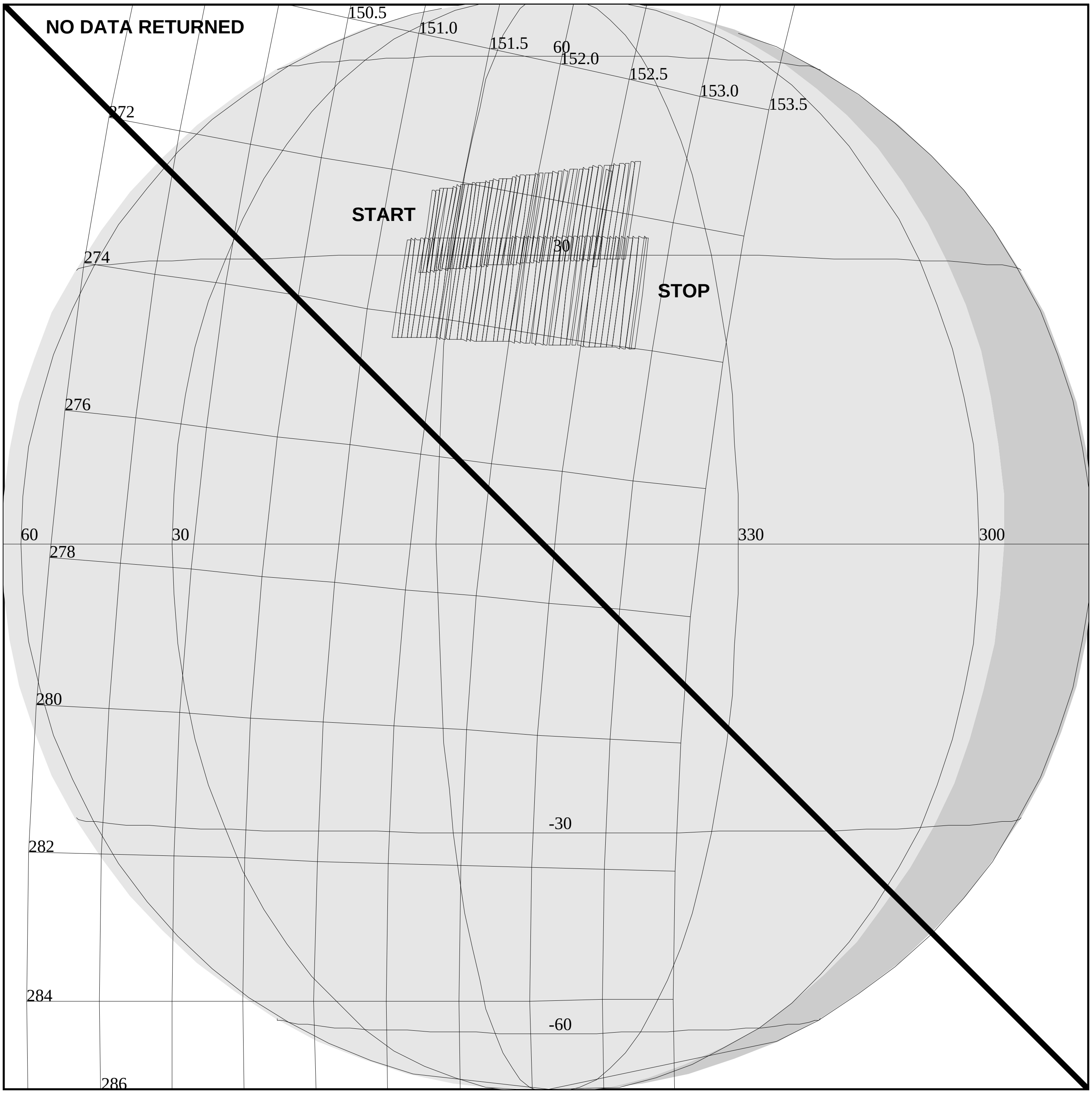
Design Detail

Latitude 0 to +10
Longitude 312 to 322 W

This region includes the Igaluk and Vali craters.

