

# **NIMS GUIDE TO THE VENUS ENCOUNTER**

**Original: November 1990**

**Revised: November 1993**

**Revised: December 1995**

## Table of Contents

	Chapter	Page
1.0	Introduction .....	1-01
2.0	Encounter Overview .....	2-01
3.0	Encounter Geometries .....	3-01
4.0	NIMS Sequence Summary .....	4-01
5.0	NIMS Detailed Observation Designs .....	5-01
6.0	Data Return .....	6-01

# Chapter 1 - Introduction

## Contents

	Sub-Section	Page
1.0	Contents .....	1
1.1	Introduction to the Revised Edition .....	2
1.2	Introduction to the Venus Encounter .....	3
1.3	Venus Atmosphere Model .....	4
1.4	Venus Model Near Infrared Spectrum .....	5
1.5	Venus Dayside/Nightside Contrast .....	6

## Introduction to the Revised Edition

Some of the information in this document was originally published by the NIMS team in November 1990 as part of a NIMS guide to the E1 Earth-Moon Encounter (VE11) and Venus Data Playback (VE9). This guide was later revised and corrected for inclusion on the 2nd CD-ROM of NIMS Experimental Data Records (EDRs). The present guide only covers the Venus Encounter of February, 1990. It includes material from the previous guides which pertain to the Venus Encounter. Also, additional material was added to give a more thorough presentation of the NIMS Venus Encounter data, including a chapter describing the data that was returned.

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

Chapter 1 gives an introduction to the Venus Encounter as well as a brief discussion of various issues that went into the design of the NIMS observations in the Venus Encounter sequence. Chapter 2 gives an overview of the NIMS Venus observations and the entire Venus Encounter using a number of tables, maps and timelines. Chapter 3 contains diagrams of various aspects of geometry for the Venus Encounter. Chapter 4 summarizes the planned NIMS Venus observations by means of a comprehensive sequence summary, PA summary and Observation Table (OBSTAB). Chapter 5 is a collection of the Detailed Observation Designs made up of OAPEL forms and POINTER plots. Chapter 6 is a summary of the NIMS data return for the Venus Encounter.

For information on the NIMS instrument, please see the preprint of the NIMS instrument paper provided elsewhere on the CD-ROM, or refer to the published version: R.W. Carlson, P.R. Weissman, W.D. Smythe, J.C. Mahoney and the NIMS Science and Engineering Teams, "Near-infrared Mapping Spectrometer Experiment on Galileo", Space Science Reviews 60: 457-502, 1992.

### ACKNOWLEDGEMENTS

The NIMS Venus observations in this guide were designed by Kevin Baines and the NIMS Team. Kevin Baines prepared the Venus portion of the original printed guide. Frank Leader subsequently retrieved and edited the original material for consistency and clarity, recovered missing material by scanning parts of the original printed document and prepared the last chapter describing the data return. Some figures from the Galileo Venus Encounter Notebook prepared by the Galileo Mission Design Team were incorporated into this guide. Al Stevenson generated the Venus sequence summary. Bob Mehlman oversaw production of this guide.



## Introduction to the Venus Encounter

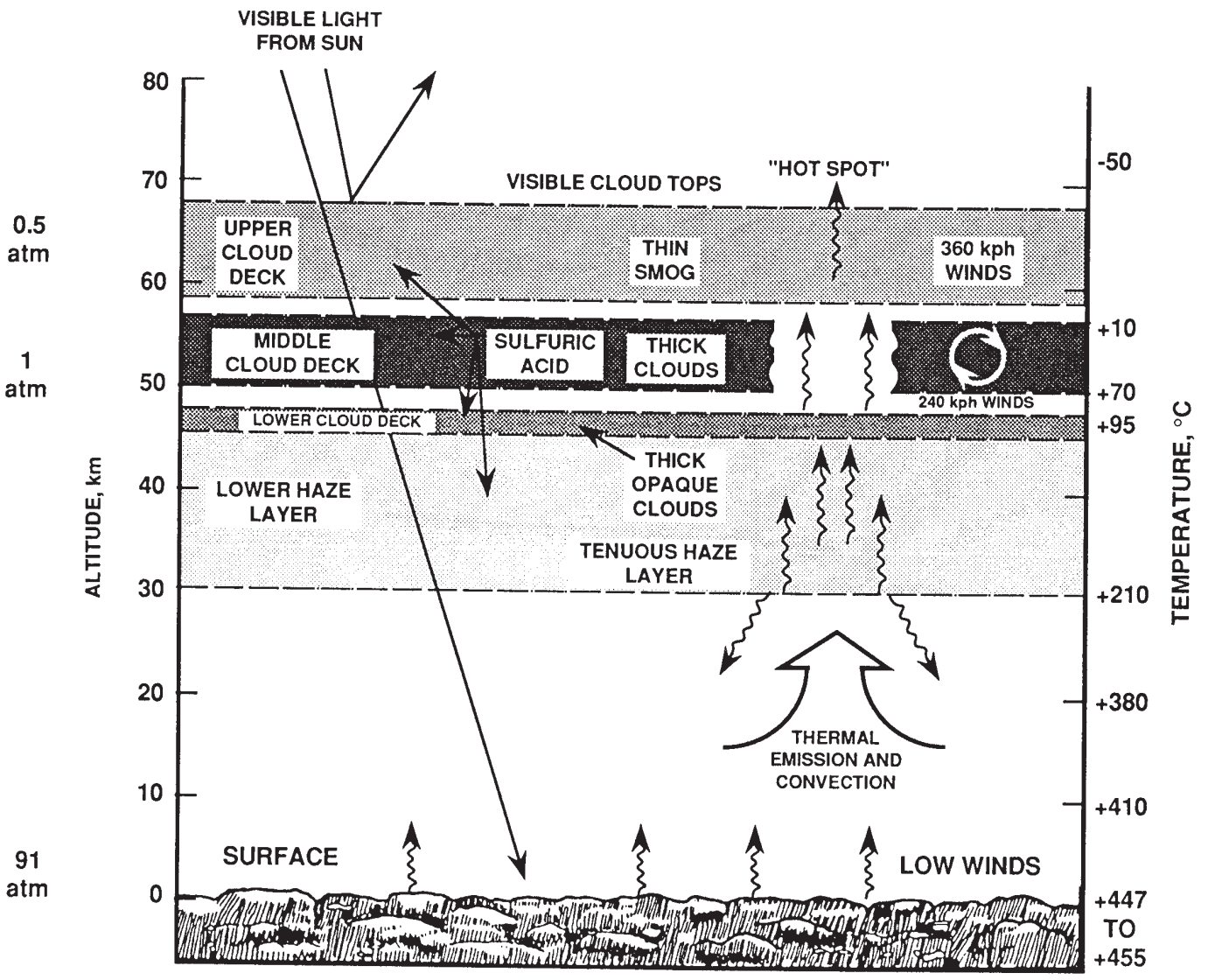
Galileo flew by Venus on February 10, 1990 as part of its VEEGA gravity-assist trajectory to Jupiter allowing observation of Venus by the remote sensing instruments on board. The Venus observations were recorded onto Galileo's tape recorder and played back just before the first Earth Encounter (E1).

Galileo approached Venus from its nightside at an asymptotic phase angle of 155 degrees from slightly north of Venus' equatorial plane. During the approach, the Sun was in the same direction as Venus so that the spacecraft's sun shade obscured the planet until about a day before closest approach. During the approach phase of the encounter, NIMS made three nightside observations. At closest approach NIMS made limb scans of both the nightside limb and the dayside limb. After closest approach, NIMS rode along behind SSI's dayside observations.

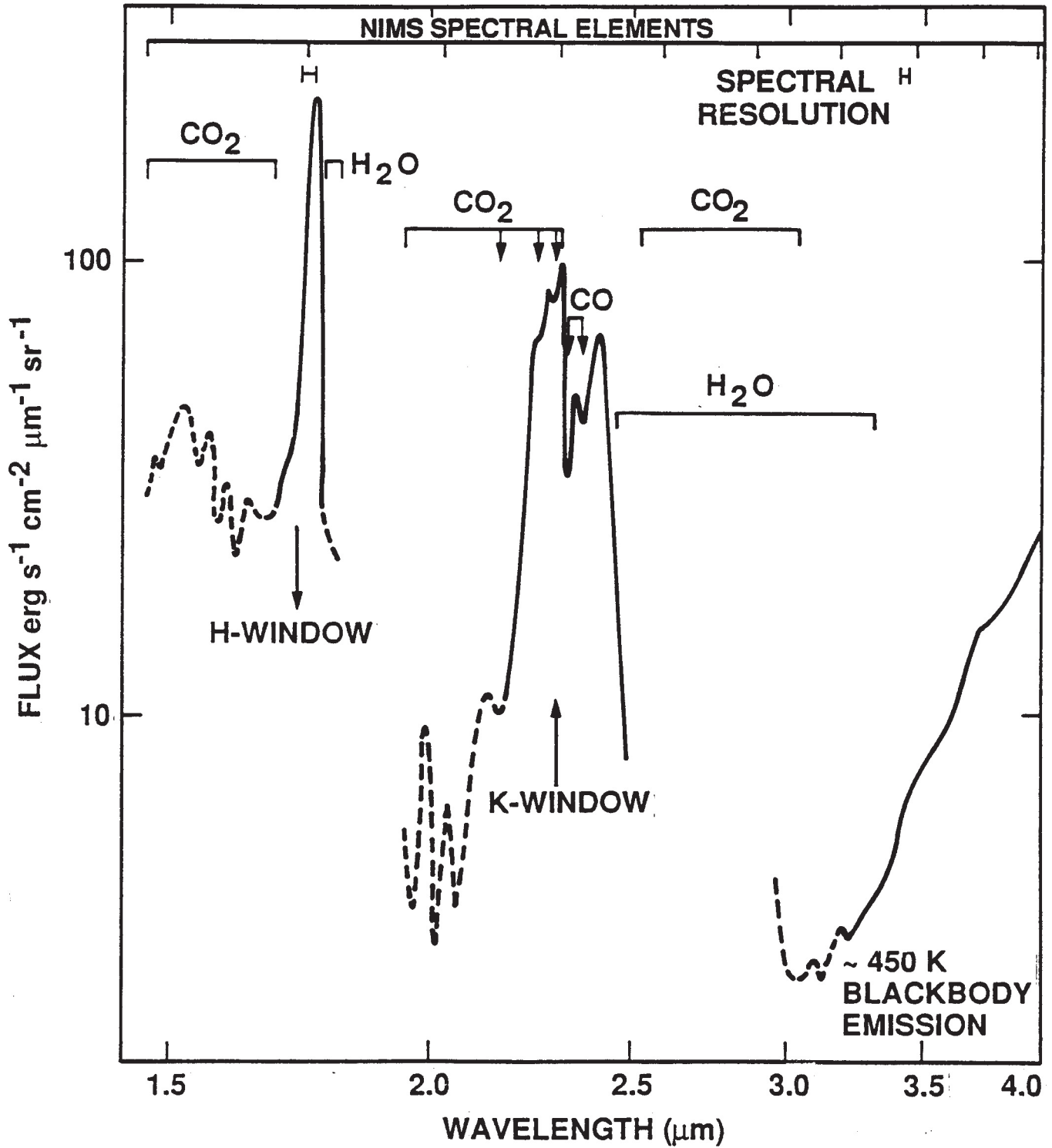
The nightside observations were the principal NIMS Venus science objectives. NIMS was built before it was known that Galileo would fly by Venus, but it turned out that it was ideal for investigating Venus' nightside emissions in the near-infrared part of the spectrum. These originate as thermal emissions from Venus' hot lower atmosphere, which then diffuse through the cloud layer into space. The observed near-infrared spectrum is mostly blacked out by strong absorption bands of carbon dioxide and water, but the spectral regions between the bands contain information about the composition of Venus' lower atmosphere and clouds. The figure on page 4 is a schematic of the cloud layers of Venus, as well as the variation of temperature with altitude. The wavelengths for the two NIMS Fixed Map (17 wavelengths) partial disk images were chosen to take advantage of these spectral windows to get maps of deep atmosphere cloud properties. The figure on page 5 shows the absorption bands of Venus' atmosphere with the Fixed Map wavelengths and spectral resolution indicated across the top. The third NIMS nightside observation was done in Long Map mode (408 wavelengths) in a jailbar pattern to obtain detailed spectroscopic information of the latitudinal and longitudinal variation of water and carbon dioxide in Venus' atmosphere. The Long Map spectrum fills the spectral region between the Fixed Map wavelengths (see figure on page 5).

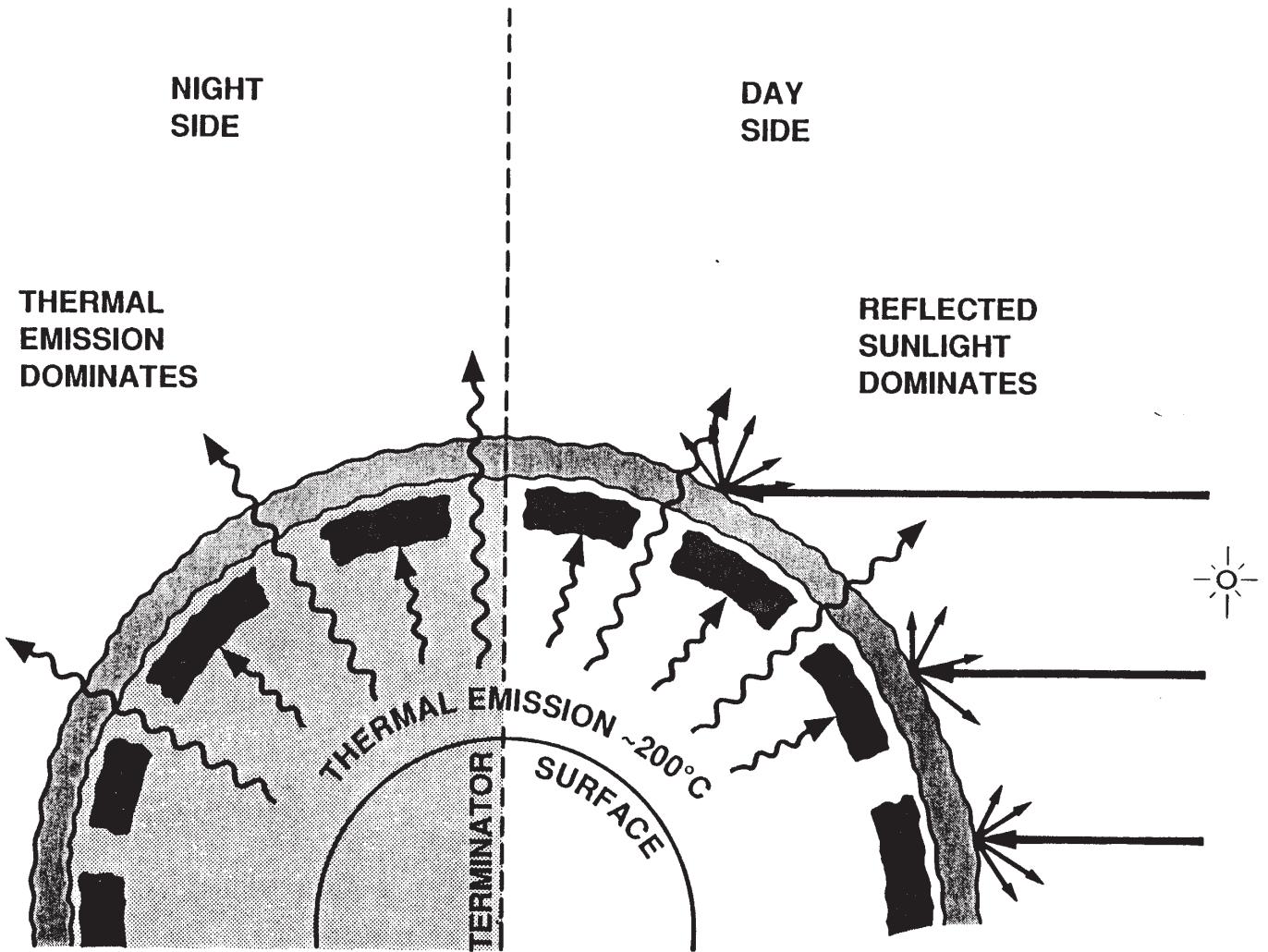
Two limb scans, one on the nightside limb and the other on the dayside limb, were performed in Long Spectrometer mode to study the vertical profile of oxygen and other trace species in Venus' atmosphere.

NIMS was in Long Map mode for the dayside ride-along observations. These observations are very different from the nightside observations in that the spectrum is dominated by reflected sunlight rather than deep thermal emission. The figure on page 6 is a cartoon showing the dramatic difference between the dayside and nightside of Venus in the near infrared.



# GALILEO/NIMS VENUS MAPS SPECTRAL COVERAGE





## Chapter 2 - Encounter Overview

### Contents

	Sub-Section	Page
2.0	Contents .....	1
2.1	Introduction to Chapter 2 .....	2
2.2	Galileo Venus Science Objectives .....	3
2.3	NIMS Venus Timeline Summary .....	4
2.4	NIMS Venus Observation Summary .....	5
2.5	NIMS Venus Tape Recorder Allocation .....	6
2.6	VPDIN1 Areal Coverage Map .....	7
2.7	VJBARS Areal Coverage Map .....	8
2.8	VPDIN2 Areal Coverage Map .....	9
2.9	Venus Encounter Key to Activities .....	10
2.10	Venus Summary Timeline .....	11
2.11	Venus Encounter Timeline .....	12
2.12	Venus Flyby Timeline .....	13

## Introduction to Chapter 2

This chapter gives an overview of the entire Venus Encounter.

The table on page 3 lists Galileo's Venus Science Objectives. The tables on pages 4 and 5 summarize the principal NIMS Venus observations. The table on page 6 shows NIMS' Venus tape allocation.

The figure on page 7 shows the areal coverage of the NIMS VPDIN1 observation on a PVO Venus topographic map (mercator projection). The shaded trapezoid in the center of the map shows the sub-mosaic that was to be returned in the early Venus data return. The figure on page 8 shows the areal coverage of the NIMS VJBARS observation on the same map as for VPDIN1. The figure on page 9 shows the areal coverage of the NIMS VPDIN2 observation on the same topographic map.

The table on page 10 lists the principal Galileo observations near Venus Closest Approach (VCA). The figure on page 11 is a summary timeline of the Galileo Venus Encounter science observations. The numbers of the observations in the table on page 10 correspond to the numbered events on the timeline on page 11.

The timeline on page 12 shows the timing of the principal Venus observation campaigns. The figure on page 13 is a pole view of the spacecraft's trajectory past Venus at closest approach (+/- 2 hours) with the timing of the principal Venus observations marked along the trajectory.

## GALILEO

### VENUS SCIENCE OBJECTIVES

#### First Time

1. Darkside IR mapping of features and motions in and below cloud deck (NIMS)
2. Small scale feature track, mid-latitude or equatorial (SSI,NIMS)
3. Spectroscopy of middle and deep atmosphere (NIMS)

#### Collaborative (GLL and PVO During Flyby)

4. Global feature tracking (SSI, NIMS, UVS, PPR)
5. Auroral excitation mechanism (UVS, MAG,PLS, EPD)
6. Ionospheric magnetization/interplanetary field (MAG)
7. Ion pickup (MAG,PLS,EPD)
8. Bowshock upstream particles and waves (MAG,PLS,EPD,PWS)

#### Collaborative (GLL and Previous S/C)

9. Limb studies (SSI, NIMS)
10. Lightning (SSI,PWS)
11. Cloud top temperatures (NIMS, PPR)
12. Spatial variability of H<sub>2</sub>O, H<sub>2</sub>SO<sub>4</sub>, O/CO, in and above clouds (NIMS, PPR,UVS)
13. Planetary energy budget (PPR)
14. UV/Visible nightglow distribution (UVS)

NIMS/VENUS

TIMELINE SUMMARY

(revised 11/11/90)

Observation	Oapel Name	Start Times			Duration	
		Target	Setup	End Mosaic	OAPEL	Tape
Partial Disk Imaging (1 gp, contiguous)	VPDIN1	41/01:48:22		41/02:31:44	44 mins	42 mins
Jail Bars (Longmap, non- contiguous)	VJBARS	41/03:40:22		41/04:02:00	22 mins	20 mins
Partial Disk Imaging (1 gp, contiguous)	VPDIN2	41/04:02:08		41/05:03:48	62 mins	60 mins
Limbscan Nightside	VLSN	41/05:31:44		41/05:38:55	7 mins	6 mins
Limbscan Dayside	VLSD	41/06:07:45		41/06:13:00	5 mins	4 mins

Totals: 140 mins 132 mins

KHB 5/30/89  
rev 6/07/89  
rev 10/04/89



NIMS/VENUS

OBSERVATION SUMMARY

(Revised 11/11/90)

OAPEL	Spatial Resolution (Km/Nimsel)		NIMS Mode	Sub-S/C Latitude		Territory Covered		Slew Rate (urad/sec)	Overlap (nimsels)
	Start	End		Start	End	Lat	Lon		
VPDIN1	51	49	XM	17.9	17.5	90N -90S	280W -30W	1500	10
VJBARS	28	24	LM	10.2	7.5	3 non-contiguous stripes: ~ 5 W ~ 357 W ~ 339 w Maxwell Montes sampled		0 (~4 integrations/sample)	0 (May be several nimsels between samples)
VPDIN2	24	13	XM	7.2	-9.5	90N -7S	335W -15W	1500	10
VLSN	12.3	11.9	LS	-27.7	-32.7	1 scan from -20 to +230 km altitude Near anti-sub-solar point		29	N/A
VLSD	10.2	10.4	LS	-52.6	-52.9	1 scan from -10 to +260 km altitude Near sub-solar point		55	N/A

KHB 5/30/89  
rev 6/07/89  
rev 10/04/89  
rev 11/11/90

NIMS/VENUS

TAPE RECORDER ALLOCATION

OAPEL name	Km/Nimse1	Tracks	Percent of NIMS allocation of 1.01 tracks
VPDIN1	51-49	0.32	31.8
VJBARS	26-22	0.15	15.2
VPDIN2	22-11	0.46	45.5
VLSN	12	0.05	4.5
VLSD	10	0.03	3.0
Totals:		1.01	100.0

68.2% of NIMS tape used to acquire spatial resolutions better than 28 km.

100% of NIMS tape used to acquire spatial resolutions better than 51 km.

=> 100% of NIMS tape applicable to small-scale cloud structure.

22.7% of NIMS tape used to acquire high-spectral resolution data (either Long Map or Long Spectrometer modes).

=> 22.7% of NIMS tape applicable to atmospheric composition.

77.3% of NIMS tape used to acquire contiguous maps.

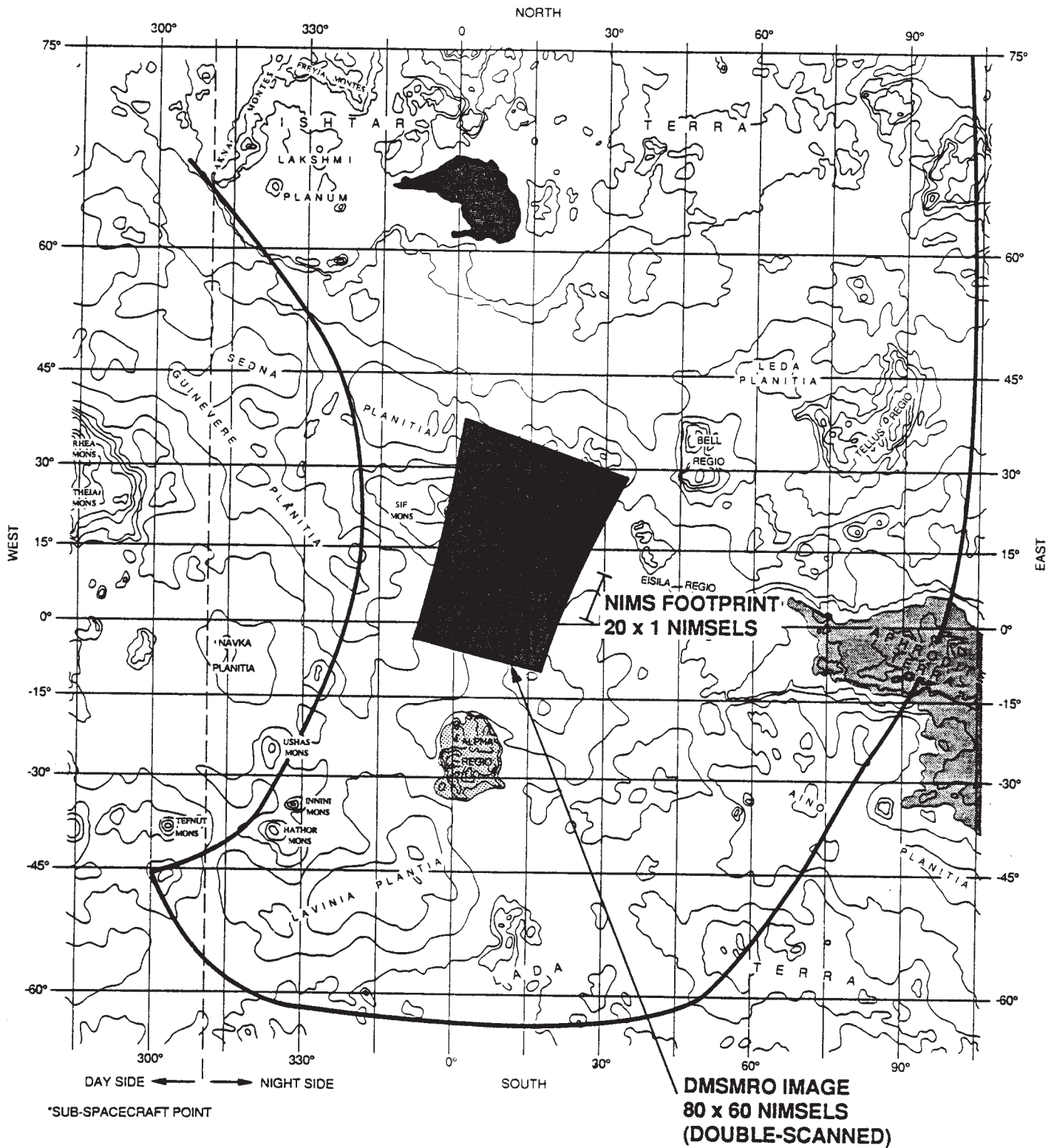
=> 77.3% of NIMS tape applicable to dynamics.

KHB 5/30/89  
rev 11/11/90

# GALILEO/NIMS VENUS MAP No. 1

## AREAL COVERAGE

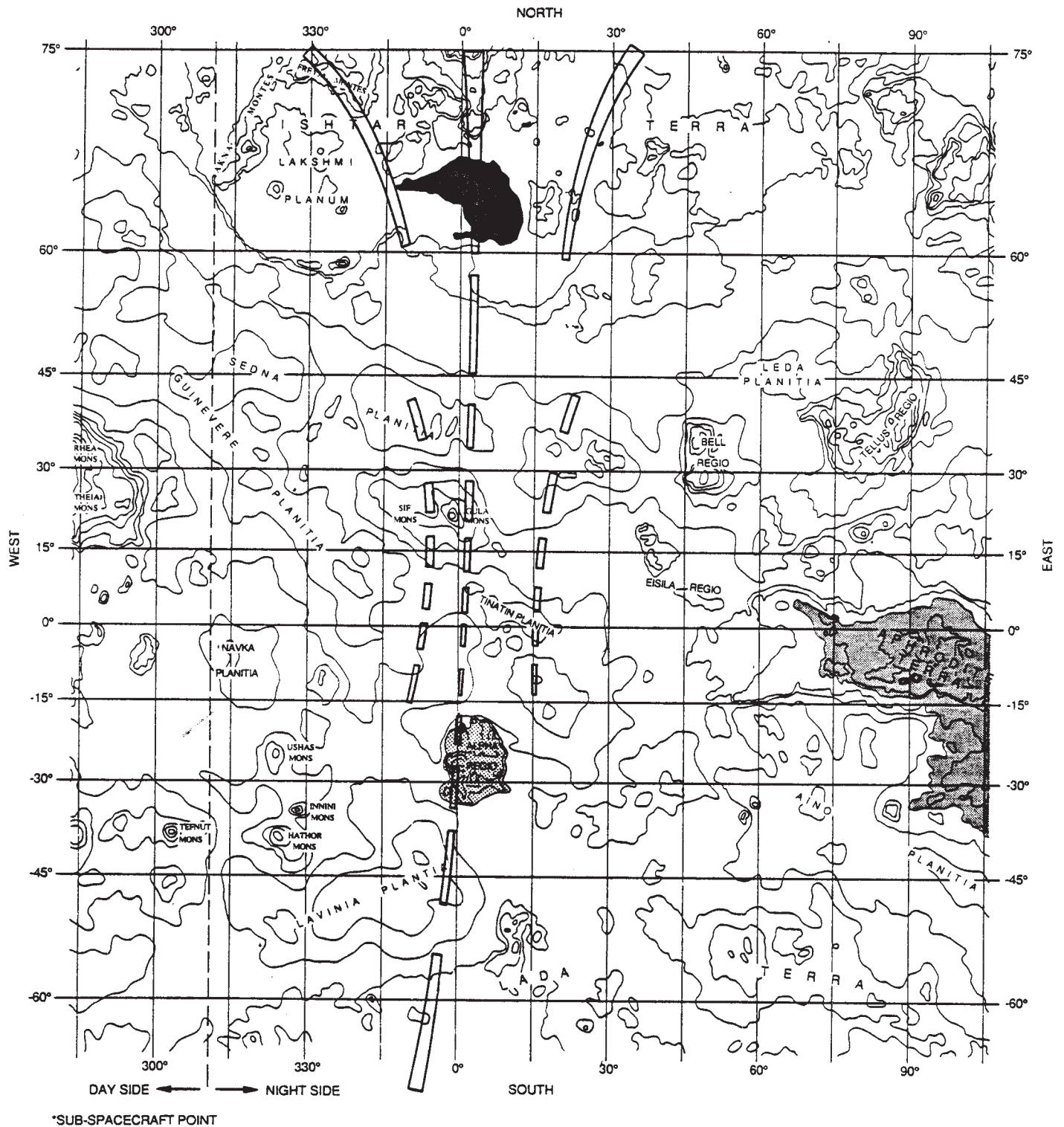
### 45 - 50 km RESOLUTION



# GALILEO/NIMS VENUS WATER SPECTRA

## AREAL COVERAGE

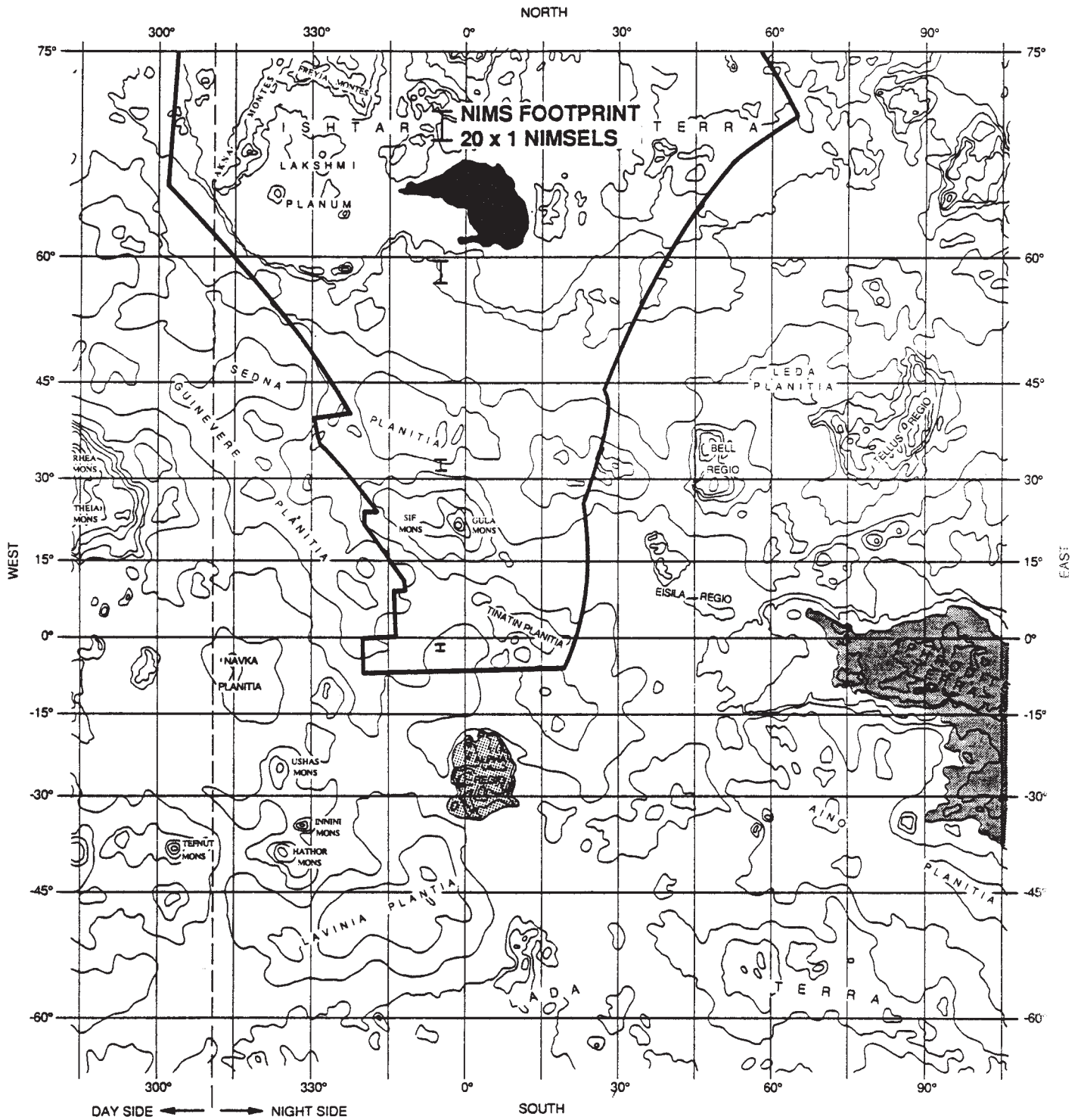
### 24 - 26 km RESOLUTION



# GALILEO/NIMS VENUS MAP No. 2

## AREAL COVERAGE

### 12 - 24 km RESOLUTION



\*SUB-SPACECRAFT POINT

# VENUS ENCOUNTER

## KEY TO ACTIVITIES

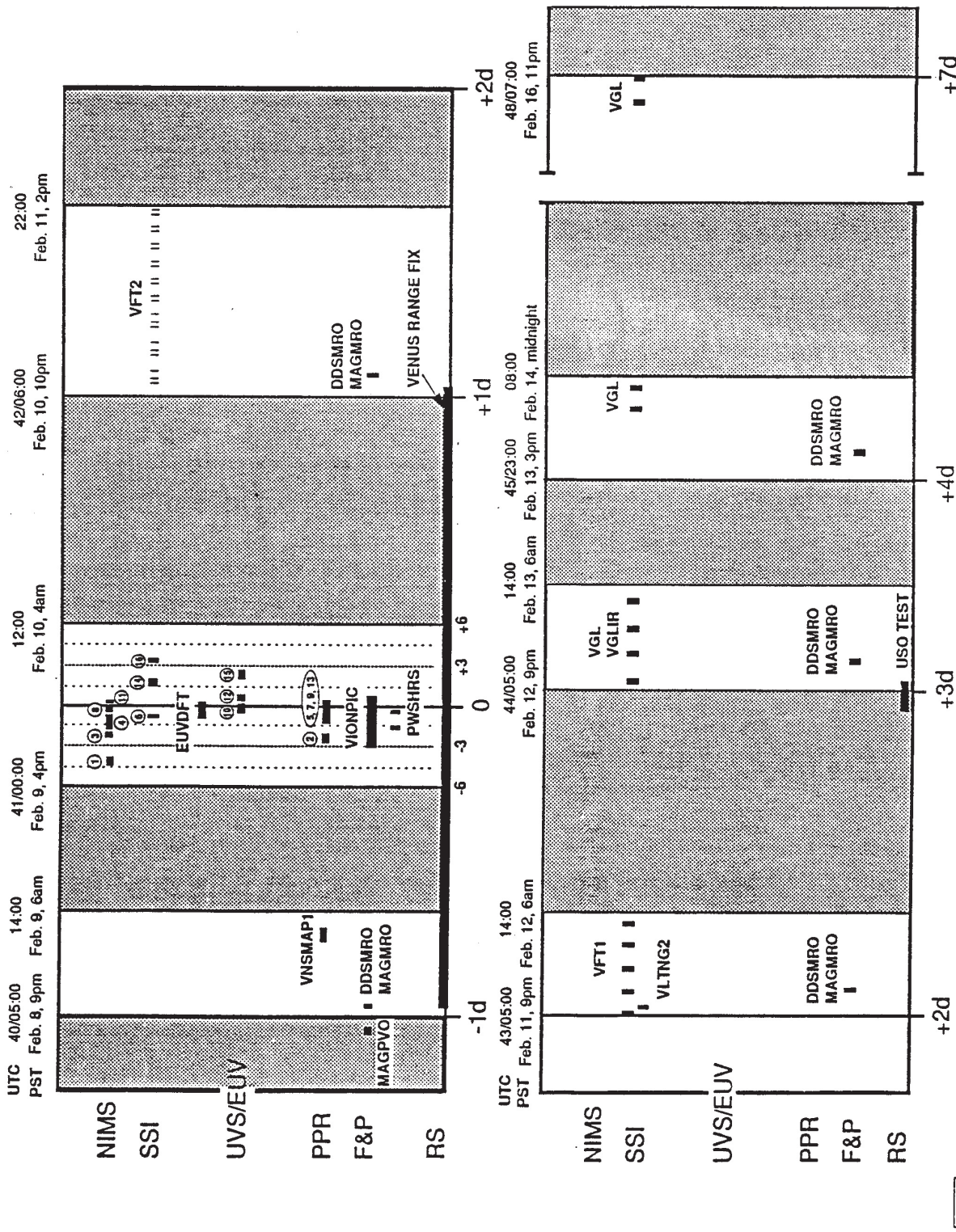
[VCA ± 6 HOURS]

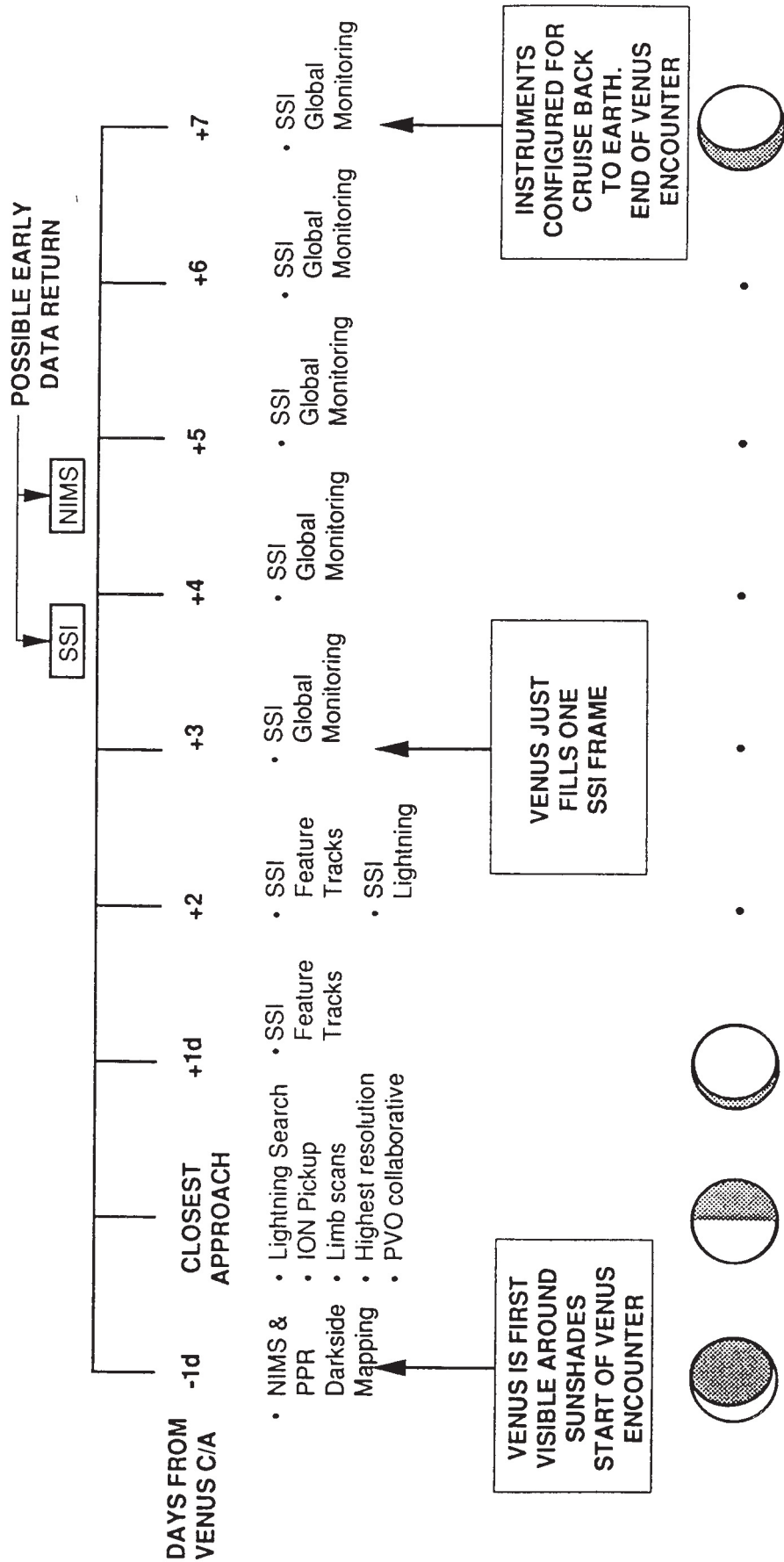
VENUS OBSERVATIONS		
No.	Observation Name	OAPel
①	Venus Partial Disk Imaging, Nightside	VPDIN1
②	N/S Radiometry Map	VNSMAP2
③	Jail Bars	VJBARS
④	Venus Partial Disk Imaging, Nightside	VPDIN2
⑤	Fast N/S Radiometry Map (1)	VFNSMAP1
⑥	Venus Lightning Search	VLTING1
⑦	Fast N/S Radiometry Map (2)	VFNSMAP2
⑧	Venus Limb Scans, Night	VLSN
⑨	Fast N/S Radiometry Map (3)	VFNSMAP3
⑩	UVS Limb Drift (1)	VLMBDFT1
⑪	Venus Limb Scans, Day	VLSD
⑫	UVS Limb Drift (3)	VLMBDFT3
⑬	Fast N/S Radiometry Map	VFNSMAP4
⑭	Venus Limb Scans (1)	VLMBØ1
⑮	N/E/W/S Map	VNEWS
⑯	Venus Limb Scans (2)	VLMBØ2
Not Numbered:		
	Ion Pickup	VIONPIC
	EUV Drift Observation	EUVDFDFT
	PWS Venus High Rate Frames	PWSHRS

KLB  
2/6/90



# VENUS ENCOUNTER SCIENCE OBSERVATIONS SUMMARY TIMELINE



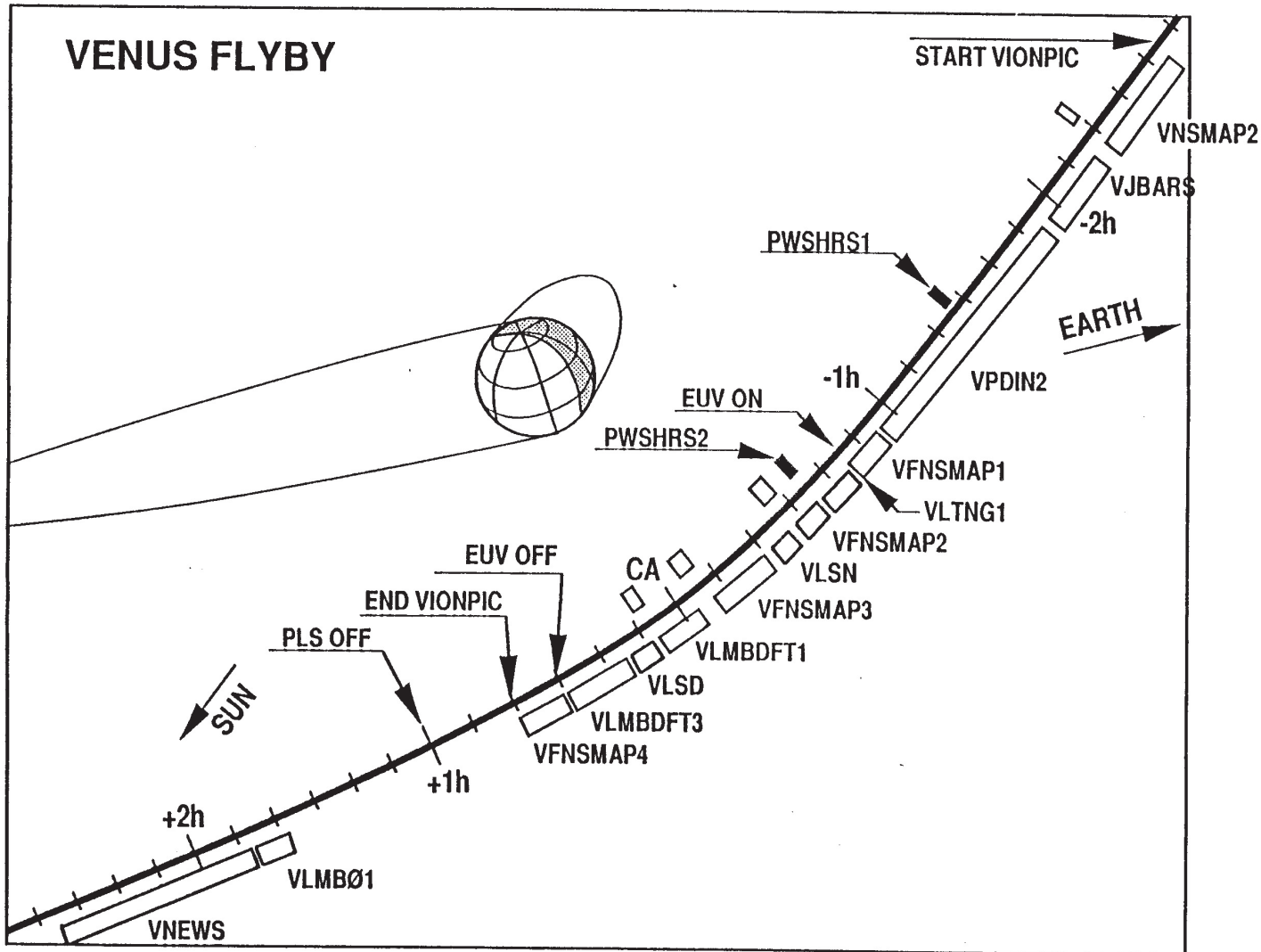


- VENUS C/A AT FEBRUARY 10, 1990, 6:02 AM UTC
- GALILEO ENCOUNTER STAFFED FOR ONE SHIFT/DAY

**ENCOUNTER TIMELINE.** On approach, Venus is obscured by HGA until -1 days. First observations are by NIMS and PPR of nightside. At closest approach there is an intensive activity by all instruments. SSI then tracks UV cloud features on dayside for 7 days.



# VENUS FLYBY



## Chapter 3 - Encounter Geometries

### Contents

Sub-Section	Page
3.0 Contents .....	1
3.1 Introduction to Chapter 3 .....	2
3.2 Galileo Interplanetary Trajectory .....	3
(Launch thru EGA-1)	
3.3 Galileo Interplanetary Trajectory .....	4
(Launch thru JOI)	
3.4 Trajectory Pole View .....	5
3.5 Venus Ground Track .....	6
3.6 Venus-S/C Range in Venus Radii .....	7
3.7 S/C Altitude wrt Venus (km) .....	8
3.8 Venus Angular Semi-Diameter .....	9
3.9 Sun-Venus-S/C Angle (deg) .....	10
3.10 Sun-S/C-Venus Angle (deg) .....	11
3.11 Venus Clock Angle (deg) .....	12
3.12 Venus-Centered Latitude (deg) .....	13
3.13 Venus-Centered W. Longitude (deg) .....	14
3.14 Venus Smear Rate (deg/sec) .....	15
3.15 Venus Smear Rate (km/sec) .....	16
3.16 Venus Smear Rate (mrad/sec) .....	17

### Introduction to Chapter 3

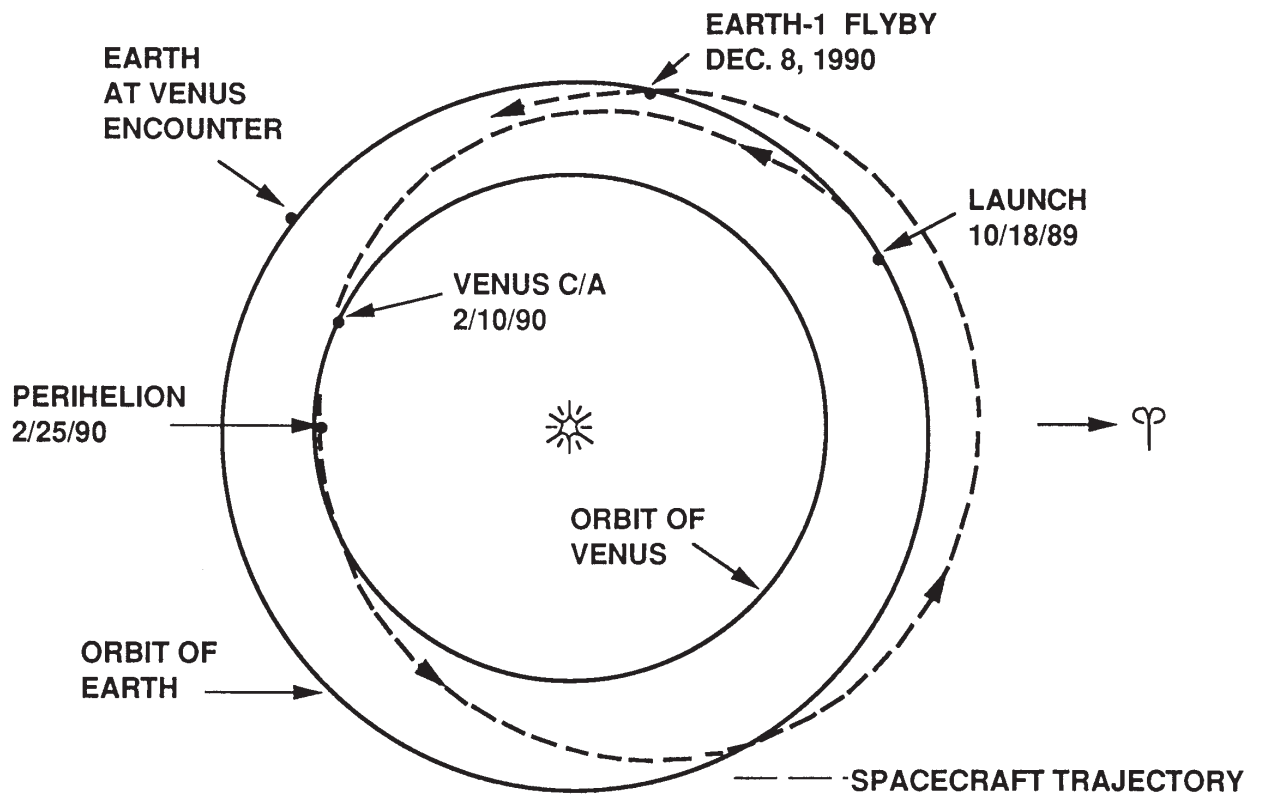
This chapter contains diagrams of various aspects of geometry for the Venus Encounter. These figures were produced for the Galileo project by several project teams.

The figures on pages 3 and 4 show the trajectory of the Galileo spacecraft from launch thru E1 (EGA-1) and from launch thru Jupiter Orbit Insertion.

The figure on page 5 is a pole view of the spacecraft's trajectory past Venus at closest approach, +/- 2 hours. The figure on page 6 shows the spacecraft's ground track on Venus at closest approach, +/- 2 hours.

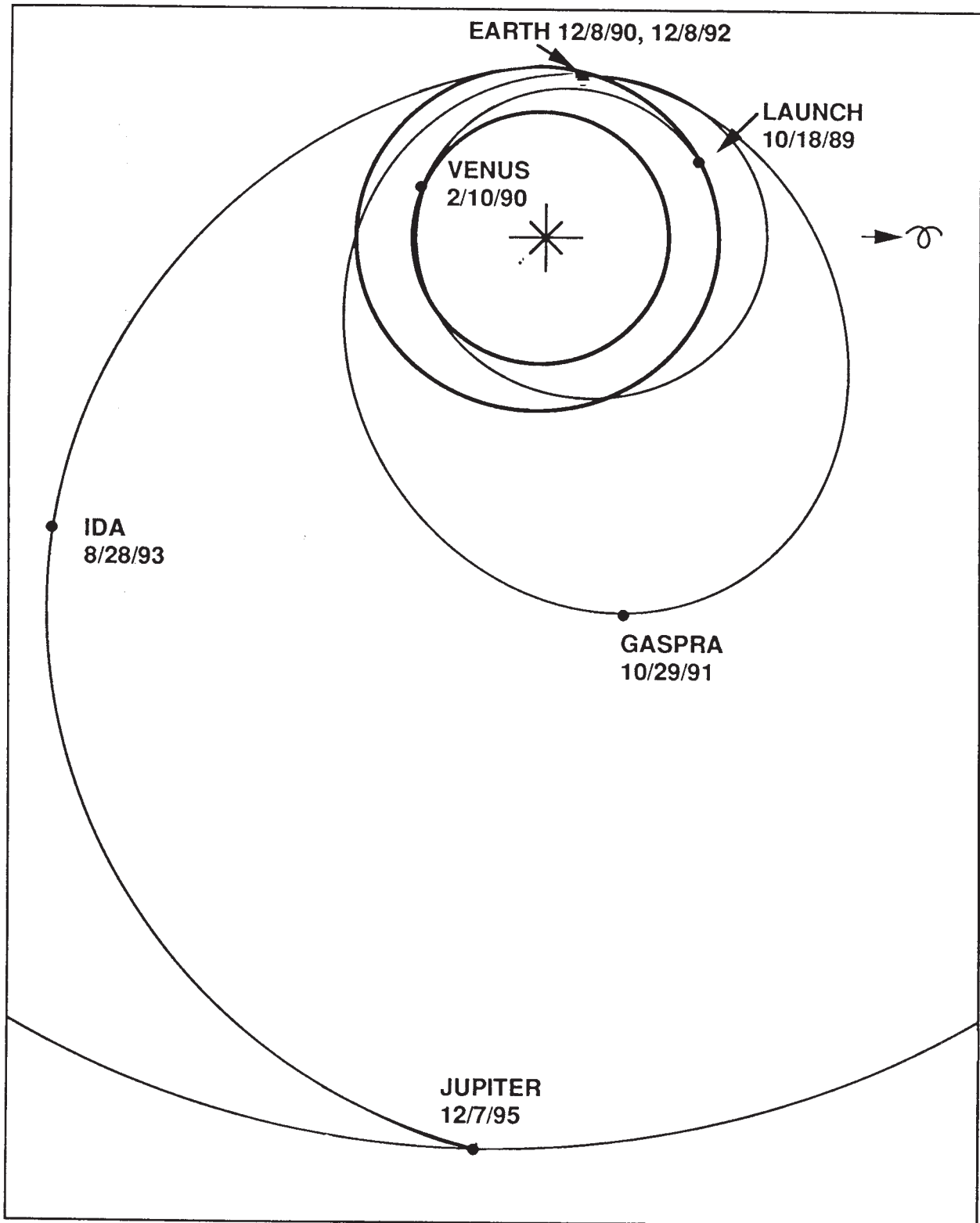
The figures on pages 7 thru 17 show geometric quantities relating the spacecraft's position and orientation relative to Venus as a function of time: Venus-spacecraft range in Venus radii and km, Venus' angular semi-diameter, Sun-Venus-spacecraft angle, Sun-spacecraft-Venus angle, Venus clock angle, Venus-centered latitude and west longitude of the sub-spacecraft point and the smear rate across Venus in deg/sec, km/sec and mrad/sec.

# GALILEO INTERPLANETARY TRAJECTORY (LAUNCH THRU EGA-1)

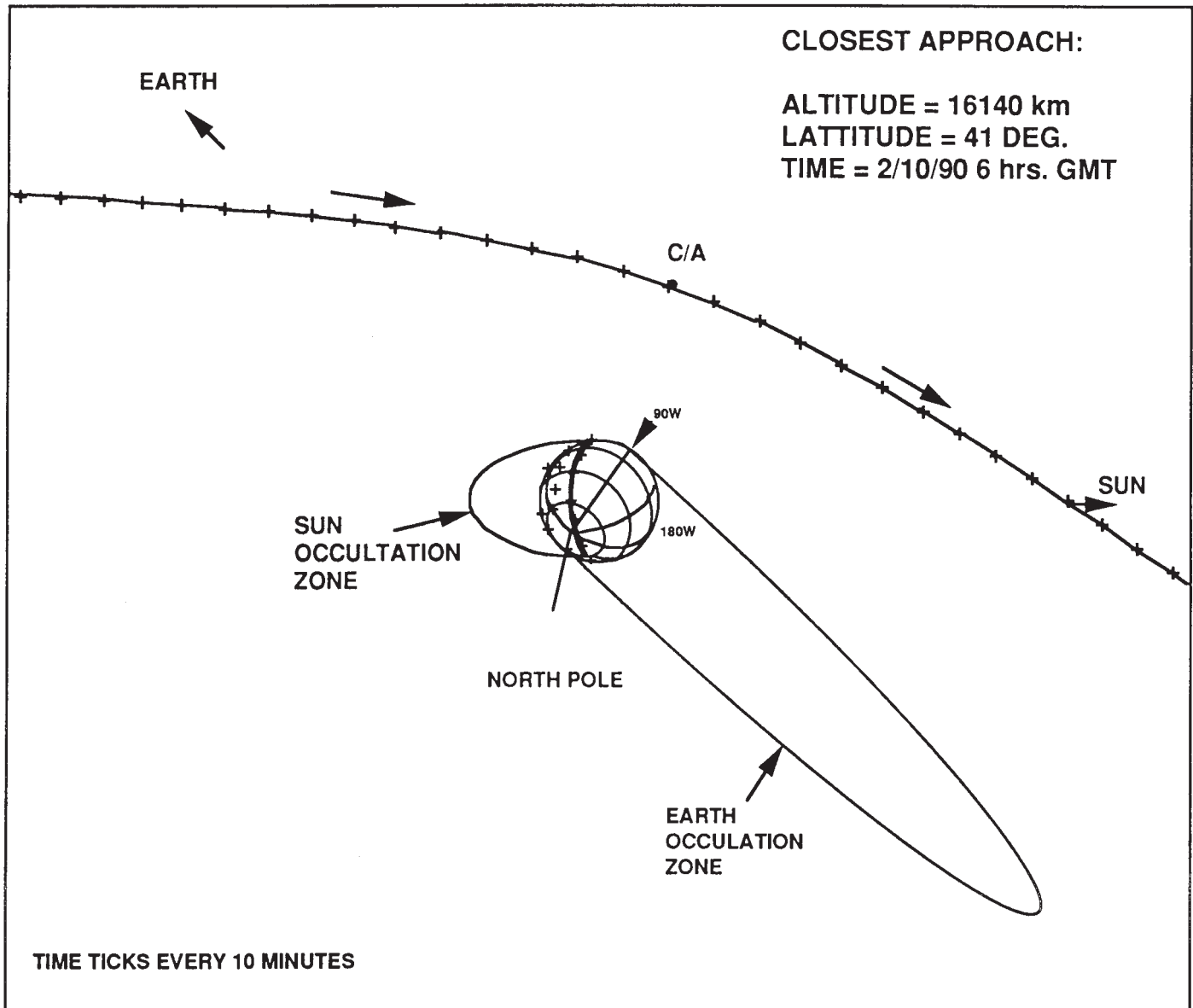


Galileo Interplanetary Trajectory (Launch through EGA-1). This is the first phase of its mission.

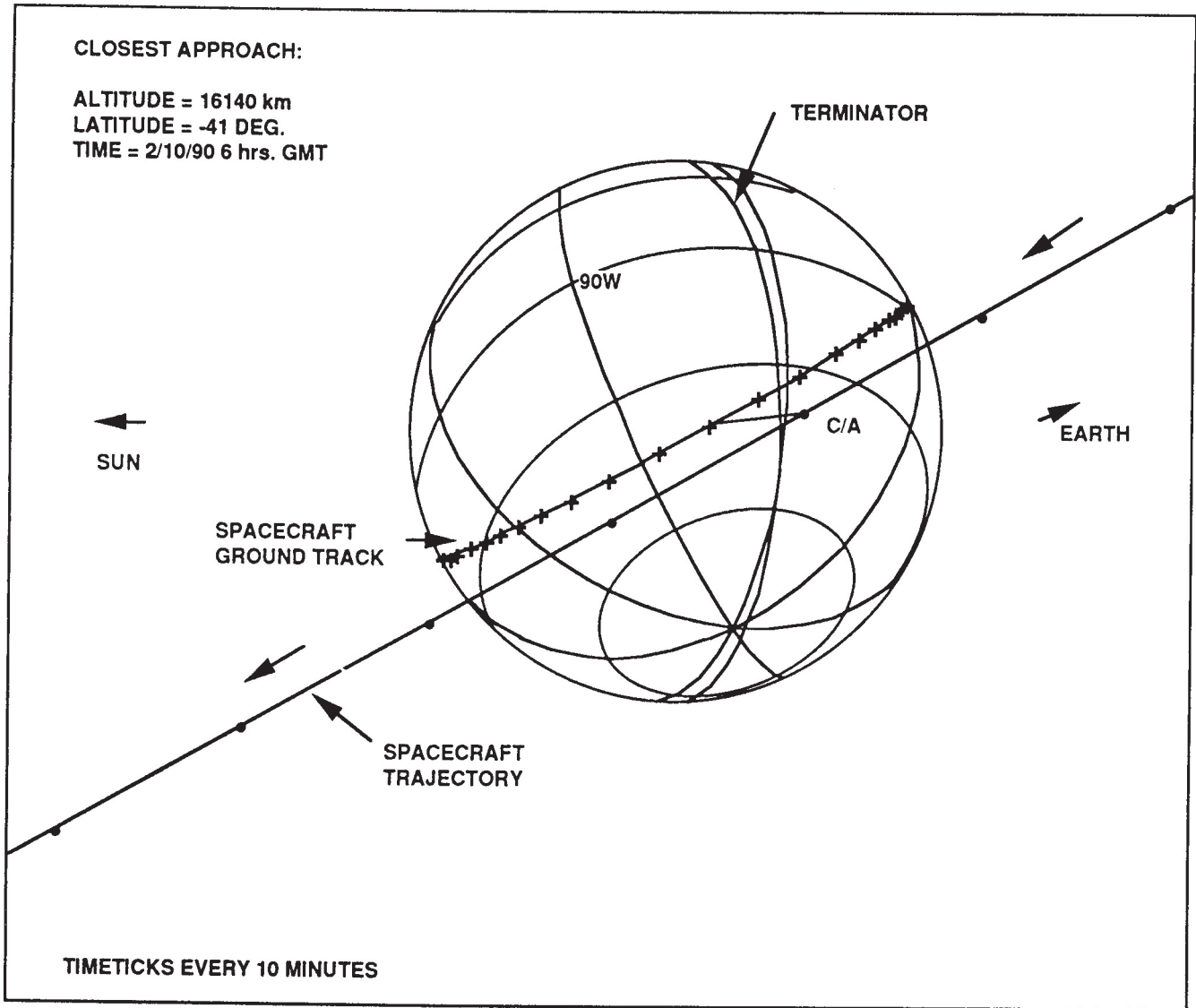
# GALILEO INTERPLANETARY TRAJECTORY



Galileo Interplanetary Trajectory from Launch through Jupiter Orbital Insertion.



VENUS FLYBY (TRAJECTORY POLE VIEW)

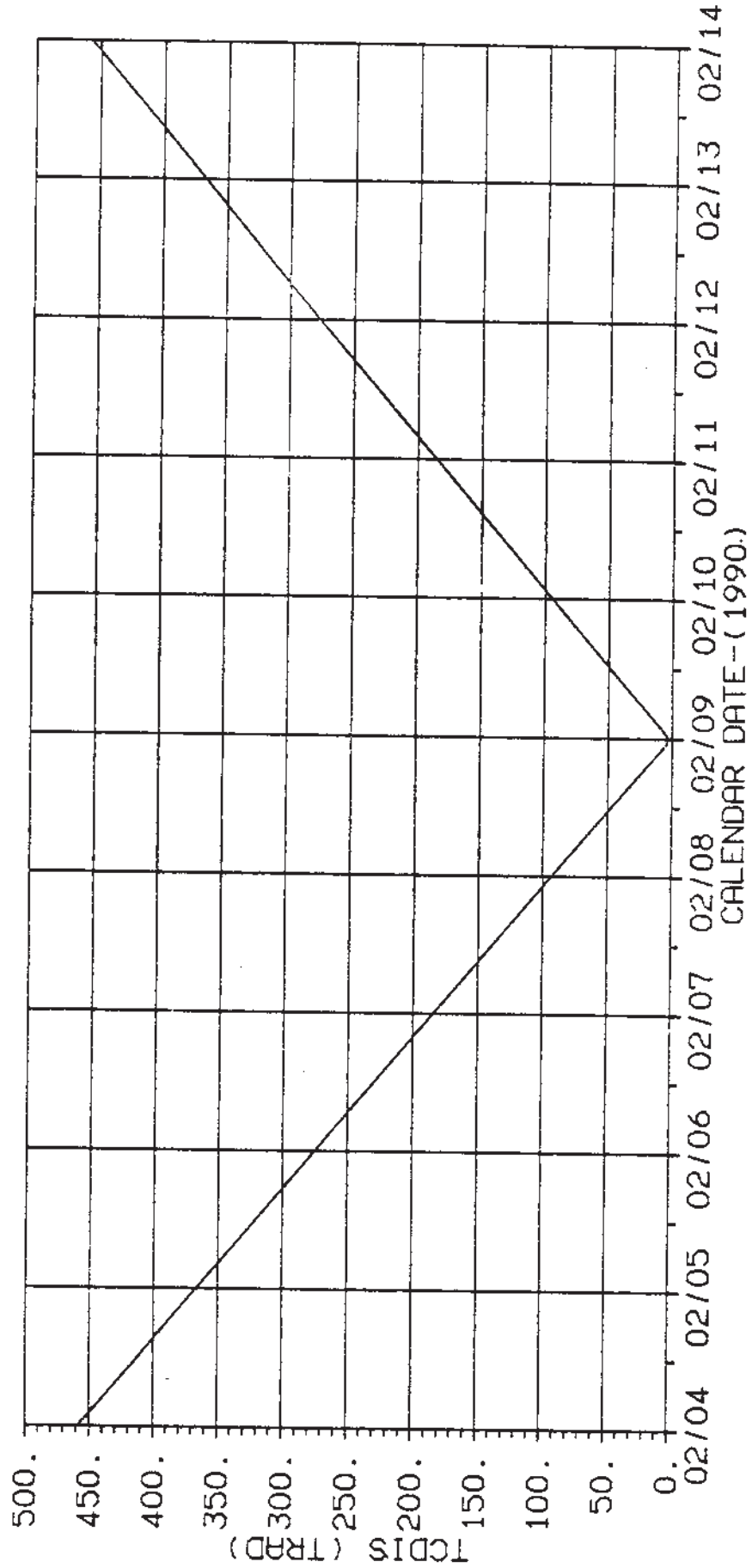


VENUS CLOSEST APPROACH

10/10

Entire scale has been inadvertently shifted by 3<sup>h</sup> 32<sup>m</sup>. C/A actually occurs at 20<sup>h</sup> 28<sup>m</sup> on 02/08/90.

