Chapter 2 - Orbit Overview

Contents

Introduction to Chapter 2

This chapter gives an overview of the NIMS observations in the E4 Orbit.

The text on pages 3, 4 and 5 summarizes the NIMS science objectives for E4. The NIMS calibrations are discussed on page 5. Early data return and E4 playback are also discussed on page 5.

The table on pages 6, 7 and 8 is a time-ordered listing of the NIMS Oapels for E4.

The plot on page 9 shows the geometry of the NIMS E4 observations using a north trajectory pole view projection. The plots on pages 10 and 11 show the geometry of the NIMS Satellite and Jupiter observations. The plot on page 12 shows the geometry of the NIMS E4 calibrations. The plot on page 13 shows the geometry of the NIMS RAM Reloads and MROs. The plot on page 14 shows the geometry of the NIMS J5 Radiation Study.

The spreadsheet on pages 15 through 17 summarizes the various inputs for the NIMS E4 Observations. The spreadsheet on pages 18 through 23 summarizes the resource usage for the NIMS E4 observations.

The table on pages 24 through 27 lists various NIMS E4 observing parameters: target latitude/longitude, range, cone angle, incidence angle (light), emission angle (view) and phase angle.

The tapemap on pages 28 through 32 shows the placement of the E4 observations on the spacecraft’s tape recorder. The NIMS observation names are written with a larger type.

The timeline on pages 33 through 41 shows the preliminary E4 playback schedule.

The NIMS E4 mosaic designs are summarized on pages 42 through 48 in time-order.

NIMS E4 Science Overview

Io Science

NIMS's 14 observations of Io will monitor Io's volcanic activity within plus and minus one day of Io's closest approach. These observations are divided into CHEMIS, THRMAL, VOLCAN, HRSPEC and eclipse observations (WARMCV and COOLCV). The CHEMIS observations will look at Io's dayside over a wide range of longitudes to search for chemical changes. THRMAL observations will look at Io's nightside to search for thermal variations. VOLCAN observations specifically monitor Pele and Loki hotspots on Io's nightside. HRSPEC is a high spectral resolution observation performed at Io's closest approach to map the mineralogy of the surface. NIMS will observe Io going into eclipse and during eclipse for both (DOY352 and 354) eclipse opportunities in E4. These observations are aimed to develop warming and cooling curves of hot spots on Io as Io is eclipsed by Jupiter. NIMS will also return two realtime observations of Io (RTIMON).

Europa Science

NIMS five observations (XDARLI, ASTERI, SUCOMP01, 02 and 03) of Europa will serve to search for compositional variations between the leading and trailing hemispheres with forthcoming orbits. E4 Europa observations will be of the Trailing Hemisphere. XDARLI will do a global observation of Europa's trailing hemisphere covering W. longitudes from 280 to 300 degrees at 204 wavelengths (P/B 102 wavelengths)at a 56 degree phase angle. ASTERI's global observation, part of the trailing hemisphere (245-300 degrees W. long.) of Europa, will be done at 55 degrees phase angle and 102 wavelengths. Three (SUCOMP01,02 and 03) of the five observations will aim to search for mineralogical differences between high and low albedo regions. The SUCOMP observations are done at high spectral (408 wavelengths) and spatial (8-10 km/nimsel) resolutions with similar phase angles (about 60 degrees). SUCOMP01 is an albedo observation. SUCOMP02 is a low albedo observation and SUCOMP03 is a region where possibly hydrated minerals may be concentrated. These global observations of Europa provide a continuous map of the Trailing hemisphere at similar phase angles and resolution; making it a valued data set for understanding the processes on the Trailing hemisphere. Update: Since NIMS' Europa data has been compressing at 1.3 instead of 2.0, XDARLI was deleted to make it possible to return the other observations. It is expected that the longitudes of XDARLI will be used to cover E6ENTERINC01.

Ganymede Science

One scan across Ganymede's lit surface at approximately 400 km resolution. Covers longitude 260 to 30 at LM mode. Only longitudes from 330 to 30 will be played back with 204 wavelengths.

NIMS E4 Science Overview

Callisto Science

One observation of Callisto (GLOBAL01) will be taken by NIMS during E4. The observation is a single scan covering all lit longitudes at 742 km/nimsel spatial resolution and 75 degrees phase in 408 wavelengths (full NIMS spectral capability). Recent IUE observations of Callisto have revealed an interesting absorption (OH) feature which should also be observable within the NIMS wavelengths. The NIMS global mosaic will provide an opportunity to correlate with the IUE data set in this region (165-280 degrees W. Longitude). This observation will also provide NIMS with the ability to target wavelength selection to observe absorptions for later orbits in the tour.

Jupiter Science

NIMS will concentrate on a feature campaign of the North Equatorial Belt (NEB), targeting the 5-micron bright "hot spots" which are prevalent in this region. It is expected that these measurements will enable NIMS to assess the cloud structure, composition and dynamics to greater depths than available anywhere else on the planet. A unique series of feature track observations have been tightly coordinated with the other remote sensing instruments to enable the most detailed assessment possible. In particular, a 90-degree science turn will allow clear, "boomless", measurements at large phase angles, namely 148 degrees (all instruments) and 160 degrees (NIMS only). Other observations will be acquired at 16, 41, 55, and 95 degrees angle, representing the most complete sampling of phase angles thus far achieved.

The Feature Campaign is nominally centered on 7 degrees N. latitude on a Hotspot 330 degrees W. longitude (during the 41 degree phase angle opportunity) which has been well-observed from the ground (notably, the NASA/IRTF). This spot moves eastward, along with the other Hotspots, at approximately 100.3 m/sec, or 7 degrees per day. All NIMS observations account for this wind drift. Each NIMS map covers about 40 degrees of longitude (a 10 X 40 mrad region) and samples 4-25 discrete "colors". Thus NIMS should obtain detailed observations of some of the hottest features on Jupiter.

In addition to the 16 feature track observations over the six phase angles noted above, several high-spectral-resolution maps, each covering about 80 contiguous wavelengths, will be acquired. The FEASUB observations will measure reflectance spectra within several methane and hydrogen absorption features for improved determinations of the altitude-distribution of aerosols within both the stratosphere and the high accessible troposphere. In addition, high-spectra-resolution maps of the 3 and 5 micron spectral regions will be acquired to map out phosphine and water, tracers of deep circulation and higher-altitude meteorology (In particular, phosphine is easily destroyed in the visible atmosphere of Jupiter. Its well-documented presence there indicates replenishment via vigorous upwelling of the material from its formation region deep within the planet). Due to their unusual 5-micron brightness, the hotspots represent the best hope for assessing such trace abundances, again key to understanding upwelling/downwelling circulation deep within Jupiter (~1000 km below the cloud tops, near the 1000 bar and 1000 degrees Kelvin level).

NIMS E4 Science Overview

NIMS will also obtain a Partial Feature Track of territory just to the north of the Hotspot-rich NEB. This observation is in 19 colors.

Finally, six maps of the lit disk will be acquired in five colors which together comprise a "global mosaic" which, due to tape limitations, is limited to the northern hemisphere. The nominal downlink allows only about 10 percent of these data to be transmitted on one longitude. However, the entire northern hemisphere will be taped, allowing transmission of the entire northern hemisphere if telemetry improves.

Rings Science

One ring observation, MRING01 has been planned at a distance of approximately 1,550,000 km. The objective of this observation is to study the composition and particle size of the main ring band. NIMS will observe the ring in full map mode (102 wavelengths will be playback out of 204 wavelengths) at a resolution of 775 km per nimsel and a phase angle of 150 degrees.

Calibration

There is one NIMS PCT calibration observations in E4 and an Opcal observation. There are no NIMS RCT calibrations in E4. The PCT calibration occurs just after the start of the E4B load a few days after the OTM burn and will be returned via realtime. The OPCAL will be performed near the end of the E4C load in-bound on the E6 orbit and will be returned via realtime. There are no explicit Dark Sky observations in E4. The instrument’s dark levels will be extracted from off-limb data.

Early Data Return

There are 8 realtime NIMS observations in E4: 3 instrument health checks of 3 wavelengths (HEALTH), 1 408 wavelength Jupiter observation (RTHOTS), 2 8 wavelength Fixed Map Io observations (RTIMON), 1 PCT cal and 1 OPCAL. The times for when these realtime observations will be returned can be found on page 1-05 of the NIMS Guide.

E4 Playback

E4 playback is split into 3 passes and two parts due to solar cunjuction. The first playback segment will start 12/22/96 (D357) at the start of Track 2 where the Europa closest-approach observations are. Solar conjuntion starts 01/10/97 (D010) and ends 01/20/97 (D021). E4 playback is scheduled to end on 02/17/97 (D048).

E4 Time-Ordered Listing

OAPEL	Start (UTC)	End (UTC)	Duration
E4NNSHDOFF01-	96-350/02:33:38	96-350/02:37:40	000/00:04:02
E4NNCHOPON01-	96-352/03:01:35	96-352/03:11:42	000/00:10:06
E4JNGLOMOS01-	96-352/03:21:48	96-352/03:36:49	000/00:15:00
E4JNGLOMOS02-	96-352/04:59:53	96-352/05:14:54	000/00:15:00
E4JNGLOMOS03-	96-352/06:03:35	96-352/06:18:36	000/00:15:00
E4JNGLOMOS04-	96-352/08:40:18	96-352/08:55:19	000/00:15:00
E4JNGLOMOS05-	96-352/10:20:24	96-352/10:35:20	000/00:14:56
E4NNHEALTH01-	96-352/10:35:24	96-352/10:38:36	000/00:03:12
E4JNGLOMOS06-	96-352/11:59:30	96-352/12:14:28	000/00:14:58
E4JNFEA05501-	96-352/15:37:54	96-352/15:50:02	000/00:12:08
E4JNFEA05502-	96-352/15:50:29	96-352/16:02:10	000/00:11:40
E4JNFEA05503-	96-352/16:58:47	96-352/17:10:55	000/00:12:08
E4INCOOLCV01-	96-352/19:05:10	96-352/19:19:20	000/00:14:09
E4INRTIMON01-	96-352/20:14:56	96-352/20:23:02	000/00:08:05
E4INWARMCV01-	96-352/21:22:41	96-352/21:36:50	000/00:14:09
E4INWARMCV02-	96-352/22:01:06	96-352/22:04:08	000/00:03:02
E4JNFEA04101-	96-353/01:24:20	96-353/01:36:28	000/00:12:08
E4JNPFTA4101-	96-353/01:37:29	96-353/01:48:35	000/00:11:06
E4JNFEA04102-	96-353/01:48:36	96-353/01:57:42	000/00:09:06
E4JNFEA04103-	96-353/03:12:32	96-353/03:50:57	000/00:38:25
E4JNPFTA4102-	96-353/03:51:30	96-353/04:02:28	000/00:10:57
E4NNHEALTH02-	96-353/04:02:45	96-353/04:06:07	000/00:03:22
E4NNRELOAD01-	96-353/04:30:23	96-353/04:45:33	000/00:15:10
E4INCHEMIS01-	96-353/05:32:04	96-353/05:39:48	000/00:07:44
E4JNAWGWIN01-	96-353/08:46:12	96-353/16:41:25	000/07:55:13
E4JNRTHOTS01-	96-353/11:25:57	96-353/11:31:00	000/00:05:03
E4JNFEA01601-	96-353/11:45:10	96-353/11:54:49	000/00:09:39
E4JNFEA01602-	96-353/11:54:59	96-353/12:08:20	000/00:13:21
E4INVOLCAN05-	96-353/12:18:32	96-353/12:32:41	000/00:14:09
E4NNRELOAD02-	96-353/12:59:59	96-353/13:15:09	000/00:15:10
E4JNPFTA1602-	96-353/13:22:14	96-353/13:33:21	000/00:11:07
E4JNFEA01604-	96-353/13:34:22	96-353/13:49:32	000/00:15:10

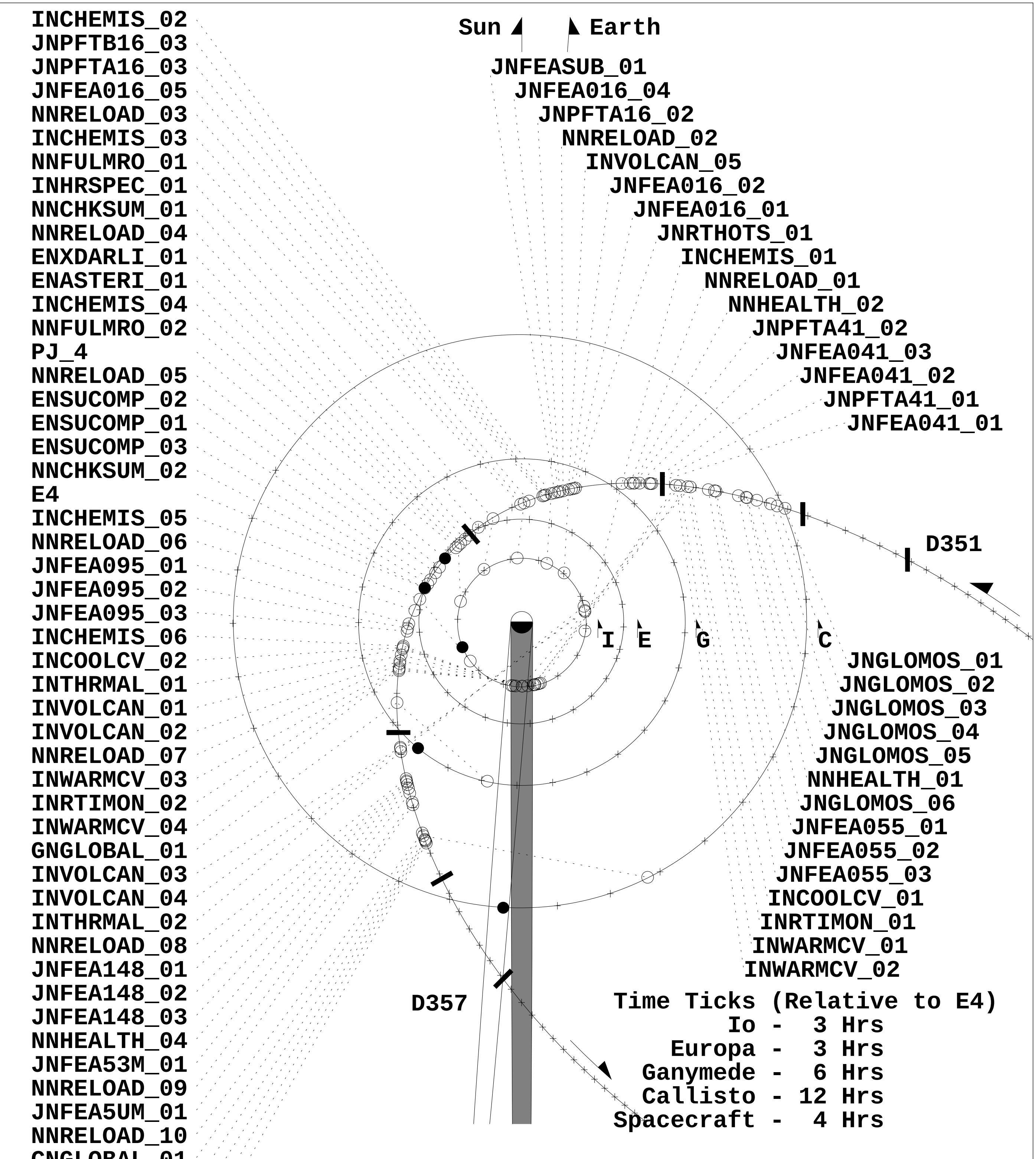
<u>E4 Time-Ordered Listing</u>

OAPEL	Start (UTC)	End (UTC)	Duration
E4JNFEASUB01-	96-353/13:51:33	96-353/14:20:52	000/00:29:19
E4INCHEMIS02-	96-353/14:21:53	96-353/14:32:00	000/00:10:06
E4JNPFTB1603	96-353/15:03:20	96-353/15:11:26	000/00:08:05
E4JNPFTA1603-	96-353/15:11:32	96-353/15:23:34	000/00:12:01
E4JNFEA01605-	96-353/15:24:34	96-353/15:39:44	000/00:15:10
E4NNRELOAD03-	96-353/16:59:37	96-353/17:14:47	000/00:15:10
E4INCHEMIS03-	96-353/17:31:58	96-353/17:45:07	000/00:13:08
E4NNFULMRO01-	96-353/17:50:10	96-353/21:10:22	000/03:20:12
E4INHRSPEC01-	96-353/21:14:25	96-353/21:50:49	000/00:36:23
E4NNCHKSUM01-	96-353/22:59:34	96-353/23:14:44	000/00:15:10
E4NNRELOAD04-	96-354/00:10:21	96-354/00:25:31	000/00:15:10
E4ENXDARLI01-	96-354/00:44:44	96-354/01:05:58	000/00:21:14
E4ENASTERI01-	96-354/01:17:05	96-354/01:36:18	000/00:19:12
E4INCHEMIS04-	96-354/01:40:20	96-354/01:54:30	000/00:14:09
E4NNFULMRO02-	96-354/01:57:32	96-354/03:59:52	000/02:02:20
E4NNRELOAD05-	96-354/04:30:12	96-354/04:45:22	000/00:15:10
E4ENSUCOMP02-	96-354/05:08:38	96-354/05:32:44	000/00:24:06
E4ENSUCOMP01-	96-354/05:54:08	96-354/06:14:21	000/00:20:13
E4ENSUCOMP03-	96-354/06:26:29	96-354/06:40:38	000/00:14:09
E4NNCHKSUM02-	96-354/06:59:51	96-354/07:15:01	000/00:15:10
E4INCHEMIS05-	96-354/08:14:40	96-354/08:24:47	000/00:10:06
E4NNRELOAD06-	96-354/09:29:30	96-354/09:44:40	000/00:15:10
E4JNFEA09501-	96-354/10:54:26	96-354/11:03:06	000/00:08:40
E4JNFEA09502-	96-354/11:27:48	96-354/11:39:28	000/00:11:40
E4JNFEA09503-	96-354/11:46:00	96-354/11:57:40	000/00:11:40
E4INCHEMIS06-	96-354/13:25:05	96-354/13:33:03	000/00:07:58
E4INCOOLCV02-	96-354/13:36:12	96-354/13:51:22	000/00:15:10
E4INTHRMAL01-	96-354/13:51:56	96-354/13:57:26	000/00:05:30
E4INVOLCAN01-	96-354/14:31:49	96-354/14:37:53	000/00:06:04
E4INVOLCAN02-	96-354/15:07:12	96-354/15:13:16	000/00:06:04
E4NNRELOAD07-	96-354/15:30:28	96-354/15:45:38	000/00:15:10
E4INWARMCV03-	96-354/15:53:43	96-354/16:08:53	000/00:15:10

E4 Time-Ordered Listing

OAPEL	Start (UTC)	End (UTC)	Duration
E4INRTIMON02-	96-354/16:09:54	96-354/16:17:59	000/00:08:05
E4INWARMCV04-	96-354/16:19:00	96-354/16:24:16	000/00:05:16
E4GNGLOBAL01-	96-354/20:06:30	96-354/20:15:35	000/00:09:05
E4INVOLCAN03-	96-355/02:01:24	96-355/02:07:28	000/00:06:04
E4INVOLCAN04-	96-355/02:08:28	96-355/02:14:07	000/00:05:38
E4INTHRMAL02-	96-355/02:34:46	96-355/02:41:16	000/00:06:30
E4JNSCITRN01-	96-355/03:59:42	96-355/17:55:53	000/13:56:11
E4NNRELOAD08-	96-355/06:29:20	96-355/06:45:31	000/00:16:10
E4JNFEA14801-	96-355/06:49:34	96-355/06:58:53	000/00:09:19
E4JNFEA14802-	96-355/07:01:42	96-355/07:09:00	000/00:07:18
E4JNFEA14803-	96-355/07:21:55	96-355/07:29:13	000/00:07:18
E4NNHEALTH04-	96-355/07:59:20	96-355/08:03:22	000/00:04:02
E4JNFEA53M01-	96-355/08:44:50	96-355/09:40:26	000/00:55:36
E4NNRELOAD09-	96-355/10:08:45	96-355/10:24:56	000/00:16:10
E4JNFEA5UM01-	96-355/10:32:00	96-355/11:23:48	000/00:51:47
E4NNRELOAD10-	96-355/15:19:10	96-355/15:35:20	000/00:16:10
E4CNGLOBAL01-	96-355/15:46:27	96-355/15:54:33	000/00:08:05
E4JNFEA16001-	96-355/16:30:57	96-355/16:38:08	000/00:07:11
E4JNFEA16002-	96-355/16:41:03	96-355/16:46:07	000/00:05:03
E4JNFEA16003-	96-355/16:48:08	96-355/16:53:06	000/00:04:57
E4RNMRING_01-	96-355/17:07:21	96-355/17:43:11	000/00:35:50
E4NNCHOPOF01	96-355/17:46:47	96-355/17:56:54	000/00:10:06
E4NNPCTRLT01-	96-360/18:59:42	96-363/02:49:30	002/07:49:48
E4NNMEMCHK01-	97-018/23:48:40	97-021/00:58:00	002/01:09:20
E4NNMEMCHK02-	97-039/21:20:20	97-039/23:16:00	000/01:55:39
E4NNRELOAD11-	97-040/07:27:00	97-040/07:36:00	000/00:08:59
E4NNE6PREP01-	97-045/23:00:23	97-045/23:30:43	000/00:30:20
E4NNOPCAL_01-	97-047/18:19:55	97-047/18:37:06	000/00:17:11