Long Map (LM), Gain 4, Grating Start 0, LPU, CLM243D, CLM228D

Galileo Activity Plan Form 05/04/99 14:29:49 rev 6/95



165DA:TT= 0 TMC= 1 C= -20.00 XC= -35.00 BS= 0/2439 TC= 3
A= 546 pD= 4732 SR=17.450 RA50= 52.90 DEC50= 23.43 cone=151.32 clock=272.78
117DA:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/2439
1:#s= 2 Cs= 23.00 XCs= 0.00 Cr= -22.00 XCr= 12.00 sD= 2344 rD= 34

21CNFEATRE01

TARGET G3.1 lisac: 6/11/1999 14:14:44

FILE:P.21CNFEATRE01

TARGET BODY : CALLISTO

MINI:m.target

S/C EPH:/DATA/NAVIO/990312-tour.NS

PERIAPSIS:

START:CEE 99-181/07:47:17.200 +CDS 70:00:0

OBSERVATION:21CNFEATRE01

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D= 4732 S= 1.000

DESCRIP:CALLISTO_FEATURE_OBSERVATION_30N

Callisto Feature Observation	ACTIVITY ID: 21CNFEATRE01- START TIME: 99-181/08:56:15.866

Activity ID: Orbit 21 Target C Inst N OAPEL FEATRE SeqNo 01 -

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

Time System	CDS	Load ID		Calendar Date	06/30/99	Week	78

Start	CEE+CDS 00000068:20:0	99-181/08:56:15.866	CEE+000/01:08:58.666
End	CEE+CDS 00000096:40:0	99-181/09:24:47.866	CEE+000/01:37:30.666
Duration	00000028:20:0	000/00:28:32.000	000/00:28:32.000

Top Label	21CNFEATRE01-
Bottom Label	

Plot Key	NIMS	Type	SCI		
CDS Bytes	150	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

Obtain high-resolution spectral and spatial data of Callisto’s surface in order to further the on going compositional studies started in Galileo’s prime mission.