GASPRA+IDA, I/D: 10/10/89, VENUS-S/C RANGE IN VENUS RADII

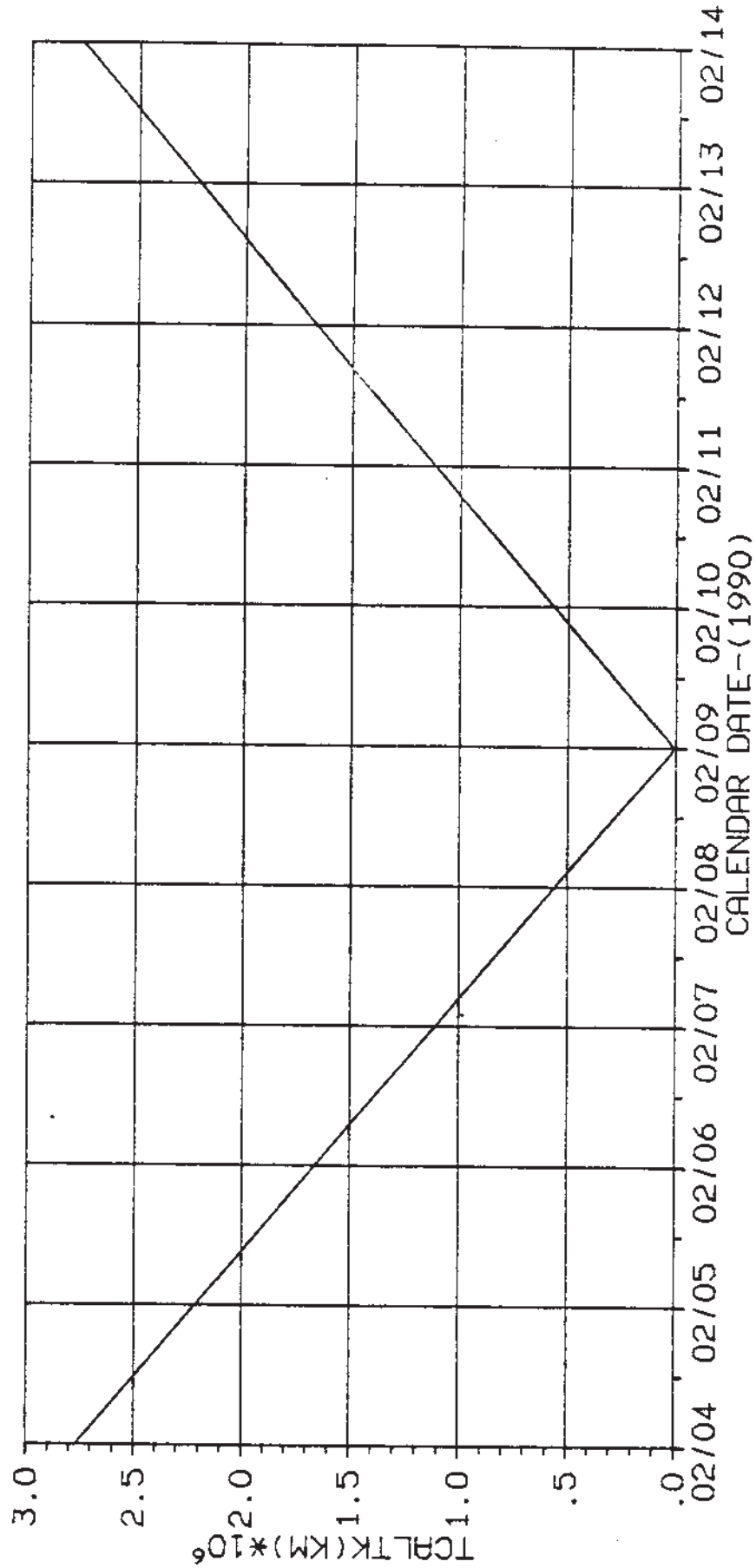




10/10

Entire scale has been inadvertently shifted by 3<sup>h</sup> 32<sup>m</sup>. C/A actually occurs at 20<sup>h</sup> 28<sup>m</sup> on 02/08/90.

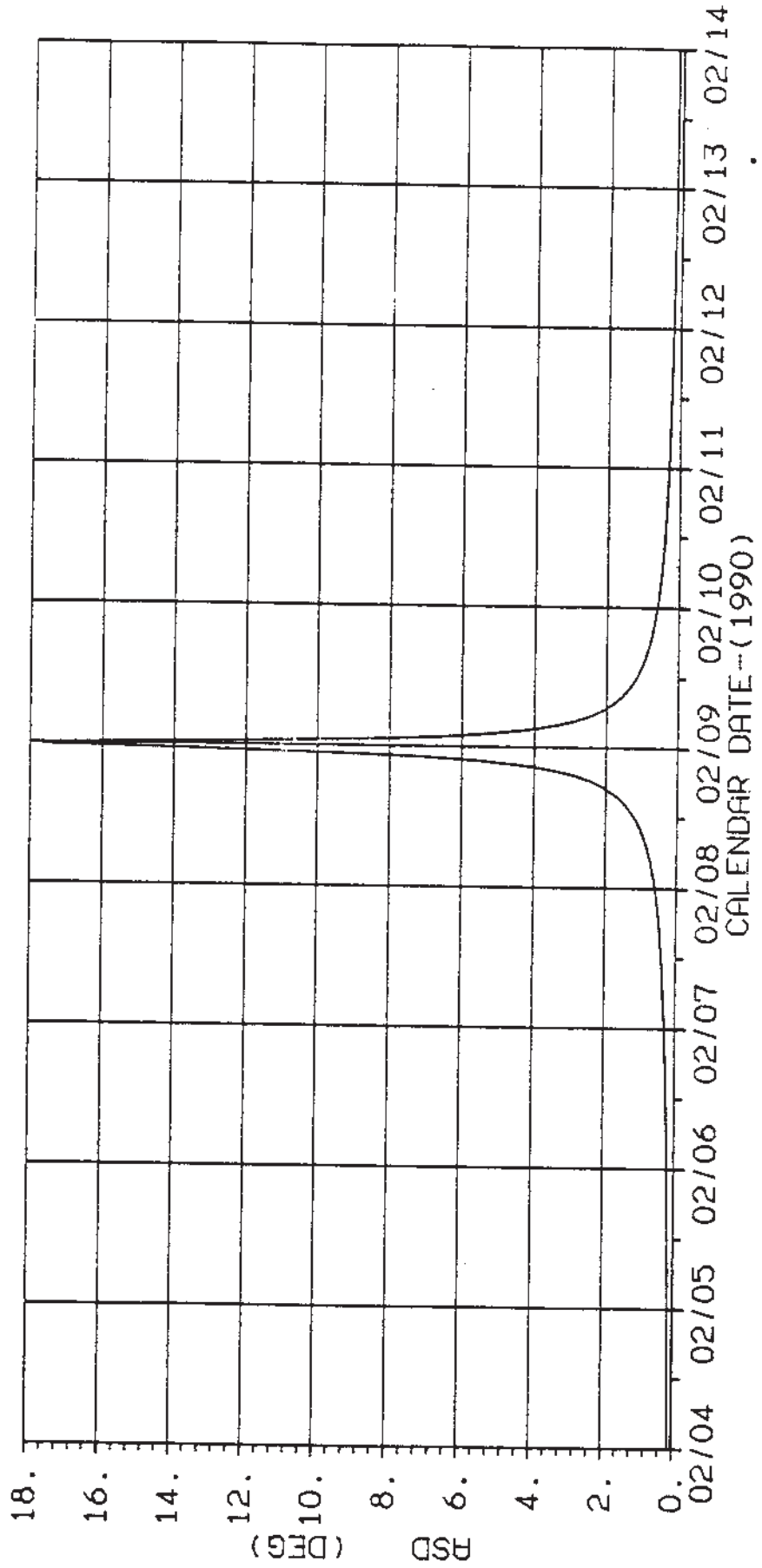
GASPRA+IDA, I/D: 10/10/89, S/C ALTITUDE WRT TO VENUS



10/10

Entire scale has been inadvertently shifted by 3<sup>h</sup> 32<sup>m</sup>. C/A actually occurs at 20<sup>h</sup> 28<sup>m</sup> on 02/08/90.

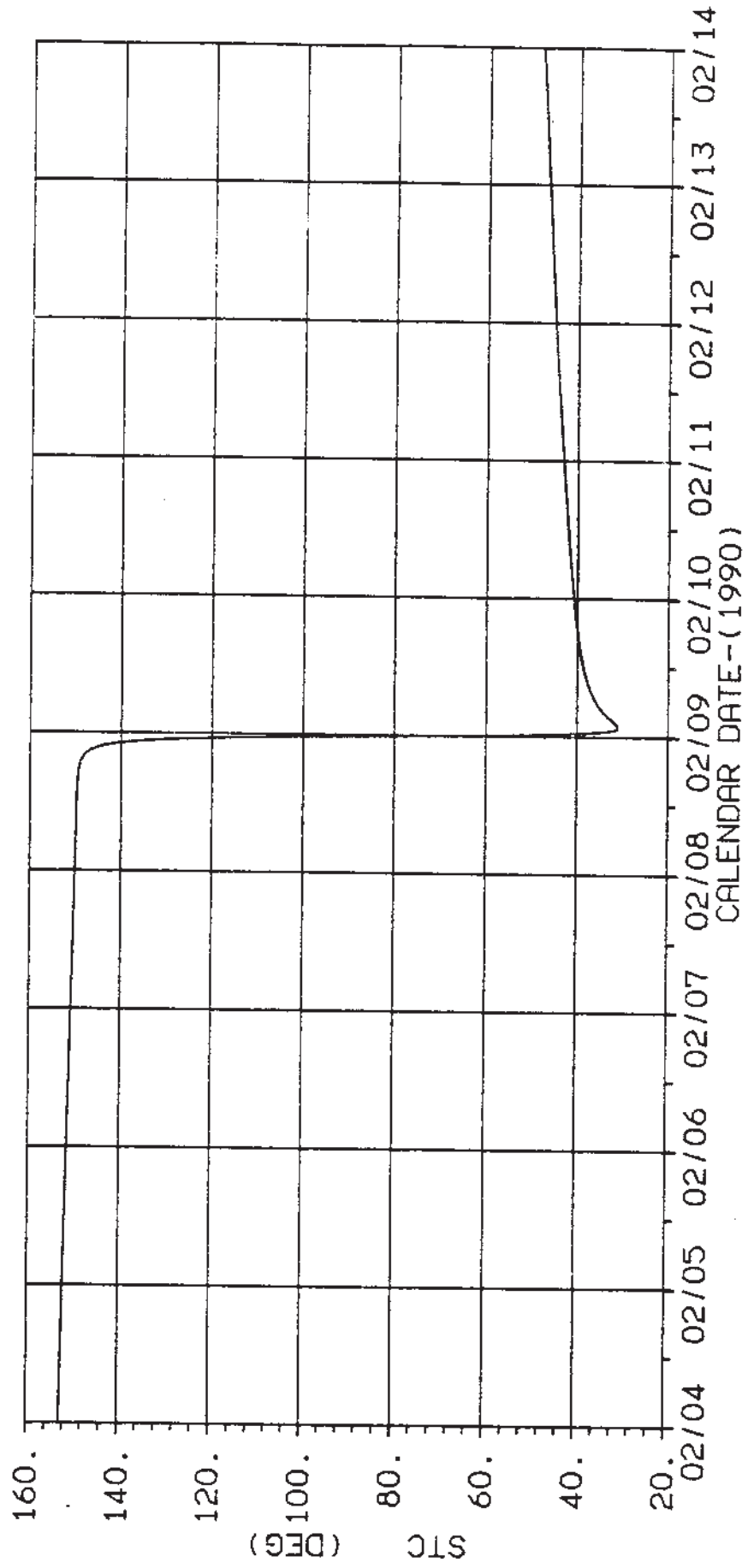
GASPR+IDA, I/D: 10/10/89, VENUS ANGULAR SEMI-DIAMETER



10/10

Entire scale has been inadvertently shifted by 3<sup>h</sup> 32<sup>m</sup>. C/A actually occurs at 20<sup>h</sup> 28<sup>m</sup> on 02/08/90.

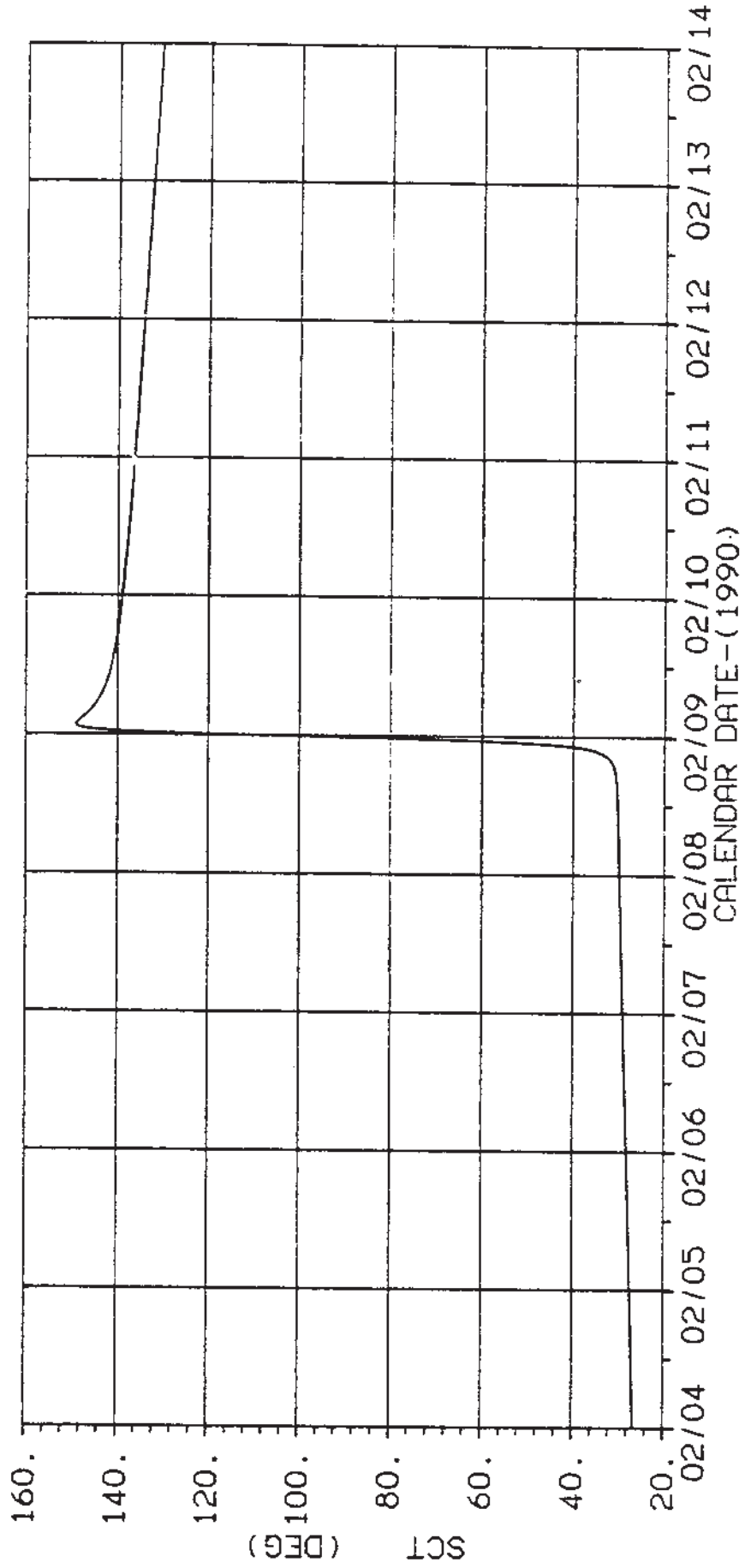
GASPRA+IDA, I/D: 10/10/89, SUN-VENUS-S/C ANGLE



10/10

Entire scale has been inadvertently shifted by 3<sup>h</sup> 32<sup>m</sup>. C/A actually occurs at 20<sup>h</sup> 28<sup>m</sup> on 02/08/90.

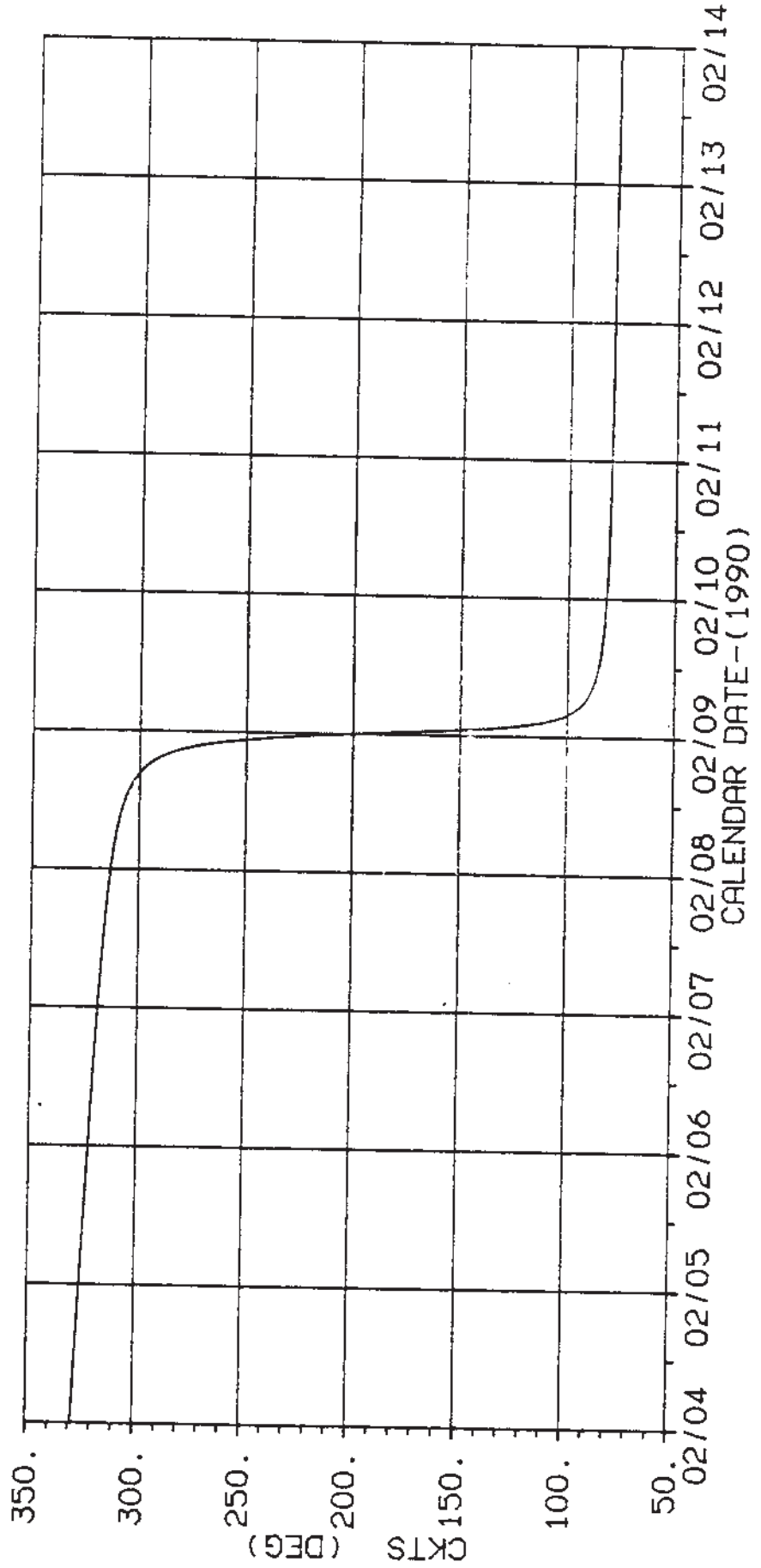
GASPRR+IDA, I/D: 10/10/89, SUN-S/C-VENUS ANGLE



10/10

Entire scale has been inadvertently shifted by 3<sup>h</sup> 32<sup>m</sup>. C/A actually occurs at 20<sup>h</sup> 28<sup>m</sup> on 02/08/90.

GASPRA+IDA, I/D: 10/10/89, VENUS CLOCK ANGLE

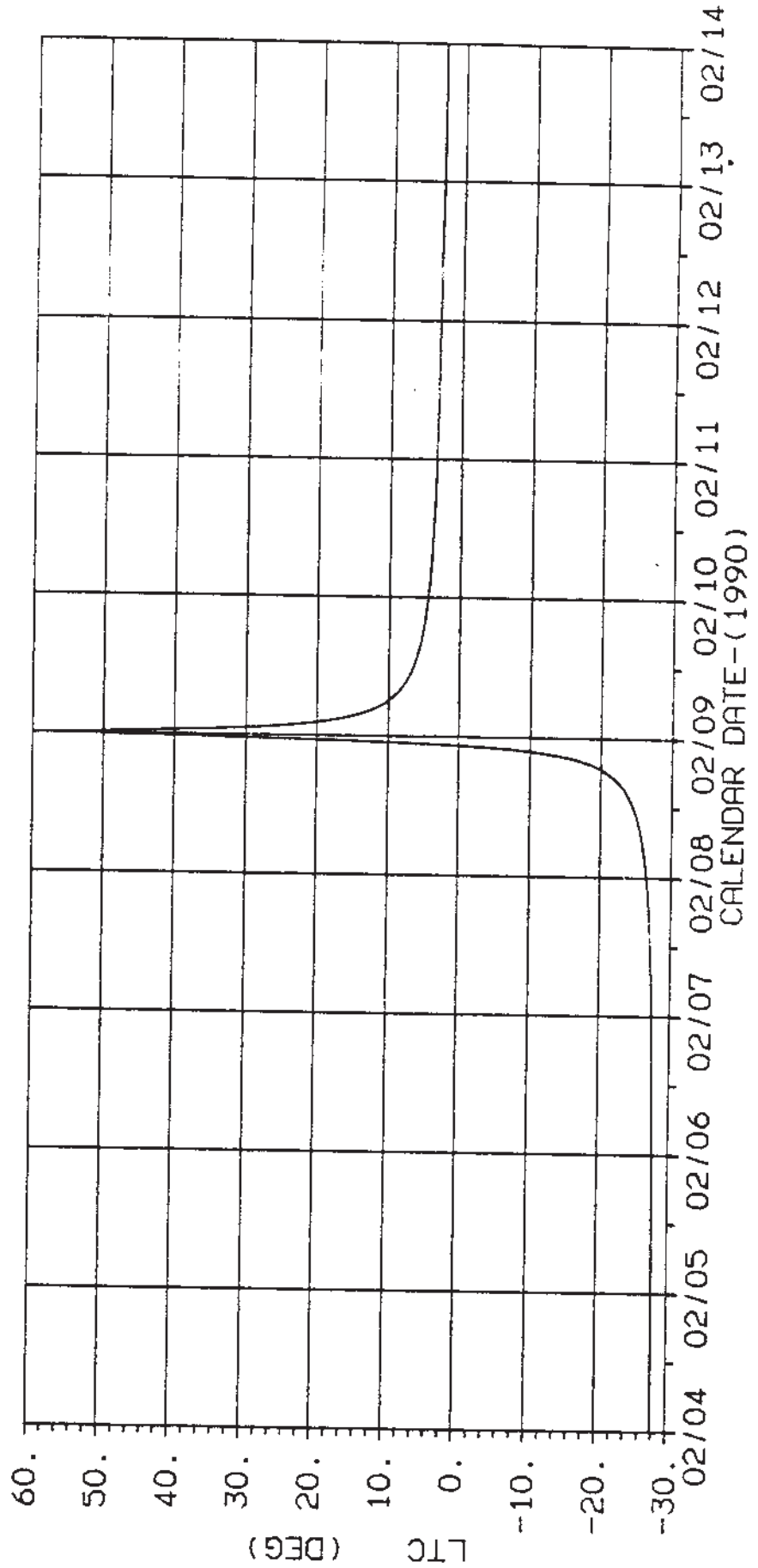


NOTE: VENUS NORTH POLE IS VENUS SPIN POLE.  
 (I.E. IT POINTS BELOW THE ECLIPTIC.)

10/10

Entire scale has been inadvertently shifted by 3<sup>h</sup> 32<sup>m</sup>. C/A actually occurs at 20<sup>h</sup> 28<sup>m</sup> on 02/08/90.

GASPRRA+IDA, I/D: 10/10/89, VENUS-CENTERED LATITUDE

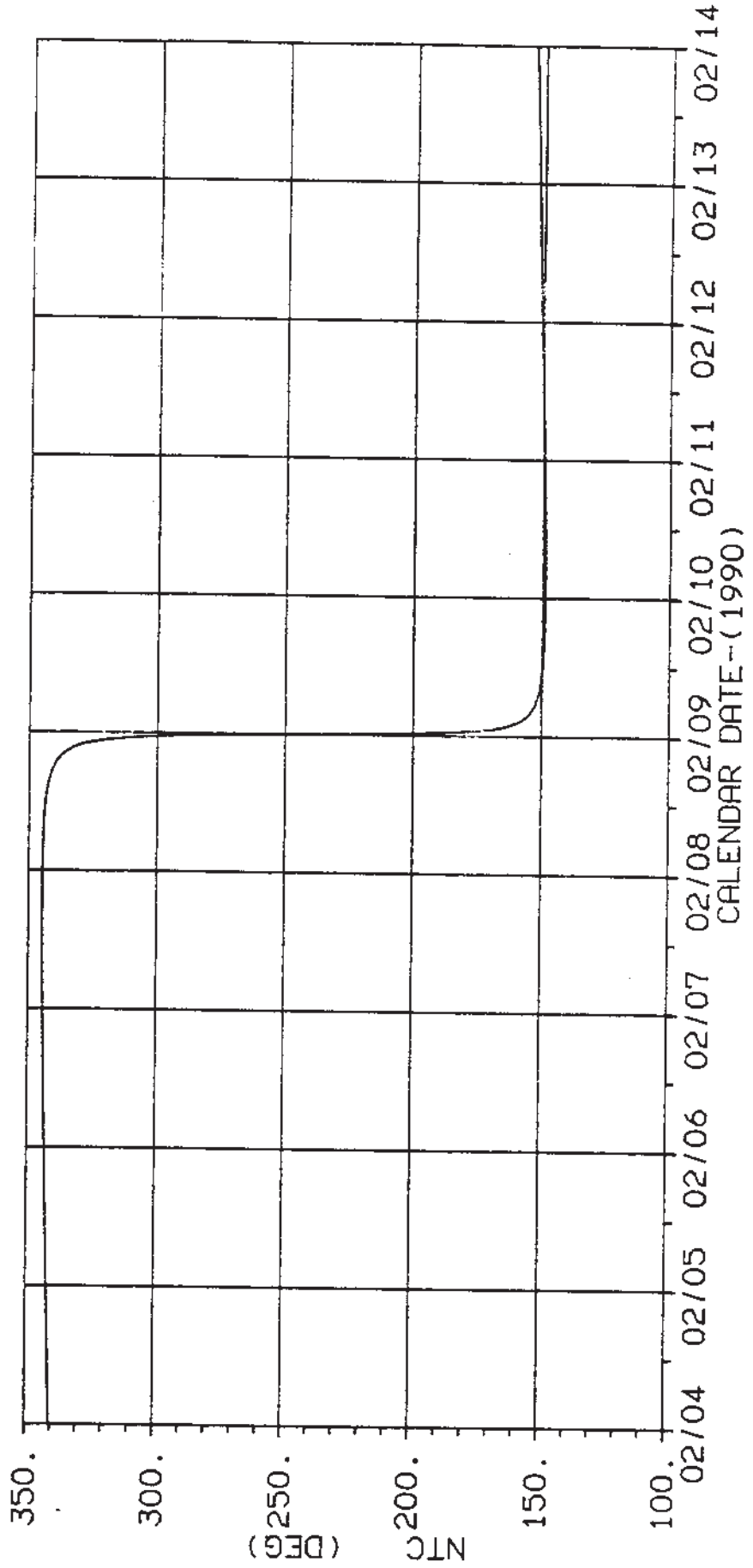


NOTE: VENUS NORTH POLE IS VENUS SPIN POLE.  
 (I.E. IT POINTS BELOW THE ECLIPTIC.)

10/10

Entire scale has been inadvertently shifted by 3<sup>h</sup> 32<sup>m</sup>. C/A actually occurs at 20<sup>h</sup> 28<sup>m</sup> on 02/08/90.

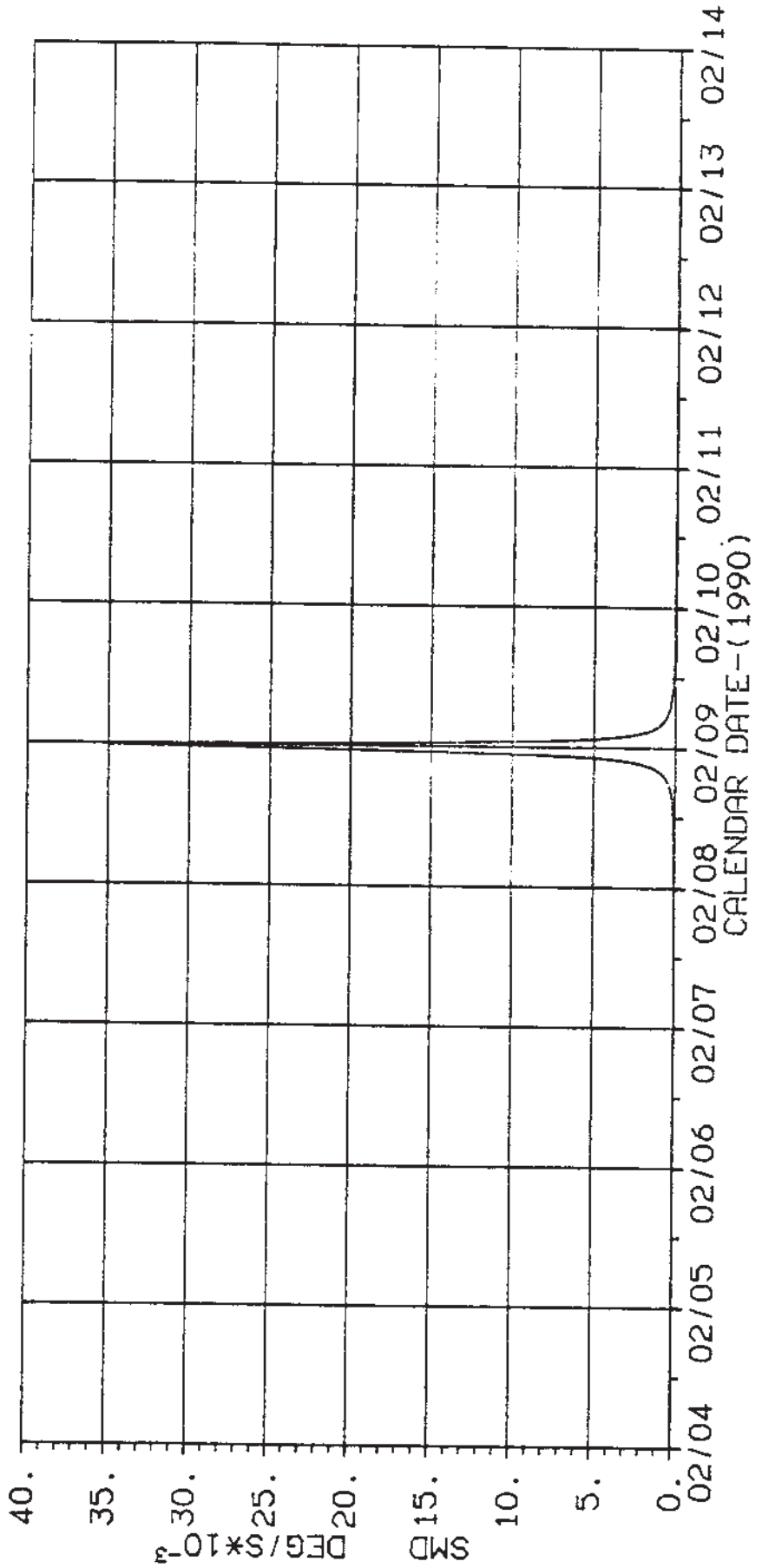
GASPRA+IDA, I/D: 10/10/89, VENUS-CENTERED W. LONGITUDE



10/10

Entire scale has been inadvertently shifted by 3<sup>h</sup> 32<sup>m</sup>. C/A actually occurs at 20<sup>h</sup> 28<sup>m</sup> on 02/08/90.

GASPR+IDA, I/D: 10/10/89, VENUS SMEAR RATE (DEG/S)

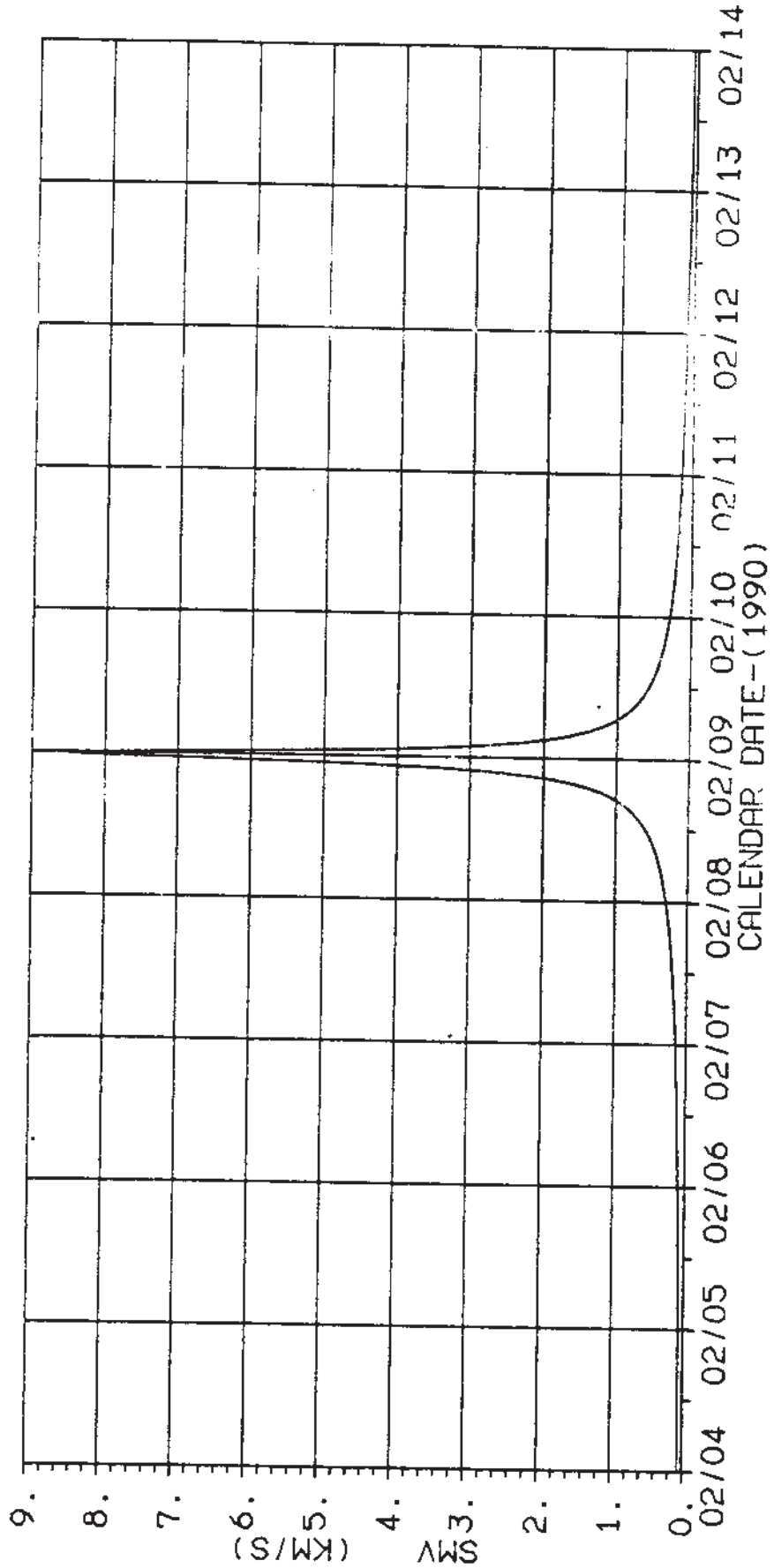




10/10

Entire scale has been inadvertently shifted by 3<sup>h</sup> 32<sup>m</sup>. C/A actually occurs at 20<sup>h</sup> 28<sup>m</sup> on 02/08/90.

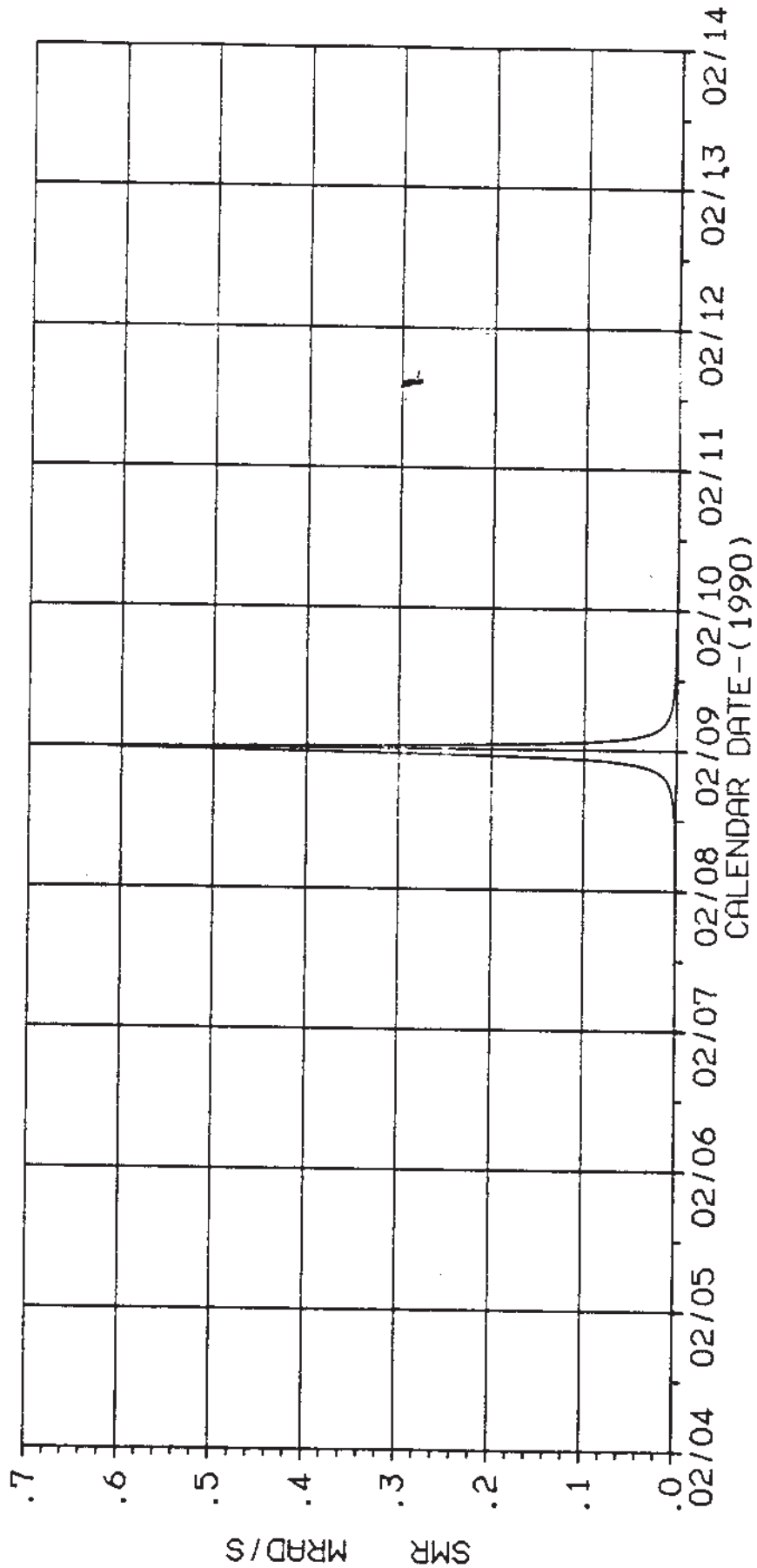
GASPRRA+IDA, I/D: 10/10/89, VENUS SMEAR RATE (KM/S)



10/10

Entire scale has been inadvertently shifted by 3<sup>h</sup> 32<sup>m</sup>. C/A actually occurs at 20<sup>h</sup> 28<sup>m</sup> on 02/08/90.

GASPRRA+IDA, I/D: 10/10/89, VENUS SMEAR RATE (MRAD/S)



## Chapter 4 - NIMS Observation Summaries

### Contents

	Sub-Section	Page
4.0	Contents .....	1
4.1	Introduction to Chapter 4 .....	2
4.2	NIMS Sequence Summary .....	3-43
4.3	NIMS PA Summary .....	44-48
4.4	NIMS OBSTAB .....	49-50

## Introduction to Chapter 4

This chapter summarizes the NIMS Venus observations in terms of a comprehensive sequence summary, PA summary and Observation Table (OBSTAB).

The NIMS Sequence Summary is a time-ordered listing of all spacecraft activity pertinent to NIMS operations for the EV6 Sequence. The information in this summary is derived from the EV6 SEF (Spacecraft Event File) with inputs from the NIMS Science Coordinators regarding the start time and duration of the NIMS observations. There are ten columns of information in this table:

- 1) YR - Year
- 2) DOY - Day of Year.
- 3) Time - SCET Time (UTC).
- 4) PSID - Parameter Set ID of the SEF line.
- 5) Command - Command name from the SEF.
- 6) Parameters - Parameters from the above Command Line.
- 7) Description - Description of the above Command for NIMS.
- 8) GCM - NIMS Gain, Chopper mode, Instrument Mode.  
Gain = 1,2,3 or 4.  
Chopper Mode = R (Reference) or 6 (63Hz).  
Instrument Mode = 0-15
- 9) O S - Grating Offset and Grating Start Position
- 10) RIM - SCLK of the Command Line (RIM:MF:RTI)

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

The NIMS PA Summary is a time-ordered listing of all PAs (Profile Activities) listed in the EV6 SEF which affect NIMS observations.

The NIMS Observation Table (OBSTAB) is a time-ordered listing of the NIMS observation parameters for use by downlink data processing. It is also derived from the EV6 SEF.

Sequence: EV06DG Created: 01/29/90 Begin: 90-038/16:10:00.000 Finish: 90-050/18:29:59.000

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	038	16:09:59.733		DMS:	*READY	RDY, TRACK *1, *FWD, TIC * 200 +/-	1;			177,003:89:0	
90	038	17:51:00.400	490B412A4B	7MODE	INT	AACS INERTIAL MODE				177,103:80:0	
90	038	19:50:00.400	490B476A6A	6TMCHG	EHRLRS					177,221:52:0	
90	038	19:50:02.400	481B4A	7STAR	13,226,263.15399	Star catalog update				177,221:55:0	
90	038	19:50:04.400	481B4B	7STAR	14,150,319.34999	Star catalog update				177,221:58:0	
90	038	19:50:06.400	481B4C	7STAR	15,98,68.228999,	Star catalog update				177,221:61:0	
90	038	19:50:08.400	481B4D	7STAR	16,99,237.674,-6	Star catalog update				177,221:64:0	
90	038	19:50:10.400	481B4E	7STAR	17,0,0,0,0,0	Star catalog update				177,221:67:0	
90	038	19:50:12.400	481B4F	7STAR	18,0,0,0,0,0	Star catalog update				177,221:70:0	
90	038	19:52:00.400	490B412A4D	7SAFE	UNSTOW	S/P TO 153 deg cone				177,223:50:0	
90	038	19:56:10.400	490B412A4E	7VECT		Inert vect update UTC				177,227:61:0	
90	038	19:56:14.400	490B412A4F	7TURN	2,MVR	ALERT Thruster				177,227:67:0	
90	038	20:00:02.400	490B412A406A4A	7STAR	7,226,263.153999	Star catalog update				177,231:45:0	
90	038	20:00:04.400	490B412A406A4B	7STAR	8,150,319.349998	Star catalog update				177,231:48:0	
90	038	20:00:06.400	490B412A406A4C	7STAR	9,98,68.228999,-	Star catalog update				177,231:51:0	
90	038	20:00:08.400	490B412A406A4D	7STAR	10,99,237.674,-6	Star catalog update				177,231:54:0	
90	038	20:00:10.400	490B412A406A4E	7STAR	11,0,0,0,0,0	Star catalog update				177,231:57:0	
90	038	20:00:12.400	490B412A406A4F	7STAR	12,0,0,0,0,0	Star catalog update				177,231:60:0	
90	039	00:00:03.733	20CC3A	40T2R	1	PCT Heater 2 OFF				177,468:80:0	
90	039	00:00:03.733	20CC3B	40T2R	2	PCT Heater 2 OFF				177,468:80:0	
90	039	00:49:52.400	476R6A	6TMCHG	EHR					177,518:13:0	
90	039	16:59:57.733	476S6A	6TMCHG	EHR					178,477:52:0	
90	040	03:07:59.666	175MA422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps				179,078:84:0	
90	040	03:07:59.666		DMS:	*RUNUP	R7, TRACK 1, FWD, TIC 200 +/-	1;			179,078:84:0	
90	040	03:08:01.133		DMS:	*RECORD	R7, TRACK 1, FWD, TIC * 201 +/-	1;			179,078:86:2	
90	040	03:08:04.333	176MA6A	6TMCHG	EHRLRS					179,079:00:0	
90	040	03:38:04.333		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC * 615 +/-	1;			179,108:61:0	
90	040	03:38:04.333	175MA422A6B	6DMSC	RDY,0	DMS Control Tape stop				179,108:61:0	
90	040	03:38:05.600		DMS:	*READY	RDY, TRACK 1, FWD, TIC * 616 +/-	1;			179,108:62:9	
90	040	05:01:27.666	476T6A	6TMCHG	EHR					179,191:13:0	
90	040	06:59:54.333	476U6A	6TMCHG	EHR					179,308:26:0	
90	040	09:30:51.000	490C476A6A	6TMCHG	EHRLRS					179,457:52:0	
90	040	09:31:00.333	481C4A	7VECT		Inert vect update UTC				179,457:66:0	
90	040	09:31:02.333	481C4B	7STAR	13,274,46.227,40	Star catalog update				179,457:69:0	
90	040	09:31:04.333	481C4C	7STAR	14,99,68.228999,	Star catalog update				179,457:72:0	
90	040	09:31:06.333	481C4D	7STAR	15,122,228.55099	Star catalog update				179,457:75:0	
90	040	09:31:08.333	481C4E	7STAR	16,1701,278.8139	Star catalog update				179,457:78:0	
90	040	09:31:10.333	481C4F	7STAR	17,150,319.34999	Star catalog update				179,457:81:0	
90	040	09:31:12.333	481C4G	7STAR	18,0,0,0,0,0	Star catalog update				179,457:84:0	
90	040	09:31:58.333	490C412A4B	7MODE	INT	AACS INERTIAL MODE				179,458:62:0	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF	I
90	040	09:32:58.333	490C412A4D	7SAFE	UNSTOW	S/P TO 153 deg cone				179,459:61:0		
90	040	09:37:08.333	490C412A4E	7VECT		Inert vect update UTC				179,463:72:0		
90	040	09:37:12.333	490C412A4F	7TURN	2,MVR	ALERT Thruster				179,463:78:0		
90	040	09:41:00.333	490C412A406A4A	7STAR	7,274,46.227,40.	Star catalog update				179,467:56:0		
90	040	09:41:02.333	490C412A406A4B	7STAR	8,99,68.228999,-	Star catalog update				179,467:59:0		
90	040	09:41:04.333	490C412A406A4C	7STAR	9,122,228.550999	Star catalog update				179,467:62:0		
90	040	09:41:06.333	490C412A406A4D	7STAR	10,1701,278.8139	Star catalog update				179,467:65:0		
90	040	09:41:08.333	490C412A406A4E	7STAR	11,150,319.34999	Star catalog update				179,467:68:0		
90	040	09:41:10.333	490C412A406A4F	7STAR	12,0,0,0,0,0	Star catalog update				179,467:71:0		
90	040	11:54:50.333	165JH4A	7TMOT	DIS,TMC	Disable IVP - Target Motion				179,599:89:0		
90	040	11:54:51.000	165JH4B	7SCAN	NORM,322.559998,	Check S/P Position				179,599:90:0		
90	040	12:55:04.333	165G4A	7TMOT	DIS,TMC	Disable IVP - Target Motion				179,659:50:0		
90	040	12:55:05.000	165G4B	7SCAN	NORM,320.836998,	Check S/P Position				179,659:51:0		
90	040	12:55:22.333	117F	CSMOS	GS	***** GROUP START CSMOS				179,659:77:0		
90	040	12:55:27.000	175JA422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps				179,659:84:0		
90	040	12:55:27.000		DMS:	*RUNUP	R7, TRACK 1, FWD, TIC 616 +/-				179,659:84:0		1;
90	040	12:55:28.466		DMS:	*RECORD	R7, TRACK 1, FWD, TIC * 617 +/-				179,659:86:2		1;
90	040	12:55:31.666	117F105A106A4A	7STRP	0,0,0,0.029037,0,0	Slew =0,0,0,8				179,660:00:0		
90	040	12:55:31.666	176JA6A	6TMCHG	EHLRLS					179,660:00:0		
90	040	12:57:07.666	117F105A106A4B	7STRP	-0.002,-0.029037	Slew =11.99				179,661:53:0		
90	040	12:57:35.000	117F105A106A4C	7STRP	0,0,0.029037,0,0	Slew =0,0,8				179,662:03:0		
90	040	12:59:11.000	117F105A106A4D	7STRP	-0.002,-0.029037	Slew =11.99				179,663:56:0		
90	040	12:59:37.666	117F105A106A4E	7STRP	0,0,0.029037,0,0	Slew =0,0,8				179,664:05:0		
90	040	13:01:13.666	117F105A106A4F	7STRP	-0.002,-0.029037	Slew =11.99				179,665:58:0		
90	040	13:01:41.000	117F105A106A4G	7STRP	0,0,0.029037,0,0	Slew =0,0,8				179,666:08:0		
90	040	13:03:17.000	117F105A106A4H	7STRP	-0.002,-0.029037	Slew =11.99				179,667:61:0		
90	040	13:03:43.666	117F105A106A4I	7STRP	0,0,0.029037,0,0	Slew =0,0,8				179,668:10:0		
90	040	13:05:19.666	117F105A106A4J	7STRP	-0.002,-0.029037	Slew =11.99				179,669:63:0		
90	040	13:05:47.000	117F105A106A4K	7STRP	0,0,0.029037,0,0	Slew =0,0,8				179,670:13:0		
90	040	13:07:23.000	117F105A106A4L	7STRP	-0.002,-0.029037	Slew =11.99				179,671:66:0		
90	040	13:07:49.666	117F105A106A4M	7STRP	0,0,0.029037,0,0	Slew =0,0,8				179,672:15:0		
90	040	13:09:25.666	117F105A106A4N	7STRP	-0.002,-0.029037	Slew =11.99				179,673:68:0		
90	040	13:09:53.000	117F105A106A4O	7STRP	0,0,0.029037,0,0	Slew =0,0,8				179,674:18:0		
90	040	13:11:29.000	117F105A106A4P	7STRP	-0.002,-0.029037	Slew =11.99				179,675:71:0		
90	040	13:11:55.666	117F105A106A4Q	7STRP	0,0,0.029037,0,0	Slew =0,0,8				179,676:20:0		
90	040	13:13:31.666	117F105A106A4R	7STRP	-0.002,-0.029037	Slew =11.99				179,677:73:0		
90	040	13:13:59.000	117F105A106A4S	7STRP	0,0,0.029037,0,0	Slew =0,0,8				179,678:23:0		
90	040	13:15:35.000	117F105A106A4T	7STRP	-0.002,-0.029037	Slew =11.99				179,679:76:0		
90	040	13:16:01.666	117F105A106A4U	7STRP	0,0,0.029037,0,0	Slew =0,0,8				179,680:25:0		
90	040	13:17:37.666	117F105A106A4V	7STRP	-0.002,-0.029037	Slew =11.99				179,681:78:0		
90	040	13:18:05.000	117F105A106A4W	7STRP	0,0,0.029037,0,0	Slew =0,0,8				179,682:28:0		
90	040	13:19:41.000	117F105A106A4X	7STRP	-0.002,-0.029037	Slew =11.99				179,683:81:0		

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	040	13:20:07.666	117F105A106A4Y	7STRP	0.0,0.029037,0.0	Slew =0,0.8				179,684:30:0	
90	040	13:21:43.666	117F105A106A4Z	7STRP	-0.002,-0.029037	Slew =11.99				179,685:83:0	
90	040	13:22:11.000	117F105A106A4AA	7STRP	0.0,0.029037,0.0	Slew =0,0.8				179,686:33:0	
90	040	13:23:47.000	117F105A106A4AB	7STRP	-0.002,-0.029037	Slew =11.99				179,687:86:0	
90	040	13:24:13.666	117F105A106A4AC	7STRP	0.0,0.029037,0.0	Slew =0,0.8				179,688:35:0	
90	040	13:25:49.666	117F11A	CSMOS	GE	**** GROUP END CSMOS				179,689:88:0	
90	040	13:25:49.666	175JA422A6B	DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *1035 +/-	1;			179,689:88:0	
90	040	13:25:49.666		6DMSC	RDY,0	DMS Control Tape stop				179,689:88:0	
90	040	13:25:50.933		DMS:	*READY	RDY, TRACK 1, FWD, TIC *1036 +/-	1;			179,689:89:9	
90	041	01:29:08.933	20ZU3Q	37HR	CMD,37HR,20ZU3Q,	Replacement Heaters OFF				180,405:31:0	
90	041	01:29:36.933	20ZU3R	37A	CMD,37A,20ZU3R,,	NIMS Power ON	260	0400		180,405:73:0	
90	041	01:31:38.266	20ZU4A	37IST	1,2,0,OFF,0,0,0	Chopper ON, Sync, Chopper (Ref)	2R0	0400		180,407:73:0	
90	041	01:47:56.266	128IB149A131A4A	37IST	1,2,0,OFF,0,1,0	Chopper ON, Sync, Chopper (Ref)Gain State	2R0	0400		180,423:84:0	
90	041	01:48:00.933	176IB6A	6TMCHG	EHRMPW		2R0	0400		180,424:00:0	
90	041	01:48:22.000	VPDIN1		-----START-----		2R0	0400			
90	041	01:48:22.266	165B4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	2R0	0400		180,424:32:0	
90	041	01:48:22.933	165B4B	7SCAN	NORM,309.621998,	Check S/P Position	2R0	0400		180,424:33:0	
90	041	01:48:56.933	128IB149A131B4A	37IOP	7,16	Fixed Map, Grating Start Position =16	2R7	0416		180,424:84:0	
90	041	01:49:50.266	117B	CSMOS	GS	**** GROUP START CSMOS	2R7	0416		180,425:73:0	
90	041	01:49:54.933	175IB422A6A	6DMSC	R28,0	DMS Control Tape runup 28.8kbp	2R7	0416		180,425:80:0	
90	041	01:49:58.933		DMS:	*RUNUP	R28, TRACK 1, FWD, TIC 1036 +/-	1;			180,425:80:0	
90	041	01:49:59.600	117B105A106A4A	7STRP	*RECORD	R28, TRACK 1, FWD, TIC *1037 +/-	1;			180,425:86:0	
90	041	01:51:07.600	117B105A106A4B	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,425:87:0	
90	041	01:51:26.933	117B105A106A4C	7STRP	-0.095287,0.004,	Slew =,9.97	2R7	0416		180,427:07:0	
90	041	01:52:34.933	117B105A106A4D	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,427:36:0	
90	041	01:52:53.600	117B105A106A4E	7STRP	-0.095287,0.004,	Slew =,9.97	2R7	0416		180,428:47:0	
90	041	01:54:01.600	117B105A106A4F	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,428:75:0	
90	041	01:54:20.933	117B105A106A4G	7STRP	-0.095287,0.004,	Slew =,9.97	2R7	0416		180,429:86:0	
90	041	01:55:28.933	117B105A106A4H	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,430:24:0	
90	041	01:55:47.600	117B105A106A4I	7STRP	-0.095287,0.004,	Slew =,9.97	2R7	0416		180,431:35:0	
90	041	01:56:55.600	117B105A106A4J	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,431:63:0	
90	041	01:57:14.933	117B105A106A4K	7STRP	-0.095287,0.004,	Slew =,9.97	2R7	0416		180,432:74:0	
90	041	01:58:22.933	117B105A106A4L	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,433:12:0	
90	041	01:58:41.600	117B105A106A4M	7STRP	-0.095287,0.004,	Slew =,9.97	2R7	0416		180,434:23:0	
90	041	01:59:49.600	117B105A106A4N	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,434:51:0	
90	041	02:00:08.933	117B105A106A4O	7STRP	-0.095287,0.004,	Slew =,9.97	2R7	0416		180,435:62:0	
90	041	02:01:16.933	117B105A106A4P	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,436:00:0	
90	041	02:01:35.600	117B105A106A4Q	7STRP	-0.095287,0.004,	Slew =,9.97	2R7	0416		180,437:11:0	
90	041	02:02:43.600	117B105A106A4R	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,437:39:0	
90	041	02:03:02.933	117B105A106A4S	7STRP	-0.095287,0.004,	Slew =,9.97	2R7	0416		180,438:50:0	
90	041	02:04:10.933	117B105A106A4T	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,438:79:0	
90	041	02:04:10.933	117B105A106A4T	7STRP	-0.095287,0.004,	Slew =,9.97	2R7	0416		180,439:90:0	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	041	02:04:29.600	117B105A106A4U	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,440:27:0	
90	041	02:05:37.600	117B105A106A4V	7STRP	-0.095287,0.004	Slew =,9.97	2R7	0416		180,441:38:0	
90	041	02:05:56.933	117B105A106A4W	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,441:67:0	
90	041	02:07:04.933	117B105A106A4X	7STRP	-0.095287,0.004	Slew =,9.97	2R7	0416		180,442:78:0	
90	041	02:07:23.600	117B105A106A4Y	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,443:15:0	
90	041	02:08:31.600	117B105A106A4Z	7STRP	-0.095287,0.004	Slew =,9.97	2R7	0416		180,444:26:0	
90	041	02:08:50.933	117B105A106A4AA	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,444:55:0	
90	041	02:09:58.933	117B105A106A4AB	7STRP	-0.095287,0.004	Slew =,9.97	2R7	0416		180,445:66:0	
90	041	02:10:17.600	117B105A106A4AC	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,446:03:0	
90	041	02:11:25.600	117B105A106A4AD	7STRP	-0.095287,0.004	Slew =,9.97	2R7	0416		180,447:14:0	
90	041	02:11:44.933	117B105A106A4AE	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,447:43:0	
90	041	02:12:52.933	117B105A106A4AF	7STRP	-0.095287,0.004	Slew =,9.97	2R7	0416		180,448:54:0	
90	041	02:13:11.600	117B105A106A4AG	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,448:82:0	
90	041	02:14:19.600	117B105A106A4AH	7STRP	-0.095287,0.004	Slew =,9.97	2R7	0416		180,450:02:0	
90	041	02:14:38.933	117B105A106A4AI	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,450:31:0	
90	041	02:15:46.933	117B105A106A4AJ	7STRP	-0.095287,0.004	Slew =,9.97	2R7	0416		180,451:42:0	
90	041	02:16:05.600	117B105A106A4AK	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,451:70:0	
90	041	02:17:13.600	117B105A106A4AL	7STRP	-0.095287,0.004	Slew =,9.97	2R7	0416		180,452:81:0	
90	041	02:17:32.933	117B105A106A4AM	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,453:19:0	
90	041	02:18:40.933	117B105A106A4AN	7STRP	-0.095287,0.004	Slew =,9.97	2R7	0416		180,454:30:0	
90	041	02:18:59.600	117B105A106A4AO	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,454:58:0	
90	041	02:20:07.600	117B105A106A4AP	7STRP	-0.095287,0.004	Slew =,9.97	2R7	0416		180,455:69:0	
90	041	02:20:26.933	117B105A106A4AQ	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,456:07:0	
90	041	02:21:34.933	117B105A106A4AR	7STRP	-0.095287,0.004	Slew =,9.97	2R7	0416		180,457:18:0	
90	041	02:21:53.600	117B105A106A4AS	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,457:46:0	
90	041	02:23:01.600	117B105A106A4AT	7STRP	-0.095287,0.004	Slew =,9.97	2R7	0416		180,458:57:0	
90	041	02:23:20.933	117B105A106A4AU	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,458:86:0	
90	041	02:24:28.933	117B105A106A4AV	7STRP	-0.095287,0.004	Slew =,9.97	2R7	0416		180,460:06:0	
90	041	02:24:47.600	117B105A106A4AW	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,460:34:0	
90	041	02:25:55.600	117B105A106A4AX	7STRP	-0.095287,0.004	Slew =,9.97	2R7	0416		180,461:45:0	
90	041	02:26:14.933	117B105A106A4AY	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,461:74:0	
90	041	02:27:22.933	117B105A106A4AZ	7STRP	-0.095287,0.004	Slew =,9.97	2R7	0416		180,462:85:0	
90	041	02:27:41.600	117B105A106A4BA	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,463:22:0	
90	041	02:28:49.600	117B105A106A4BB	7STRP	-0.095287,0.004	Slew =,9.97	2R7	0416		180,464:33:0	
90	041	02:29:08.933	117B105A106A4BC	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,464:62:0	
90	041	02:30:16.933	117B105A106A4BD	7STRP	-0.095287,0.004	Slew =,9.97	2R7	0416		180,465:73:0	
90	041	02:30:35.600	117B105A106A4BE	7STRP	0.096296,-0.0008	Slew =0,1.5	2R7	0416		180,466:10:0	
90	041	02:31:43.600	117B111A	CSMOS	GE	***** GROUP END CSMOS	2R7	0416		180,467:21:0	
90	041	02:31:45.000	VPDIN1	6DMSC	RDY,0	-----STOP-----	2R7	0416			
90	041	02:31:52.933	175IB422A6B	DMS:	*RUNDOWN	DMS Control Tape stop	2R7	0416		180,467:35:0	
90	041	02:31:52.933		DMS:	*READY	RDY, TRACK 1, FWD, TIC *3251 +/- 1;	2R7	0416		180,467:35:0	
90	041	02:31:54.133		DMS:		RDY, TRACK 1, FWD, TIC *3252 +/- 1;	2R7	0416		180,467:36:8	



YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF	I
90	041	02:32:25.600	157IB156A121A4A	37IOP	0,0	Safe, Grating Start Position =0	2R0	0400		180,467:84:0		
90	041	02:35:58.266	476V6A	6TMCHG	EHR		2R0	0400		180,471:39:0		
90	041	03:13:21.600	165H4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	2R0	0400		180,508:37:0		
90	041	03:13:22.266	165H4B	7SCAN	NORM,301.853996,	Check S/P Position	2R0	0400		180,508:38:0		
90	041	03:13:48.266	117G	CSMOS	GS	**** GROUP START CSMOS	2R0	0400		180,508:77:0		
90	041	03:13:52.933		DMS:	*RUNUP	R7, TRACK 1, FWD, TIC 3252 +/-	1;	2R0	0400	180,508:84:0		
90	041	03:13:52.933	175JB422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R0	0400		180,508:84:0		
90	041	03:13:54.400		DMS:	*RECORD	R7, TRACK 1, FWD, TIC *3253 +/-	1;	2R0	0400	180,508:86:2		
90	041	03:13:57.600	117G105A106A4A	7STRP	0.019002,0.15884	Slew =,0.54	2R0	0400		180,509:00:0		
90	041	03:13:57.600	176JB6A	6TMCHG	EHLRLS		2R0	0400		180,509:00:0		
90	041	03:22:17.600	117G105A106B4A	7STRP	0.025005,-0.1060	Slew =11.99	2R0	0400		180,517:22:0		
90	041	03:22:47.600	117G105A106B4B	7STRP	0.0,0.035038,0,0	Slew =,0.54	2R0	0400		180,517:67:0		
90	041	03:24:50.933	117G105A106C4A	7STRP	0.01,-0.04508,0,	Slew =11.99	2R0	0400		180,519:70:0		
90	041	03:25:14.933	117G105A106C4B	7STRP	0.0,0.040055,0,0	Slew =,0.54	2R0	0400		180,520:15:0		
90	041	03:27:29.600	117G105A106C4C	7STRP	0.01,-0.04508,0,	Slew =11.99	2R0	0400		180,522:35:0		
90	041	03:27:53.600	117G105A106C4D	7STRP	0.0,0.040055,0,0	Slew =,0.54	2R0	0400		180,522:71:0		
90	041	03:30:08.933	117G105A106C4E	7STRP	0.01,-0.04508,0,	Slew =11.99	2R0	0400		180,525:01:0		
90	041	03:30:32.933	117G105A106C4F	7STRP	0.0,0.040055,0,0	Slew =,0.54	2R0	0400		180,525:37:0		
90	041	03:32:47.600	117G105A106C4G	7STRP	0.01,-0.04508,0,	Slew =11.99	2R0	0400		180,527:57:0		
90	041	03:33:11.600	117G105A106C4H	7STRP	0.0,0.040055,0,0	Slew =,0.54	2R0	0400		180,528:02:0		
90	041	03:35:26.933	117G11A	CSMOS	GE	**** GROUP END CSMOS	2R0	0400		180,530:23:0		
90	041	03:40:21.000	VJBARS		-----START-----		2R0	0400				
90	041	03:40:21.600	165F4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	2R0	0400		180,535:10:0		
90	041	03:40:22.266	165F4B	7SCAN	NORM,299.452,-23	Check S/P Position	2R0	0400		180,535:11:0		
90	041	03:41:10.933	128IC149A131A4A	37IOP	3,0	Long Map, Grating Start Position =0	2R3	0400		180,535:84:0		
90	041	03:41:58.266	117R	CSMOS	GS	**** GROUP START CSMOS	2R3	0400		180,536:64:0		
90	041	03:42:01.600	175JB422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	0400		180,536:69:0		
90	041	03:42:01.600		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *3640 +/-	1;	2R3	0400	180,536:69:0		
90	041	03:42:02.866		DMS:	*READY	RDY, TRACK 1, FWD, TIC *3641 +/-	1;	2R3	0400	180,536:70:9		
90	041	03:42:02.933		DMS:	*RUNUP	R28, TRACK 1, FWD, TIC 3641 +/-	1;	2R3	0400	180,536:71:0		
90	041	03:42:02.933	175IC422A6A	6DMSC	R28,0	DMS Control Tape runup 28.8kbp	2R3	0400		180,536:71:0		
90	041	03:42:06.933		DMS:	*RECORD	R28, TRACK 1, FWD, TIC *3643 +/-	1;	2R3	0400	180,536:77:0		
90	041	03:42:07.600	117R105A106A4A	7STRP	0.0008,-0.000754	Slew =,0.06	2R3	0400		180,536:78:0		
90	041	03:42:07.600	176IC6A	6TMCHG	EHRMPW		2R3	0400		180,536:78:0		
90	041	03:42:33.600	117R105A106A4B	7STRP	0.0003,0.016804,	Slew =,15.0	2R3	0400		180,537:26:0		
90	041	03:42:50.933	117R105A106A4C	7STRP	0.0008,-0.000754	Slew =,0.06	2R3	0400		180,537:52:0		
90	041	03:43:16.933	117R105A106A4D	7STRP	0.0003,0.016804,	Slew =,15.0	2R3	0400		180,538:00:0		
90	041	03:43:34.266	117R105A106A4E	7STRP	0.0008,-0.000754	Slew =,0.06	2R3	0400		180,538:26:0		
90	041	03:44:00.266	117R105A106A4F	7STRP	0.0003,0.016804,	Slew =,15.0	2R3	0400		180,538:65:0		
90	041	03:44:17.600	117R105A106A4G	7STRP	0.0008,-0.000754	Slew =,0.06	2R3	0400		180,539:00:0		
90	041	03:44:43.600	117R105A106A4H	7STRP	0.0003,0.016804,	Slew =,15.0	2R3	0400		180,539:39:0		
90	041	03:45:00.933	117R105A106A4I	7STRP	0.0008,-0.000754	Slew =,0.06	2R3	0400		180,539:65:0		

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF	I
90	041	03:45:26.933	117R105A106A4J	7STRP	0.0003,0.016804,	Slew =,15.0	2R3	0400		180,540:13:0		
90	041	03:45:44.266	117R105A106A4K	7STRP	0.0008,-0.000754	Slew =,0.06	2R3	0400		180,540:39:0		
90	041	03:46:10.266	117R105A106B4A	7STRP	0.022004,-0.1243	Slew =,15.0	2R3	0400		180,540:78:0		
90	041	03:46:36.266	117R105A106B4B	7STRP	0.00087,-0.00082	Slew =,0.06	2R3	0400		180,541:26:0		
90	041	03:47:02.266	117R105A106C4A	7STRP	0.0003,0.016504,	Slew =,15.0	2R3	0400		180,541:65:0		
90	041	03:47:19.600	117R105A106C4B	7STRP	0.0008,-0.000754	Slew =,0.06	2R3	0400		180,542:00:0		
90	041	03:47:45.600	117R105A106C4C	7STRP	0.0003,0.016504,	Slew =,15.0	2R3	0400		180,542:39:0		
90	041	03:48:02.933	117R105A106C4D	7STRP	0.0008,-0.000754	Slew =,0.06	2R3	0400		180,542:65:0		
90	041	03:48:28.933	117R105A106C4E	7STRP	0.0003,0.016504,	Slew =,15.0	2R3	0400		180,543:13:0		
90	041	03:48:46.266	117R105A106C4F	7STRP	0.0008,-0.000754	Slew =,0.06	2R3	0400		180,543:39:0		
90	041	03:49:12.266	117R105A106C4G	7STRP	0.0003,0.016504,	Slew =,15.0	2R3	0400		180,543:78:0		
90	041	03:49:29.600	117R105A106C4H	7STRP	0.0008,-0.000754	Slew =,0.06	2R3	0400		180,544:13:0		
90	041	03:49:55.600	117R105A106C4I	7STRP	0.0003,0.016504,	Slew =,15.0	2R3	0400		180,544:52:0		
90	041	03:50:12.933	117R105A106C4J	7STRP	0.0008,-0.000754	Slew =,0.06	2R3	0400		180,544:78:0		
90	041	03:50:38.933	117R105A106C4K	7STRP	0.0003,0.016504,	Slew =,15.0	2R3	0400		180,545:26:0		
90	041	03:50:56.266	117R105A106C4L	7STRP	0.0008,-0.000754	Slew =,0.06	2R3	0400		180,545:52:0		
90	041	03:51:22.266	117R105A106C4M	7STRP	0.0003,0.016504,	Slew =,15.0	2R3	0400		180,546:00:0		
90	041	03:51:39.600	117R105A106C4N	7STRP	0.0008,-0.000754	Slew =,0.06	2R3	0400		180,546:26:0		
90	041	03:52:05.600	117R105A106C4O	7STRP	0.0003,0.016504,	Slew =,15.0	2R3	0400		180,546:65:0		
90	041	03:52:22.933	117R105A106C4P	7STRP	0.0008,-0.000754	Slew =,0.06	2R3	0400		180,547:00:0		
90	041	03:52:48.933	117R105A106C4Q	7STRP	0.0003,0.016504,	Slew =,15.0	2R3	0400		180,547:39:0		
90	041	03:53:06.266	117R105A106C4R	7STRP	0.0008,-0.000754	Slew =,0.06	2R3	0400		180,547:65:0		
90	041	03:53:32.266	117R105A106C4S	7STRP	0.0003,0.016504,	Slew =,15.0	2R3	0400		180,548:13:0		
90	041	03:53:49.600	117R105A106C4T	7STRP	0.0008,-0.000754	Slew =,0.06	2R3	0400		180,548:39:0		
90	041	03:54:15.600	117R105A106C4U	7STRP	0.0003,0.016504,	Slew =,15.0	2R3	0400		180,548:78:0		
90	041	03:54:32.933	117R105A106C4V	7STRP	0.0008,-0.000754	Slew =,0.06	2R3	0400		180,549:13:0		
90	041	03:54:58.933	117R105A106D4A	7STRP	0.040021,-0.1665	Slew =,15.0	2R3	0400		180,549:52:0		
90	041	03:55:24.933	117R105A106D4B	7STRP	0.00087,-0.00082	Slew =,0.06	2R3	0400		180,550:00:0		
90	041	03:55:50.933	117R105A106E4A	7STRP	0.0003,0.018505,	Slew =,15.0	2R3	0400		180,550:39:0		
90	041	03:56:08.266	117R105A106E4B	7STRP	0.000949,-0.0008	Slew =,0.06	2R3	0400		180,550:65:0		
90	041	03:56:34.266	117R105A106E4C	7STRP	0.0003,0.018505,	Slew =,15.0	2R3	0400		180,551:13:0		
90	041	03:56:51.600	117R105A106E4D	7STRP	0.000949,-0.0008	Slew =,0.06	2R3	0400		180,551:39:0		
90	041	03:57:17.600	117R105A106E4E	7STRP	0.0003,0.018505,	Slew =,15.0	2R3	0400		180,551:78:0		
90	041	03:57:34.933	117R105A106E4F	7STRP	0.000949,-0.0008	Slew =,0.06	2R3	0400		180,552:13:0		
90	041	03:58:00.933	117R105A106E4G	7STRP	0.0003,0.018505,	Slew =,15.0	2R3	0400		180,552:52:0		
90	041	03:58:18.266	117R105A106E4H	7STRP	0.000949,-0.0008	Slew =,0.06	2R3	0400		180,552:78:0		
90	041	03:58:44.266	117R105A106E4I	7STRP	0.0003,0.018505,	Slew =,15.0	2R3	0400		180,553:26:0		
90	041	03:59:01.600	117R105A106E4J	7STRP	0.000949,-0.0008	Slew =,0.06	2R3	0400		180,553:52:0		
90	041	03:59:27.600	117R105A106F4A	7STRP	-0.040021,-0.134	Slew =,15.0	2R3	0400		180,554:00:0		
90	041	03:59:53.600	117R105A106F4B	7STRP	0.001729,-0.0016	Slew =,0.06	2R3	0400		180,554:39:0		
90	041	04:00:36.933	117R105A106G4A	7STRP	0.030009,0.0,0,0	Slew =,15.0	2R3	0400		180,555:13:0		
90	041	04:00:54.266	117R105A106G4B	7STRP	0.001743,-0.0016	Slew =,0.06	2R3	0400		180,555:39:0		

