# Chapter 2 - Orbit Overview

## Contents

# Introduction to Chapter 2

This chapter gives an overview of the NIMS observations in the C30 Orbit.

The text on page 3 summarizes the NIMS science objectives for C30. The NIMS calibrations are discussed on page 3. Early data return and C30 playback are also discussed on page 3.

The table on page 4 is a time-ordered listing of the NIMS Oapels for C30.

The plot on page 5 shows the geometry of the NIMS C30 observations using a north trajectory pole view projection. The plot on page 6 shows the geometry of the NIMS C30 calibrations.

The spreadsheet on page 7 summarizes the various inputs for the NIMS C30 Observations. The spreadsheet on pages 8 and 9 summarizes the resource usage for the NIMS C30 observations.

The table on page 10 lists various NIMS C30 observing parameters: target latitude/longitude, range, cone angle, incidence angle light), emission angle view) and phase angle.

The timeline on pages 11 through 15 shows the placement of the C30 observations for all intruments during the C30 Encounter Period.

The tapemap on page 16 shows the placement of the C30 observations on the spacecraft's tape recorder.

The timeline on pages 17 through 27 shows the preliminary C30 playback schedule.

The NIMS C30 mosaic designs are summarized on pages 28 through 30 in time-order.

# NIMS C30 SCIENCE OVERVIEW

## Jupiter Science

There are twelve Jupiter observations in C30, all recorded. Three observations look at brown barges (BBARGE and BARGEB), three others look at the equatorial hot spot region (HTSPOT), two more look at the Great Red Spot wake region (GRWAKE), one looks at the white oval region (WTOVAL) and three are global maps (GLOBAL).

## Io Science

Two global maps look at the same face of Io: one in eclipse and the other two-thirds illuminated.

## Europa Science

There is one global Europa observation in C30.

## Ganymede Science

There are no Ganymede observations in C30.

## Callisto Science

There are four Callisto observations in C30. FEATRE01 is a high resolution scan of the Asgard multi-ring struecture. CTBRAN01 looks at the Bran crater region. REGION01 and REGION02 are regional scale maps of a portion of Callisto’s surface.

## Calibration

There is one NIMS calibration observation planned for C30: an RCT cal.

## Early Data Return

There is one realtime observations in C30, the RCT calibration.