TICS= 368, FMT= LPU, MBTG= 1.400, PPR_RA=0.137

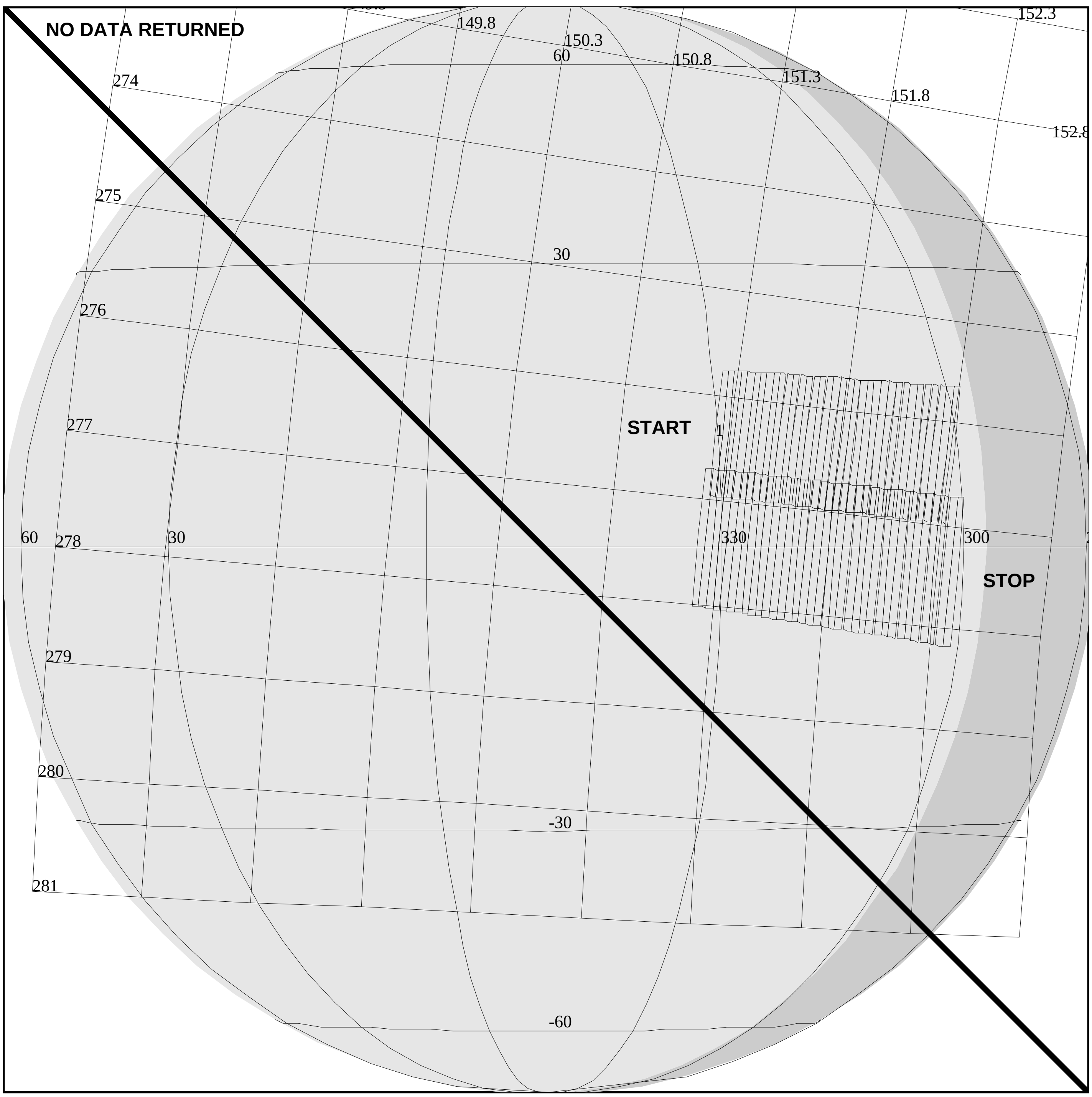
No Data Returned

Design Detail

Latitude +20 to +40
Longitude 340 to 10 W

Long Map (LM), Gain 4, Grating Start 0, LPU, CLM243D_0, CLM180D_0

Galileo Activity Plan Form 05/04/99 14:29:50 rev 6/95



165DB:TT= 0 TMC= 1 C= -10.00 XC= -4.00 BS= 0/9355 TC= 1(5 317)
A= 364 pD= 3628 SR= 8.000 RA50= 53.70 DEC50= 21.88 cone=151.23 clock=276.36
117DB:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/9355
1:#s= 2 Cs= 17.90 XCs= 0.00 Cr= -17.30 XCr= 8.00 sD= 1798 rD= 36

21CNFEATRE02

TARGET G3.1 lisac: 6/11/1999 14:14:44

FILE:P.21CNFEATRE02

TARGET BODY : CALLISTO

MINI:m.target

S/C EPH:/DATA/NAVIO/990312-tour.NS

PERIAPSIS:

THINNING:NIM 2

START:CEE 99-181/07:47:17.200 +CDS 108:00:0

BODY PLOT TIME:TARGET-TIME D= 3628 S= 1.000

OBSERVATION:21CNFEATRE02

DESCRIP:CALLISTO_FEATURE_OBSERVATION_0

Callisto Feature Observation	ACTIVITY ID: 21CNFEATRE02- START TIME: 99-181/09:25:21.866

Activity ID: Orbit 21 Target C Inst N OAPEL FEATRE SeqNo 02 -

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

Time System	CDS	Load ID		Calendar Date 06/30/99	Week 78

Start	CEE+CDS 00000097:00:0	99-181/09:25:21.866	CEE+000/01:38:04.666
End	CEE+CDS 00000120:00:0	99-181/09:48:37.200	CEE+000/02:01:20.000
Duration	00000023:00:0	000/00:23:15.334	000/00:23:15.334

Top Label	21CNFEATRE02-
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

Obtain high-resolution spectral and spatial data of Callisto’s surface in order to further the on going compositional studies started in Galileo’s prime mission.