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	041	04:01:37.600	117R11A	CSMOS	GE	**** GROUP END CSMOS	2R3	0400		180,556:13:0	
90	041	04:02:00.933		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *4694 +/-	1;	2R3	0400	180,556:48:0	
90	041	04:02:00.933	175IC422A6B	6DMSC	RDY,0	DMS Control Tape stop		2R3	0400	180,556:48:0	
90	041	04:02:01.000	VJBARS		-----STOP-----			2R3	0400		:
90	041	04:02:02.133		DMS:	*READY	RDY, TRACK 1, FWD, TIC *4695 +/-	1;	2R3	0400	180,556:49:8	
90	041	04:02:02.266		DMS:	*RUNUP	R7, TRACK 1, FWD, TIC 4695 +/-	1;	2R3	0400	180,556:50:0	
90	041	04:02:02.266	175MD422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps		2R3	0400	180,556:50:0	
90	041	04:02:03.600	176MD6A	6TMCHG	EHLRLS			2R3	0400	180,556:52:0	
90	041	04:02:03.733		DMS:	*RECORD	R7, TRACK 1, FWD, TIC *4696 +/-	2;	2R3	0400	180,556:52:2	
90	041	04:02:08.000	VPDIN2		-----START-----			2R3	0400		:
90	041	04:02:08.266	165C4A	7TMOT	DIS,TMC	Disable IVP - Target Motion		2R3	0400	180,556:59:0	
90	041	04:02:08.933	165C4B	7SCAN	NORM,296.832996,	Check S/P Position		2R3	0400	180,556:60:0	
90	041	04:03:25.600	128ID149A131A4A	37IOP	7,16	Fixed Map, Grating Start Position =16		2R7	0416	180,557:84:0	
90	041	04:03:44.933	117C	CSMOS	GS	**** GROUP START CSMOS		2R7	0416	180,558:22:0	
90	041	04:03:45.600		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *4719 +/-	2;	2R7	0416	180,558:23:0	
90	041	04:03:45.600	175MD422A6B	6DMSC	RDY,0	DMS Control Tape stop		2R7	0416	180,558:23:0	
90	041	04:03:46.866		DMS:	*READY	RDY, TRACK 1, FWD, TIC *4720 +/-	2;	2R7	0416	180,558:24:9	
90	041	04:03:47.600	176ID6A	6TMCHG	EHRMPW			2R7	0416	180,558:26:0	
90	041	04:03:49.600		DMS:	*RUNUP	R28, TRACK 1, FWD, TIC 4720 +/-	2;	2R7	0416	180,558:29:0	
90	041	04:03:49.600	175ID422A6A	6DMSC	R28,0	DMS Control Tape runup 28.8kbp		2R7	0416	180,558:29:0	
90	041	04:03:53.600		DMS:	*RECORD	R28, TRACK 1, FWD, TIC *4722 +/-	2;	2R7	0416	180,558:35:0	
90	041	04:03:54.266	117C105A106A4A	7STRP	0.080171,0.0,0.0,0	Slew =,1.51		2R7	0416	180,558:36:0	
90	041	04:04:50.266	117C105A106A4B	7STRP	-0.074638,0.0,0,0	Slew =17.01		2R7	0416	180,559:29:0	
90	041	04:05:08.266	117C105A106A4C	7STRP	0.080171,0.0,0,0,0	Slew =,1.51		2R7	0416	180,559:56:0	
90	041	04:06:04.266	117C105A106A4D	7STRP	-0.074638,0.0,0,0	Slew =17.01		2R7	0416	180,560:49:0	
90	041	04:06:22.266	117C105A106A4E	7STRP	0.080171,0.0,0,0,0	Slew =,1.51		2R7	0416	180,560:76:0	
90	041	04:07:18.266	117C105A106A4F	7STRP	-0.074638,0.0,0,0	Slew =17.01		2R7	0416	180,561:69:0	
90	041	04:07:36.266	117C105A106A4G	7STRP	0.080171,0.0,0,0,0	Slew =,1.51		2R7	0416	180,562:05:0	
90	041	04:08:32.266	117C105A106A4H	7STRP	-0.074638,0.0,0,0	Slew =17.01		2R7	0416	180,562:89:0	
90	041	04:08:50.266	117C105A106A4I	7STRP	0.080171,0.0,0,0,0	Slew =,1.51		2R7	0416	180,563:25:0	
90	041	04:09:46.266	117C105A106A4J	7STRP	-0.074638,0.0,0,0	Slew =17.01		2R7	0416	180,564:18:0	
90	041	04:10:04.266	117C105A106A4K	7STRP	0.080171,0.0,0,0,0	Slew =,1.51		2R7	0416	180,564:45:0	
90	041	04:11:00.266	117C105A106A4L	7STRP	-0.074638,0.0,0,0	Slew =17.01		2R7	0416	180,565:38:0	
90	041	04:11:18.266	117C105A106A4M	7STRP	0.080171,0.0,0,0,0	Slew =,1.51		2R7	0416	180,565:65:0	
90	041	04:12:14.266	117C105A106A4N	7STRP	-0.074638,0.0,0,0	Slew =17.01		2R7	0416	180,566:58:0	
90	041	04:12:32.266	117C105A106A4O	7STRP	0.080171,0.0,0,0,0	Slew =,1.51		2R7	0416	180,566:85:0	
90	041	04:13:28.266	117C105A106A4P	7STRP	-0.074638,0.0,0,0	Slew =17.01		2R7	0416	180,567:78:0	
90	041	04:13:46.266	117C105A106A4Q	7STRP	0.080171,0.0,0,0,0	Slew =,1.51		2R7	0416	180,568:14:0	
90	041	04:14:42.266	117C105A106A4R	7STRP	-0.074638,0.0,0,0	Slew =17.01		2R7	0416	180,569:07:0	
90	041	04:15:00.266	117C105A106A4S	7STRP	0.080171,0.0,0,0,0	Slew =,1.51		2R7	0416	180,569:34:0	
90	041	04:15:56.266	117C105A106B4A	7STRP	-0.090748,-0.002	Slew =17.01		2R7	0416	180,570:27:0	
90	041	04:16:14.266	117C105A106B4B	7STRP	0.098315,0.0,0,0,0	Slew =,1.51		2R7	0416	180,570:54:0	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF	I
90	041	04:17:22.266	117C105A106B4C	7STRP	-0.090748,-0.002	Slew =17.01	2R7	0416		180,571:65:0		
90	041	04:17:40.266	117C105A106B4D	7STRP	0.098315,0.0,0,0	Slew =,1.51	2R7	0416		180,572:01:0		
90	041	04:18:48.266	117C105A106B4E	7STRP	-0.090748,-0.002	Slew =17.01	2R7	0416		180,573:12:0		
90	041	04:19:06.266	117C105A106B4F	7STRP	0.098315,0.0,0,0	Slew =,1.51	2R7	0416		180,573:39:0		
90	041	04:20:14.266	117C105A106B4G	7STRP	-0.090748,-0.002	Slew =17.01	2R7	0416		180,574:50:0		
90	041	04:20:32.266	117C105A106B4H	7STRP	0.098315,0.0,0,0	Slew =,1.51	2R7	0416		180,574:77:0		
90	041	04:21:40.266	117C105A106B4I	7STRP	-0.090748,-0.002	Slew =17.01	2R7	0416		180,575:88:0		
90	041	04:21:58.266	117C105A106B4J	7STRP	0.098315,0.0,0,0	Slew =,1.51	2R7	0416		180,576:24:0		
90	041	04:23:06.266	117C105A106B4K	7STRP	-0.090748,-0.002	Slew =17.01	2R7	0416		180,577:35:0		
90	041	04:23:24.266	117C105A106B4L	7STRP	0.098315,0.0,0,0	Slew =,1.51	2R7	0416		180,577:62:0		
90	041	04:24:32.266	117C105A106B4M	7STRP	-0.090748,-0.002	Slew =17.01	2R7	0416		180,578:73:0		
90	041	04:24:50.266	117C105A106B4N	7STRP	0.098315,0.0,0,0	Slew =,1.51	2R7	0416		180,579:09:0		
90	041	04:25:58.266	117C105A106B4O	7STRP	-0.090748,-0.002	Slew =17.01	2R7	0416		180,580:20:0		
90	041	04:26:16.266	117C105A106B4P	7STRP	0.098315,0.0,0,0	Slew =,1.51	2R7	0416		180,580:47:0		
90	041	04:27:24.266	117C105A106B4Q	7STRP	-0.090748,-0.002	Slew =17.01	2R7	0416		180,581:58:0		
90	041	04:27:42.266	117C105A106B4R	7STRP	0.098315,0.0,0,0	Slew =,1.51	2R7	0416		180,581:85:0		
90	041	04:28:50.266	117C105A106B4S	7STRP	-0.090748,-0.002	Slew =17.01	2R7	0416		180,583:05:0		
90	041	04:29:08.266	117C105A106B4T	7STRP	0.098315,0.0,0,0	Slew =,1.51	2R7	0416		180,583:32:0		
90	041	04:30:16.266	117C105A106C4A	7STRP	-0.093773,-0.003	Slew =17.01	2R7	0416		180,584:43:0		
90	041	04:30:34.266	117C105A106C4B	7STRP	0.104377,0.0,0,0	Slew =,1.51	2R7	0416		180,584:70:0		
90	041	04:31:48.266	117C105A106C4C	7STRP	-0.093773,-0.003	Slew =17.01	2R7	0416		180,585:90:0		
90	041	04:32:06.266	117C105A106C4D	7STRP	0.104377,0.0,0,0	Slew =,1.51	2R7	0416		180,586:26:0		
90	041	04:33:20.266	117C105A106C4E	7STRP	-0.093773,-0.003	Slew =17.01	2R7	0416		180,587:46:0		
90	041	04:33:24.266		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *6281 +/- 2;	2R7	0416		180,587:52:0		
90	041	04:33:24.266	175ID422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R7	0416		180,587:52:0		
90	041	04:33:25.466		DMS:	*READY	RDY, TRACK 1, FWD, TIC *6282 +/- 2;	2R7	0416		180,587:53:8		
90	041	04:33:30.266		DMS:	*RUNUP	R115, TRACK 1, FWD, TIC 6282 +/- 2;	2R7	0416		180,587:61:0		
90	041	04:33:30.266	260MA422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R7	0416		180,587:61:0		
90	041	04:33:32.933	260MA476A6A	6TMCHG	NCGHPW	NO CHANGE / 115.2 KBPS PWS + NIMS RECORD	2R7	0416		180,587:65:0		
90	041	04:33:34.266		DMS:	*RECORD	R115, TRACK 1, FWD, TIC *6288 +/- 3;	2R7	0416		180,587:67:0		
90	041	04:33:38.266	117C105A106C4F	7STRP	0.104377,0.0,0,0	Slew =,1.51	2R7	0416		180,587:73:0		
90	041	04:34:52.266	117C105A106C4G	7STRP	-0.093773,-0.003	Slew =17.01	2R7	0416		180,589:02:0		
90	041	04:34:54.266		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *6570 +/- 3;	2R7	0416		180,589:05:0		
90	041	04:34:54.266	260MA422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R7	0416		180,589:05:0		
90	041	04:34:55.466		DMS:	*READY	RDY, TRACK 1, FWD, TIC *6571 +/- 3;	2R7	0416		180,589:06:8		
90	041	04:35:05.600	175IP422A6A	6DMSC	R28,0	DMS Control Tape runup 28.8kbp	2R7	0416		180,589:22:0		
90	041	04:35:05.600		DMS:	*RUNUP	R28, TRACK 1, FWD, TIC 6571 +/- 3;	2R7	0416		180,589:22:0		
90	041	04:35:08.266	176IP6A	6TMCHG	EHRMPW		2R7	0416		180,589:26:0		
90	041	04:35:09.600		DMS:	*RECORD	R28, TRACK 1, FWD, TIC *6573 +/- 3;	2R7	0416		180,589:28:0		
90	041	04:35:10.266	117C105A106C4H	7STRP	0.104377,0.0,0,0	Slew =,1.51	2R7	0416		180,589:29:0		
90	041	04:36:24.266	117C105A106C4I	7STRP	-0.093773,-0.003	Slew =17.01	2R7	0416		180,590:49:0		
90	041	04:36:42.266	117C105A106C4J	7STRP	0.104377,0.0,0,0	Slew =,1.51	2R7	0416		180,590:76:0		

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	041	04:37:56.266	117C105A106C4K	7STRP	-0.093773,-0.003	Slew =17.01	2R7	0416		180,592:05:0	
90	041	04:38:14.266	117C105A106C4L	7STRP	0.104377,0.0,0,0	Slew =,1.51	2R7	0416		180,592:32:0	
90	041	04:39:28.266	117C105A106C4M	7STRP	-0.093773,-0.003	Slew =17.01	2R7	0416		180,593:52:0	
90	041	04:39:46.266	117C105A106C4N	7STRP	0.104377,0.0,0,0	Slew =,1.51	2R7	0416		180,593:79:0	
90	041	04:41:00.266	117C105A106C4O	7STRP	-0.093773,-0.003	Slew =17.01	2R7	0416		180,595:08:0	
90	041	04:41:18.266	117C105A106C4P	7STRP	0.104377,0.0,0,0	Slew =,1.51	2R7	0416		180,595:35:0	
90	041	04:42:32.266	117C105A106C4Q	7STRP	-0.093773,-0.003	Slew =17.01	2R7	0416		180,596:55:0	
90	041	04:42:50.266	117C105A106C4R	7STRP	0.104377,0.0,0,0	Slew =,1.51	2R7	0416		180,596:82:0	
90	041	04:44:04.266	117C105A106C4S	7STRP	-0.093773,-0.003	Slew =17.01	2R7	0416		180,598:11:0	
90	041	04:44:22.266	117C105A106C4T	7STRP	0.104377,0.0,0,0	Slew =,1.51	2R7	0416		180,598:38:0	
90	041	04:45:36.266	117C105A106D4A	7STRP	-0.100335,-0.005	Slew =17.01	2R7	0416		180,599:58:0	
90	041	04:45:54.266	117C105A106D4B	7STRP	0.112471,0.0,0,0	Slew =,1.51	2R7	0416		180,599:85:0	
90	041	04:46:35.400		DMS:	*REVERSE	R28, TRACK 1, FWD, TIC *7177 +/-	3;	2R7	0416	180,600:55:7	
90	041	04:46:40.600		DMS:	*RESUME	R28, TRACK *2, *REV, TIC *7176 +/-	3;	2R7	0416	180,600:63:5	
90	041	04:47:16.266	117C105A106D4C	7STRP	-0.100335,-0.005	Slew =17.01	2R7	0416		180,601:26:0	
90	041	04:47:34.266	117C105A106D4D	7STRP	0.112471,0.0,0,0	Slew =,1.51	2R7	0416		180,601:53:0	
90	041	04:48:56.266	117C105A106D4E	7STRP	-0.100335,-0.005	Slew =17.01	2R7	0416		180,602:85:0	
90	041	04:49:14.266	117C105A106D4F	7STRP	0.112471,0.0,0,0	Slew =,1.51	2R7	0416		180,603:21:0	
90	041	04:50:36.266	117C105A106D4G	7STRP	-0.100335,-0.005	Slew =17.01	2R7	0416		180,604:53:0	
90	041	04:50:54.266	117C105A106D4H	7STRP	0.112471,0.0,0,0	Slew =,1.51	2R7	0416		180,604:80:0	
90	041	04:52:16.266	117C105A106D4I	7STRP	-0.100335,-0.005	Slew =17.01	2R7	0416		180,606:21:0	
90	041	04:52:34.266	117C105A106D4J	7STRP	0.112471,0.0,0,0	Slew =,1.51	2R7	0416		180,606:48:0	
90	041	04:53:56.266	117C105A106D4K	7STRP	-0.100335,-0.005	Slew =17.01	2R7	0416		180,607:80:0	
90	041	04:54:14.266	117C105A106D4L	7STRP	0.112471,0.0,0,0	Slew =,1.51	2R7	0416		180,608:16:0	
90	041	04:55:36.266	117C105A106E4A	7STRP	-0.124639,-0.008	Slew =17.01	2R7	0416		180,609:48:0	
90	041	04:55:54.266	117C105A106E4B	7STRP	0.140922,0.0,0,0	Slew =,1.51	2R7	0416		180,609:75:0	
90	041	04:57:39.600	117C105A106E4C	7STRP	-0.124639,-0.008	Slew =17.01	2R7	0416		180,611:51:0	
90	041	04:57:57.600	117C105A106E4D	7STRP	0.140922,0.0,0,0	Slew =,1.51	2R7	0416		180,611:78:0	
90	041	04:59:42.266	117C105A106E4E	7STRP	-0.124639,-0.008	Slew =17.01	2R7	0416		180,613:53:0	
90	041	05:00:00.266	117C105A106E4F	7STRP	0.140922,0.0,0,0	Slew =,1.51	2R7	0416		180,613:80:0	
90	041	05:01:45.600	117C105A106E4G	7STRP	-0.124639,-0.008	Slew =17.01	2R7	0416		180,615:56:0	
90	041	05:02:03.600	117C105A106E4H	7STRP	0.140922,0.0,0,0	Slew =,1.51	2R7	0416		180,615:83:0	
90	041	05:03:14.933		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *6300 +/-	3;	2R7	0416	180,617:08:0	
90	041	05:03:14.933	175IP422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R7	0416		180,617:08:0	
90	041	05:03:16.133		DMS:	*READY	RDY, TRACK 2, REV, TIC *6299 +/-	3;	2R7	0416	180,617:09:8	
90	041	05:03:48.000	VPDIN2		-----STOP-----		2R7	0416		:	
90	041	05:03:48.266		DMS:	*RUNUP	R7, TRACK 2, REV, TIC 6299 +/-	3;	2R7	0416	180,617:58:0	
90	041	05:03:48.266	175JC422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R7	0416		180,617:58:0	
90	041	05:03:48.266	117C11A	CSMOS	GE	***** GROUP END CSMOS	2R7	0416		180,617:58:0	
90	041	05:03:49.733		DMS:	*RECORD	R7, TRACK 2, REV, TIC *6298 +/-	3;	2R7	0416	180,617:60:2	
90	041	05:03:52.933	176JC6A	6TMCHG	EHLRLS		2R7	0416		180,617:65:0	
90	041	05:03:54.266	165I4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	2R7	0416		180,617:67:0	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	041	05:03:54.933	165I4B	7SCAN	NORM,278.089996,	Check S/P Position	2R7	0416		180,617:68:0	
90	041	05:04:20.933	117H	CSMOS	GS	**** GROUP START CSMOS	2R7	0416		180,618:16:0	
90	041	05:04:30.266	117H105A106A4A	7STRP	0.130737,0.30137	Slew =,0.31	2R7	0416		180,618:30:0	
90	041	05:12:12.266	175JC422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R7	0416		180,625:86:0	
90	041	05:12:12.266		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *6183 +/-	3;	2R7	0416	180,625:86:0	
90	041	05:12:12.933		DMS:	*RUNUP	R403, TRACK 2, REV, TIC 6183 +/-	3;	2R7	0416	180,625:87:0	
90	041	05:12:12.933	175FA422A6A	6DMSC	R403,0	DMS Control Tape runup 403.2kb	2R7	0416		180,625:87:0	
90	041	05:12:15.600	176FA6A	6TMCHG	NCGIM4	NO CHANGE / 403.2 KBPS IMAGE + 1/8 NIMS RE	2R7	0416		180,626:00:0	
90	041	05:12:16.733		DMS:	*RECORD	R403, TRACK 2, REV, TIC *6161 +/-	8;	2R7	0416	180,626:01:7	
90	041	05:12:50.266	175FA422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R7	0416		180,626:52:0	
90	041	05:12:50.266		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *5748 +/-	8;	2R7	0416	180,626:52:0	
90	041	05:12:53.066		DMS:	*READY	RDY, TRACK 2, REV, TIC *5744 +/-	9;	2R7	0416	180,626:56:2	
90	041	05:12:54.266	175MC422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R7	0416		180,626:58:0	
90	041	05:12:54.266		DMS:	*RUNUP	R7, TRACK 2, REV, TIC 5744 +/-	9;	2R7	0416	180,626:58:0	
90	041	05:12:55.733		DMS:	*RECORD	R7, TRACK 2, REV, TIC *5743 +/-	10;	2R7	0416	180,626:60:2	
90	041	05:12:58.933	176MC6A	6TMCHG	EHRLRS		2R7	0416		180,626:65:0	
90	041	05:22:29.600	117H11A	CSMOS	GE	**** GROUP END CSMOS	2R7	0416		180,636:11:0	
90	041	05:22:42.933		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *5609 +/-	10;	2R7	0416	180,636:31:0	
90	041	05:22:42.933	175MC422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R7	0416		180,636:31:0	
90	041	05:22:44.200		DMS:	*READY	RDY, TRACK 2, REV, TIC *5608 +/-	10;	2R7	0416	180,636:32:9	
90	041	05:22:44.266		DMS:	*RUNUP	R115, TRACK 2, REV, TIC 5608 +/-	10;	2R7	0416	180,636:33:0	
90	041	05:22:44.266	260MB422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R7	0416		180,636:33:0	
90	041	05:22:48.266		DMS:	*RECORD	R115, TRACK 2, REV, TIC *5601 +/-	11;	2R7	0416	180,636:39:0	
90	041	05:22:48.266	260MB476A6A	6TMCHG	NCGHPW	NO CHANGE / 115.2 KBPS PWS + NIMS RECORD	2R7	0416		180,636:39:0	
90	041	05:23:41.600	165J4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	2R7	0416		180,637:28:0	
90	041	05:23:42.266	165J4B	7SCAN	NORM,270.849998,	Check S/P Position	2R7	0416		180,637:29:0	
90	041	05:24:08.266		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *5319 +/-	11;	2R7	0416	180,637:68:0	
90	041	05:24:08.266	260MB422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R7	0416		180,637:68:0	
90	041	05:24:09.466		DMS:	*READY	RDY, TRACK 2, REV, TIC *5318 +/-	11;	2R7	0416	180,637:69:8	
90	041	05:24:10.266		DMS:	*RUNUP	R7, TRACK 2, REV, TIC 5318 +/-	11;	2R7	0416	180,637:71:0	
90	041	05:24:10.266	175MB422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	2R7	0416		180,637:71:0	
90	041	05:24:11.733		DMS:	*RECORD	R7, TRACK 2, REV, TIC *5317 +/-	11;	2R7	0416	180,637:73:2	
90	041	05:24:14.266	117I	CSMOS	GS	**** GROUP START CSMOS	2R7	0416		180,637:77:0	
90	041	05:24:14.933	176MB6A	6TMCHG	EHRLRS		2R7	0416		180,637:78:0	
90	041	05:24:23.600	117I105A106A4A	7STRP	-0.080171,0.2240	Slew =,2.89	2R7	0416		180,638:00:0	
90	041	05:26:23.600	117I105A106B4A	7STRP	0.012001,0.03001	Slew =10.92	2R7	0416		180,639:89:0	
90	041	05:26:53.600	117I105A106B4B	7STRP	0.083191,0.24553	Slew =,2.89	2R7	0416		180,640:43:0	
90	041	05:28:53.600	117I11A	CSMOS	GE	**** GROUP END CSMOS	2R7	0416		180,642:41:0	
90	041	05:31:23.600	128IE149A131A4A	37IOP	4,0	Long Spectrometer, Grating Start Position	2R4	0400		180,644:84:0	
90	041	05:31:44.000	VLSN		-----START-----		2R4	0400			
90	041	05:31:44.266	165D4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	2R4	0400		180,645:24:0	
90	041	05:31:44.933	165D4B	7SCAN	NORM,246.206999,	Check S/P Position	2R4	0400		180,645:25:0	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF	I
90	041	05:32:24.266	128IE149A131B4A	37IST	1,2,1,OFF,1,1,1	Chopper ON, Sync, Chopper (Ref)OPCALGain S	4R4	0400		180,645:84:0		
90	041	05:32:48.933	117D	CSMOS	GS	**** GROUP START CSMOS	4R4	0400		180,646:30:0		
90	041	05:32:54.266	175MB422A6B	6DMSC	RDY,0	DMS Control Tape stop	4R4	0400		180,646:38:0		
90	041	05:32:54.266		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *5198 +/- 11;	4R4	0400		180,646:38:0		
90	041	05:32:54.933		DMS:	*RUNUP	R28, TRACK 2, REV, TIC 5198 +/- 11;	4R4	0400		180,646:39:0		
90	041	05:32:54.933	176IE6A	6TMCHG	EHRMPW		4R4	0400		180,646:39:0		
90	041	05:32:54.933	175IE422A6A	6DMSC	R28,0	DMS Control Tape runup 28.8kbp	4R4	0400		180,646:39:0		
90	041	05:32:58.933		DMS:	*RECORD	R28, TRACK 2, REV, TIC *5196 +/- 11;	4R4	0400		180,646:45:0		
90	041	05:32:59.600	117D105A106A4A	7STRP	0.087522,-0.0487	Slew =0,0.26	4R4	0400		180,646:46:0		
90	041	05:33:03.600	476E6A	6TMCHG	EHRMPW		4R4	0400		180,646:52:0		
90	041	05:38:52.933	175IE422A6B	6DMSC	RDY,0	DMS Control Tape stop	4R4	0400		180,652:30:0		
90	041	05:38:52.933	117D11A	CSMOS	GE	**** GROUP END CSMOS	4R4	0400		180,652:30:0		
90	041	05:38:52.933		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *4884 +/- 11;	4R4	0400		180,652:30:0		
90	041	05:38:54.133		DMS:	*READY	RDY, TRACK 2, REV, TIC *4883 +/- 11;	4R4	0400		180,652:31:8		
90	041	05:38:54.266	175JE422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	4R4	0400		180,652:32:0		
90	041	05:38:54.266		DMS:	*RUNUP	R7, TRACK 2, REV, TIC 4883 +/- 11;	4R4	0400		180,652:32:0		
90	041	05:38:55.000	VLSN		-----STOP-----		4R4	0400				
90	041	05:38:55.733		DMS:	*RECORD	R7, TRACK 2, REV, TIC *4882 +/- 11;	4R4	0400		180,652:34:2		
90	041	05:38:58.933	176JE6A	6TMCHG	EHLRLS		4R4	0400		180,652:39:0		
90	041	05:39:28.933	157IE156A121A4A	37IOP	0,0	Safe, Grating Start Position =0	4R0	0400		180,652:84:0		
90	041	05:40:02.933	165K4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	4R0	0400		180,653:44:0		
90	041	05:40:03.600	165K4B	7SCAN	NORM,254.012999,	Check S/P Position	4R0	0400		180,653:45:0		
90	041	05:40:24.933	117J	CSMOS	GS	**** GROUP START CSMOS	4R0	0400		180,653:77:0		
90	041	05:40:34.266	117J105A106A4A	7STRP	0.207921,-0.1409	Slew =0,0.3	4R0	0400		180,654:00:0		
90	041	05:50:02.266	481H4A	7VECT		Inert vect update UTC	4R0	0400		180,663:33:0		
90	041	05:52:34.266	117J11A	CSMOS	GE	**** GROUP END CSMOS	4R0	0400		180,665:79:0		
90	041	05:55:12.933	165BA4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	4R0	0400		180,668:44:0		
90	041	05:55:13.600	165BA4B	7SCAN	NORM,222.832998,	Check S/P Position	4R0	0400		180,668:45:0		
90	041	05:55:34.933	117N	CSMOS	GS	**** GROUP START CSMOS	4R0	0400		180,668:77:0		
90	041	05:55:44.266	117N105A106A4A	7STRP	0.0001,0.0001,0,	Slew =0,1.5	4R0	0400		180,669:00:0		
90	041	05:56:31.600	117N105A106A4B	7STRP	0.022004,-0.0120	Slew =10.52	4R0	0400		180,669:71:0		
90	041	05:56:44.266	117N105A106A4C	7STRP	0.0001,0.0001,0,	Slew =0,1.5	4R0	0400		180,669:90:0		
90	041	05:57:31.600	117N105A106A4D	7STRP	0.022004,-0.0120	Slew =10.52	4R0	0400		180,670:70:0		
90	041	05:57:44.266	117N105A106A4E	7STRP	0.0001,0.0001,0,	Slew =0,1.5	4R0	0400		180,670:89:0		
90	041	05:58:31.600	117N105A106B4A	7STRP	-0.039521,-0.279	Slew =10.52	4R0	0400		180,671:69:0		
90	041	05:59:02.266	20CD3B	40T1P	2	PCT Heater 1 ON (primary relay)	4R0	0400		180,672:24:0		
90	041	05:59:02.266	20CD3A	40T1P	1	PCT Heater 1 ON (primary relay)	4R0	0400		180,672:24:0		
90	041	05:59:19.600	117N105A106B4B	7STRP	0.120579,0.48556	Slew =0,1.5	4R0	0400		180,672:50:0		
90	041	06:05:45.600	117N11A	CSMOS	GE	**** GROUP END CSMOS	4R0	0400		180,678:83:0		
90	041	06:07:44.933	165E4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	4R0	0400		180,680:80:0		
90	041	06:07:45.000	VLSN		-----START-----		4R0	0400				
90	041	06:07:45.600	165E4B	7SCAN	NORM,242.643999,	Check S/P Position	4R0	0400		180,680:81:0		

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF	I
90	041	06:08:48.266	128IF149A131A4A	37IOP	4,0	Long Spectrometer, Grating Start Position	4R4	0400		180,681:84:0		
90	041	06:08:50.933	117E	CSMOS	GS	**** GROUP START CSMOS	4R4	0400		180,681:88:0		
90	041	06:08:52.266	175JE422A6B	6DMSC	RDY,0	DMS Control Tape stop	4R4	0400		180,681:90:0		
90	041	06:08:52.266		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *4470 +/- 11;	4R4	0400		180,681:90:0		
90	041	06:08:52.933	176IF6A	6TMCHG	EHRMPW		4R4	0400		180,682:00:0		
90	041	06:08:53.533		DMS:	*READY	RDY, TRACK 2, REV, TIC *4469 +/- 11;	4R4	0400		180,682:00:9		
90	041	06:08:55.600		DMS:	*RUNUP	R28, TRACK 2, REV, TIC 4469 +/- 11;	4R4	0400		180,682:04:0		
90	041	06:08:55.600	175IF422A6A	6DMSC	R28,0	DMS Control Tape runup 28.8kbp	4R4	0400		180,682:04:0		
90	041	06:08:59.600		DMS:	*RECORD	R28, TRACK 2, REV, TIC *4468 +/- 11;	4R4	0400		180,682:10:0		
90	041	06:09:00.266	117E105A106A4A	7STRP	0.064389,-0.0467	Slew =,0.28	4R4	0400		180,682:11:0		
90	041	06:12:53.600	175IF422A6B	6DMSC	RDY,0	DMS Control Tape stop	4R4	0400		180,685:88:0		
90	041	06:12:53.600		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *4261 +/- 11;	4R4	0400		180,685:88:0		
90	041	06:12:54.800		DMS:	*READY	RDY, TRACK 2, REV, TIC *4260 +/- 11;	4R4	0400		180,685:89:8		
90	041	06:12:54.933		DMS:	*RUNUP	R7, TRACK 2, REV, TIC 4260 +/- 11;	4R4	0400		180,685:90:0		
90	041	06:12:54.933	175HO422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	4R4	0400		180,685:90:0		
90	041	06:12:55.600	176HO6A	6TMCHG	EHLRLS		4R4	0400		180,686:00:0		
90	041	06:12:56.400		DMS:	*RECORD	R7, TRACK 2, REV, TIC *4259 +/- 12;	4R4	0400		180,686:01:2		
90	041	06:13:00.000	VLSD		-----STOP-----		4R4	0400				
90	041	06:13:00.266	117E11A	CSMOS	GE	**** GROUP END CSMOS	4R4	0400		180,686:07:0		
90	041	06:13:01.600	165BB4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	4R4	0400		180,686:09:0		
90	041	06:13:02.266	165BB4B	7SCAN	NORM,239.3909999,	Check S/P Position	4R4	0400		180,686:10:0		
90	041	06:13:19.600	117O	CSMOS	GS	**** GROUP START CSMOS	4R4	0400		180,686:36:0		
90	041	06:13:28.933	117O105A106A4A	7STRP	0.125655,-0.0650	Slew =0,0.4	4R4	0400		180,686:50:0		
90	041	06:18:48.266	117O105A106B4A	7STRP	0.18714,-0.01400	Slew =16.88	4R4	0400		180,691:74:0		
90	041	06:19:20.266	117O105A106B4B	7STRP	-0.22467,-0.0701	Slew =0,0.4	4R4	0400		180,692:31:0		
90	041	06:29:01.600	157F156A121A4A	37IST	1,2,0,OFF,0,1.3	Chopper ON, Sync, Chopper (Ref)Gain State	1R4	0400		180,701:84:0		
90	041	06:29:04.266	117O11A	CSMOS	GE	**** GROUP END CSMOS	1R4	0400		180,701:88:0		
90	041	06:29:04.266	165L4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	1R4	0400		180,701:88:0		
90	041	06:29:04.933	165L4B	7SCAN	NORM,183.0529999,	Check S/P Position	1R4	0400		180,701:89:0		
90	041	06:29:50.933	117K	CSMOS	GS	**** GROUP START CSMOS	1R4	0400		180,702:67:0		
90	041	06:30:00.266	117K105A106A4A	7STRP	-0.135826,-0.060	Slew =0,3.2	1R4	0400		180,702:81:0		
90	041	06:30:02.266	157F156A121B4A	37IOP	3,0	Long Map, Grating Start Position =0	1R3	0400		180,702:84:0		
90	041	06:30:49.600	117K105A106A4B	7STRP	0.136845,0.07333	Slew =13.09	1R3	0400		180,703:64:0		
90	041	06:31:09.600	117K105A106A4C	7STRP	-0.135826,-0.060	Slew =0,3.2	1R3	0400		180,704:03:0		
90	041	06:31:58.266	117K105A106A4D	7STRP	0.136845,0.07333	Slew =13.09	1R3	0400		180,704:76:0		
90	041	06:32:18.266	117K105A106A4E	7STRP	-0.135826,-0.060	Slew =0,3.2	1R3	0400		180,705:15:0		
90	041	06:33:07.600	117K105A106A4F	7STRP	0.136845,0.07333	Slew =13.09	1R3	0400		180,705:89:0		
90	041	06:33:27.600	117K105A106A4G	7STRP	-0.135826,-0.060	Slew =0,3.2	1R3	0400		180,706:28:0		
90	041	06:34:16.266	117K105A106A4H	7STRP	0.136845,0.07333	Slew =13.09	1R3	0400		180,707:10:0		
90	041	06:34:36.266	117K105A106A4I	7STRP	-0.135826,-0.060	Slew =0,3.2	1R3	0400		180,707:40:0		
90	041	06:35:25.600	117K105A106A4J	7STRP	0.136845,0.07333	Slew =13.09	1R3	0400		180,708:23:0		
90	041	06:35:45.600	117K105A106A4K	7STRP	-0.135826,-0.060	Slew =0,3.2	1R3	0400		180,708:53:0		



YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF	I
90	041	06:36:34.266	117K105A106A4L	7STRP	0.136845,0.07333	Slew =13.09	LR3	0400		180,709:35:0		
90	041	06:36:54.266	117K105A106A4M	7STRP	-0.135826,-0.060	Slew =0,3.2	LR3	0400		180,709:65:0		
90	041	06:37:43.600	117K105A106A4N	7STRP	0.136845,0.07333	Slew =13.09	LR3	0400		180,710:48:0		
90	041	06:38:03.600	117K105A106A4O	7STRP	-0.135826,-0.060	Slew =0,3.2	LR3	0400		180,710:78:0		
90	041	06:38:28.933		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *3908 +/- 12;	LR3	0400		180,711:25:0		
90	041	06:38:28.933	175HO422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		180,711:25:0		
90	041	06:38:30.200		DMS:	*READY	RDY, TRACK 2, REV, TIC *3907 +/- 12;	LR3	0400		180,711:26:9		
90	041	06:38:52.266	117K11A	CSMOS	GE	***** GROUP END CSMOS	LR3	0400		180,711:60:0		
90	041	07:29:54.933	476W6A	6TMCHG	EHR		LR3	0400		180,762:13:0		
90	041	07:36:35.600	165AX4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	LR3	0400		180,768:68:0		
90	041	07:36:36.266	165AX4B	7SCAN	NORM,153.476,46.	Check S/P Position	LR3	0400		180,768:69:0		
90	041	07:37:50.266	175FB422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	LR3	0400		180,769:89:0		
90	041	07:37:50.266		DMS:	*RUNUP	R115, TRACK 2, REV, TIC 3907 +/- 12;	LR3	0400		180,769:89:0		
90	041	07:37:51.600	176FB6A	6TMCHG	NGHCHM	NO CHANGE / 115.2 comp image + NIMS + PW	LR3	0400		180,770:00:0		
90	041	07:37:54.266		DMS:	*RECORD	R115, TRACK 2, REV, TIC *3900 +/- 13;	LR3	0400		180,770:04:0		
90	041	07:37:54.933	118U110A111A4A	7STRP	0.0008,-0.0023,9	Slew =,0.79	LR3	0400		180,770:05:0		
90	041	07:38:25.600	118U110A111B4A	7STRP	-0.01,-0.051143,	Slew =,3.97	LR3	0400		180,770:51:0		
90	041	07:38:52.266	175FB422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		180,771:00:0		
90	041	07:38:52.266		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *3696 +/- 13;	LR3	0400		180,771:00:0		
90	041	07:38:53.466		DMS:	*READY	RDY, TRACK 2, REV, TIC *3695 +/- 13;	LR3	0400		180,771:01:8		
90	041	07:39:20.933	175GW422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	LR3	0400		180,771:43:0		
90	041	07:39:20.933		DMS:	*RUNUP	R115, TRACK 2, REV, TIC 3695 +/- 13;	LR3	0400		180,771:43:0		
90	041	07:39:24.933		DMS:	*RECORD	R115, TRACK 2, REV, TIC *3689 +/- 14;	LR3	0400		180,771:49:0		
90	041	07:39:26.933	118U110A111B4B	7STRP	0.0008,-0.0023,9	Slew =,0.79	LR3	0400		180,771:52:0		
90	041	07:39:57.600	118U110A111C4A	7STRP	0.008,-0.051138,	Slew =,3.97	LR3	0400		180,772:07:0		
90	041	07:40:22.933	175GW422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		180,772:45:0		
90	041	07:40:22.933		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *3484 +/- 14;	LR3	0400		180,772:45:0		
90	041	07:40:24.133		DMS:	*READY	RDY, TRACK 2, REV, TIC *3483 +/- 14;	LR3	0400		180,772:46:8		
90	041	07:40:52.266	175GX422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	LR3	0400		180,772:89:0		
90	041	07:40:52.266		DMS:	*RUNUP	R115, TRACK 2, REV, TIC 3483 +/- 14;	LR3	0400		180,772:89:0		
90	041	07:40:56.266		DMS:	*RECORD	R115, TRACK 2, REV, TIC *3477 +/- 15;	LR3	0400		180,773:04:0		
90	041	07:40:58.933	118U110A111C4B	7STRP	0.0008,-0.0023,9	Slew =,0.79	LR3	0400		180,773:08:0		
90	041	07:41:29.600	118U110A111D4A	7STRP	0.025005,-0.0450	Slew =,3.97	LR3	0400		180,773:54:0		
90	041	07:41:54.266	175GX422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		180,774:00:0		
90	041	07:41:54.266		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *3273 +/- 15;	LR3	0400		180,774:00:0		
90	041	07:41:55.466		DMS:	*READY	RDY, TRACK 2, REV, TIC *3272 +/- 15;	LR3	0400		180,774:01:8		
90	041	07:42:22.933		DMS:	*RUNUP	R115, TRACK 2, REV, TIC 3272 +/- 15;	LR3	0400		180,774:43:0		
90	041	07:42:22.933	175GY422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	LR3	0400		180,774:43:0		
90	041	07:42:26.933		DMS:	*RECORD	R115, TRACK 2, REV, TIC *3265 +/- 16;	LR3	0400		180,774:49:0		
90	041	07:42:30.933	118U110A111D4B	7STRP	0.0008,-0.0023,9	Slew =,0.79	LR3	0400		180,774:55:0		
90	041	07:43:01.600	118U110A111E4A	7STRP	0.036016,-0.0320	Slew =,3.97	LR3	0400		180,775:10:0		
90	041	07:43:24.933		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *3061 +/- 16;	LR3	0400		180,775:45:0		

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF	I
90	041	07:43:24.933	175GY422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		180,775:45:0		
90	041	07:43:26.133		DMS:	*READY	RDY, TRACK 2, REV, TIC *3060 +/- 16;	LR3	0400		180,775:46:8		
90	041	07:43:54.266	175GZ422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	LR3	0400		180,775:89:0		
90	041	07:43:54.266		DMS:	*RUNUP	R115, TRACK 2, REV, TIC 3060 +/- 16;	LR3	0400		180,775:89:0		
90	041	07:43:58.266		DMS:	*RECORD	R115, TRACK 2, REV, TIC *3054 +/- 17;	LR3	0400		180,776:04:0		
90	041	07:44:02.933	118U110A111E4B	7STRP	0.0008,-0.0023,9	Slew =,0.79	LR3	0400		180,776:11:0		
90	041	07:44:56.266	175GZ422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		180,777:00:0		
90	041	07:44:56.266		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *2849 +/- 17;	LR3	0400		180,777:00:0		
90	041	07:44:57.466		DMS:	*READY	RDY, TRACK 2, REV, TIC *2848 +/- 17;	LR3	0400		180,777:01:8		
90	041	07:45:25.600	165BC4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	LR3	0400		180,777:44:0		
90	041	07:45:26.266	165BC4B	7SCAN	NORM,150.441,32.	Check S/P Position	LR3	0400		180,777:45:0		
90	041	07:45:47.600	117P	CSMOS	GS	***** GROUP START CSMOS	LR3	0400		180,777:77:0		
90	041	07:45:52.266		DMS:	*RUNUP	R7, TRACK 2, REV, TIC 2848 +/- 17;	LR3	0400		180,777:84:0		
90	041	07:45:52.266	175JG422A6A	6DMSC	R7,0	DMS Control Tape runup 7.68kps	LR3	0400		180,777:84:0		
90	041	07:45:53.733		DMS:	*RECORD	R7, TRACK 2, REV, TIC *2847 +/- 17;	LR3	0400		180,777:86:2		
90	041	07:45:56.933	176JG6A	6TMCHG	EHLRLS	DMS Control Tape stop	LR3	0400		180,778:00:0		
90	041	07:45:56.933	117P105A106A4A	7STRP	-0.080171,-0.142	Slew =,0.48	LR3	0400		180,778:00:0		
90	041	07:58:32.266	117P105A106B4A	7STRP	0.050042,0.03205	Slew =10.97	LR3	0400		180,790:41:0		
90	041	07:59:06.933	117P105A106B4B	7STRP	-0.19232,0.10758	Slew =,0.48	LR3	0400		180,791:02:0		
90	041	08:10:16.933	117P105A106C4A	7STRP	0.171657,0.02000	Slew =10.97	LR3	0400		180,802:06:0		
90	041	08:11:26.933	117P105A106C4B	7STRP	-0.135826,-0.218	Slew =,0.48	LR3	0400		180,803:20:0		
90	041	08:34:56.933	175JG422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		180,826:42:0		
90	041	08:34:56.933		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *2172 +/- 17;	LR3	0400		180,826:42:0		
90	041	08:34:58.200		DMS:	*READY	RDY, TRACK 2, REV, TIC *2171 +/- 18;	LR3	0400		180,826:43:9		
90	041	08:35:26.933	117P11A	CSMOS	GE	***** GROUP END CSMOS	LR3	0400		180,826:87:0		
90	041	09:36:34.933	165AY4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	LR3	0400		180,887:38:0		
90	041	09:36:35.600	165AY4B	7SCAN	NORM,126.337,34.	Check S/P Position	LR3	0400		180,887:39:0		
90	041	09:37:08.933		DMS:	*RUNUP	R115, TRACK 2, REV, TIC 2171 +/- 18;	LR3	0400		180,887:89:0		
90	041	09:37:08.933	175FC422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	LR3	0400		180,887:89:0		
90	041	09:37:10.266	176FC6A	6TMCHG	NGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	LR3	0400		180,888:00:0		
90	041	09:37:12.933		DMS:	*RECORD	R115, TRACK 2, REV, TIC *2164 +/- 19;	LR3	0400		180,888:04:0		
90	041	09:38:10.933	175FC422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		180,889:00:0		
90	041	09:38:10.933		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *1960 +/- 19;	LR3	0400		180,889:00:0		
90	041	09:38:12.133		DMS:	*READY	RDY, TRACK 2, REV, TIC *1959 +/- 19;	LR3	0400		180,889:01:8		
90	041	09:43:09.600	128IG149A131A4A	37IOP	0,0	Safe, Grating Start Position =0	LR0	0400		180,893:84:0		
90	041	10:29:53.600	476X6A	6TMCHG	EHR		LR0	0400		180,940:13:0		
90	042	04:49:58.866	490D476A6A	6TMCHG	EHLRLS		LR0	0400		182,028:13:0		
90	042	04:50:02.200	481D4A	7STAR	13,1701,278.8139	Star catalog update	LR0	0400		182,028:18:0		
90	042	04:50:04.200	481D4B	7STAR	14,267,13.419,60	Star catalog update	LR0	0400		182,028:21:0		
90	042	04:50:06.200	481D4C	7STAR	15,226,263.15399	Star catalog update	LR0	0400		182,028:24:0		
90	042	04:50:08.200	481D4D	7STAR	16,0,0,0,0,0	Star catalog update	LR0	0400		182,028:27:0		
90	042	04:50:10.200	481D4E	7STAR	17,0,0,0,0,0	Star catalog update	LR0	0400		182,028:30:0		

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	042	04:50:12.200	481D4F	7STAR	18,0,0,0,0,0	Star catalog update	LR0	0400		182,028:33:0	
90	042	04:51:00.200	490D412A4B	7MODE	INT	AACS INERTIAL MODE	LR0	0400		182,029:14:0	
90	042	04:52:00.200	490D412A4D	7SAFE	UNSTOW	S/P TO 153 deg cone	LR0	0400		182,030:13:0	
90	042	04:56:10.200	490D412A4E	7VECT		Inert vect update UTC	LR0	0400		182,034:24:0	
90	042	04:56:14.200	490D412A4F	7TURN	2,MVR	ALERT Thruster	LR0	0400		182,034:30:0	
90	042	05:00:02.200	490D412A406A4A	7STAR	7,1701,278.81399	Star catalog update	LR0	0400		182,038:08:0	
90	042	05:00:04.200	490D412A406A4B	7STAR	8,267,13.419,60.	Star catalog update	LR0	0400		182,038:11:0	
90	042	05:00:06.200	490D412A406A4C	7STAR	9,226,263.153999	Star catalog update	LR0	0400		182,038:14:0	
90	042	05:00:08.200	490D412A406A4D	7STAR	10,0,0,0,0,0	Star catalog update	LR0	0400		182,038:17:0	
90	042	05:00:10.200	490D412A406A4E	7STAR	11,0,0,0,0,0	Star catalog update	LR0	0400		182,038:20:0	
90	042	05:00:12.200	490D412A406A4F	7STAR	12,0,0,0,0,0	Star catalog update	LR0	0400		182,038:23:0	
90	042	07:09:20.866	165S4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	LR0	0400		182,165:89:0	
90	042	07:09:21.533	165S4B	7SCAN	NORM,116.188,25.	Check S/P Position	LR0	0400		182,165:90:0	
90	042	07:12:19.533	128C149A131A4A	37IOP	3,0	Long Map, Grating Start Position = 0	LR3	0400		182,168:84:0	
90	042	07:13:20.200	128C149A131B4A	37IST	1,2,0,0,OFF,0,1,3	Chopper ON, Sync, Chopper (Ref)Gain State	LR3	0400		182,169:84:0	
90	042	07:13:23.533	175FD422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	LR3	0400		182,169:89:0	
90	042	07:13:23.533		DMS:	*RUNUP	R115, TRACK 2, REV, TIC 1959 +/- 19;	LR3	0400		182,169:89:0	
90	042	07:13:24.866	176FD6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	LR3	0400		182,170:00:0	
90	042	07:13:27.533		DMS:	*RECORD	R115, TRACK 2, REV, TIC *1953 +/- 20;	LR3	0400		182,170:04:0	
90	042	07:13:28.200	118B110A111A4A	7STRP	-0.0073,0,0,92,0	Slew =,0.41	LR3	0400		182,170:05:0	
90	042	07:14:25.533		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *1748 +/- 20;	LR3	0400		182,171:00:0	
90	042	07:14:25.533	175FD422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		182,171:00:0	
90	042	07:14:26.733		DMS:	*READY	RDY, TRACK 2, REV, TIC *1747 +/- 20;	LR3	0400		182,171:01:8	
90	042	07:23:04.200	165T4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	LR3	0400		182,179:50:0	
90	042	07:23:04.866	165T4B	7SCAN	NORM,116.165,25.	Check S/P Position	LR3	0400		182,179:51:0	
90	042	07:23:30.200	175FE422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	LR3	0400		182,179:89:0	
90	042	07:23:30.200		DMS:	*RUNUP	R115, TRACK 2, REV, TIC 1747 +/- 20;	LR3	0400		182,179:89:0	
90	042	07:23:31.533	176FE6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	LR3	0400		182,180:00:0	
90	042	07:23:34.200		DMS:	*RECORD	R115, TRACK 2, REV, TIC *1741 +/- 21;	LR3	0400		182,180:04:0	
90	042	07:23:34.866	118C110A111A4A	7STRP	-0.0073,0,0,92,0	Slew =,0.41	LR3	0400		182,180:05:0	
90	042	07:24:32.200		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *1537 +/- 21;	LR3	0400		182,181:00:0	
90	042	07:24:32.200	175FE422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		182,181:00:0	
90	042	07:24:33.400		DMS:	*READY	RDY, TRACK 2, REV, TIC *1536 +/- 21;	LR3	0400		182,181:01:8	
90	042	07:53:24.200	165U4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	LR3	0400		182,209:50:0	
90	042	07:53:24.866	165U4B	7SCAN	NORM,116.127,25.	Check S/P Position	LR3	0400		182,209:51:0	
90	042	07:53:50.200		DMS:	*RUNUP	R115, TRACK 2, REV, TIC 1536 +/- 21;	LR3	0400		182,209:89:0	
90	042	07:53:50.200	175FF422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	LR3	0400		182,209:89:0	
90	042	07:53:51.533	176FF6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	LR3	0400		182,210:00:0	
90	042	07:53:54.200		DMS:	*RECORD	R115, TRACK 2, REV, TIC *1529 +/- 22;	LR3	0400		182,210:04:0	
90	042	07:53:54.866	118D110A111A4A	7STRP	-0.0073,0,0,92,0	Slew =,0.41	LR3	0400		182,210:05:0	
90	042	07:54:52.200		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *1325 +/- 22;	LR3	0400		182,211:00:0	
90	042	07:54:52.200	175FF422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		182,211:00:0	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	042	07:54:53.400		DMS:	*READY	RDY, TRACK 2, REV, TIC *1324 +/- 22;	1R3	0400		182,211:01:8	
90	042	08:14:56.866	476AA6A	6TMCHG	EHR		1R3	0400		182,230:78:0	
90	042	09:13:16.866	165V4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	1R3	0400		182,288:50:0	
90	042	09:13:17.533	165V4B	7SCAN	NORM,116.042999,	Check S/P Position	1R3	0400		182,288:51:0	
90	042	09:13:42.866		DMS:	*RUNUP	R115, TRACK 2, REV, TIC 1324 +/- 22;	1R3	0400		182,288:89:0	
90	042	09:13:42.866	175FG422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	1R3	0400		182,288:89:0	
90	042	09:13:44.200	176FG6A	6TMCHG	NGHCHM	NO CHANGE / 115.2 comp image + NIMS + PW	1R3	0400		182,289:00:0	
90	042	09:13:46.866		DMS:	*RECORD	R115, TRACK 2, REV, TIC *1318 +/- 23;	1R3	0400		182,289:04:0	
90	042	09:13:47.533	118E110A111A4A	7STRP	-0.0073,0.0,92,0	Slew =,0.41	1R3	0400		182,289:05:0	
90	042	09:14:44.866		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *1113 +/- 23;	1R3	0400		182,290:00:0	
90	042	09:14:44.866	175FG422A6B	6DMSC	RDY,0	DMS Control Tape stop	1R3	0400		182,290:00:0	
90	042	09:14:46.066		DMS:	*READY	RDY, TRACK 2, REV, TIC *1112 +/- 23;	1R3	0400		182,290:01:8	
90	042	09:23:23.533	165W4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	1R3	0400		182,298:50:0	
90	042	09:23:24.200	165W4B	7SCAN	NORM,116.028,25.	Check S/P Position	1R3	0400		182,298:51:0	
90	042	09:23:49.533		DMS:	*RUNUP	R115, TRACK 2, REV, TIC 1112 +/- 23;	1R3	0400		182,298:89:0	
90	042	09:23:49.533	175FH422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	1R3	0400		182,298:89:0	
90	042	09:23:50.866	176FH6A	6TMCHG	NGHCHM	NO CHANGE / 115.2 comp image + NIMS + PW	1R3	0400		182,299:00:0	
90	042	09:23:53.533		DMS:	*RECORD	R115, TRACK 2, REV, TIC *1106 +/- 24;	1R3	0400		182,299:04:0	
90	042	09:23:54.200	118F110A111A4A	7STRP	-0.0073,0.0,92,0	Slew =,0.41	1R3	0400		182,299:05:0	
90	042	09:24:51.533		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC * 902 +/- 24;	1R3	0400		182,300:00:0	
90	042	09:24:51.533	175FH422A6B	6DMSC	RDY,0	DMS Control Tape stop	1R3	0400		182,300:00:0	
90	042	09:24:51.533		DMS:	*READY	RDY, TRACK 2, REV, TIC * 901 +/- 24;	1R3	0400		182,300:01:8	
90	042	09:24:52.733	165X4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	1R3	0400		182,327:50:0	
90	042	09:52:42.866	165X4B	7SCAN	NORM,115.997,25.	Check S/P Position	1R3	0400		182,327:51:0	
90	042	09:53:08.866		DMS:	*RUNUP	R115, TRACK 2, REV, TIC 901 +/- 24;	1R3	0400		182,327:89:0	
90	042	09:53:08.866	175FI422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	1R3	0400		182,327:89:0	
90	042	09:53:10.200	176FI6A	6TMCHG	NGHCHM	NO CHANGE / 115.2 comp image + NIMS + PW	1R3	0400		182,328:00:0	
90	042	09:53:12.866		DMS:	*RECORD	R115, TRACK 2, REV, TIC * 894 +/- 25;	1R3	0400		182,328:04:0	
90	042	09:53:13.533	118G110A111A4A	7STRP	-0.0073,0.0,92,0	Slew =,0.41	1R3	0400		182,328:05:0	
90	042	09:54:10.866		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC * 690 +/- 25;	1R3	0400		182,329:00:0	
90	042	09:54:10.866	175FI422A6B	6DMSC	RDY,0	DMS Control Tape stop	1R3	0400		182,329:00:0	
90	042	09:54:12.066		DMS:	*READY	RDY, TRACK 2, REV, TIC * 689 +/- 26;	1R3	0400		182,329:01:8	
90	042	11:12:35.533	165Y4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	1R3	0400		182,406:50:0	
90	042	11:12:36.200	165Y4B	7SCAN	NORM,115.921,25.	Check S/P Position	1R3	0400		182,406:51:0	
90	042	11:13:01.533	175FJ422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	1R3	0400		182,406:89:0	
90	042	11:13:01.533		DMS:	*RUNUP	R115, TRACK 2, REV, TIC 689 +/- 26;	1R3	0400		182,406:89:0	
90	042	11:13:02.866	176FJ6A	6TMCHG	NGHCHM	NO CHANGE / 115.2 comp image + NIMS + PW	1R3	0400		182,407:00:0	
90	042	11:13:05.533		DMS:	*RECORD	R115, TRACK 2, REV, TIC * 683 +/- 27;	1R3	0400		182,407:04:0	
90	042	11:13:06.200	118H110A111A4A	7STRP	-0.0073,0.0,92,0	Slew =,0.41	1R3	0400		182,407:05:0	
90	042	11:14:03.533	175FJ422A6B	6DMSC	RDY,0	DMS Control Tape stop	1R3	0400		182,408:00:0	
90	042	11:14:03.533		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC * 478 +/- 27;	1R3	0400		182,408:00:0	
90	042	11:14:04.733		DMS:	*READY	RDY, TRACK 2, REV, TIC * 477 +/- 27;	1R3	0400		182,408:01:8	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	042	11:22:42.200	165Z4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	LR3	0400		182,416:50:0	
90	042	11:22:42.866	165Z4B	7SCAN	NORM,115.91,25.3	Check S/P Position	LR3	0400		182,416:51:0	
90	042	11:23:08.200	175FK422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	LR3	0400		182,416:89:0	
90	042	11:23:08.200		DMS:	*RUNUP	R115, TRACK 2, REV, TIC 477 +/- 27;	LR3	0400		182,416:89:0	
90	042	11:23:09.533	176FK6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	LR3	0400		182,417:00:0	
90	042	11:23:12.200		DMS:	*RECORD	R115, TRACK 2, REV, TIC * 471 +/- 28;	LR3	0400		182,417:04:0	
90	042	11:23:12.866	118I110A111A4A	7STRP	-0.0073,0.0,92,0	Slew =,0.41	LR3	0400		182,417:05:0	
90	042	11:24:10.200	175FK422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		182,418:00:0	
90	042	11:24:10.200		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC * 267 +/- 28;	LR3	0400		182,418:00:0	
90	042	11:24:11.400		DMS:	*READY	RDY, TRACK 2, REV, TIC * 266 +/- 28;	LR3	0400		182,418:01:8	
90	042	11:53:02.200	165AA4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	LR3	0400		182,446:50:0	
90	042	11:53:02.866	165AA4B	7SCAN	NORM,115.884,25.	Check S/P Position	LR3	0400		182,446:51:0	
90	042	11:53:28.200		DMS:	*RUNUP	R115, TRACK 2, REV, TIC 266 +/- 28;	LR3	0400		182,446:89:0	
90	042	11:53:28.200	175FL422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	LR3	0400		182,446:89:0	
90	042	11:53:29.533	176FL6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	LR3	0400		182,447:00:0	
90	042	11:53:32.200		DMS:	*RECORD	R115, TRACK 2, REV, TIC * 259 +/- 29;	LR3	0400		182,447:04:0	
90	042	11:53:32.866	118J110A111A4A	7STRP	-0.0073,0.0,92,0	Slew =,0.41	LR3	0400		182,447:05:0	
90	042	11:53:49.133		DMS:	*REVERSE	R115, TRACK 2, REV, TIC * 200 +/- 29;	LR3	0400		182,447:29:4	
90	042	11:53:54.333		DMS:	*RESUME	R115, TRACK *3, *FWD, TIC * 205 +/- 30;	LR3	0400		182,447:37:2	
90	042	11:54:30.200		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC * 331 +/- 30;	LR3	0400		182,448:00:0	
90	042	11:54:30.200	175FL422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		182,448:00:0	
90	042	11:54:31.400		DMS:	*READY	RDY, TRACK 3, FWD, TIC * 332 +/- 30;	LR3	0400		182,448:01:8	
90	042	12:14:00.200	476AB6A	6TMCHG	EHR		LR3	0400		182,467:26:0	
90	042	13:12:54.866	165AB4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	LR3	0400		182,525:50:0	
90	042	13:12:55.533	165AB4B	7SCAN	NORM,115.815,25.	Check S/P Position	LR3	0400		182,525:51:0	
90	042	13:13:20.866	175FM422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	LR3	0400		182,525:89:0	
90	042	13:13:20.866		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 332 +/- 30;	LR3	0400		182,525:89:0	
90	042	13:13:22.200	176FM6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	LR3	0400		182,526:00:0	
90	042	13:13:24.866		DMS:	*RECORD	R115, TRACK 3, FWD, TIC * 339 +/- 31;	LR3	0400		182,526:04:0	
90	042	13:13:25.533	118K110A111A4A	7STRP	-0.0073,0.0,92,0	Slew =,0.41	LR3	0400		182,526:05:0	
90	042	13:14:22.866	175FM422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		182,527:00:0	
90	042	13:14:22.866		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC * 543 +/- 31;	LR3	0400		182,527:00:0	
90	042	13:14:24.066		DMS:	*READY	RDY, TRACK 3, FWD, TIC * 544 +/- 31;	LR3	0400		182,527:01:8	
90	042	13:43:14.866	165AC4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	LR3	0400		182,555:50:0	
90	042	13:43:15.533	165AC4B	7SCAN	NORM,115.792,25.	Check S/P Position	LR3	0400		182,555:51:0	
90	042	13:43:40.866	175FN422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	LR3	0400		182,555:89:0	
90	042	13:43:40.866		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 544 +/- 31;	LR3	0400		182,555:89:0	
90	042	13:43:42.200	176FN6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	LR3	0400		182,556:00:0	
90	042	13:43:44.866		DMS:	*RECORD	R115, TRACK 3, FWD, TIC * 550 +/- 32;	LR3	0400		182,556:04:0	
90	042	13:43:45.533	118L110A111A4A	7STRP	-0.0073,0.0,92,0	Slew =,0.41	LR3	0400		182,556:05:0	
90	042	13:44:42.866	175FN422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		182,557:00:0	
90	042	13:44:42.866		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC * 755 +/- 32;	LR3	0400		182,557:00:0	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	042	13:44:44.066		DMS:	*READY	RDY, TRACK 3, FWD, TIC * 756 +/- 33;	1R3	0400		182,557:01:8	
90	042	14:29:55.533	476AC6A	6TMCHG	EHR		1R3	0400		182,601:65:0	
90	042	15:13:14.200	165AD4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	1R3	0400		182,644:50:0	
90	042	15:13:14.866	165AD4B	7SCAN	NORM,115.721,25.	Check S/P Position	1R3	0400		182,644:51:0	
90	042	15:13:40.200	175FO422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	1R3	0400		182,644:89:0	
90	042	15:13:40.200		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 756 +/- 33;	1R3	0400		182,644:89:0	
90	042	15:13:41.533	176FO6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	1R3	0400		182,645:00:0	
90	042	15:13:44.200		DMS:	*RECORD	R115, TRACK 3, FWD, TIC * 762 +/- 34;	1R3	0400		182,645:04:0	
90	042	15:13:44.866	118M110A111A4A	7STRP	-0.0073,0.0,92,0	Slew =,0.41	1R3	0400		182,645:05:0	
90	042	15:14:42.200		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC * 966 +/- 34;	1R3	0400		182,646:00:0	
90	042	15:14:42.200	175FO422A6B	6DMSC	RDY,0	DMS Control Tape stop	1R3	0400		182,646:00:0	
90	042	15:14:43.400		DMS:	*READY	RDY, TRACK 3, FWD, TIC * 967 +/- 34;	1R3	0400		182,646:01:8	
90	042	15:42:33.533	165AE4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	1R3	0400		182,673:50:0	
90	042	15:42:34.200	165AE4B	7SCAN	NORM,115.702,25.	Check S/P Position	1R3	0400		182,673:51:0	
90	042	15:42:59.533		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 967 +/- 34;	1R3	0400		182,673:89:0	
90	042	15:42:59.533	175FP422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	1R3	0400		182,673:89:0	
90	042	15:43:00.866	176FP6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	1R3	0400		182,674:00:0	
90	042	15:43:03.533		DMS:	*RECORD	R115, TRACK 3, FWD, TIC * 974 +/- 35;	1R3	0400		182,674:04:0	
90	042	15:43:04.200	118N110A111A4A	7STRP	-0.0073,0.0,92,0	Slew =,0.41	1R3	0400		182,674:05:0	
90	042	15:44:01.533		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *1178 +/- 35;	1R3	0400		182,675:00:0	
90	042	15:44:01.533	175FP422A6B	6DMSC	RDY,0	DMS Control Tape stop	1R3	0400		182,675:00:0	
90	042	15:44:02.733		DMS:	*READY	RDY, TRACK 3, FWD, TIC *1179 +/- 35;	1R3	0400		182,675:01:8	
90	042	17:12:32.866	165AF4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	1R3	0400		182,762:50:0	
90	042	17:12:33.533	165AF4B	7SCAN	NORM,115.643999,	Check S/P Position	1R3	0400		182,762:51:0	
90	042	17:12:58.866		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 1179 +/- 35;	1R3	0400		182,762:89:0	
90	042	17:12:58.866	175FQ422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	1R3	0400		182,762:89:0	
90	042	17:13:00.200	176FQ6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	1R3	0400		182,763:00:0	
90	042	17:13:02.866		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *1186 +/- 36;	1R3	0400		182,763:04:0	
90	042	17:13:03.533	118O110A111A4A	7STRP	-0.0073,0.0,92,0	Slew =,0.41	1R3	0400		182,763:05:0	
90	042	17:14:00.866	175FQ422A6B	6DMSC	RDY,0	DMS Control Tape stop	1R3	0400		182,764:00:0	
90	042	17:14:02.066		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *1390 +/- 36;	1R3	0400		182,764:00:0	
90	042	17:14:02.066		DMS:	*READY	RDY, TRACK 3, FWD, TIC *1391 +/- 36;	1R3	0400		182,764:01:8	
90	042	17:42:52.866	165AG4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	1R3	0400		182,792:50:0	
90	042	17:42:53.533	165AG4B	7SCAN	NORM,115.624,25.	Check S/P Position	1R3	0400		182,792:51:0	
90	042	17:43:18.866	175FR422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	1R3	0400		182,792:89:0	
90	042	17:43:18.866		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 1391 +/- 36;	1R3	0400		182,792:89:0	
90	042	17:43:20.200	176FR6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	1R3	0400		182,793:00:0	
90	042	17:43:22.866		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *1397 +/- 37;	1R3	0400		182,793:04:0	
90	042	17:43:23.533	118P110A111A4A	7STRP	-0.0073,0.0,92,0	Slew =,0.41	1R3	0400		182,793:05:0	
90	042	17:44:20.866		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *1601 +/- 37;	1R3	0400		182,794:00:0	
90	042	17:44:20.866	175FR422A6B	6DMSC	RDY,0	DMS Control Tape stop	1R3	0400		182,794:00:0	
90	042	17:44:22.066		DMS:	*READY	RDY, TRACK 3, FWD, TIC *1602 +/- 37;	1R3	0400		182,794:01:8	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	042	19:12:52.200	165AH4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	LR3	0400		182,881:50:0	
90	042	19:12:52.866	165AH4B	7SCAN	NORM,115.57,25.0	Check S/P Position	LR3	0400		182,881:51:0	
90	042	19:13:18.200	175FS422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	LR3	0400		182,881:89:0	
90	042	19:13:18.200		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 1602 +/- 37;	LR3	0400		182,881:89:0	
90	042	19:13:19.533	176FS6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	LR3	0400		182,882:00:0	
90	042	19:13:22.200		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *1609 +/- 38;	LR3	0400		182,882:04:0	
90	042	19:13:22.866	118Q110A111A4A	7STRP	-0.0073,0.0,92.0	Slew =,0.41	LR3	0400		182,882:05:0	
90	042	19:14:20.200	175FS422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		182,883:00:0	
90	042	19:14:20.200		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *1813 +/- 38;	LR3	0400		182,883:00:0	
90	042	19:14:21.400		DMS:	*READY	RDY, TRACK 3, FWD, TIC *1814 +/- 38;	LR3	0400		182,883:01:8	
90	042	19:43:12.200	165AI4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	LR3	0400		182,911:50:0	
90	042	19:43:12.866	165AI4B	7SCAN	NORM,115.559999,	Check S/P Position	LR3	0400		182,911:51:0	
90	042	19:43:38.200	175FT422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	LR3	0400		182,911:89:0	
90	042	19:43:38.200		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 1814 +/- 38;	LR3	0400		182,911:89:0	
90	042	19:43:39.533	176FT6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	LR3	0400		182,912:00:0	
90	042	19:43:42.200		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *1821 +/- 39;	LR3	0400		182,912:04:0	
90	042	19:43:42.866	118R110A111A4A	7STRP	-0.0073,0.0,92.0	Slew =,0.41	LR3	0400		182,912:05:0	
90	042	19:44:40.200	175FT422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		182,913:00:0	
90	042	19:44:40.200		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *2025 +/- 39;	LR3	0400		182,913:00:0	
90	042	19:44:41.400		DMS:	*READY	RDY, TRACK 3, FWD, TIC *2026 +/- 40;	LR3	0400		182,913:01:8	
90	042	21:13:11.533	165AJ4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	LR3	0400		183,000:50:0	
90	042	21:13:12.200	165AJ4B	7SCAN	NORM,115.504999,	Check S/P Position	LR3	0400		183,000:51:0	
90	042	21:13:37.533	175FU422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	LR3	0400		183,000:89:0	
90	042	21:13:37.533		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 2026 +/- 40;	LR3	0400		183,000:89:0	
90	042	21:13:38.866	176FU6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	LR3	0400		183,001:00:0	
90	042	21:13:41.533		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *2032 +/- 41;	LR3	0400		183,001:04:0	
90	042	21:13:42.200	118S110A111A4A	7STRP	-0.0073,0.0,92.0	Slew =,0.41	LR3	0400		183,001:05:0	
90	042	21:14:39.533	175FU422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		183,002:00:0	
90	042	21:14:39.533		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *2236 +/- 41;	LR3	0400		183,002:00:0	
90	042	21:14:40.733		DMS:	*READY	RDY, TRACK 3, FWD, TIC *2237 +/- 41;	LR3	0400		183,002:01:8	
90	042	21:43:31.533	165AK4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	LR3	0400		183,030:50:0	
90	042	21:43:32.200	165AK4B	7SCAN	NORM,115.488999,	Check S/P Position	LR3	0400		183,030:51:0	
90	042	21:43:57.533		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 2237 +/- 41;	LR3	0400		183,030:89:0	
90	042	21:43:57.533	175FV422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	LR3	0400		183,030:89:0	
90	042	21:43:58.866	176FV6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	LR3	0400		183,031:00:0	
90	042	21:44:01.533		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *2244 +/- 42;	LR3	0400		183,031:04:0	
90	042	21:44:02.200	118T110A111A4A	7STRP	-0.0073,0.0,92.0	Slew =,0.41	LR3	0400		183,031:05:0	
90	042	21:44:59.533	175FV422A6B	6DMSC	RDY,0	DMS Control Tape stop	LR3	0400		183,032:00:0	
90	042	21:44:59.533		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *2448 +/- 42;	LR3	0400		183,032:00:0	
90	042	21:45:00.733		DMS:	*READY	RDY, TRACK 3, FWD, TIC *2449 +/- 42;	LR3	0400		183,032:01:8	
90	042	21:48:57.533	128IH149A131A4A	37IOP	0,0	Safe, Grating Start Position =0	LR0	0400		183,035:84:0	
90	042	22:24:51.533	476AD6A	6TMCHG	EHR		LR0	0400		183,071:39:0	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	043	05:57:19.533	128A149A131A4A	37IOP	3,0	Long Map, Grating Start Position =0	1R3	0400		183,518:84:0	
90	043	05:57:57.533	165N4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	1R3	0400		183,519:50:0	
90	043	05:57:58.200	165N4B	7SCAN	NORM,115.051,24.	Check S/P Position	1R3	0400		183,519:51:0	
90	043	05:58:20.200	128A149A131B4A	37IST	1,2,0,OFF,0,1,0	Chopper ON, Sync, Chopper (Ref)Gain State	2R3	0400		183,519:84:0	
90	043	05:58:23.533		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 2449 +/- 42;	2R3	0400		183,519:89:0	
90	043	05:58:23.533	175FW422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R3	0400		183,519:89:0	
90	043	05:58:24.866	176FW6A	6TMCHG	NGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	2R3	0400		183,520:00:0	
90	043	05:58:27.533		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *2456 +/- 43;	2R3	0400		183,520:04:0	
90	043	05:58:55.533		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *2554 +/- 43;	2R3	0400		183,520:46:0	
90	043	05:58:55.533	175FW422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	0400		183,520:46:0	
90	043	05:58:56.733		DMS:	*READY	RDY, TRACK 3, FWD, TIC *2555 +/- 43;	2R3	0400		183,520:47:8	
90	043	06:13:07.533	165AZ4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	2R3	0400		183,534:50:0	
90	043	06:13:08.200	165AZ4B	7SCAN	NORM,115.417999,	Check S/P Position	2R3	0400		183,534:51:0	
90	043	06:13:25.533	117M	CSMOS	GS	***** GROUP START CSMOS	2R3	0400		183,534:77:0	
90	043	06:13:29.533		DMS:	*RUNUP	R806, TRACK 3, FWD, TIC 2555 +/- 43;	2R3	0400		183,534:83:0	
90	043	06:13:29.533	175FX422A6A	6DMSC	R806,0	DMS Control Tape runup 806.4kb	2R3	0400		183,534:83:0	
90	043	06:13:34.733		DMS:	*RECORD	R806, TRACK 3, FWD, TIC *2620 +/- 55;	2R3	0400		183,534:90:8	
90	043	06:13:34.866	117M105A106A4A	7STRP	0,0,-0.0027,0,0,	Slew =,0.33	2R3	0400		183,535:00:0	
90	043	06:13:34.866	176FX6A	6TMCHG	NGGAI8	NO CHANGE / 806.4 KBPS SSI + 1/8 NIMS RECO	2R3	0400		183,535:00:0	
90	043	06:13:48.866		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *2968 +/- 55;	2R3	0400		183,535:21:0	
90	043	06:13:48.866	175FX422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	0400		183,535:21:0	
90	043	06:13:51.533		DMS:	*READY	RDY, TRACK 3, FWD, TIC *2979 +/- 58;	2R3	0400		183,535:25:0	
90	043	06:13:54.200	117M11A	CSMOS	GE	***** GROUP END CSMOS	2R3	0400		183,535:29:0	
90	043	07:58:16.800	165O4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	2R3	0400		183,638:50:0	
90	043	07:58:17.466	165O4B	7SCAN	NORM,114.997,24.	Check S/P Position	2R3	0400		183,638:51:0	
90	043	07:58:42.800		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 2979 +/- 58;	2R3	0400		183,638:89:0	
90	043	07:58:42.800	175FY422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R3	0400		183,638:89:0	
90	043	07:58:44.133	176FY6A	6TMCHG	NGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	2R3	0400		183,639:00:0	
90	043	07:58:46.800		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *2986 +/- 59;	2R3	0400		183,639:04:0	
90	043	07:59:14.800	175FY422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	0400		183,639:46:0	
90	043	07:59:14.800		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3084 +/- 59;	2R3	0400		183,639:46:0	
90	043	07:59:16.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3085 +/- 59;	2R3	0400		183,639:47:8	
90	043	08:29:56.133	476AE6A	6TMCHG	EHR	Disable IVP - Target Motion	2R3	0400		183,669:78:0	
90	043	09:57:35.466	165P4A	7TMOT	DIS,TMC	Check S/P Position	2R3	0400		183,756:50:0	
90	043	09:57:36.133	165P4B	7SCAN	NORM,114.938999,	Check S/P Position	2R3	0400		183,756:51:0	
90	043	09:58:01.466		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 3085 +/- 59;	2R3	0400		183,756:89:0	
90	043	09:58:01.466	175FZ422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R3	0400		183,756:89:0	
90	043	09:58:02.800	176FZ6A	6TMCHG	NGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	2R3	0400		183,757:00:0	
90	043	09:58:05.466		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *3092 +/- 60;	2R3	0400		183,757:04:0	
90	043	09:58:33.466		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3190 +/- 60;	2R3	0400		183,757:46:0	
90	043	09:58:33.466	175FZ422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	0400		183,757:46:0	
90	043	09:58:34.666		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3191 +/- 60;	2R3	0400		183,757:47:8	



YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF	I
90	043	11:49:59.466	476F6A	6TMCHG	EHRHCM		2R3	0400		183,867:65:0		
90	043	11:57:54.800	165Q4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	2R3	0400		183,875:50:0		
90	043	11:57:55.466	165Q4B	7SCAN	NORM,114.881,24.	Check S/P Position	2R3	0400		183,875:51:0		
90	043	11:58:20.800	175GA422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R3	0400		183,875:89:0		
90	043	11:58:20.800		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 3191 +/- 60;	2R3	0400		183,875:89:0		
90	043	11:58:22.133	176GA6A	6TMCHG	NGGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	2R3	0400		183,876:00:0		
90	043	11:58:24.800		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *3198 +/- 61;	2R3	0400		183,876:04:0		
90	043	11:58:52.800		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3296 +/- 61;	2R3	0400		183,876:46:0		
90	043	11:58:52.800	175GA422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	0400		183,876:46:0		
90	043	11:58:54.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3297 +/- 62;	2R3	0400		183,876:47:8		
90	043	12:26:58.133	476AF6A	6TMCHG	EHR		2R3	0400		183,904:26:0		
90	043	13:57:13.466	165R4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	2R3	0400		183,993:50:0		
90	043	13:57:14.133	165R4B	7SCAN	NORM,114.832999,	Check S/P Position	2R3	0400		183,993:51:0		
90	043	13:57:39.466		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 3297 +/- 62;	2R3	0400		183,993:89:0		
90	043	13:57:39.466	175GB422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R3	0400		183,994:00:0		
90	043	13:57:40.800	176GB6A	6TMCHG	NGGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	2R3	0400		183,994:00:0		
90	043	13:57:43.466		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *3304 +/- 63;	2R3	0400		183,994:04:0		
90	043	13:58:11.466		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3402 +/- 63;	2R3	0400		183,994:46:0		
90	043	13:58:11.466	175GB422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	0400		183,994:46:0		
90	043	13:58:12.666		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3403 +/- 63;	2R3	0400		183,994:47:8		
90	043	14:03:40.133	128II149A13IA4A	37IOP	0,0	Safe, Grating Start Position =0	2R0	0400		183,999:84:0		
90	044	05:57:08.800	128H149A13IA4A	37IOP	3,0	Long Map, Grating Start Position =0	2R3	0400		184,942:84:0		
90	044	05:57:46.800	165AT4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	2R3	0400		184,943:50:0		
90	044	05:57:47.466	165AT4B	7SCAN	NORM,114.554,24.	Check S/P Position	2R3	0400		184,943:51:0		
90	044	05:58:09.466	128H149A13IB4A	37IIST	1,2,0,OFF,0,1,2	Chopper ON, Sync, Chopper (Ref)Gain State	3R3	0400		184,943:84:0		
90	044	05:58:12.800		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 3403 +/- 63;	3R3	0400		184,943:89:0		
90	044	05:58:12.800	175GC422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	3R3	0400		184,943:89:0		
90	044	05:58:14.133	176GC6A	6TMCHG	NGGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	3R3	0400		184,944:00:0		
90	044	05:58:16.800		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *3410 +/- 64;	3R3	0400		184,944:04:0		
90	044	05:59:14.800		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3614 +/- 64;	3R3	0400		184,945:00:0		
90	044	05:59:14.800	175GC422A6B	6DMSC	RDY,0	DMS Control Tape stop	3R3	0400		184,945:00:0		
90	044	05:59:16.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3615 +/- 64;	3R3	0400		184,945:01:8		
90	044	07:58:06.133	165AU4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	3R3	0400		185,062:50:0		
90	044	07:58:06.800	165AU4B	7SCAN	NORM,114.535999,	Check S/P Position	3R3	0400		185,062:51:0		
90	044	07:58:32.133		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 3615 +/- 64;	3R3	0400		185,062:89:0		
90	044	07:58:32.133	175GD422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	3R3	0400		185,062:89:0		
90	044	07:58:33.466	176GD6A	6TMCHG	NGGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	3R3	0400		185,063:00:0		
90	044	07:58:36.133		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *3622 +/- 65;	3R3	0400		185,063:04:0		
90	044	07:59:34.133		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3826 +/- 65;	3R3	0400		185,064:00:0		
90	044	07:59:34.133	175GD422A6B	6DMSC	RDY,0	DMS Control Tape stop	3R3	0400		185,064:00:0		
90	044	07:59:35.333		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3827 +/- 65;	3R3	0400		185,064:01:8		
90	044	08:59:56.800	476AK6A	6TMCHG	EHR		3R3	0400		185,123:65:0		

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	044	10:00:26.800	165AV4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	3R3	0400		185,183:50:0	
90	044	10:00:27.466	165AV4B	7SCAN	NORM,114.521,24.	Check S/P Position	3R3	0400		185,183:51:0	
90	044	10:00:52.800	175GG422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	3R3	0400		185,183:89:0	
90	044	10:00:52.800		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 3827 +/- 65;	3R3	0400		185,183:89:0	
90	044	10:00:54.133	176GG6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	3R3	0400		185,184:00:0	
90	044	10:00:56.800		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *3833 +/- 66;	3R3	0400		185,184:04:0	
90	044	10:01:54.800		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *4037 +/- 66;	3R3	0400		185,185:00:0	
90	044	10:01:54.800	175GG422A6B	6DMSC	RDY,0	DMS Control Tape stop	3R3	0400		185,185:00:0	
90	044	10:01:56.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *4038 +/- 66;	3R3	0400		185,185:01:8	
90	044	10:55:56.133	476AL6A	6TMCHG	EHR		3R3	0400		185,238:39:0	
90	044	11:59:45.400	165AW4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	3R3	0400		185,301:50:0	
90	044	11:59:46.066	165AW4B	7SCAN	NORM,114.507,24.	Check S/P Position	3R3	0400		185,301:51:0	
90	044	12:00:11.400	175GH422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	3R3	0400		185,301:89:0	
90	044	12:00:11.400		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 4038 +/- 66;	3R3	0400		185,301:89:0	
90	044	12:00:12.733	176GH6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	3R3	0400		185,302:00:0	
90	044	12:00:15.400		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *4045 +/- 67;	3R3	0400		185,302:04:0	
90	044	12:01:13.400	175GH422A6B	6DMSC	RDY,0	DMS Control Tape stop	3R3	0400		185,303:00:0	
90	044	12:01:13.400		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *4249 +/- 67;	3R3	0400		185,303:00:0	
90	044	12:01:14.600		DMS:	*READY	RDY, TRACK 3, FWD, TIC *4250 +/- 67;	3R3	0400		185,303:01:8	
90	044	12:06:12.066	128IJ149A131A4A	37IOP	0,0	Safe, Grating Start Position = 0	3R0	0400		185,307:84:0	
90	044	12:15:57.400	490E476A6A	6TMCHG	EHR LRS		3R0	0400		185,317:52:0	
90	044	12:16:00.066	481E4A	7STAR	13,1701,278.8139	Star catalog update	3R0	0400		185,317:56:0	
90	044	12:16:02.066	481E4B	7STAR	14,217,50.186,49	Star catalog update	3R0	0400		185,317:59:0	
90	044	12:16:04.066	481E4C	7STAR	15,151,261.99299	Star catalog update	3R0	0400		185,317:62:0	
90	044	12:16:06.066	481E4D	7STAR	16,0,0,0,0,0	Star catalog update	3R0	0400		185,317:65:0	
90	044	12:16:08.066	481E4E	7STAR	17,0,0,0,0,0	Star catalog update	3R0	0400		185,317:68:0	
90	044	12:16:10.066	481E4F	7STAR	18,0,0,0,0,0	Star catalog update	3R0	0400		185,317:71:0	
90	044	12:16:58.066	490E412A4B	7MODE	INT	AACS INERTIAL MODE	3R0	0400		185,318:52:0	
90	044	12:17:58.066	490E412A4D	7SAFE	UNSTOW	S/P TO 153 deg cone	3R0	0400		185,319:51:0	
90	044	12:22:08.066	490E412A4E	7VECT		Inert vect update UTC	3R0	0400		185,323:62:0	
90	044	12:22:12.066	490E412A4F	7TURN	2,MVR	ALERT Thruster	3R0	0400		185,323:68:0	
90	044	12:26:00.066	490E412A406A4A	7STAR	7,1701,278.81399	Star catalog update	3R0	0400		185,327:46:0	
90	044	12:26:02.066	490E412A406A4B	7STAR	8,217,50.186,49.	Star catalog update	3R0	0400		185,327:49:0	
90	044	12:26:04.066	490E412A406A4C	7STAR	9,151,261.992996	Star catalog update	3R0	0400		185,327:52:0	
90	044	12:26:06.066	490E412A406A4D	7STAR	10,0,0,0,0,0	Star catalog update	3R0	0400		185,327:55:0	
90	044	12:26:08.066	490E412A406A4E	7STAR	11,0,0,0,0,0	Star catalog update	3R0	0400		185,327:58:0	
90	044	12:26:10.066	490E412A406A4F	7STAR	12,0,0,0,0,0	Star catalog update	3R0	0400		185,327:61:0	
90	044	14:20:02.066	476A6A	6TMCHG	EHR		3R0	0400		185,440:26:0	
90	044	14:30:00.066	20DD6A	6DMSC	S115,4	DMS Control Tape slew 115kbps	3R0	0400		185,450:13:0	
90	044	14:30:00.066		DMS:	*RUNUP	S115, TRACK *4, *REV, TIC 4250 +/- 67;	3R0	0400		185,450:13:0	
90	044	14:30:04.066		DMS:	*SLEW	S115, TRACK 4, REV, TIC *4244 +/- 68;	3R0	0400		185,450:19:0	
90	044	14:31:02.066		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *4039 +/- 68;	3R0	0400		185,451:15:0	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	044	14:31:02.066	20DD6B	6DMSC	RDY,4	DMS Control Tape stop	3R0	0400		185,451:15:0	
90	044	14:31:03.266		DMS:	*READY	RDY, TRACK 4, REV, TIC *4038 +/- 68;	3R0	0400		185,451:16:8	
90	044	14:31:30.066		DMS:	*RUNUP	S115, TRACK 4, REV, TIC 4038 +/- 68;	3R0	0400		185,451:57:0	
90	044	14:31:30.066	20DD6C	6DMSC	S115,4	DMS Control Tape slew 115kbps	3R0	0400		185,451:57:0	
90	044	14:31:34.066		DMS:	*SLEW	S115, TRACK 4, REV, TIC *4032 +/- 69;	3R0	0400		185,451:63:0	
90	044	14:32:32.066		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3828 +/- 69;	3R0	0400		185,452:59:0	
90	044	14:32:32.066	20DD6D	6DMSC	RDY,4	DMS Control Tape stop	3R0	0400		185,452:59:0	
90	044	14:32:33.266		DMS:	*READY	RDY, TRACK 4, REV, TIC *3827 +/- 70;	3R0	0400		185,452:60:8	
90	044	14:33:00.066		DMS:	*RUNUP	S115, TRACK 4, REV, TIC 3827 +/- 70;	3R0	0400		185,453:10:0	
90	044	14:33:00.066	20DD6E	6DMSC	S115,4	DMS Control Tape slew 115kbps	3R0	0400		185,453:10:0	
90	044	14:33:04.066		DMS:	*SLEW	S115, TRACK 4, REV, TIC *3820 +/- 71;	3R0	0400		185,453:16:0	
90	044	14:34:02.066	20DD6F	6DMSC	RDY,4	DMS Control Tape stop	3R0	0400		185,454:12:0	
90	044	14:34:02.066		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3616 +/- 71;	3R0	0400		185,454:12:0	
90	044	14:34:03.266		DMS:	*READY	RDY, TRACK 4, REV, TIC *3615 +/- 71;	3R0	0400		185,454:13:8	
90	044	14:34:30.066		DMS:	*RUNUP	S115, TRACK 4, REV, TIC 3615 +/- 71;	3R0	0400		185,454:54:0	
90	044	14:34:30.066	20DD6G	6DMSC	S115,4	DMS Control Tape slew 115kbps	3R0	0400		185,454:54:0	
90	044	14:34:34.066		DMS:	*SLEW	S115, TRACK 4, REV, TIC *3609 +/- 72;	3R0	0400		185,454:60:0	
90	044	14:35:32.066	20DD6H	6DMSC	RDY,3	DMS Control Tape stop	3R0	0400		185,455:56:0	
90	044	14:35:32.066		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3404 +/- 72;	3R0	0400		185,455:56:0	
90	044	14:35:33.266		DMS:	*READY	RDY, TRACK *3, *FWD, TIC *3403 +/- 72;	3R0	0400		185,455:57:8	
90	044	14:40:00.733	423A6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	3R0	0400		185,460:04:0	
90	044	14:43:02.733	423A6B	6DMSC	P7,3	DMS Control Tape P/B 7.68kbps	3R0	0400		185,463:04:0	
90	044	14:43:02.733		DMS:	*RUNUP	P7, TRACK 3, FWD, TIC 3403 +/- 72;	3R0	0400		185,463:04:0	
90	044	14:43:04.066	423A6C	6PBCPY	H1M1A,D000,180,D	D000,180,DB1B,0548,0200	3R0	0400		185,463:06:0	
90	044	14:43:04.200		DMS:	*PLAYBACK	P7, TRACK 3, FWD, TIC *3404 +/- 72;	3R0	0400		185,463:06:2	
90	044	14:43:16.066	423A6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	3R0	0400		185,463:24:0	
90	044	14:43:32.733	423A6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		185,463:49:0	
90	044	14:43:45.400	423A6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		185,463:68:0	
90	044	14:43:58.066	423A6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	3R0	0400		185,463:87:0	
90	044	14:44:14.733	423A6H	6PBCPY	H1M1B,D000,180,B	D000,180,B1B1B,1700,1AB4	3R0	0400		185,464:21:0	
90	044	14:44:26.733		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3423 +/- 72;	3R0	0400		185,464:39:0	
90	044	14:44:26.733	423A6I	6DMSC	RDY,0	DMS Control Tape stop	3R0	0400		185,464:39:0	
90	044	14:44:28.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3424 +/- 72;	3R0	0400		185,464:40:9	
90	044	14:44:28.066	423A6J	6TMCHG	EHR		3R0	0400		185,464:41:0	
90	044	15:15:03.400		DMS:	*RUNUP	S7, TRACK *4, *REV, TIC 3424 +/- 72;	3R0	0400		185,494:64:0	
90	044	15:15:03.400	423A6W	6DMSC	S7,4	DMS Control Tape slew 7.68kbp	3R0	0400		185,494:64:0	
90	044	15:15:04.866		DMS:	*SLEW	S7, TRACK 4, REV, TIC *3423 +/- 72;	3R0	0400		185,494:66:2	
90	044	15:15:11.400		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3422 +/- 72;	3R0	0400		185,494:76:0	
90	044	15:15:11.400	423A6X	6DMSC	RDY,3	DMS Control Tape stop	3R0	0400		185,494:76:0	
90	044	15:15:12.666		DMS:	*READY	RDY, TRACK *3, *FWD, TIC *3421 +/- 72;	3R0	0400		185,494:77:9	
90	044	15:18:00.733	423B6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	3R0	0400		185,497:57:0	
90	044	15:21:02.733	423B6B	6DMSC	P7,3	DMS Control Tape P/B 7.68kbps	3R0	0400		185,500:57:0	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF	I
90	044	15:21:02.733		DMS:	*RUNUP	P7, TRACK 3, FWD, TIC 3421 +/- 72;	3R0	0400		185,500:57:0		
90	044	15:21:04.066	423B6C	6PBCPY	HLM1A,D000,180,D	D000,180,DB1B,0548,0200	3R0	0400		185,500:59:0		
90	044	15:21:04.200		DMS:	*PLAYBACK	P7, TRACK 3, FWD, TIC *3422 +/- 72;	3R0	0400		185,500:59:2		
90	044	15:21:16.066	423B6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	3R0	0400		185,500:77:0		
90	044	15:21:32.733	423B6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		185,501:11:0		
90	044	15:21:45.400	423B6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		185,501:30:0		
90	044	15:21:58.066	423B6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	3R0	0400		185,501:49:0		
90	044	15:22:14.733	423B6H	6PBCPY	HLM1B,D000,180,B	D000,180,B1B1B,1700,1AB4	3R0	0400		185,501:74:0		
90	044	15:22:26.733		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3441 +/- 72;	3R0	0400		185,502:01:0		
90	044	15:22:26.733	423B6I	6DMSC	RDY,0	DMS Control Tape stop	3R0	0400		185,502:01:0		
90	044	15:22:28.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3442 +/- 72;	3R0	0400		185,502:02:9		
90	044	15:22:28.066	423B6J	6TMCHG	EHR		3R0	0400		185,502:03:0		
90	044	15:53:03.400		DMS:	*RUNUP	S7, TRACK *4, *REV, TIC 3442 +/- 72;	3R0	0400		185,532:26:0		
90	044	15:53:03.400	423B6W	6DMSC	S7,4	DMS Control Tape slew 7.68kbp	3R0	0400		185,532:26:0		
90	044	15:53:04.866		DMS:	*SLEW	S7, TRACK 4, REV, TIC *3441 +/- 73;	3R0	0400		185,532:28:2		
90	044	15:53:11.400	423B6X	6DMSC	RDY,3	DMS Control Tape stop	3R0	0400		185,532:38:0		
90	044	15:53:11.400		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3439 +/- 73;	3R0	0400		185,532:38:0		
90	044	15:53:12.666		DMS:	*READY	RDY, TRACK *3, *FWD, TIC *3438 +/- 73;	3R0	0400		185,532:39:9		
90	044	15:56:00.733	423C6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	3R0	0400		185,535:19:0		
90	044	15:59:02.733	423C6B	6DMSC	P7,3	DMS Control Tape P/B 7.68kbps	3R0	0400		185,538:19:0		
90	044	15:59:02.733		DMS:	*RUNUP	P7, TRACK 3, FWD, TIC 3438 +/- 73;	3R0	0400		185,538:21:0		
90	044	15:59:04.066	423C6C	6PBCPY	HLM1A,D000,180,D	D000,180,DB1B,0548,0200	3R0	0400		185,538:21:2		
90	044	15:59:04.200		DMS:	*PLAYBACK	P7, TRACK 3, FWD, TIC *3439 +/- 73;	3R0	0400		185,538:39:0		
90	044	15:59:16.066	423C6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	3R0	0400		185,538:64:0		
90	044	15:59:32.733	423C6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		185,538:83:0		
90	044	15:59:45.400	423C6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		185,539:11:0		
90	044	15:59:58.066	423C6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	3R0	0400		185,539:36:0		
90	044	16:00:14.733	423C6H	6PBCPY	HLM1B,D000,180,B	D000,180,B1B1B,1700,1AB4	3R0	0400		185,539:54:0		
90	044	16:00:26.733		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3458 +/- 73;	3R0	0400		185,539:54:0		
90	044	16:00:26.733	423C6I	6DMSC	RDY,0	DMS Control Tape stop	3R0	0400		185,539:54:0		
90	044	16:00:28.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3459 +/- 73;	3R0	0400		185,539:55:9		
90	044	16:00:28.066	423C6J	6TMCHG	EHR		3R0	0400		185,539:56:0		
90	044	16:31:03.400	423C6W	6DMSC	S7,4	DMS Control Tape slew 7.68kbp	3R0	0400		185,569:79:0		
90	044	16:31:03.400		DMS:	*RUNUP	S7, TRACK *4, *REV, TIC 3459 +/- 73;	3R0	0400		185,569:79:0		
90	044	16:31:04.866		DMS:	*SLEW	S7, TRACK 4, REV, TIC *3458 +/- 73;	3R0	0400		185,569:81:2		
90	044	16:31:11.400	423C6X	6DMSC	RDY,3	DMS Control Tape stop	3R0	0400		185,570:00:0		
90	044	16:31:11.400		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3457 +/- 73;	3R0	0400		185,570:00:0		
90	044	16:31:12.666		DMS:	*READY	RDY, TRACK *3, *FWD, TIC *3456 +/- 73;	3R0	0400		185,570:01:9		
90	044	16:34:00.733	423D6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	3R0	0400		185,572:72:0		
90	044	16:37:02.733		DMS:	*RUNUP	P7, TRACK 3, FWD, TIC 3456 +/- 73;	3R0	0400		185,575:72:0		
90	044	16:37:02.733	423D6B	6DMSC	P7,3	DMS Control Tape P/B 7.68kbps	3R0	0400		185,575:72:0		
90	044	16:37:04.066	423D6C	6PBCPY	HLM1A,D000,180,D	D000,180,DB1B,0548,0200	3R0	0400		185,575:74:0		

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF	I
90	044	16:37:04.200		DMS:	*PLAYBACK	P7, TRACK 3, FWD, TIC *3457 +/-	73;	3R0	0400	185,575:74:2		
90	044	16:37:16.066	423D6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200		3R0	0400	185,576:01:0		
90	044	16:37:32.733	423D6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200		3R0	0400	185,576:26:0		
90	044	16:37:45.400	423D6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200		3R0	0400	185,576:45:0		
90	044	16:37:58.066	423D6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4		3R0	0400	185,576:64:0		
90	044	16:38:14.733	423D6H	6PBCPY	H1M1B,D000,180,B	D000,180,B1B1B,1700,1AB4		3R0	0400	185,576:89:0		
90	044	16:38:26.733		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3476 +/-	73;	3R0	0400	185,577:16:0		
90	044	16:38:26.733	423D6I	6DMSC	RDY,0	DMS Control Tape stop		3R0	0400	185,577:16:0		
90	044	16:38:28.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3477 +/-	73;	3R0	0400	185,577:17:9		
90	044	16:38:28.066	423D6J	6TMCHG	EHR			3R0	0400	185,577:18:0		
90	044	17:09:03.400	423D6W	6DMSC	S7,4	DMS Control Tape slew 7.68kbp		3R0	0400	185,607:41:0		
90	044	17:09:03.400		DMS:	*RUNUP	S7, TRACK *4, *REV, TIC 3477 +/-	73;	3R0	0400	185,607:41:0		
90	044	17:09:04.866		DMS:	*SLEW	S7, TRACK 4, REV, TIC *3476 +/-	73;	3R0	0400	185,607:43:2		
90	044	17:09:11.400		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3474 +/-	73;	3R0	0400	185,607:53:0		
90	044	17:09:11.400	423D6X	6DMSC	RDY,3	DMS Control Tape stop		3R0	0400	185,607:53:0		
90	044	17:09:12.666		DMS:	*READY	RDY, TRACK *3, *FWD, TIC *3473 +/-	73;	3R0	0400	185,607:54:9		
90	044	17:12:00.733	423E6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK		3R0	0400	185,610:34:0		
90	044	17:15:02.733	423E6B	6DMSC	P7,3	DMS Control Tape P/B 7.68kbps		3R0	0400	185,613:34:0		
90	044	17:15:02.733		DMS:	*RUNUP	P7, TRACK 3, FWD, TIC 3473 +/-	73;	3R0	0400	185,613:34:0		
90	044	17:15:04.066	423E6C	6PBCPY	H1M1A,D000,180,D	D000,180,DB1B,0548,0200		3R0	0400	185,613:36:0		
90	044	17:15:04.200		DMS:	*PLAYBACK	P7, TRACK 3, FWD, TIC *3474 +/-	73;	3R0	0400	185,613:36:2		
90	044	17:15:16.066	423E6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200		3R0	0400	185,613:54:0		
90	044	17:15:32.733	423E6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200		3R0	0400	185,613:34:0		
90	044	17:15:45.400	423E6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200		3R0	0400	185,614:26:0		
90	044	17:15:58.066	423E6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4		3R0	0400	185,614:51:0		
90	044	17:16:14.733	423E6H	6PBCPY	H1M1B,D000,180,B	D000,180,B1B1B,1700,1AB4		3R0	0400	185,614:69:0		
90	044	17:16:26.733		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3493 +/-	73;	3R0	0400	185,614:69:0		
90	044	17:16:26.733	423E6I	6DMSC	RDY,0	DMS Control Tape stop		3R0	0400	185,614:70:9		
90	044	17:16:28.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3494 +/-	73;	3R0	0400	185,614:71:0		
90	044	17:16:28.066	423E6J	6TMCHG	EHR			3R0	0400	185,645:03:0		
90	044	17:47:03.400	423E6W	6DMSC	S7,4	DMS Control Tape slew 7.68kbp		3R0	0400	185,645:03:0		
90	044	17:47:03.400		DMS:	*RUNUP	S7, TRACK *4, *REV, TIC 3494 +/-	73;	3R0	0400	185,645:05:2		
90	044	17:47:04.866		DMS:	*SLEW	S7, TRACK 4, REV, TIC *3493 +/-	73;	3R0	0400	185,645:15:0		
90	044	17:47:11.400	423E6X	6DMSC	RDY,3	DMS Control Tape stop		3R0	0400	185,645:15:0		
90	044	17:47:11.400		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3492 +/-	73;	3R0	0400	185,645:15:0		
90	044	17:47:12.666		DMS:	*READY	RDY, TRACK *3, *FWD, TIC *3491 +/-	73;	3R0	0400	185,645:16:9		
90	044	17:50:00.733	423F6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK		3R0	0400	185,647:87:0		
90	044	17:53:02.733		DMS:	*RUNUP	P7, TRACK 3, FWD, TIC 3491 +/-	73;	3R0	0400	185,650:87:0		
90	044	17:53:02.733	423F6B	6DMSC	P7,3	DMS Control Tape P/B 7.68kbps		3R0	0400	185,650:87:0		
90	044	17:53:04.066	423F6C	6PBCPY	H1M1A,D000,180,D	D000,180,DB1B,0548,0200		3R0	0400	185,650:89:0		
90	044	17:53:04.200		DMS:	*PLAYBACK	P7, TRACK 3, FWD, TIC *3492 +/-	74;	3R0	0400	185,650:89:2		
90	044	17:53:16.066	423F6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200		3R0	0400	185,651:16:0		

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF	I
90	044	17:53:32.733	423F6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		185,651:41:0		
90	044	17:53:45.400	423F6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		185,651:60:0		
90	044	17:53:58.066	423F6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	3R0	0400		185,651:79:0		
90	044	17:54:14.733	423F6H	6PBCPY	H1M1B,D000,180,B	D000,180,B1B1B,1700,1AB4	3R0	0400		185,652:13:0		
90	044	17:54:26.733	423F6I	DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3511 +/- 74;	3R0	0400		185,652:31:0		
90	044	17:54:26.733	423F6I	6DMSC	RDY,0	DMS Control Tape stop	3R0	0400		185,652:31:0		
90	044	17:54:28.000	423F6J	DMS:	*READY	RDY, TRACK 3, FWD, TIC *3512 +/- 74;	3R0	0400		185,652:32:9		
90	044	17:54:28.066	423F6J	6TMCHG	EHR		3R0	0400		185,652:33:0		
90	044	18:25:03.400	423F6K	DMS:	*RUNUP	S7, TRACK *4, *REV, TIC 3512 +/- 74;	3R0	0400		185,682:56:0		
90	044	18:25:03.400	423F6W	6DMSC	S7,4	DMS Control Tape slew 7.68kbp	3R0	0400		185,682:56:0		
90	044	18:25:04.866	423F6X	DMS:	*SLEW	S7, TRACK 4, REV, TIC *3511 +/- 74;	3R0	0400		185,682:58:2		
90	044	18:25:11.400	423F6Y	DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3509 +/- 74;	3R0	0400		185,682:68:0		
90	044	18:25:11.400	423F6Z	6DMSC	RDY,3	DMS Control Tape stop	3R0	0400		185,682:68:0		
90	044	18:25:12.666	423F6A	DMS:	*READY	RDY, TRACK *3, *FWD, TIC *3508 +/- 74;	3R0	0400		185,682:69:9		
90	044	18:28:00.733	423G6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	3R0	0400		185,685:49:0		
90	044	18:31:02.733	423G6B	6DMSC	P7,3	DMS Control Tape P/B 7.68kbps	3R0	0400		185,688:49:0		
90	044	18:31:02.733	423G6C	DMS:	*RUNUP	P7, TRACK 3, FWD, TIC 3508 +/- 74;	3R0	0400		185,688:49:0		
90	044	18:31:04.066	423G6C	6PBCPY	H1M1A,D000,180,D	D000,180,DB1B,0548,0200	3R0	0400		185,688:51:0		
90	044	18:31:04.200	423G6D	DMS:	*PLAYBACK	P7, TRACK 3, FWD, TIC *3509 +/- 74;	3R0	0400		185,688:51:2		
90	044	18:31:16.066	423G6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	3R0	0400		185,688:69:0		
90	044	18:31:32.733	423G6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		185,689:03:0		
90	044	18:31:45.400	423G6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		185,689:22:0		
90	044	18:31:58.066	423G6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	3R0	0400		185,689:41:0		
90	044	18:32:14.733	423G6H	6PBCPY	H1M1B,D000,180,B	D000,180,B1B1B,1700,1AB4	3R0	0400		185,689:66:0		
90	044	18:32:26.733	423G6I	DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3528 +/- 74;	3R0	0400		185,689:84:0		
90	044	18:32:26.733	423G6I	6DMSC	RDY,0	DMS Control Tape stop	3R0	0400		185,689:84:0		
90	044	18:32:28.000	423G6J	DMS:	*READY	RDY, TRACK 3, FWD, TIC *3529 +/- 74;	3R0	0400		185,689:85:9		
90	044	18:32:28.066	423G6J	6TMCHG	EHR		3R0	0400		185,689:86:0		
90	044	19:03:03.400	423G6W	DMS:	*RUNUP	S7, TRACK *4, *REV, TIC 3529 +/- 74;	3R0	0400		185,720:18:0		
90	044	19:03:03.400	423G6W	6DMSC	S7,4	DMS Control Tape slew 7.68kbp	3R0	0400		185,720:18:0		
90	044	19:03:04.866	423G6X	DMS:	*SLEW	S7, TRACK 4, REV, TIC *3528 +/- 74;	3R0	0400		185,720:20:2		
90	044	19:03:11.400	423G6Y	DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3527 +/- 74;	3R0	0400		185,720:30:0		
90	044	19:03:11.400	423G6Z	6DMSC	RDY,3	DMS Control Tape stop	3R0	0400		185,720:30:0		
90	044	19:03:12.666	423H6A	DMS:	*READY	RDY, TRACK *3, *FWD, TIC *3526 +/- 74;	3R0	0400		185,720:31:9		
90	044	19:06:00.733	423H6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	3R0	0400		185,723:11:0		
90	044	19:09:02.733	423H6B	DMS:	*RUNUP	P7, TRACK 3, FWD, TIC 3526 +/- 74;	3R0	0400		185,726:11:0		
90	044	19:09:02.733	423H6B	6DMSC	P7,3	DMS Control Tape P/B 7.68kbps	3R0	0400		185,726:11:0		
90	044	19:09:04.066	423H6C	6PBCPY	H1M1A,D000,180,D	D000,180,DB1B,0548,0200	3R0	0400		185,726:13:0		
90	044	19:09:04.200	423H6D	DMS:	*PLAYBACK	P7, TRACK 3, FWD, TIC *3527 +/- 74;	3R0	0400		185,726:13:2		
90	044	19:09:16.066	423H6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	3R0	0400		185,726:31:0		
90	044	19:09:32.733	423H6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		185,726:56:0		
90	044	19:09:45.400	423H6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		185,726:75:0		

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	044	19:09:58.066	423H6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	3R0	0400		185,727:03:0	
90	044	19:10:14.733	423H6H	6PBCPY	H1M1B,D000,180,B	D000,180,B1B1B,1700,1AB4	3R0	0400		185,727:28:0	
90	044	19:10:26.733	423H6I	6DMSC	RDY,0	DMS Control Tape stop	3R0	0400		185,727:46:0	
90	044	19:10:26.733		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3545 +/- 74;	3R0	0400		185,727:46:0	
90	044	19:10:28.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3546 +/- 74;	3R0	0400		185,727:47:9	
90	044	19:10:28.066	423H6J	6TMCHG	EHR		3R0	0400		185,727:48:0	
90	044	19:41:03.400		DMS:	*RUNUP	S7, TRACK *4, *REV, TIC 3546 +/- 74;	3R0	0400		185,757:71:0	
90	044	19:41:03.400	423H6W	6DMSC	S7,4	DMS Control Tape slew 7.68kbp	3R0	0400		185,757:71:0	
90	044	19:41:04.866		DMS:	*SLEW	S7, TRACK 4, REV, TIC *3545 +/- 74;	3R0	0400		185,757:73:2	
90	044	19:41:11.400		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3544 +/- 74;	3R0	0400		185,757:83:0	
90	044	19:41:11.400	423H6X	6DMSC	RDY,3	DMS Control Tape stop	3R0	0400		185,757:83:0	
90	044	19:41:12.666		DMS:	*READY	RDY, TRACK *3, *FWD, TIC *3543 +/- 74;	3R0	0400		185,757:84:9	
90	044	19:44:00.733	423I6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	3R0	0400		185,760:64:0	
90	044	19:47:02.733		DMS:	*RUNUP	P7, TRACK 3, FWD, TIC 3543 +/- 74;	3R0	0400		185,763:64:0	
90	044	19:47:02.733	423I6B	6DMSC	P7,3	DMS Control Tape P/B 7.68kbps	3R0	0400		185,763:64:0	
90	044	19:47:04.066	423I6C	6PBCPY	H1M1A,D000,180,D	D000,180,DB1B,0548,0200	3R0	0400		185,763:66:0	
90	044	19:47:04.200		DMS:	*PLAYBACK	P7, TRACK 3, FWD, TIC *3544 +/- 74;	3R0	0400		185,763:66:2	
90	044	19:47:16.066	423I6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	3R0	0400		185,763:84:0	
90	044	19:47:32.733	423I6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		185,764:18:0	
90	044	19:47:45.400	423I6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		185,764:37:0	
90	044	19:47:58.066	423I6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	3R0	0400		185,764:56:0	
90	044	19:48:14.733	423I6H	6PBCPY	H1M1B,D000,180,B	D000,180,B1B1B,1700,1AB4	3R0	0400		185,764:81:0	
90	044	19:48:26.733		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3563 +/- 74;	3R0	0400		185,765:08:0	
90	044	19:48:26.733	423I6I	6DMSC	RDY,0	DMS Control Tape stop	3R0	0400		185,765:08:0	
90	044	19:48:28.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3564 +/- 75;	3R0	0400		185,765:09:9	
90	044	19:48:28.066	423I6J	6TMCHG	EHR		3R0	0400		185,765:10:0	
90	044	20:19:03.400		DMS:	*RUNUP	S7, TRACK *4, *REV, TIC 3564 +/- 75;	3R0	0400		185,795:33:0	
90	044	20:19:03.400	423I6W	6DMSC	S7,4	DMS Control Tape slew 7.68kbp	3R0	0400		185,795:33:0	
90	044	20:19:04.866		DMS:	*SLEW	S7, TRACK 4, REV, TIC *3563 +/- 75;	3R0	0400		185,795:35:2	
90	044	20:19:11.400	423I6X	6DMSC	RDY,3	DMS Control Tape stop	3R0	0400		185,795:45:0	
90	044	20:19:11.400		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3561 +/- 75;	3R0	0400		185,795:45:0	
90	044	20:19:12.666		DMS:	*READY	RDY, TRACK *3, *FWD, TIC *3560 +/- 75;	3R0	0400		185,795:46:9	
90	044	22:10:00.733	423J6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	3R0	0400		185,905:09:0	
90	044	22:13:02.733		DMS:	*RUNUP	P7, TRACK 3, FWD, TIC 3560 +/- 75;	3R0	0400		185,908:09:0	
90	044	22:13:02.733	423J6B	6DMSC	P7,3	DMS Control Tape P/B 7.68kbps	3R0	0400		185,908:09:0	
90	044	22:13:04.066	423J6C	6PBCPY	H1M1A,D000,180,D	D000,180,DB1B,0548,0200	3R0	0400		185,908:11:0	
90	044	22:13:04.200		DMS:	*PLAYBACK	P7, TRACK 3, FWD, TIC *3561 +/- 75;	3R0	0400		185,908:11:2	
90	044	22:13:16.066	423J6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	3R0	0400		185,908:29:0	
90	044	22:13:32.733	423J6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		185,908:54:0	
90	044	22:13:45.400	423J6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		185,908:73:0	
90	044	22:13:58.066	423J6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	3R0	0400		185,909:01:0	
90	044	22:14:14.733	423J6H	6PBCPY	H1M1B,D000,180,B	D000,180,B1B1B,1700,1AB4	3R0	0400		185,909:26:0	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF	I
90	044	22:14:26.733		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3580 +/-	75;	3R0	0400	185,909:44:0		
90	044	22:14:26.733	423J6I	6DMSC	RDY,0	DMS Control Tape stop		3R0	0400	185,909:44:0		
90	044	22:14:28.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3581 +/-	75;	3R0	0400	185,909:45:9		
90	044	22:14:28.066	423J6J	6TMCHG	EHR			3R0	0400	185,909:46:0		
90	044	22:45:03.400		DMS:	*RUNUP	S7, TRACK *4, *REV, TIC 3581 +/-	75;	3R0	0400	185,939:69:0		
90	044	22:45:03.400	423J6W	6DMSC	S7,4	DMS Control Tape slew 7.68kbp		3R0	0400	185,939:69:0		
90	044	22:45:04.866		DMS:	*SLEW	S7, TRACK 4, REV, TIC *3580 +/-	75;	3R0	0400	185,939:71:2		
90	044	22:45:11.400		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3579 +/-	75;	3R0	0400	185,939:81:0		
90	044	22:45:11.400	423J6X	6DMSC	RDY,3	DMS Control Tape stop		3R0	0400	185,939:81:0		
90	044	22:45:12.666		DMS:	*READY	RDY, TRACK *3, *FWD, TIC *3578 +/-	75;	3R0	0400	185,939:82:9		
90	044	22:48:00.733	423K6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK		3R0	0400	185,942:62:0		
90	044	22:51:02.733	423K6B	6DMSC	P7,3	DMS Control Tape P/B 7.68kbps		3R0	0400	185,945:62:0		
90	044	22:51:02.733		DMS:	*RUNUP	P7, TRACK 3, FWD, TIC 3578 +/-	75;	3R0	0400	185,945:62:0		
90	044	22:51:04.066	423K6C	6PBCPY	H1M1A,D000,180,D	D000,180,DB1B,0548,0200		3R0	0400	185,945:64:0		
90	044	22:51:04.200		DMS:	*PLAYBACK	P7, TRACK 3, FWD, TIC *3579 +/-	75;	3R0	0400	185,945:64:2		
90	044	22:51:16.066	423K6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200		3R0	0400	185,945:82:0		
90	044	22:51:32.733	423K6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200		3R0	0400	185,946:16:0		
90	044	22:51:45.400	423K6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200		3R0	0400	185,946:35:0		
90	044	22:51:58.066	423K6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4		3R0	0400	185,946:54:0		
90	044	22:52:14.733	423K6H	6PBCPY	H1M1B,D000,180,B	D000,180,B1B1B,1700,1AB4		3R0	0400	185,946:79:0		
90	044	22:52:26.733		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3598 +/-	75;	3R0	0400	185,947:06:0		
90	044	22:52:26.733	423K6I	6DMSC	RDY,0	DMS Control Tape stop		3R0	0400	185,947:06:0		
90	044	22:52:28.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3599 +/-	75;	3R0	0400	185,947:07:9		
90	044	22:52:28.066	423K6J	6TMCHG	EHR			3R0	0400	185,947:08:0		
90	044	23:23:03.400		DMS:	*RUNUP	S7, TRACK *4, *REV, TIC 3599 +/-	75;	3R0	0400	185,977:31:0		
90	044	23:23:03.400	423K6W	6DMSC	S7,4	DMS Control Tape slew 7.68kbp		3R0	0400	185,977:31:0		
90	044	23:23:04.866		DMS:	*SLEW	S7, TRACK 4, REV, TIC *3598 +/-	75;	3R0	0400	185,977:33:2		
90	044	23:23:11.400	423K6X	6DMSC	RDY,3	DMS Control Tape stop		3R0	0400	185,977:43:0		
90	044	23:23:11.400		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3596 +/-	75;	3R0	0400	185,977:43:0		
90	044	23:23:12.666		DMS:	*READY	RDY, TRACK *3, *FWD, TIC *3595 +/-	75;	3R0	0400	185,977:44:9		
90	044	23:26:00.733	423L6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK		3R0	0400	185,980:24:0		
90	044	23:29:02.733	423L6B	6DMSC	P7,3	DMS Control Tape P/B 7.68kbps		3R0	0400	185,983:24:0		
90	044	23:29:02.733		DMS:	*RUNUP	P7, TRACK 3, FWD, TIC 3595 +/-	75;	3R0	0400	185,983:24:0		
90	044	23:29:04.066	423L6C	6PBCPY	H1M1A,D000,180,D	D000,180,DB1B,0548,0200		3R0	0400	185,983:26:0		
90	044	23:29:04.200		DMS:	*PLAYBACK	P7, TRACK 3, FWD, TIC *3596 +/-	75;	3R0	0400	185,983:26:2		
90	044	23:29:16.066	423L6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200		3R0	0400	185,983:44:0		
90	044	23:29:32.733	423L6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200		3R0	0400	185,983:69:0		
90	044	23:29:45.400	423L6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200		3R0	0400	185,983:88:0		
90	044	23:29:58.066	423L6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4		3R0	0400	185,984:16:0		
90	044	23:30:14.733	423L6H	6PBCPY	H1M1B,D000,180,B	D000,180,B1B1B,1700,1AB4		3R0	0400	185,984:41:0		
90	044	23:30:26.733	423L6I	6DMSC	RDY,0	DMS Control Tape stop		3R0	0400	185,984:59:0		
90	044	23:30:26.733		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3615 +/-	75;	3R0	0400	185,984:59:0		



YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	044	23:30:28.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3616 +/-	75;	3R0	0400	185,984:60:9	
90	044	23:30:28.066	423L6J	6TMCHG	EHR			3R0	0400	185,984:61:0	
90	045	00:01:03.400		DMS:	*RUNUP	S7, TRACK *4, *REV, TIC 3616 +/-	75;	3R0	0400	186,014:84:0	
90	045	00:01:03.400	423L6W	6DMSC	S7,4	DMS Control Tape slew 7.68kbp		3R0	0400	186,014:84:0	
90	045	00:01:04.866		DMS:	*SLEW	S7, TRACK 4, REV, TIC *3615 +/-	76;	3R0	0400	186,014:86:2	
90	045	00:01:11.400	423L6X	6DMSC	RDY,3	DMS Control Tape stop		3R0	0400	186,015:05:0	
90	045	00:01:11.400		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3614 +/-	76;	3R0	0400	186,015:05:0	
90	045	00:01:12.666		DMS:	*READY	RDY, TRACK *3, *FWD, TIC *3613 +/-	76;	3R0	0400	186,015:06:9	
90	045	00:04:00.733	423M6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK		3R0	0400	186,017:77:0	
90	045	00:07:02.733		DMS:	*RUNUP	P7, TRACK 3, FWD, TIC 3613 +/-	76;	3R0	0400	186,020:77:0	
90	045	00:07:02.733	423M6B	6DMSC	P7,3	DMS Control Tape P/B 7.68kbps		3R0	0400	186,020:77:0	
90	045	00:07:04.066	423M6C	6PBCPY	HLM1A,D000,180,D	D000,180,DB1B,0548,0200		3R0	0400	186,020:79:0	
90	045	00:07:04.200		DMS:	*PLAYBACK	P7, TRACK 3, FWD, TIC *3614 +/-	76;	3R0	0400	186,020:79:2	
90	045	00:07:16.066	423M6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200		3R0	0400	186,021:06:0	
90	045	00:07:32.733	423M6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200		3R0	0400	186,021:31:0	
90	045	00:07:45.400	423M6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200		3R0	0400	186,021:50:0	
90	045	00:07:58.066	423M6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4		3R0	0400	186,021:69:0	
90	045	00:08:14.733	423M6H	6PBCPY	HLM1B,D000,180,B	D000,180,B1B1B,1700,1AB4		3R0	0400	186,022:03:0	
90	045	00:08:26.733		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3633 +/-	76;	3R0	0400	186,022:21:0	
90	045	00:08:26.733	423M6I	6DMSC	RDY,0	DMS Control Tape stop		3R0	0400	186,022:21:0	
90	045	00:08:28.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3634 +/-	76;	3R0	0400	186,022:22:9	
90	045	00:08:28.066	423M6J	6TMCHG	EHR			3R0	0400	186,022:23:0	
90	045	00:39:03.400	423M6W	6DMSC	S7,4	DMS Control Tape slew 7.68kbp		3R0	0400	186,052:46:0	
90	045	00:39:03.400		DMS:	*RUNUP	S7, TRACK *4, *REV, TIC 3634 +/-	76;	3R0	0400	186,052:46:0	
90	045	00:39:04.866		DMS:	*SLEW	S7, TRACK 4, REV, TIC *3633 +/-	76;	3R0	0400	186,052:48:2	
90	045	00:39:11.400		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3631 +/-	76;	3R0	0400	186,052:58:0	
90	045	00:39:11.400	423M6X	6DMSC	RDY,3	DMS Control Tape stop		3R0	0400	186,052:58:0	
90	045	00:39:12.666		DMS:	*READY	RDY, TRACK *3, *FWD, TIC *3630 +/-	76;	3R0	0400	186,052:59:9	
90	045	00:42:00.733	423N6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK		3R0	0400	186,055:39:0	
90	045	00:45:02.733	423N6B	6DMSC	P7,3	DMS Control Tape P/B 7.68kbps		3R0	0400	186,058:39:0	
90	045	00:45:02.733		DMS:	*RUNUP	P7, TRACK 3, FWD, TIC 3630 +/-	76;	3R0	0400	186,058:39:0	
90	045	00:45:04.066	423N6C	6PBCPY	HLM1A,D000,180,D	D000,180,DB1B,0548,0200		3R0	0400	186,058:41:0	
90	045	00:45:04.200		DMS:	*PLAYBACK	P7, TRACK 3, FWD, TIC *3631 +/-	76;	3R0	0400	186,058:41:2	
90	045	00:45:16.066	423N6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200		3R0	0400	186,058:59:0	
90	045	00:45:32.733	423N6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200		3R0	0400	186,058:84:0	
90	045	00:45:45.400	423N6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200		3R0	0400	186,059:12:0	
90	045	00:45:58.066	423N6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4		3R0	0400	186,059:31:0	
90	045	00:46:14.733	423N6H	6PBCPY	HLM1B,D000,180,B	D000,180,B1B1B,1700,1AB4		3R0	0400	186,059:56:0	
90	045	00:46:26.733	423N6I	6DMSC	RDY,0	DMS Control Tape stop		3R0	0400	186,059:74:0	
90	045	00:46:26.733		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3650 +/-	76;	3R0	0400	186,059:74:0	
90	045	00:46:28.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3651 +/-	76;	3R0	0400	186,059:75:9	
90	045	00:46:28.066	423N6J	6TMCHG	EHR			3R0	0400	186,059:76:0	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF	I
90	045	01:17:03.400		DMS:	*RUNUP	S7, TRACK *4, *REV, TIC 3651 +/-	3R0	0400		186,090:08:0		
90	045	01:17:03.400	423N6W	6DMSC	S7,4	DMS Control Tape slew 7.68kbp	3R0	0400		186,090:08:0		
90	045	01:17:04.866		DMS:	*SLEW	S7, TRACK 4, REV, TIC *3650 +/-	3R0	0400		186,090:10:2		
90	045	01:17:11.400	423N6X	6DMSC	RDY,3	DMS Control Tape stop	3R0	0400		186,090:20:0		
90	045	01:17:11.400		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3649 +/-	3R0	0400		186,090:20:0		
90	045	01:17:12.666		DMS:	*READY	RDY, TRACK *3, *FWD, TIC *3648 +/-	3R0	0400		186,090:21:9		
90	045	01:20:00.733	423O6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	3R0	0400		186,093:01:0		
90	045	01:23:02.733	423O6B	6DMSC	P7,3	DMS Control Tape P/B 7.68kbps	3R0	0400		186,096:01:0		
90	045	01:23:02.733		DMS:	*RUNUP	P7, TRACK 3, FWD, TIC 3648 +/-	3R0	0400		186,096:01:0		
90	045	01:23:04.066	423O6C	6PBCPY	HLM1A,D000,180,D	D000,180,DB1B,0548,0200	3R0	0400		186,096:03:0		
90	045	01:23:04.200		DMS:	*PLAYBACK	P7, TRACK 3, FWD, TIC *3649 +/-	3R0	0400		186,096:03:2		
90	045	01:23:16.066	423O6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	3R0	0400		186,096:21:0		
90	045	01:23:32.733	423O6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		186,096:46:0		
90	045	01:23:45.400	423O6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		186,096:65:0		
90	045	01:23:58.066	423O6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	3R0	0400		186,096:84:0		
90	045	01:24:14.733	423O6H	6PBCPY	HLM1B,D000,180,B	D000,180,B1B1B,1700,1AB4	3R0	0400		186,097:18:0		
90	045	01:24:26.733	423O6I	6DMSC	RDY,0	DMS Control Tape stop	3R0	0400		186,097:36:0		
90	045	01:24:26.733		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3668 +/-	3R0	0400		186,097:36:0		
90	045	01:24:28.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3669 +/-	3R0	0400		186,097:37:9		
90	045	01:24:28.066	423O6J	6TMCHG	EHR		3R0	0400		186,097:38:0		
90	045	01:55:03.400	423O6W	6DMSC	S7,4	DMS Control Tape slew 7.68kbp	3R0	0400		186,127:61:0		
90	045	01:55:03.400		DMS:	*RUNUP	S7, TRACK *4, *REV, TIC 3669 +/-	3R0	0400		186,127:61:0		
90	045	01:55:03.400		DMS:	*SLEW	S7, TRACK 4, REV, TIC *3668 +/-	3R0	0400		186,127:63:2		
90	045	01:55:04.866		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3666 +/-	3R0	0400		186,127:73:0		
90	045	01:55:11.400	423O6X	6DMSC	RDY,3	DMS Control Tape stop	3R0	0400		186,127:73:0		
90	045	01:55:11.400		DMS:	*READY	RDY, TRACK *3, *FWD, TIC *3665 +/-	3R0	0400		186,127:74:9		
90	045	01:55:12.666		DMS:	LPB	7.68 KBPS LOW RATE PLAYBACK	3R0	0400		186,130:54:0		
90	045	01:58:00.733	423P6A	6TMCHG	P7,3	DMS Control Tape P/B 7.68kbps	3R0	0400		186,133:54:0		
90	045	02:01:02.733	423P6B	6DMSC	*RUNUP	P7, TRACK 3, FWD, TIC 3665 +/-	3R0	0400		186,133:54:0		
90	045	02:01:02.733		DMS:	HLM1A,D000,180,D	D000,180,DB1B,0548,0200	3R0	0400		186,133:56:0		
90	045	02:01:04.066	423P6C	6PBCPY	*PLAYBACK	P7, TRACK 3, FWD, TIC *3666 +/-	3R0	0400		186,133:56:2		
90	045	02:01:16.066	423P6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	3R0	0400		186,133:74:0		
90	045	02:01:32.733	423P6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		186,134:08:0		
90	045	02:01:45.400	423P6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		186,134:27:0		
90	045	02:01:58.066	423P6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	3R0	0400		186,134:46:0		
90	045	02:02:14.733	423P6H	6PBCPY	HLM1B,D000,180,B	D000,180,B1B1B,1700,1AB4	3R0	0400		186,134:71:0		
90	045	02:02:26.733	423P6I	6DMSC	RDY,0	DMS Control Tape stop	3R0	0400		186,134:89:0		
90	045	02:02:26.733		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3685 +/-	3R0	0400		186,134:89:0		
90	045	02:02:28.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3686 +/-	3R0	0400		186,134:90:9		
90	045	02:02:28.066	423P6J	6TMCHG	EHR		3R0	0400		186,135:00:0		
90	045	02:33:03.400	423P6W	6DMSC	S7,4	DMS Control Tape slew 7.68kbp	3R0	0400		186,165:23:0		
90	045	02:33:03.400		DMS:	*RUNUP	S7, TRACK *4, *REV, TIC 3686 +/-	3R0	0400		186,165:23:0		