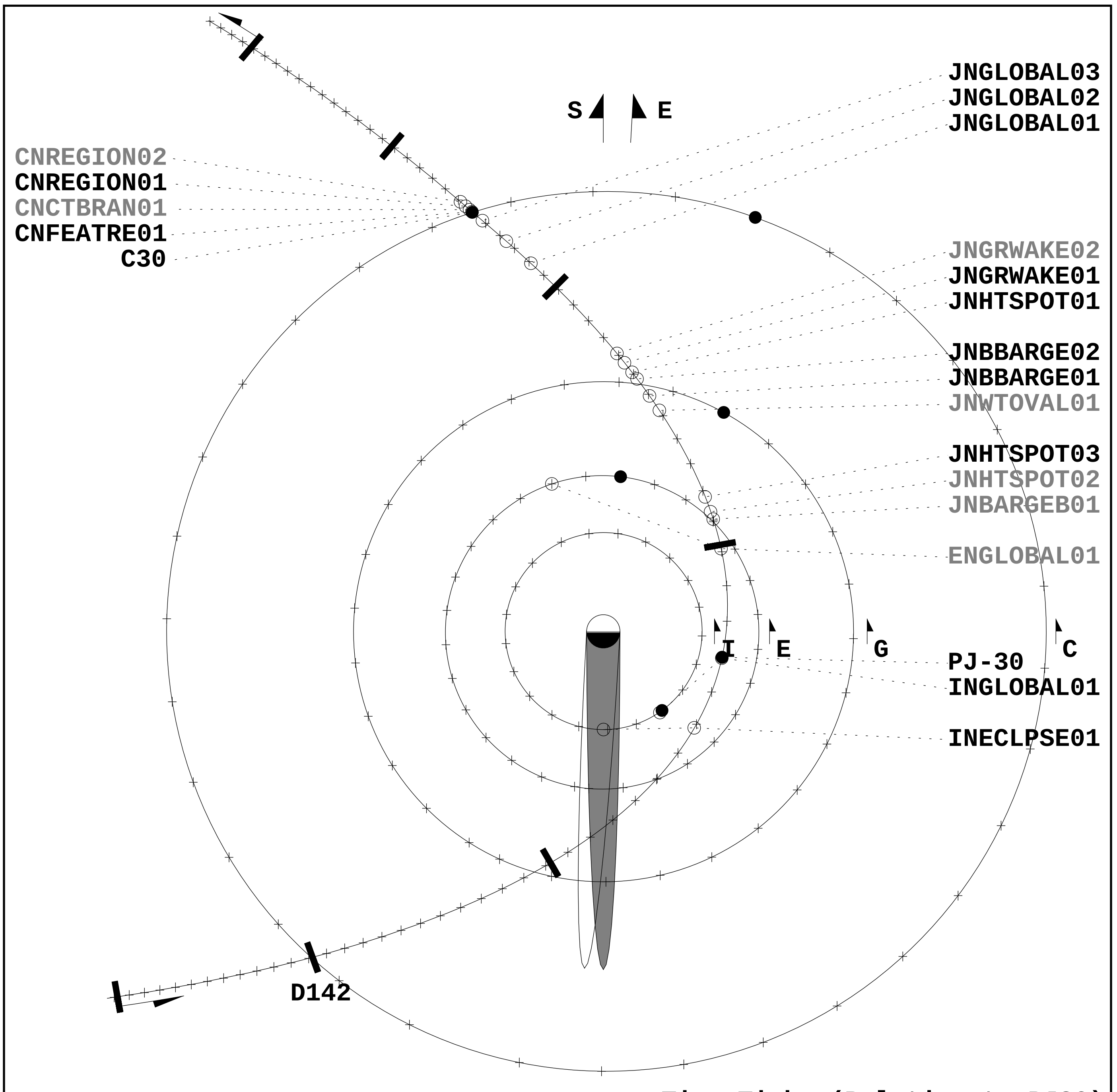
## C30 Playback

C30 playback is split into two passes through the tape.

## C30 Time-Ordered Listing

| OAPEL | Start (UTC) | End (UTC) | Duration |
|---|---|---|---|
| 30INECLPSE01 | 01-143/13:19:33 | 01-143/13:27:38 | 0/00:08:05 |
| 30INGLOBAL01 | 01-143/17:31:18 | 01-143/17:49:30 | 0/00:18:12 |
| 30ENGLOBAL01 | 01-143/23:46:26 | 01-143/23:54:31 | 0/00:08:05 |
| 30JNBARGEB01 | 01-144/01:08:20 | 01-144/01:56:52 | 0/00:48:32 |
| 30JNHTSPOT02 | 01-144/02:09:00 | 01-144/03:07:38 | 0/00:58:38 |
| 30JNHTSPOT03 | 01-144/03:09:40 | 01-144/04:00:13 | 0/00:50:33 |
| 30JNWTOVAL01 | 01-144/10:04:13 | 01-144/10:36:35 | 0/00:32:21 |
| 30JNBBARGE01 | 01-144/11:25:07 | 01-144/11:45:20 | 0/00:20:13 |
| 30JNBBARGE02 | 01-144/13:06:13 | 01-144/13:36:33 | 0/00:30:20 |
| 30JNHTSPOT01 | 01-144/13:46:40 | 01-144/14:17:00 | 0/00:30:20 |
| 30JNGRWAKE01 | 01-144/14:47:20 | 01-144/15:17:40 | 0/00:30:20 |
| 30JNGRWAKE02 | 01-144/15:48:00 | 01-144/16:18:20 | 0/00:30:20 |
| 30JNGLOBAL01 | 01-145/03:19:36 | 01-145/04:00:03 | 0/00:40:26 |
| 30JNGLOBAL02 | 01-145/06:41:49 | 01-145/07:10:08 | 0/00:28:18 |
| 30JNGLOBAL03 | 01-145/10:04:03 | 01-145/10:34:23 | 0/00:30:20 |
| 30CNFEATRE01 | 01-145/11:31:10 | 01-145/11:44:19 | 0/00:13:08 |
| 30CNCTBRAN01 | 01-145/11:52:14 | 01-145/12:23:34 | 0/00:31:20 |
| 30CNREGION01 | 01-145/12:28:38 | 01-145/13:09:04 | 0/00:40:26 |
| 30CNREGION02 | 01-145/13:15:08 | 01-145/13:48:30 | 0/00:33:22 |
| 30NNRCTRLT01 | 01-191/07:26:07 | 01-191/20:36:49 | 0/13:10:42 |