TICS= 283, FMT= LPU, MBTG= 2.160, PPR_RA=0.106

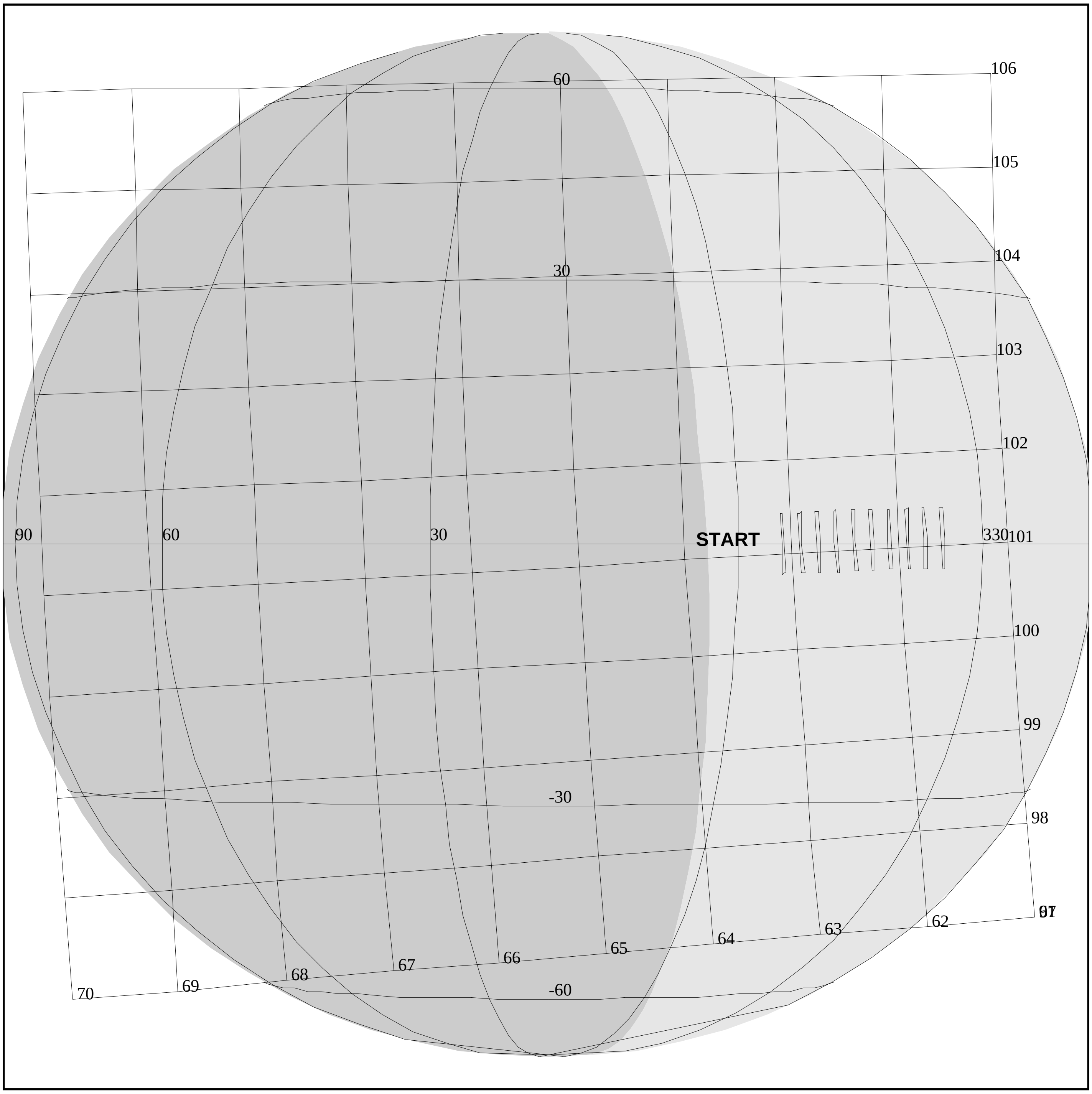
No Data Returned

Design Detail

Latitude -10 to +20
Longitude 300 to 330 W

Long Map (LM), Gain 4, Grating Start 0, LPU, CLM243D_0, CLM180D_0

Galileo Activity Plan Form 05/04/99 14:29:50 rev 6/95



165DF:TT= 0 TMC= 1 C= -38.00 XC= -2.00 BS= 0/4235 TC= 3
A= 728 pD= 0 SR= 8.000 RA50=271.26 DEC50=-25.29 cone= 63.10 clock=101.12
117DF:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/4235
1:#s= 1 Cs= -16.90 XCs= 0.00 Cr= 0.00 XCr= 0.00 sD= 1696 rD= 34