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	045	02:33:04.866		DMS:	*SLEW	S7, TRACK 4, REV, TIC *3685 +/-	3R0	0400		186,165:25:2	
90	045	02:33:11.400		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3683 +/-	3R0	0400		186,165:35:0	
90	045	02:33:11.400	423P6X	6DMSC	RDY,3	DMS Control Tape stop	3R0	0400		186,165:35:0	
90	045	02:33:12.666		DMS:	*READY	RDY, TRACK *3, *FWD, TIC *3682 +/-	3R0	0400		186,165:36:9	
90	045	02:36:00.733	423Q6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	3R0	0400		186,168:16:0	
90	045	02:39:02.733		DMS:	*RUNUP	P7, TRACK 3, FWD, TIC 3682 +/-	3R0	0400		186,171:16:0	
90	045	02:39:02.733	423Q6B	6DMSC	P7,3	DMS Control Tape P/B 7.68kbps	3R0	0400		186,171:16:0	
90	045	02:39:04.066	423Q6C	6PBCPY	HLM1A,D000,180,D	D000,180,DB1B,0548,0200	3R0	0400		186,171:18:0	
90	045	02:39:04.200		DMS:	*PLAYBACK	P7, TRACK 3, FWD, TIC *3683 +/-	3R0	0400		186,171:18:2	
90	045	02:39:16.066	423Q6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	3R0	0400		186,171:36:0	
90	045	02:39:32.733	423Q6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		186,171:61:0	
90	045	02:39:45.400	423Q6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	3R0	0400		186,171:80:0	
90	045	02:39:58.066	423Q6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	3R0	0400		186,172:08:0	
90	045	02:40:14.733	423Q6H	6PBCPY	HLM1B,D000,180,B	D000,180,B1B1B,1700,1AB4	3R0	0400		186,172:33:0	
90	045	02:40:26.733	423Q6I	6DMSC	RDY,0	DMS Control Tape stop	3R0	0400		186,172:51:0	
90	045	02:40:26.733		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3702 +/-	3R0	0400		186,172:51:0	
90	045	02:40:28.000		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3703 +/-	3R0	0400		186,172:52:9	
90	045	02:40:28.066	423Q6J	6TMCHG	EHR		3R0	0400		186,172:53:0	
90	045	03:11:03.400		DMS:	*RUNUP	S7, TRACK *4, *REV, TIC 3703 +/-	3R0	0400		186,202:76:0	
90	045	03:11:03.400	423Q6W	6DMSC	S7,4	DMS Control Tape slew 7.68kbp	3R0	0400		186,202:76:0	
90	045	03:11:04.866		DMS:	*SLEW	S7, TRACK 4, REV, TIC *3702 +/-	3R0	0400		186,202:78:2	
90	045	03:11:11.400	423Q6X	6DMSC	RDY,3	DMS Control Tape stop	3R0	0400		186,202:88:0	
90	045	03:11:11.400		DMS:	*RUNDOWN	RDY, TRACK 4, REV, TIC *3701 +/-	3R0	0400		186,202:88:0	
90	045	03:11:12.666		DMS:	*READY	RDY, TRACK *3, *FWD, TIC *3700 +/-	3R0	0400		186,202:89:9	
90	045	03:15:00.066		DMS:	*RUNUP	S115, TRACK 3, FWD, TIC 3700 +/-	3R0	0400		186,206:67:0	
90	045	03:15:00.066	20B6A	6DMSC	S115,3	DMS Control Tape slew 115.2kb	3R0	0400		186,206:67:0	
90	045	03:15:04.066		DMS:	*SLEW	S115, TRACK 3, FWD, TIC *3706 +/-	3R0	0400		186,206:73:0	
90	045	03:15:35.400		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *3817 +/-	3R0	0400		186,207:29:0	
90	045	03:15:35.400	20B6B	6DMSC	RDY,3	DMS Control Tape stop	3R0	0400		186,207:29:0	
90	045	03:15:36.600		DMS:	*READY	RDY, TRACK 3, FWD, TIC *3818 +/-	3R0	0400		186,207:30:8	
90	045	03:16:00.733	20B6C	6DMSC	S115,3	DMS Control Tape slew 115.2kb	3R0	0400		186,207:67:0	
90	045	03:16:00.733		DMS:	*RUNUP	S115, TRACK 3, FWD, TIC 3818 +/-	3R0	0400		186,207:67:0	
90	045	03:16:04.733		DMS:	*SLEW	S115, TRACK 3, FWD, TIC *3824 +/-	3R0	0400		186,207:73:0	
90	045	03:17:02.733	20B6D	6DMSC	RDY,3	DMS Control Tape stop	3R0	0400		186,208:69:0	
90	045	03:17:02.733		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *4028 +/-	3R0	0400		186,208:69:0	
90	045	03:17:03.933		DMS:	*READY	RDY, TRACK 3, FWD, TIC *4029 +/-	3R0	0400		186,208:70:8	
90	045	03:17:30.733	20B6E	6DMSC	S115,3	DMS Control Tape slew 115.2kb	3R0	0400		186,209:20:0	
90	045	03:17:30.733		DMS:	*RUNUP	S115, TRACK 3, FWD, TIC 4029 +/-	3R0	0400		186,209:20:0	
90	045	03:17:34.733		DMS:	*SLEW	S115, TRACK 3, FWD, TIC *4036 +/-	3R0	0400		186,209:26:0	
90	045	03:18:32.733	20B6F	6DMSC	RDY,3	DMS Control Tape stop	3R0	0400		186,210:22:0	
90	045	03:18:32.733		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *4240 +/-	3R0	0400		186,210:22:0	
90	045	03:18:33.933		DMS:	*READY	RDY, TRACK 3, FWD, TIC *4241 +/-	3R0	0400		186,210:23:8	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	045	04:25:54.066	476B6A	6TMCHG	EHR		3R0	0400		186,276:78:0	
90	045	05:24:40.066	165AL4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	3R0	0400		186,334:89:0	
90	045	05:24:40.733	165AL4B	7SCAN	NORM,114.448999,	Check S/P Position	3R0	0400		186,334:90:0	
90	045	05:27:38.733	128D149A131A4A	37IOP	3,0	Long Map, Grating Start Position =0	3R3	0400		186,337:84:0	
90	045	05:28:39.400	128D149A131B4A	37IST	1,2,0,OFF,0,1,1	Chopper ON, Sync, Chopper (Ref)Gain State	4R3	0400		186,338:84:0	
90	045	05:28:42.733	175GI422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	4R3	0400		186,338:89:0	
90	045	05:28:42.733		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 4241 +/- 81;	4R3	0400		186,338:89:0	
90	045	05:28:44.066	176GI6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	4R3	0400		186,339:00:0	
90	045	05:28:46.733		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *4248 +/- 82;	4R3	0400		186,339:04:0	
90	045	05:29:14.733		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *4346 +/- 82;	4R3	0400		186,339:46:0	
90	045	05:29:14.733	175GI422A6B	6DMSC	RDY,0	DMS Control Tape stop	4R3	0400		186,339:46:0	
90	045	05:29:15.933		DMS:	*READY	RDY, TRACK 3, FWD, TIC *4347 +/- 82;	4R3	0400		186,339:47:8	
90	045	07:27:35.400	165AM4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	4R3	0400		186,456:51:0	
90	045	07:27:36.066	165AM4B	7SCAN	NORM,114.443,24.	Check S/P Position	4R3	0400		186,456:51:0	
90	045	07:28:01.400		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 4347 +/- 82;	4R3	0400		186,456:89:0	
90	045	07:28:01.400	175GJ422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	4R3	0400		186,456:89:0	
90	045	07:28:02.733	176GJ6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	4R3	0400		186,457:00:0	
90	045	07:28:05.400		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *4354 +/- 83;	4R3	0400		186,457:04:0	
90	045	07:28:33.400		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *4452 +/- 83;	4R3	0400		186,457:46:0	
90	045	07:28:33.400	175GJ422A6B	6DMSC	RDY,0	DMS Control Tape stop	4R3	0400		186,457:46:0	
90	045	07:28:34.600		DMS:	*READY	RDY, TRACK 3, FWD, TIC *4453 +/- 83;	4R3	0400		186,457:47:8	
90	045	07:34:02.066	128IK149A131A4A	37IOP	0,0	Safe, Grating Start Position =0	4R0	0400		186,462:84:0	
90	045	15:29:54.666	476C6A	6TMCHG	EHR		4R0	0400		186,933:52:0	
90	045	15:40:00.000		DMS:	*REWIND	S806, TRACK *4, *REV, TIC 4453 +/- 83;	4R0	0400		186,943:50:0	
90	045	15:40:00.000	20C6A	6DMSC		Tape recorder rewind	4R0	0400		186,943:50:0	
90	045	15:43:13.933		DMS:	*READY	RDY, TRACK *1, *FWD, TIC * 201 +/- 0;	4R0	0400		186,946:67:9	
90	045	15:47:02.000	20C6B	6DMSC	S115,1	DMS Control Tape slew 115kbps	4R0	0400		186,950:46:0	
90	045	15:47:02.000		DMS:	*RUNUP	S115, TRACK 1, FWD, TIC 201 +/- 0;	4R0	0400		186,950:46:0	
90	045	15:47:06.000		DMS:	*SLEW	S115, TRACK 1, FWD, TIC * 207 +/- 1;	4R0	0400		186,950:52:0	
90	045	15:56:32.000	20C6C	6DMSC	RDY,1	DMS Control Tape stop	4R0	0400		186,959:82:0	
90	045	15:56:32.000		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *2200 +/- 1;	4R0	0400		186,959:82:0	
90	045	15:56:33.200		DMS:	*READY	RDY, TRACK 1, FWD, TIC *2201 +/- 1;	4R0	0400		186,959:83:8	
90	045	16:00:00.666	423R6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	4R0	0400		186,963:31:0	
90	045	16:03:02.666	423R6B	6DMSC	P7,1	DMS Control Tape P/B 7.68kbps	4R0	0400		186,966:31:0	
90	045	16:03:02.666		DMS:	*RUNUP	P7, TRACK 1, FWD, TIC 2201 +/- 1;	4R0	0400		186,966:31:0	
90	045	16:03:04.000	423R6C	6PBCPY	H1M1A,D000,180,D	D000,180,DB1B,0548,0200	4R0	0400		186,966:33:0	
90	045	16:03:04.133		DMS:	*PLAYBACK	P7, TRACK 1, FWD, TIC *2202 +/- 1;	4R0	0400		186,966:33:2	
90	045	16:03:16.000	423R6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	4R0	0400		186,966:51:0	
90	045	16:03:32.666	423R6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	4R0	0400		186,966:76:0	
90	045	16:03:45.333	423R6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	4R0	0400		186,967:04:0	
90	045	16:03:58.000	423R6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	4R0	0400		186,967:23:0	
90	045	16:04:14.666	423R6H	6PBCPY	H1M1B,D000,180,B	D000,180,B1B1B,1700,1AB4	4R0	0400		186,967:48:0	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	045	16:04:26.666	423R6I	6DMSC	RDY,0	DMS Control Tape stop	4R0	0400		186,967:66:0	
90	045	16:04:26.666		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *2221 +/-	4R0	0400	1;	186,967:66:0	
90	045	16:04:27.933		DMS:	*READY	RDY, TRACK 1, FWD, TIC *2222 +/-	4R0	0400	1;	186,967:67:9	
90	045	16:04:28.000	423R6J	6TMCHG	EHR		4R0	0400		186,967:68:0	
90	045	16:35:03.333	423R6W	6DMSC	S7,2	DMS Control Tape slew 7.68kbp	4R0	0400		186,998:00:0	
90	045	16:35:03.333		DMS:	*RUNUP	S7, TRACK *2, *REV, TIC 2222 +/-	4R0	0400	1;	186,998:00:0	
90	045	16:35:04.800		DMS:	*SLEW	S7, TRACK 2, REV, TIC *2221 +/-	4R0	0400	1;	186,998:02:2	
90	045	16:35:11.333	423R6X	6DMSC	RDY,1	DMS Control Tape stop	4R0	0400		186,998:12:0	
90	045	16:35:11.333		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *2219 +/-	4R0	0400	1;	186,998:12:0	
90	045	16:35:12.600		DMS:	*READY	RDY, TRACK *1, *FWD, TIC *2218 +/-	4R0	0400	1;	186,998:13:9	
90	045	16:40:00.000		DMS:	*RUNUP	S28, TRACK 1, FWD, TIC 2218 +/-	4R0	0400	1;	187,002:81:0	
90	045	16:40:00.000	20C6D	6DMSC	S28,1	DMS Control Tape slew 28.8kbp	4R0	0400		187,002:81:0	
90	045	16:40:04.000		DMS:	*SLEW	S28, TRACK 1, FWD, TIC *2220 +/-	4R0	0400	1;	187,002:87:0	
90	045	16:41:28.000	20C6E	6DMSC	RDY,1	DMS Control Tape stop	4R0	0400		187,004:31:0	
90	045	16:41:28.000		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *2294 +/-	4R0	0400	1;	187,004:31:0	
90	045	16:41:29.200		DMS:	*READY	RDY, TRACK 1, FWD, TIC *2295 +/-	4R0	0400	1;	187,004:32:8	
90	045	16:45:00.666	423S6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	4R0	0400		187,007:77:0	
90	045	16:48:02.666	423S6B	6DMSC	P7,1	DMS Control Tape P/B 7.68kbps	4R0	0400		187,010:77:0	
90	045	16:48:02.666		DMS:	*RUNUP	P7, TRACK 1, FWD, TIC 2295 +/-	4R0	0400	1;	187,010:77:0	
90	045	16:48:04.133	423S6C	6PBCPY	H1M1A,D000,180,D	D000,180,DB1B,0548,0200	4R0	0400		187,010:79:0	
90	045	16:48:04.000	423S6D	DMS:	*PLAYBACK	P7, TRACK 1, FWD, TIC *2296 +/-	4R0	0400	1;	187,010:79:2	
90	045	16:48:16.000	423S6E	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	4R0	0400		187,011:06:0	
90	045	16:48:32.666	423S6F	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	4R0	0400		187,011:31:0	
90	045	16:48:45.333	423S6G	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	4R0	0400		187,011:50:0	
90	045	16:48:58.000	423S6H	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	4R0	0400		187,011:69:0	
90	045	16:49:14.666	423S6I	DMS:	*RUNDOWN	H1M1B,D000,180,B	D000,180,B1B1B,1700,1AB4	4R0	0400	187,012:03:0	
90	045	16:49:26.666	423S6J	6DMSC	RDY,0	RDY, TRACK 1, FWD, TIC *2314 +/-	4R0	0400	1;	187,012:21:0	
90	045	16:49:27.933		DMS:	*READY	DMS Control Tape stop	4R0	0400		187,012:21:0	
90	045	16:49:28.000	423S6K	6TMCHG	EHR	RDY, TRACK 1, FWD, TIC *2315 +/-	4R0	0400	1;	187,012:22:9	
90	045	17:20:03.333	423S6L	DMS:	*RUNUP	S7, TRACK *2, *REV, TIC 2315 +/-	4R0	0400	1;	187,012:23:0	
90	045	17:20:03.333	423S6M	6DMSC	S7,2	DMS Control Tape slew 7.68kbp	4R0	0400		187,042:46:0	
90	045	17:20:04.800		DMS:	*SLEW	S7, TRACK 2, REV, TIC *2314 +/-	4R0	0400	2;	187,042:48:2	
90	045	17:20:11.333		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *2313 +/-	4R0	0400	2;	187,042:58:0	
90	045	17:20:11.333	423S6X	6DMSC	RDY,1	DMS Control Tape stop	4R0	0400		187,042:58:0	
90	045	17:20:12.600		DMS:	*READY	RDY, TRACK *1, *FWD, TIC *2312 +/-	4R0	0400	2;	187,042:59:9	
90	045	17:25:00.000	20C6F	6DMSC	S28,1	DMS Control Tape slew 28.8kbp	4R0	0400		187,047:36:0	
90	045	17:25:00.000		DMS:	*RUNUP	S28, TRACK 1, FWD, TIC 2312 +/-	4R0	0400	2;	187,047:36:0	
90	045	17:25:04.000		DMS:	*SLEW	S28, TRACK 1, FWD, TIC *2313 +/-	4R0	0400	2;	187,047:42:0	
90	045	17:26:28.000	20C6G	6DMSC	RDY,1	DMS Control Tape stop	4R0	0400		187,048:77:0	
90	045	17:26:28.000		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *2387 +/-	4R0	0400	2;	187,048:77:0	
90	045	17:26:29.200		DMS:	*READY	RDY, TRACK 1, FWD, TIC *2388 +/-	4R0	0400	2;	187,048:78:8	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	045	17:30:00.666	423T6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	4R0	0400		187,052:32:0	
90	045	17:33:02.666		DMS:	*RUNUP	P7, TRACK 1, FWD, TIC 2388 +/-	4R0	0400	2;	187,055:32:0	
90	045	17:33:02.666	423T6B	6DMSC	P7,1	DMS Control Tape P/B 7.68kbps	4R0	0400		187,055:32:0	
90	045	17:33:04.000	423T6C	6PBCPY	H1M1A,D000,180,D	D000,180,DB1B,0548,0200	4R0	0400		187,055:34:0	
90	045	17:33:04.133		DMS:	*PLAYBACK	P7, TRACK 1, FWD, TIC *2389 +/-	4R0	0400	2;	187,055:34:2	
90	045	17:33:16.000	423T6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	4R0	0400		187,055:52:0	
90	045	17:33:32.666	423T6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	4R0	0400		187,055:77:0	
90	045	17:33:45.333	423T6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	4R0	0400		187,056:05:0	
90	045	17:33:58.000	423T6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	4R0	0400		187,056:24:0	
90	045	17:34:14.666	423T6H	6PBCPY	H1M1B,D000,180,B	D000,180,B1B1B,1700,1AB4	4R0	0400		187,056:49:0	
90	045	17:34:26.666	423T6I	6DMSC	RDY,0	DMS Control Tape stop	4R0	0400		187,056:67:0	
90	045	17:34:27.933		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *2408 +/-	4R0	0400	2;	187,056:67:0	
90	045	17:34:27.933		DMS:	*READY	RDY, TRACK 1, FWD, TIC *2409 +/-	4R0	0400	2;	187,056:68:9	
90	045	17:34:27.933		EHR			4R0	0400		187,056:69:0	
90	045	17:34:28.000	423T6J	6TMCHG	S7,2	DMS Control Tape slew 7.68kbp	4R0	0400		187,087:01:0	
90	045	18:05:03.333	423T6W	6DMSC	*RUNUP	S7, TRACK *2, *REV, TIC 2409 +/-	4R0	0400	2;	187,087:01:0	
90	045	18:05:03.333		DMS:	*SLEW	S7, TRACK 2, REV, TIC *2408 +/-	4R0	0400	2;	187,087:03:2	
90	045	18:05:11.333	423T6X	6DMSC	RDY,1	DMS Control Tape stop	4R0	0400		187,087:13:0	
90	045	18:05:11.333		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *2407 +/-	4R0	0400	2;	187,087:13:0	
90	045	18:05:12.600		DMS:	*READY	RDY, TRACK *1, *FWD, TIC *2406 +/-	4R0	0400	2;	187,087:14:9	
90	045	18:10:00.000		DMS:	*RUNUP	S28, TRACK 1, FWD, TIC 2406 +/-	4R0	0400	2;	187,091:82:0	
90	045	18:10:00.000	20C6H	6DMSC	S28,1	DMS Control Tape slew 28.8kbp	4R0	0400		187,091:82:0	
90	045	18:10:04.000		DMS:	*SLEW	S28, TRACK 1, FWD, TIC *2407 +/-	4R0	0400	2;	187,091:88:0	
90	045	18:11:28.000	20C6I	6DMSC	RDY,1	DMS Control Tape stop	4R0	0400		187,093:32:0	
90	045	18:11:28.000		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *2481 +/-	4R0	0400	2;	187,093:32:0	
90	045	18:11:29.200		DMS:	*READY	RDY, TRACK 1, FWD, TIC *2482 +/-	4R0	0400	2;	187,093:33:8	
90	045	18:15:00.666	423U6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	4R0	0400		187,096:78:0	
90	045	18:18:02.666	423U6B	6DMSC	P7,1	DMS Control Tape P/B 7.68kbps	4R0	0400		187,099:78:0	
90	045	18:18:02.666		DMS:	*RUNUP	P7, TRACK 1, FWD, TIC 2482 +/-	4R0	0400	2;	187,099:78:0	
90	045	18:18:04.000	423U6C	6PBCPY	H1M1A,D000,180,D	D000,180,DB1B,0548,0200	4R0	0400		187,099:80:0	
90	045	18:18:04.133		DMS:	*PLAYBACK	P7, TRACK 1, FWD, TIC *2483 +/-	4R0	0400	2;	187,099:80:2	
90	045	18:18:16.000	423U6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	4R0	0400		187,100:07:0	
90	045	18:18:32.666	423U6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	4R0	0400		187,100:32:0	
90	045	18:18:45.333	423U6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	4R0	0400		187,100:51:0	
90	045	18:18:58.000	423U6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	4R0	0400		187,100:70:0	
90	045	18:19:14.666	423U6H	6PBCPY	H1M1B,D000,180,B	D000,180,B1B1B,1700,1AB4	4R0	0400		187,101:04:0	
90	045	18:19:26.666	423U6I	6DMSC	RDY,0	DMS Control Tape stop	4R0	0400		187,101:22:0	
90	045	18:19:26.666		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *2502 +/-	4R0	0400	2;	187,101:22:0	
90	045	18:19:27.933		DMS:	*READY	RDY, TRACK 1, FWD, TIC *2503 +/-	4R0	0400	2;	187,101:23:9	
90	045	18:19:28.000	423U6J	6TMCHG	EHR		4R0	0400		187,101:24:0	
90	045	18:50:03.333	423U6W	6DMSC	S7,2	DMS Control Tape slew 7.68kbp	4R0	0400		187,131:47:0	
90	045	18:50:03.333		DMS:	*RUNUP	S7, TRACK *2, *REV, TIC 2503 +/-	4R0	0400	2;	187,131:47:0	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF I
90	045	18:50:04.800		DMS:	*SLEW	S7, TRACK 2, REV, TIC *2502 +/-	4R0	0400		187,131:49:2	
90	045	18:50:11.333	423U6X	6DMSC	RDY,1	DMS Control Tape stop	4R0	0400		187,131:59:0	
90	045	18:50:11.333		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *2501 +/-	4R0	0400		187,131:59:0	
90	045	18:50:12.600		DMS:	*READY	RDY, TRACK *1, *FWD, TIC *2500 +/-	4R0	0400		187,131:60:9	
90	045	19:55:00.000	20C6J	6DMSC	S28,1	DMS Control Tape slew 28.8kbp	4R0	0400		187,195:68:0	
90	045	19:55:00.000		DMS:	*RUNUP	S28, TRACK 1, FWD, TIC 2500 +/-	4R0	0400		187,195:68:0	
90	045	19:55:04.000		DMS:	*SLEW	S28, TRACK 1, FWD, TIC *2501 +/-	4R0	0400		187,195:74:0	
90	045	19:56:28.000		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *2575 +/-	4R0	0400		187,197:18:0	
90	045	19:56:28.000	20C6K	6DMSC	RDY,1	DMS Control Tape stop	4R0	0400		187,197:18:0	
90	045	19:56:29.200		DMS:	*READY	RDY, TRACK 1, FWD, TIC *2576 +/-	4R0	0400		187,197:19:8	
90	045	20:00:00.666	423V6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	4R0	0400		187,200:64:0	
90	045	20:03:02.666	423V6B	6DMSC	P7,1	DMS Control Tape P/B 7.68kbps	4R0	0400		187,203:64:0	
90	045	20:03:02.666		DMS:	*RUNUP	P7, TRACK 1, FWD, TIC 2576 +/-	4R0	0400		187,203:64:0	
90	045	20:03:04.133	423V6C	6PBCPY	H1M1A,D000,180,D	D000,180,DB1B,0548,0200	4R0	0400		187,203:66:0	
90	045	20:03:16.000	423V6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	4R0	0400		187,203:84:0	
90	045	20:03:32.666	423V6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	4R0	0400		187,204:18:0	
90	045	20:03:45.333	423V6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	4R0	0400		187,204:37:0	
90	045	20:03:58.000	423V6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	4R0	0400		187,204:56:0	
90	045	20:04:14.666	423V6H	6PBCPY	H1M1B,D000,180,B	D000,180,B1B1B,1700,1AB4	4R0	0400		187,204:81:0	
90	045	20:04:26.666		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *2596 +/-	4R0	0400		187,205:08:0	
90	045	20:04:26.666	423V6I	6DMSC	RDY,0	DMS Control Tape stop	4R0	0400		187,205:08:0	
90	045	20:04:27.933		DMS:	*READY	RDY, TRACK 1, FWD, TIC *2597 +/-	4R0	0400		187,205:09:9	
90	045	20:04:28.000	423V6J	6TMCHG	EHR		4R0	0400		187,205:10:0	
90	045	20:35:03.333		DMS:	*RUNUP	S7, TRACK *2, *REV, TIC 2597 +/-	4R0	0400		187,235:33:0	
90	045	20:35:03.333	423V6W	6DMSC	S7,2	DMS Control Tape slew 7.68kbp	4R0	0400		187,235:33:0	
90	045	20:35:04.800		DMS:	*SLEW	S7, TRACK 2, REV, TIC *2596 +/-	4R0	0400		187,235:35:2	
90	045	20:35:11.333	423V6X	6DMSC	RDY,1	DMS Control Tape stop	4R0	0400		187,235:45:0	
90	045	20:35:11.333		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *2595 +/-	4R0	0400		187,235:45:0	
90	045	20:35:12.600		DMS:	*READY	RDY, TRACK *1, *FWD, TIC *2594 +/-	4R0	0400		187,235:46:9	
90	045	20:40:00.000		DMS:	*RUNUP	S28, TRACK 1, FWD, TIC 2594 +/-	4R0	0400		187,240:23:0	
90	045	20:40:00.000	20C6L	6DMSC	S28,1	DMS Control Tape slew 28.8kbp	4R0	0400		187,240:23:0	
90	045	20:40:04.000		DMS:	*SLEW	S28, TRACK 1, FWD, TIC *2595 +/-	4R0	0400		187,240:29:0	
90	045	20:41:28.000	20C6M	6DMSC	RDY,1	DMS Control Tape stop	4R0	0400		187,241:64:0	
90	045	20:41:28.000		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *2669 +/-	4R0	0400		187,241:64:0	
90	045	20:41:29.200		DMS:	*READY	RDY, TRACK 1, FWD, TIC *2670 +/-	4R0	0400		187,241:65:8	
90	045	20:45:00.666	423W6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	4R0	0400		187,245:19:0	
90	045	20:48:02.666		DMS:	*RUNUP	P7, TRACK 1, FWD, TIC 2670 +/-	4R0	0400		187,248:19:0	
90	045	20:48:02.666	423W6B	6DMSC	P7,1	DMS Control Tape P/B 7.68kbps	4R0	0400		187,248:19:0	
90	045	20:48:04.000	423W6C	6PBCPY	H1M1A,D000,180,D	D000,180,DB1B,0548,0200	4R0	0400		187,248:21:0	
90	045	20:48:04.133		DMS:	*PLAYBACK	P7, TRACK 1, FWD, TIC *2671 +/-	4R0	0400		187,248:21:2	
90	045	20:48:16.000	423W6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	4R0	0400		187,248:39:0	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	045	20:48:32.666	423W6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	4R0	0400		187,248:64:0	
90	045	20:48:45.333	423W6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	4R0	0400		187,248:83:0	
90	045	20:48:58.000	423W6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	4R0	0400		187,249:11:0	
90	045	20:49:14.666	423W6H	6PBCPY	H1M1B,D000,180,B	D000,180,B1B1B,1700,1AB4	4R0	0400		187,249:36:0	
90	045	20:49:26.666	423W6I	6DMSC	RDY,0	DMS Control Tape stop	4R0	0400		187,249:54:0	
90	045	20:49:26.666		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *2690 +/-	4R0	0400	3;	187,249:54:0	
90	045	20:49:27.933		DMS:	*READY	RDY, TRACK 1, FWD, TIC *2691 +/-	4R0	0400	3;	187,249:55:9	
90	045	20:49:28.000	423W6J	6TMCHG	EHR		4R0	0400		187,249:56:0	
90	045	21:20:03.333	423W6W	6DMSC	S7,2	DMS Control Tape slew 7.68kbp	4R0	0400		187,279:79:0	
90	045	21:20:03.333		DMS:	*RUNUP	S7, TRACK *2, *REV, TIC 2691 +/-	4R0	0400	3;	187,279:79:0	
90	045	21:20:04.800		DMS:	*SLEW	S7, TRACK 2, REV, TIC *2690 +/-	4R0	0400	4;	187,279:81:2	
90	045	21:20:11.333	423W6X	6DMSC	RDY,1	DMS Control Tape stop	4R0	0400		187,280:00:0	
90	045	21:20:11.333		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *2689 +/-	4R0	0400	4;	187,280:00:0	
90	045	21:20:12.600		DMS:	*READY	RDY, TRACK *1, *FWD, TIC *2688 +/-	4R0	0400	4;	187,280:01:9	
90	045	21:25:00.000		DMS:	*RUNUP	S28, TRACK 1, FWD, TIC 2688 +/-	4R0	0400	4;	187,284:69:0	
90	045	21:25:00.000	20C6N	6DMSC	S28,1	DMS Control Tape slew 28.8kbp	4R0	0400		187,284:69:0	
90	045	21:25:04.000		DMS:	*SLEW	S28, TRACK 1, FWD, TIC *2689 +/-	4R0	0400	4;	187,284:75:0	
90	045	21:26:28.000		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *2763 +/-	4R0	0400	4;	187,286:19:0	
90	045	21:26:28.000	20C6O	6DMSC	RDY,1	DMS Control Tape stop	4R0	0400		187,286:19:0	
90	045	21:26:29.200		DMS:	*READY	RDY, TRACK 1, FWD, TIC *2764 +/-	4R0	0400	4;	187,286:20:8	
90	045	21:30:00.666	423X6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	4R0	0400		187,289:65:0	
90	045	21:33:02.666	423X6B	6DMSC	P7,1	DMS Control Tape P/B 7.68kbps	4R0	0400		187,292:65:0	
90	045	21:33:02.666		DMS:	*RUNUP	P7, TRACK 1, FWD, TIC 2764 +/-	4R0	0400	4;	187,292:65:0	
90	045	21:33:04.000	423X6C	6PBCPY	H1M1A,D000,180,D	D000,180,DB1B,0548,0200	4R0	0400		187,292:67:0	
90	045	21:33:04.133		DMS:	*PLAYBACK	P7, TRACK 1, FWD, TIC *2765 +/-	4R0	0400	4;	187,292:67:2	
90	045	21:33:16.000	423X6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	4R0	0400		187,292:85:0	
90	045	21:33:32.666	423X6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	4R0	0400		187,293:19:0	
90	045	21:33:45.333	423X6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	4R0	0400		187,293:38:0	
90	045	21:33:58.000	423X6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	4R0	0400		187,293:57:0	
90	045	21:34:14.666	423X6H	6PBCPY	H1M1B,D000,180,B	D000,180,B1B1B,1700,1AB4	4R0	0400		187,293:82:0	
90	045	21:34:26.666	423X6I	6DMSC	RDY,0	DMS Control Tape stop	4R0	0400		187,294:09:0	
90	045	21:34:26.666		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *2784 +/-	4R0	0400	4;	187,294:09:0	
90	045	21:34:27.933		DMS:	*READY	RDY, TRACK 1, FWD, TIC *2785 +/-	4R0	0400	4;	187,294:10:9	
90	045	21:34:28.000	423X6J	6TMCHG	EHR		4R0	0400		187,294:11:0	
90	045	22:05:03.333	423X6W	6DMSC	S7,2	DMS Control Tape slew 7.68kbp	4R0	0400		187,324:34:0	
90	045	22:05:03.333		DMS:	*RUNUP	S7, TRACK *2, *REV, TIC 2785 +/-	4R0	0400	4;	187,324:34:0	
90	045	22:05:03.333		DMS:	*SLEW	S7, TRACK 2, REV, TIC *2784 +/-	4R0	0400	4;	187,324:36:2	
90	045	22:05:04.800		6DMSC	RDY,1	DMS Control Tape stop	4R0	0400		187,324:46:0	
90	045	22:05:11.333	423X6X				4R0	0400		187,324:46:0	
90	045	22:05:11.333		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *2782 +/-	4R0	0400	4;	187,324:46:0	
90	045	22:05:12.600		DMS:	*READY	RDY, TRACK *1, *FWD, TIC *2781 +/-	4R0	0400	4;	187,324:47:9	
90	045	22:10:00.000	20C6P	6DMSC	S28,1	DMS Control Tape slew 28.8kbp	4R0	0400		187,329:24:0	
90	045	22:10:00.000		DMS:	*RUNUP	S28, TRACK 1, FWD, TIC 2781 +/-	4R0	0400	4;	187,329:24:0	



YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	045	22:10:04.000		DMS:	*SLEW	S28, TRACK 1, FWD, TIC *2783 +/-	4R0	0400		187,329:30:0	
90	045	22:11:28.000	20C6Q	6DMSC	RDY,1	DMS Control Tape stop	4R0	0400		187,330:65:0	
90	045	22:11:28.000		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *2857 +/-	4R0	0400		187,330:65:0	
90	045	22:11:29.200		DMS:	*READY	RDY, TRACK 1, FWD, TIC *2858 +/-	4R0	0400		187,330:66:8	
90	045	22:15:00.666	423Y6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	4R0	0400		187,334:20:0	
90	045	22:18:02.666		DMS:	*RUNUP	P7, TRACK 1, FWD, TIC 2858 +/-	4R0	0400		187,337:20:0	
90	045	22:18:02.666	423Y6B	6DMSC	P7,1	DMS Control Tape P/B 7.68kbps	4R0	0400		187,337:20:0	
90	045	22:18:04.000	423Y6C	6PBCPY	HLM1A,D000,180,D	D000,180,DB1B,0548,0200	4R0	0400		187,337:22:0	
90	045	22:18:04.133		DMS:	*PLAYBACK	P7, TRACK 1, FWD, TIC *2859 +/-	4R0	0400		187,337:22:2	
90	045	22:18:16.000	423Y6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	4R0	0400		187,337:40:0	
90	045	22:18:32.666	423Y6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	4R0	0400		187,337:65:0	
90	045	22:18:45.333	423Y6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	4R0	0400		187,337:84:0	
90	045	22:18:58.000	423Y6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	4R0	0400		187,338:12:0	
90	045	22:19:14.666	423Y6H	6PBCPY	HLM1B,D000,180,B	D000,180,B1B1B,1700,1AB4	4R0	0400		187,338:37:0	
90	045	22:19:26.666		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *2878 +/-	4R0	0400		187,338:55:0	
90	045	22:19:26.666	423Y6I	6DMSC	RDY,0	DMS Control Tape stop	4R0	0400		187,338:55:0	
90	045	22:19:27.933		DMS:	*READY	RDY, TRACK 1, FWD, TIC *2879 +/-	4R0	0400		187,338:56:9	
90	045	22:19:28.000	423Y6J	6TMCHG	EHR		4R0	0400		187,338:57:0	
90	045	22:50:03.333		DMS:	*RUNUP	S7, TRACK *2, *REV, TIC 2879 +/-	4R0	0400		187,368:80:0	
90	045	22:50:03.333	423Y6W	6DMSC	S7,2	DMS Control Tape slew 7.68kbp	4R0	0400		187,368:80:0	
90	045	22:50:04.800		DMS:	*SLEW	S7, TRACK 2, REV, TIC *2878 +/-	4R0	0400		187,368:82:2	
90	045	22:50:11.333		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *2876 +/-	4R0	0400		187,369:01:0	
90	045	22:50:11.333	423Y6X	6DMSC	RDY,1	DMS Control Tape stop	4R0	0400		187,369:01:0	
90	045	22:50:12.600		DMS:	*READY	RDY, TRACK *1, *FWD, TIC *2875 +/-	4R0	0400		187,369:02:9	
90	045	22:55:00.000	20C6R	6DMSC	S28,1	DMS Control Tape slew 28.8kbp	4R0	0400		187,373:70:0	
90	045	22:55:00.000		DMS:	*RUNUP	S28, TRACK 1, FWD, TIC 2875 +/-	4R0	0400		187,373:70:0	
90	045	22:55:04.000		DMS:	*SLEW	S28, TRACK 1, FWD, TIC *2877 +/-	4R0	0400		187,373:76:0	
90	045	22:56:28.000	20C6S	6DMSC	RDY,1	DMS Control Tape stop	4R0	0400		187,375:20:0	
90	045	22:56:28.000		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *2951 +/-	4R0	0400		187,375:20:0	
90	045	22:56:29.200		DMS:	*READY	RDY, TRACK 1, FWD, TIC *2952 +/-	4R0	0400		187,375:21:8	
90	045	23:00:00.666	423Z6A	6TMCHG	LPB	7.68 KBPS LOW RATE PLAYBACK	4R0	0400		187,378:66:0	
90	045	23:03:02.666	423Z6B	6DMSC	P7,1	DMS Control Tape P/B 7.68kbps	4R0	0400		187,381:66:0	
90	045	23:03:02.666		DMS:	*RUNUP	P7, TRACK 1, FWD, TIC 2952 +/-	4R0	0400		187,381:66:0	
90	045	23:03:04.000	423Z6C	6PBCPY	HLM1A,D000,180,D	D000,180,DB1B,0548,0200	4R0	0400		187,381:68:0	
90	045	23:03:04.133		DMS:	*PLAYBACK	P7, TRACK 1, FWD, TIC *2953 +/-	4R0	0400		187,381:68:2	
90	045	23:03:16.000	423Z6D	6PBCPY	DB1A,4000,250,DB	4000,250,DB1B,0548,0200	4R0	0400		187,381:86:0	
90	045	23:03:32.666	423Z6E	6PBCPY	B1A1A,5000,190,D	5000,190,DB1B,0548,0200	4R0	0400		187,382:20:0	
90	045	23:03:45.333	423Z6F	6PBCPY	B1B2A,5000,190,D	5000,190,DB1B,0548,0200	4R0	0400		187,382:39:0	
90	045	23:03:58.000	423Z6G	6PBCPY	DB1B,4000,250,B1	4000,250,B1A1A,1700,1AB4	4R0	0400		187,382:58:0	
90	045	23:04:14.666	423Z6H	6PBCPY	HLM1B,D000,180,B	D000,180,B1B1B,1700,1AB4	4R0	0400		187,382:83:0	
90	045	23:04:26.666	423Z6I	6DMSC	RDY,0	DMS Control Tape stop	4R0	0400		187,383:10:0	
90	045	23:04:26.666		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *2972 +/-	4R0	0400		187,383:10:0	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF
90	045	23:04:27.933		DMS:	*READY	RDY, TRACK 1, FWD, TIC *2973 +/-	4R0	0400		187,383:11:9	
90	045	23:04:28.000	423Z6J	6TMCHG	EHR		4R0	0400		187,383:12:0	
90	045	23:35:03.333	423Z6W	6DMSC	S7,2	DMS Control Tape slew 7.68kbp	4R0	0400		187,413:35:0	
90	045	23:35:03.333		DMS:	*RUNUP	S7, TRACK *2, *REV, TIC 2973 +/-	4R0	0400		187,413:35:0	
90	045	23:35:04.800		DMS:	*SLEW	S7, TRACK 2, REV, TIC *2972 +/-	4R0	0400		187,413:37:2	
90	045	23:35:11.333	423Z6X	6DMSC	RDY,1	DMS Control Tape stop	4R0	0400		187,413:47:0	
90	045	23:35:11.333		DMS:	*RUNDOWN	RDY, TRACK 2, REV, TIC *2970 +/-	4R0	0400		187,413:47:0	
90	045	23:35:12.600		DMS:	*READY	RDY, TRACK *1, *FWD, TIC *2969 +/-	4R0	0400		187,413:48:9	
90	046	00:05:00.000	20D6A	6DMSC		Tape recorder rewind	4R0	0400		187,443:00:0	
90	046	00:05:00.000		DMS:	*REWIND	S806, TRACK *4, *REV, TIC 2969 +/-	4R0	0400		187,443:00:0	
90	046	00:07:13.666		DMS:	*READY	RDY, TRACK *1, *FWD, TIC * 201 +/-	4R0	0400		187,445:18:5	
90	046	00:12:02.000	20D6B	6DMSC	S115,1	DMS Control Tape slew 115kbps	4R0	0400		187,449:87:0	
90	046	00:12:02.000		DMS:	*RUNUP	S115, TRACK 1, FWD, TIC 201 +/-	4R0	0400		187,449:87:0	
90	046	00:12:06.000		DMS:	*SLEW	S115, TRACK 1, FWD, TIC * 207 +/-	4R0	0400		187,450:02:0	
90	046	00:32:51.333		DMS:	*RUNDOWN	RDY, TRACK 1, FWD, TIC *4591 +/-	4R0	0400		187,470:50:0	
90	046	00:32:51.333	20D6C	6DMSC	RDY,3	DMS Control Tape stop	4R0	0400		187,470:50:0	
90	046	00:32:52.533		DMS:	*READY	RDY, TRACK *3, FWD, TIC *4592 +/-	4R0	0400		187,470:51:8	
90	046	02:29:52.666	476D6A	6TMCHG	EHR		4R0	0400		187,586:26:0	
90	046	04:57:08.000	128E149A131A4A	37IOP	3,0	Long Map, Grating Start Position = 0	4R3	0400		187,731:84:0	
90	046	04:57:46.000	165AN4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	4R3	0400		187,732:50:0	
90	046	04:57:46.666	165AN4B	7SCAN	NORM,114.422999,	Check S/P Position	4R3	0400		187,732:51:0	
90	046	04:58:08.666	128E149A131B4A	37IST	1,2,0,OFF,0,1,3	Chopper ON, Sync, Chopper (Ref)Gain State	1R3	0400		187,732:84:0	
90	046	04:58:12.000	175GK422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	1R3	0400		187,732:89:0	
90	046	04:58:12.000		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 4592 +/-	1R3	0400		187,732:89:0	
90	046	04:58:13.333	176GK6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	1R3	0400		187,733:00:0	
90	046	04:58:16.000		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *4599 +/-	1R3	0400		187,733:04:0	
90	046	04:58:44.000		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *4697 +/-	1R3	0400		187,733:46:0	
90	046	04:58:44.000	175GK422A6B	6DMSC	RDY,0	DMS Control Tape stop	1R3	0400		187,733:46:0	
90	046	04:58:45.200		DMS:	*READY	RDY, TRACK 3, FWD, TIC *4698 +/-	1R3	0400		187,733:47:8	
90	046	06:58:05.333	165AO4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	1R3	0400		187,851:50:0	
90	046	06:58:06.000	165AO4B	7SCAN	NORM,114.424999,	Check S/P Position	1R3	0400		187,851:51:0	
90	046	06:58:31.333	175GL422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	1R3	0400		187,851:89:0	
90	046	06:58:31.333		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 4698 +/-	1R3	0400		187,851:89:0	
90	046	06:58:32.666	176GL6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	1R3	0400		187,852:00:0	
90	046	06:58:35.333		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *4705 +/-	1R3	0400		187,852:04:0	
90	046	06:59:03.333		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *4803 +/-	1R3	0400		187,852:46:0	
90	046	06:59:03.333	175GL422A6B	6DMSC	RDY,0	DMS Control Tape stop	1R3	0400		187,852:46:0	
90	046	06:59:04.533		DMS:	*READY	RDY, TRACK 3, FWD, TIC *4804 +/-	1R3	0400		187,852:47:8	
90	046	07:04:32.000	128IL149A131A4A	37IOP	0,0	Safe, Grating Start Position = 0	1R0	0400		187,857:84:0	
90	046	21:49:54.600	490F476A6A	6TMCHG	EHLRLS		1R0	0400		188,733:52:0	
90	046	21:50:01.933	481F4A	7VECT		Inert vect update UTC	1R0	0400		188,733:63:0	
90	046	21:50:03.933	481F4B	7STAR	13,1701,278.8139	Star catalog update	1R0	0400		188,733:66:0	

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF	I
90	046	21:50:05.933	481F4C	7STAR	14,219,68.263,16	Star catalog update	1R0	0400		188,733:69:0		
90	046	21:50:07.933	481F4D	7STAR	15,560,262.55299	Star catalog update	1R0	0400		188,733:72:0		
90	046	21:50:09.933	481F4E	7STAR	16,0,0.0,0.0	Star catalog update	1R0	0400		188,733:75:0		
90	046	21:50:11.933	481F4F	7STAR	17,0,0.0,0.0	Star catalog update	1R0	0400		188,733:78:0		
90	046	21:50:13.933	481F4G	7STAR	18,0,0.0,0.0	Star catalog update	1R0	0400		188,733:81:0		
90	046	21:50:59.933	490F412A4B	7MODE	INT	AACS INERTIAL MODE	1R0	0400		188,734:59:0		
90	046	21:51:59.933	490F412A4D	7SAFE	UNSTOW	S/P TO 153 deg cone	1R0	0400		188,735:58:0		
90	046	21:56:09.933	490F412A4E	7VECT		Inert vect update UTC	1R0	0400		188,739:69:0		
90	046	21:56:13.933	490F412A4F	7TURN	2,MVR	ALERT Thruster	1R0	0400		188,739:75:0		
90	046	22:00:01.933	490F412A406A4A	7STAR	7,1701,278.81399	Star catalog update	1R0	0400		188,743:53:0		
90	046	22:00:03.933	490F412A406A4B	7STAR	8,219,68.263,16.	Star catalog update	1R0	0400		188,743:56:0		
90	046	22:00:05.933	490F412A406A4C	7STAR	9,560,262.552998	Star catalog update	1R0	0400		188,743:59:0		
90	046	22:00:07.933	490F412A406A4D	7STAR	10,0,0.0,0.0	Star catalog update	1R0	0400		188,743:62:0		
90	046	22:00:09.933	490F412A406A4E	7STAR	11,0,0.0,0.0	Star catalog update	1R0	0400		188,743:65:0		
90	046	22:00:11.933	490F412A406A4F	7STAR	12,0,0.0,0.0	Star catalog update	1R0	0400		188,743:68:0		
90	047	00:41:56.600	476AR6A	6TMCHG	EHR		1R0	0400		188,903:65:0		
90	047	04:24:39.266	165AP4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	1R0	0400		189,123:89:0		
90	047	04:24:39.933	165AP4B	7SCAN	NORM,114.466,24.	Check S/P Position	1R0	0400		189,123:90:0		
90	047	04:27:37.933	128F149A131A4A	37IOP	3,0	Long Map, Grating Start Position =0	1R3	0400		189,126:84:0		
90	047	04:28:38.600	128F149A131B4A	37IST	1,2,0,OFF,0,1,0	Chopper ON, Sync, Chopper (Ref)Gain State	2R3	0400		189,127:84:0		
90	047	04:28:41.933	175GM422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R3	0400		189,127:89:0		
90	047	04:28:41.933		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 4804 +/- 3;	2R3	0400		189,127:89:0		
90	047	04:28:43.266	176GM6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	2R3	0400		189,128:00:0		
90	047	04:28:45.933		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *4811 +/- 4;	2R3	0400		189,128:04:0		
90	047	04:29:13.933	175GM422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	0400		189,128:46:0		
90	047	04:29:13.933		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *4909 +/- 4;	2R3	0400		189,128:46:0		
90	047	04:29:15.133		DMS:	*READY	RDY, TRACK 3, FWD, TIC *4910 +/- 4;	2R3	0400		189,128:47:8		
90	047	06:27:34.600	165AQ4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	2R3	0400		189,245:50:0		
90	047	06:27:35.266	165AQ4B	7SCAN	NORM,114.471999,	Check S/P Position	2R3	0400		189,245:51:0		
90	047	06:28:00.600	175GN422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	2R3	0400		189,245:89:0		
90	047	06:28:00.600		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 4910 +/- 4;	2R3	0400		189,245:89:0		
90	047	06:28:01.933	176GN6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	2R3	0400		189,246:00:0		
90	047	06:28:04.600		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *4917 +/- 5;	2R3	0400		189,246:04:0		
90	047	06:28:32.600	175GN422A6B	6DMSC	RDY,0	DMS Control Tape stop	2R3	0400		189,246:46:0		
90	047	06:28:32.600		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *5015 +/- 5;	2R3	0400		189,246:46:0		
90	047	06:28:33.800		DMS:	*READY	RDY, TRACK 3, FWD, TIC *5016 +/- 5;	2R3	0400		189,246:47:8		
90	047	06:34:01.266	128IM149A131A4A	37IOP	0,0	Safe, Grating Start Position =0	2R0	0400		189,251:84:0		
90	048	03:57:07.200	128G149A131A4A	37IOP	3,0	Long Map, Grating Start Position =0	2R3	0400		190,520:84:0		
90	048	03:57:45.200	165AR4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	2R3	0400		190,521:50:0		
90	048	03:57:45.866	165AR4B	7SCAN	NORM,114.556999,	Check S/P Position	2R3	0400		190,521:51:0		
90	048	03:58:07.866	128G149A131B4A	37IST	1,2,0,OFF,0,1,2	Chopper ON, Sync, Chopper (Ref)Gain State	3R3	0400		190,521:84:0		
90	048	03:58:11.200		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 5016 +/- 5;	3R3	0400		190,521:89:0		

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF	I
90	048	03:58:11.200	175GO422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	3R3	0400		190,521:89:0		
90	048	03:58:12.533	176GO6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	3R3	0400		190,522:00:0		
90	048	03:58:15.200		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *5023 +/-	6;	3R3	0400	190,522:04:0		
90	048	03:58:43.200	175GO422A6B	6DMSC	RDY,0	DMS Control Tape stop	3R3	0400		190,522:46:0		
90	048	03:58:43.200		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *5122 +/-	6;	3R3	0400	190,522:46:0		
90	048	03:58:44.400		DMS:	*READY	RDY, TRACK 3, FWD, TIC *5123 +/-	7;	3R3	0400	190,522:47:8		
90	048	05:58:04.533	165AS4A	7TMOT	DIS,TMC	Disable IVP - Target Motion	3R3	0400		190,640:50:0		
90	048	05:58:05.200	165AS4B	7SCAN	NORM,114.566999,	Check S/P Position	3R3	0400		190,640:51:0		
90	048	05:58:30.533		DMS:	*RUNUP	R115, TRACK 3, FWD, TIC 5123 +/-	7;	3R3	0400	190,640:89:0		
90	048	05:58:30.533	175GP422A6A	6DMSC	R115,0	DMS Control Tape runup 115.2kb	3R3	0400		190,640:89:0		
90	048	05:58:31.866	176GP6A	6TMCHG	NCGHCM	NO CHANGE / 115.2 comp image + NIMS + PW	3R3	0400		190,641:00:0		
90	048	05:58:34.533		DMS:	*RECORD	R115, TRACK 3, FWD, TIC *5129 +/-	8;	3R3	0400	190,641:04:0		
90	048	05:59:02.533		DMS:	*RUNDOWN	RDY, TRACK 3, FWD, TIC *5228 +/-	8;	3R3	0400	190,641:46:0		
90	048	05:59:02.533	175GP422A6B	6DMSC	RDY,0	DMS Control Tape stop	3R3	0400		190,641:46:0		
90	048	05:59:03.733		DMS:	*READY	RDY, TRACK 3, FWD, TIC *5229 +/-	8;	3R3	0400	190,641:47:8		
90	048	06:04:31.200	128IN149A131A4A	37IOP	0,0	Safe, Grating Start Position =0	3R0	0400		190,646:84:0		
90	048	06:07:05.866	20YU4A	37IOP	0,0	Safe, Grating Start Position =0	3R0	0400		190,649:43:0		
90	048	06:08:06.533	20YU3A	37AR	CMD,37AR,20YU3A,	NIMS Power OFF	3R0	0400		190,650:43:0		
90	048	06:08:09.866	20CE3B	37C1P	2	Optics Heater 1 ON (primary relay)				190,650:48:0		
90	048	06:08:09.866	20CE3A	37C1P	1	Optics Heater 1 ON (primary relay)				190,650:48:0		
90	048	06:08:19.866	20CE3D	37C2P	2	Optics Heater 2 ON (primary relay)				190,650:63:0		
90	048	06:08:19.866	20CE3C	37C2P	1	Optics Heater 2 ON (primary relay)				190,650:63:0		
90	048	06:08:26.533	20YU3B	37H	CMD,37H,20YU3B,,	Replacement Heaters ON				190,650:73:0		
90	048	19:35:59.200	490G412A4B	7MODE	INT	AACS INERTIAL MODE				191,449:43:0		
90	048	21:34:57.866	490G476A6A	6TMCHG	EHLRS					191,567:13:0		
90	048	21:35:01.866	481G4A	7STAR	13,1701,278.8139	Star catalog update				191,567:19:0		
90	048	21:35:03.866	481G4B	7STAR	14,131,322.00599	Star catalog update				191,567:22:0		
90	048	21:35:05.866	481G4C	7STAR	15,219,68.263,16	Star catalog update				191,567:25:0		
90	048	21:35:07.866	481G4D	7STAR	16,0,0,0,0,0	Star catalog update				191,567:28:0		
90	048	21:35:09.866	481G4E	7STAR	17,0,0,0,0,0	Star catalog update				191,567:31:0		
90	048	21:35:11.866	481G4F	7STAR	18,0,0,0,0,0	Star catalog update				191,567:34:0		
90	048	21:36:59.200	490G412A4D	7SAFE	UNSTOW	S/P TO 153 deg cone				191,569:13:0		
90	048	21:41:09.200	490G412A4E	7VECT		Inert vect update UTC				191,573:24:0		
90	048	21:41:13.200	490G412A4F	7TURN	2,MVR	ALERT Thruster				191,573:30:0		
90	048	21:45:01.200	490G412A406A4A	7STAR	7,1701,278.81399	Star catalog update				191,577:08:0		
90	048	21:45:03.200	490G412A406A4B	7STAR	8,131,322.005997	Star catalog update				191,577:11:0		
90	048	21:45:05.200	490G412A406A4C	7STAR	9,219,68.263,16.	Star catalog update				191,577:14:0		
90	048	21:45:07.200	490G412A406A4D	7STAR	10,0,0,0,0,0	Star catalog update				191,577:17:0		
90	048	21:45:09.200	490G412A406A4E	7STAR	11,0,0,0,0,0	Star catalog update				191,577:20:0		
90	048	21:45:11.200	490G412A406A4F	7STAR	12,0,0,0,0,0	Star catalog update				191,577:23:0		
90	048	23:45:02.533	20N4A	7MODE	CRU	AACS CRUISE MODE				191,695:72:0		
90	049	00:00:03.866	20I3A	37F2P	1	Shield Flash Heater ON (primary relay)				191,710:59:0		

YR	DOY	Time	PSID	Command	Parameters	Description	GCM	O	S	RIM	MF	I
90	049	00:00:03.866	20I3B	37F2P	2	Shield Flash Heater ON (primary relay)				191,710	59:0	
90	050	18:29:59.066		DMS:	READY	RDY, TRACK 3, FWD, TIC 5229 +/- 8;				194,232	50:0	

PA Summary Table

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

INPUT FILE: EV6\_900129.SEF

OAPEL	PA	PSID	SCLK1	SCLK2	SCET1	TARGET
NIMS ON	UTILITY	20ZU	00180405:27	00180408:02	90-041/01:29:06	VENUS
VEVNPDI1	INITRS	128IB	00180423:84	00180425:88	90-041/01:47:56	VENUS
VEVNPDI1	SCITLM	176IB	00180424:00	00180424:01	90-041/01:48:00	VENUS
VEVNPDI1	TARGET	165B	00180424:32	00180425:87	90-041/01:48:22	VENUS
VEVNPDI1	CSMOS	117B	00180425:73	00180467:21	90-041/01:49:50	VENUS
VEVNPDI1	SCIREC	175IB	00180425:80	00180467:38	90-041/01:49:54	VENUS
VEVNPDI1	CMDRS	157IB	00180467:00	00180469:00	90-041/02:31:29	VENUS
VEVNJBARS	TARGET	165F	00180535:10	00180536:78	90-041/03:40:21	VENUS
VEVNJBARS	INITRS	128IC	00180535:78	00180536:78	90-041/03:41:06	VENUS
VEVNJBARS	CSMOS	117R	00180536:64	00180556:13	90-041/03:41:58	VENUS
VEVNJBARS	SCIREC	175IC	00180536:71	00180556:51	90-041/03:42:02	VENUS
VEVNJBARS	SCITLM	176IC	00180536:78	00180536:79	90-041/03:42:07	VENUS
VEVNPDI2	TARGET	165C	00180556:59	00180558:36	90-041/04:02:08	VENUS
VEVNPDI2	INITRS	128ID	00180557:84	00180558:45	90-041/04:03:25	VENUS
VEVNPDI2	CSMOS	117C	00180558:22	00180617:58	90-041/04:03:44	VENUS
VEVNPDI2	SCITLM	176ID	00180558:26	00180558:27	90-041/04:03:47	VENUS
VEVNPDI2	SCIREC	175ID	00180558:29	00180587:55	90-041/04:03:49	VENUS
VEVNPDI2	SCIREC	175IP	00180589:22	00180617:11	90-041/04:35:05	VENUS
VEVNPDI2	SCITLM	176IP	00180589:26	00180589:27	90-041/04:35:08	VENUS
VEVPFNSMAP1	TARGET	165I	00180617:67	00180618:30	90-041/05:03:54	VENUS
VEVPFNSMAP1	CSMOS	117H	00180618:16	00180636:11	90-041/05:04:20	VENUS
VEVPFNSMAP1	SCIREC	175FA	00180625:87	00180626:57	90-041/05:12:12	VENUS
VEVPFNSMAP1	SCITLM	176FA	00180626:00	00180626:01	90-041/05:12:15	VENUS
VEVPFNSMAP2	TARGET	165J	00180637:28	00180638:00	90-041/05:23:41	VENUS
VEVPFNSMAP2	SCIREC	175MB	00180637:71	00180646:41	90-041/05:24:10	VENUS
VEVNLSN	INITRS	128IE	00180644:84	00180646:46	90-041/05:31:23	VENUS
VEVNLSN	TARGET	165D	00180645:24	00180646:46	90-041/05:31:44	VENUS
VEVNLSN	CSMOS	117D	00180646:30	00180652:30	90-041/05:32:48	VENUS
VEVNLSN	SCIREC	175IE	00180646:39	00180652:33	90-041/05:32:54	VENUS
VEVNLSN	SCITLM	176IE	00180646:39	00180646:40	90-041/05:32:54	VENUS
VEVNLSN	CMDRS	157IE	00180652:00	00180654:00	90-041/05:38:32	VENUS
VEVNLSN	TARGET	165E	00180680:80	00180682:11	90-041/06:07:44	VENUS
VEVNLSN	INITRS	128IF	00180681:78	00180682:11	90-041/06:08:44	VENUS
VEVNLSN	CSMOS	117E	00180681:88	00180686:07	90-041/06:08:50	VENUS
VEVNLSN	SCITLM	176IF	00180682:00	00180682:01	90-041/06:08:52	VENUS
VEVNLSN	SCIREC	175IF	00180682:04	00180686:00	90-041/06:08:55	VENUS
VEVSLMB01	CMDRS	157F	00180701:00	00180714:00	90-041/06:28:05	VENUS
VEVSLMB01	TARGET	165AX	00180768:68	00180770:00	90-041/07:36:35	VENUS
VEVSLMB01	SSI	147AK	00180769:76	00180776:89	90-041/07:37:41	VENUS
VEVSLMB01	SMOS	118U	00180769:81	00180776:57	90-041/07:37:44	VENUS
VEVSLMB01	SCIREC	175FB	00180769:89	00180771:03	90-041/07:37:50	VENUS
VEVSLMB01	SCITLM	176FB	00180770:00	00180770:01	90-041/07:37:51	VENUS
VEVSLMB01	SCIREC	175GW	00180771:43	00180772:48	90-041/07:39:20	VENUS
VEVSLMB01	SCIREC	175GX	00180772:89	00180774:03	90-041/07:40:52	VENUS
VEVSLMB01	SCIREC	175GY	00180774:43	00180775:48	90-041/07:42:22	VENUS
VEVSLMB01	SCIREC	175GZ	00180775:89	00180777:03	90-041/07:43:54	VENUS
VEVPNEWS	TARGET	165BC	00180777:44	00180778:00	90-041/07:45:25	VENUS

OAPEL	PA	PSID	SCLK1	SCLK2	SCET1	TARGET
VEVPNEWS	CSMOS	117P	00180777:77	00180826:87	90-041/07:45:47	VENUS
VEVPNEWS	SCIREC	175JG	00180777:84	00180826:45	90-041/07:45:52	VENUS
VEVPNEWS	SCITLM	176JG	00180778:00	00180778:01	90-041/07:45:56	VENUS
VEVSLMB02	TARGET	165AY	00180887:38	00180889:01	90-041/09:36:34	VENUS
VEVSLMB02	SSI	147AL	00180887:76	00180888:89	90-041/09:37:00	VENUS
VEVSLMB02	SCIREC	175FC	00180887:89	00180889:03	90-041/09:37:08	VENUS
VEVSLMB02	SCITLM	176FC	00180888:00	00180888:01	90-041/09:37:10	VENUS
VEVSLMB02	INITRS	128IG	00180893:84	00180894:69	90-041/09:43:09	VENUS
VEVSFT201	TARGET	165S	00182165:89	00182170:00	90-042/07:09:20	VENUS
VEVSFT201	INITRS	128C	00182168:84	00182170:53	90-042/07:12:19	VENUS
VEVSFT201	SMOS	118B	00182169:81	00182170:51	90-042/07:13:18	VENUS
VEVSFT201	SCIREC	175FD	00182169:89	00182171:03	90-042/07:13:23	VENUS
VEVSFT201	SCITLM	176FD	00182170:00	00182170:01	90-042/07:13:24	VENUS
VEVSFT202	TARGET	165T	00182179:50	00182180:00	90-042/07:23:04	VENUS
VEVSFT202	SMOS	118C	00182179:81	00182180:51	90-042/07:23:24	VENUS
VEVSFT202	SCIREC	175FE	00182179:89	00182181:03	90-042/07:23:30	VENUS
VEVSFT202	SCITLM	176FE	00182180:00	00182180:01	90-042/07:23:31	VENUS
VEVSFT203	TARGET	165U	00182209:50	00182210:00	90-042/07:53:24	VENUS
VEVSFT203	SMOS	118D	00182209:81	00182210:51	90-042/07:53:44	VENUS
VEVSFT203	SCIREC	175FF	00182209:89	00182211:03	90-042/07:53:50	VENUS
VEVSFT203	SCITLM	176FF	00182210:00	00182210:01	90-042/07:53:51	VENUS
VEVSFT204	TARGET	165V	00182288:50	00182289:00	90-042/09:13:16	VENUS
VEVSFT204	SMOS	118E	00182288:81	00182289:51	90-042/09:13:37	VENUS
VEVSFT204	SCIREC	175FG	00182288:89	00182290:03	90-042/09:13:42	VENUS
VEVSFT204	SCITLM	176FG	00182289:00	00182289:01	90-042/09:13:44	VENUS
VEVSFT205	TARGET	165W	00182298:50	00182299:00	90-042/09:23:23	VENUS
VEVSFT205	SMOS	118F	00182298:81	00182299:51	90-042/09:23:44	VENUS
VEVSFT205	SCIREC	175FH	00182298:89	00182300:03	90-042/09:23:49	VENUS
VEVSFT205	SCITLM	176FH	00182299:00	00182299:01	90-042/09:23:50	VENUS
VEVSFT206	TARGET	165X	00182327:50	00182328:00	90-042/09:52:42	VENUS
VEVSFT206	SMOS	118G	00182327:81	00182328:51	90-042/09:53:03	VENUS
VEVSFT206	SCIREC	175FI	00182327:89	00182329:03	90-042/09:53:08	VENUS
VEVSFT206	SCITLM	176FI	00182328:00	00182328:01	90-042/09:53:10	VENUS
VEVSFT207	TARGET	165Y	00182406:50	00182407:00	90-042/11:12:35	VENUS
VEVSFT207	SMOS	118H	00182406:81	00182407:51	90-042/11:12:56	VENUS
VEVSFT207	SCIREC	175FJ	00182406:89	00182408:03	90-042/11:13:01	VENUS
VEVSFT207	SCITLM	176FJ	00182407:00	00182407:01	90-042/11:13:02	VENUS
VEVSFT208	TARGET	165Z	00182416:50	00182417:00	90-042/11:22:42	VENUS
VEVSFT208	SMOS	118I	00182416:81	00182417:51	90-042/11:23:02	VENUS
VEVSFT208	SCIREC	175FK	00182416:89	00182418:03	90-042/11:23:08	VENUS
VEVSFT208	SCITLM	176FK	00182417:00	00182417:01	90-042/11:23:09	VENUS
VEVSFT209	TARGET	165AA	00182446:50	00182447:00	90-042/11:53:02	VENUS
VEVSFT209	SMOS	118J	00182446:81	00182447:51	90-042/11:53:22	VENUS
VEVSFT209	SCIREC	175FL	00182446:89	00182448:03	90-042/11:53:28	VENUS
VEVSFT209	SCITLM	176FL	00182447:00	00182447:01	90-042/11:53:29	VENUS
VEVSFT210	TARGET	165AB	00182525:50	00182526:00	90-042/13:12:54	VENUS
VEVSFT210	SMOS	118K	00182525:81	00182526:51	90-042/13:13:15	VENUS
VEVSFT210	SCIREC	175FM	00182525:89	00182527:03	90-042/13:13:20	VENUS
VEVSFT210	SCITLM	176FM	00182526:00	00182526:01	90-042/13:13:22	VENUS
VEVSFT211	TARGET	165AC	00182555:50	00182556:00	90-042/13:43:14	VENUS
VEVSFT211	SMOS	118L	00182555:81	00182556:51	90-042/13:43:35	VENUS
VEVSFT211	SCIREC	175FN	00182555:89	00182557:03	90-042/13:43:40	VENUS
VEVSFT211	SCITLM	176FN	00182556:00	00182556:01	90-042/13:43:42	VENUS



OAPEL	PA	PSID	SCLK1	SCLK2	SCET1	TARGET
VEVSFT212	TARGET	165AD	00182644:50	00182645:00	90-042/15:13:14	VENUS
VEVSFT212	SMOS	118M	00182644:81	00182645:51	90-042/15:13:34	VENUS
VEVSFT212	SCIREC	175FO	00182644:89	00182646:03	90-042/15:13:40	VENUS
VEVSFT212	SCITLM	176FO	00182645:00	00182645:01	90-042/15:13:41	VENUS
VEVSFT213	TARGET	165AE	00182673:50	00182674:00	90-042/15:42:33	VENUS
VEVSFT213	SMOS	118N	00182673:81	00182674:51	90-042/15:42:54	VENUS
VEVSFT213	SCIREC	175FP	00182673:89	00182675:03	90-042/15:42:59	VENUS
VEVSFT213	SCITLM	176FP	00182674:00	00182674:01	90-042/15:43:00	VENUS
VEVSFT214	TARGET	165AF	00182762:50	00182763:00	90-042/17:12:32	VENUS
VEVSFT214	SMOS	118O	00182762:81	00182763:51	90-042/17:12:53	VENUS
VEVSFT214	SCIREC	175FQ	00182762:89	00182764:03	90-042/17:12:58	VENUS
VEVSFT214	SCITLM	176FQ	00182763:00	00182763:01	90-042/17:13:00	VENUS
VEVSFT215	TARGET	165AG	00182792:50	00182793:00	90-042/17:42:52	VENUS
VEVSFT215	SMOS	118P	00182792:81	00182793:51	90-042/17:43:13	VENUS
VEVSFT215	SCIREC	175FR	00182792:89	00182794:03	90-042/17:43:18	VENUS
VEVSFT215	SCITLM	176FR	00182793:00	00182793:01	90-042/17:43:20	VENUS
VEVSFT216	TARGET	165AH	00182881:50	00182882:00	90-042/19:12:52	VENUS
VEVSFT216	SMOS	118Q	00182881:81	00182882:51	90-042/19:13:12	VENUS
VEVSFT216	SCIREC	175FS	00182881:89	00182883:03	90-042/19:13:18	VENUS
VEVSFT216	SCITLM	176FS	00182882:00	00182882:01	90-042/19:13:19	VENUS
VEVSFT217	TARGET	165AI	00182911:50	00182912:00	90-042/19:43:12	VENUS
VEVSFT217	SMOS	118R	00182911:81	00182912:51	90-042/19:43:32	VENUS
VEVSFT217	SCIREC	175FT	00182911:89	00182913:03	90-042/19:43:38	VENUS
VEVSFT217	SCITLM	176FT	00182912:00	00182912:01	90-042/19:43:39	VENUS
VEVSFT218	TARGET	165AJ	00183000:50	00183001:00	90-042/21:13:11	VENUS
VEVSFT218	SMOS	118S	00183000:81	00183001:51	90-042/21:13:32	VENUS
VEVSFT218	SCIREC	175FU	00183000:89	00183002:03	90-042/21:13:37	VENUS
VEVSFT218	SCITLM	176FU	00183001:00	00183001:01	90-042/21:13:38	VENUS
VEVSFT219	TARGET	165AK	00183030:50	00183031:00	90-042/21:43:31	VENUS
VEVSFT219	SMOS	118T	00183030:81	00183031:51	90-042/21:43:52	VENUS
VEVSFT219	SCIREC	175FV	00183030:89	00183032:03	90-042/21:43:57	VENUS
VEVSFT219	SCITLM	176FV	00183031:00	00183031:01	90-042/21:43:58	VENUS
VEVSFT219	INITRS	128IH	00183035:84	00183036:87	90-042/21:48:57	VENUS
VEVSFT101	INITRS	128A	00183518:84	00183520:53	90-043/05:57:19	VENUS
VEVSFT101	TARGET	165N	00183519:50	00183520:47	90-043/05:57:57	VENUS
VEVSFT101	SSI	147A	00183519:76	00183520:53	90-043/05:58:14	VENUS
VEVSFT101	SCIREC	175FW	00183519:89	00183520:49	90-043/05:58:23	VENUS
VEVSFT101	SCITLM	176FW	00183520:00	00183520:01	90-043/05:58:24	VENUS
VEVSLTNG02	TARGET	165AZ	00183534:50	00183535:00	90-043/06:13:07	VENUS
VEVSLTNG02	SSI	147AN	00183534:76	00183535:38	90-043/06:13:24	VENUS
VEVSLTNG02	CSMOS	117M	00183534:77	00183535:29	90-043/06:13:25	VENUS
VEVSLTNG02	SCIREC	175FX	00183534:83	00183535:26	90-043/06:13:29	VENUS
VEVSLTNG02	SCITLM	176FX	00183535:00	00183535:01	90-043/06:13:34	VENUS
VEVSFT102	TARGET	165O	00183638:50	00183639:47	90-043/07:58:16	VENUS
VEVSFT102	SSI	147B	00183638:76	00183639:24	90-043/07:58:34	VENUS
VEVSFT102	SCIREC	175FY	00183638:89	00183639:49	90-043/07:58:42	VENUS
VEVSFT102	SCITLM	176FY	00183639:00	00183639:01	90-043/07:58:44	VENUS
VEVSFT103	TARGET	165P	00183756:50	00183757:47	90-043/09:57:35	VENUS
VEVSFT103	SSI	147C	00183756:76	00183757:86	90-043/09:57:52	VENUS
VEVSFT103	SCIREC	175FZ	00183756:89	00183757:49	90-043/09:58:01	VENUS
VEVSFT103	SCITLM	176FZ	00183757:00	00183757:01	90-043/09:58:02	VENUS
VEVSFT104	TARGET	165Q	00183875:50	00183876:47	90-043/11:57:54	VENUS
VEVSFT104	SSI	147D	00183875:76	00183876:57	90-043/11:58:12	VENUS



OAPEL	PA	PSID	SCLK1	SCLK2	SCET1	TARGET
VEVSFT104	SCIREC	175GA	00183875:89	00183876:49	90-043/11:58:20	VENUS
VEVSFT104	SCITLM	176GA	00183876:00	00183876:01	90-043/11:58:22	VENUS
VEVSFT105	TARGET	165R	00183993:50	00183994:47	90-043/13:57:13	VENUS
VEVSFT105	SSI	147E	00183993:76	00183994:29	90-043/13:57:30	VENUS
VEVSFT105	SCIREC	175GB	00183993:89	00183994:49	90-043/13:57:39	VENUS
VEVSFT105	SCITLM	176GB	00183994:00	00183994:01	90-043/13:57:40	VENUS
VEVSFT105	INITRS	128II	00183999:84	00184000:23	90-043/14:03:40	VENUS
VEVSGLI01	INITRS	128H	00184942:84	00184944:69	90-044/05:57:08	VENUS
VEVSGLI01	TARGET	165AT	00184943:50	00184945:01	90-044/05:57:46	VENUS
VEVSGLI01	SSI	147AG	00184943:76	00184944:89	90-044/05:58:04	VENUS
VEVSGLI01	SCIREC	175GC	00184943:89	00184945:03	90-044/05:58:12	VENUS
VEVSGLI01	SCITLM	176GC	00184944:00	00184944:01	90-044/05:58:14	VENUS
VEVSGLI02	TARGET	165AU	00185062:50	00185064:01	90-044/07:58:06	VENUS
VEVSGLI02	SSI	147AH	00185062:76	00185063:89	90-044/07:58:23	VENUS
VEVSGLI02	SCIREC	175GD	00185062:89	00185064:03	90-044/07:58:32	VENUS
VEVSGLI02	SCITLM	176GD	00185063:00	00185063:01	90-044/07:58:33	VENUS
VEVSGLI03	TARGET	165AV	00185183:50	00185185:01	90-044/10:00:26	VENUS
VEVSGLI03	SSI	147AI	00185183:76	00185184:89	90-044/10:00:44	VENUS
VEVSGLI03	SCIREC	175GG	00185183:89	00185185:03	90-044/10:00:52	VENUS
VEVSGLI03	SCITLM	176GG	00185184:00	00185184:01	90-044/10:00:54	VENUS
VEVSGLIR04	TARGET	165AW	00185301:50	00185303:01	90-044/11:59:45	VENUS
VEVSGLIR04	SSI	147AJ	00185301:76	00185302:89	90-044/12:00:02	VENUS
VEVSGLIR04	SCIREC	175GH	00185301:89	00185303:03	90-044/12:00:11	VENUS
VEVSGLIR04	SCITLM	176GH	00185302:00	00185302:01	90-044/12:00:12	VENUS
VEVSGLIR04	INITRS	128IJ	00185307:84	00185308:65	90-044/12:06:12	VENUS
VEVSGL03	TARGET	165AL	00186334:89	00186339:47	90-045/05:24:40	VENUS
VEVSGL03	INITRS	128D	00186337:84	00186339:24	90-045/05:27:38	VENUS
VEVSGL03	SSI	147Y	00186338:76	00186339:24	90-045/05:28:34	VENUS
VEVSGL03	SCIREC	175GI	00186338:89	00186339:49	90-045/05:28:42	VENUS
VEVSGL03	SCITLM	176GI	00186339:00	00186339:01	90-045/05:28:44	VENUS
VEVSGL04	TARGET	165AM	00186456:50	00186457:47	90-045/07:27:35	VENUS
VEVSGL04	SSI	147Z	00186456:76	00186457:86	90-045/07:27:52	VENUS
VEVSGL04	SCIREC	175GJ	00186456:89	00186457:49	90-045/07:28:01	VENUS
VEVSGL04	SCITLM	176GJ	00186457:00	00186457:01	90-045/07:28:02	VENUS
VEVSGL04	INITRS	128IK	00186462:84	00186463:80	90-045/07:34:02	VENUS
VEVSGL05	INITRS	128E	00187731:84	00187733:70	90-046/04:57:08	VENUS
VEVSGL05	TARGET	165AN	00187732:50	00187733:47	90-046/04:57:46	VENUS
VEVSGL05	SSI	147AA	00187732:76	00187733:70	90-046/04:58:03	VENUS
VEVSGL05	SCIREC	175GK	00187732:89	00187733:49	90-046/04:58:12	VENUS
VEVSGL05	SCITLM	176GK	00187733:00	00187733:01	90-046/04:58:13	VENUS
VEVSGL06	TARGET	165AO	00187851:50	00187852:47	90-046/06:58:05	VENUS
VEVSGL06	SSI	147AB	00187851:76	00187852:41	90-046/06:58:22	VENUS
VEVSGL06	SCIREC	175GL	00187851:89	00187852:49	90-046/06:58:31	VENUS
VEVSGL06	SCITLM	176GL	00187852:00	00187852:01	90-046/06:58:32	VENUS
VEVSGL06	INITRS	128IL	00187857:84	00187858:35	90-046/07:04:32	VENUS
VEVSGL07	TARGET	165AP	00189123:89	00189128:46	90-047/04:24:39	VENUS
VEVSGL07	INITRS	128F	00189126:84	00189128:25	90-047/04:27:37	VENUS
VEVSGL07	SSI	147AC	00189127:76	00189128:25	90-047/04:28:33	VENUS
VEVSGL07	SCIREC	175GM	00189127:89	00189128:49	90-047/04:28:41	VENUS
VEVSGL07	SCITLM	176GM	00189128:00	00189128:01	90-047/04:28:43	VENUS
VEVSGL08	TARGET	165AQ	00189245:50	00189246:47	90-047/06:27:34	VENUS
VEVSGL08	SSI	147AD	00189245:76	00189246:87	90-047/06:27:51	VENUS
VEVSGL08	SCIREC	175GN	00189245:89	00189246:49	90-047/06:28:00	VENUS