NIMS E4 OBSERVATIONS

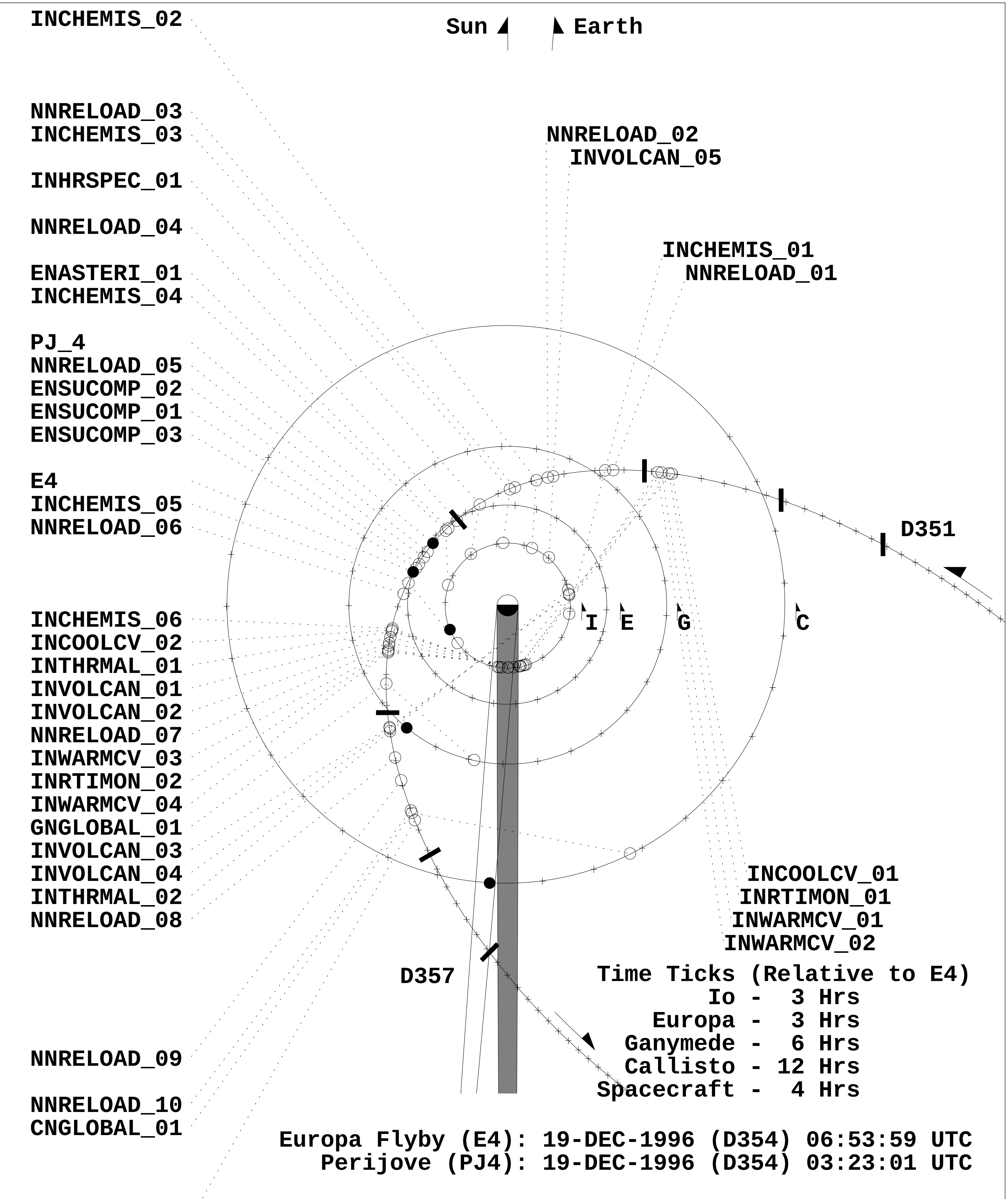


Europa Flyby (E4): 19-DEC-1996 (D354) 06:53:59 UTC
Perijove (PJ4): 19-DEC-1996 (D354) 03:23:01 UTC

E4 North Trajectory Pole View

NIMS - FEL - 11/18/96

NIMS E4 SATELLITE OBSERVATIONS



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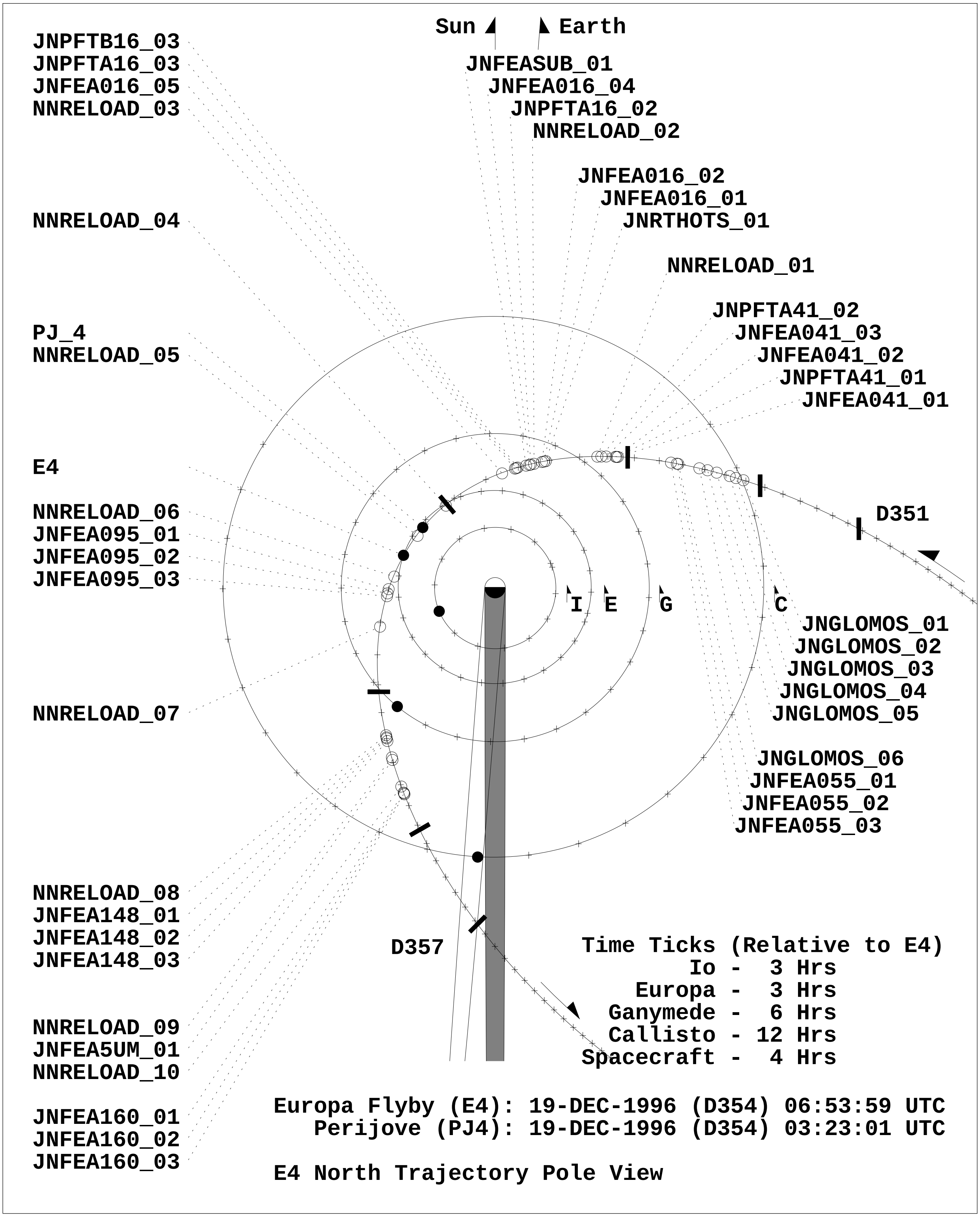
Perijove (PJ4): 19-DEC-1996 (D354) 03:23:01 UTC

E4 North Trajectory Pole View

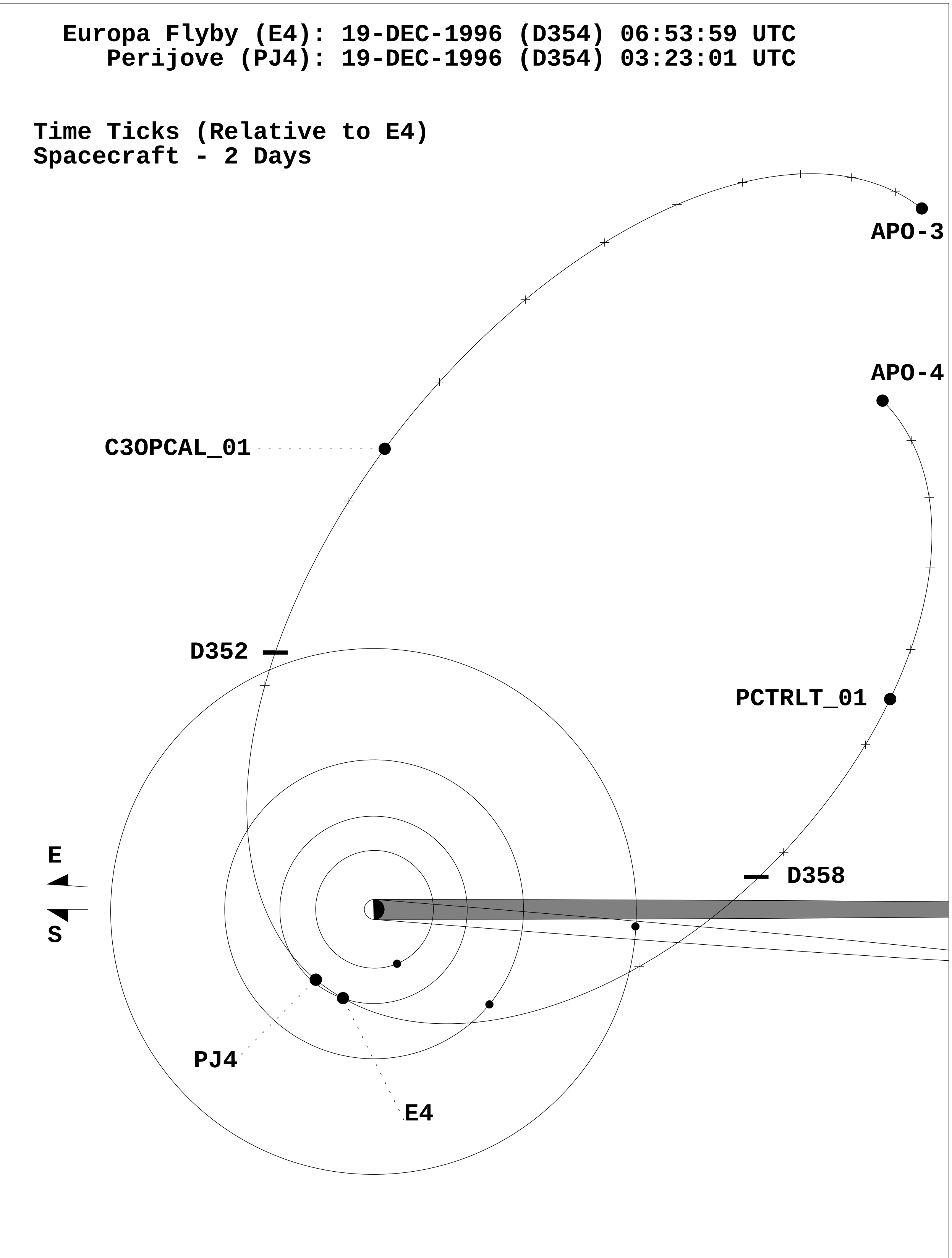
NIMS - FEL - 11/18/96

NIMS E4 JUPITER OBSERVATIONS



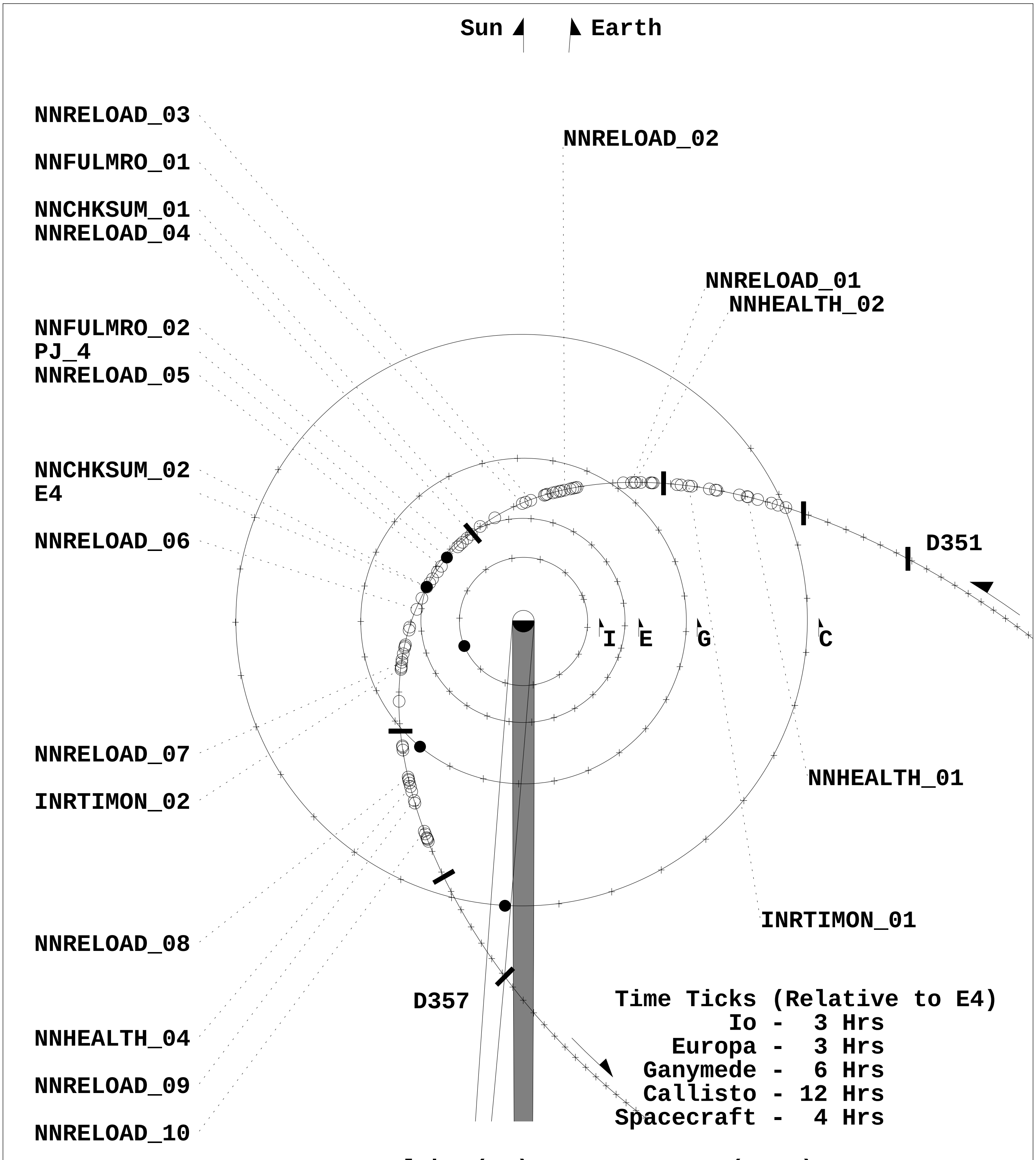
NIMS - FEL - 11/18/96

NIMS E4 CALIBRATIONS



E4 North Trajectory Pole View, Apoapsis to Apoapsis

NIMS E4 RAM RELOADS

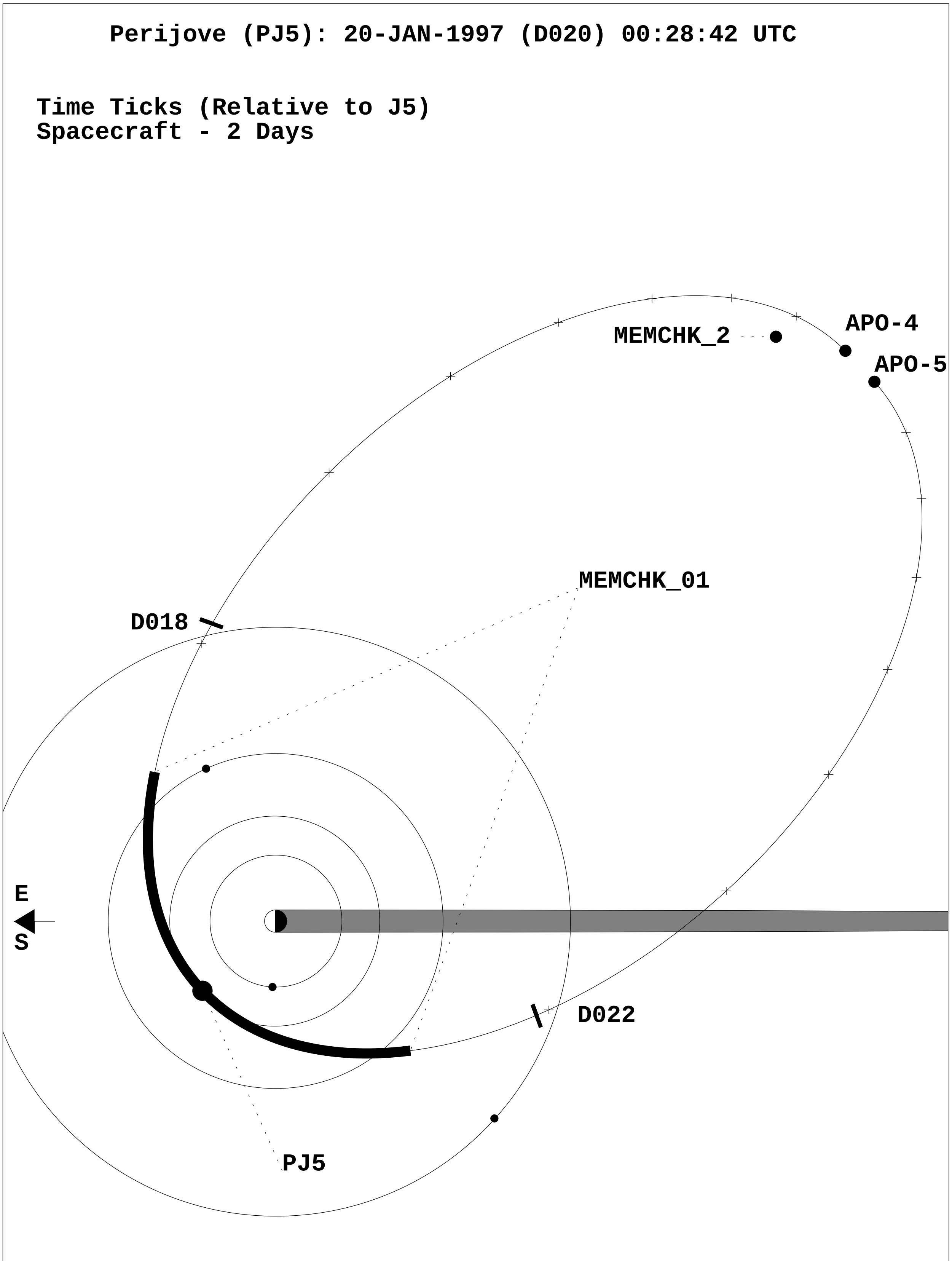


Europa Flyby (E4): 19-DEC-1996 (D354) 06:53:59 UTC
Perijove (PJ4): 19-DEC-1996 (D354) 03:23:01 UTC

E4 North Trajectory Pole View

NIMS - FEL - 11/18/96

NIMS J5 RADIATION STUDY



J5 North Trajectory Pole View, Apoapsis to Apoapsis

(Recorded observations in playback order)

Updated NIMS Inputs

12/19/96

Activity ID	Observation Title	Mode	Gain	Record Format	NIMS Edit table	NIMS Playback Table	Grating Start Position	ACTID
E4ENSUCOMP02-	Surface Composition / Dark Ice	LM	3	LPU	E4ELM245	E4ELM192	0	**E4ENSUCOMP02-**
E4ENSUCOMP01-	Surface Composition / Light Ice	LM	3	MPW	E4ELM442	E4ELM192	0	**E4ENSUCOMP01-**
E4ENSUCOMP03-	Surface Composition of Double Linea Area	LM	3	MPW	E4ELM442	E4ELM384	0	**E4ENSUCOMP03-**
E4JNFEA09501-	Jupiter Camp. feat. 95 deg. phase Prt 1	SM	2	LPU	E4JFT68A	E4JFT04A	1	E4JNFEA09501-
E4JNFEA09502-	Jupiter Camp. feat. 95 deg. phase Prt 2	SM	2	LPU	E4JFT68A	E4JFT04A	1	E4JNFEA09502-
E4JNFEA09503-	Jupiter Camp. feat. 95 deg. phase Prt 3	SM	2	LPU	E4JFT68A	E4JFT05A	1	E4JNFEA09503-
E4GNGLOBAL01-	Ganymede Global Map	LM	3	MPW	E4GLM442	E4GLM204	0	**E4GNGLOBAL01-**
E4JNGLOMOS04-	Jupiter Global Mosaic Prt 4	XM	2	LPU	E4JGM10A	E4JGM05A	5	**E4JNGLOMOS04-**
E4JNGLOMOS05-	Jupiter Global Mosaic Prt 5	XM	2	LPU	E4JGM10A	E4JGM05A	5	**E4JNGLOMOS05-**
E4NNHEALTH01-	E4 Health 1	LM	2	Real Time	E4RCVY3		0	E4NNHEALTH01-
E4JNGLOMOS06-	Jupiter Global Mosaic Prt 6	XM	2	LPU	E4JGM10A	E4JGM05A	5	**E4JNGLOMOS06-**
E4JNFEA14801-	Jupiter Camp. feat. 148 deg. phase Prt 1	SM	2	LPU	E4JFT68B	E4JFT15A	1	E4JNFEA14801-
E4JNFEA14802-	Jupiter Camp. feat. 148 deg. phase Prt 2	SM	2	LPU	E4JFT68B	E4JFT15A	1	E4JNFEA14802-
E4JNFEA14803-	Jupiter Camp. feat. 148 deg. phase Prt 3	SM	2	LPU	E4JFT68B	E4JFT15A	1	E4JNFEA14803-
E4JNFEA53M01-(A)	Jupiter Campaign feature 5 & 3 um maps	LM	4	LPU	E4J35160	E4J35160	0	E4JNFEA53M01-(A)
E4INRTIMON01-	Real Time Io monoring	XM	2	Real Time	E4IXM8RT		21	E4INRTIMON01-
E4JNFEA5UM01-	Jupiter Campaign feat. 5 micron map # 2	LM	4	LPU	E4J5M253B	E4J5M80B	0	**E4JNFEA5UM01-**
E4JNFEA16001-	Jupiter Camp. feat. 160 deg. phase Prt 1	SM	2	LPU	E4JFT68A	E4JFT04A	1	E4JNFEA16001-
E4JNFEA16002-	Jupiter Camp. feat. 160 deg. phase Prt 2	SM	2	LPU	E4JFT68A	E4JFT04A	1	E4JNFEA16002-
E4JNPFTA4101-	Jup. Prt. Feat. Tr. A 41 deg Phse Prt 1	SM	2	LPU	E4JFT68C	E4JFT19A	1	**E4JNPFTA4101-**
E4JNFEA16003-	Jupiter Camp. feat. 160 deg. phase Prt 3	SM	2	LPU	E4JFT68A	E4JFT04A	1	E4JNFEA16003-
E4RNMRING 01-	Main Ring Observation	FM	4	LPU	E4RFM126	E4RFM001	0	**E4RNMRING 01-**
E4JNFEA04103-(B)	Jupiter Camp. feat. 41 deg. phase Prt 3	SM	2	LPU	E4JFT68C	E4JFT19A	1	**E4JNFEA04103-(B)**
E4JNPFTA4102-	Jup. Prt. Feat. Tr. A 41 deg Phse Prt 2	SM	2	LPU	E4JFT68C	E4JFT19A	1	**E4JNPFTA4102-**
E4NNHEALTH02-	E4 Health 2	LM	2	Real Time	E4RCVY3		0	E4NNHEALTH02-
E4NNRELOAD01-								
E4INCHEMIS01-	Monitoring of Io's Dayside	LM	2	LPU	E4ILM245	E4ILM102	0	E4INCHEMIS01-
E4JNRTHOTS01-	Jupiter Real Time Hot Spot	LM	2	Real Time	E4JFEA442A	Real Time	0	E4JNRTHOTS01-
E4INCOOLCV02-	NIMS Io Eclipse Observation (ingress)	XM	4	LPU	E4IXM10B	E4IXM10B	21	**E4INCOOLCV02-**
E4INWARMCV04-	NNIMS Io Eclipse Obs. (post-egress)	XM	2	LPU	E4IXM10B	E4IXM10B	21	**E4INWARMCV04-**
E4NNHEALTH05-	E4 Health 5	LM	2	Real Time	E4RCVY3		0	E4NNHEALTH05-
E4JNGLOMOS01-	Jupiter Global Mosaic Prt 1	XM	2	LPU	E4JGM10A	E4JGM05A	5	**E4JNGLOMOS01-**
E4INVOLCAN05-	Monitoring of Selected Volcanic Regions	XM	2	LPU	E4IXM10B	E4IXM10B	21	E4INVOLCAN05-
E4NNRELOAD02-								
E4JNPFTA1602-	Jup. Prt. Feat. Tr. A 16 deg Phse Prt 2	SM	2	LPU	E4JFT68C	E4JFT19A	1	**E4JNPFTA1602-**
E4JNGLOMOS02-	Jupiter Global Mosaic Prt 2	XM	2	LPU	E4JGM10A	E4JGM05A	5	**E4JNGLOMOS02-**
E4JNFEA05501-	Jupiter Camp. feat. 55 deg. phase Prt 1	SM	2	LPU	E4JFT68A	E4JFT05A	1	E4JNFEA05501-
E4JNFEA05502-	Jupiter Camp. feat. 55 deg. phase Prt 2	SM	2	LPU	E4JFT68A	E4JFT04A	1	E4JNFEA05502-