21JNJUPRTS02

TARGET G3.1 lisac: 6/11/1999 14:14:44

FILE:P.21JNJUPRTS02

CENTRAL BODY:JUPITER

MINI:m.target

S/C EPH:/DATA/NAVIO/990312-tour.NS

PERIAPSIS:

THINNING:NIM 7

START:JEE 99-183/05:05:09.133 -CDS 740:00:0

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

OBSERVATION:21JNJUPRTS02

DESCRIP:JUPITER_REATIME_OBSERVATION_02

Jupiter Realtime Observation	ACTIVITY ID: 21JNJUPRTS02* START TIME: 99-182/16:31:52.467

Activity ID: Orbit 21 Target J Inst N OAPEL JUPRTS SeqNo 02 *

Title	Jupiter Realtime Observation				Instrument	NIMS
Requestor	NIMS-AWG/M.SEGURA		Team	NIMS	Working Group	AWG

Time System CDS Load ID Calendar Date 07/01/99 Week 79

Start	JEE-CDS 00000745:00:0	99-182/16:31:52.467	JEE-000/12:33:16.666
End	JEE-CDS 00000730:00:0	99-182/16:47:02.467	JEE-000/12:18:06.666
Duration	00000015:00:0	000/00:15:10.000	000/00:15:10.000

Top Label 21JNJUPRTS02*
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	150	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

To obtain full spectra of various Jovian territories to further in-depth studies of Jupiter's atmosphere.