OAPEL	PA	PSID	SCLK1	SCLK2	SCET1	TARGET
VEVSGLO8	SCITLM	176GN	00189246:00	00189246:01	90-047/06:28:01	VENUS
VEVSGLO8	INITRS	128IM	00189251:84	00189252:81	90-047/06:34:01	VENUS
VEVSGLO9	INITRS	128G	00190520:84	00190522:71	90-048/03:57:07	VENUS
VEVSGLO9	TARGET	165AR	00190521:50	00190522:47	90-048/03:57:45	VENUS
VEVSGLO0	SSI	147AE	00190521:76	00190522:71	90-048/03:58:02	VENUS
VEVSGLO9	SCIREC	175GO	00190521:89	00190522:49	90-048/03:58:11	VENUS
VEVSGLO9	SCITLM	176GO	00190522:00	00190522:01	90-048/03:58:12	VENUS
VEVSGLO10	TARGET	165AS	00190640:50	00190641:47	90-048/05:58:04	VENUS
VEVSGLO10	SSI	147AF	00190640:76	00190641:42	90-048/05:58:21	VENUS
VEVSGLO10	SCIREC	175GP	00190640:89	00190641:49	90-048/05:58:30	VENUS
VEVSGLO10	SCITLM	176GP	00190641:00	00190641:01	90-048/05:58:31	VENUS
VEVSGLO10	INITRS	128IN	00190646:84	00190647:36	90-048/06:04:31	VENUS
NIMS OFF	UTILITY	20YU	00190649:43	00190650:87	90-048/06:07:05	VENUS
NIMS HTRS	UTILITY	20CE	00190650:33	00190652:31	90-048/06:07:59	VENUS

```

Heading          Columns      Comments
-----
OAPEL           1 - 12      .Oapel Name from SEF (no aliases yet)
EXT             14 - 14     .Extension (allow for split OAPELs)
PSID            16 - 17     .2 Letter ID for the OAPEL
SCLK1           19 - 29     .Start time of OBS in SCLK
SCLK2           31 - 41     .STOP time of OBS in SCLK
MODE            43 - 44     .NIMS Instrument MODE
GAIN            46 - 47     .Gain State (true value)
CHOP            49 - 50     .Chopper State (1=Ref,2=63Hz,3=FreeRun,4=Off)
GRAT OFF       52 - 53     .Grating Offset
PTAB_(6)       56 - 71     .First PTAB (repeat count,mirror op,autobias...
PTAB_(6)       74 - 89     .Second PTAB (...grating start, grating delta...
               (...number of grating postions)
ECAL            92 - 92     .Electronics Calibration Active (1=yes)
OPCAL           94 - 94     .Optics Calibration active (1=yes)
UTC1            96 - 112    .Start time of OBS in UTC (from SEF - ISO STANDARD)
REAL_TIME      115 - 115   .NIMS in Real-Time Telemetry (1=yes)
RECORD         117 - 117   .NIMS in Record Telemetry(1=yes)
TARGET         120 - 127   .Primary Target of OBS
               .The TARGET names used are:
               VENUS - V - Venus

```

(the single letter abbreviation appears as the third character in the OBSNAME (OAPEL Name) ).  
INPUT SEF FILE: EV6\_900129.SEF

```

-----
OAPEL, EXT, PSID, SCLK1, SCLK2, MODE, GAIN, CHOP, GRAT_OFF, PTAB_(6), PTAB_(6), ECAL, OPCAL, UTC1, REAL_TIME, RECORD, TARGET
-----
OAPEL  EXT PSID SCLK1  SCLK2  M G C O | PTAB A | | PTAB B | E O  UTC1  R T  TARGET
-----
VEVNPDI1  A B  00180425:85 00180467:34 7 2 1 4 1 1 0 16 0 12 1 1 0 16 0 12 0 0 1990-041T01:49:58 0 1  VENUS
VEVNBARS  A R  00180536:78 00180556:47 3 2 1 4 1 1 0 0 1 24 1 1 0 0 1 24 0 0 1990-041T03:42:07 0 1  VENUS
VEVNPDI2  A C  00180558:35 00180617:07 7 2 1 4 1 1 0 16 0 12 1 1 0 16 0 12 0 0 1990-041T04:03:53 0 1  VENUS
VEVPFNMAP1 A H  00180626:01 00180626:52 7 2 1 4 1 1 0 16 0 12 1 1 0 16 0 12 0 0 1990-041T05:12:16 0 1  VENUS
VEVPFNMAP2 A I  00180636:39 00180637:77 7 2 1 4 1 1 0 16 0 12 1 1 0 16 0 12 0 0 1990-041T05:24:14 0 1  VENUS
VEVNLNSN  A D  00180646:45 00180646:90 4 4 1 4 1 0 0 0 1 24 1 0 0 0 1 24 0 1 1990-041T05:32:58 0 1  VENUS
VEVNLNSN  B D  00180647:00 00180652:29 4 4 1 4 1 0 0 0 1 24 1 0 0 0 1 24 0 0 1990-041T05:33:29 0 1  VENUS
VEVNLSD  A E  00180682:09 00180685:87 4 4 1 4 1 0 0 0 1 24 1 0 0 0 1 24 0 0 1990-041T06:08:59 0 1  VENUS
VEVSLMB01 A U  00180770:03 00180770:90 3 1 1 4 1 1 0 0 1 24 1 1 0 0 1 24 0 0 1990-041T07:37:54 0 1  VENUS
VEVSLMB01 B U  00180771:49 00180772:44 3 1 1 4 1 1 0 0 1 24 1 1 0 0 1 24 0 0 1990-041T07:39:24 0 1  VENUS
VEVSLMB01 C U  00180773:04 00180773:90 3 1 1 4 1 1 0 0 1 24 1 1 0 0 1 24 0 0 1990-041T07:40:56 0 1  VENUS
VEVSLMB01 D U  00180774:49 00180775:44 3 1 1 4 1 1 0 0 1 24 1 1 0 0 1 24 0 0 1990-041T07:42:26 0 1  VENUS
VEVSLMB01 E U  00180776:04 00180776:90 3 1 1 4 1 1 0 0 1 24 1 1 0 0 1 24 0 0 1990-041T07:43:58 0 1  VENUS
VEVPNEWS  A P  00180777:87 00180778:00 3 1 1 4 1 1 0 0 1 24 1 1 0 0 1 24 0 0 1990-041T07:45:53 0 1  VENUS
-----

```

OAPEL	EXT PSID	SCLK1	SCLK2	M	G	C	O	PTAB A	PTAB B	E	O	UTCL	R	T	TARGET						
VEVSLMB02	A AL	00180888:03	00180888:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-041T09:37:12	0	1	VENUS
VEVSFT201	A B	00182170:03	00182170:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T07:13:27	0	1	VENUS
VEVSFT202	A C	00182180:03	00182180:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T07:23:34	0	1	VENUS
VEVSFT203	A D	00182210:03	00182210:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T07:53:54	0	1	VENUS
VEVSFT204	A E	00182289:03	00182289:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T09:13:46	0	1	VENUS
VEVSFT205	A F	00182299:03	00182299:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T09:23:53	0	1	VENUS
VEVSFT206	A G	00182328:03	00182328:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T09:53:12	0	1	VENUS
VEVSFT207	A H	00182407:03	00182407:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T11:13:05	0	1	VENUS
VEVSFT208	A I	00182417:03	00182417:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T11:23:12	0	1	VENUS
VEVSFT209	A J	00182447:03	00182447:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T11:53:32	0	1	VENUS
VEVSFT210	A K	00182526:03	00182526:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T13:13:24	0	1	VENUS
VEVSFT211	A L	00182556:03	00182556:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T13:43:44	0	1	VENUS
VEVSFT212	A M	00182645:03	00182645:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T15:13:44	0	1	VENUS
VEVSFT213	A N	00182674:03	00182674:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T15:43:03	0	1	VENUS
VEVSFT214	A O	00182763:03	00182763:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T17:13:02	0	1	VENUS
VEVSFT215	A P	00182793:03	00182793:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T17:43:22	0	1	VENUS
VEVSFT216	A Q	00182882:03	00182882:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T19:13:22	0	1	VENUS
VEVSFT217	A R	00182912:03	00182912:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T19:43:42	0	1	VENUS
VEVSFT218	A S	00183001:03	00183001:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T21:13:41	0	1	VENUS
VEVSFT219	A T	00183031:03	00183031:90	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-042T21:44:01	0	1	VENUS
VEVSFT101	A A	00183520:03	00183520:45	3	2	1	4	1	1	0	0	1	24	1	1	0	0	1990-043T05:58:27	0	1	VENUS
VEVSLTNG02	A M	00183535:00	00183535:20	3	2	1	4	1	1	0	0	1	24	1	1	0	0	1990-043T06:13:34	0	1	VENUS
VEVSFT102	A B	00183639:03	00183639:45	3	2	1	4	1	1	0	0	1	24	1	1	0	0	1990-043T07:58:46	0	1	VENUS
VEVSFT103	A C	00183757:03	00183757:45	3	2	1	4	1	1	0	0	1	24	1	1	0	0	1990-043T09:58:05	0	1	VENUS
VEVSFT104	A D	00183876:03	00183876:45	3	2	1	4	1	1	0	0	1	24	1	1	0	0	1990-043T11:58:24	0	1	VENUS
VEVSFT105	A E	00183994:03	00183994:45	3	2	1	4	1	1	0	0	1	24	1	1	0	0	1990-043T13:57:43	0	1	VENUS
VEVSLI01	A AG	00184944:03	00184944:90	3	3	1	4	1	1	0	0	1	24	1	1	0	0	1990-044T05:58:16	0	1	VENUS
VEVSLI02	A AH	00185063:03	00185063:90	3	3	1	4	1	1	0	0	1	24	1	1	0	0	1990-044T07:58:36	0	1	VENUS
VEVSLI03	A AI	00185184:03	00185184:90	3	3	1	4	1	1	0	0	1	24	1	1	0	0	1990-044T10:00:56	0	1	VENUS
VEVSLIR04	A AJ	00185302:03	00185302:90	3	3	1	4	1	1	0	0	1	24	1	1	0	0	1990-044T12:00:15	0	1	VENUS
VEVSLG03	A Y	00186339:03	00186339:45	3	4	1	4	1	1	0	0	1	24	1	1	0	0	1990-045T05:28:46	0	1	VENUS
VEVSLG04	A Z	00186457:03	00186457:45	3	4	1	4	1	1	0	0	1	24	1	1	0	0	1990-045T07:28:05	0	1	VENUS
VEVSLG05	AA	00187733:03	00187733:45	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-046T04:58:16	0	1	VENUS
VEVSLG06	AB	00187852:03	00187852:45	3	1	1	4	1	1	0	0	1	24	1	1	0	0	1990-046T06:58:35	0	1	VENUS
VEVSLG07	AC	00189128:03	00189128:45	3	2	1	4	1	1	0	0	1	24	1	1	0	0	1990-047T04:28:45	0	1	VENUS
VEVSLG08	AD	00189246:03	00189246:45	3	2	1	4	1	1	0	0	1	24	1	1	0	0	1990-047T06:28:04	0	1	VENUS
VEVSLG09	AE	00190522:03	00190522:45	3	3	1	4	1	1	0	0	1	24	1	1	0	0	1990-048T03:58:15	0	1	VENUS
VEVSLG10	AF	00190641:03	00190641:45	3	3	1	4	1	1	0	0	1	24	1	1	0	0	1990-048T05:58:34	0	1	VENUS

## Chapter 5 - Detailed Observation Designs

### Contents

	Sub-Section	Page
5.0	Contents .....	1
5.1	Introduction to Chapter 5 .....	2
5.2	NIMS Venus Observations .....	4-13
	VPDIN1 .....	4-5
	VJBARS .....	6-7
	VPDIN2 .....	8-9
	VLSN .....	10-11
	VLSD .....	12-13
5.3	NIMS SSI Ride-Along Observations .....	14-54

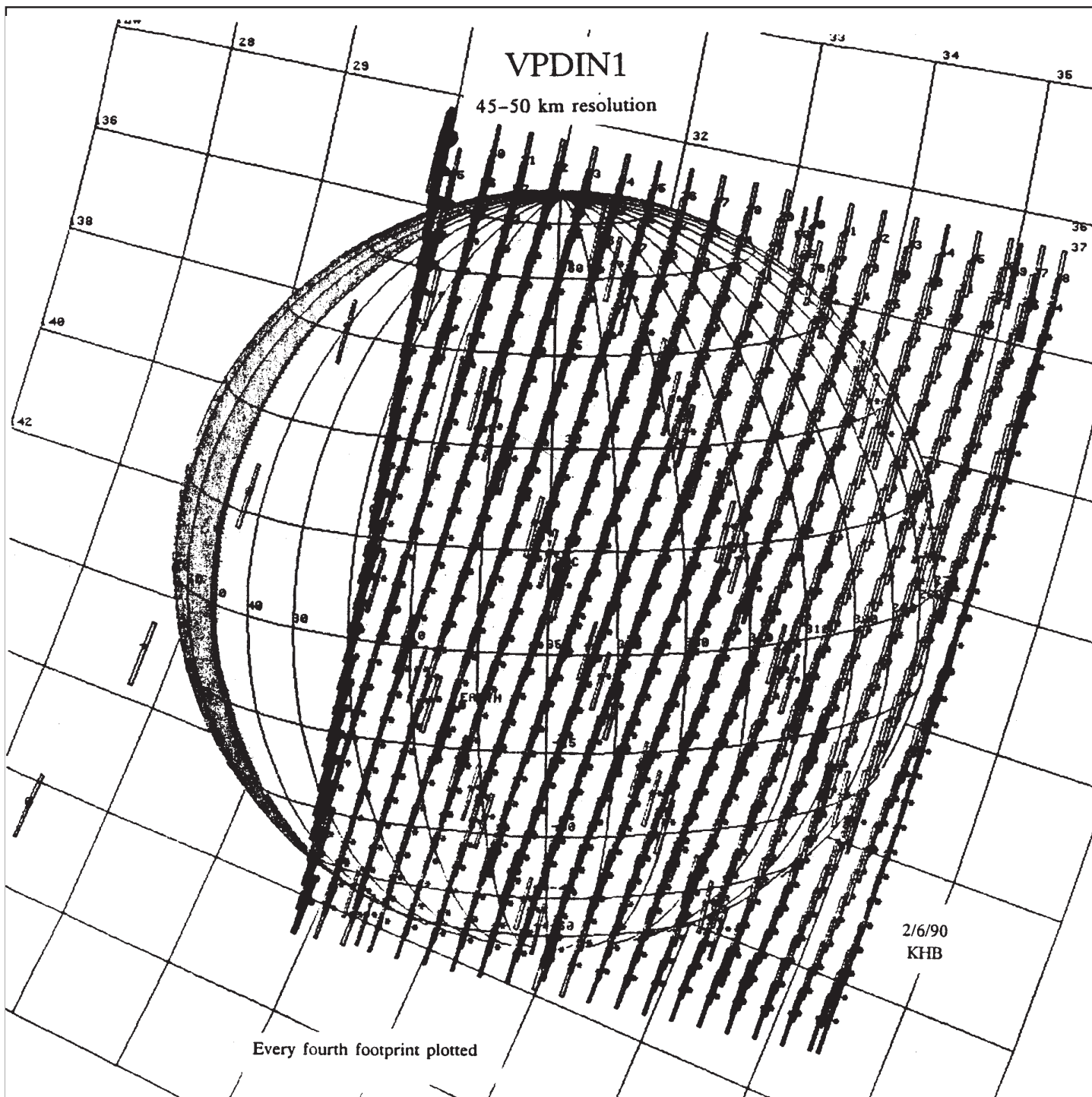
## Introduction to Chapter 5

### 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.

The principal NIMS Venus observations, VPDIN1, VJBAR2, VPDIN2, VLSN and VLSD each have an OAPEL form and Pointer plot to describe them. The shading of Venus in the Pointer plots has been inverted (black for dayside, white for nightside) for clarity. The rest of the NIMS observations were ride-alongs behind SSI observations. There are individual Pointer plots (with normal shading) for each ride-along observation but only a summary page to describe the observations. The ride-along Pointer plots show the SSI field of view instead of the NIMS footprint, but the location of the NIMS footprint can be inferred from the center of the SSI frame.

This Page Intentionally Blank.



**VPDIN1 : Venus Partial Disk Imaging, Nightside 1**

Mode: XM, Gr\_Strt 16, Gain 2, Chop Ref, Gr\_Off 4  
17 Wavelengths

**CENTRAL BODY: VENUS**

Every 10th NIMS Footprint

Mosaic Start: Cone: 30., Clock: 35.

Slew Rate: 1.5 mrad/sec, Z Scan

**PERIAPSIS: 90-041/06:08:49.590**

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (14.0, 349.1, 97083, 50., 148)

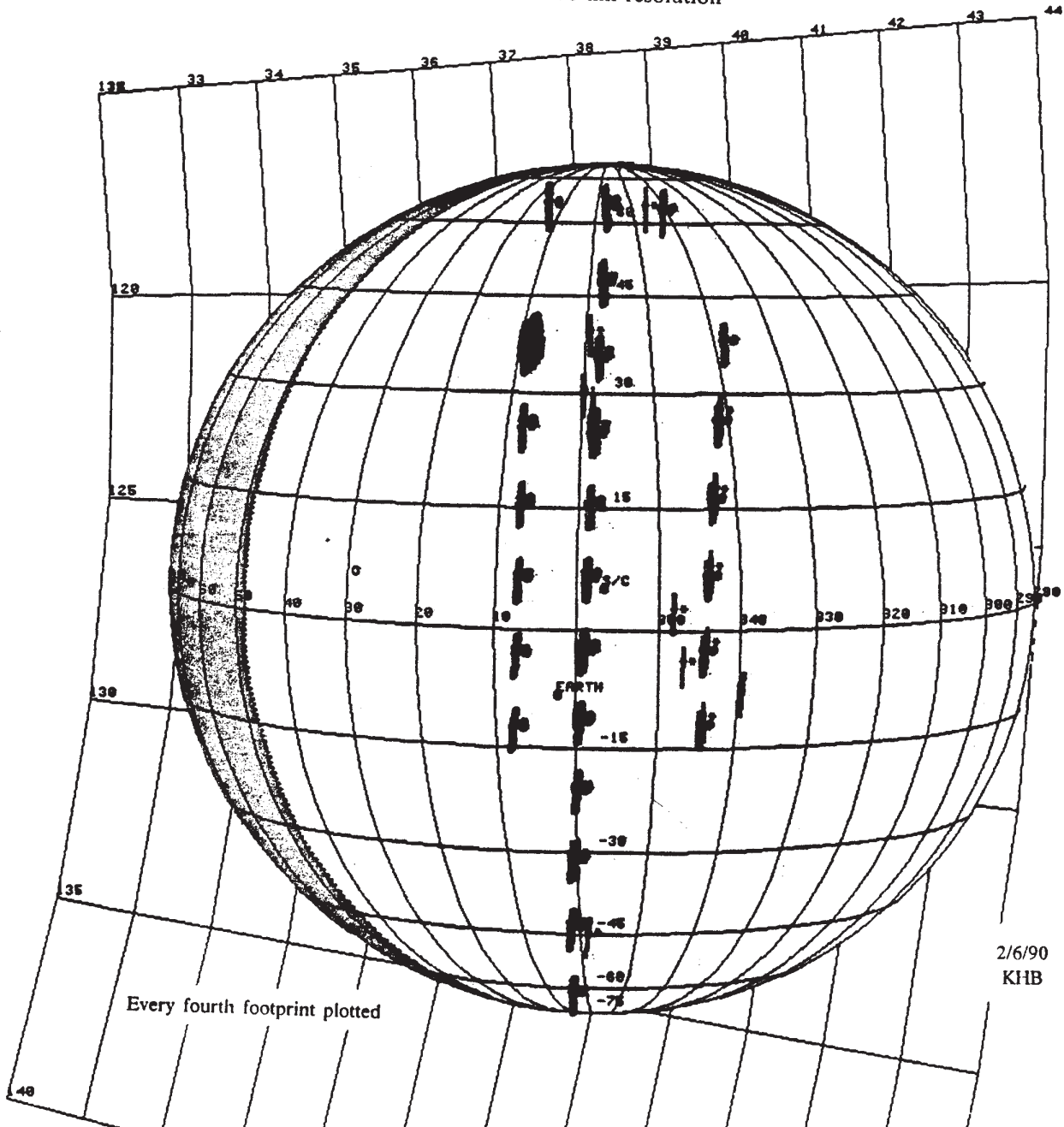
**OBSERVATION: VPDIN1**



Venus Partial Disk Imaging Nightside 1		ACTIVITY ID:	VEVNPDI1			
		START TIME:	90-041/01:48:22			
Activity ID:	Orbit VE	Target V	Inst N	OAPEL PDIN1	SeqNo	Multi
Title	Venus Partial Disk Imaging Nightside 1			Instrument	NIMS	
Requestor	K. Baines		Team	NIMS	Working Group	AWG
Time System	CDS	Load ID	EV6	Calendar Date	02/10/90	Week 06
Start			90-041/01:48:22	VCA-000/04:20:27		
End			90-041/02:31:43	VCA-000/03:37:06		
Duration			000/00:43:21	000/00:43:21		
Top Label	VEVNPDI1					
Bottom Label						
Plot Key	NIMS	Riding Plot Key			Conflict	Yes
CDS Bytes		Report Options			Real Time Activity	No
Observation Objective						
<p>Obtain high spatial resolution multi-spectral imagery at twice the spatial resolution available from Earth in order to examine small-scale deep-atmosphere cloud properties from pole to pole. In particular, study convective, zonal and meridional transport processes in conjunction with VPDIN2 observations. Quantify the lower-atmosphere wave structure and wind fields, examining in particular orographic effects of mountainous terrain such as Ishtar Terra and Maxwell Montes.</p>						
Design Detail						
General Design: Fixed grating (16), continuous sampling (1500 microrads per second slewrate), 10 pixel overlap between swaths.					Alias VPDIN1	
<p>Details: Spacecraft distance at -04:00 is 97083 km to cloudtops, ~15.8 Venus radii, with 6140 km being a Venus cloudtop radius. 253 nimsels span the disk. Spatial resolution is ~50 km.</p>						
Approximate Start Geometry:						
		Sub-spacecraft Latitude:	14.0 N			
		Sub-spacecraft Longitude:	349.1 W			
		Phase Angle:	148.4			
Fixed Map (XM), Gain 2, Grating Start 16, Chopper Ref, MPW						
Last Changed	11/22/95	Changed By	FEL			02/10/90 00:00:00
Galileo Activity Plan Form						rev 11/95

# VJBARS

24-26 km resolution



VJBARS : Venus Jail Bars

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VJBARS

Mode: LM, Gr\_Strt 0, Gain 2, Chop Ref, Gr\_Off 4

408 Wavelengths

Every NIMS Footprint

Mosaic Start: Cone: 37., Clock: 122.

Slew Rate: xxx mrad/sec, SMOS

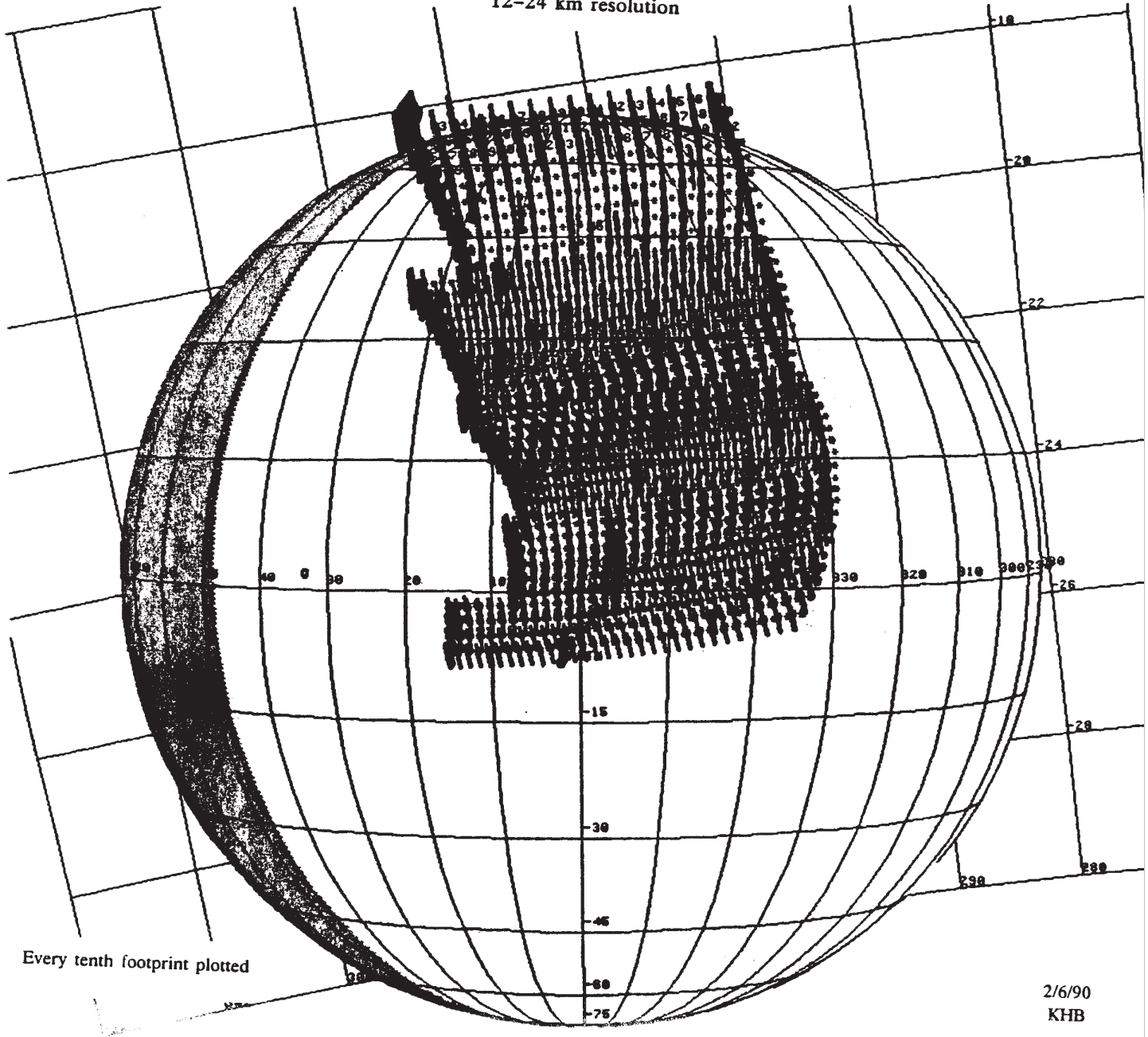
Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (7.4, 356.3, 44644, 26., 143)

Venus Jail Bars	ACTIVITY ID: VEVNJBARS	START TIME: 90-041/03:40:21
Activity ID: Orbit VE Target V Inst N OAPEL JBARS	SeqNo	Multi
Title Venus Jail Bars	Instrument	NIMS
Requestor K. Baines	Team NIMS Working Group	AWG
Time System CDS Load ID EV6	Calendar Date 02/10/90	Week 06
Start	90-041/03:40:21	VCA-000/02:28:28
End	90-041/04:02:01	VCA-000/02:06:48
Duration	000/00:21:40	000/00:21:40
Top Label VEVNJBARS	Bottom Label	
Plot Key NIMS	Riding Plot Key	Conflict Yes
CDS Bytes	Report Options	Real Time Activity No
Observation Objective		
<p>Acquire 26 high-spectral-resolution start/stop 20-nimse1 mosaics to obtain detailed spectroscopic information on the latitudinal and longitudinal variation of water and CO on 25 km scales.</p>		
Design Detail		
General Design: Long Map. Start/stop, non-continuous sampling.		Alias VJBARS
<p>Details: Spacecraft distance at the end of the Oapel is 44644 km, yielding a nimse1 FOV resolution of <math>0.005 * 44644 = 22.3</math> km. At the beginning, the cloudtops are 52431 km away, yielding a nimse1 resolution of 26.2 km. Three longmap mode integrations of each nimse1 are acquired in order to ensure boom clearance for each grating position. A longmap integration time, 8.666 sec, is assumed for overhead in moving from one location to another, except between longitudinal strips. 6 observations are first observed along the westernmost meridian (6 degrees W. longitude) covering temperate and equatorial latitudes. Then 12 observations are acquired pole-to-pole (with gaps) along the central-meridian (357 degrees W.), followed by 6 along the easternmost meridian (339 degrees W.). Then, two separate observations, upstream and downstream of Maxwell Montes, are accumulated. Thus, 26 observations are acquired during the 20 minute period corresponding to 520 NIMS FOVs (nimse1s). The semi-diameter of Venus is about <math>\arcsin(1. / (7.27rV + 1.)) = 0.1212</math> radians. Thus some <math>2. * 0.1212 / 0.005 = 485</math> nimse1s span the disk, or about 24 NIMS observations at 20 nimse1s per observations. The 12 central-meridian observations consequently cover only about 50% of this meridian, leaving 50% gaps. Similar gaps are used on the nearby parallel observations, which are meant as second and third samplings of the low latitudes (plus Maxwell Montes) covered in the central-meridian observations.</p> <p>Long Map (LM), Gain 2, Grating Start 0, Chopper Ref, MPW</p>		
Last Changed 11/22/95	Changed By FEL	02/10/90 00:00:00
Galileo Activity Plan Form		rev 11/95

# VPDIN2

12-24 km resolution



VPDIN2 : Venus Partial Disk Imaging, Nightside 2

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VPDIN2

Mode: XM, Gr\_Strt 16, Gain 2, Chop Ref, Gr\_Off 4

17 Wavelengths

Every 10th NIMS Footprint

Mosaic Start: Cone: xx, Clock: xx

Slew Rate: 1.5 mrad/sec, Z Scan

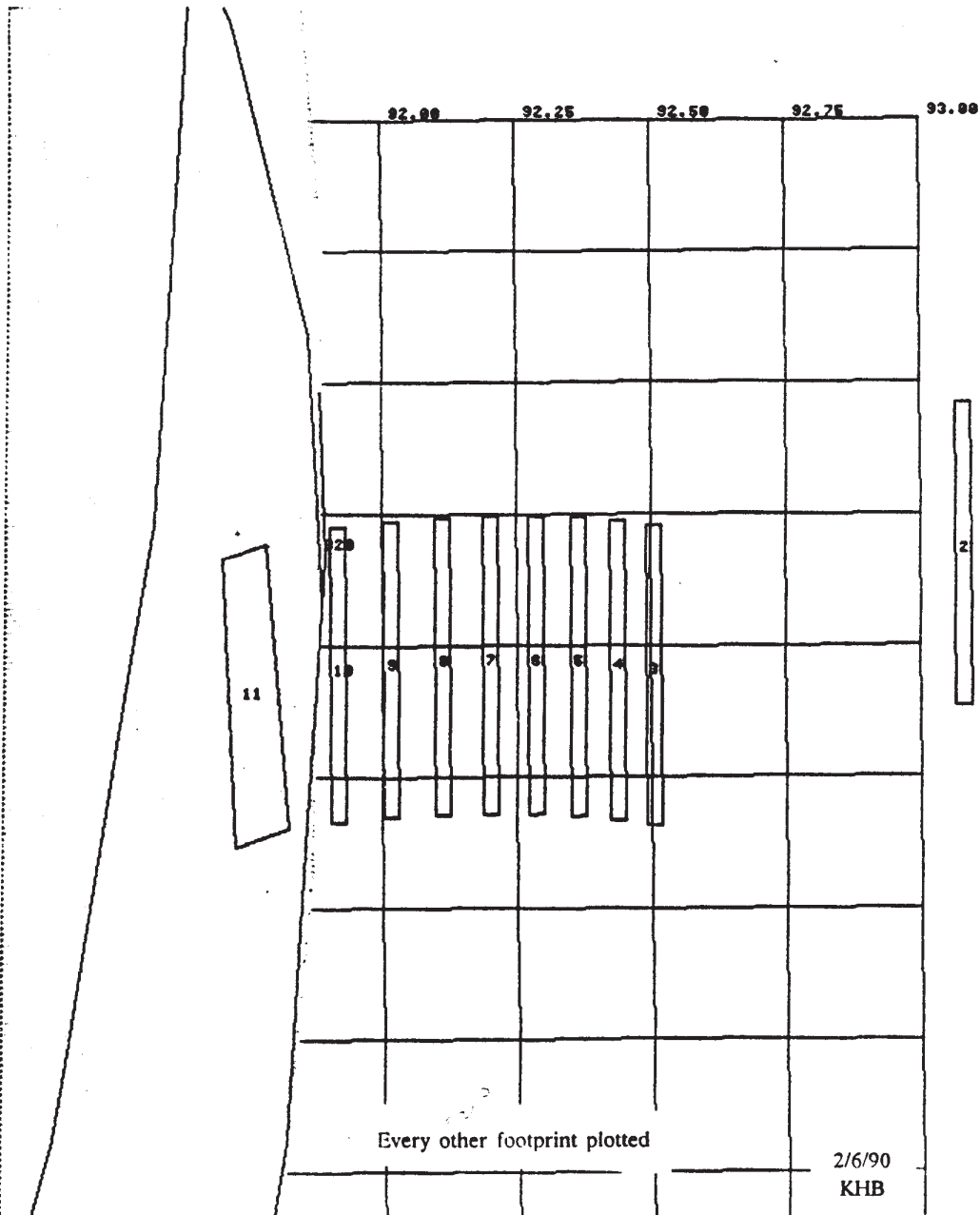
Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (4.9, 358.9, 22222, 18., 140)

Venus Partial Disk Imaging Nightside 2		ACTIVITY ID:	VEVNP DIN2			
		START TIME:	90-041/04:02:08			
Activity ID:	Orbit VE	Target V	Inst N	OAPEL PDIN2	SeqNo	Multi
Title	Venus Partial Disk Imaging Nightside 2			Instrument	NIMS	
Requestor	K. Baines		Team	NIMS	Working Group	AWG
Time System	CDS	Load ID	EV6	Calendar Date	02/10/90	Week 06
Start			90-041/04:02:08	VCA-000/02:06:41		
End			90-041/05:03:48	VCA-000/01:05:01		
Duration			000/01:01:40	000/01:01:40		
Top Label	VEVNP DIN2					
Bottom Label						
Plot Key	NIMS	Riding Plot Key			Conflict	Yes
CDS Bytes		Report Options			Real Time Activity	No
Observation Objective						
<p>Obtain high-spatial resolution (11-24 km) multi-spectral imagery to compare with previous VPDIN1 to measure lower-atmosphere wind speeds and directions. Determine the spatial scales of localized middle-atmosphere features. Examine, in particular, the effect of high terrain in the Ishtar Terra and Maxwell Montes regions on atmospheric dynamics in the lower atmosphere.</p>						
Design Detail						
General Design: Fixed Grating (16), continuous sampling (1500 microrads per second slewrate), 10 pixel overlap between swaths.					Alias VPDIN2	
<p>Details: Spacecraft distance at end (VCA-00:45) is 22222 km, yielding 11.1 km/nimsel, and a planetary diameter of 873 nimsels (distance to center of Venus is 4.619 Venus radii. Angular semi-diameter is <math>\arcsin(1./4.619)=12.5</math> degrees or 0.218 radians or 436.5 nimsels. Diameter is just twice this.) An East-West swath over ~21.6 degrees of longitude is approximately <math>\sin(21.6) * \text{angular diameter} = 321</math> nimsels. At beginning (VCA-01:45), distance is 43875 km or 7.146 rV. Planetary diameter is 14.1 degrees = 0.246 radians, spanning some 492 nimsels, and an East-West swath extends over 181 nimsels.</p>						
Approximate Start Geometry:						
		Sub-spacecraft Latitude:	4.9 N			
		Sub-spacecraft Longitude:	358.9 W			
		Phase Angle:	140.1			
Fixed Map (XM), Gain 2, Grating Start 16, Chopper Ref, MPW						
Last Changed	11/22/95	Changed By	FEL	02/10/90 00:00:00		
Galileo Activity Plan Form						rev 11/95

# VLSN

12 km resolution



VLSN : Venus Limb Scan, Nightside

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VLSN

Mode: LS, Gr\_Strt 0, Gain 4, Chop Ref, Gr\_Off 4

408 Wavelengths

Every 2nd NIMS Footprint

Mosaic Start: Cone: 92.5, Clock: xx

Slew Rate: 0.032 mrad/sec, Limb Scan

Plot Ref Time: Start of Mosaic

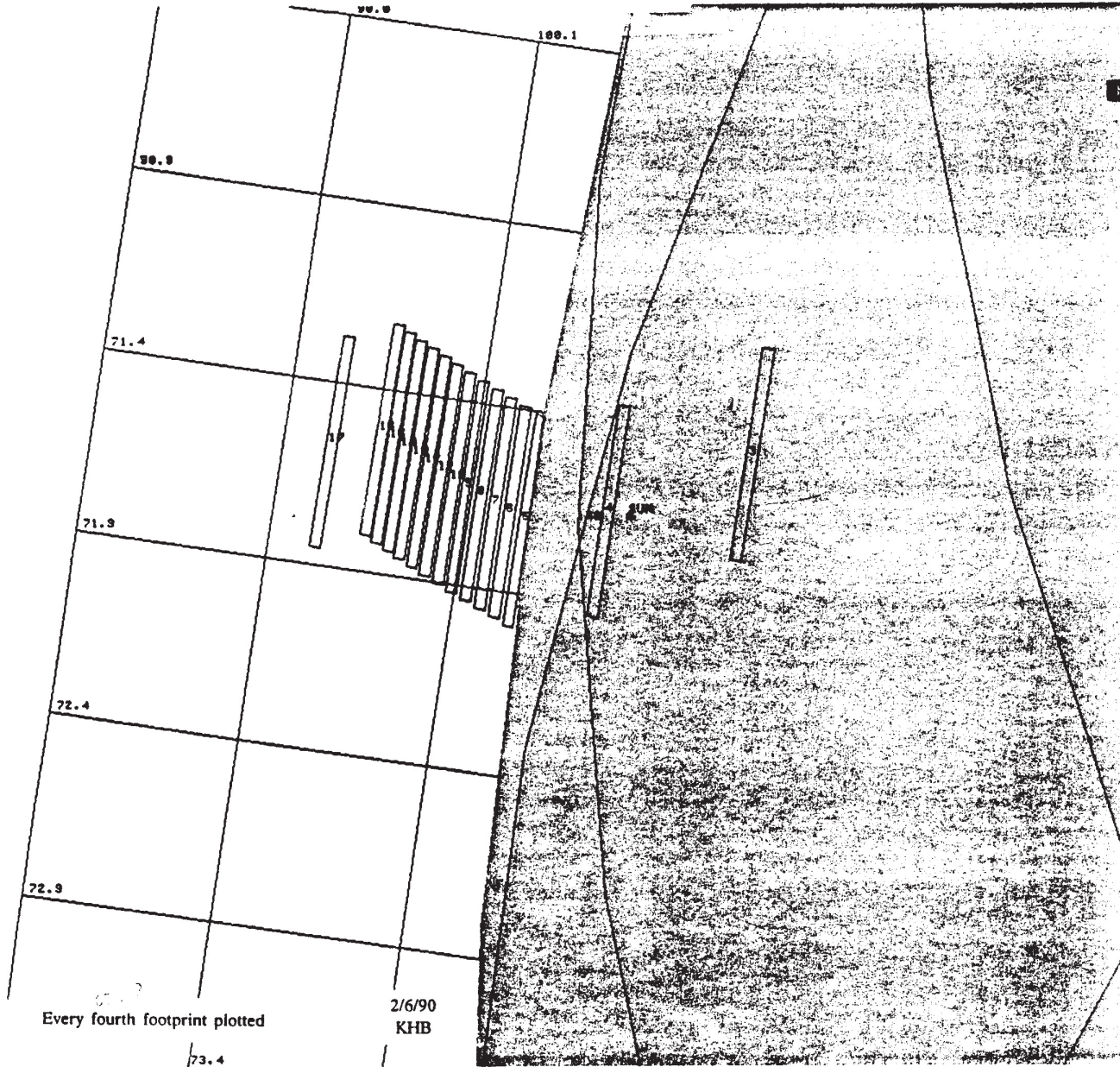
Lat, Lon, Range, Res, Phase: (-20.2, 26.4, 15818, 12., 110)

Venus Limb Scan Nightside		ACTIVITY ID:	VEVNLSN			
		START TIME:	90-041/05:31:44			
Activity ID:	Orbit VE	Target V	Inst N	OAPEL LSN	SeqNo	Multi
Title	Venus Limb Scan Nightside			Instrument	NIMS	
Requestor	K. Baines		Team	NIMS	Working Group	AWG
Time System	CDS	Load ID	EV6	Calendar Date	02/10/90	Week 06
Start			90-041/05:31:44	VCA-000/00:37:05		
End			90-041/05:38:55	VCA-000/03:30:54		
Duration			000/00:07:11	000/00:06:11		
Top Label	VEVNLSN					
Bottom Label						
Plot Key	NIMS	Riding Plot Key			Conflict	Yes
CDS Bytes		Report Options			Real Time Activity	No
Observation Objective						
<p>Determine the vertical profile of oxygen and other trace minor species near the anti-subsolar point. Compare with subsequent VLSD observation to determine daytime/nighttime differences in oxygen chemistry.</p>						
Design Detail						
General Design: Long Spectrometer (fixed mirror).					Alias	VLSN
-20 to 230 km covered in one swath.						
<p>Details: Spacecraft distance at -00:20 is 15818 km to the cloudtops. Limb is about 1 Venus radius farther away. Limb distance is thus about 21950 km at the end of the observation. At the beginning, at -00:26, the cloudtops are 17045 km away, implying the limb is about 23000 km away. At the end, the 250 km swath is some 11.4 milliradians long. The slew rate to cover this in 360 seconds is 32 microradians/second.</p>						
Approximate Start Geometry:						
		Sub-spacecraft Latitude:	20.2 S			
		Sub-spacecraft Longitude:	26.4 W			
		Phase Angle:	109.9			
Note: A NIMS OPCAL is performed at the beginning of this observation.						
Long Spectrometer (LS), Gain 4, Grating Start 0, Chopper Ref, MPW						
Last Changed	11/22/95	Changed By	FEL			02/10/90 00:00:00
Galileo Activity Plan Form						rev 11/95



# VLSD

12 km resolution



VLSD : Venus Limb Scan, Dayside

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VLSD

Mode: LS, Gr\_Strt 0, Gain 4, Chop Ref, Gr\_Off 4

408 Wavelengths

Every 4th NIMS Footprint

Mosaic Start: Cone: 71.4, Clock: 100.2

Slew Rate: 0.055 mrad/sec, Limb Scan

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (-40.4, 66.2, 14398, 10., 75)



Venus Limb Scan Dayside		ACTIVITY ID:	VEVNLSD			
		START TIME:	90-041/06:07:45			
Activity ID:	Orbit VE	Target V	Inst N	OAPEL LSD	SeqNo	Multi
Title	Venus Limb Scan Dayside			Instrument	NIMS	
Requestor	K. Baines		Team	NIMS	Working Group	AWG
Time System	CDS	Load ID	EV6	Calendar Date	02/10/90	Week 06
Start			90-041/06:07:45	VCA-000/00:01:04		
End			90-041/06:13:00	VCA+000/00:04:11		
Duration			000/00:05:15	000/00:05:15		
Top Label	VEVNLSD					
Bottom Label						
Plot Key	NIMS	Riding Plot Key			Conflict	Yes
CDS Bytes		Report Options			Real Time Activity	No
Observation Objective						
<p>Determine the vertical profile of oxygen and other trace constituents near the sub-solar point. Compare with previous VLSN observation to determine daytime/nighttime differences in oxygen chemistry.</p>						
Design Detail						
General Design: Long Spectrometer (fixed mirror).					Alias	VLSD
-10 to 260 km covered in one swath.						
<p>Details: Spacecraft distance at +00:10 is 14398 km to sub-s/c point. Limb is at 90 degrees phase, i.e., 1 Venus radius farther away, about 20500 km away. Km/Nimsel = <math>0.0005 \times 20500 = 10.3</math> km. Swath is to be 270 km long, or 26.3 nimsels. Covering this distance, <math>26.3 \times 0.0005</math> rads = 13.2 milliradians, in 240 seconds implies a slew rate of 55 microradians/sec.</p>						
Approximate Start Geometry:						
		Sub-spacecraft Latitude:	40.4 S			
		Sub-spacecraft Longitude:	66.2 W			
		Phase Angle:	75.0			
Long Spectrometer (LS), Gain 4, Grating Start 0, Chopper Ref, MPW						
Last Changed	11/22/95	Changed By	FEL		02/10/90	00:00:00
Galileo Activity Plan Form						rev 11/95

## NIMS SSI Ride-Along Observations

NIMS rode along behind the SSI dayside observations that spanned the time range from just after Venus Closest Approach (VCA) to 7 days after VCA in which the NIMS resolution increased from 18.9 km/Nimse1 to 1881 km/Nimse1. There were 39 dayside observations in total in which NIMS was in Long Map mode and in different gain states. The table on the following page lists the dayside observations along with the NIMS gain state, Km per Nimse1, sub-spacecraft point and timing. These SSI ride-along observations are also listed in the NIMS Obstab in Chapter 4.

The first two observations, VLMB01 and VLMB02, were dayside limb observations taken at each of five positions along the limb from the north pole to the equator (VLMB01) in start/stop mosaics (SMOS) with the equator observation repeated 2 hours later (VLMB02). SSI took two images at each position with a duration of just over 1 minute per location.

The next 19 observations, VFT201 - VFT219, were dayside two-frame strips crossing the disk from east to west just north of the equator using a start/stop mosaic (SMOS). Samples were taken with 10, 30 and 90 minute separations for the first 10 observations and at 30 minute intervals for the last 9 observations.

The next 5 observations, VFT101 - VFT105, were dayside single frame observations centered just north of the equator using a start/stop mosaic (SMOS). Samples were taken at 2 minute intervals.

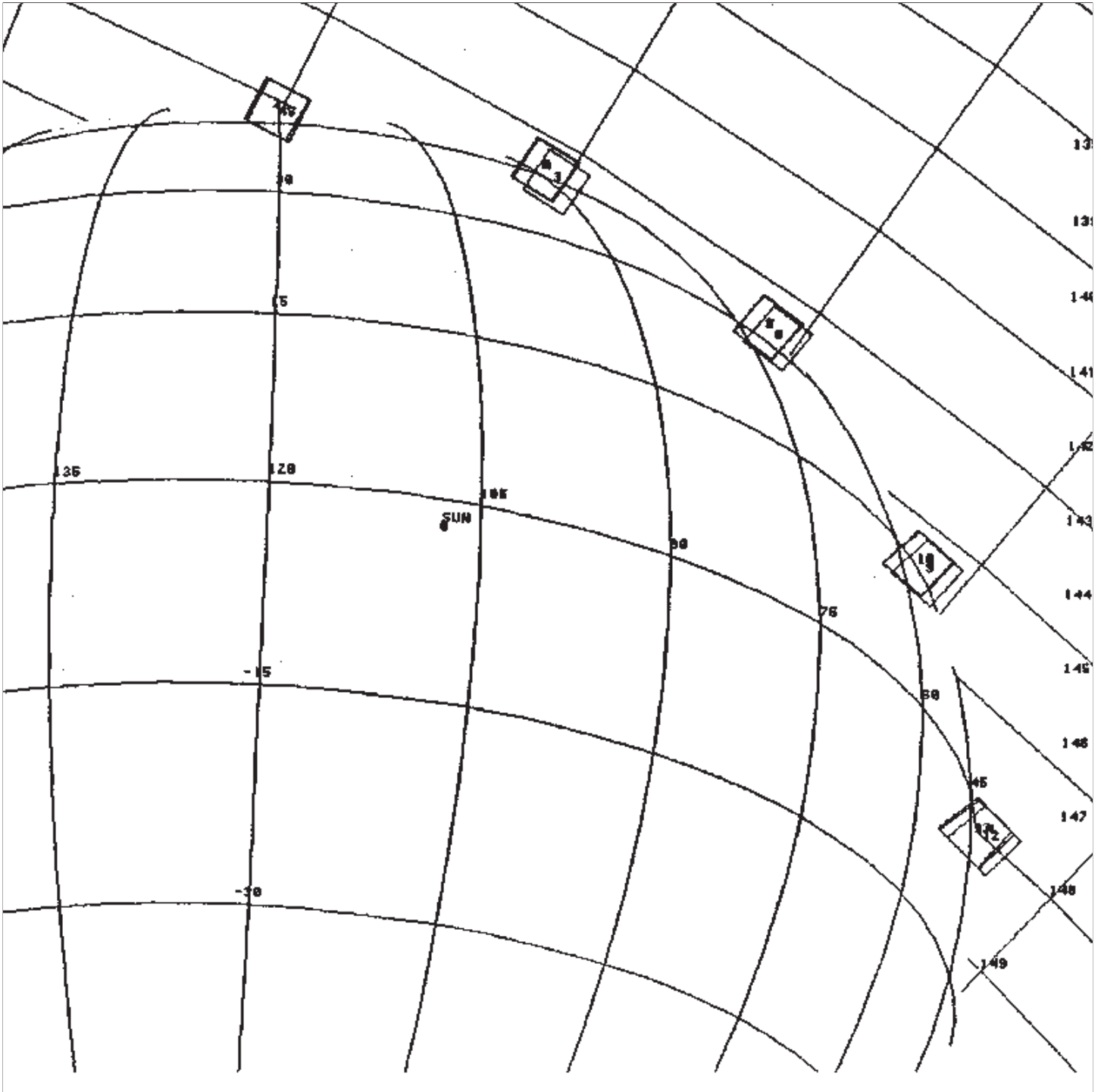
The observation VLTNG02, which occurred in the middle of the preceding set of observations, was a set of ten frames centered over the dark crescent of the disk in which SSI would search for lightning. with a short duration of 14 seconds. NIMS is observing dark sky here.

The last 12 observations, VGLI01 - VGL10, were dayside single full-disk frame observations using the start/stop mosaic (SMOS). The first 4 observations occurred at VCA+3 days, the next 2 at VCA+4 days, the next 2 at VCA+5 days, the next 2 at VCA+6 days and the last 2 at VCA+7 days.

RIDE-ALONG SCIENCE ACTIVITIES

All ride-along activities are in Long Map, SSI start/stop mosaics.  
 NIMS gain state is set up at the beginning of each day's observations.

Page	OAPEL Name	Gain state	Km per Nimsl	Sub-spacecraft Lat	W. Lon.	Record Start Time	Record End Time
16	VLMB01	1	18.9	27.1 S	151.7	90-041/07:37:54	90-041/07:38:52
16	VLMB01	1	19.3	26.7 S	152.3	90-041/07:39:25	90-041/07:40:23
16	VLMB01	1	19.5	26.5 S	152.6	90-041/07:40:56	90-041/07:41:54
16	VLMB01	1	19.8	26.1 S	153.1	90-041/07:42:27	90-041/07:43:25
16	VLMB01	1	20.0	26.0 S	153.4	90-041/07:43:59	90-041/07:44:56
17	VLMB02	1	41.5	14.9 S	167.7	90-041/09:37:13	90-041/09:38:11
18	VFT201	1	286	4.3 S	177.8	90-042/07:13:24	90-042/07:14:26
19	VFT202	1	288	4.3 S	177.8	90-042/07:23:34	90-042/07:24:32
20	VFT203	1	294	4.3 S	177.8	90-042/07:53:54	90-042/07:54:52
21	VFT204	1	309	4.1 S	177.9	90-042/09:13:47	90-042/09:14:45
22	VFT205	1	311	4.1 S	177.9	90-042/09:23:53	90-042/09:24:52
23	VFT206	1	317	4.1 S	177.9	90-042/09:53:13	90-042/09:54:11
24	VFT207	1	332	4.0 S	177.9	90-042/11:13:06	90-042/11:14:03
25	VFT208	1	334	4.0 S	177.9	90-042/11:23:12	90-042/11:24:10
26	VFT209	1	339	4.0 S	177.9	90-042/11:53:32	90-042/11:53:49
27	VFT210	1	354	3.9 S	177.9	90-042/13:13:25	90-042/13:14:23
28	VFT211	1	360	3.9 S	177.9	90-042/13:43:45	90-042/13:44:43
29	VFT212	1	377	3.8 S	177.8	90-042/15:13:44	90-042/15:14:42
30	VFT213	1	382	3.8 S	177.8	90-042/15:43:04	90-042/15:44:02
31	VFT214	1	399	3.7 S	177.8	90-042/17:13:03	90-042/17:14:01
32	VFT215	1	405	3.7 S	177.8	90-042/17:43:23	90-042/17:44:21
33	VFT216	1	422	3.7 S	177.8	90-042/19:13:22	90-042/19:14:20
34	VFT217	1	427	3.6 S	177.7	90-042/21:43:42	90-042/21:44:40
35	VFT218	1	444	3.6 S	177.7	90-042/21:13:41	90-042/21:14:40
36	VFT219	1	450	3.6 S	177.7	90-042/21:44:02	90-042/21:45:00
37	VFT101	2	542	3.4 S	177.4	90-043/05:58:28	90-043/05:58:56
38	VLING02	2	545	3.3 S	177.3	90-043/06:13:35	90-043/06:13:49
39	VFT102	2	564	3.3 S	177.3	90-043/07:58:47	90-043/07:59:14
40	VFT103	2	587	3.3 S	177.2	90-043/09:58:05	90-043/09:58:33
41	VFT104	2	609	3.2 S	177.1	90-043/11:58:25	90-043/11:58:53
42	VFT105	2	631	3.2 S	177.0	90-043/13:57:43	90-043/13:58:11
43	VGLI01	3	810	3.0 S	176.2	90-044/05:58:17	90-044/05:59:15
44	VGLI02	3	832	3.0 S	176.1	90-044/07:58:36	90-044/07:59:34
45	VGLIR03	3	854	3.0 S	176.0	90-044/10:00:57	90-044/10:01:55
46	VGLIR04	3	877	3.0 S	175.9	90-044/12:00:14	90-044/12:01:13
47	VGL03	4	1076	2.8 S	174.9	90-045/05:28:05	90-045/05:29:15
48	VGL04	4	1095	2.8 S	174.7	90-045/07:28:05	90-045/07:28:33
49	VGL05	1	1335	2.7 S	173.4	90-046/04:58:16	90-046/04:58:44
50	VGL06	1	1357	2.7 S	173.3	90-046/06:58:35	90-046/06:59:03
51	VGL07	2	1597	2.7 S	171.7	90-047/04:28:46	90-047/04:29:13
52	VGL08	2	1619	2.7 S	171.8	90-047/06:28:05	90-047/06:28:32
53	VGL09	3	1860	2.6 S	170.4	90-048/03:58:15	90-048/03:58:43
54	VGL10	3	1881	2.6 S	170.3	90-048/05:58:35	90-048/05:59:00



**VLMB01 : Venus Limb, SSI Ride-Along**

**CENTRAL BODY:VENUS**

**PERIAPSIS:90-041/06:08:49.590**

**OBSERVATION: VLMB01**

**Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4**

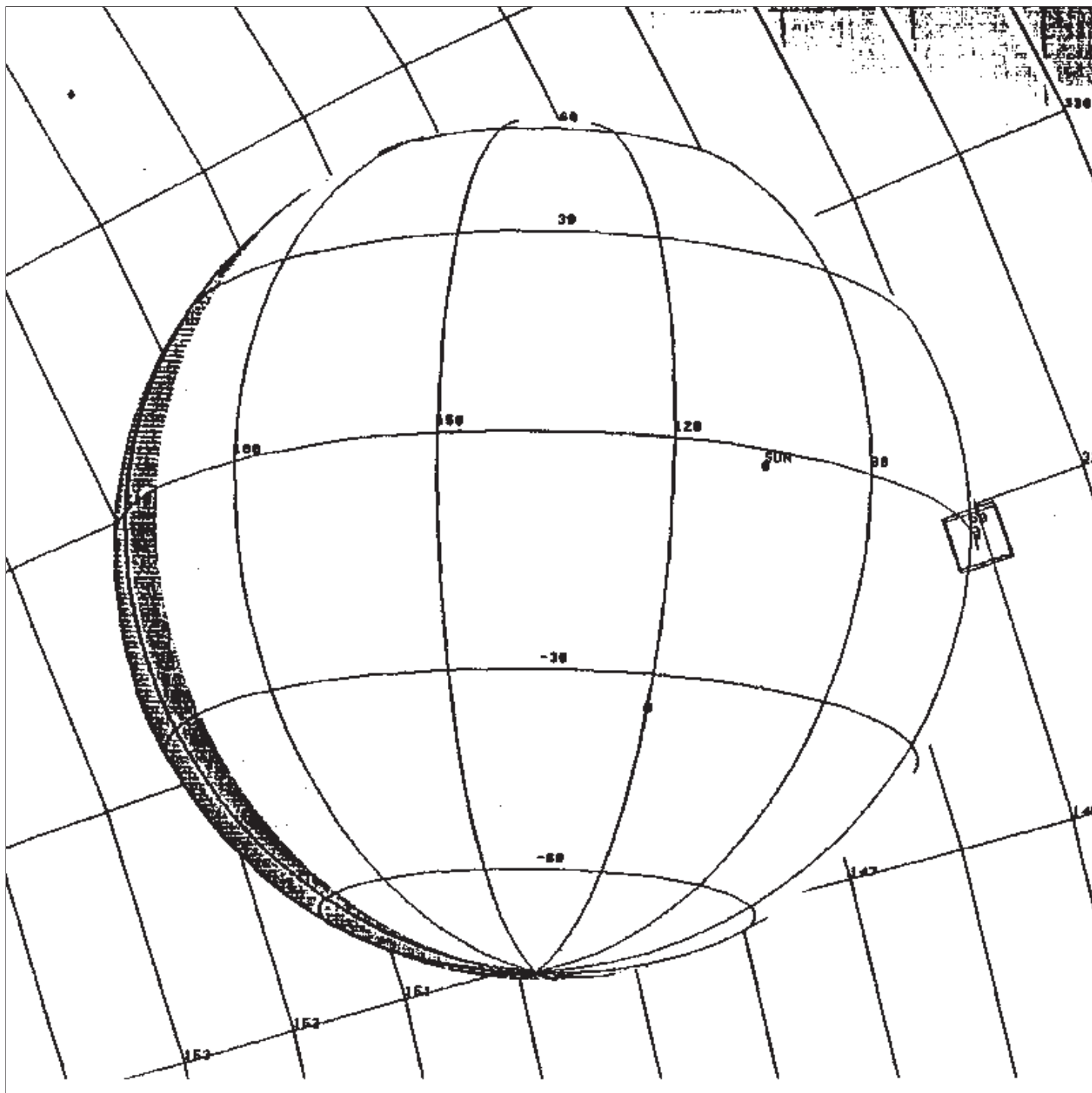
**408 Wavelengths**

**5 SSI Footprints**

**Slew Rate: xxx mrad/sec, SMOS Scan**

**Plot Ref Time: Start of Mosaic**

**Lat, Lon, Range, Res, Phase: (27., 152., xxx, 19., xxx)**



VLMB02 : Venus Limb, SSI Ride-Along

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VLMB02

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4

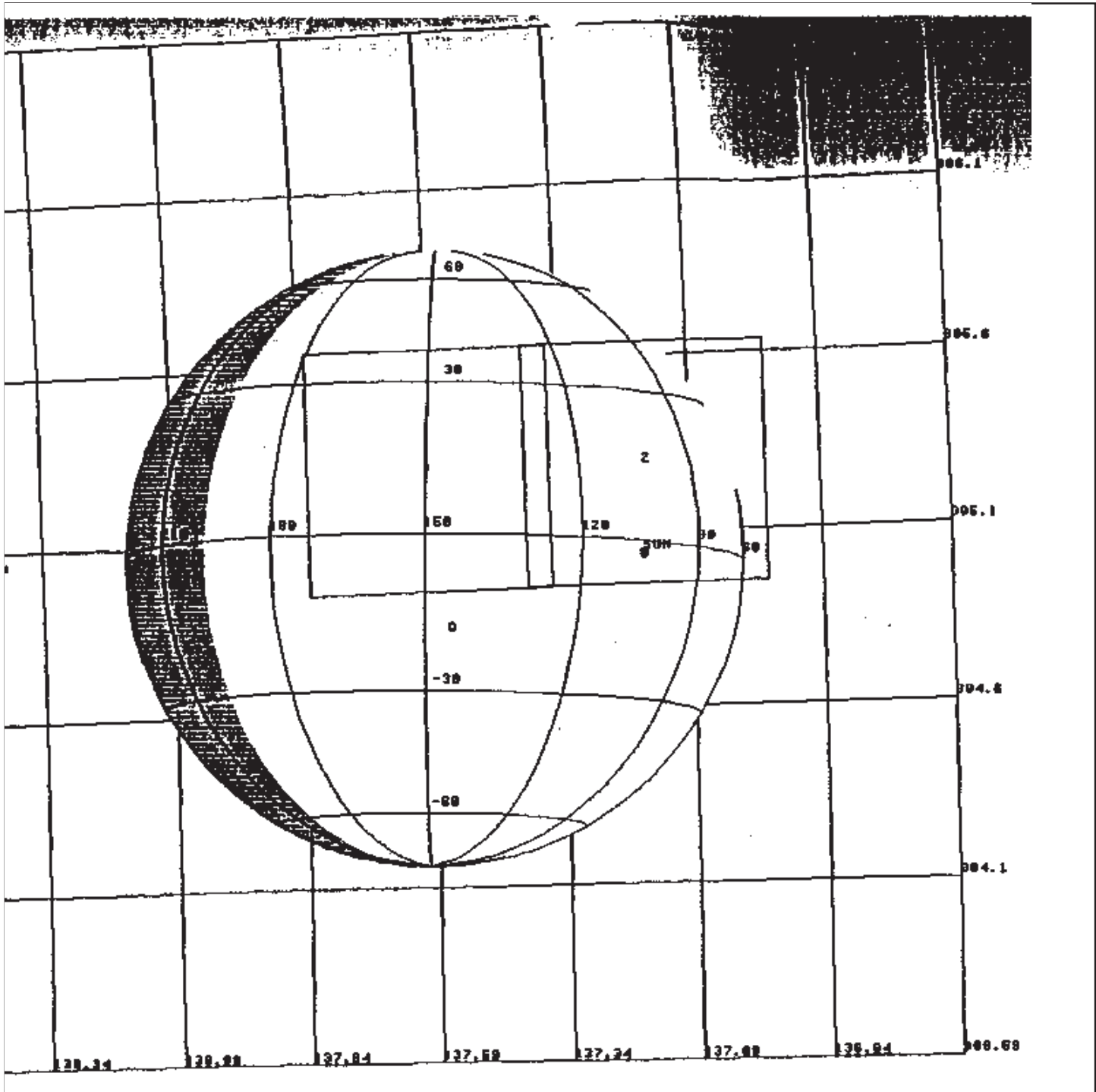
408 Wavelengths

1 SSI Footprint

Slew Rate: xxx mrad/sec, SMOS Scan

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (15., 168., xxx, 42., xxx)



VFT201 : Venus Feature Track, SSI Ride-Along

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4  
 408 Wavelengths  
 2 SSI Footprints

CENTRAL BODY:VENUS

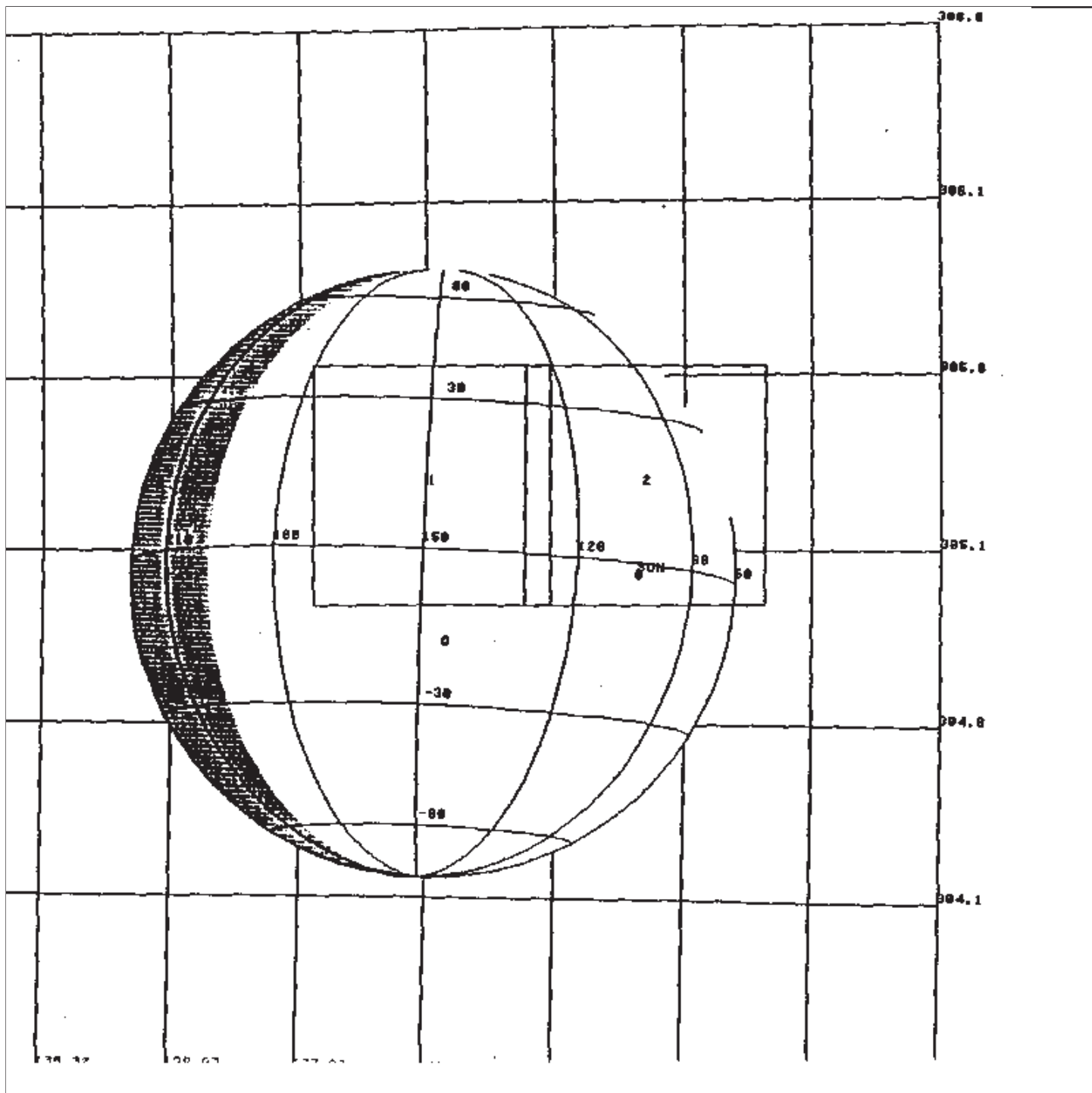
Slew Rate: xxx mrad/sec, SMOS Scan

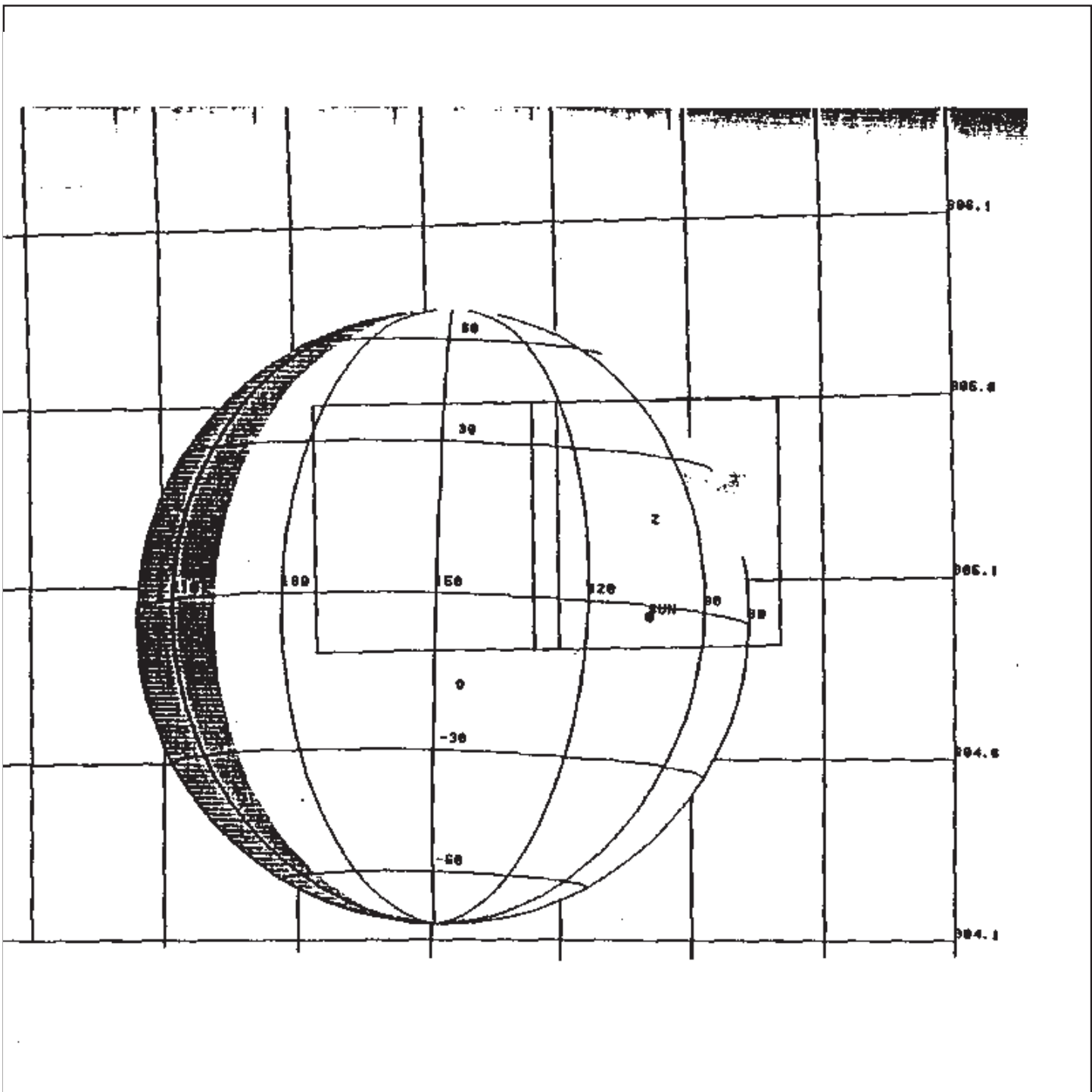
PERIAPSIS:90-041/06:08:49.590

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (4., 178., xxx, 286., xxx)

OBSERVATION: VFT201





VFT203 : Venus Feature Track, SSI Ride-Along

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4  
 408 Wavelengths  
 2 SSI Footprints