# NIMS C30 OBSERVATIONS




Time Ticks (Relative to PJ30)
Io - 2 Hrs
Europa - 3 Hrs
Ganymede - 6 Hrs
Callisto - 12 Hrs
Spacecraft - 2 Hrs

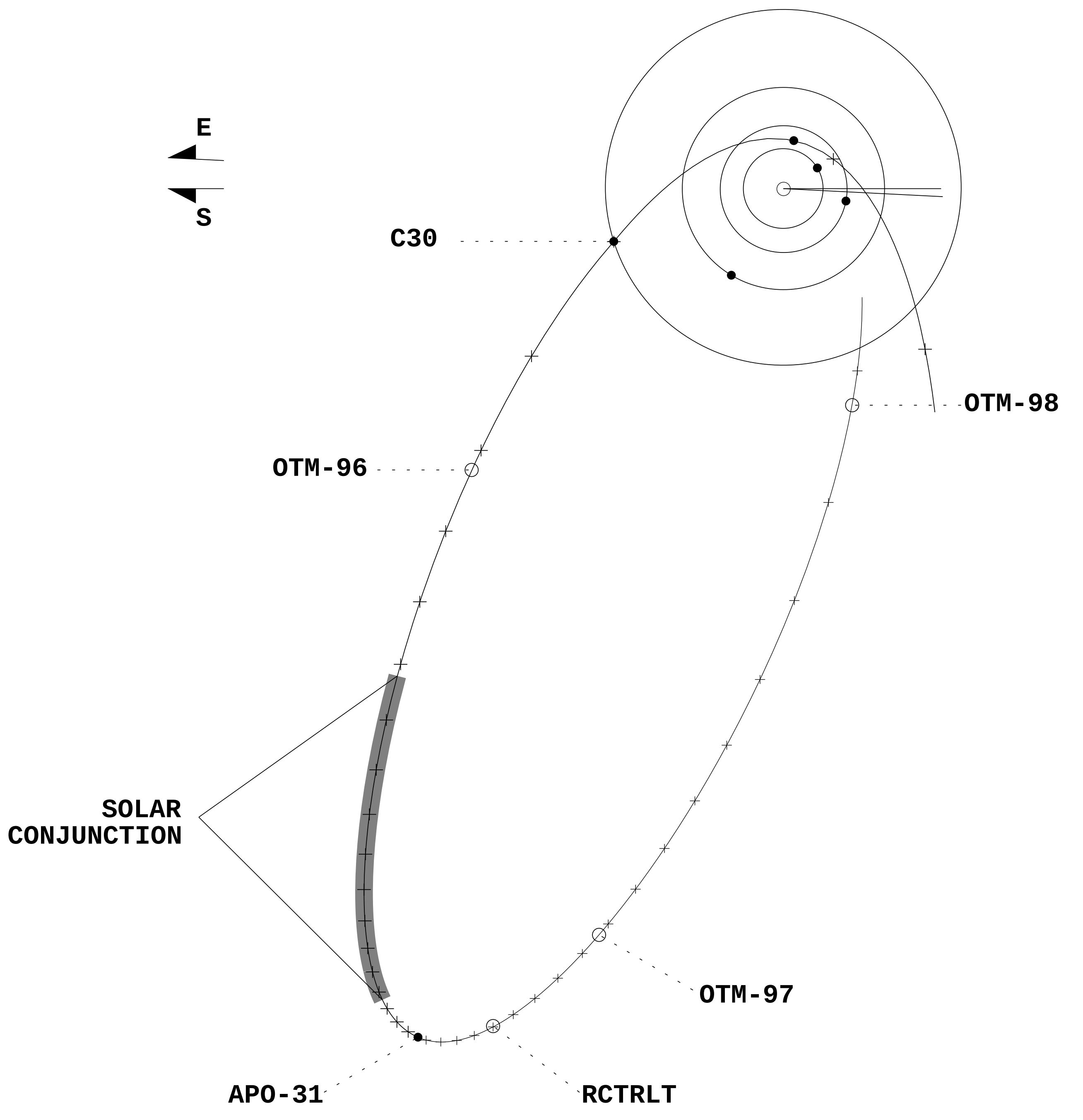
Bold - Returned
Gray - Not Returned
* - Processor Halted