FREE_RTS=0.16 Mbits

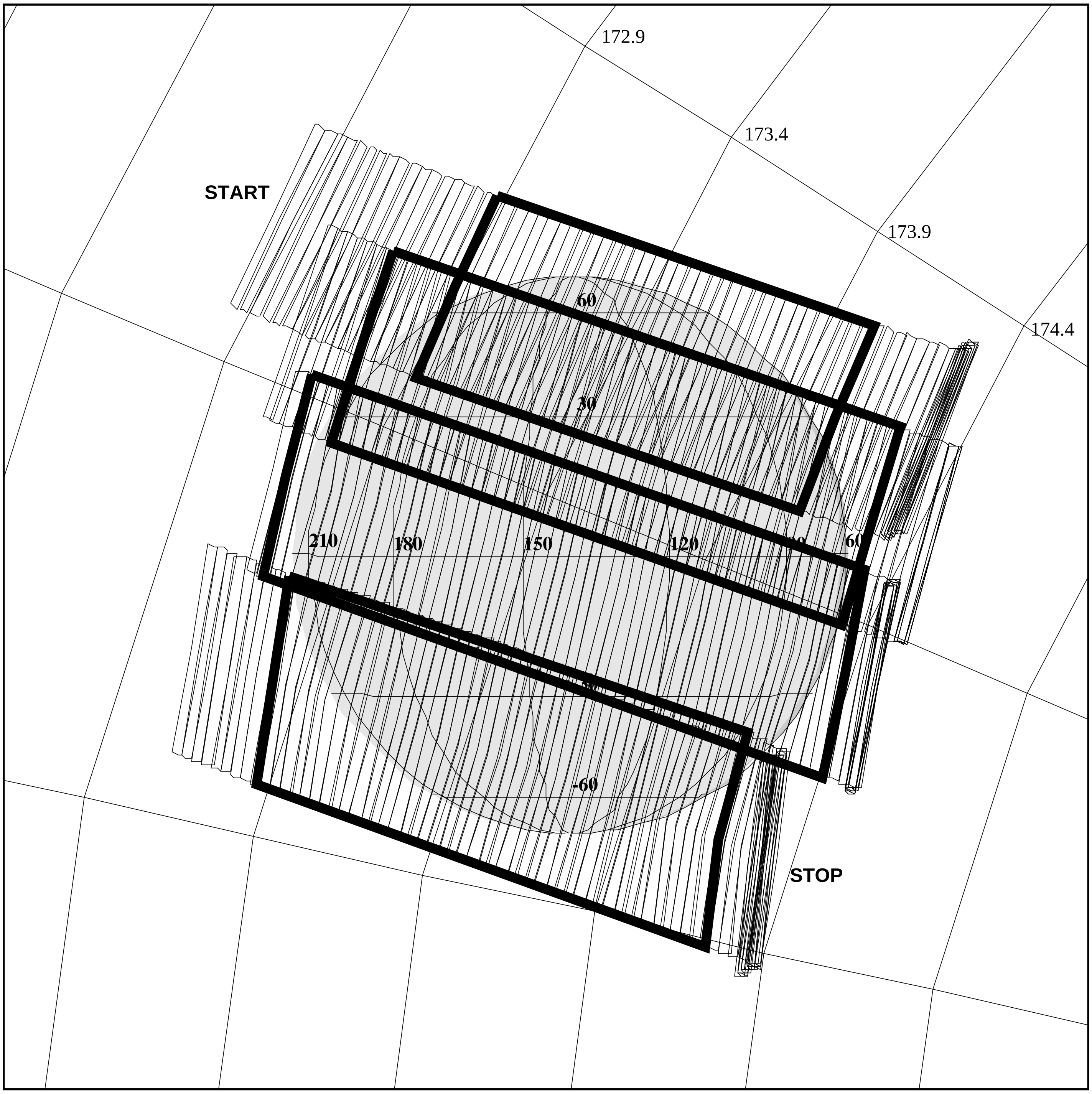
Data Returned

Design Detail

Latitude Equatorial
Longitude 340 to 355 W

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

Galileo Activity Plan Form 05/04/99 14:29:50 rev 6/95



165DG:TT= 0 TMC= 1 C= -20.50 XC= -8.80 BS= 0/5841 TC= 3
A= 910 pD= 15444 SR= 8.000 RA50= 31.83 DEC50= 15.33 cone=172.35 clock=256.70
117DG:#SB= 1 OR= 0.030 RR=12.000 BM=F RC= 1 BS= 0/5841
1:#s= 4 Cs= 31.00 XCs= 0.00 Cr= -31.40 XCr= 6.20 sD= 3834 rD= 36

21INHRSPEC01

TARGET G3.1 lisac: 6/11/1999 14:14:44

FILE:P.21INHRSPEC01

TARGET BODY : IO

MINI:m.target

S/C EPH:/DATA/NAVIO/990312-tour.NS

PERIAPSIS:

START:IEE 99-183/05:12:13.800 +CDS 86:00:0

OBSERVATION:21INHRSPEC01

THINNING:NIM 2

BODY PLOT TIME:TARGET-TIME D=15444 S= 0.300

DESCRIP:Io_Monitoring_at_High_Spec_Res

Mapping Io at High Spatial and Spectral	ACTIVITY ID: 21INHRSPEC01- START TIME: 99-183/06:35:08.466

Activity ID: Orbit 21 Target I Inst N OAPEL HRSPEC SeqNo 01 -

Title	Mapping Io at High Spatial and Spectral			Instrument	NIMS
Requestor	NIMS-SWG/R.	Team	NIMS	Working Group	SWG

Time System	CDS	Load ID		Calendar Date 07/02/99	Week 79

Start	IEE+CDS	00000082:00:0	99-183/06:35:08.466	IEE+000/01:22:54.666
End	IEE+CDS	00000166:00:0	99-183/08:00:04.466	IEE+000/02:47:50.666
Duration		00000084:00:0	000/01:24:56.000	000/01:24:56.000

Top Label 21INHRSPEC01-
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

Highest resolution global mosaic of Io during Galileo and GEM.
Objective is to obtain high spatial and spectral map of one hemisphere of Io.