CENTRAL BODY:VENUS

Slew Rate: xxx mrad/sec, SMOS Scan

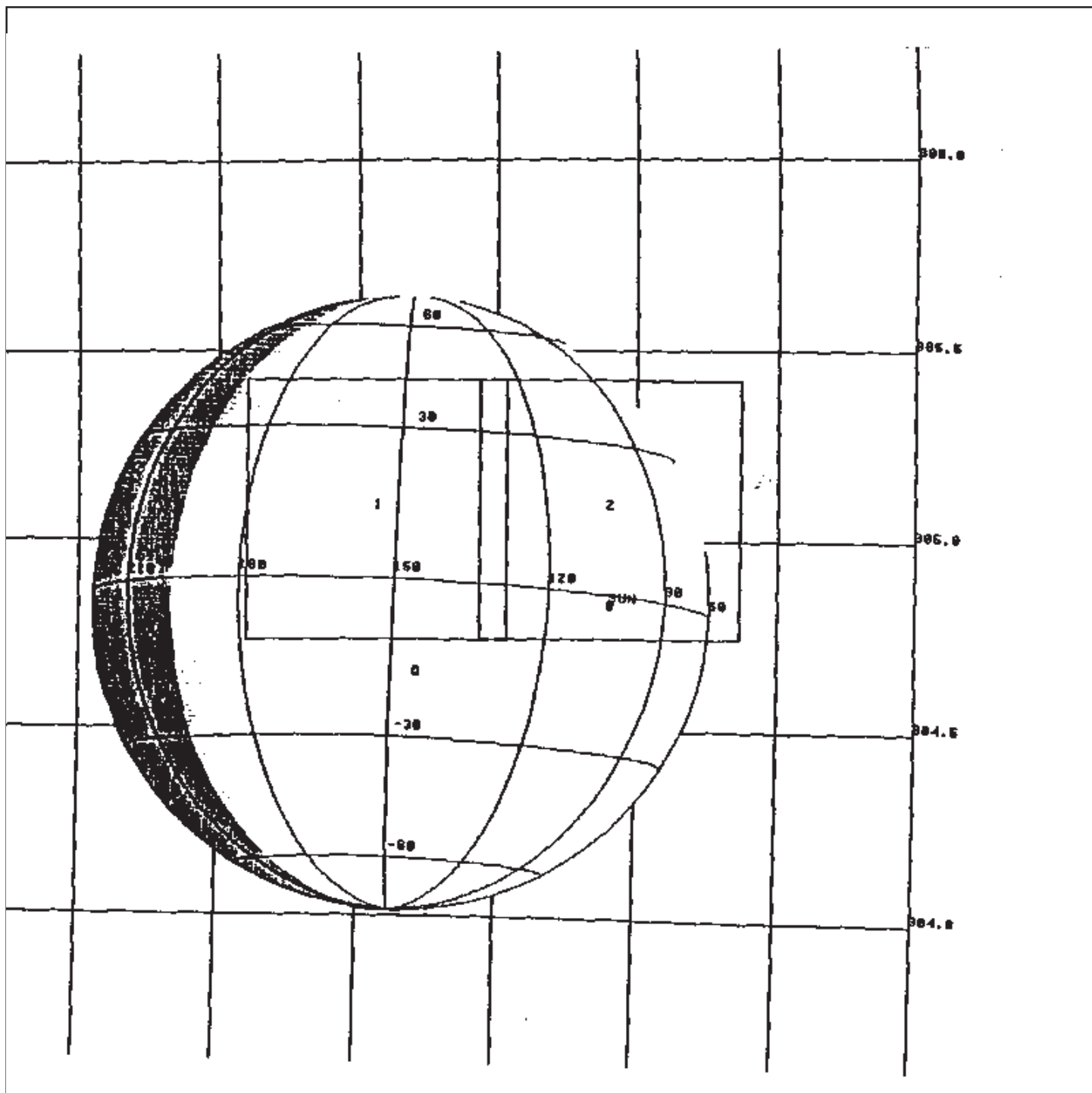
PERIAPSIS:90-041/06:08:49.590

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (4., 178., xxx, 294., xxx)

OBSERVATION: VFT203





VFT204 : Venus Feature Track, SSI Ride-Along

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VFT204

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4

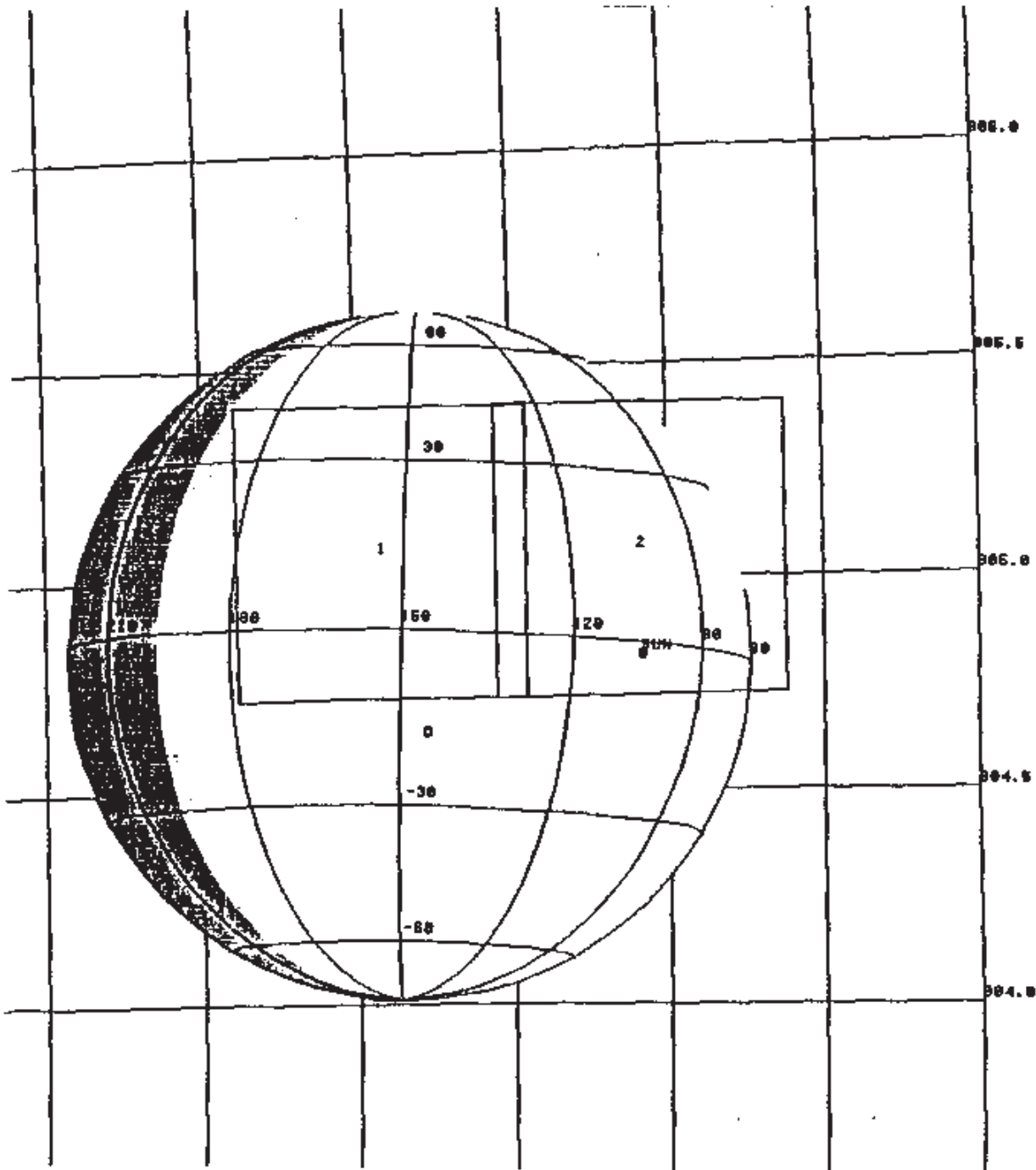
408 Wavelengths

2 SSI Footprints

Slew Rate: xxx mrad/sec, SMOS Scan

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (4., 178., xxx, 309., xxx)



VFT205 : Venus Feature Track, SSI Ride-Along

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VFT205

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4

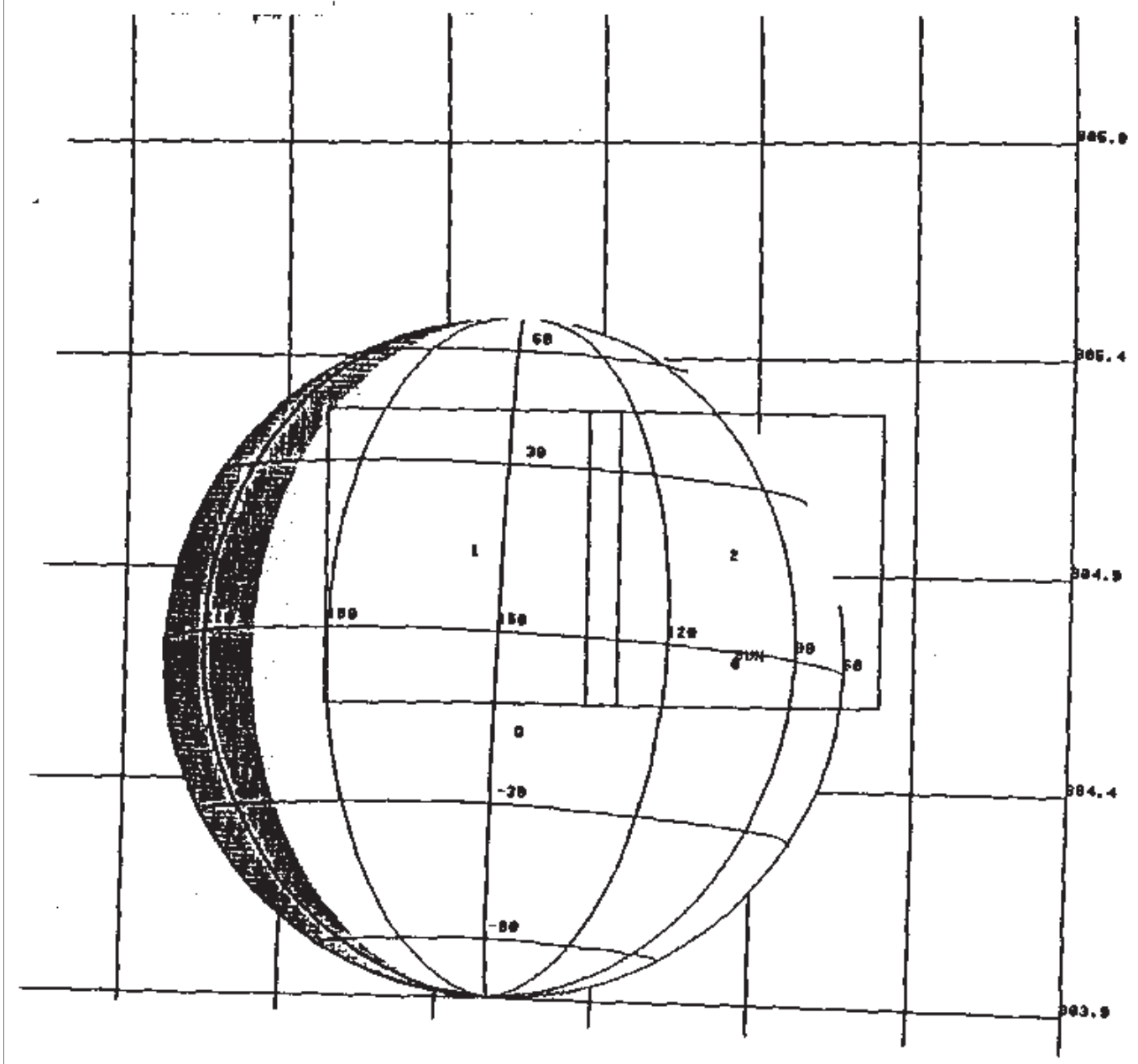
408 Wavelengths

2 SSI Footprints

Slew Rate: xxx mrad/sec, SMOS Scan

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (4., 178., xxx, 311., xxx)



VFT206 : Venus Feature Track, SSI Ride-Along

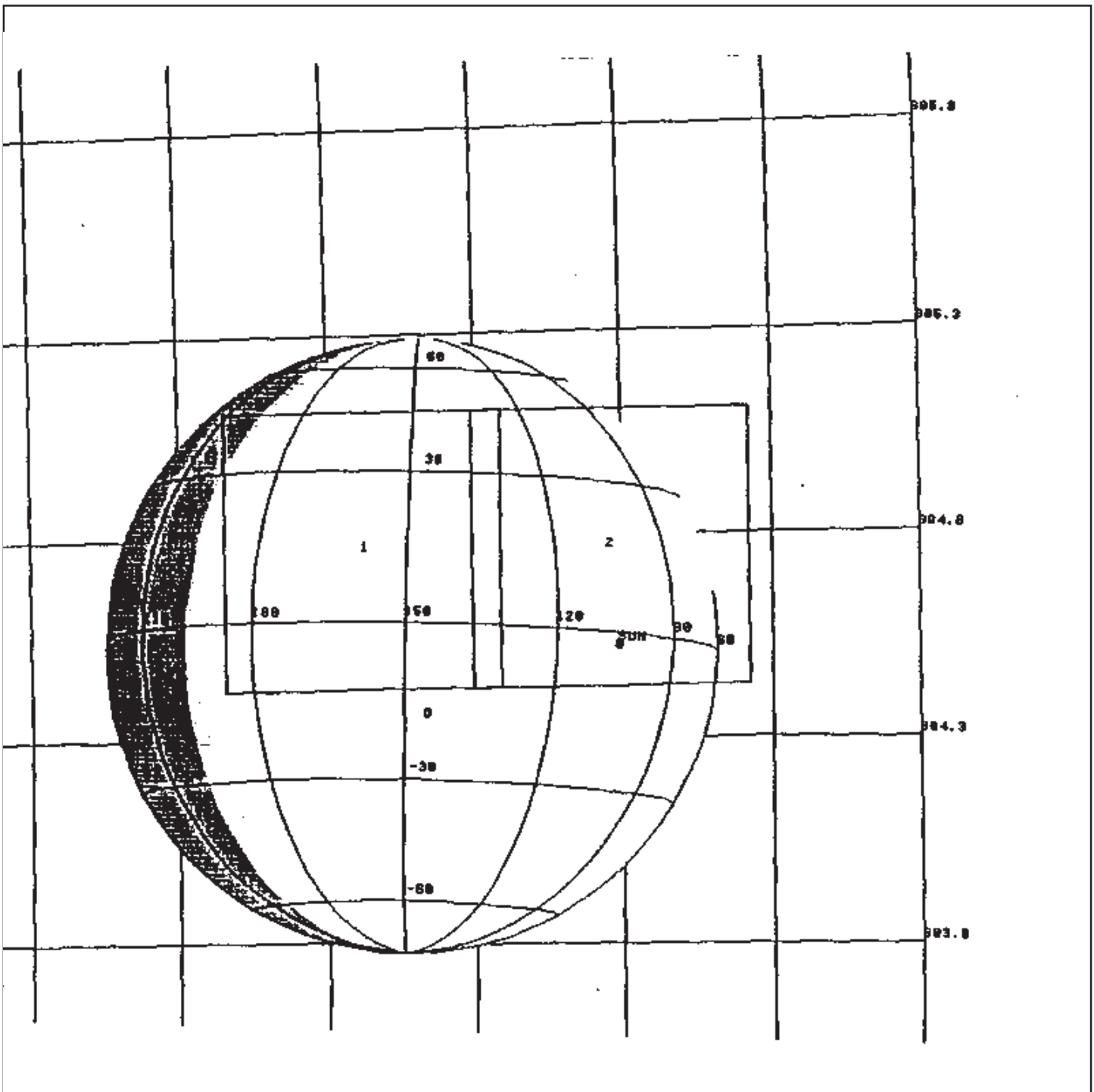
CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VFT206

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4  
 408 Wavelengths  
 2 SSI Footprints

Slew Rate: xxx mrad/sec, SMOS Scan  
 Plot Ref Time: Start of Mosaic  
 Lat, Lon, Range, Res, Phase: (4., 178., xxx, 317., xxx)



VFT207 : Venus Feature Track, SSI Ride-Along

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4  
 408 Wavelengths  
 2 SSI Footprints

CENTRAL BODY:VENUS

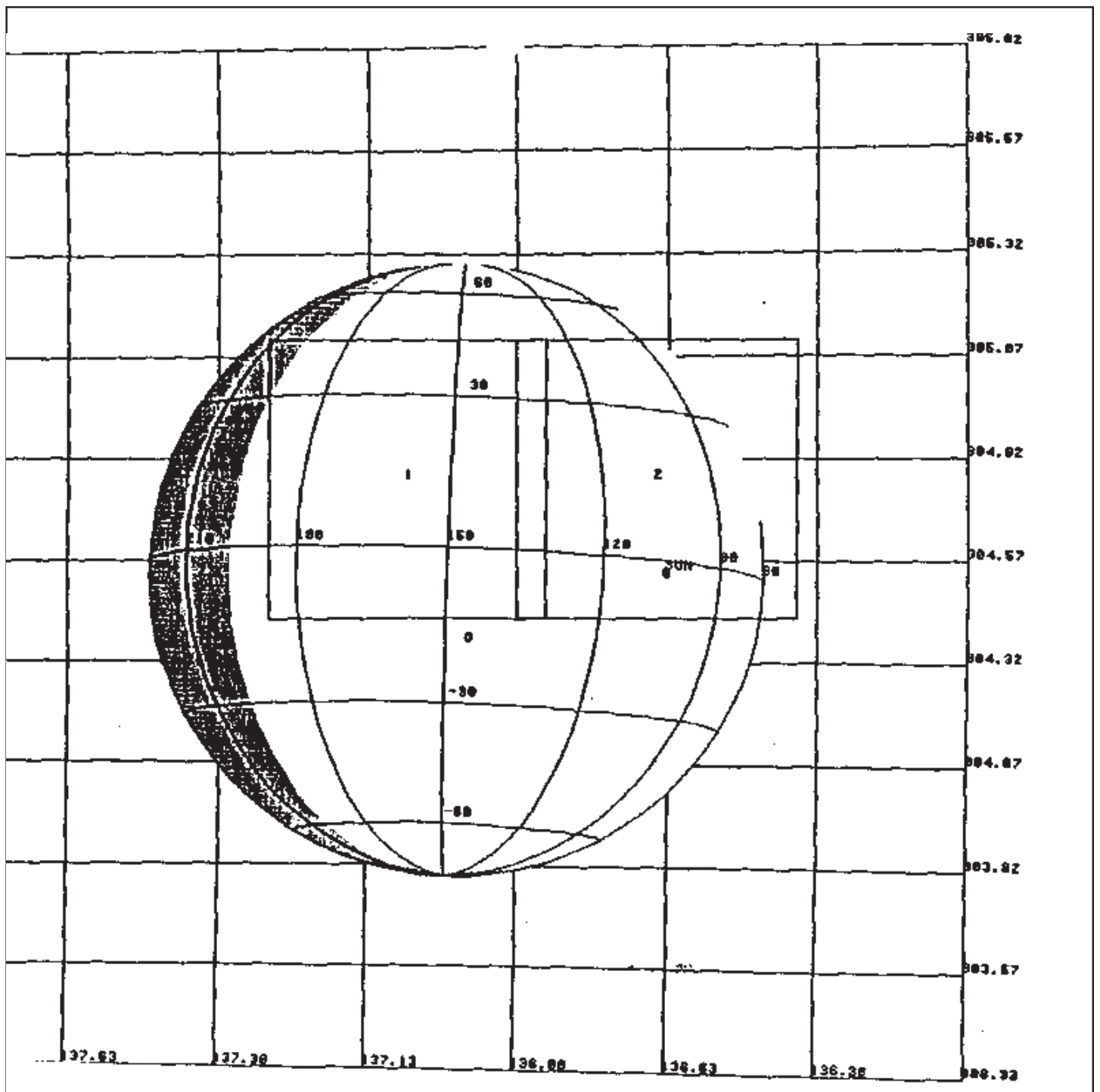
Slew Rate: xxx mrad/sec, SMOS Scan

PERIAPSIS:90-041/06:08:49.590

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (4., 178., xxx, 332., xxx)

OBSERVATION: VFT207



VFT208 : Venus Feature Track, SSI Ride-Along

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VFT208

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4

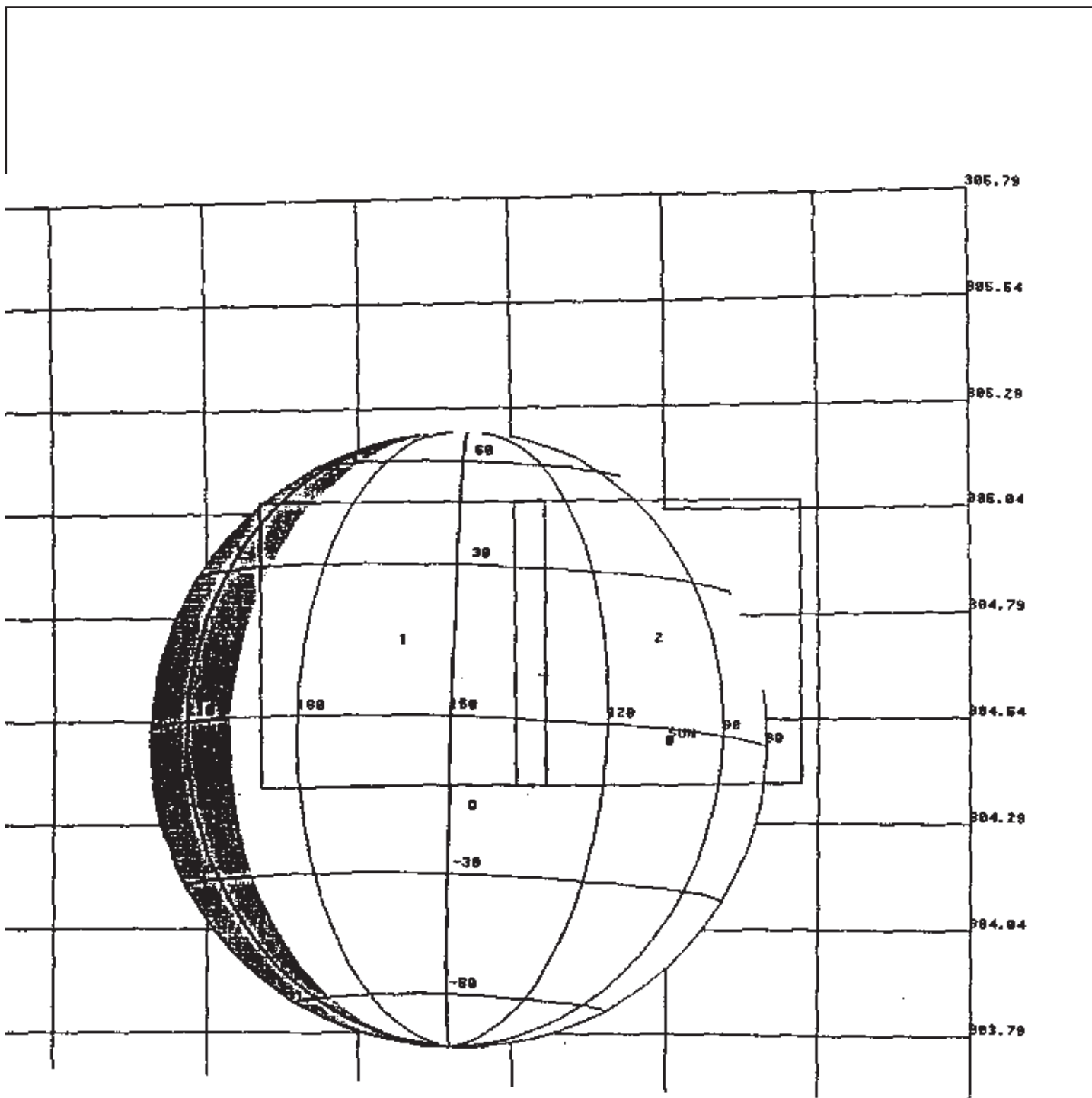
408 Wavelengths

2 SSI Footprints

Slew Rate: xxx mrad/sec, SMOS Scan

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (4., 178., xxx, 334., xxx)



VFT209 : Venus Feature Track, SSI Ride-Along

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4  
 408 Wavelengths  
 2 SSI Footprints

CENTRAL BODY:VENUS

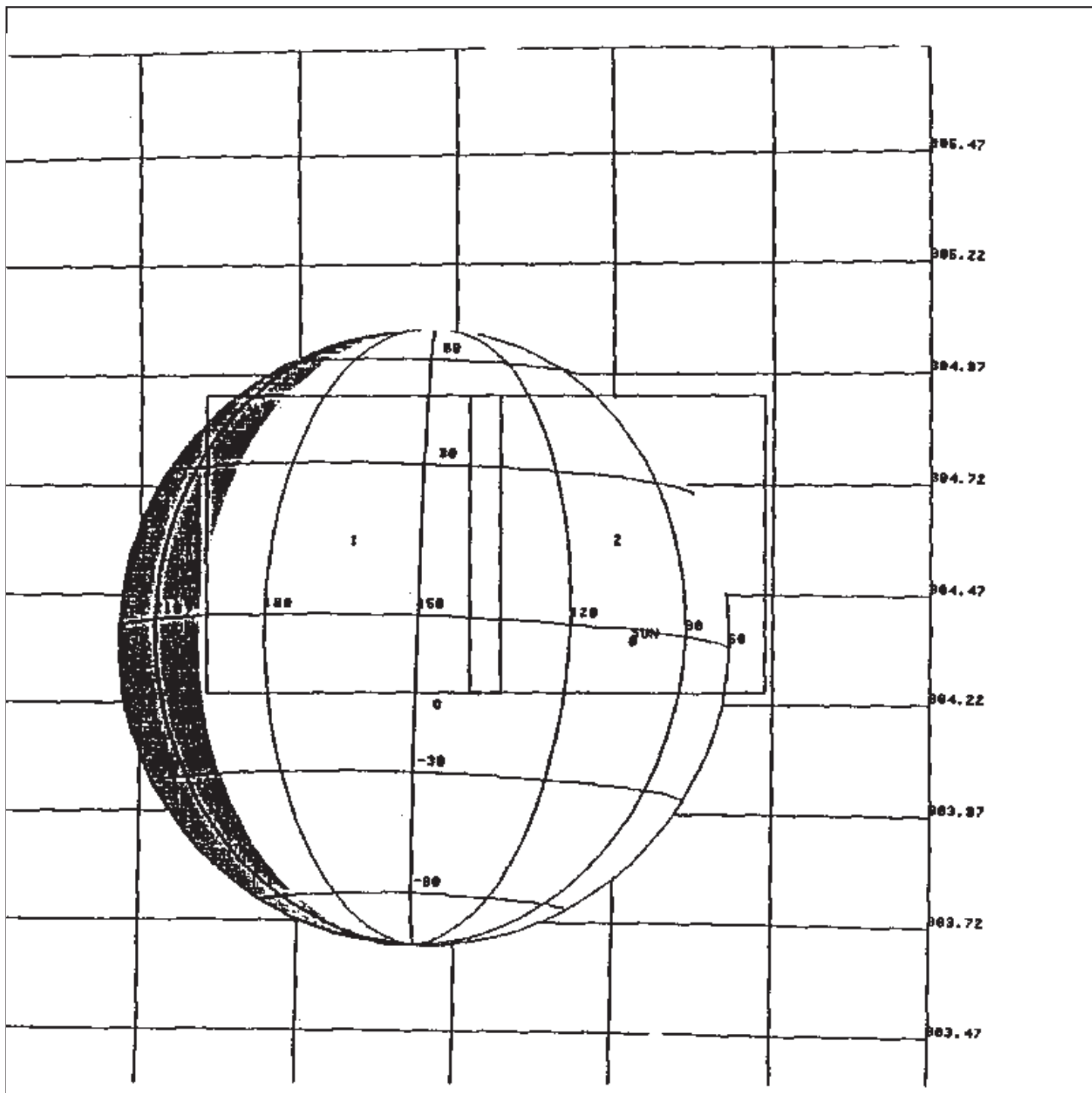
Slew Rate: xxx mrad/sec, SMOS Scan

PERIAPSIS:90-041/06:08:49.590

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (4., 178., xxx, 339., xxx)

OBSERVATION: VFT209



VFT210 : Venus Feature Track, SSI Ride-Along

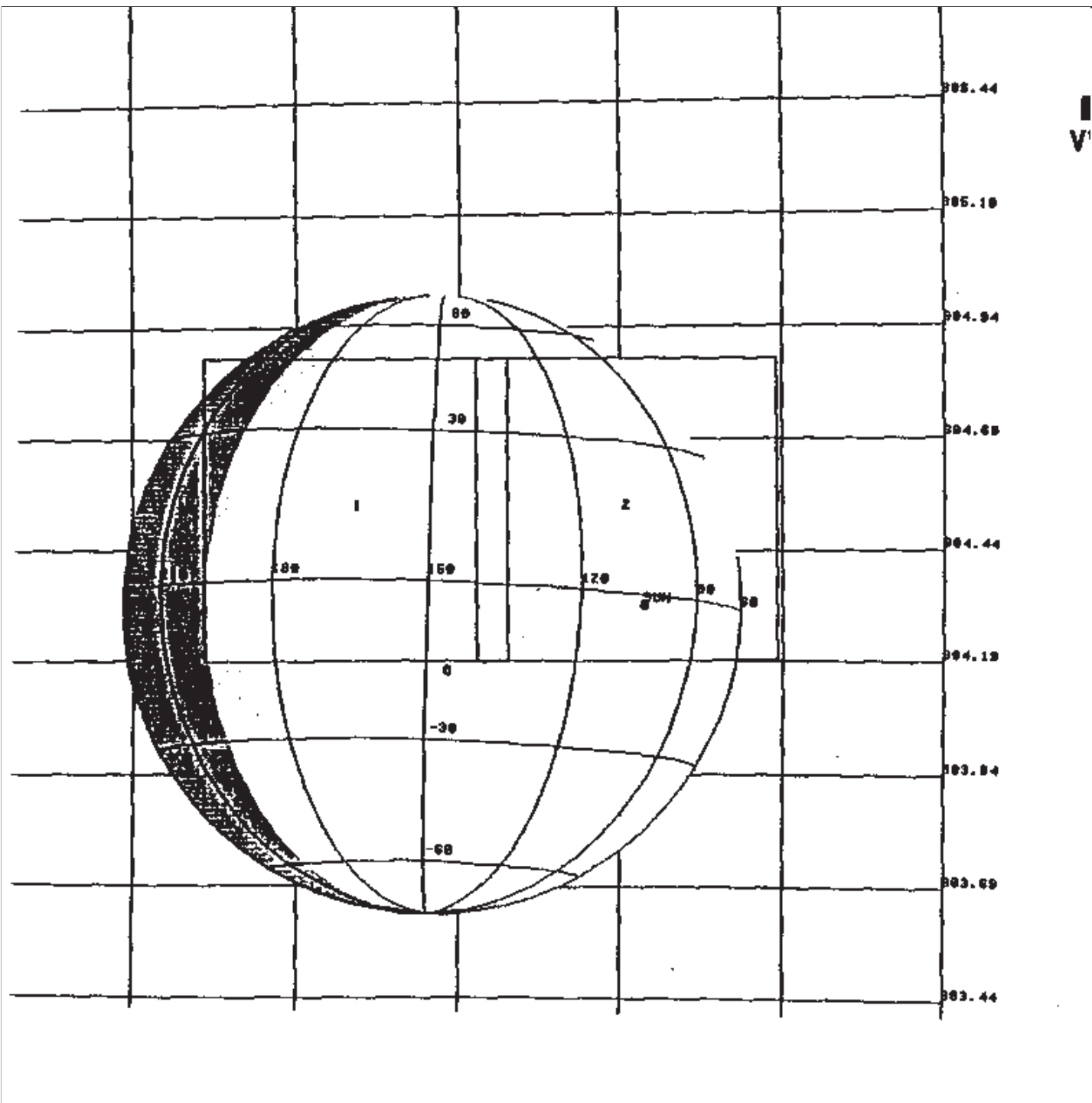
CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VFT210

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4  
 408 Wavelengths  
 2 SSI Footprints

Slew Rate: xxx mrad/sec, SMOS Scan  
 Plot Ref Time: Start of Mosaic  
 Lat, Lon, Range, Res, Phase: (4., 178., xxx, 354., xxx)



VFT211 : Venus Feature Track, SSI Ride-Along

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4

408 Wavelengths

CENTRAL BODY:VENUS

2 SSI Footprints

Slew Rate: xxx mrad/sec, SMOS Scan

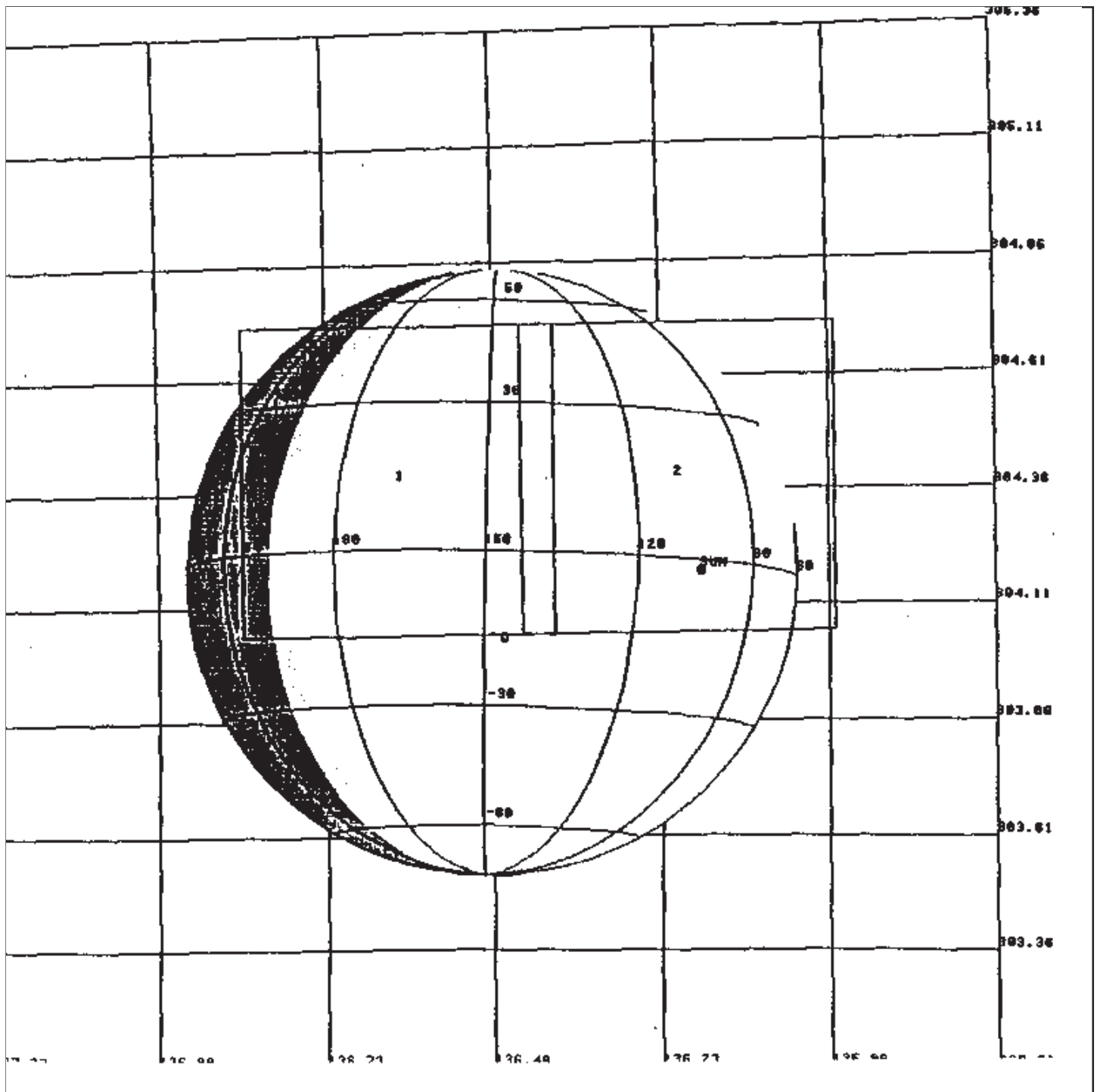
PERIAPSIS:90-041/06:08:49.590

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (4., 178., xxx, 360., xxx)

OBSERVATION: VFT211





VFT212 : Venus Feature Track, SSI Ride-Along

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4

408 Wavelengths

2 SSI Footprints

CENTRAL BODY:VENUS

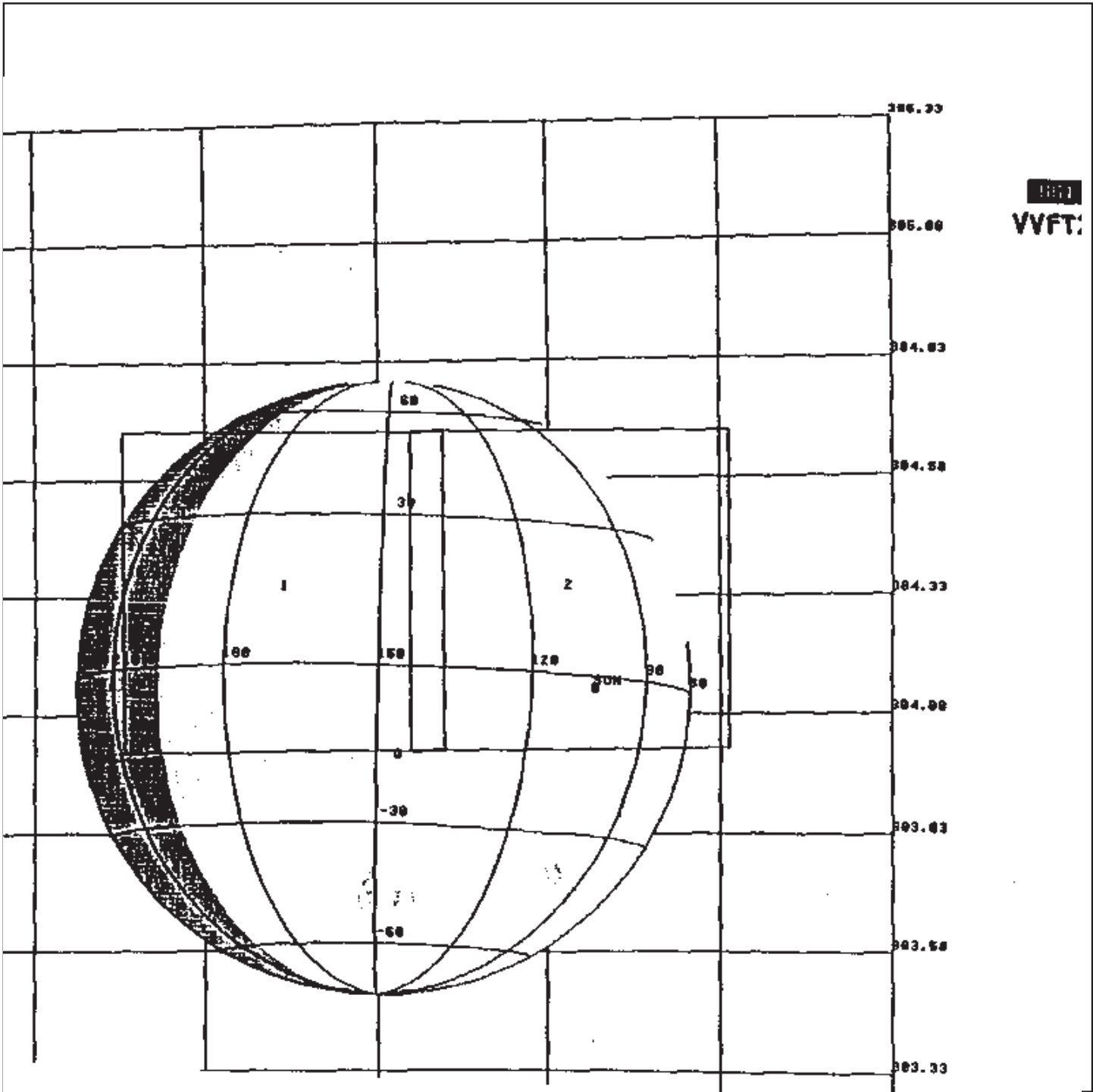
Slew Rate: xxx mrad/sec, SMOS Scan

PERIAPSIS:90-041/06:08:49.590

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (4., 178., xxx, 377., xxx)

OBSERVATION: VFT212



VFT213 : Venus Feature Track, SSI Ride-Along

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4  
 408 Wavelengths  
 2 SSI Footprints

CENTRAL BODY:VENUS

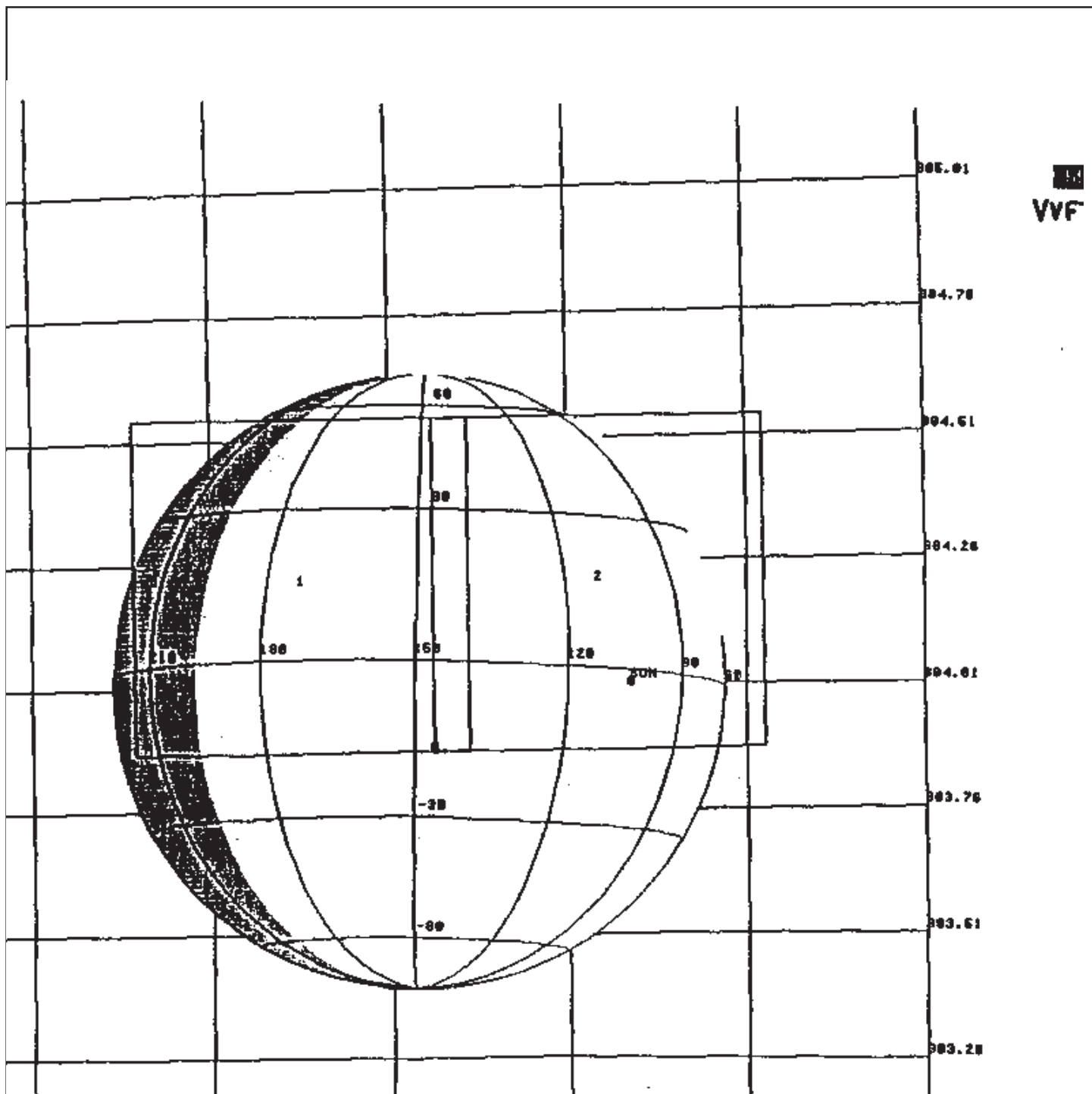
Slew Rate: xxx mrad/sec, SMOS Scan

PERIAPSIS:90-041/06:08:49.590

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (4., 178., xxx, 382., xxx)

OBSERVATION: VFT213



VFT214 : Venus Feature Track, SSI Ride-Along

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VFT214

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4

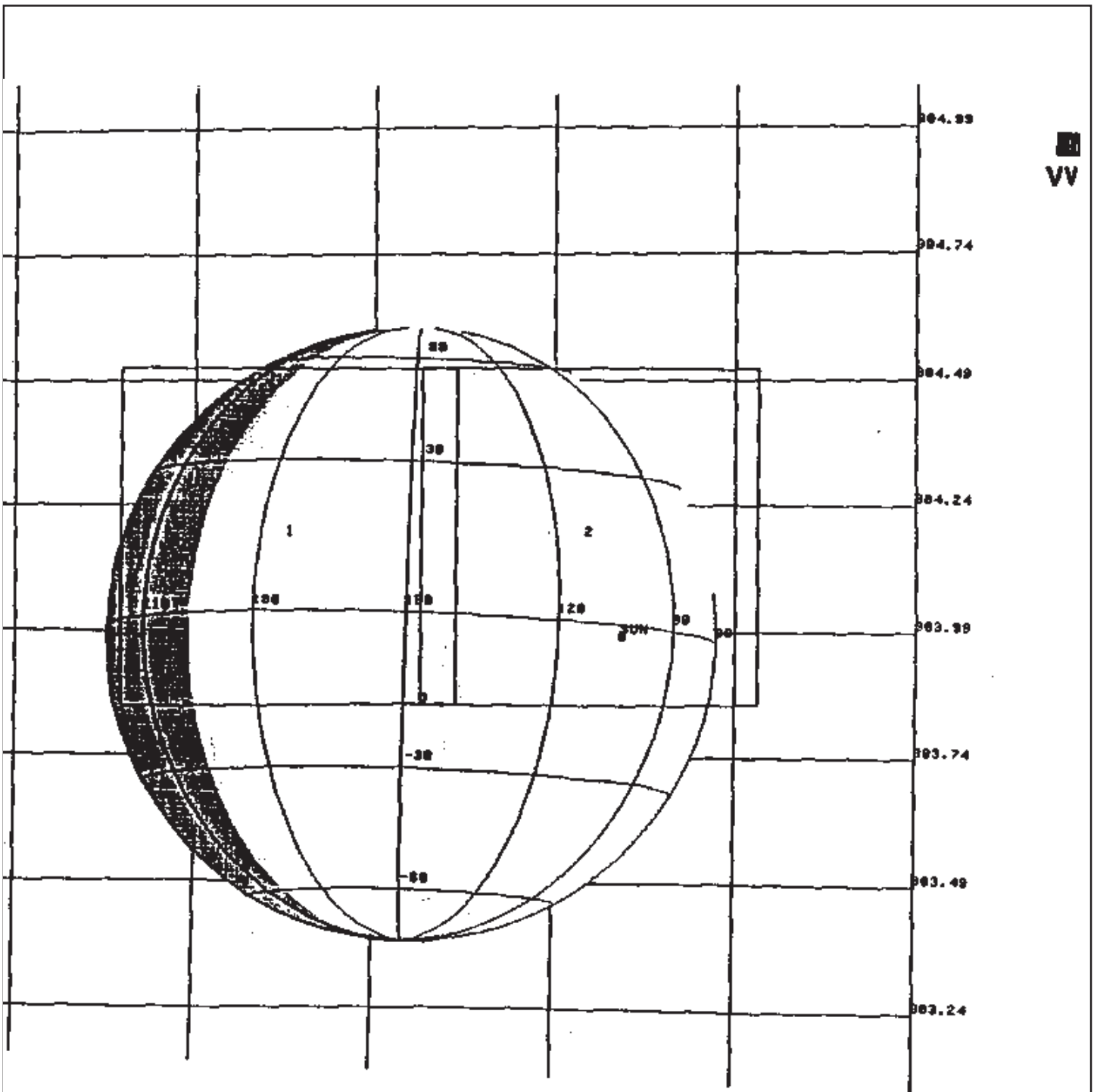
408 Wavelengths

2 SSI Footprints

Slew Rate: xxx mrad/sec, SMOS Scan

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (4., 178., xxx, 399., xxx)



VFT215 : Venus Feature Track, SSI Ride-Along

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4

408 Wavelengths

2 SSI Footprints

CENTRAL BODY:VENUS

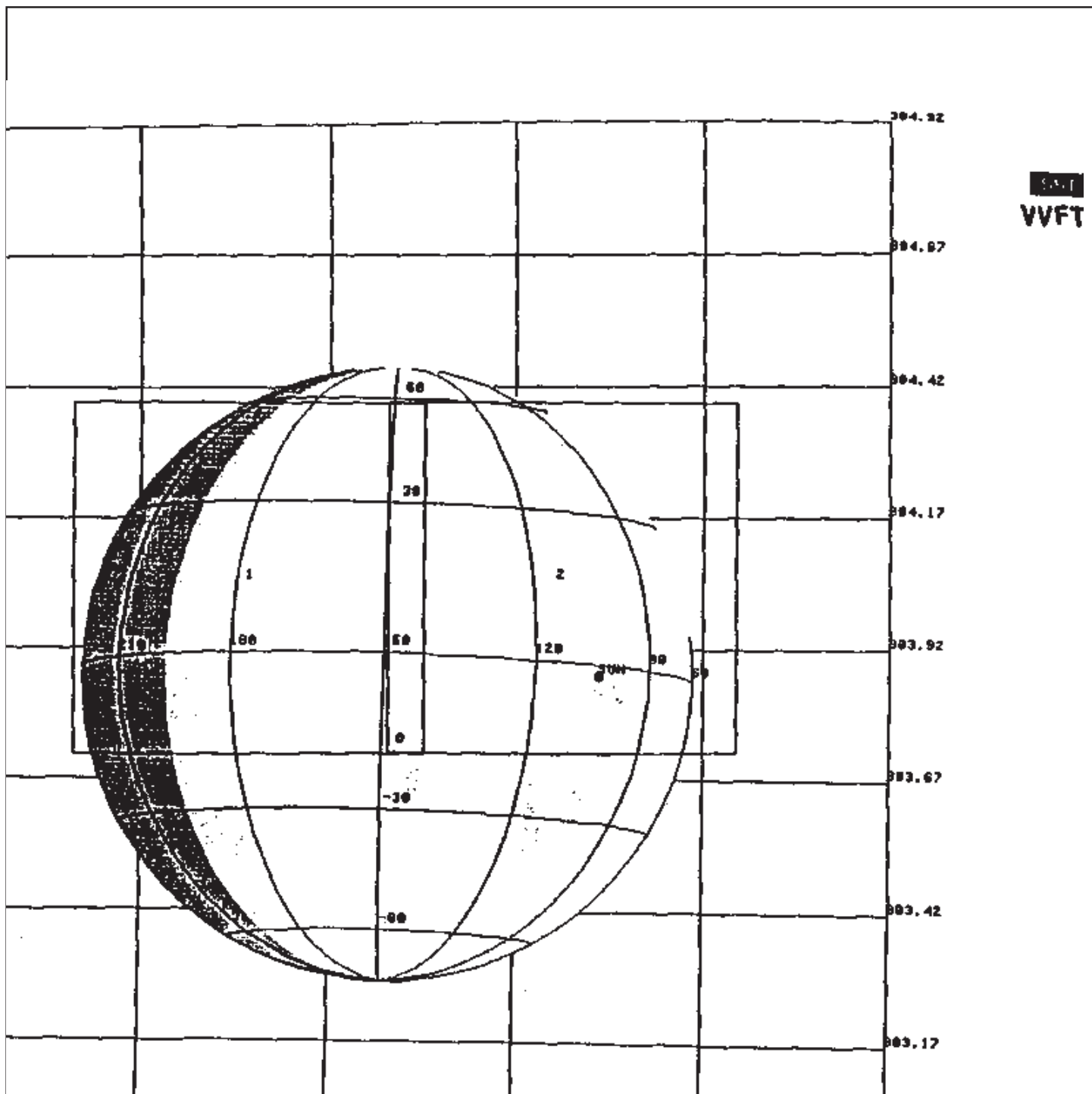
Slew Rate: xxx mrad/sec, SMOS Scan

PERIAPSIS:90-041/06:08:49.590

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (4., 178., xxx, 405., xxx)

OBSERVATION: VFT215



VFT216 : Venus Feature Track, SSI Ride-Along

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VFT216

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4

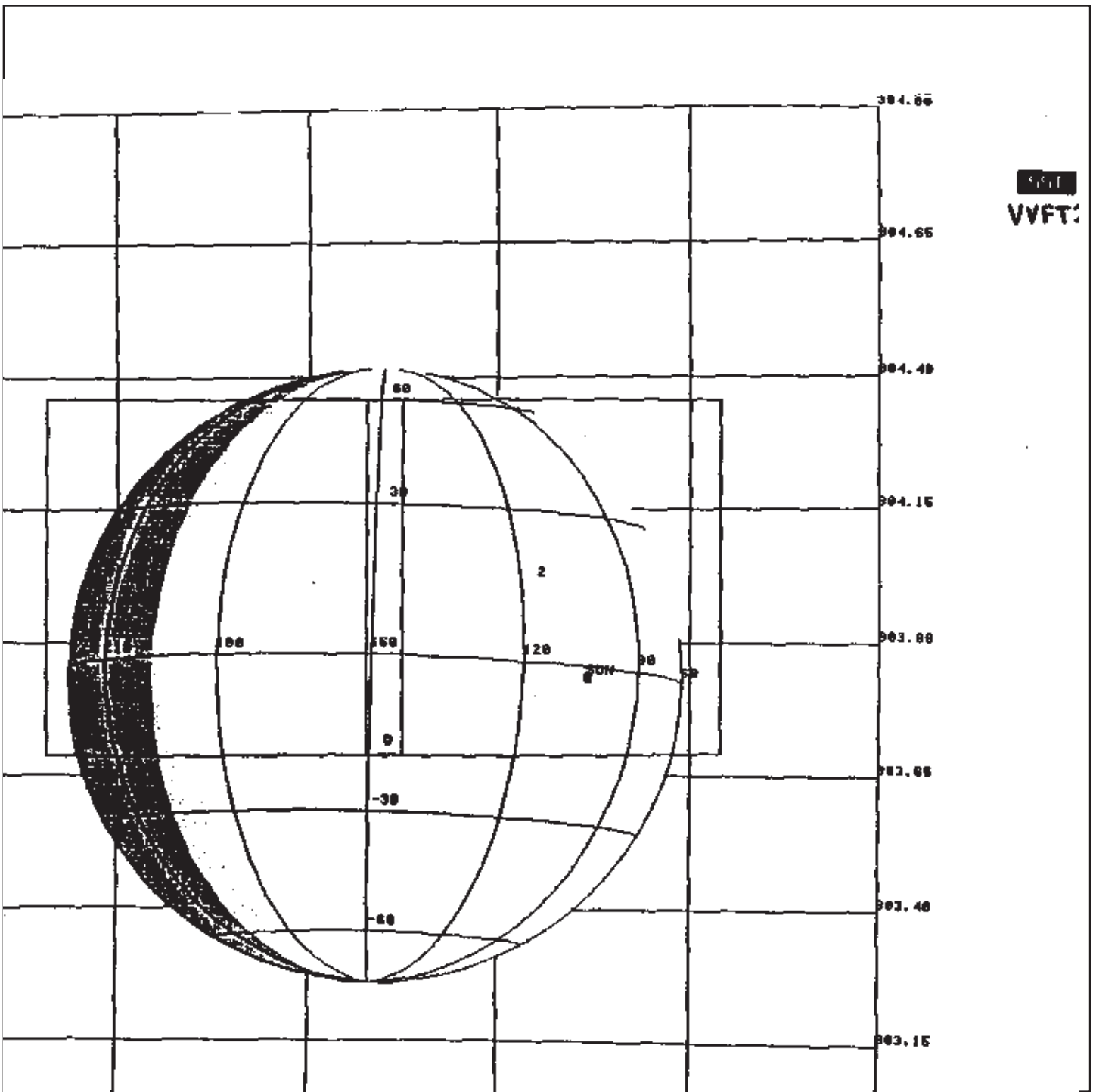
408 Wavelengths

2 SSI Footprints

Slew Rate: xxx mrad/sec, SMOS Scan

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (4., 178., xxx, 422., xxx)



VFT217 : Venus Feature Track, SSI Ride-Along

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4  
 408 Wavelengths  
 2 SSI Footprints

CENTRAL BODY:VENUS

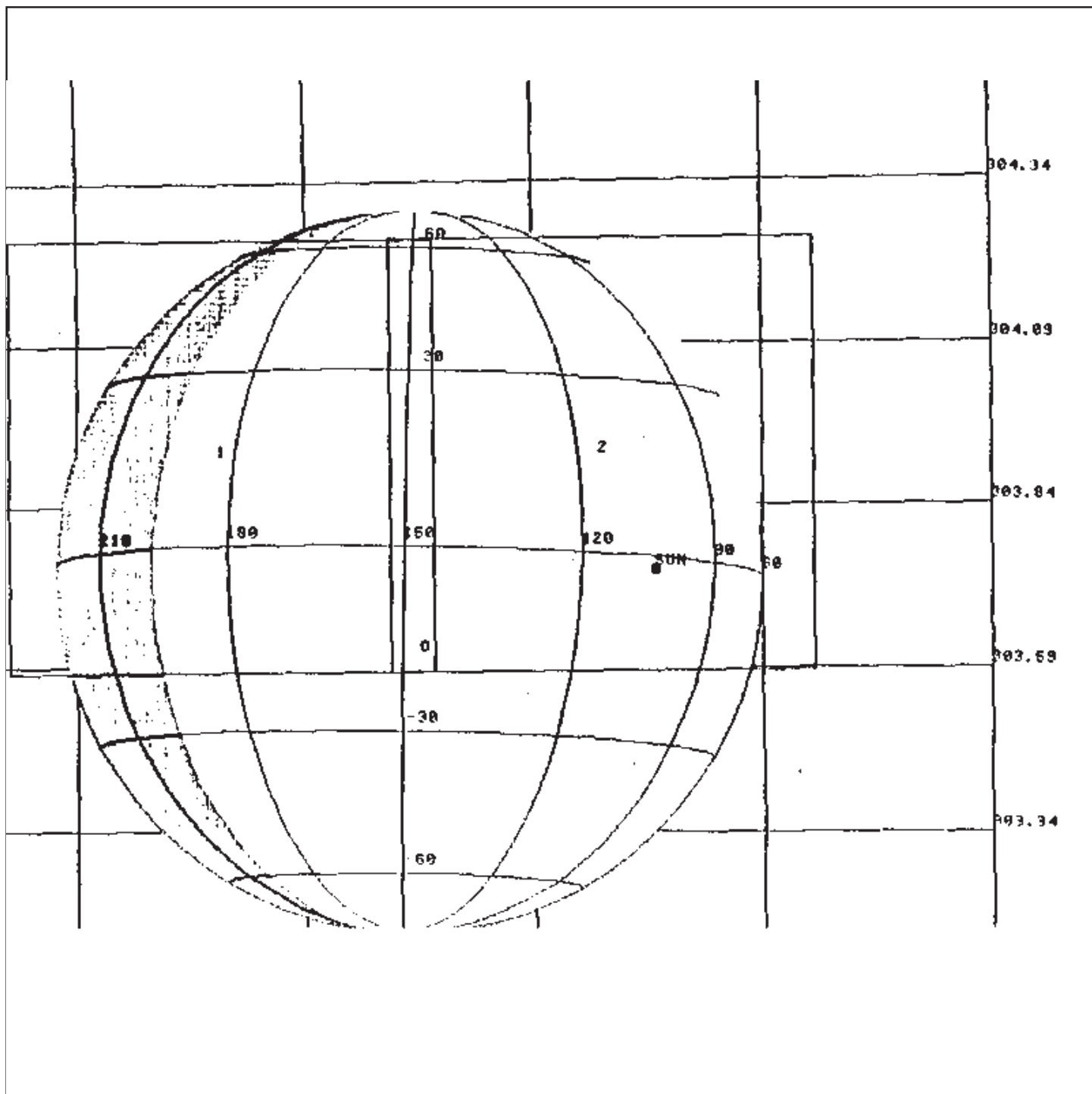
Slew Rate: xxx mrad/sec, SMOS Scan

PERIAPSIS:90-041/06:08:49.590

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (4., 178., xxx, 427., xxx)

OBSERVATION: VFT217



VFT218 : Venus Feature Track, SSI Ride-Along

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VFT218

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4

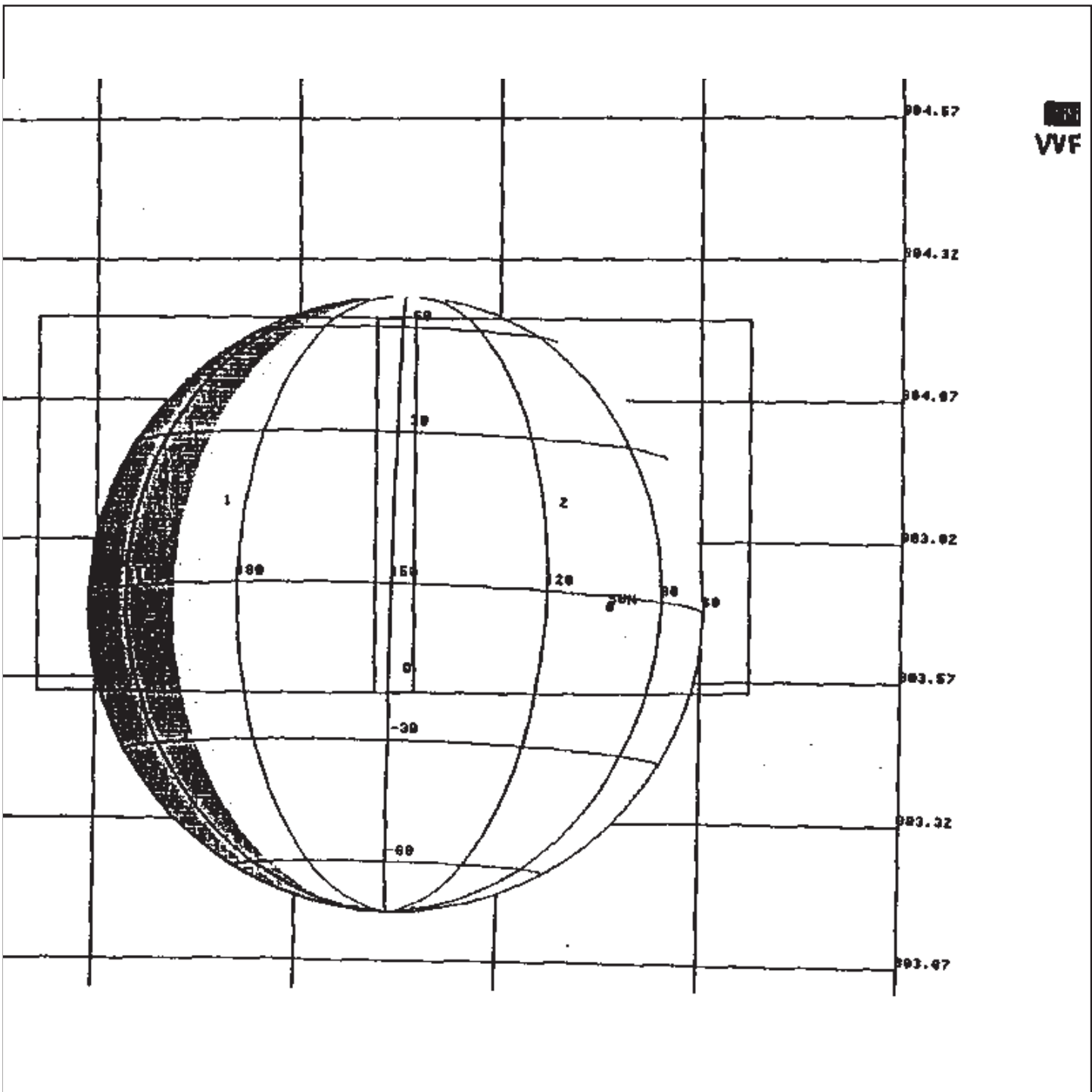
408 Wavelengths

2 SSI Footprints

Slew Rate: xxx mrad/sec, SMOS Scan

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (4., 178., xxx, 444., xxx)



VFT219 : Venus Feature Track, SSI Ride-Along

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4  
 408 Wavelengths  
 2 SSI Footprints

CENTRAL BODY:VENUS

Slew Rate: xxx mrad/sec, SMOS Scan

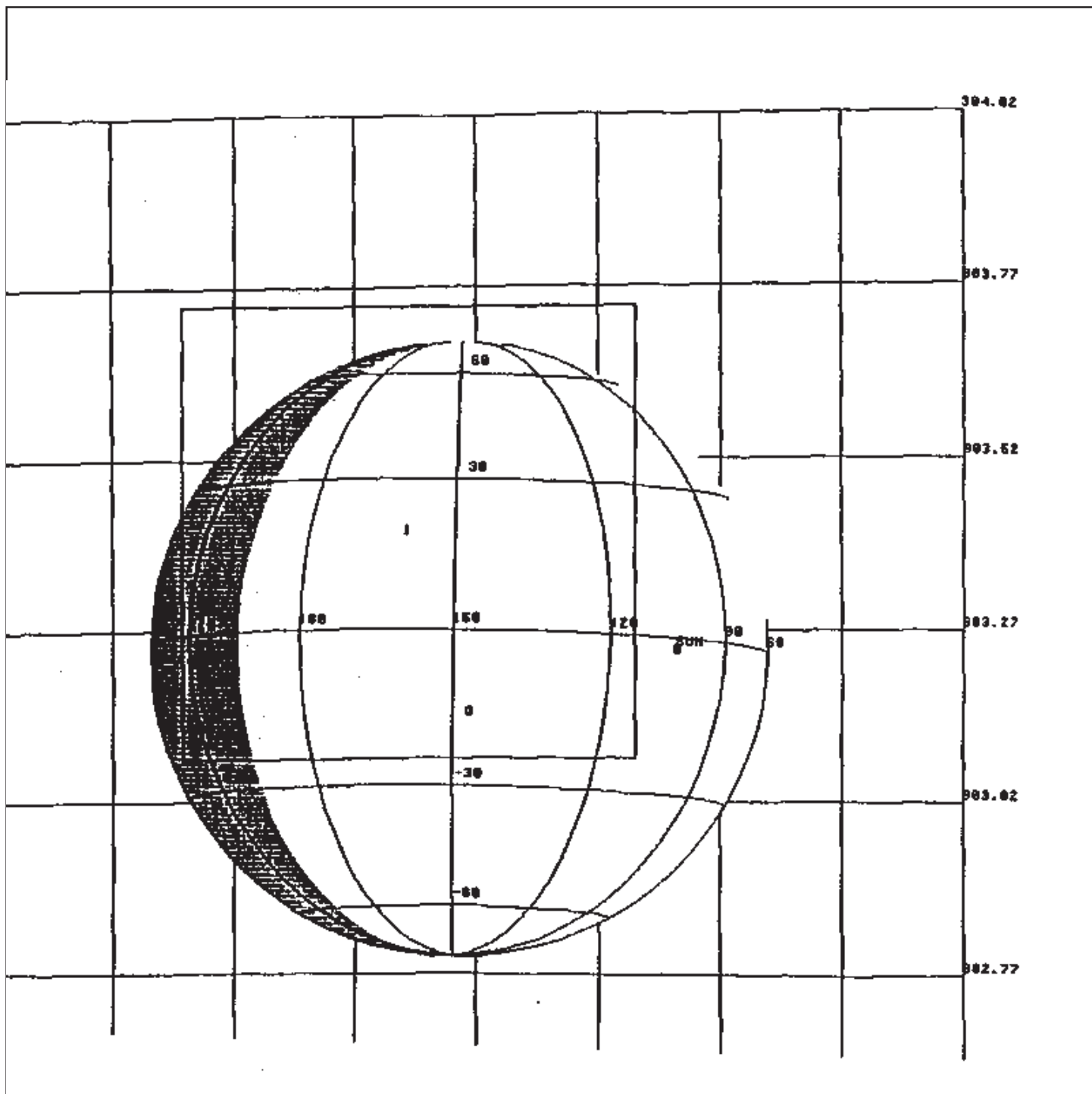
PERIAPSIS:90-041/06:08:49.590

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (4., 178., xxx, 450., xxx)

OBSERVATION: VFT219





VFT101 : Venus Feature Track, SSI Ride-Along

Mode: LM, Gr\_Strt 0, Gain 2, Chop Ref, Gr\_Off 4  
 408 Wavelengths  
 1 SSI Footprint