(Recorded observations in playback order)

Updated NIMS Inputs

12/19/96

Activity ID	Observation Title	Mode	Gain	Record Format	NIMS Edit table	NIMS Playback Table	Grating Start Position	ACTID
E4INCHEMIS02-	Monitoring of Io's Dayside	LM	2	LPU	E4ILM245	E4ILM102	0	**E4INCHEMIS02-**
E4JNFEA05503-	Jupiter Camp. feat. 55 deg. phase Prt 3	SM	2	LPU	E4JFT68A	E4JFT04A	1	E4JNFEA05503-
E4JNPFTA1603-	Jup. Prt. Feat. Tr. A 16 deg Phse Prt 3	SM	2	LPU	E4JFT68C	E4JFT19A	1	**E4JNPFTA1603-**
E4JNFEA01605-	Jupiter Camp. feat. 16 deg. phase Prt 5	SM	2	LPU	E4JFT68C	E4JFT19A	1	**E4JNFEA01605-**
E4NNRELOAD03-								
E4INCHEMIS03-	Monitoring of Io's Dayside	LM	2	LPU	E4ILM245	E4ILM228	0	**E4INCHEMIS03-**
E4NNFULMRO01-								E4NNFULMRO01-
E4INHRSPEC01-	High Spatial & Spectral Obs. of Io	LM	2	LPU	E4ILM245	E4ILM102	0	E4INHRSPEC01-
E4NNCKSUM01-								E4NNCHKSUM01
E4NNRELOAD04-								
E4ENXDARLI01-	Europa Linea Region Observation	FM	3,2,3	MPW	E4EFM221	E4EFM102	0	E4ENXDARLI01-
E4INCOOLCV01-	NIMS Io Eclipse Observation (ingress)	XM	4	LPU	E4IXM10B	E4IXM10B	21	**E4INCOOLCV01-**
E4INWARMCV02-	NIMS Io Eclipse Obs. (post-egress)	XM	2	LPU	E4IXM10B	E4IXM10B	21	**E4INWARMCV02-**
E4INCHEMIS04-	Monitoring of Io's Dayside	LM	2	LPU	E4ILM245	E4ILM102	0	**E4INCHEMIS04-**
E4NNFULMRO01-								E4NNFULMRO02-
E4NNRELOAD05-								
E4JNFEA04101-	Jupiter Camp. feat. 41 deg. phase Prt 1	SM	2	LPU	E4JFT68A	E4JFT04A	1	E4JNFEA04101-
E4JNFEA04102-	Jupiter Camp. feat. 41 deg. phase Prt 2	SM	2	LPU	E4JFT68A	E4JFT04A	1	E4JNFEA04102-
E4JNFEA04103-(A)	Jupiter Camp. feat. 41 deg. phase Prt 3	SM	2	LPU	E4JFT68A	E4JFT04A	1	E4JNFEA04103-(A)
E4JNFEA01601-	Jupiter Camp. feat. 16 deg. phase Prt 1	SM	2	LPU	E4JFT68C	E4JFT19A	1	E4JNFEA01601-
E4JNFEA01602-	Jupiter Camp. feat. 16 deg. phase Prt 2	SM	2	LPU	E4JFT68C	E4JFT25A	1	E4JNFEA01602-
E4JNFEA01604-	Jupiter Camp. feat. 16 deg. phase Prt 4	SM	2	LPU	E4JFT68C	E4JFT25A	1	**E4JNFEA01604-**
E4NNCKSUM02-								E4NNCHKSUM02
E4INCHEMIS05-	Monitoring of Io's Dayside	LM	2	LPU	E4ILM245	E4ILM228	0	E4INCHEMIS05-
E4NNRELOAD06-								
E4JNFEASUB01-	Jupiter Campaign feature sub- specra	LM	2	LPU	E4JSB253A	E4JSB80A	0	E4JNFEASUB01-
E4JNPFTB1603	Jup. partial feat. tr. for feat. B Prt 4	SM	2	LPU	E4JFT68C	E4JFT19A	1	E4JNPFTB1603
E4INHRSPEC01-	High Spatial & Spectral Obs. of Io		2		E4ILM245	E4ILM001		
E4ENASTERI01-	Europa Global Mosaic	FM	3,2	LPU	E4EFM126	E4EFM96	0	E4ENASTERI01-
E4INCHEMIS06-	Monitoring of Io's Dayside	LM	2	MPW	E4ILM442	E4ILM204	0	E4INCHEMIS06-
E4ENSUCOMP02-	Surface Composition / Dark Ice	LM	3	LPU	E4ELM245	E4ELM192	0	**E4ENSUCOMP02-**
E4INTHRMAL01-	Monitoring of Io's Nightside	LM	4	LPU	E4ILMDK245	E4ILMDK102	0	**E4INTHRMAL01-**
E4INVOLCAN01-	Monitoring of Selected Volcanic Regions	LM	2	LPU	E4ILM245	E4ILM102	0	E4INVOLCAN01-
E4INVOLCAN02-	Monitoring of Selected Volcanic Regions	LM	4	LPU	E4ILMDK245	E4ILMDK228	0	E4INVOLCAN02-
E4NNRELOAD07-								
E4ENSUCOMP01-	Surface Composition / Light Ice	LM	3	MPW	E4ELM442	E4ELM192	0	**E4ENSUCOMP01-**
E4INRTIMON02	Real Time Io Monitoring	XM	2	Real Time	E4IXM8RT		21	E4INRTIMON02-
E4ENSUCOMP03-	Surface Composition of Double Linea Area	LM	3	MPW	E4ELM442	E4ELM384	0	**E4ENSUCOMP03-**

Updated NIMS Inputs

Activity ID	**Observation Title**	**Mode**	**Gain**	**Record Format**	**NIMS Edit table**	**NIMS Playback Table**	**Grating Start Position**	**ACTID**
E4INWARMCV03-	NIMS Io Eclipse Observation (egress)	XM	2	LPU	E4IXM10B	E4IXM10B	21	**E4INWARMCV03-**
E4INVOLCAN03-	Monitoring of Selected Volcanic Regions	LM	4	LPU	E4ILMDK245	E4ILMDK102	0	**E4INVOLCAN03-**
E4INVOLCAN04-	Monitoring of Selected Volcanic Regions	LM	4	LPU	E4ILMDK245	E4ILMDK102	0	**E4INVOLCAN04-**
E4INTHRMAL02-	Monitoring of Io's Nightside	LM	4	LPU	E4ILMDK245	E4ILMDK102	0	**E4INTHRMAL02-**
E4NNRELOAD08								
E4JNFEA53M01-(A)	Jupiter Campaign feature 5 & 3 um maps	LM	4	LPU	E4J35160	E4J35160	0	E4JNFEA53M01-(A)
E4JNGLOMOS03-	Jupiter Global Mosaic Prt 3	XM	2	LPU	E4JGM10A	E4JGM05A	5	**E4JNGLOMOS03-**
E4INWARMCV01-	NIMS Io Eclipse Observation (egress)	XM	2	LPU	E4IXM10B	E4IXM10B	21	**E4INWARMCV01-**
E4NNHEALTH04-	E4 Health 4	LM	2	Real Time	E4RCVY3		0	E4NNHEALTH04-
E4JNFEASUB01-	Jupiter Campaign feature sub- specra	LM	2	LPU	E4JSB253A	E4JSB80A	0	E4JNFEASUB01-
E4JNFEA01602-	Jupiter Camp. feat. 16 deg. phase Prt 2	SM	2	LPU	E4JFT68C	E4JFT25A	1	E4JNFEA01602-
E4JNFEA53M01-(B)	Jupiter Campaign feature 5 & 3 um maps	LM	4	LPU	E4J35160	E4J35160	0	E4JNFEA53M01-(B)
E4INHRSPEC01-	High Spatial & Spectral Obs. of Io		2		E4ILM245	E4ILM102		
E4ENASTERI01-	Europa Global Mosaic	FM	2,3	LPU	E4EFM126	E4EFM96	0	E4ENASTERI01-
E4CNGLOBAL01-	Callisto Global Coverage	LM	4	LPU	E4CLM245	E4CLM204	0	**E4CNGLOBAL01-**
E4RNMRING 01-	Main Ring Observation	FM	4	LPU	E4RFM126	E4RFM102	0	**E4RNMRING 01-**
E4NNPCTCAL01-	NIMS PCT Calibration	LM	4	Real Time	E4PCT252	Real Time	0	E4NNPCTRLT01-
								Total
								Allocated
								Oversubscribed

(Recorded observations in playback order)

NIMS E4 Instrument States and Resource Usage

12/20/96

ACTID	Activity ID	NIMS mode	Record mode	Grating Start Position	Tics	Obs. Cost (tracks)	Number wavelengths returned	Observation record time (sec)	Observation playback time (sec)	Selected Bits of Tape sBOT (Mbits)	Total Bits of Tape BOT (Mbits)
E4ENSUCOMP02-	E4ENSUCOMP02-	LM	LPU	0	264.9	0.0381	192	1126	390	2.41	6.95
E4ENSUCOMP01-	E4ENSUCOMP01-	LM	MPW	0	975.1	0.1396	192	1106	250	2.88	12.74
E4ENSUCOMP03-	E4ENSUCOMP03-	LM	MPW	0	678.0	0.0970	384	768	192	2.21	8.85
E4JNFEA09501-	E4JNFEA09501-	SM	LPU	1	95.2	0.0138	4	402	399	2.46	2.48
E4JNFEA09502-	E4JNFEA09502-	SM	LPU	1	95.2	0.0138	4	402	399	2.46	2.48
E4JNFEA09503-	E4JNFEA09503-	SM	LPU	1	7.3	0.0012	5	27	27	0.17	0.17
E4GNGLOBAL01-	E4GNGLOBAL01-	LM	MPW	0	210.4	0.0300	204	236	90	1.04	2.72
E4JNGLOMOS04-	E4JNGLOMOS04-	XM	LPU	5	64.8	0.0094	5	272	94	0.58	1.68
E4JNGLOMOS05-	E4JNGLOMOS05-	XM	LPU	5	64.8	0.0094	5	272	94	0.58	1.68
E4NNHEALTH01-	E4NNHEALTH01-	LM	R/T	0			3				
E4JNGLOMOS06-	E4JNGLOMOS06-	XM	LPU	5	64.8	0.0094	5	272	94	0.58	1.68
E4JNFEA14801-	E4JNFEA14801-	SM	LPU	1	58.9	0.0086	15	247	243	1.50	1.52
E4JNFEA14802-	E4JNFEA14802-	SM	LPU	1	58.9	0.0086	15	247	243	1.50	1.52
E4JNFEA14803-	E4JNFEA14803-	SM	LPU	1	58.9	0.0086	15	247	243	1.50	1.52
E4JNFEA53M01-(A)	E4JNFEA53M01-(A)	LM	LPU	0	338.5	0.0487	160	1440	61	0.38	8.88
E4INRTIMON01-	E4INRTIMON01-	XM	R/T	21			8				
E4JNFEA5UM01-	E4JNFEA5UM01-	LM	LPU	0	453.4	0.0651	80	1930	122	0.75	11.90
E4JNFEA16001-	E4JNFEA16001-	SM	LPU	1	28.9	0.0043	4	119	115	0.71	0.73
E4JNFEA16002-	E4JNFEA16002-	SM	LPU	1	29.8	0.0044	4	123	119	0.73	0.76
E4JNPFTA4101-	E4JNPFTA4101-	SM	LPU	1	115.6	0.0167	19	489	2	0.01	3.02
E4JNFEA16003-	E4JNFEA16003-	SM	LPU	1	25.1	0.0038	4	103	99	0.61	0.64
E4RNMRING 01-	E4RNMRING 01-	FM	LPU	0	431.6	0.0619	1	1837	61	0.38	11.33
E4JNFEA04103-(B)	E4JNFEA04103-(B)	SM	LPU	1	71.3	0.0104	19	300	2	0.01	1.85
E4JNPFTA4102-	E4JNPFTA4102-	SM	LPU	1	118.9	0.0172	19	503	2	0.01	3.10
E4NNHEALTH02-	E4NNHEALTH02-	LM	R/T	0			3				
	E4NNRELOAD01-										
E4INCHEMIS01-	E4INCHEMIS01-	LM	LPU	0	39.9	0.0059	102	166	161	1.00	1.02
E4JNRTHOTS01-	E4JNRTHOTS01-	LM	R/T	0			3				
E4INCOOLCV02-	E4INCOOLCV02-	XM	LPU	21	80.1	0.0116	10	338	51	0.31	2.08
E4INWARMCV04-	E4INWARMCV04-	XM	LPU	21	32.9	0.0049	10	136	53	0.33	0.84
E4NNHEALTH05-	E4NNHEALTH05-	LM	R/T	0			3				0.00
E4JNGLOMOS01-	E4JNGLOMOS01-	XM	LPU	5	64.8	0.0094	5	272	94	0.58	1.68
E4INVOLCAN05-	E4INVOLCAN05-	XM	LPU	21	7.1	0.0012	10	26	25	0.15	0.16
	E4NNRELOAD02-										
E4JNPFTA1602-	E4JNPFTA1602-	SM	LPU	1	100.2	0.0145	19	423	2	0.01	2.61
E4JNGLOMOS02-	E4JNGLOMOS02-	XM	LPU	5	64.8	0.0094	5	272	270	1.67	1.68
E4JNFEA05501-	E4JNFEA05501-	SM	LPU	1	95.2	0.0138	5	402	397	2.45	2.48
E4JNFEA05502-	E4JNFEA05502-	SM	LPU	1	95.7	0.0139	4	404	397	2.45	2.49
E4INCHEMIS02-	E4INCHEMIS02-	LM	LPU	0	72.0	0.0105	102	303	2	0.01	1.87
E4JNFEA05503-	E4JNFEA05503-	SM	LPU	1	95.2	0.0138	4	402	397	2.45	2.48

(Recorded observations in playback order)

NIMS E4 Instrument States and Resource Usage

12/20/96

ACTID	Activity ID	NIMS mode	Record mode	Grating Start Position	Tics	Obs. Cost (tracks)	Number wavelengths returned	Observation record time (sec)	Observation playback time (sec)	Selected Bits of Tape sBOT (Mbits)	Total Bits of Tape BOT (Mbits)
E4JNPFTA1603-	E4JNPFTA1603-	SM	LPU	1	100.4	0.0145	19	424	2	0.01	2.62
E4JNFEA01605-	E4JNFEA01605-	SM	LPU	1	123.1	0.0178	19	521	2	0.01	3.21
	E4NNRELOAD03-										
E4INCHEMIS03-	E4INCHEMIS03-	LM	LPU	0	105.5	0.0153	228	446	2	0.01	2.75
E4NNFULMRO01-	E4NNFULMRO01-		R/T								
E4INHRSPEC01-	E4INHRSPEC01-	LM	LPU	0	309.7	0.0445	102	1317	1316	8.12	8.12
E4NNCHKSUM01	E4NNCKSUM01-		R/T								
	E4NNRELOAD04-										
E4ENXDARLI01-	E4ENXDARLI01-	FM	MPW	0	849.4	0.1216	102	963	1	0.01	11.09
E4INCOOLCV01-	E4INCOOLCV01-	XM	LPU	21	64.8	0.0094	10	272	47	0.29	1.68
E4INWARMCV02-	E4INWARMCV02-	XM	LPU	21	20.0	0.0030	10	81	20	0.12	0.50
E4INCHEMIS04-	E4INCHEMIS04-	LM	LPU	0	125.5	0.0181	102	531	2	0.01	3.28
E4NNFULMRO02-	E4NNFULMRO01-		R/T								
	E4NNRELOAD05-										
E4JNFEA04101-	E4JNFEA04101-	SM	LPU	1	95.2	0.0138	4	402	397	2.45	2.48
E4JNFEA04102-	E4JNFEA04102-	SM	LPU	1	7.3	0.0012	4	27	27	0.17	0.17
E4JNFEA04103-(A)	E4JNFEA04103-(A)	SM	LPU	1	95.7	0.0139	4	404	310	1.91	2.49
E4JNFEA01601-	E4JNFEA01601-	SM	LPU	1	20.0	0.0030	19	81	81	0.50	0.50
E4JNFEA01602-	E4JNFEA01602-	SM	LPU	1	169.3	0.0244	25	718	357	2.20	4.43
E4JNFEA01604-	E4JNFEA01604-	SM	LPU	1	169.3	0.0244	25	718	297	1.83	4.43
E4NNCHKSUM02	E4NNCKSUM02-		R/T								
E4INCHEMIS05-	E4INCHEMIS05-	LM	LPU	0	62.2	0.0091	228	261	261	1.61	1.61
	E4NNRELOAD06-										
E4JNFEASUB01-	E4JNFEASUB01-	LM	LPU	0	339.0	0.0487	80	1442	718	4.43	8.89
E4JNPFTB1603	E4JNPFTB1603	SM	LPU	1	7.3	0.0012	19	27	27	0.17	0.17
	E4INHRSPEC01-	LM	LPU		309.7	0.0445	1	1317	61	0.38	8.12
E4ENASTERI01-	E4ENASTERI01-	FM	LPU	0	226.7	0.0327	96	963	480	2.96	5.94
E4INCHEMIS06-	E4INCHEMIS06-	LM	MPW	0	154.2	0.0220	204	172	168	1.94	1.98
E4ENSUCOMP02-	E4ENSUCOMP02-	LM	LPU	0	264.9	0.0381	192	1126	390	2.41	6.95
E4INTHRMAL01-	E4INTHRMAL01-	LM	LPU	0	15.5	0.0024	102	62	2	0.01	0.38
E4INVOLCAN01-	E4INVOLCAN01-	LM	LPU	0	8.3	0.0013	228	31	27	0.16	0.19
E4INVOLCAN02-	E4INVOLCAN02-	LM	LPU	0	11.1	0.0017	228	43	39	0.24	0.27
	E4NNRELOAD07-										
E4ENSUCOMP01-	E4ENSUCOMP01-	LM	MPW	0	975.1	0.1396	192	1106	250	2.88	12.74
E4INRTIMON02-	E4INRTIMON02	XM	R/T	21			8				
E4ENSUCOMP03-	E4ENSUCOMP03-	LM	MPW	0	678.0	0.0970	384	768	574	6.61	8.85
E4INWARMCV03-	E4INWARMCV03-	XM	LPU	21	118.0	0.0171	10	499	96	0.59	3.08
E4INVOLCAN03-	E4INVOLCAN03-	LM	LPU	0	8.5	0.0014	102	32	2	0.01	0.20
E4INVOLCAN04-	E4INVOLCAN04-	LM	LPU	0	6.9	0.0011	102	25	2	0.01	0.15
E4INTHRMAL02-	E4INTHRMAL02-	LM	LPU	0	18.6	0.0028	102	75	2	0.01	0.46

(Recorded observations in playback order)

NIMS E4 Instrument States and Resource Usage

12/20/96

ACTID	Activity ID	NIMS mode	Record mode	Grating Start Position	Tics	Obs. Cost (tracks)	Number wavelengths returned	Observation record time (sec)	Observation playback time (sec)	Selected Bits of Tape sBOT (Mbits)	Total Bits of Tape BOT (Mbits)
	E4NNRELOAD08										
E4JNFEA53M01-(A)	E4JNFEA53M01-(A)	LM	LPU	0	338.5	0.0487	160	1440	622	3.84	8.88
E4JNGLOMOS03-	E4JNGLOMOS03-	XM	LPU	5	64.8	0.0094	5	272	270	1.67	1.68
E4INWARMCV01-	E4INWARMCV01-	XM	LPU	21	90.3	0.0131	10	381	64	0.39	2.35
E4NNHEALTH04-	E4NNHEALTH04-	LM	R/T	0			3				
E4JNFEASUB01-	E4JNFEASUB01-	LM	LPU	0	339.0	0.0487	80	1442	718	4.43	8.89
E4JNFEA01602-	E4JNFEA01602-	SM	LPU	1	169.3	0.0244	25	718	357	2.20	4.43
E4JNFEA53M01-(B)	E4JNFEA53M01-(B)	LM	LPU	0	7.3	0.0012	160	27	27	0.17	0.17
	E4INHRSPEC01-	LM	LPU		309.7	0.0445	102	1317	303	1.87	8.12
E4ENASTERI01-	E4ENASTERI01-	FM	LPU	0	226.7	0.0327	96	963	480	2.96	5.94
E4CNGLOBAL01-	E4CNGLOBAL01-	LM	LPU	0	37.6	0.0055	204	156	2	0.01	0.96
E4RNMRING 01-	E4RNMRING 01-	FM	LPU	0	431.6	0.0619	102	1837	2	0.01	11.33
E4NNPCTRLT01-	E4NNPCTCAL01-	LM	R/T	0			204				
Total					**12532.1**	1.805404758				94.47	268.06
Allocated											
Oversubscribed											