TICS= 3167, FMT= MPW, MBTG= 17.470, PPR_RA=0.0

Data Returned

Design Detail

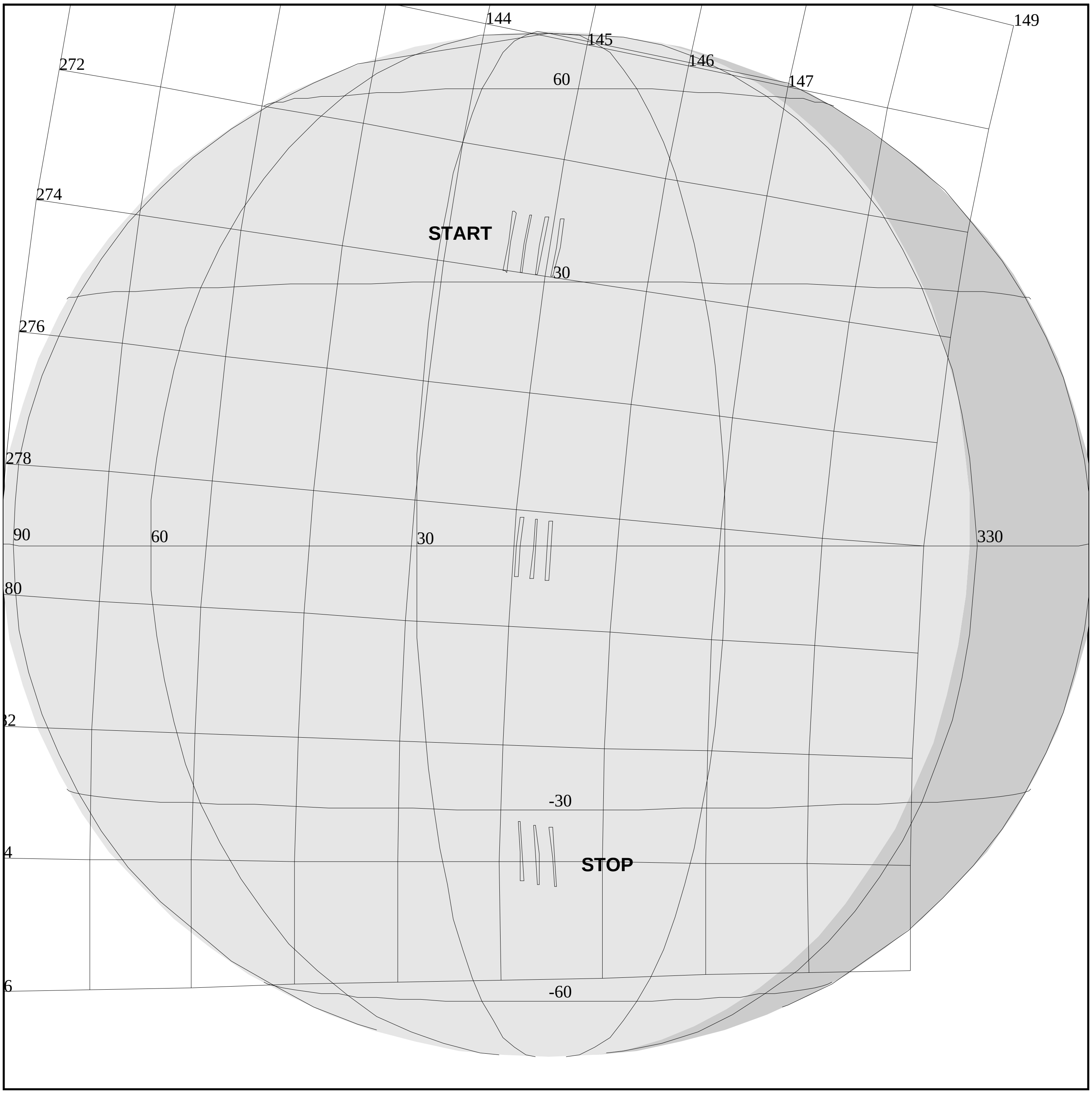
Global mosaic in Long Map, 360 wavelengths, record mode is MPW.
NIMS resolution is approximately 60 km/pixel.
Central longitude is approximately 130 degrees West.
Cost is approximately 20 Mbits, 2000 tics.

Global mosaic in 4 swaths, NIMS reloaded before the start of EACH swath.
Extra-long scans into dark sky off target to allow for pointing errors and time for the reloads.

Severe problems with AACS caused the pointing to jump erratically.
See the discussion in Chapter 7.