Callisto Flyby (C30): 25-MAY-2001 (D145) 11:25:23 UTC
Perijove (PJ30): 23-MAY-2001 (D143) 17:34:12 UTC

C30 North Trajectory Pole View

NIMS - FEL - 11/30/01

# NIMS C30 CALIBRATIONS




Time Ticks (Relative to C30)
Spacecraft -  2 Days

Callisto Flyby (C30): 25-MAY-2001 (D145) 11:25:23 UTC
Perijove (PJ30): 23-MAY-2001 (D143) 17:34:11 UTC
Apojove (A31): 29-JUN-2001 (D180) 23:46:40 UTC

C30 North Trajectory Pole View

NIMS - FEL - 03/26/01

# C30 NIMS INPUTS

| Activity ID | Observation Title | NIMS Edit Table | NIMS PB Table | Mode | Gain | Grating Start | Grating Offset | Record Format | PSID |
|---|---|---|---|---|---|---|---|---|---|
| 30INECLPSE01- | Io Eclipse | C30ILM442 | C30ILMFG36 | LM | 4 | 0 | 4 | MPW | DF |
| 30INGLOBAL01- | Io Global | C30ILM442 | C30ILMFG36 | LM | 2 | 0 | 4 | MPW | DA |
| 30ENGLOBAL01- | Europa Global | C30ELM442 | | LM | 4 | 0 | 4 | LPU | DB |
| 30JNBARGEB01 | Jupiter Brown Barge | C30JLMFG240 | C30JLMFG16 | LM | 2 | 0 | 4 | LPU | DC |
| 30JNHTSPOT02- | Jupiter Hot Spot | C30JLMFG240 | C30JLMFG16 | LM | 2 | 0 | 4 | LPU | DD |
| 30JNHTSPOT03- | Jupiter Hot Spot | C30JLMFG240 | C30JLMFG16 | LM | 2 | 0 | 4 | LPU | DE |
| 30JNWTOVAL01- | Jupiter White Oval | C30JLMFG240 | C30JLMFG16 | LM | 2 | 0 | 4 | LPU | DG |
| 30JNBBARGE01- | Jupiter Brown Barge | C30JLMFG240 | C30JLMFG16 | LM | 2 | 0 | 4 | LPU | DH |
| 30JNBBARGE02- | Jupiter Brown Barge | C30JLMFG240 | C30JLMFG8 | LM | 2 | 0 | 4 | LPU | DI |
| 30JNHTSPOT01- | Jupiter Hot Spot | C30JLMFG240 | C30JLMFG16 | LM | 2 | 0 | 4 | LPU | DJ |
| 30JNGRWAKE01- | Jupiter GRS Wake | C30JLMFG240 | C30JLMFG16 | LM | 2 | 0 | 4 | LPU | DK |
| 30JNGRWAKE02- | Jupiter GRS Wake | C30JLMFG240 | C30JLMFG16 | LM | 2 | 0 | 4 | LPU | DL |
| 30JNGLOBAL01- | Jupiter Global | C30JXMFG10 | C30JXMFG2 | XM | 2 | 0 | 4 | LPU | DP |
| 30JNGLOBAL01- | Jupiter Global | C30JXMFG10 | C30JXMFG5 | XM | 2 | 0 | 4 | LPU | DP |
| 30JNGLOBAL02- | Jupiter Global | C30JXMFG10 | C30JXMFG5 | XM | 2 | 0 | 4 | LPU | DQ |
| 30JNGLOBAL03- | Jupiter Global | C30JXMFG10 | C30JXMFG5 | XM | 2 | 0 | 4 | LPU | DR |
| 30CNFEATRE01- | Callisto Feature | C30CLM442 | C30CLMFG36 | LM | 4 | 0 | 4 | MPW | DS |
| 30CNCTBRAN01- | Bran Crater | C30CLMFG253 | C30CLMFG36 | LM | 4 | 0 | 4 | LPU | DT |
| 30CNREGION01- | Callisto Regional | C30CLMFG253 | C30CLMFG12 | LM | 4 | 0 | 4 | LPU | DU |
| 30CNREGION02-- | Callisto Regional | C30CLMFG253 | C30CLMFG12 | LM | 4 | 0 | 4 | LPU | DV |