NIMS E4 Instrument States and Resource Usage

Mode cycle time (sec)	Activity ID	AACS Mbits compress 2.5	RT BTG (Mbits)	Thold	Comp.	BTG (Mbits) (w/ 4% overhead)	Data Reduct Factor (sBOT/BTG)	Pass
8.667	E4ENSUCOMP02-	0.06		0	1.30	1.38	1.74	1
8.667	E4ENSUCOMP01-	0.06		0	1.30	0.89	3.25	1
8.667	E4ENSUCOMP03-	0.04		0	1.30	1.36	1.63	1
2.33	E4JNFEA09501-	0.02		0	2.00	0.07	34.55	1
2.33	E4JNFEA09502-	0.02		0	2.00	0.07	34.55	1
2.33	E4JNFEA09503-	0.00		0	2.00	0.01	27.64	1
8.667	E4GNGLOBAL01-	0.01		2	1.80	0.24	4.24	1
0.333	E4JNGLOMOS04-	0.02		0	2.00			2
0.333	E4JNGLOMOS05-	0.02		0	2.00			2
8.667	E4NNHEALTH01-		0.001	0				2
0.333	E4JNGLOMOS06-	0.02		0	2.00			2
2.33	E4JNFEA14801-	0.01		0	2.00	0.16	9.21	1
2.33	E4JNFEA14802-	0.01		0	2.00	0.16	9.21	1
2.33	E4JNFEA14803-	0.01		0	2.00	0.16	9.21	1
8.667	E4JNFEA53M01-(A)	0.08		0	1.30	0.18	2.09	1
0.333	E4INRTIMON01-		0.031	0				2
8.667	E4JNFEA5UM01-	0.11		0	1.30	0.18	4.18	1
2.33	E4JNFEA16001-	0.01		0	2.00	0.02	34.55	1
2.33	E4JNFEA16002-	0.01		0	2.00	0.02	34.55	1
2.33	E4JNPFTA4101-	0.03		0	2.00	0.00	7.27	2
2.33	E4JNFEA16003-	0.01		0	2.00	0.02	34.55	1
4.333	E4RNMRING 01-	0.11			2.00	0.00	256.98	1
2.33	E4JNFEA04103-(B)	0.02		0	2.00	0.00	7.27	
2.33	E4JNPFTA4102-	0.03		0	2.00	0.00	7.27	
	E4NNHEALTH02-		0.001	0				
	E4NNRELOAD01-							
8.667	E4INCHEMIS01-	0.01		2	1.25			2
8.667	E4JNRTHOTS01-		0.016	0				2
0.333	E4INCOOLCV02-	0.02		2	2.50	0.13	2.47	1
0.333	E4INWARMCV04-	0.01		2	2.50	0.13	2.47	1
	E4NNHEALTH05-		0.001	0				1
0.333	E4JNGLOMOS01-	0.02		0	2.00	0.15	3.95	2
0.333	E4INVOLCAN05-	0.00		2	3.50			2
	E4NNRELOAD02-							
2.33	E4JNPFTA1602-	0.02		0	2.00	0.00	7.27	
0.333	E4JNGLOMOS02-	0.02		0	2.00	0.42	3.95	2
2.33	E4JNFEA05501-	0.02		0	2.00	0.09	27.64	2
2.33	E4JNFEA05502-	0.02		0	2.00	0.07	34.55	2
8.667	E4INCHEMIS02-	0.02		2	2.20	0.00	5.54	
2.33	E4JNFEA05503-	0.02		0	2.00	0.07	34.55	2

(Recorded observations in playback order)

NIMS E4 Instrument States and Resource Usage

12/20/96

Mode cycle time (sec)	Activity ID	AACS Mbits compress 2.5	RT BTG (Mbits)	Thold	Comp.	BTG (Mbits) (w/ 4% overhead)	Data Reduct Factor (sBOT/BTG)	Pass
2.33	E4JNPFTA1603-	0.02		0	2.00	0.00	7.27	
2.33	E4JNFEA01605-	0.03		0	2.00	0.00	7.27	
	E4NNRELOAD03-							
8.667	E4INCHEMIS03-	0.03		2	2.20	0.00	2.48	
	E4NNFULMRO01-		0.008					
8.667	E4INHRSPEC01-	0.08		2	1.35			3
	E4NNCKSUM01-		0.001					
	E4NNRELOAD04-							
4.333	E4ENXDARLI01-	0.06		2	1.70			3
0.333	E4INCOOLCV01-	0.02		2	2.50	0.12	2.47	2
0.333	E4INWARMCV02-	0.00		2	2.50	0.05	2.47	2
8.667	E4INCHEMIS04-	0.03		0	2.20	0.00	5.54	
	E4NNFULMRO01-		0.005	0				
	E4NNRELOAD05-			0				
2.33	E4JNFEA04101-	0.02		0	2.00	0.07	34.55	2
2.33	E4JNFEA04102-	0.00		0	2.00	0.00	34.55	2
2.33	E4JNFEA04103-(A)	0.02		0	2.00	0.06	34.55	2
2.33	E4JNFEA01601-	0.00		0	2.00	0.07	7.27	2
2.33	E4JNFEA01602-	0.04		0	2.00	0.40	5.53	2
2.33	E4JNFEA01604-	0.04		0	2.00	0.33	5.53	2
	E4NNCKSUM02-		0.001					
8.667	E4INCHEMIS05-	0.02		2	1.20			
	E4NNRELOAD06-							
8.667	E4JNFEASUB01-	0.08		0	2.00	0.69	6.43	2
2.33	E4JNPFTB1603	0.00		0	2.00	0.02	7.27	2
8.667	E4INHRSPEC01-	0.08		2	1.25	0.00	321.26	2
4.333	E4ENASTERI01-	0.06		0	1.30	1.70	1.74	2
8.667	E4INCHEMIS06-	0.01		2	1.25			1
8.667	E4ENSUCOMP02-	0.06		0	1.30	1.38	1.74	2
8.667	E4INTHRMAL01-	0.00		2	2.20	0.00	5.54	
8.667	E4INVOLCAN01-	0.00		2	3.50			1
8.667	E4INVOLCAN02-	0.00		2	3.50			1
	E4NNRELOAD07-							
8.667	E4ENSUCOMP01-	0.06		0	1.30	0.89	3.25	2
0.333	E4INRTIMON02		0.031	0				
8.667	E4ENSUCOMP03-	0.04		0	1.30	4.07	1.63	2
0.333	E4INWARMCV03-	0.03		2	2.50	0.24	2.47	2
8.667	E4INVOLCAN03-	0.00		2	2.20	0.00	5.54	
8.667	E4INVOLCAN04-	0.00		2	2.20	0.00	5.54	
8.667	E4INTHRMAL02-	0.00		2	2.20	0.00	5.54	

(Recorded observations in playback order)

NIMS E4 Instrument States and Resource Usage

12/20/96

Mode cycle time (sec)	Activity ID	AACS Mbits compress 2.5	RT BTG (Mbits)	Thold	Comp.	BTG (Mbits) (w/ 4% overhead)	Data Reduct Factor (sBOT/BTG)	Pass
	E4NNRELOAD08							
8.667	E4JNFEA53M01-(A)	0.08		0	1.30	1.84	2.09	2
0.333	E4JNGLOMOS03-	0.02		0	2.00	0.42	3.95	3
0.333	E4INWARMCV01-	0.02		2	2.50	0.16	2.47	3
	E4NNHEALTH04-		0.001	0				
8.667	E4JNFEASUB01-	0.08		0	2.00	0.69	6.43	3
2.33	E4JNFEA01602-	0.04		0	2.00	0.40	5.53	3
8.667	E4JNFEA53M01-(B)	0.00		0	1.30			1
8.667	E4INHRSPEC01-	0.08		2	1.25	0.59	3.15	3
4.333	E4ENASTERI01-	0.06		0	1.30	1.70	1.74	3
8.667	E4CNGLOBAL01-	0.01		0	2.00	0.00	2.52	1
4.333	E4RNMRING 01-	0.11			2.00	0.00	2.52	
8.667	E4NNPCTCAL01-	0.00	0.194					
		2.25	0.288			21.92		

NIMS E4 OBSERVING GEOMETRY

OAPEL	Latitude (deg)	Longitude (deg)	Range (km)	Cone (deg)	Light (deg)	View (deg)	Phase (deg)
E4JNGLOMOS01	-90 to +90	160 to 240	1850K	122	0 to 90	0 to 90	67
E4JNGLOMOS02	-90 to +90	230 to 300	1800K	124	0 to 90	0 to 90	65
E4JNGLOMOS03	-90 to +90	285 to 350	1780K	125	0 to 90	0 to 90	64
E4JNGLOMOS04	-90 to +90	10 to 70	1700K	126	0 to 90	0 to 90	62
E4JNGLOMOS05	-90 to +90	70 to 130	1640K	128	0 to 90	0 to 90	61
E4JNGLOMOS06	-90 to +90	125 to 190	1590K	129	0 to 90	0 to 90	60
E4JNFEA05501	0 to +14	285 to 345	1470K	133	37 to 90	7 to 36	54 to 56
E4JNFEA05502	0 to +14	225 to 310	1460K	132	8 to 55	7 to 90	55 to 58
E4JNFEA05503	0 to +14	300 to 360	1430K	133	9 to 65	8 to 62	54 to 56
E4INCOOLCV01	-90 to +90	-30 to 120	1770K	146	70 to 107	90	--------
E4INRTIMON01	-90 to +90	-30 to 120	1700K	149	80 to 100	90	--------
E4INWARMCV01	-90 to +90	-30 to 120	1630K	153	72 to 111	90	--------
E4INWARMCV02	-90 to +90	-30 to 120	1590K	154	55 to 74	90	--------
E4JNFEA04101	+1 to +13	290 to 335	1175K	146	47 to 87	8 to 47	40 to 42
E4JNPFTA4101	+12 to +31	315 to 350	1200K	148	58 to 107	23 to 70	40 to 41
E4JNFEA04102	+2 to +13	295 to 345	1190K	149	34 to 93	8 to 54	39 to 42
E4JNFEA04103 A	+2 to +13	310 to 350	1120K	149	8 to 41	8 to 48	40 to 42
B	-4 to +4	305 to 350	1110K	149	0 to 40	30 to 81	40 to 42
E4JNPFTA4102	+8 to +26	300 to 345	1120K	148	13 to 34	32 to 73	40 to 42
E4INCHEMIS01	-90 to +90	0 to 180	1030K	175	0 to 103	0 to 90	13

NIMS E4 OBSERVING GEOMETRY

OAPEL	Latitude (deg)	Longitude (deg)	Range (km)	Cone (deg)	Light (deg)	View (deg)	Phase (deg)
E4JNRTHOTS01	6.5	265	876K	167	23	7	22
E4JNFEA01601	+2 to +12	295 to 380	920K	172	35 to 93	17 to 77	16 to 19
E4JNFEA01602	+3 to +18	305 to 360	930K	173	39 to 106	22 to 90	16 to 18
E4INVOLCAN05	-90 to +90	45 to 225	575K	172	90	90	--------
E4JNPFTA1602	+8 to +27	320 to 340	825K	174	23 to 30	22 to 27	15 to 16
E4JNFEA01604	0 to +16	310 to 340	817K	174	5 to 25	11 to 41	15 to 17
E4JNFEASUB01	0 to +15	310 to 340	807K	174	7 to 60	7 to 75	14 to 17
E4INCHEMIS02	-90 to +90	60 to 240	470K	170	0 to 90	0 to 90	1
E4JNPFTB1603	+5 to +15	320 to 350	795K	176	30 to 60	47 to 72	13 to 14
E4JNPFTA1603	+10 to +30	310 to 345	796K	176	39 to 77	50 to 90	13 to 14
E4JNFEA01605	-5 to +10	315 to 365	780K	177	25 to 77	36 to 90	12 to 13
E4INCHEMIS03	-90 to +90	90 to 270	364K	172	0 to 90	0 to 90	0 to 1
E4INHRSPEC01	-90 to +90	120 to 300	320K	174	26 to 90	27 to 90	3
E4ENXDARLI01	-90 to +90	190 to 280	117K	132	16 to 66	12 to 90	56
E4ENASTERI01	-90 to +90	245 to 305	106K	133	27 to 87	14 to 75	56
E4INCHEMIS04	-90 to +90	150 to 330	351K	165	0 to 95	0 to 90	6 to 7
E4ENSUCOMP02	+20 to +45	290 to 310	31K	132	53 to 71	28 to 112	57
E4ENSUCOMP01	-60 to -42	310 to 325	18K	129	70 to 80	50 to 59	59
E4ENSUCOMP03	+52 to +58	305 to 325	6K	100 to 120	71 to 80	64 to 79	49
E4INCHEMIS05	-90 to +90	180 to 360	507K	130	0 to 130	0 to 90	41

NIMS E4 OBSERVING GEOMETRY

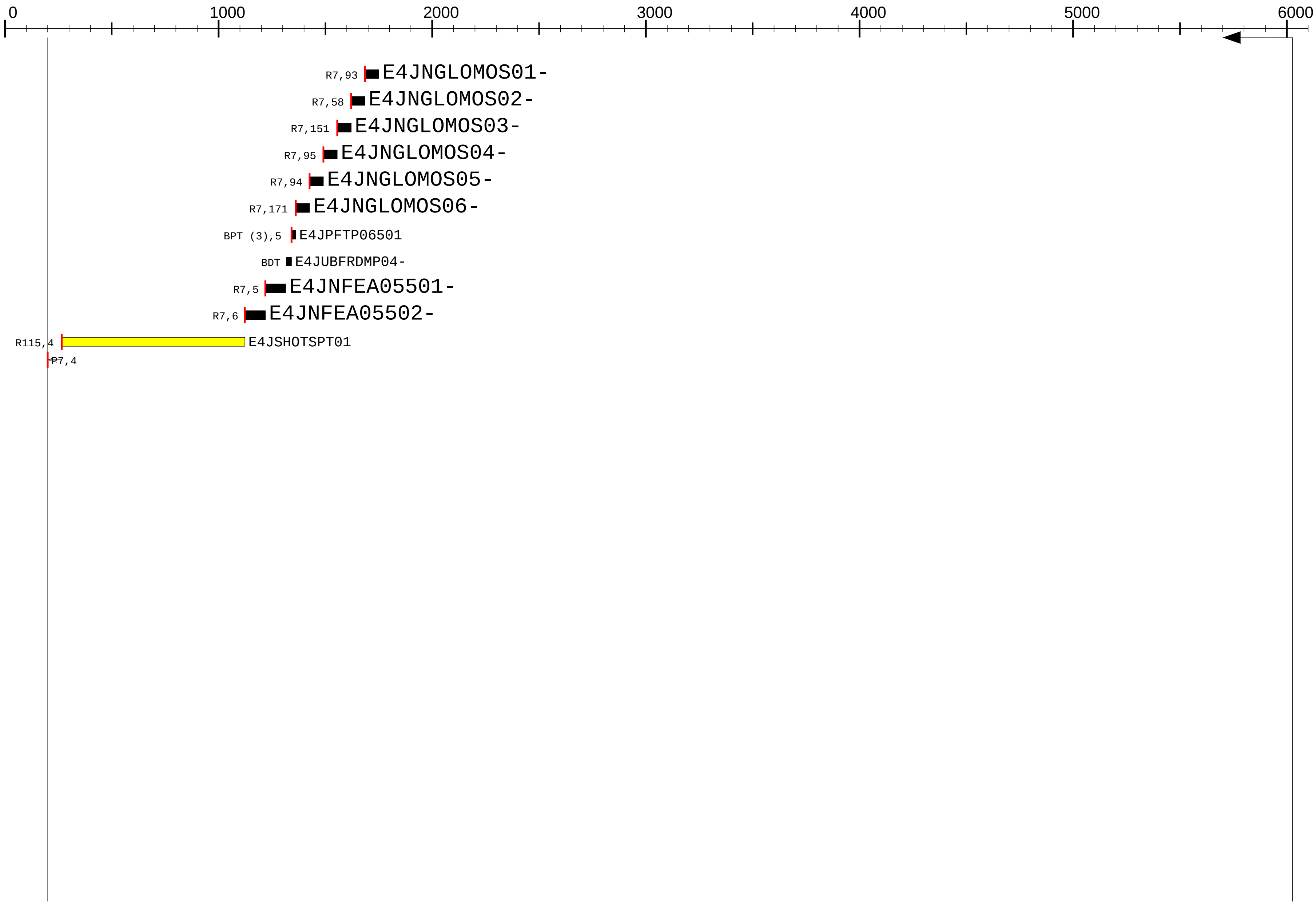
OAPEL	Latitude (deg)	Longitude (deg)	Range (km)	Cone (deg)	Light (deg)	View (deg)	Phase (deg)
E4JNFEA09501	+5 to +10	305 to 340	705K	75	35 to 80	16 to 62	95
E4JNFEA09502	+5 to +10	307 to 337	696K	74	61 to 98	8 to 36	94 to 96
E4JNFEA09503	+5 to +10	315 to 345	700K	73	63 to 100	7 to 36	95 to 98
E4INCHEMIS06	-90 to +90	190 to 370	743K	100	10 to 160	0 to 90	70
E4INCOOLCV02	-90 to +90	190 to 370	750K	100	10 to 160	0 to 90	70
E4INTHRMAL01	-90 to +90	200 to 280	766K	99	83 to 144	10 to 72	72
E4INVOLCAN01	-90 to +90	290 to 320	803K	95	49 to 57	19 to 27	76
E4INVOLCAN02	-90 to +90	240 to 270	803K	95	49 to 57	19 to 27	76
E4INWARMCV03	-90 to +90	190 to 370	880K	89	7 to 172	0 to 90	82
E4INRTIMON02	-90 to +90	190 to 370	900K	87	57 to 127	90	--------
E4INWARMCV04	-90 to +90	190 to 370	904K	86	5 to 175	0 to 90	84
E4GNGLOBAL01	-90 to +90	240 to 390	792K	121	0 to 105	0 to 90	50
E4INVOLCAN03	-90 to +90	290 to 350	1493K	45	87 to 102	90	--------
E4INVOLCAN04	-90 to +90	290 to 330	1500K	45	95 to 101	90	--------
E4INTHRMAL02	-90 to +90	60 to 240	1520K	43	77 to 108	90	--------
E4JNFEA14801	-5 to +15	285 to 315	1290K	103	58 to 97	50 to 90	148
E4JNFEA14802	-5 to +15	290 to 320	1290K	103	58 to 97	50 to 90	148
E4JNFEA14803	-5 to +15	300 to 360	1300K	103	59 to 99	50 to 90	148
E4JNFEA53M01	-5 to +15	290 to 335	1290K	102	112 to 178	7 to 73	148
E4JNFEA5UM01	0 to +30	285 to 360	1330K	102	122 to 155	29 to 91	148

NIMS E4 OBSERVING GEOMETRY

OAPEL	Latitude (deg)	Longitude (deg)	Range (km)	Cone (deg)	Light (deg)	View (deg)	Phase (deg)
E4CNGLOBAL01	-90 to +90	220 to 40	1490K	166	45 to 136	0 to 90	79
E4JNFEA16001	-5 to +15	275 to 300	1560K	93	20 to 97	62 to 90	159
E4JNFEA16002	-5 to +15	280 to 300	1530K	93	79 to 98	61 to 80	159
E4JNFEA16003	-5 to +15	285 to 305	1580K	92	70 to 95	64 to 90	159
E4RNMRING_01	---------	----------	1580K	99	115	92	--------