CENTRAL BODY:VENUS

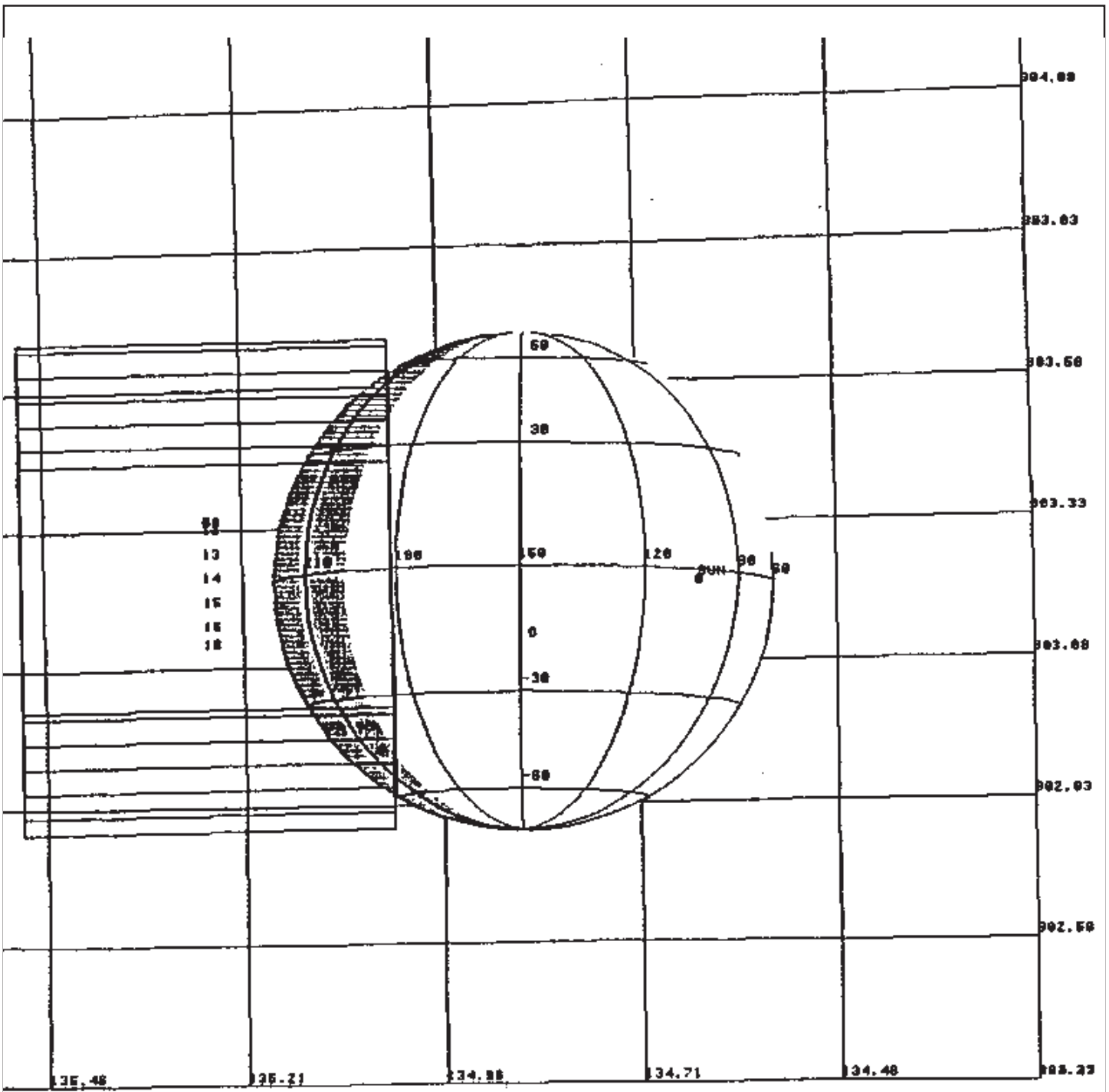
Slew Rate: xxx mrad/sec, SMOS Scan

PERIAPSIS:90-041/06:08:49.590

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (3., 177., xxx, 542., xxx)

OBSERVATION: VFT101



VLTNG02 : Venus Lightning, SSI Ride-Along

Mode: LM, Gr\_Strt 0, Gain 2, Chop Ref, Gr\_Off 4  
 408 Wavelengths  
 Multiple SSI Footprints

CENTRAL BODY:VENUS

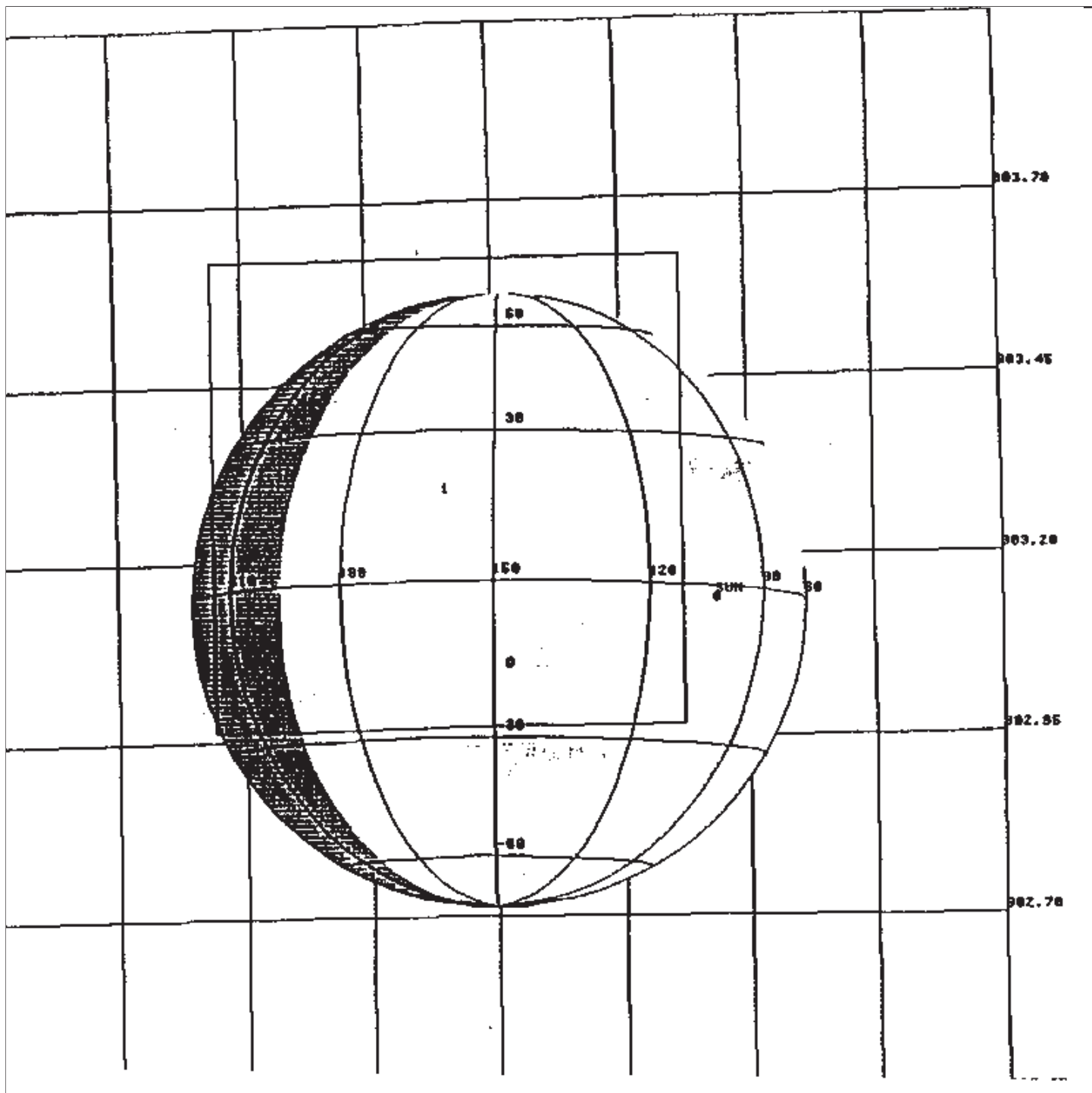
Slew Rate: xxx mrad/sec, CSMOS Scan

PERIAPSIS:90-041/06:08:49.590

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (3., 177., xxx, 545., xxx)

OBSERVATION: VLTNG02



VFT102 : Venus Feature Track, SSI Ride-Along

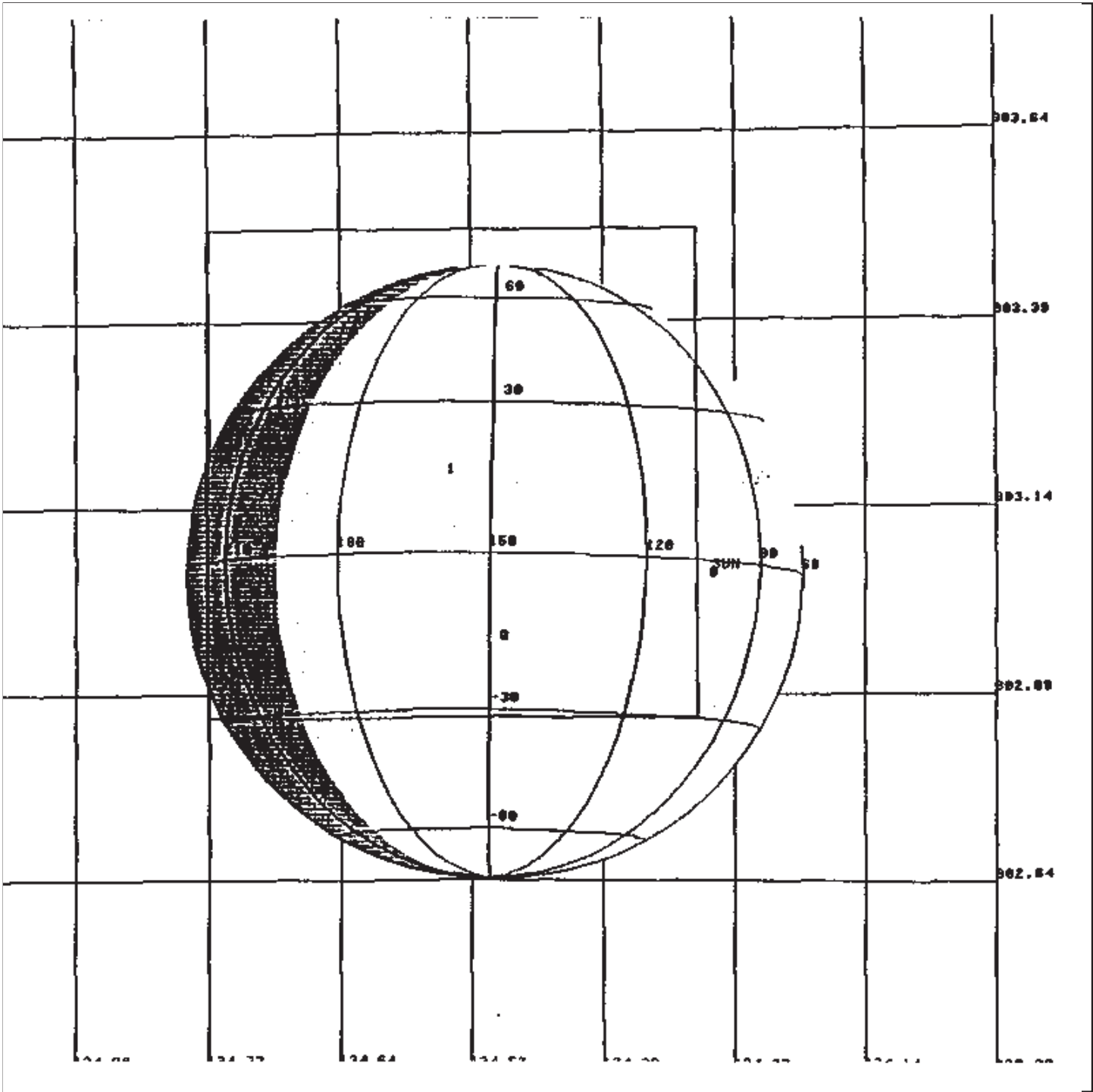
CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VFT102

Mode: LM, Gr\_Strt 0, Gain 2, Chop Ref, Gr\_Off 4  
 408 Wavelengths  
 1 SSI Footprint

Slew Rate: xxx mrad/sec, SMOS Scan  
 Plot Ref Time: Start of Mosaic  
 Lat, Lon, Range, Res, Phase: (3., 177., xxx, 564., xxx)



**VFT103 : Venus Feature Track, SSI Ride-Along**

Mode: LM, Gr\_Strt 0, Gain 2, Chop Ref, Gr\_Off 4  
 408 Wavelengths  
 1 SSI Footprint

**CENTRAL BODY:VENUS**

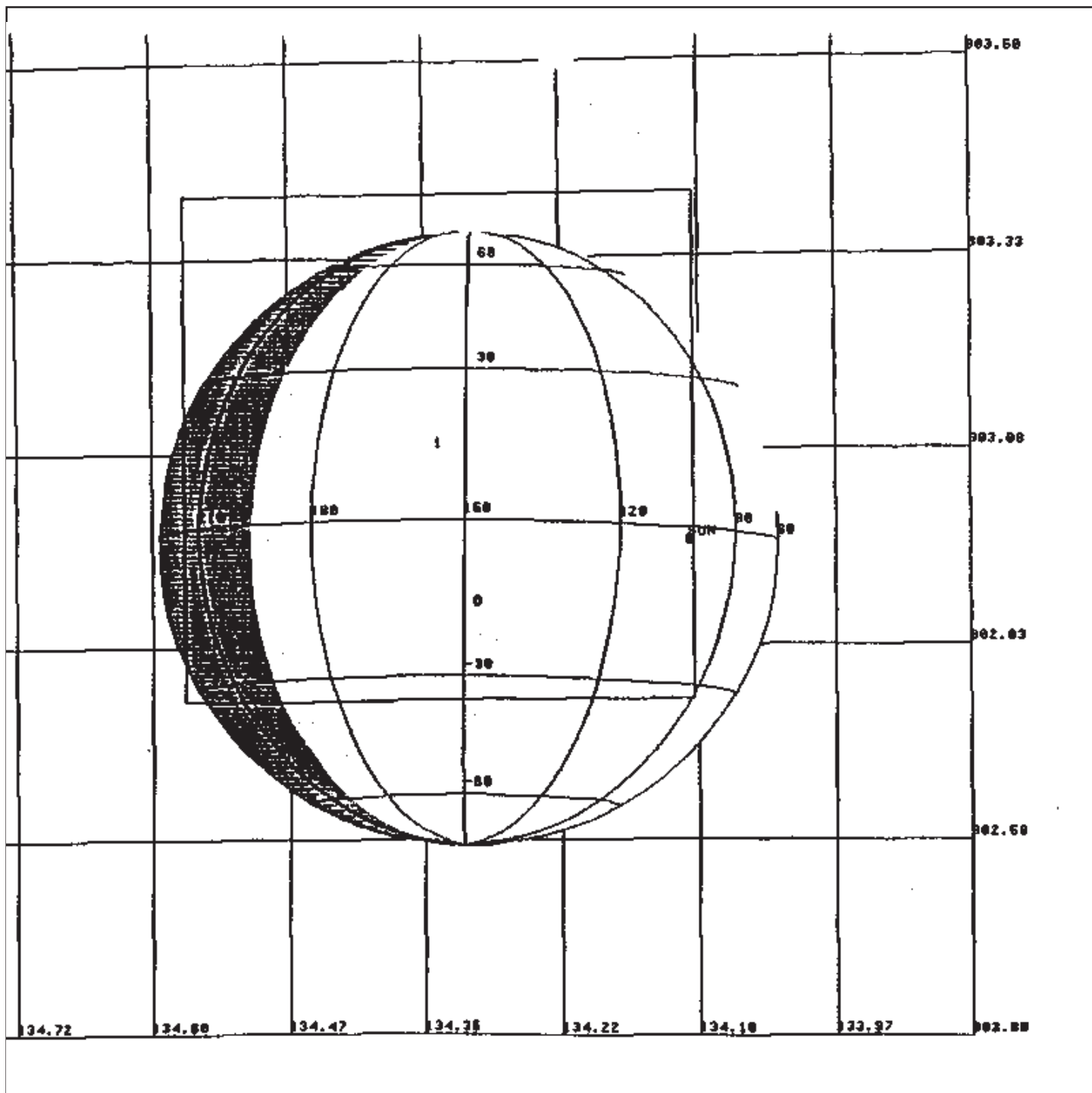
Slew Rate: xxx mrad/sec, SMOS Scan

**PERIAPSIS:90-041/06:08:49.590**

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (3., 177., xxx, 587., xxx)

**OBSERVATION: VFT103**



VFT104 : Venus Feature Track, SSI Ride-Along

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VFT104

Mode: LM, Gr\_Strt 0, Gain 2, Chop Ref, Gr\_Off 4

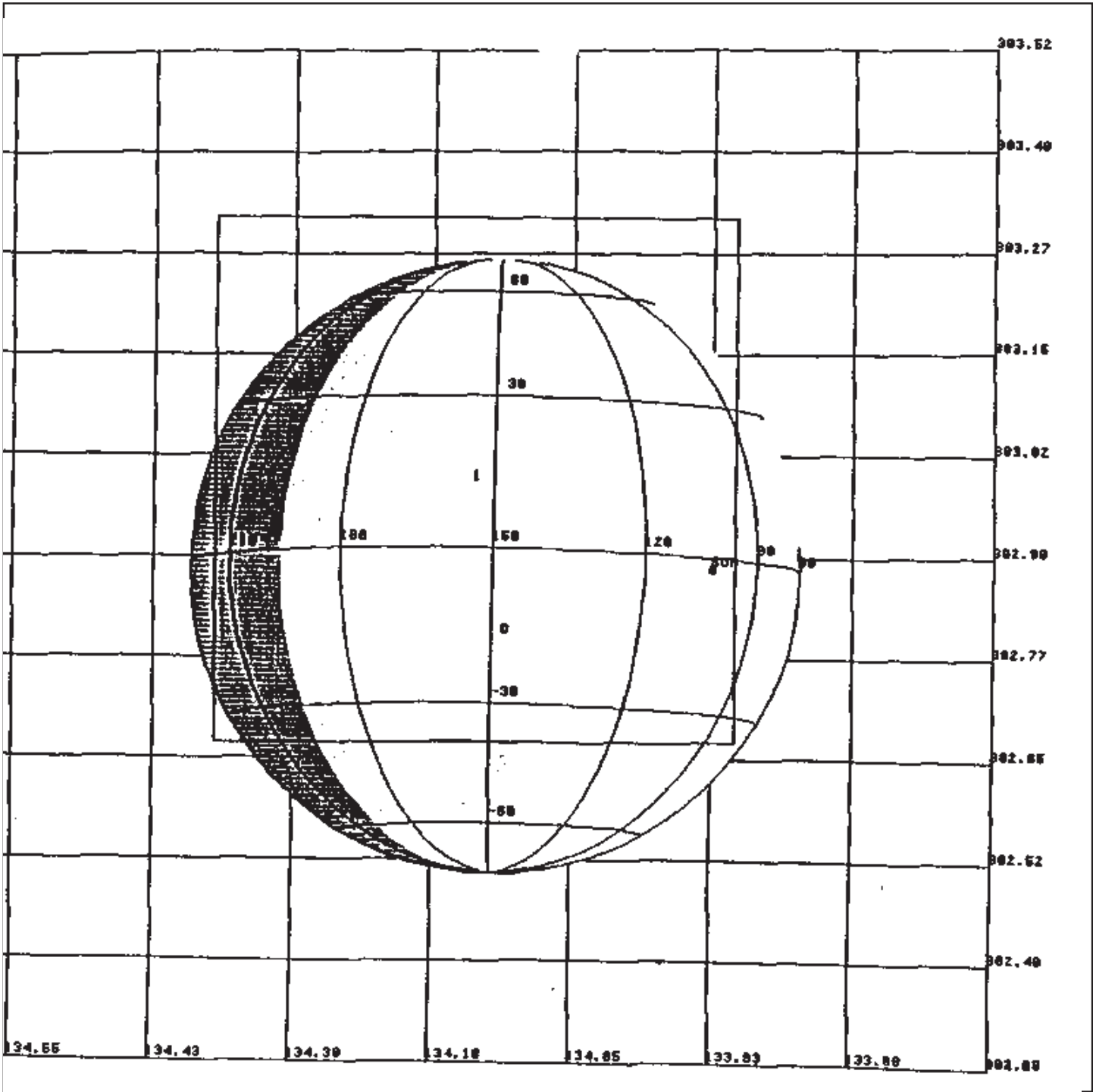
408 Wavelengths

1 SSI Footprint

Slew Rate: xxx mrad/sec, SMOS Scan

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (3., 177., xxx, 609., xxx)



VFT105 : Venus Feature Track, SSI Ride-Along

Mode: LM, Gr\_Strt 0, Gain 2, Chop Ref, Gr\_Off 4  
 408 Wavelengths  
 1 SSI Footprint

CENTRAL BODY:VENUS

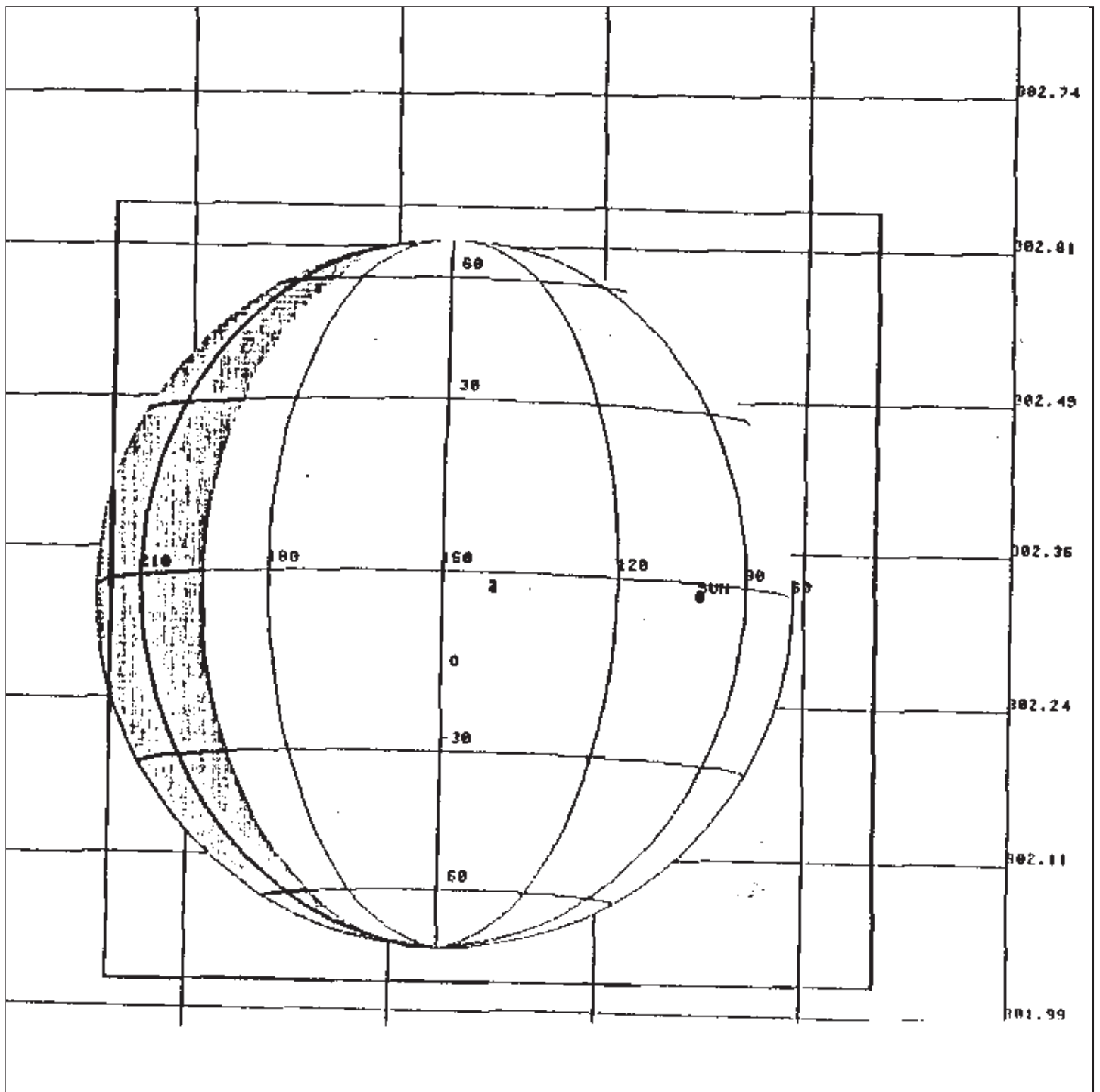
Slew Rate: xxx mrad/sec, SMOS Scan

PERIAPSIS:90-041/06:08:49.590

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (3., 177., xxx, 631., xxx)

OBSERVATION: VFT105



VGLI01 : Venus Global, SSI Ride-Along

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VGLI01

Mode: LM, Gr\_Strt 0, Gain 3, Chop Ref, Gr\_Off 4

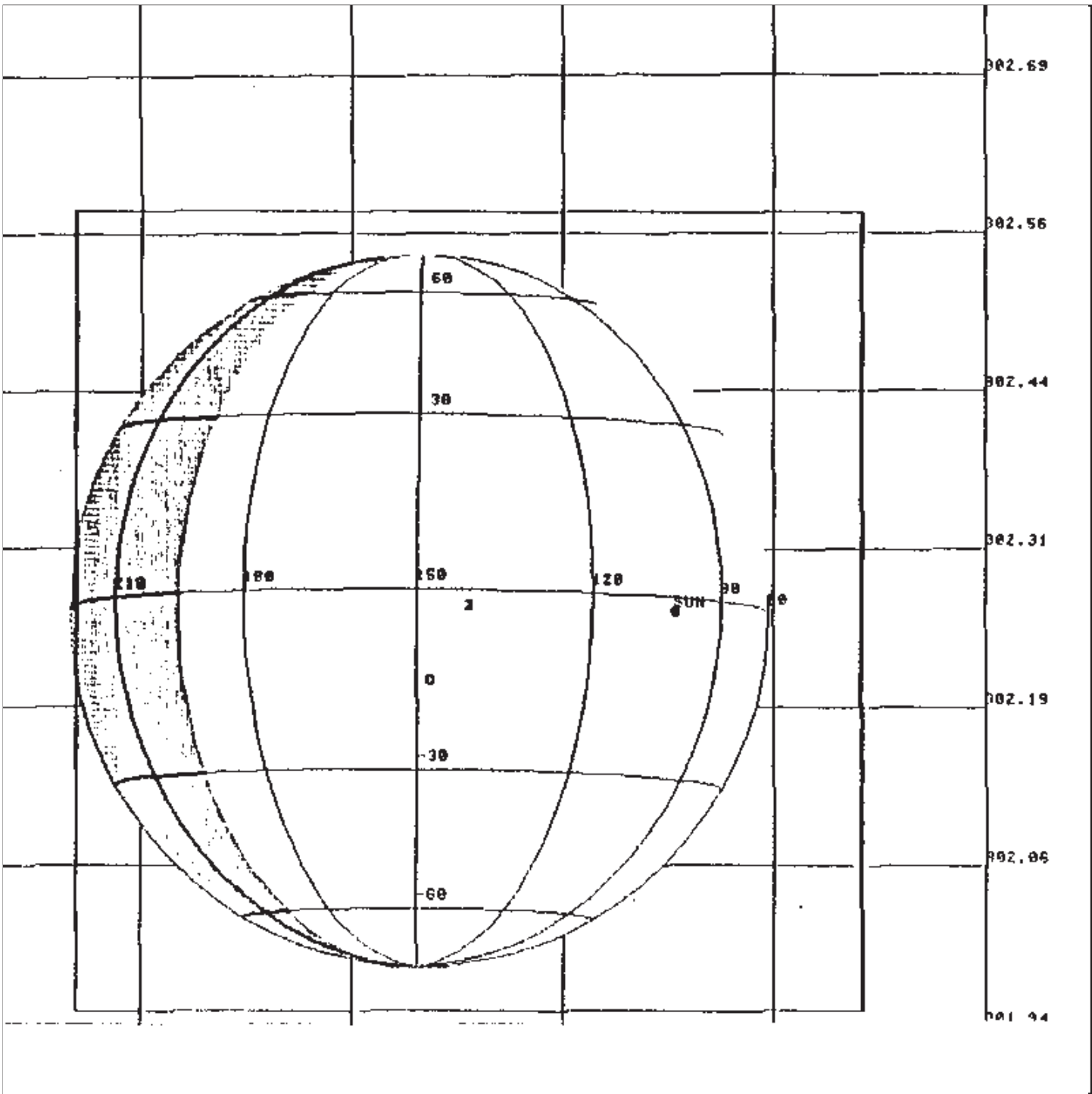
408 Wavelengths

1 SSI Footprint

Slew Rate: xxx mrad/sec, SMOS Scan

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (3., 176., xxx, 810., xxx)



VGLI02 : Venus Global, SSI Ride-Along

Mode: LM, Gr\_Strt 0, Gain 3, Chop Ref, Gr\_Off 4

408 Wavelengths

CENTRAL BODY:VENUS

1 SSI Footprint

Slew Rate: xxx mrad/sec, SMOS Scan

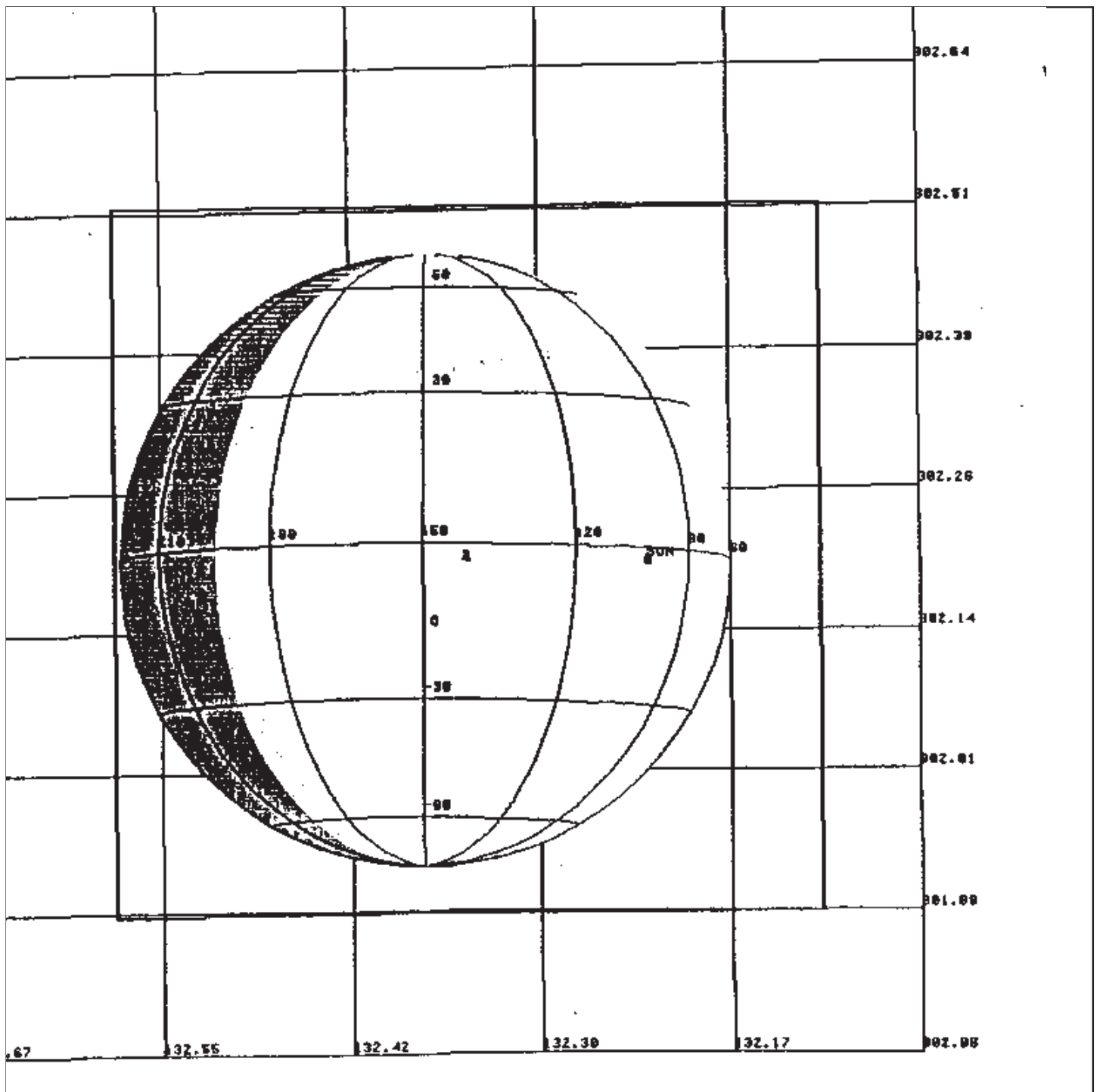
PERIAPSIS:90-041/06:08:49.590

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (3., 176., xxx, 832., xxx)

OBSERVATION: VGLI02





VGLIR03 : Venus Global, SSI Ride-Along

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VGLIR03

Mode: LM, Gr\_Strt 0, Gain 3, Chop Ref, Gr\_Off 4

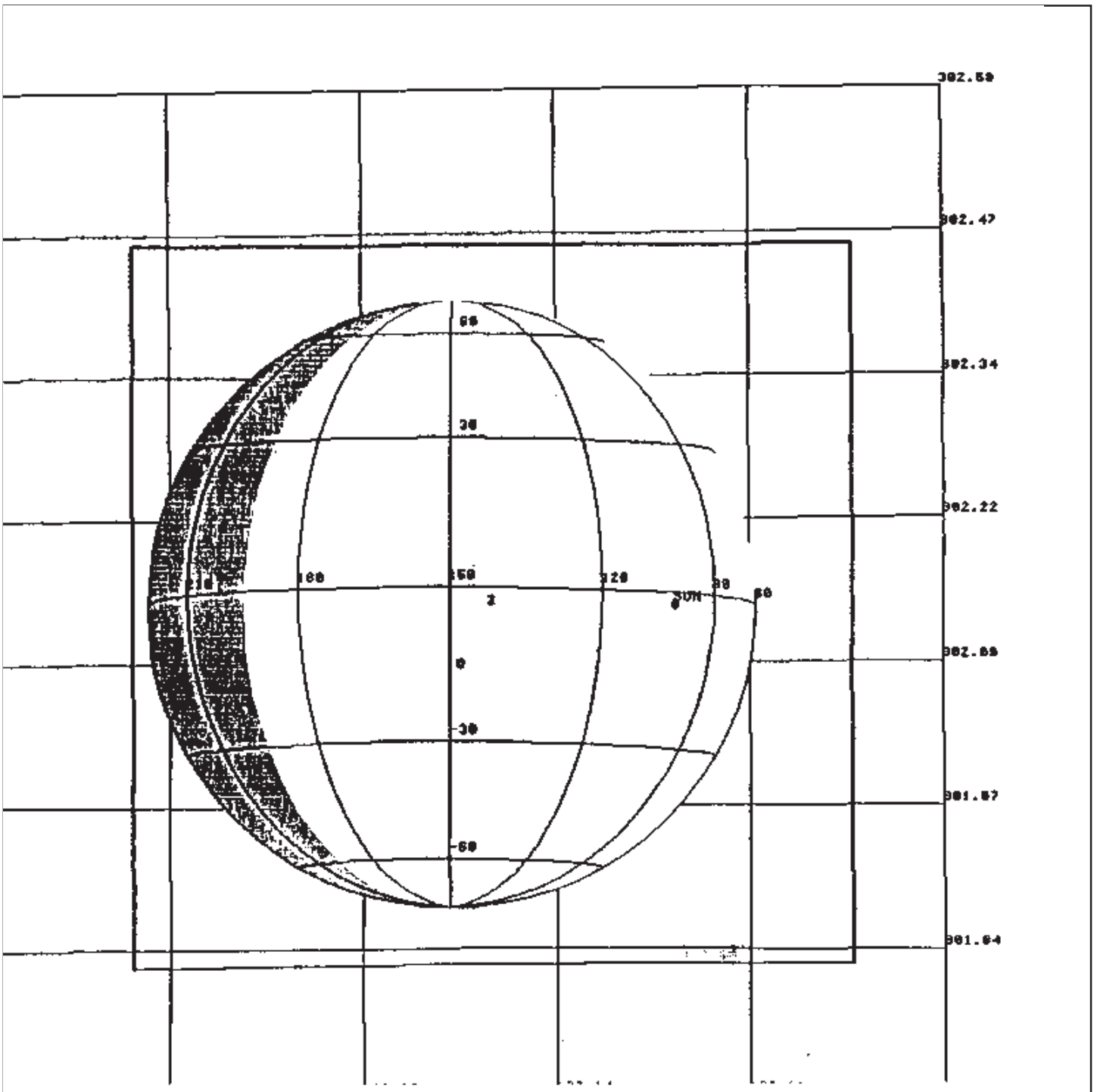
408 Wavelengths

1 SSI Footprint

Slew Rate: xxx mrad/sec, SMOS Scan

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (3., 176., xxx, 854., xxx)



VGLIR04 : Venus Global, SSI Ride-Along

Mode: LM, Gr\_Strt 0, Gain 3, Chop Ref, Gr\_Off 4

408 Wavelengths

CENTRAL BODY:VENUS

1 SSI Footprint

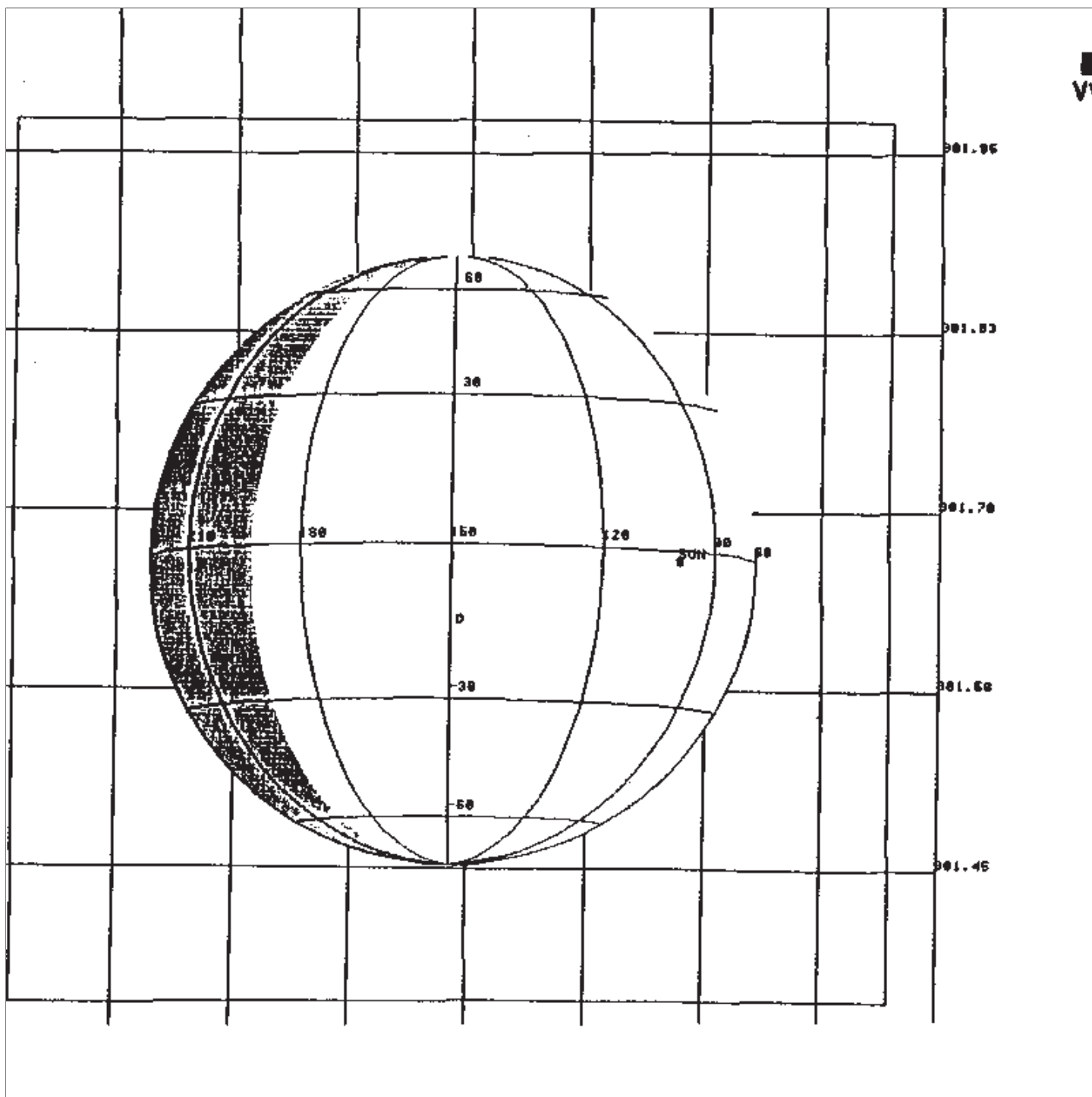
Slew Rate: xxx mrad/sec, SMOS Scan

PERIAPSIS:90-041/06:08:49.590

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (3., 176., xxx, 877., xxx)

OBSERVATION: VGLIR04



VGL03 : Venus Global, SSI Ride-Along

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VGL03

Mode: LM, Gr\_Strt 0, Gain 4, Chop Ref, Gr\_Off 4

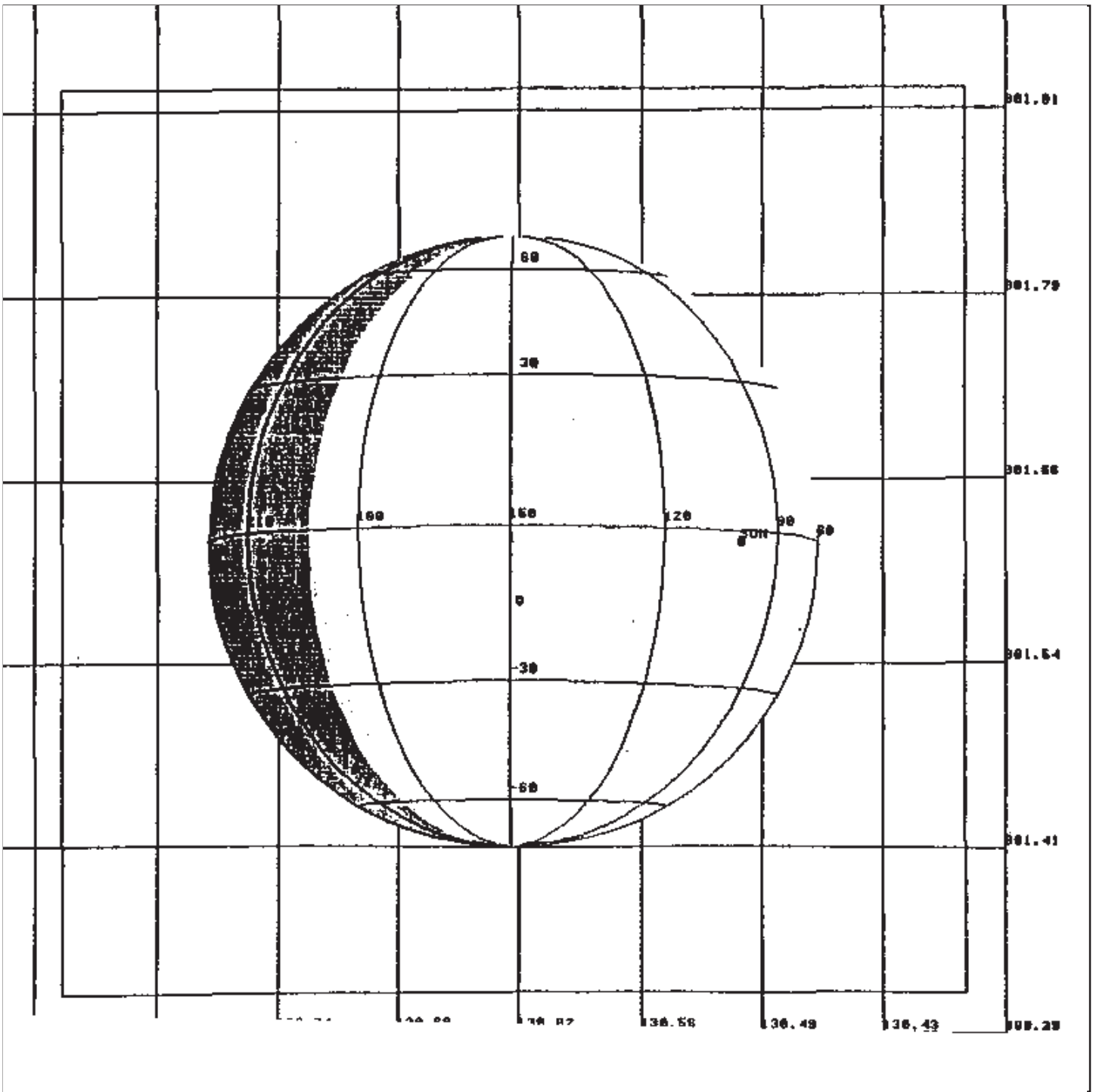
408 Wavelengths

1 SSI Footprint

Slew Rate: xxx mrad/sec, SMOS Scan

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (3., 175., xxx, 1076., xxx)



VGL04 : Venus Global, SSI Ride-Along

Mode: LM, Gr\_Strt 0, Gain 4, Chop Ref, Gr\_Off 4

408 Wavelengths

CENTRAL BODY:VENUS

1 SSI Footprint

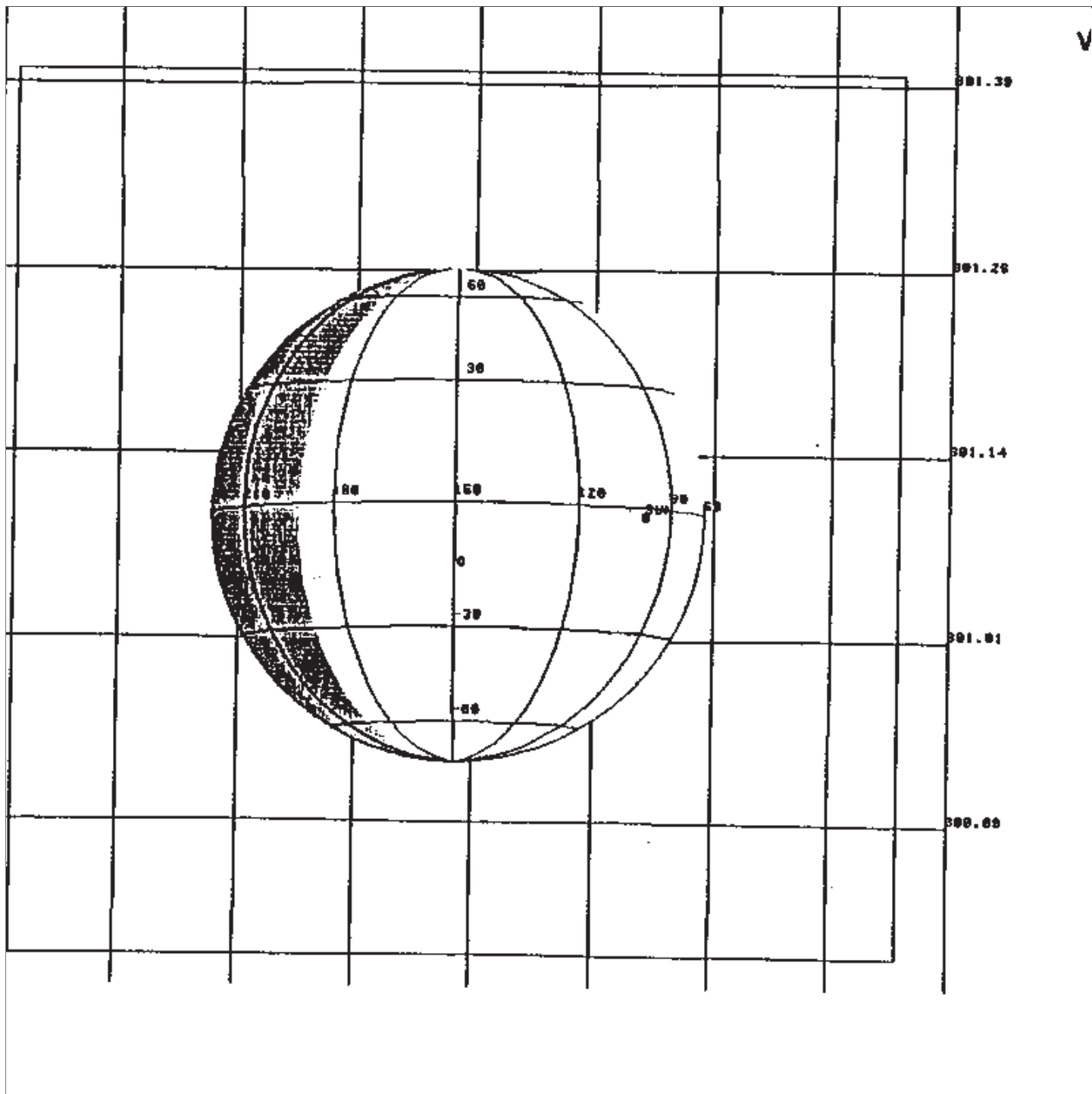
Slew Rate: xxx mrad/sec, SMOS Scan

PERIAPSIS:90-041/06:08:49.590

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (3., 175., xxx, 1095., xxx)

OBSERVATION: VGL04



VGL05 : Venus Global, SSI Ride-Along

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VGL05

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4

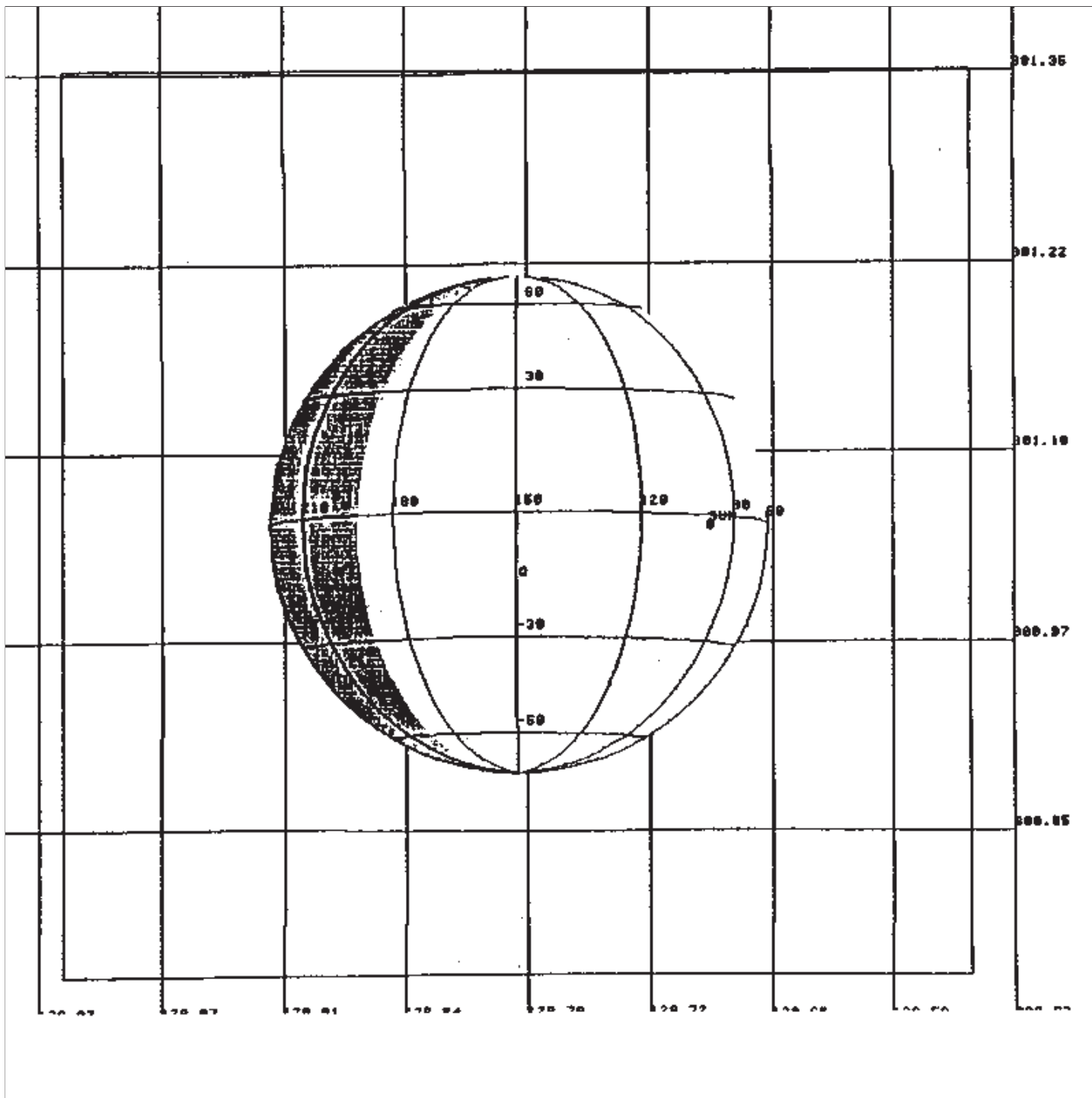
408 Wavelengths

1 SSI Footprint

Slew Rate: xxx mrad/sec, SMOS Scan

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (3., 173., xxx, 1335., xxx)



VGL06 : Venus Global, SSI Ride-Along

Mode: LM, Gr\_Strt 0, Gain 1, Chop Ref, Gr\_Off 4  
 408 Wavelengths  
 1 SSI Footprint

CENTRAL BODY:VENUS

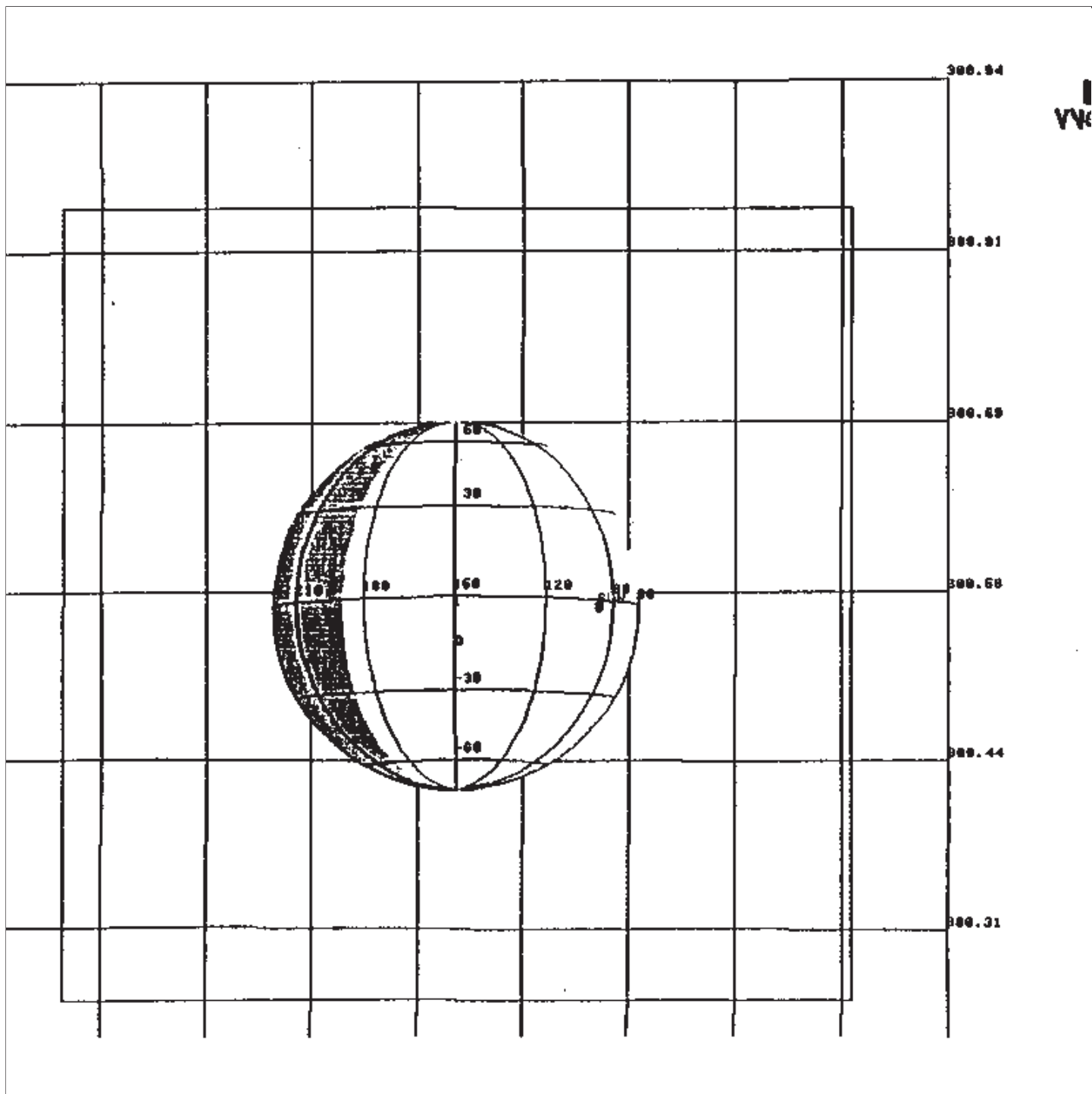
Slew Rate: xxx mrad/sec, SMOS Scan

PERIAPSIS:90-041/06:08:49.590

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (3., 173., xxx, 1357., xxx)

OBSERVATION: VGL06



VGL07 : Venus Global, SSI Ride-Along

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VGL07

Mode: LM, Gr\_Strt 0, Gain 2, Chop Ref, Gr\_Off 4

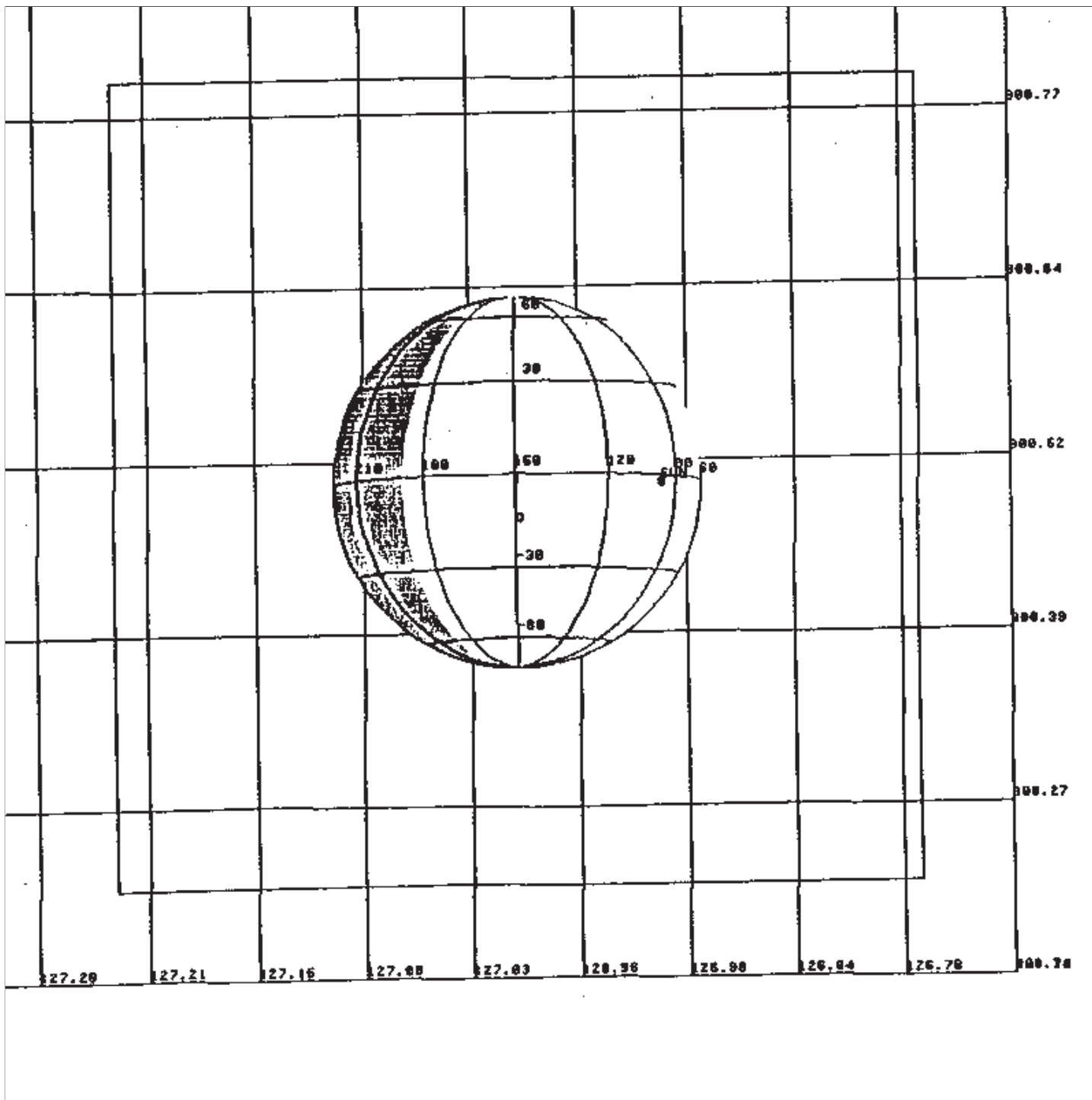
408 Wavelengths

1 SSI Footprint

Slew Rate: xxx mrad/sec, SMOS Scan

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (3., 172., xxx, 1597., xxx)



VGL08 : Venus Global, SSI Ride-Along

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VGL08

Mode: LM, Gr\_Strt 0, Gain 2, Chop Ref, Gr\_Off 4

408 Wavelengths

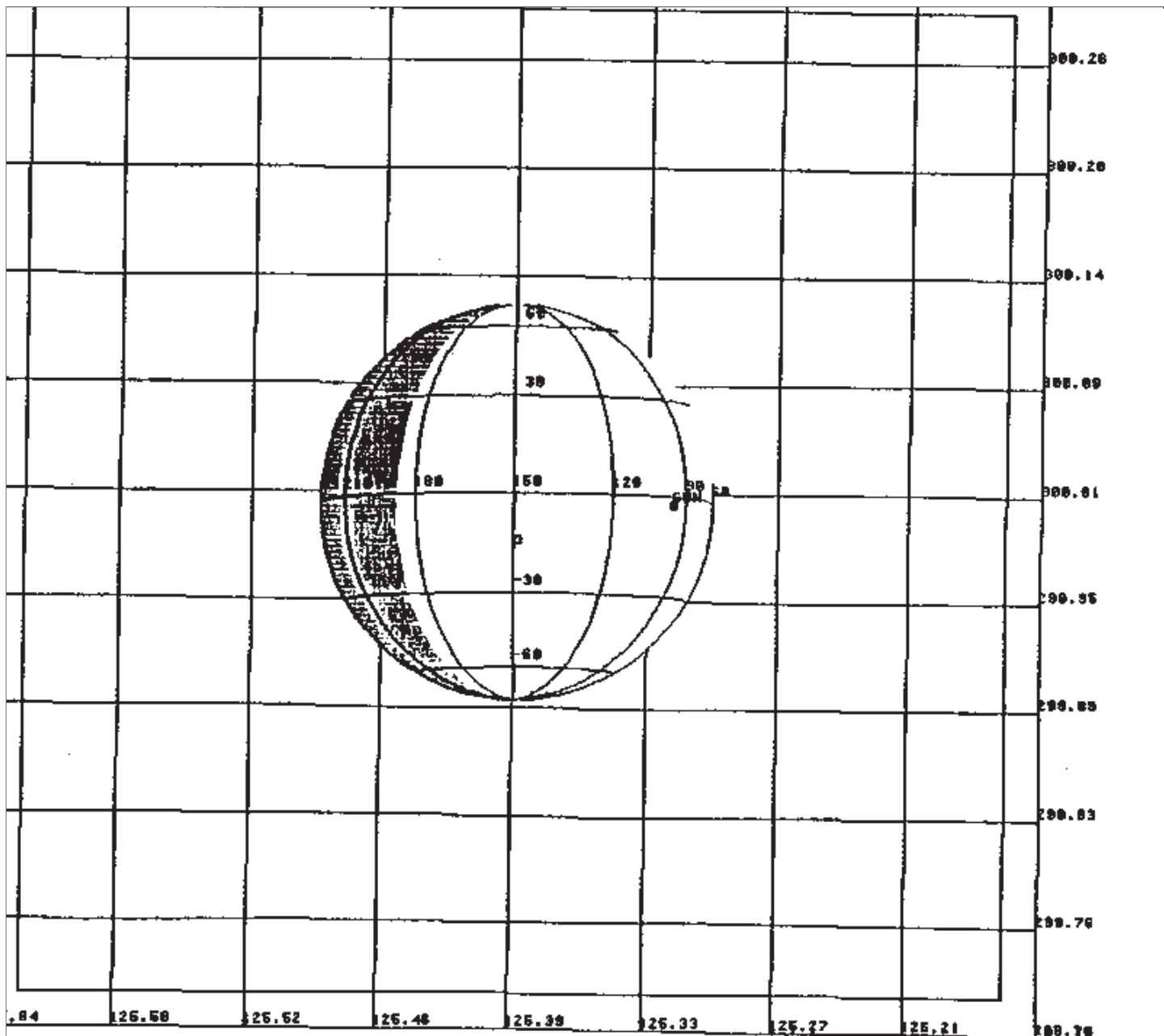
1 SSI Footprint

Slew Rate: xxx mrad/sec, SMOS Scan

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (3., 172., xxx, 1619., xxx)





VGL09 : Venus Global, SSI Ride-Along

CENTRAL BODY:VENUS

PERIAPSIS:90-041/06:08:49.590

OBSERVATION: VGL09

Mode: LM, Gr\_Strt 0, Gain 3, Chop Ref, Gr\_Off 4

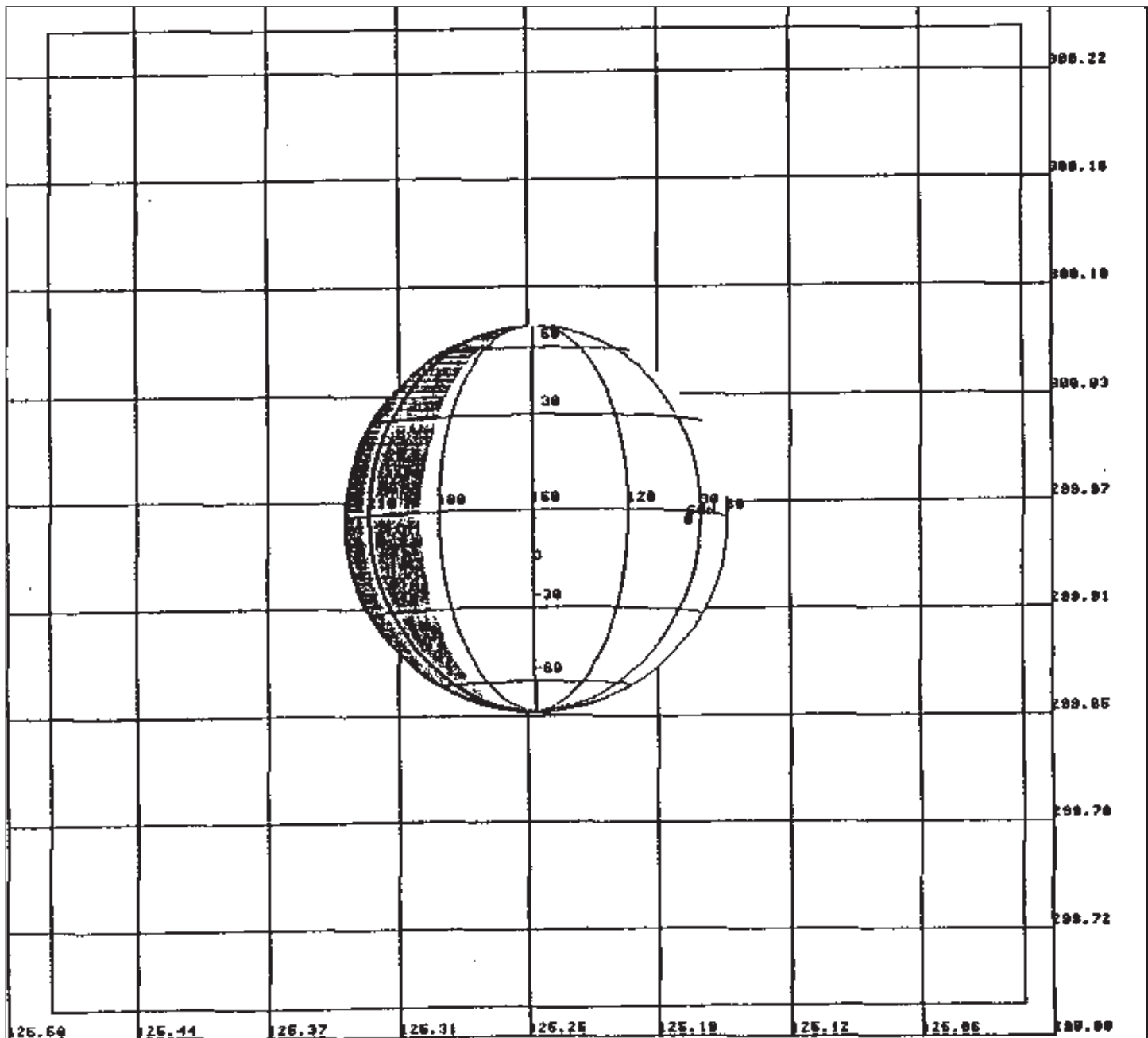
408 Wavelengths

1 SSI Footprint

Slew Rate: xxx mrad/sec, SMOS Scan

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (3., 170., xxx, 1860., xxx)



**VGL10 : Venus Global, SSI Ride-Along**

**CENTRAL BODY:VENUS**

**PERIAPSIS:90-041/06:08:49.590**

**OBSERVATION: VGL10**

Mode: LM, Gr\_Strt 0, Gain 3, Chop Ref, Gr\_Off 4

408 Wavelengths

1 SSI Footprint

Slew Rate: xxx mrad/sec, SMOS Scan

Plot Ref Time: Start of Mosaic

Lat, Lon, Range, Res, Phase: (3., 170., xxx, 1881., xxx)