# C30 RESOURCES

| Activity ID | Mode | Record Format | Obs. Cost (tracks) | Obs. Cost (ticks) | Number Wavelengths Returned | Obs Record (sec.) | Obs PB (sec.) | Selected Bits to Tape sBOT (MBITS) | Bits to Tape BOT (Mbit) | Mode Cycle time (sec) |
|---|---|---|---|---|---|---|---|---|---|---|
| 30INECLPSE01- | LM | MPW | 0.0550 | 321 | 36 | 362 | 359 | 4.14 | 4.17 | 8.667 |
| 30INGLOBAL01- | LM | MPW | 0.1310 | 764 | 36 | 866 | 427 | 4.92 | 9.98 | 8.667 |
| 30ENGLOBAL01- | LM | LPU | 0.0094 | 55 | 24 | 226 | 226 | 1.39 | 1.39 | 8.667 |
| 30JNBARGEB01 | LM | LPU | | | 16 | 2786 | 445 | 2.74 | | 8.667 |
| 30JNHTSPOT02- | LM | LPU | 0.1127 | 656 | 16 | 3275 | 2792 | 17.22 | 0.11 | 8.667 |
| 30JNHTSPOT03- | LM | LPU | 0.0484 | 282 | 16 | 3314 | 1195 | 7.37 | 0.05 | 8.667 |
| 30JNWTOVAL01- | LM | LPU | 0.0638 | 372 | 16 | 1860 | 1578 | 9.73 | 0.06 | 8.667 |
| 30JNBBARGE01- | LM | LPU | 0.0196 | 114 | 16 | 981 | 478 | 2.95 | 0.02 | 8.667 |
| 30JNBBARGE02- | LM | LPU | 0.0102 | 59 | 8 | 1582 | 244 | 1.50 | 0.01 | 8.667 |
| 30JNHTSPOT01- | LM | LPU | 0.0390 | 227 | 16 | 1582 | 960 | 5.92 | 0.04 | 8.667 |
| 30JNGRWAKE01- | LM | LPU | 0.0637 | 371 | 16 | 1582 | 1574 | 9.71 | 0.06 | 8.667 |
| 30JNGRWAKE02- | LM | LPU | 0.0637 | 371 | 16 | 1582 | 1574 | 9.71 | 0.06 | 8.667 |
| 30JNGLOBAL01- | XM | LPU | 0.0642 | 374 | 2 | 1587 | 302 | 1.86 | 9.79 | 0.333 |
| 30JNGLOBAL01- | XM | LPU | 0.0642 | 374 | 5 | 1587 | 791 | 4.88 | 9.79 | 0.333 |
| 30JNGLOBAL02- | XM | LPU | 0.0588 | 342 | 5 | 1452 | 718 | 4.43 | 8.96 | 0.333 |
| 30JNGLOBAL03- | XM | LPU | 0.0590 | 344 | 5 | 1457 | 824 | 5.08 | 8.99 | 0.333 |
| 30CNFEATRE01- | LM | MPW | 0.1012 | 590 | 36 | 668 | 665 | 7.66 | 7.70 | 8.667 |
| 30CNCTBRAN01- | LM | LPU | 0.0660 | 385 | 24 | 1632 | 1621 | 10.00 | 10.07 | 8.667 |
| 30CNREGION01- | LM | LPU | 0.0910 | 530 | 12 | 2253 | 182 | 1.12 | 13.90 | 8.667 |
| 30CNREGION02-- | LM | LPU | 0.0740 | 431 | 12 | 1830 | 1819 | 11.22 | 11.29 | 8.667 |