Phase 2A Tapemap of camel.961202.ssdf
Date: Mon Dec 2 16:08:59 1996 Page: 2

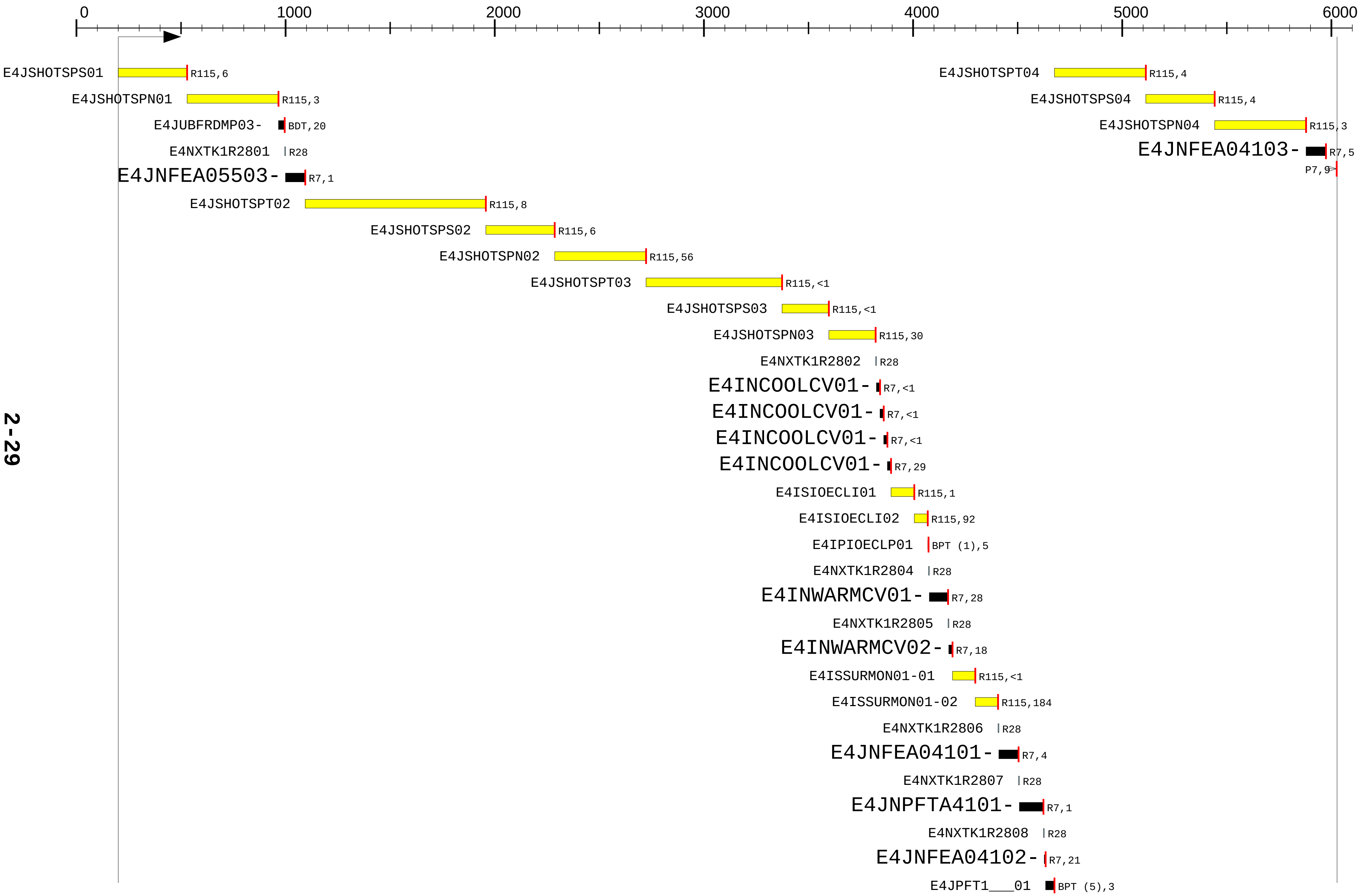
Track 4



J.Culwell, 5-Mar-96, v0.01

Phase 2A Tapemap of camel.961202.ssdf
Date: Mon Dec 2 16:08:59 1996 Page: 3

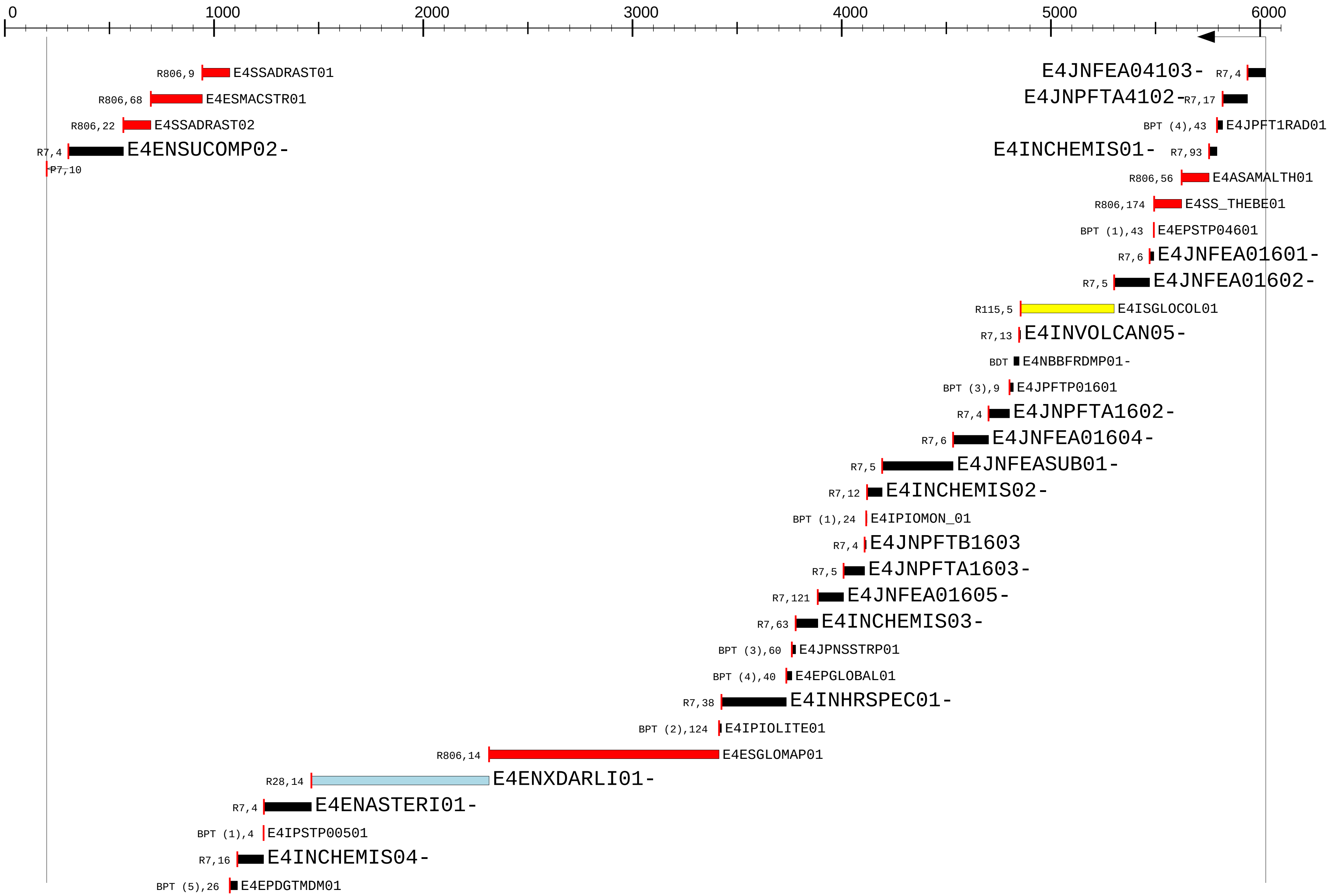
Track 1



J.Culwell, 5-Mar-96, v0.01

Phase 2A Tapemap of camel.961202.ssdf
Date: Mon Dec 2 16:08:59 1996 Page: 4

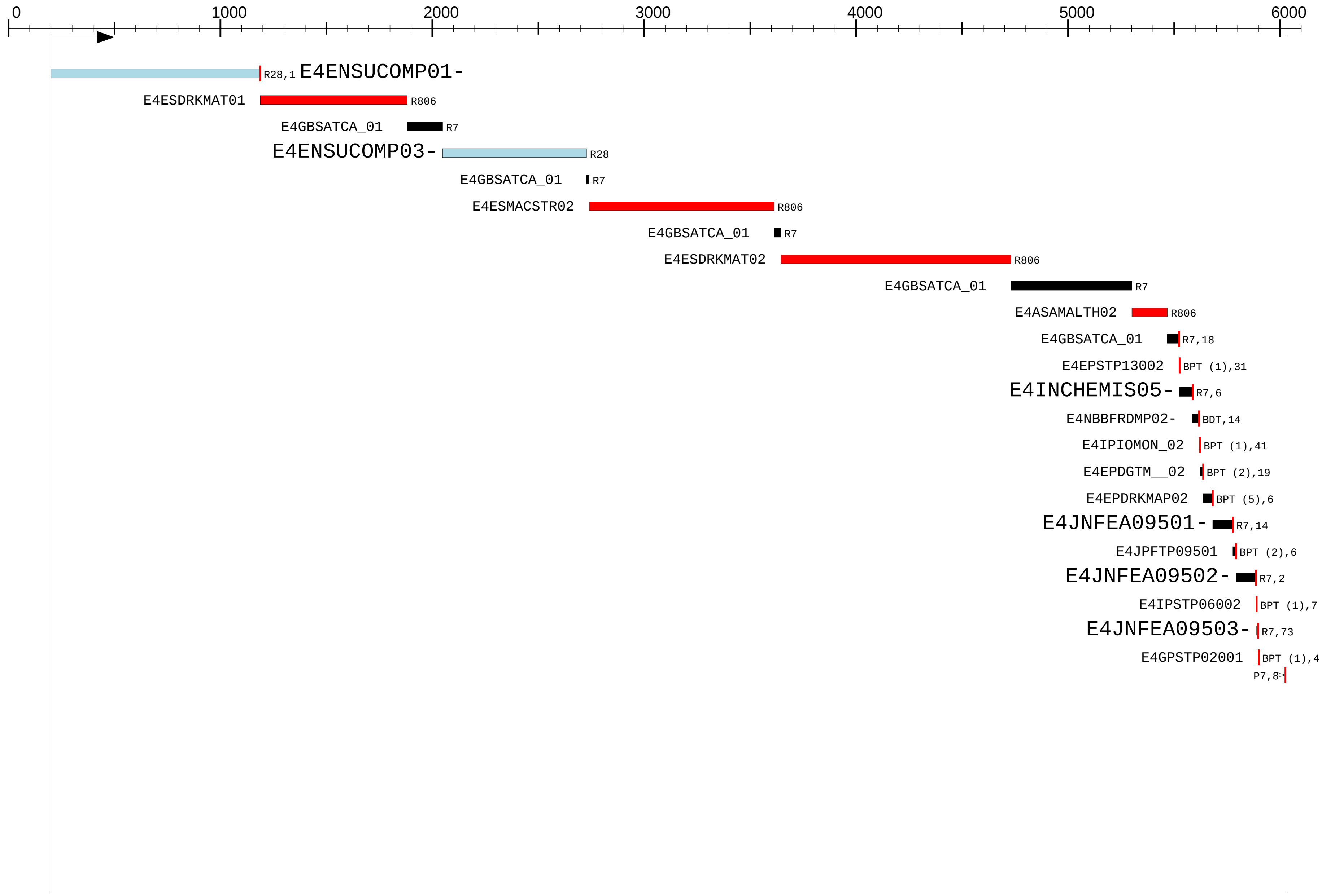
Track 2



J.Culwell, 5-Mar-96, v0.01

Phase 2A Tapemap of camel.961202.ssdf
Date: Mon Dec 2 16:08:59 1996 Page: 5

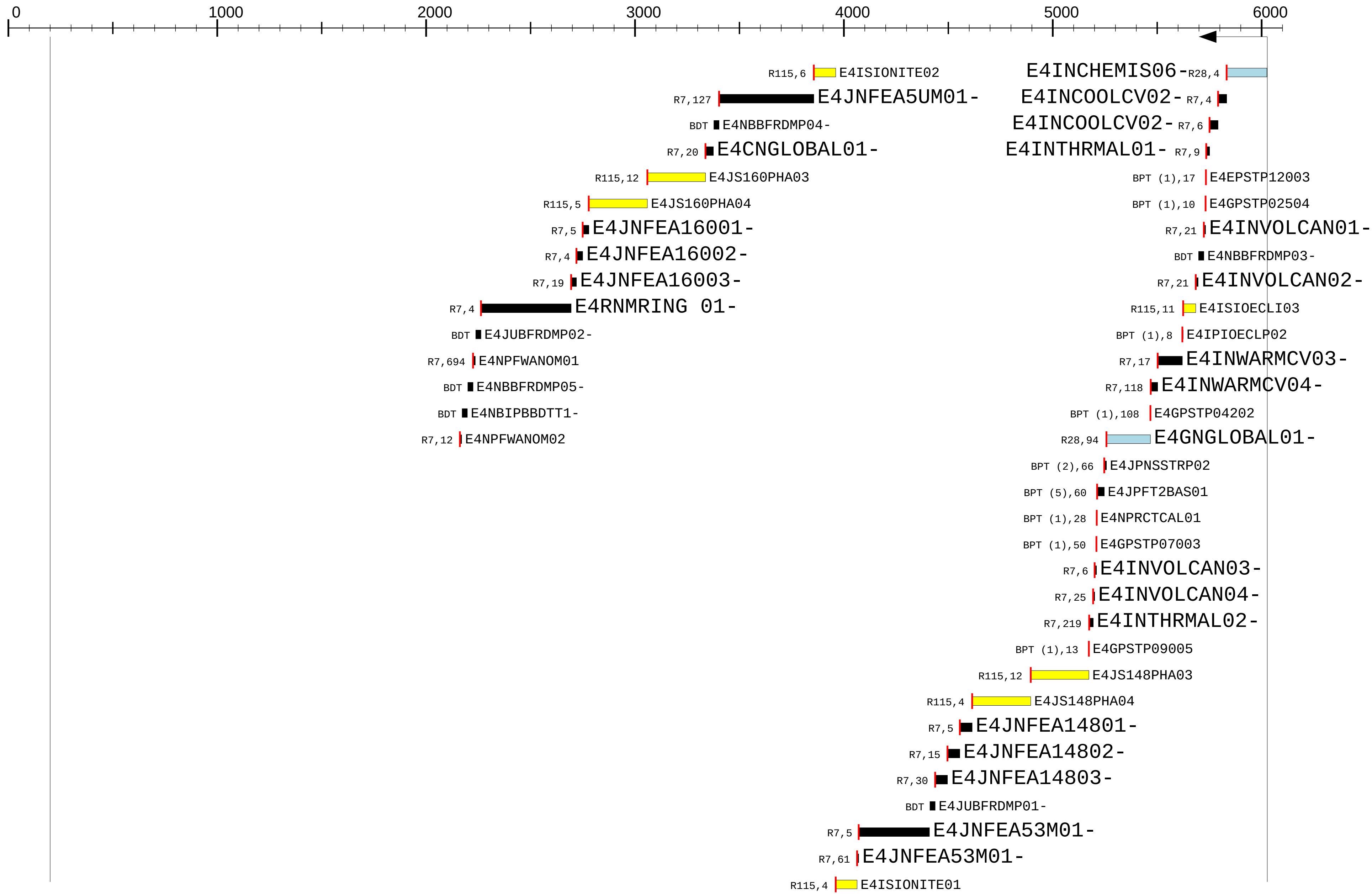
Track 3



J.Culwell, 5-Mar-96, v0.01

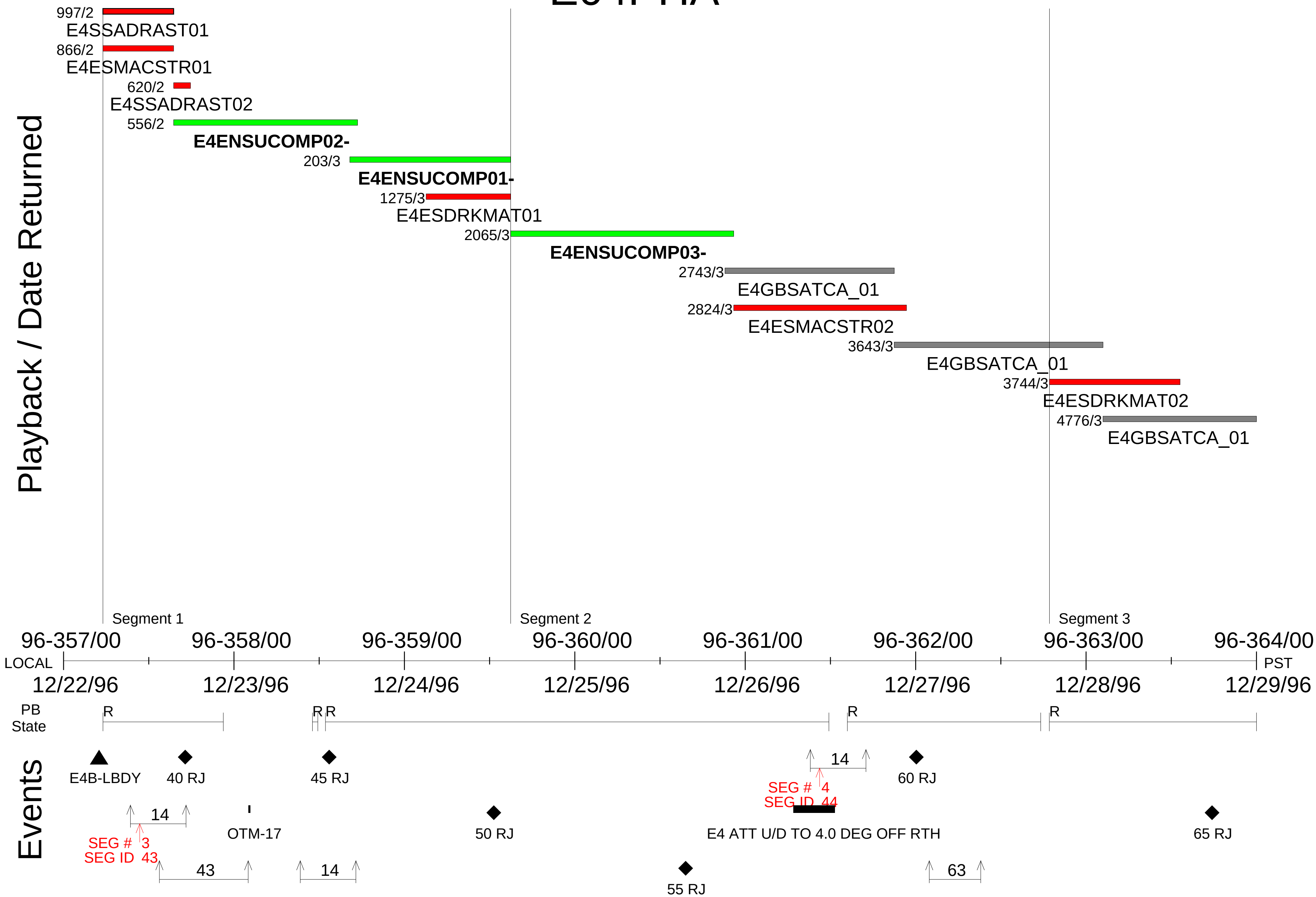
Phase 2A Tapemap of camel.961202.ssdf
Date: Mon Dec 2 16:08:59 1996 Page: 6

Track 4



J.Culwell, 5-Mar-96, v0.01

E04PHA



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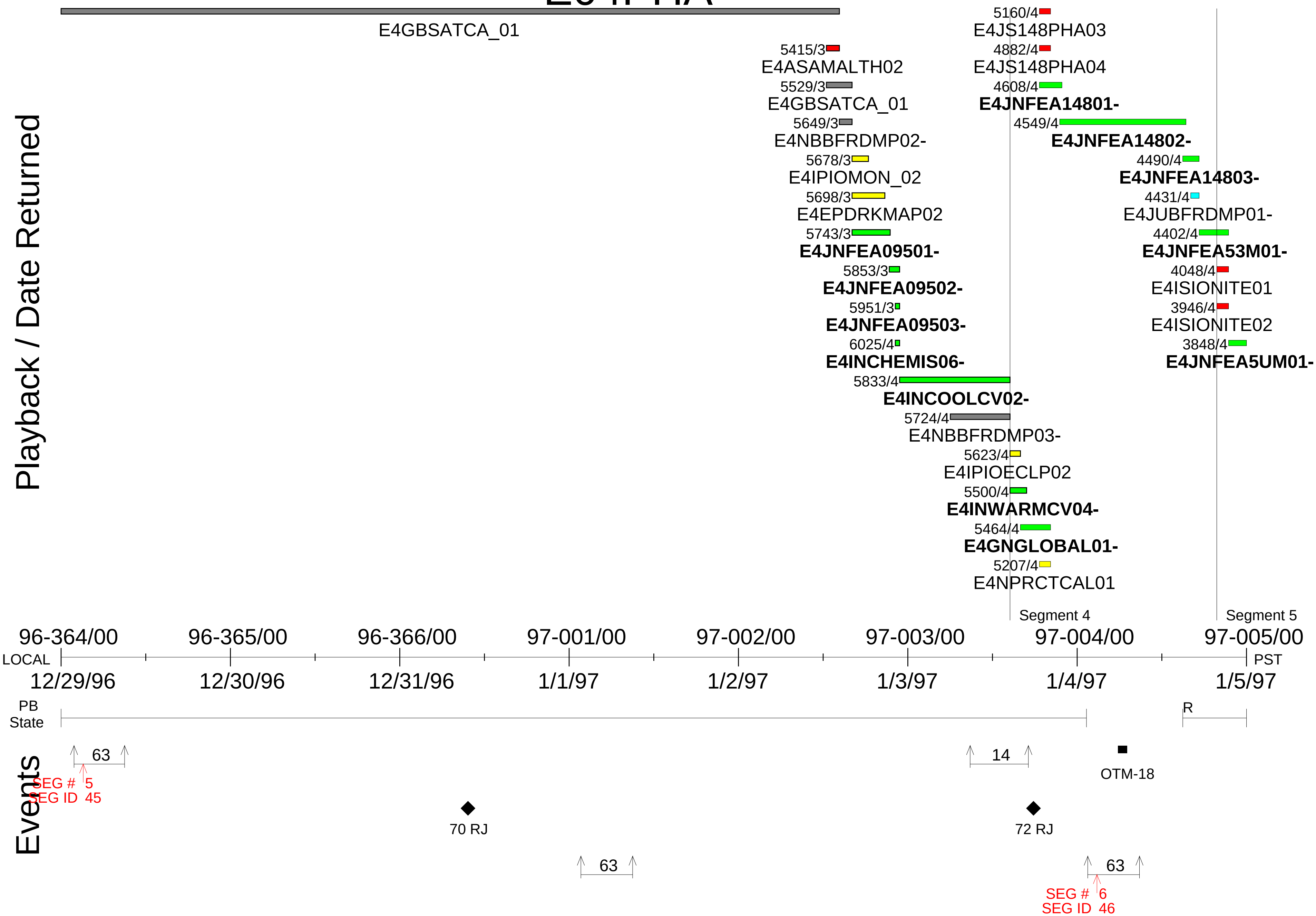
E04PHA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E4JS148PHA04
5529/3
E4GBSATCA_01
4608/4
E4JNFEA14801-
5649/3
E4NBBFRDMP02-
4549/4
E4JNFEA14802-
5678/3
E4IPIOMON_02
4490/4
E4JNFEA14803-
5698/3
E4EPDRKMAP02
4431/4
E4JUBFRDMP01-
5743/3
E4JNFEA09501-
4402/4
E4JNFEA53M01-
5853/3
E4JNFEA09502-
4048/4
E4ISIONITE01
5951/3
E4JNFEA09503-
3946/4
E4ISIONITE02
6025/4
E4INCHEMIS06-
3848/4
E4JNFEA5UM01-
5833/4
E4INCOOLCV02-
5724/4
E4NBBFRDMP03-
5623/4
E4IPIOECLP02
5500/4
E4INWARMCV04-
5464/4
E4GNGLOBAL01-
5207/4
E4NPRCTCAL01
Playback / Date Returned
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Segment 5
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96-365/00
96-366/00
97-001/00
97-002/00
97-003/00
97-004/00
97-005/00
LOCAL
PST
12/29/96
12/30/96
12/31/96
1/1/97
1/2/97
1/3/97
1/4/97
1/5/97
PB
State
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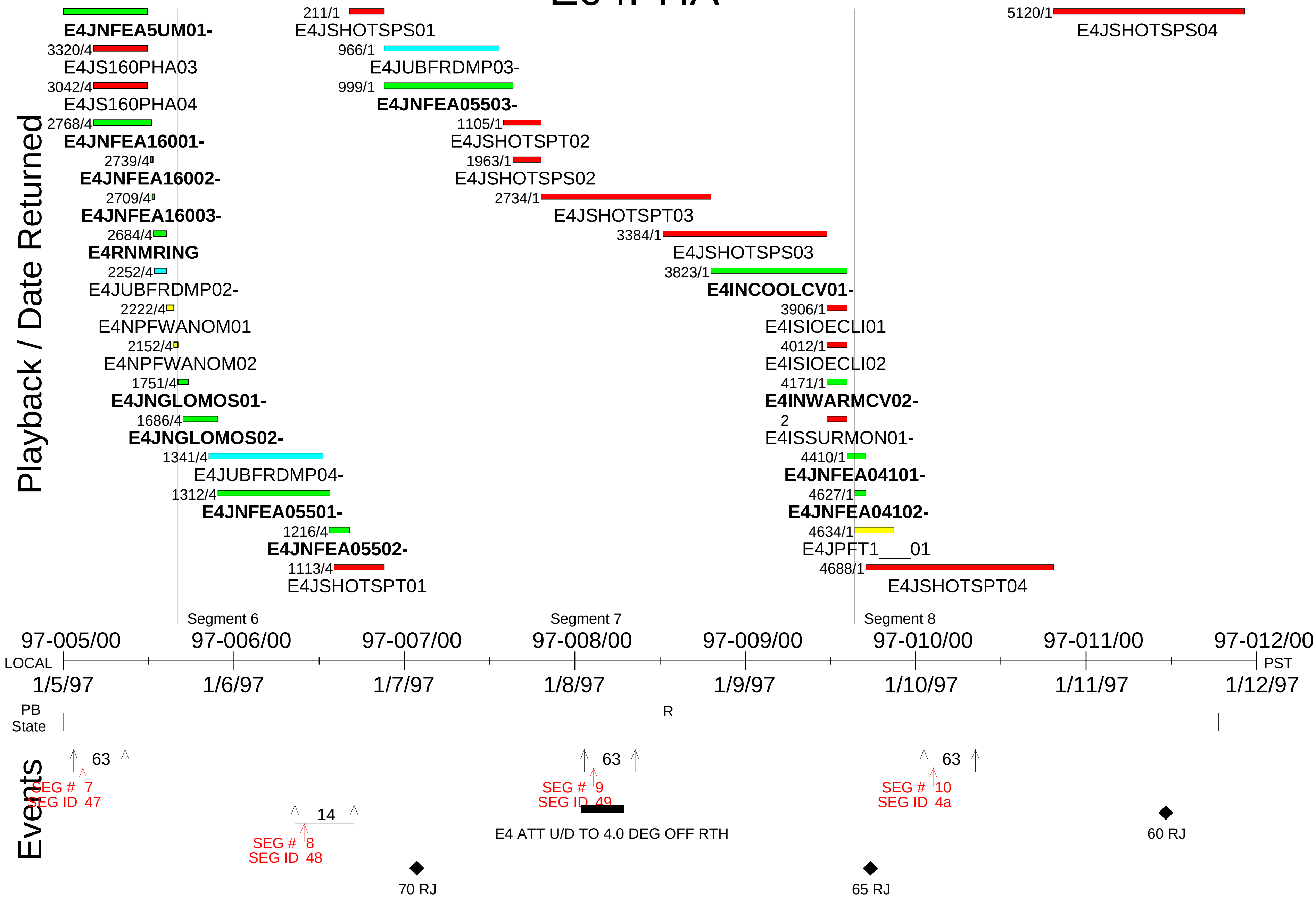
OTM-18
70 RJ
72 RJ
63
63
SEG # 6
SEG ID 46