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

Galileo Activity Plan Form 05/04/99 14:29:50 rev 6/95



165DH:TT= 0 TMC= 1 C= -13.00 XC= -50.00 BS= 0/2675 TC= 3
A=1092 pD= 0 SR= 8.000 RA50= 59.90 DEC50= 25.64 cone=144.59 clock=273.51
117DH:#SB= 1 OR= 0.040 RR=12.000 BM=F RC= 1 BS= 0/2675
1:#s= 3 Cs= 7.60 XCs= 0.00 Cr= 0.00 XCr= 51.00 sD= 574 rD= 46

21JNJUPRTS03

TARGET G3.1 lisac: 6/11/1999 14:14:44

FILE:P.21JNJUPRTS03

CENTRAL BODY:JUPITER

MINI:m.target

S/C EPH:/DATA/NAVIO/990312-tour.NS

PERIAPSIS: **THINNING:NIM 7**

START:JEE 99-183/05:05:09.133 +CDS 680:00:0 **BODY PLOT TIME:TARGET-TIME D= 0 S= 1.000**

OBSERVATION:21JNJUPRTS03 **DESCRIP:JUPITER_REATIME_OBSERVATION_03**

Jupiter Realtime Observation	ACTIVITY ID: 21JNJUPRTS03* START TIME: 99-183/16:36:45.133

Activity ID: Orbit 21 Target J Inst N OAPEL JUPRTS SeqNo 03 *

Title	Jupiter Realtime Observation			Instrument	NIMS
Requestor	NIMS-AWG/M.SEGURA	Team	NIMS	Working Group	AWG

Time System CDS Load ID Calendar Date 07/02/99 Week 79

Start	JEE+CDS 00000684:00:0	99-183/16:36:45.133	JEE+000/11:31:36.000
End	JEE+CDS 00000699:00:0	99-183/16:51:55.133	JEE+000/11:46:46.000
Duration	00000015:00:0	000/00:15:10.000	000/00:15:10.000

Top Label 21JNJUPRTS03*
Bottom Label

Plot Key	NIMS	Type	SCI		
CDS Bytes	150	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	DUAL	DMS	No

Observation Objective

To obtain full spectra of various Jovian territories to further in-depth studies of Jupiter's atmosphere.

FREE_RTS=0.16 Mbits

Data Returned

Design Detail

Three Latitude regions observed:

1) Latitude +36
   Longitude 15 to 20 W
2) Latitude 0
   Longitude 15 to 20 W
3) Latitude -36
   Longitude 15 to 20 W

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

Galileo Activity Plan Form 05/04/99 14:29:51 rev 6/95

Chopper off		ACTIVITY ID:	21NNCHOPOF01-
		START TIME:	99-184/10:45:43.133

Activity ID: Orbit 21 Target N Inst N OAPEL CHOPOF SeqNo 01 -

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

Time System	CDS	Load ID		Calendar Date	07/03/99	Week	79

Start	IEE+CDS 00001754:00:0	99-184/10:45:43.133	IEE+001/05:33:29.333
End	IEE+CDS 00001764:00:0	99-184/10:55:49.800	IEE+001/05:43:36.000
Duration	00000010:00:0	000/00:10:06.667	000/00:10:06.667

Top Label	21NNCHOPOF01-
Bottom Label	

Plot Key	NIMS	Type	SCI		
CDS Bytes	50	Report Options	BOTH	Scan Platform	No
CDS Source	OAP	Spin State	ALL	DMS	No

Observation Objective

Turn off NIMS Chopper.

Design Detail

Galileo Activity Plan Form 05/04/99 14:29:51 rev 6/95

NIMS RCT Real Time Calibration			ACTIVITY ID:	21NNRCTRLT01-	
			START TIME:	99-206/20:30:00.000	

Activity ID: Orbit 21 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	07/25/99	Week	82

Start	RTA+CDS 00000000:00:0	99-206/20:30:00.000	RTA+000/00:00:00.000
End	RTA+CDS 00000793:00:0	99-207/09:51:48.666	RTA+000/13:21:48.666
Duration	00000793:00:0	000/13:21:48.666	000/13:21:48.666

Top Label	21NNRCTRLT01-
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.

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