# C30 RESOURCES

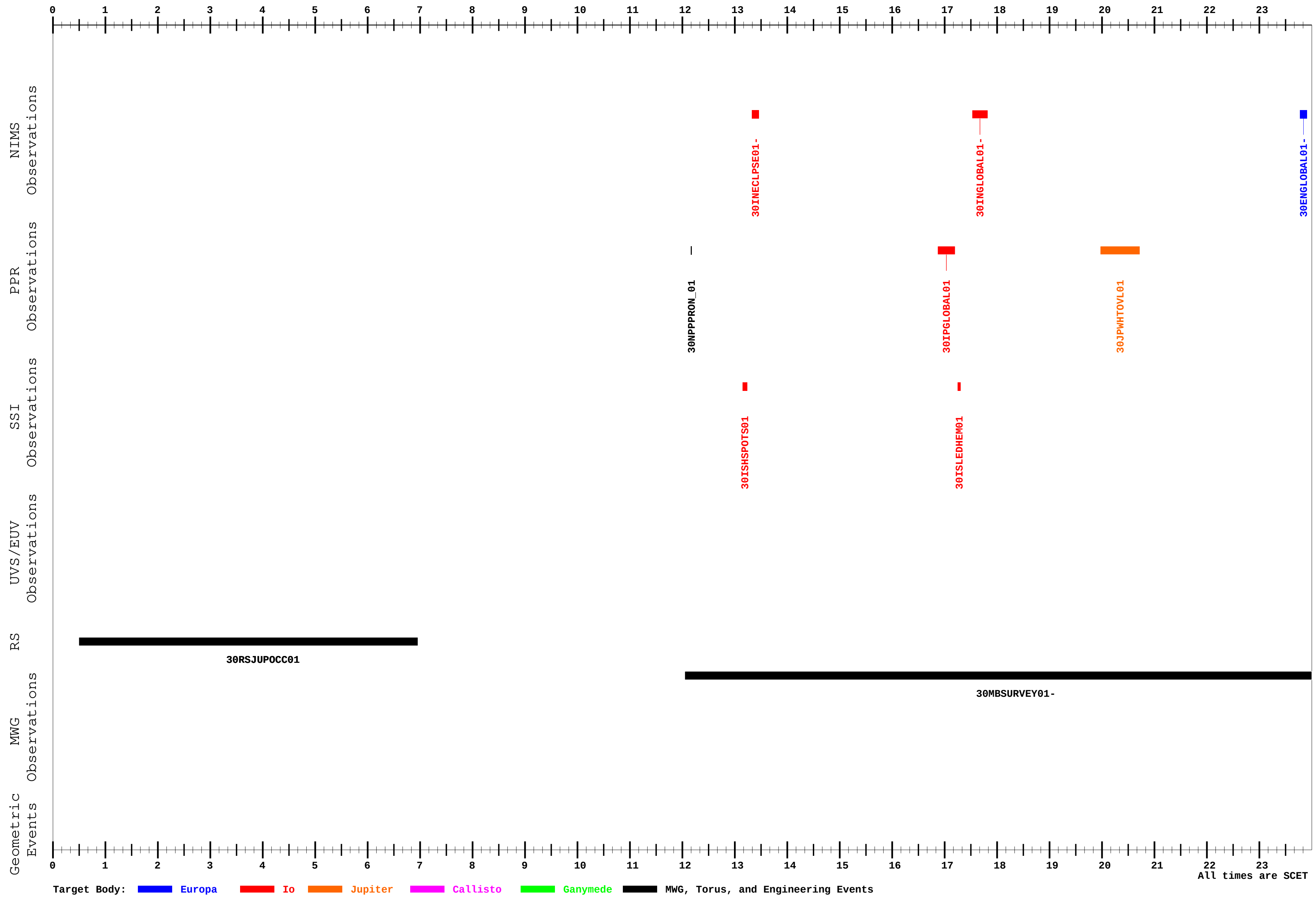
| Activity ID | AACS Mbits c 2.5 | Comp | Thold | RT BTG | Total BTG (Mbits) with 4% O'head | Data Reductio Factor (sBOT/BTG) | Pass |
|---|---|---|---|---|---|---|---|
| 30INECLPSE01- | 0.021 | 1.21 | | | 0.256 | 16.1 | 2 |
| 30INGLOBAL01- | 0.025 | 1.22 | | | 0.302 | 16.3 | 2 |
| 30ENGLOBAL01- | 0.013 | 1.7 | | | | | 2 |
| 30JNBARGEB01 | | 1.5 | | | | | 2 |
| 30JNHTSPOT02- | 0.161 | 1.5 | | | | | 2 |
| 30JNHTSPOT03- | 0.069 | 1.6 | | | 0.287 | 25.7 | 2 |
| 30JNWTOVAL01- | 0.091 | 1.9 | | | | | 2 |
| 30JNBBARGE01- | 0.028 | 1.62 | | | 0.113 | 26.0 | 2 |
| 30JNBBARGE02- | 0.014 | 1.65 | | | 0.028 | 53.0 | 2 |
| 30JNHTSPOT01- | 0.055 | 1.84 | | | 0.200 | 29.6 | 2 |
| 30JNGRWAKE01- | 0.091 | 1.67 | | | 0.362 | 26.8 | 2 |
| 30JNGRWAKE02- | 0.091 | 1.9 | | | | | 2 |
| 30JNGLOBAL01- | 0.017 | 2.08 | | | 0.181 | 10.3 | 2 |
| 30JNGLOBAL01- | 0.046 | 1.86 | | | 1.328 | 3.7 | 2 |
| 30JNGLOBAL02- | 0.041 | 2.1 | | | | | 2 |
| 30JNGLOBAL03- | 0.047 | 1.84 | | | 1.399 | 3.6 | 2 |
| 30CNFEATRE01- | 0.038 | 1.51 | | | 0.380 | 20.1 | 2 |
| 30CNCTBRAN01- | 0.093 | 2 | | | | | 2 |
| 30CNREGION01- | 0.010 | 1.85 | | | 0.028 | 39.6 | 2 |
| 30CNREGION02-- | 0.105 | 2 | | | | | |