E04PHA



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ORPROs Loaded: /e4/scg/loadb/ij/orpro.e04bij /e4/op/loadc/ka/orpro.e04cka

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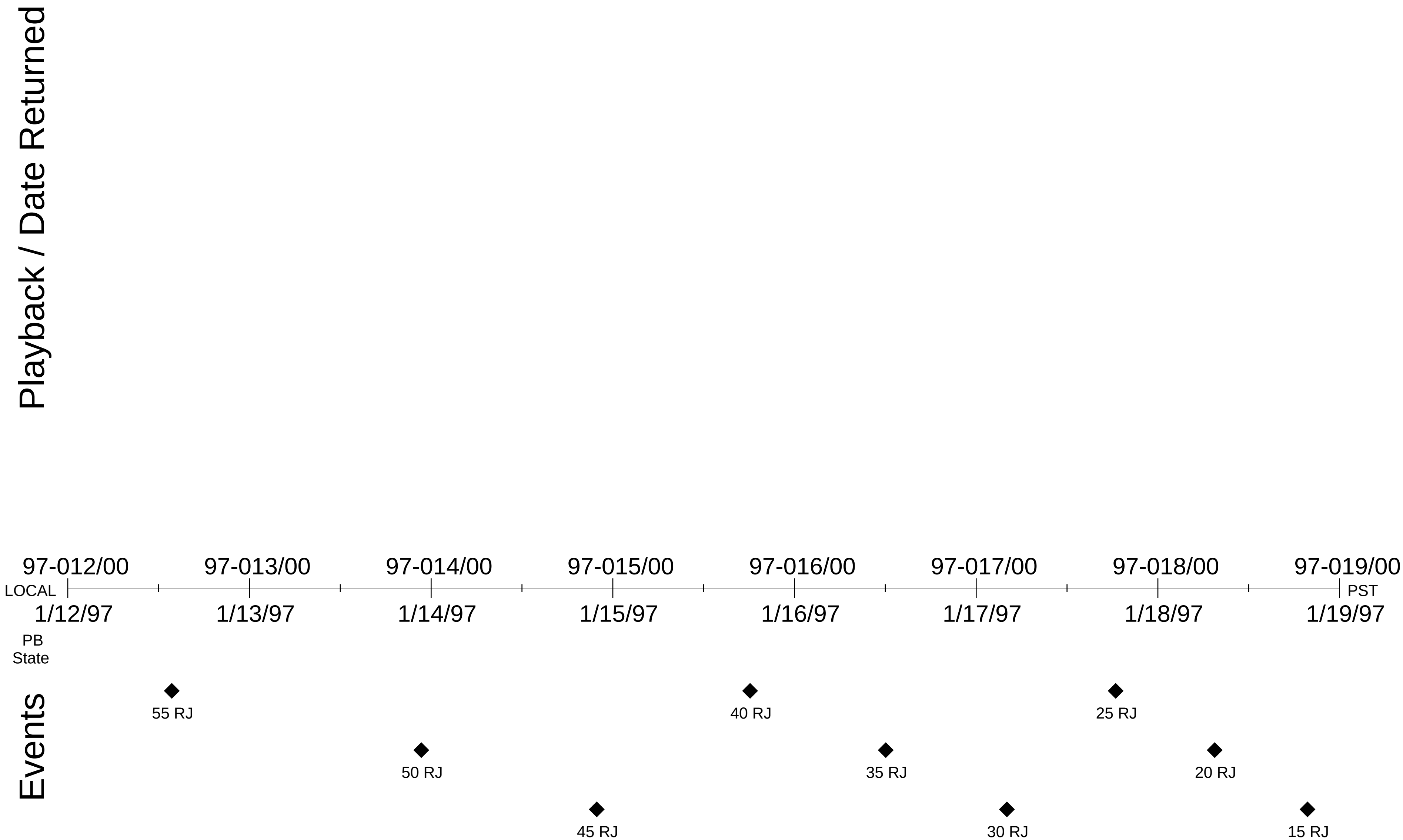
E04PHA



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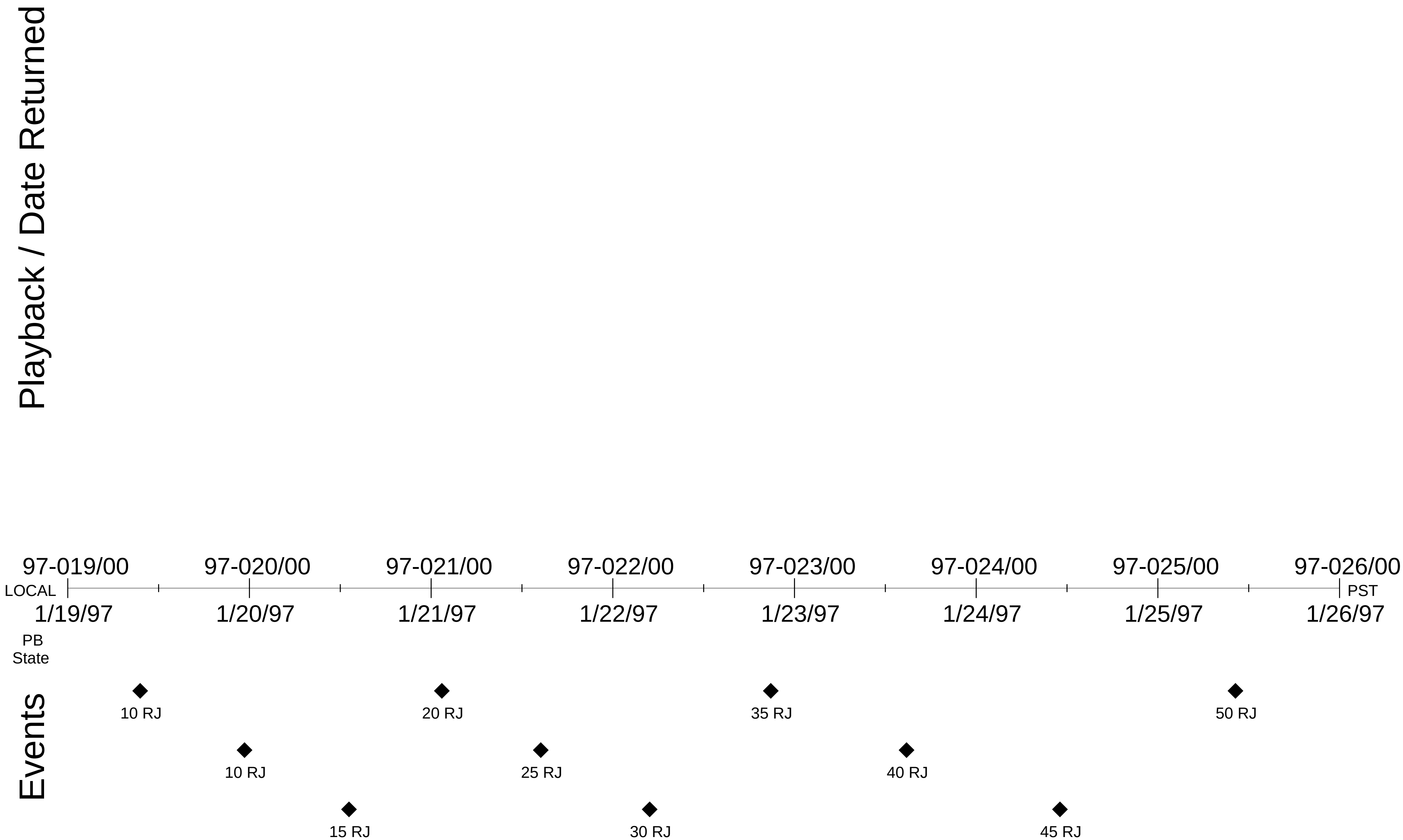
E04PHA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97-022/00
97-023/00
97-024/00
97-025/00
97-026/00
LOCAL
PST
1/19/97
1/20/97
1/21/97
1/22/97
1/23/97
1/24/97
1/25/97
1/26/97
PB State
Events
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15 RJ
20 RJ
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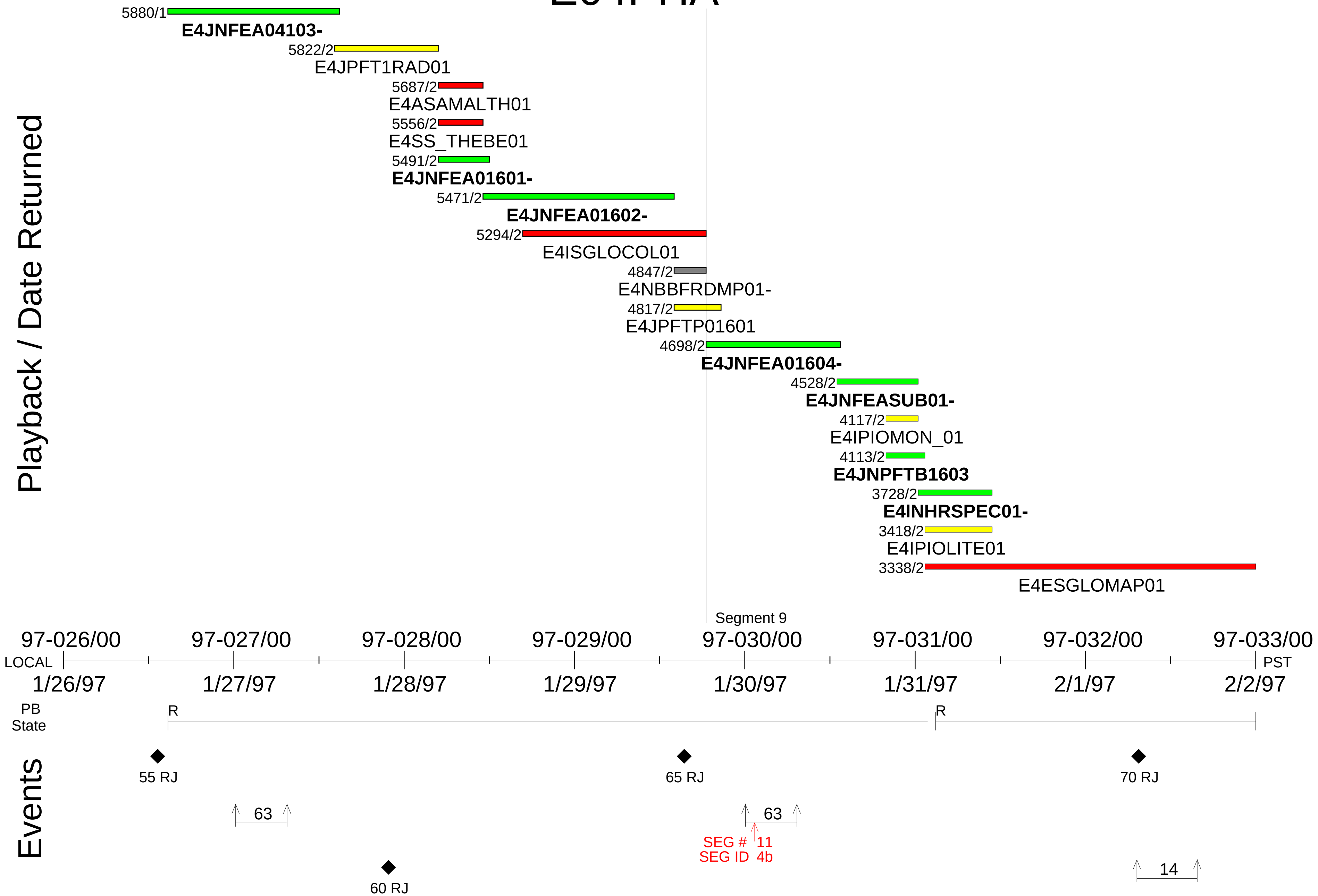
35 RJ
40 RJ
45 RJ
50 RJ

E04PHA



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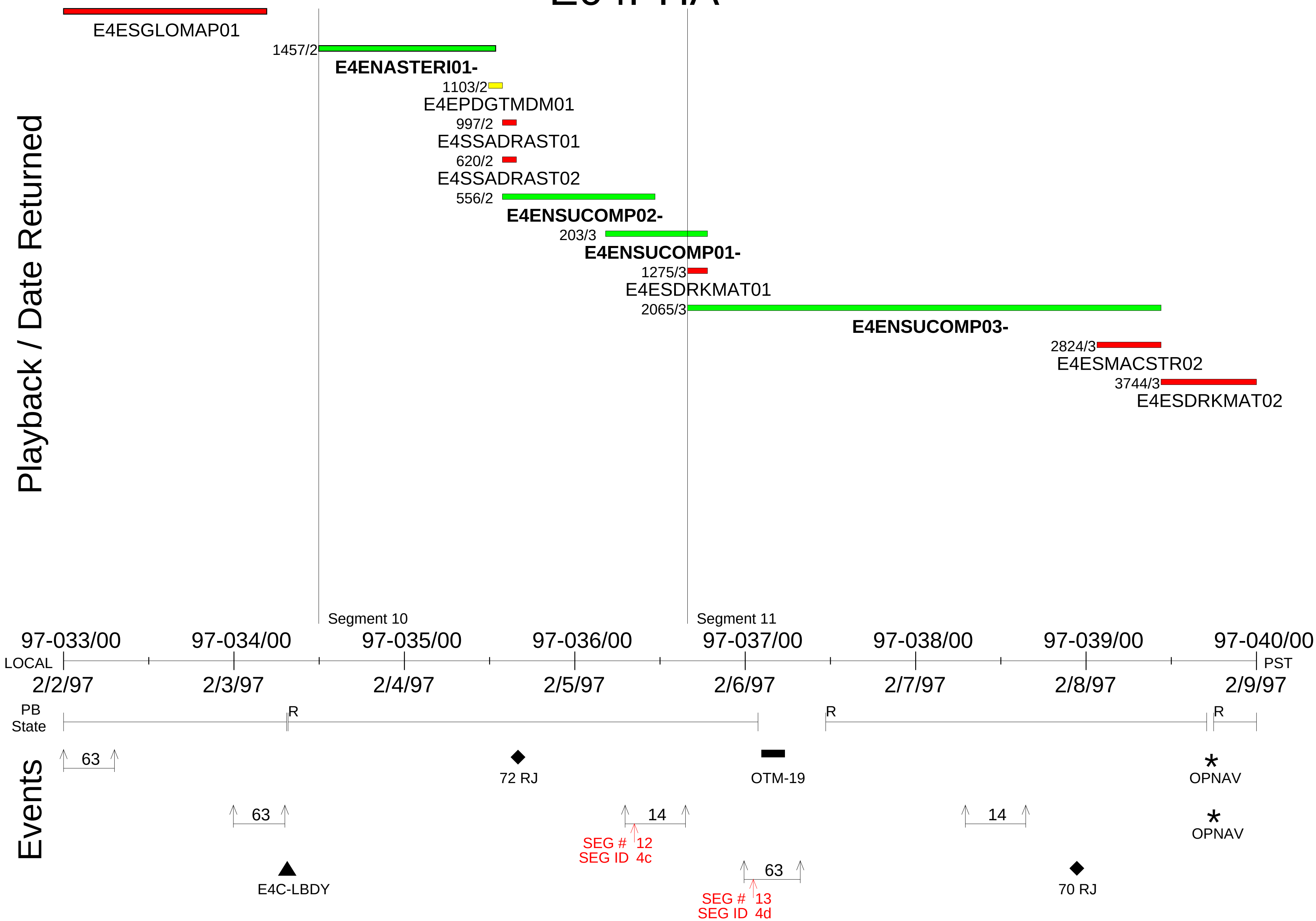
E04PHA



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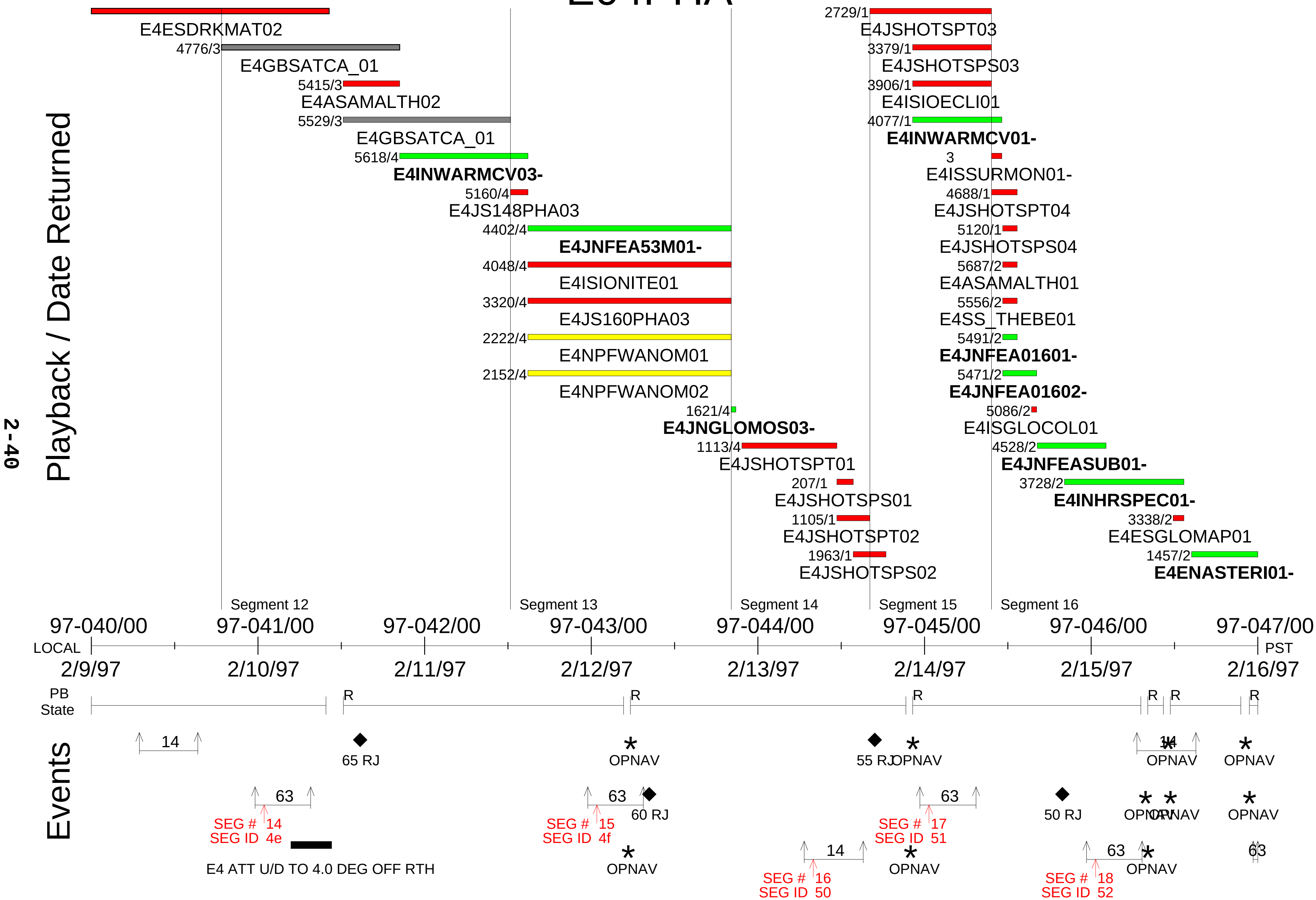
E04PHA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5529/3
E4GBSATCA_01
5618/4
E4INWARMCV03-
5160/4
E4JS148PHA03
4402/4
E4JNFEA53M01-
4048/4
E4ISIONITE01
3320/4
E4JS160PHA03
2222/4
E4NPFWANOM01
2152/4
E4NPFWANOM02
1621/4
E4JNGLOMOS03-
1113/4
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207/1
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1105/1
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1963/1
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2729/1
E4JSHOTSPT03
3379/1
E4JSHOTSPS03
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5687/2
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E4INHRSPEC01-
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E4ESGLOMAP01
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E4ENASTERI01-
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Segment 16
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E04PHA

E4ENASTERI01-

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Events

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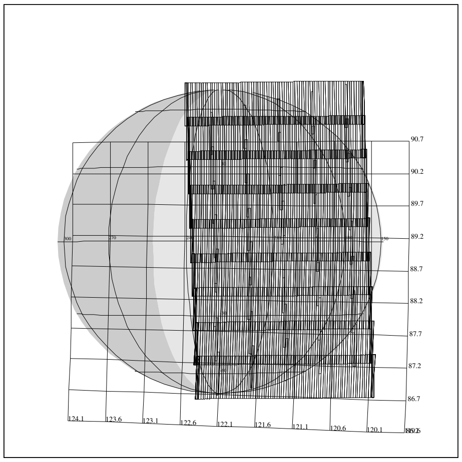

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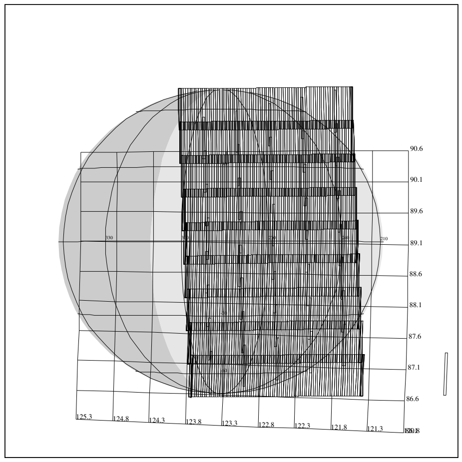

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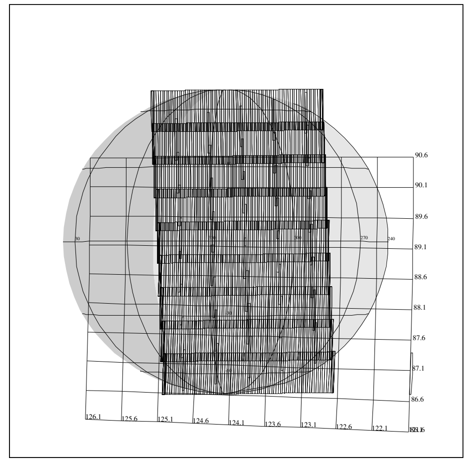

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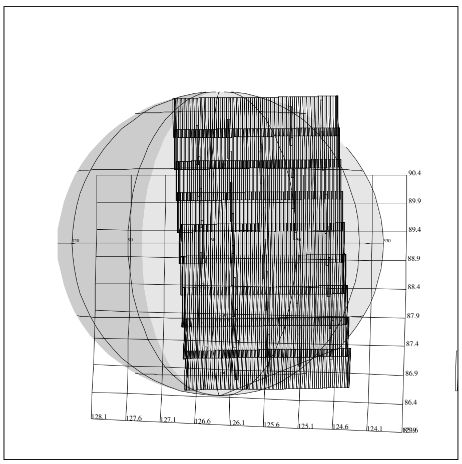

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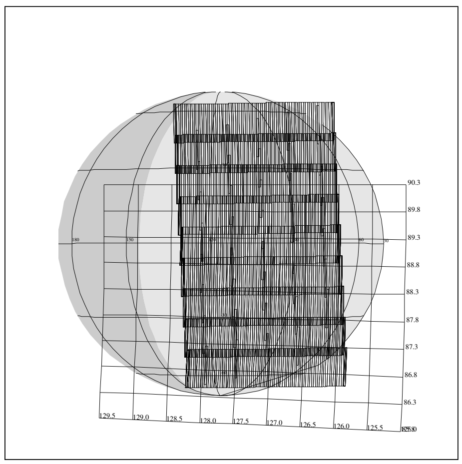

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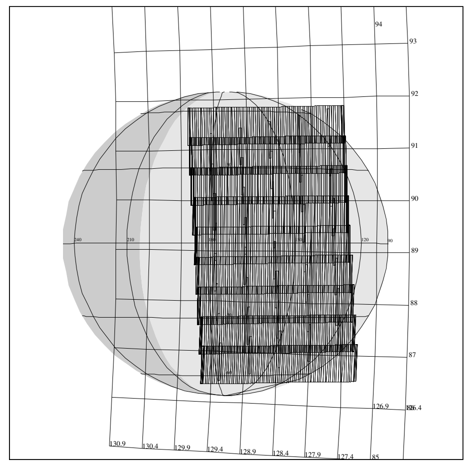

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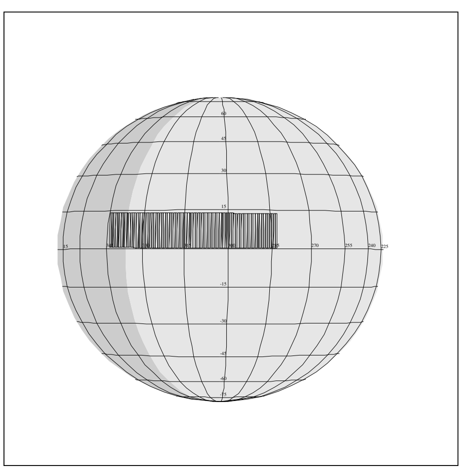

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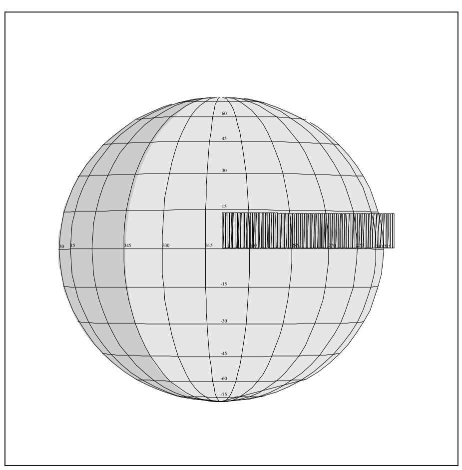

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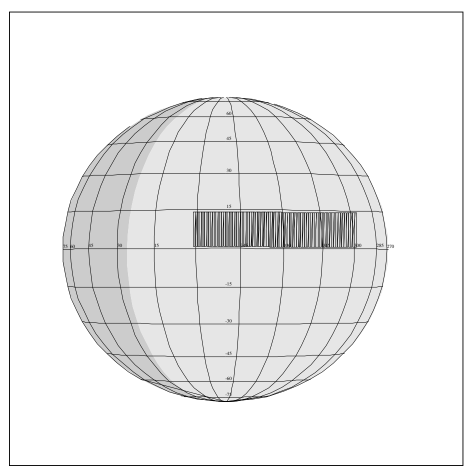

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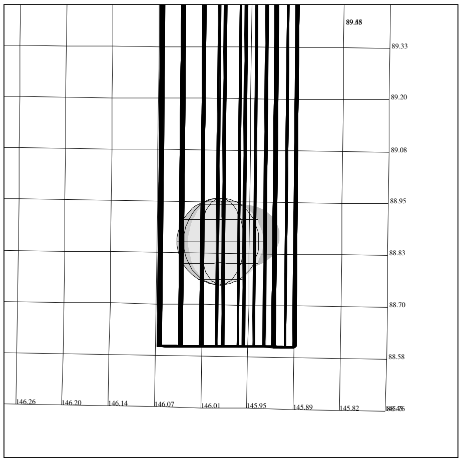

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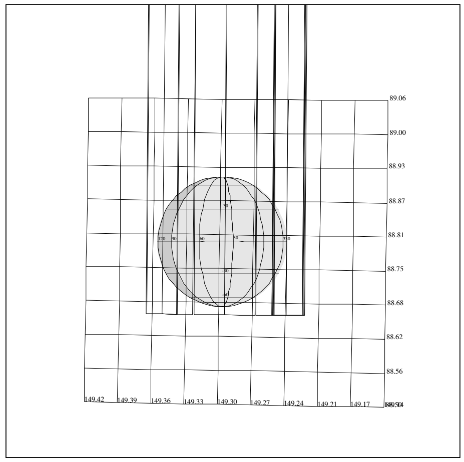

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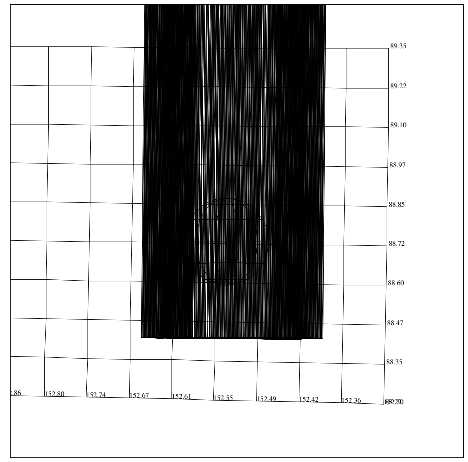

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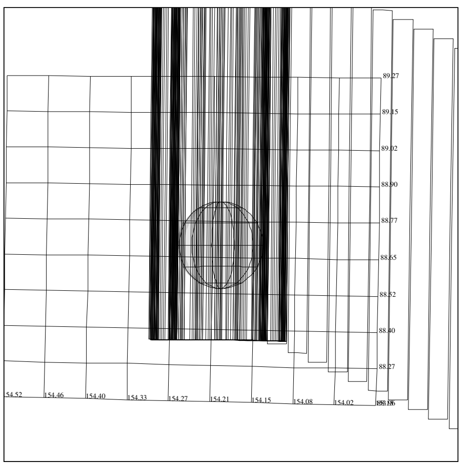

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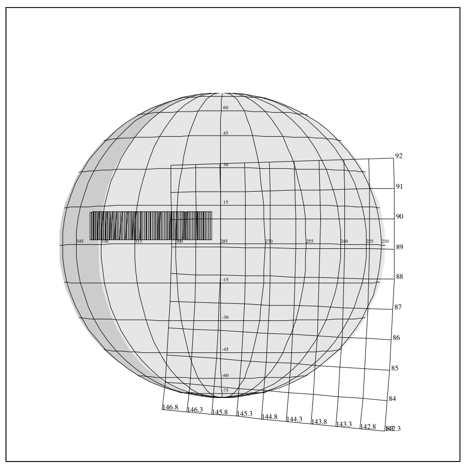

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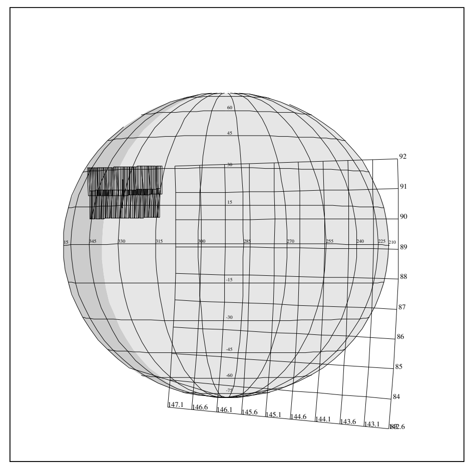

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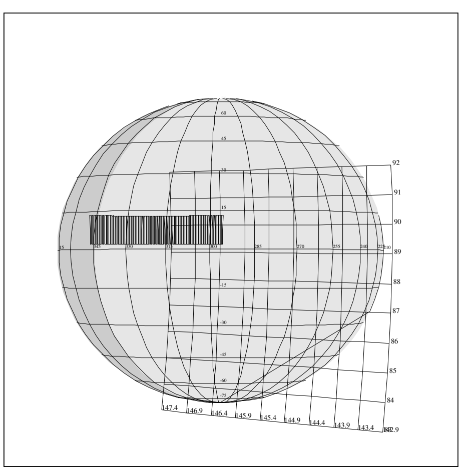

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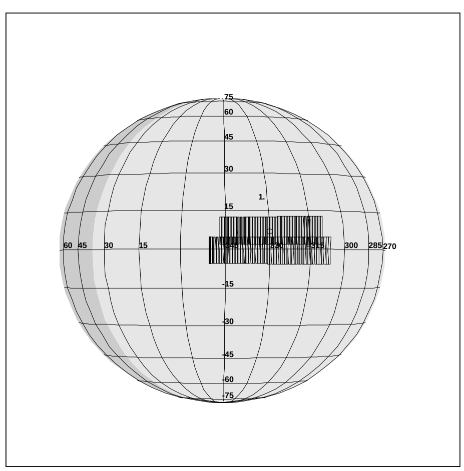

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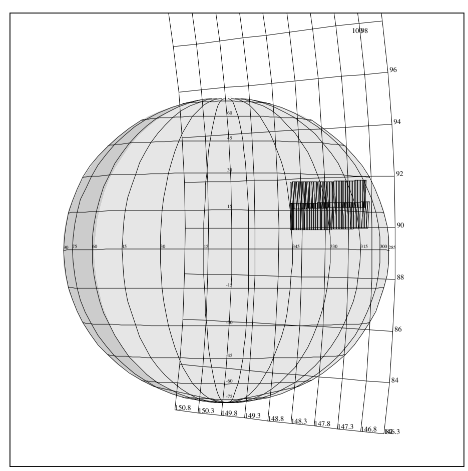

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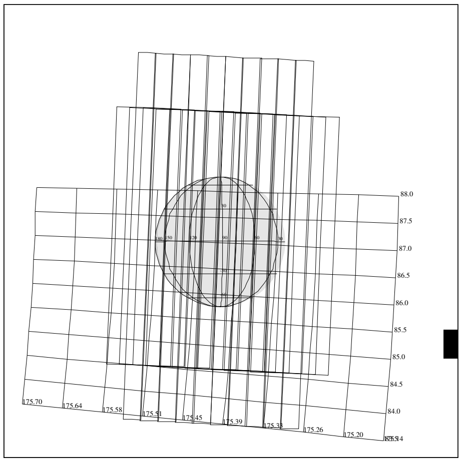

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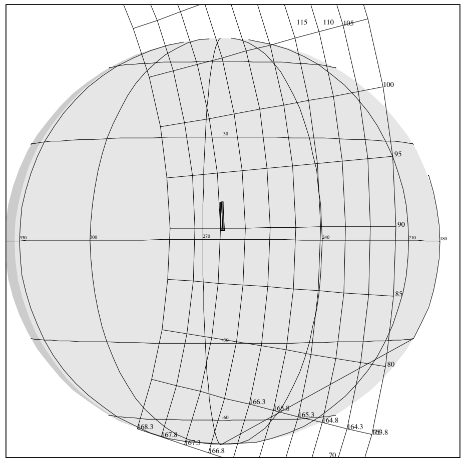

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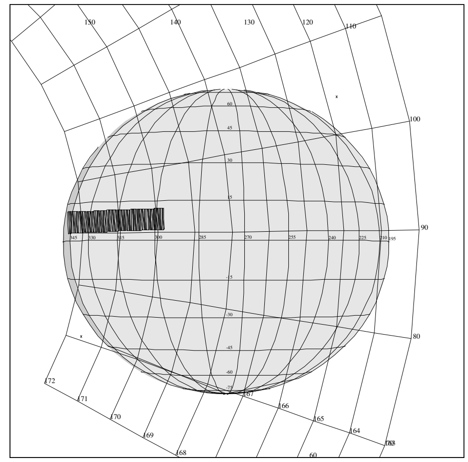

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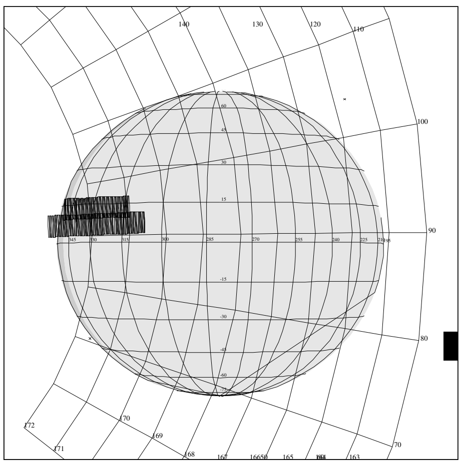

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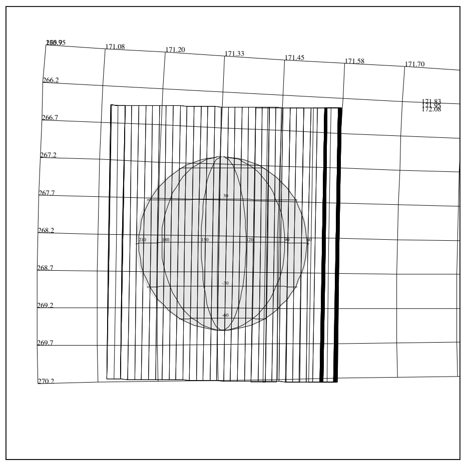

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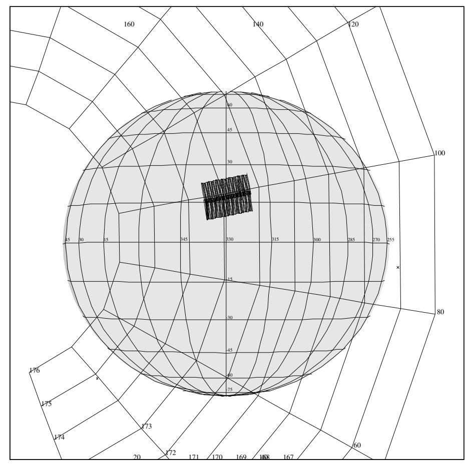

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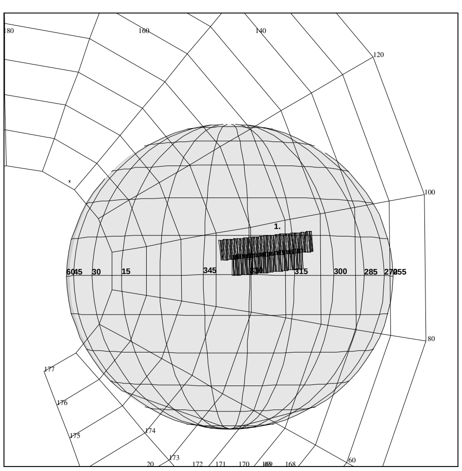

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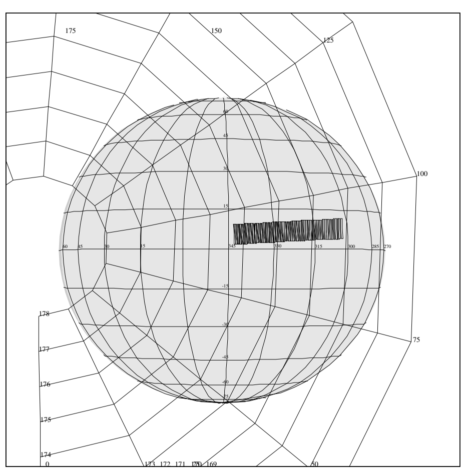

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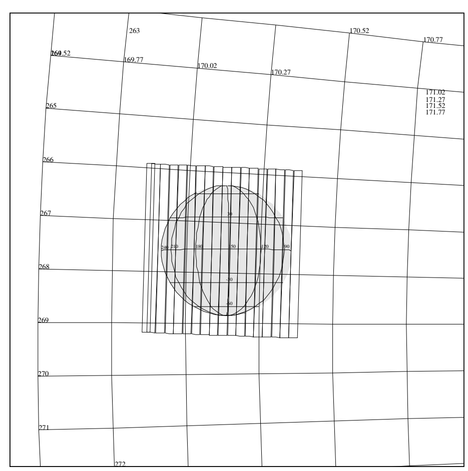

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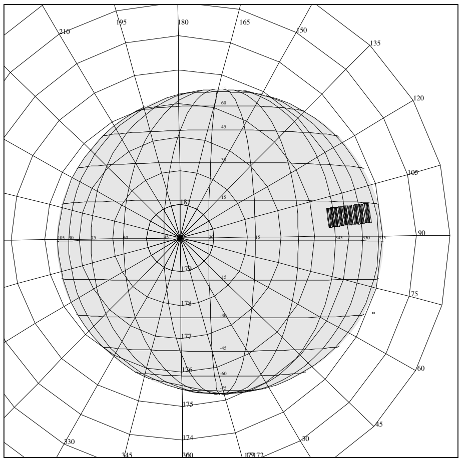

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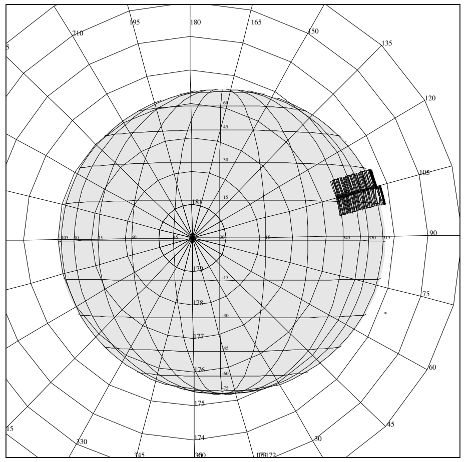

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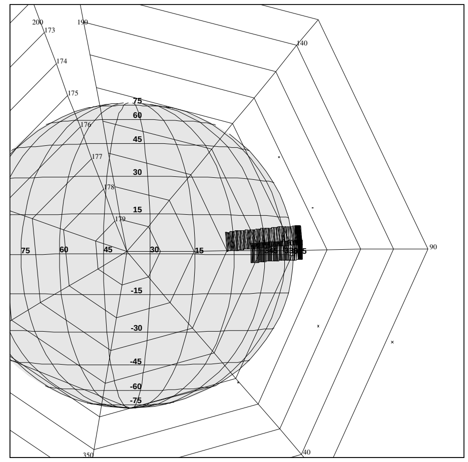

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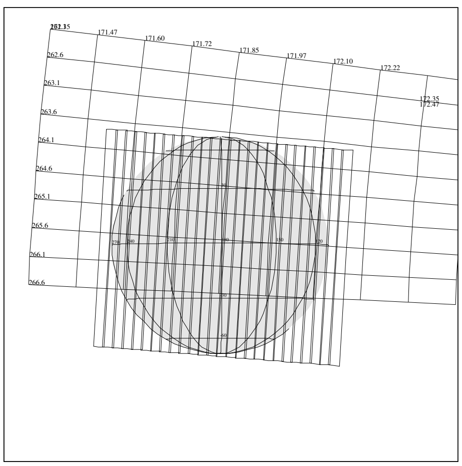

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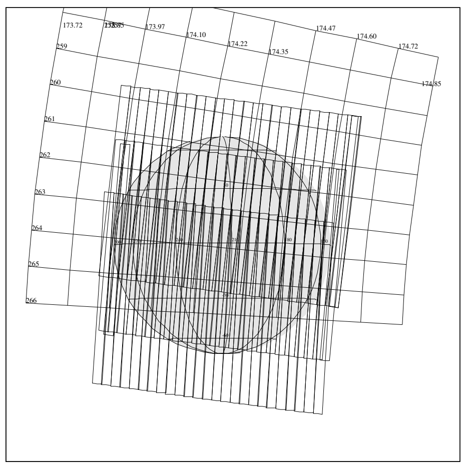