NIMS C30 OBSERVING GEOMETRY

| OAPEL | Latitude (deg) | Longitude (deg) | Range (km) | Cone (deg) | Light (deg) | View (deg) | Phase (deg) |
|---|---|---|---|---|---|---|---|
| 30INECLPSE01 | -90 to +90 | 0 to 180 | 384K | 92 | --- | 0 to 90 | 87 |
| 30INGLOBAL01 | -90 to +90 | 0 to 180 | 343K | 132 | 25 to 134 | 27 to 90 | 46 |
| 30ENGLOBAL01 | -90 to +90 | 220 to 40 | 782K | 70 | 19 to 175 | 7 to 90 | 110 |
| 30JNBARGEB01 | +10 to +20 | 307 to 337 | 600K | 132 | 10 to 133 | 22 to 52 | 48 |
| 30JNHTSPOT02 | +5 to +10 | 21 to 50 | 645K | 141 | 19 to 80 | 7 to 44 | 38 |
| 30JNHTSPOT03 | +5 to +10 | 19 to 48 | 680K | 142 | 3 to 42 | 7 to 54 | 37 |
| 30JNWTOVAL01 | -40 to -20 | 214 to 248 | 950K | 163 | 33 to 64 | 42 to 77 | 16 |
| 30JNBBARGE01 | +8 to +23 | 308 to 321 | 968K | 168 | 9 to 19 | 13 to 24 | 12 |
| 30JNBBARGE02 | +7 to +23 | 29 to 49 | 1037K | 174 | 16 to 37 | 14 to 34 | 7 |
| 30JNHTSPOT01 | +1 to +11 | 355 to 45 | 1066K | 173 | 3 to 39 | 6 to 48 | 8 |
| 30JNGRWAKE01 | -17 to -3 | 105 to 123 | 1108K | 178 | 31 to 48 | 28 to 46 | 3 |
| 30JNGRWAKE02 | -17 to -3 | 108 to 122 | 1134K | 177 | 10 to 17 | 8 to 15 | 3 |
| 30JNGLOBAL01 | -90 to +90 | 65 to 245 | 1584K | 169 | 2 to 99 | 2 to 91 | 9 |
| 30JNGLOBAL02 | -90 to +90 | 185 to 5 | 1700K | 166 | 2 to 102 | 1 to 91 | 12 |
| 30JNGLOBAL03 | -90 to +90 | 305 to 125 | 1810K | 164 | 3 to 105 | 3 to 91 | 14 |
| 30CNFEATRE01 | +22 to +28 | 141 to 148 | 3 to 10K | 170 | 53 to 59 | 48 to 57 | 6 to 16 |
| 30CNCTBRAN01 | -18 to -4 | 182 to 198 | 16 to 31K | 173 | 11 to 19 | 9 to 18 | 5 to 8 |
| 30CNREGION01 | -45 to -15 | 210 to 265 | 35 to 58K | 175 | 21 to 73 | 24 to 76 | 5 |
| 30CNREGION02 | -22 to +15 | 174 to 267 | 63 to 82K | 177 | 0 to 68 | 1 to 71 | 4 |