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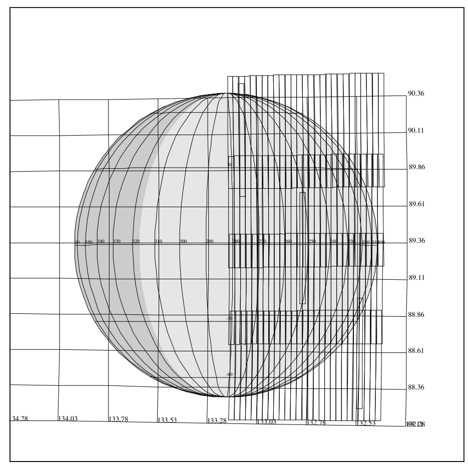

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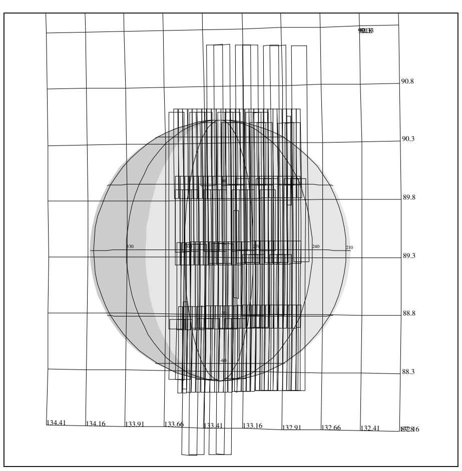

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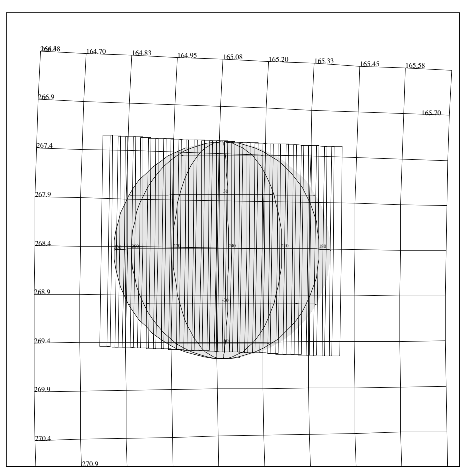

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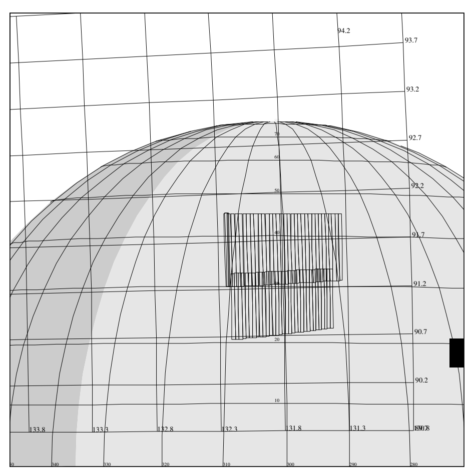

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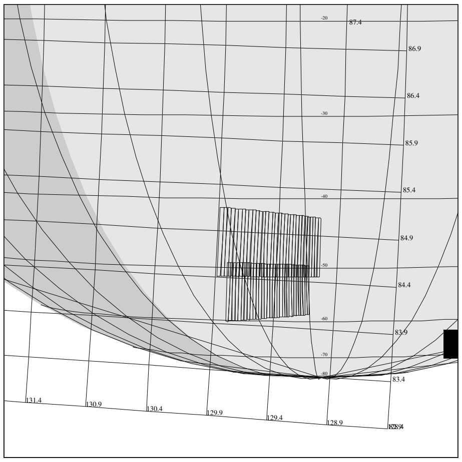

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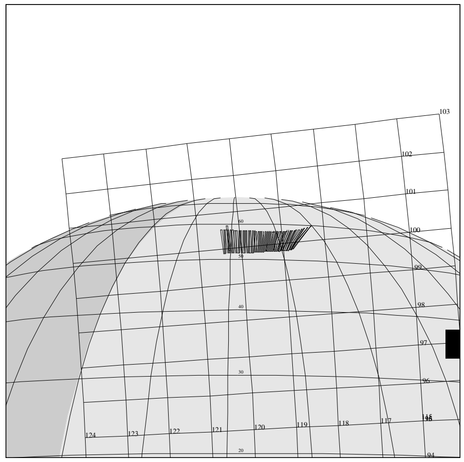

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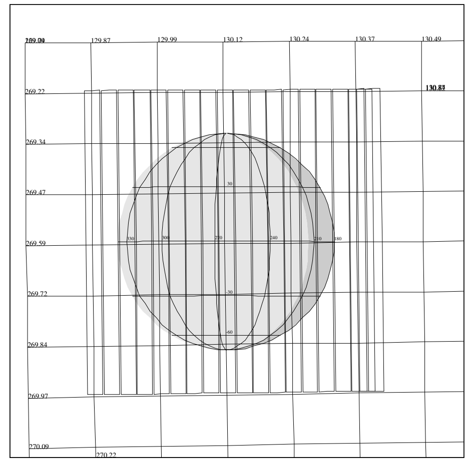

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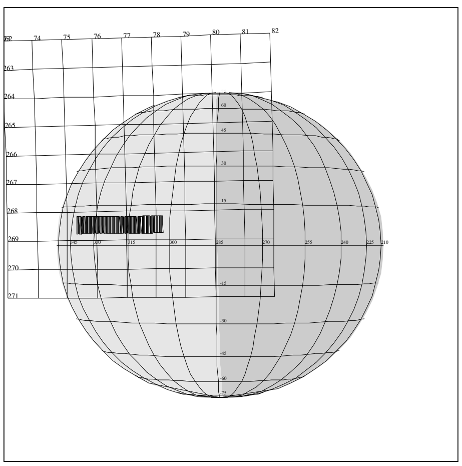

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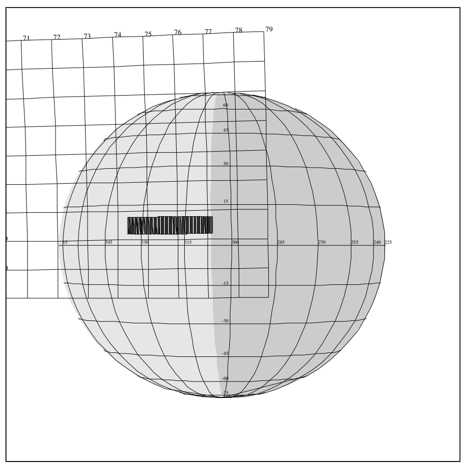

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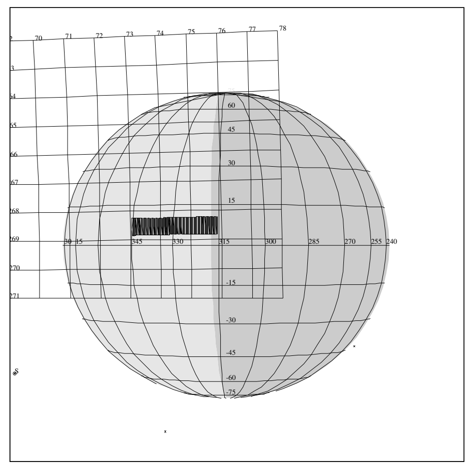

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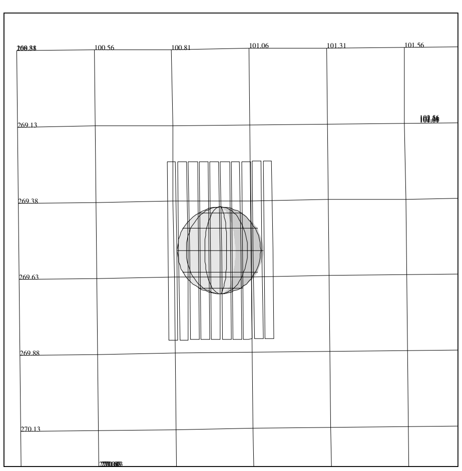

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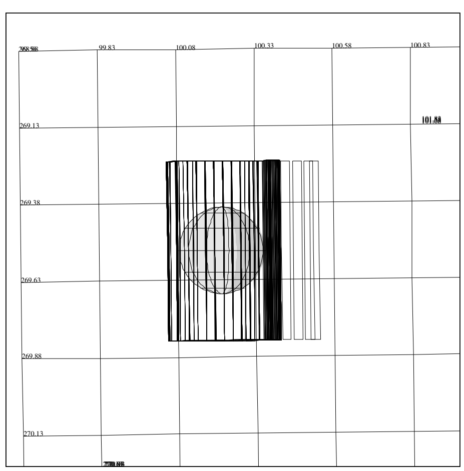

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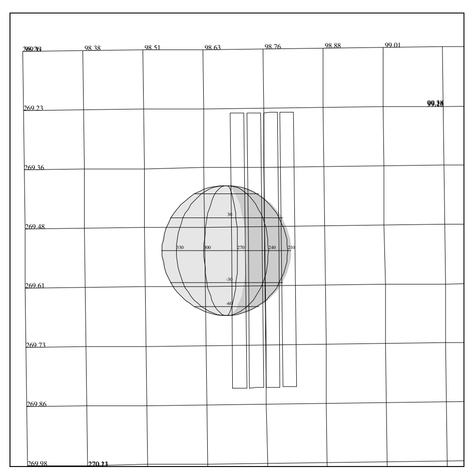

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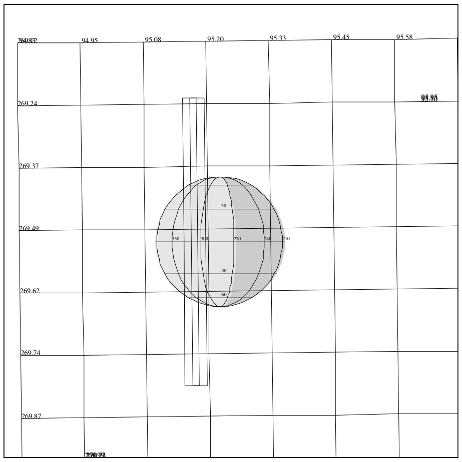

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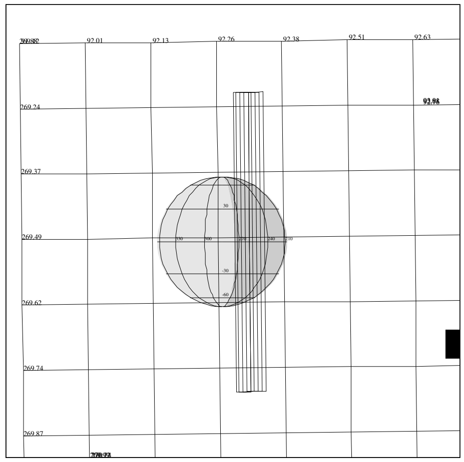

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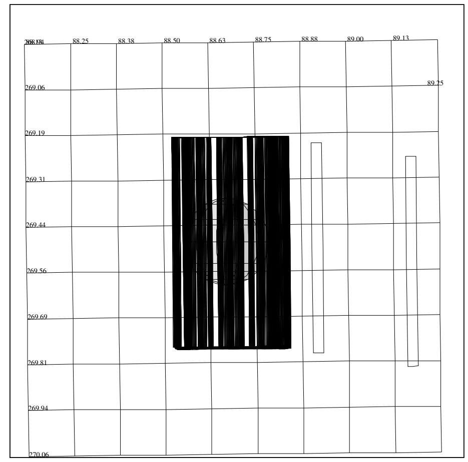

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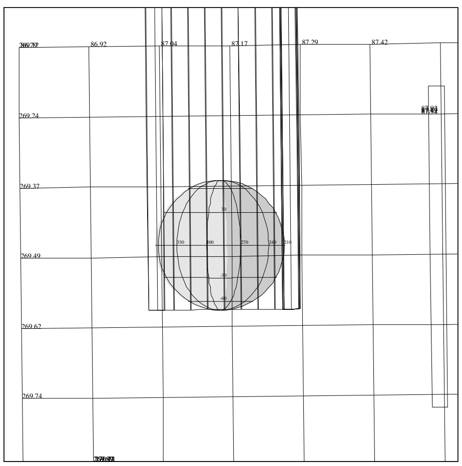

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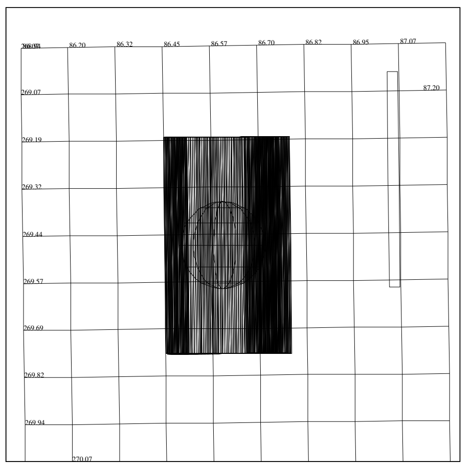

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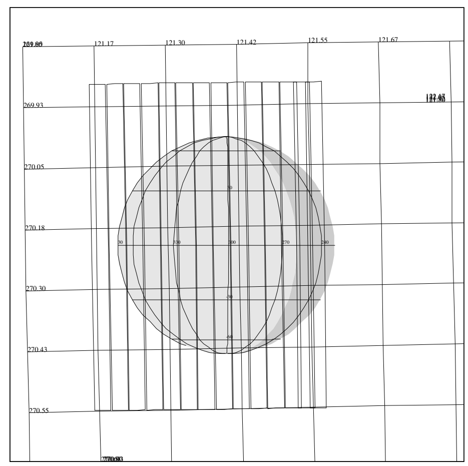

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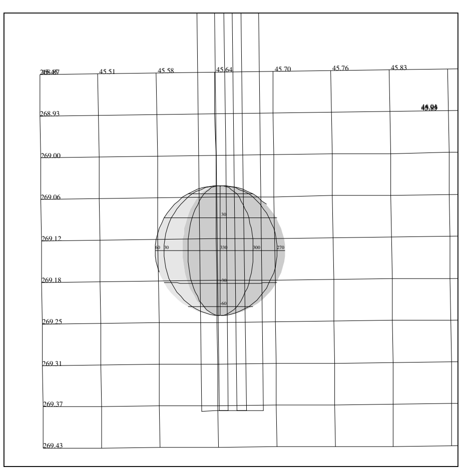

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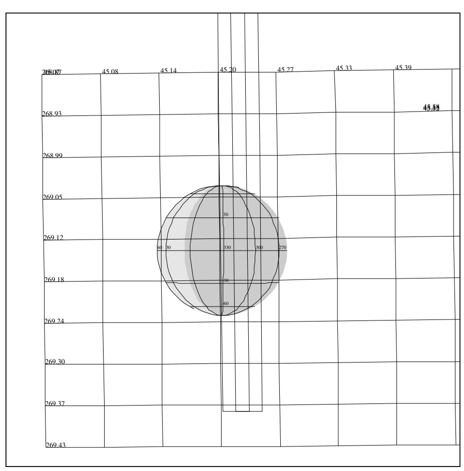

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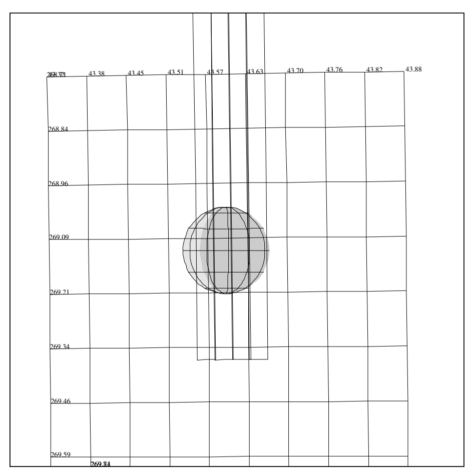

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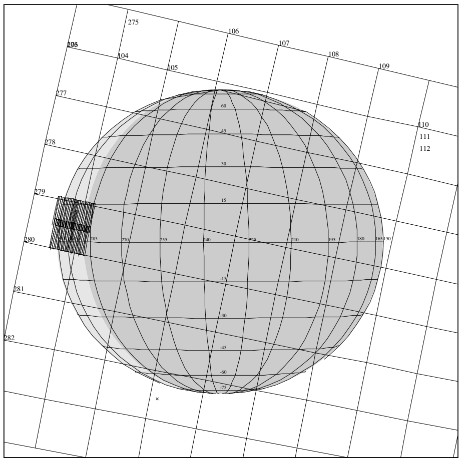

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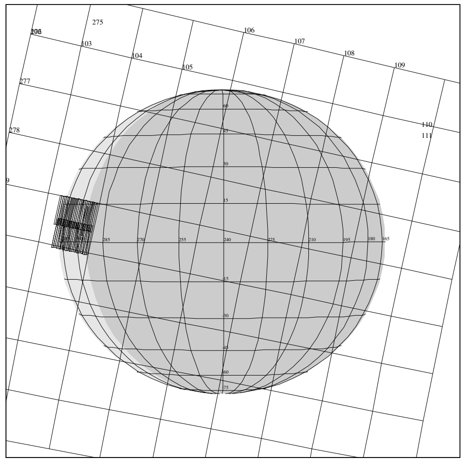

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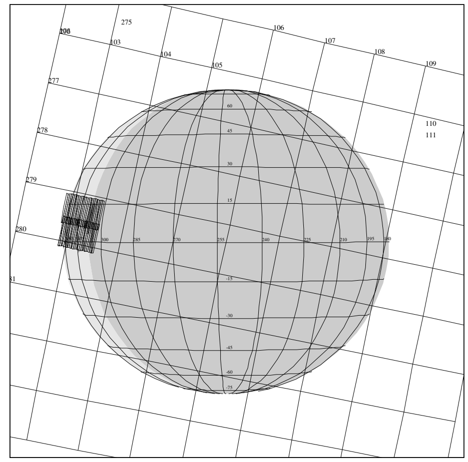

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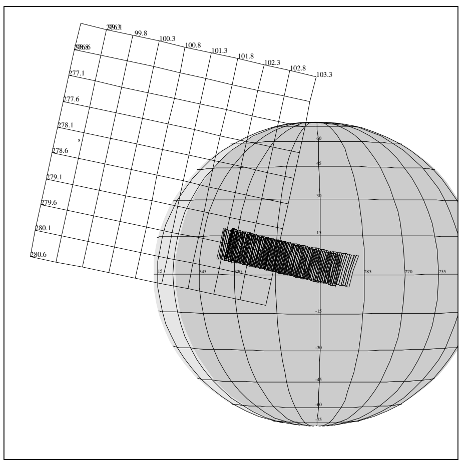

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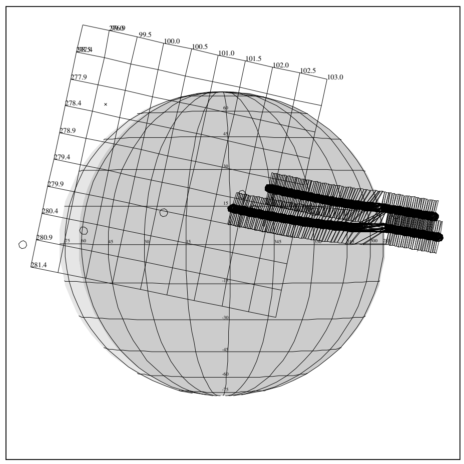

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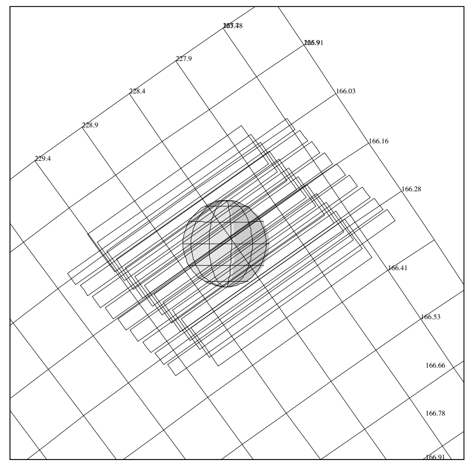

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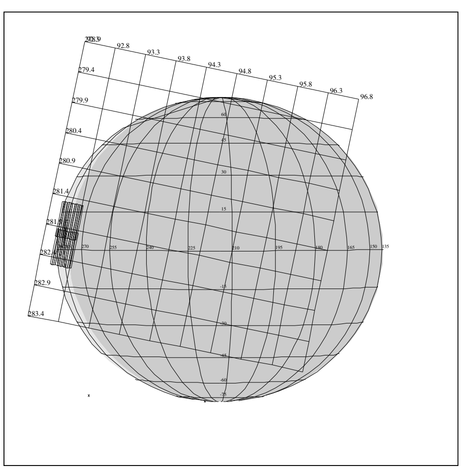

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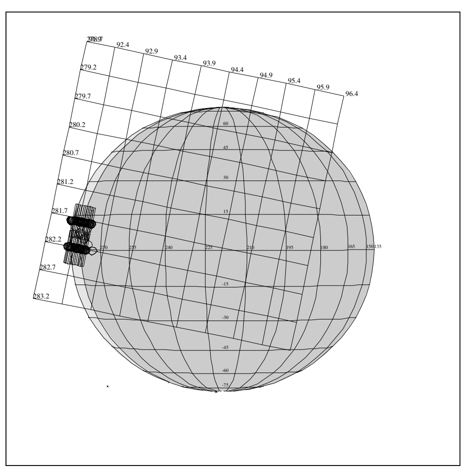

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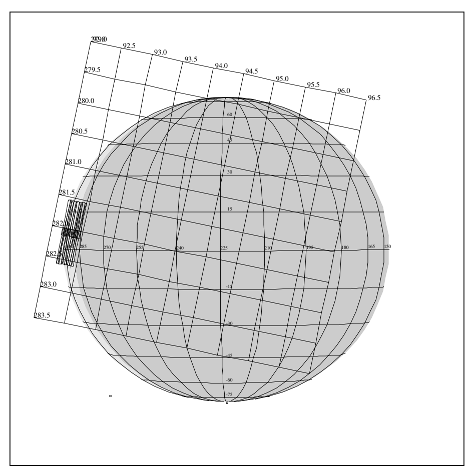

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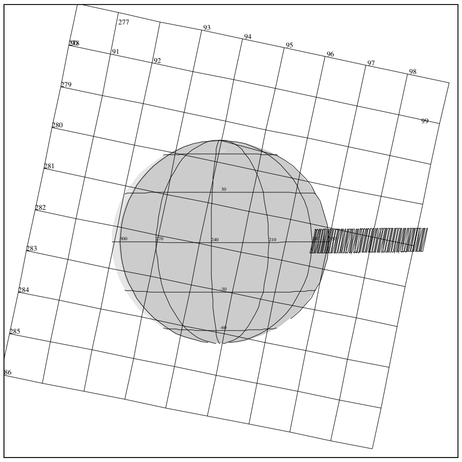
E4 NIMS H



E4RNMRING_01

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