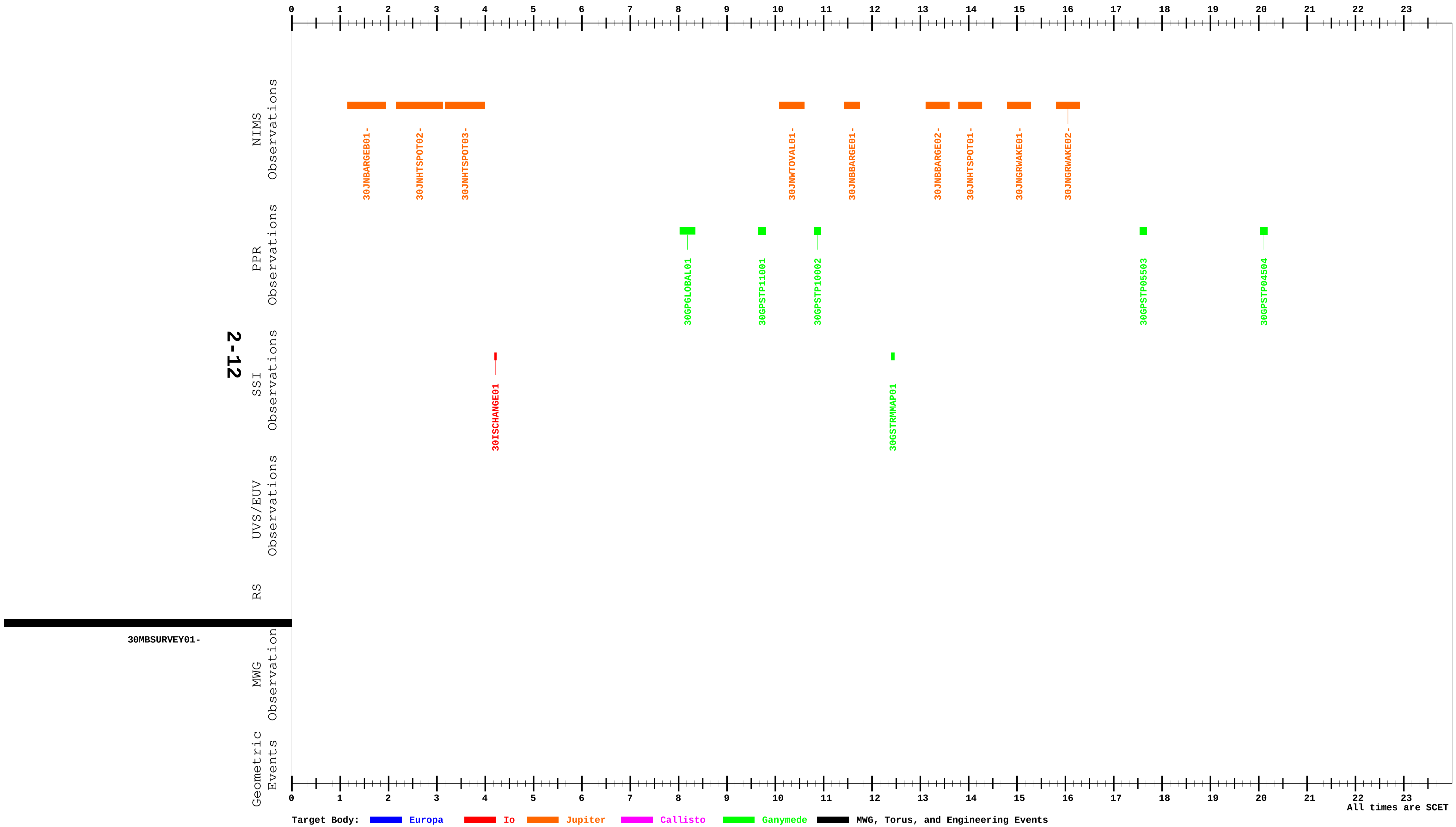
GEM: C30

C30 ENCOUNTER
Plot Time: 01-143/00:00:00.000 to 01-144/00:00:00.000
Date of Plot: 9-May-101 11:26:12



# GEM: C30

**C30 ENCOUNTER**
**Plot Time: 01-144/00:00:00.000 to 01-145/00:00:00.000**
**Date of Plot: 9-May-101 11:26:12**



# GEM: C30

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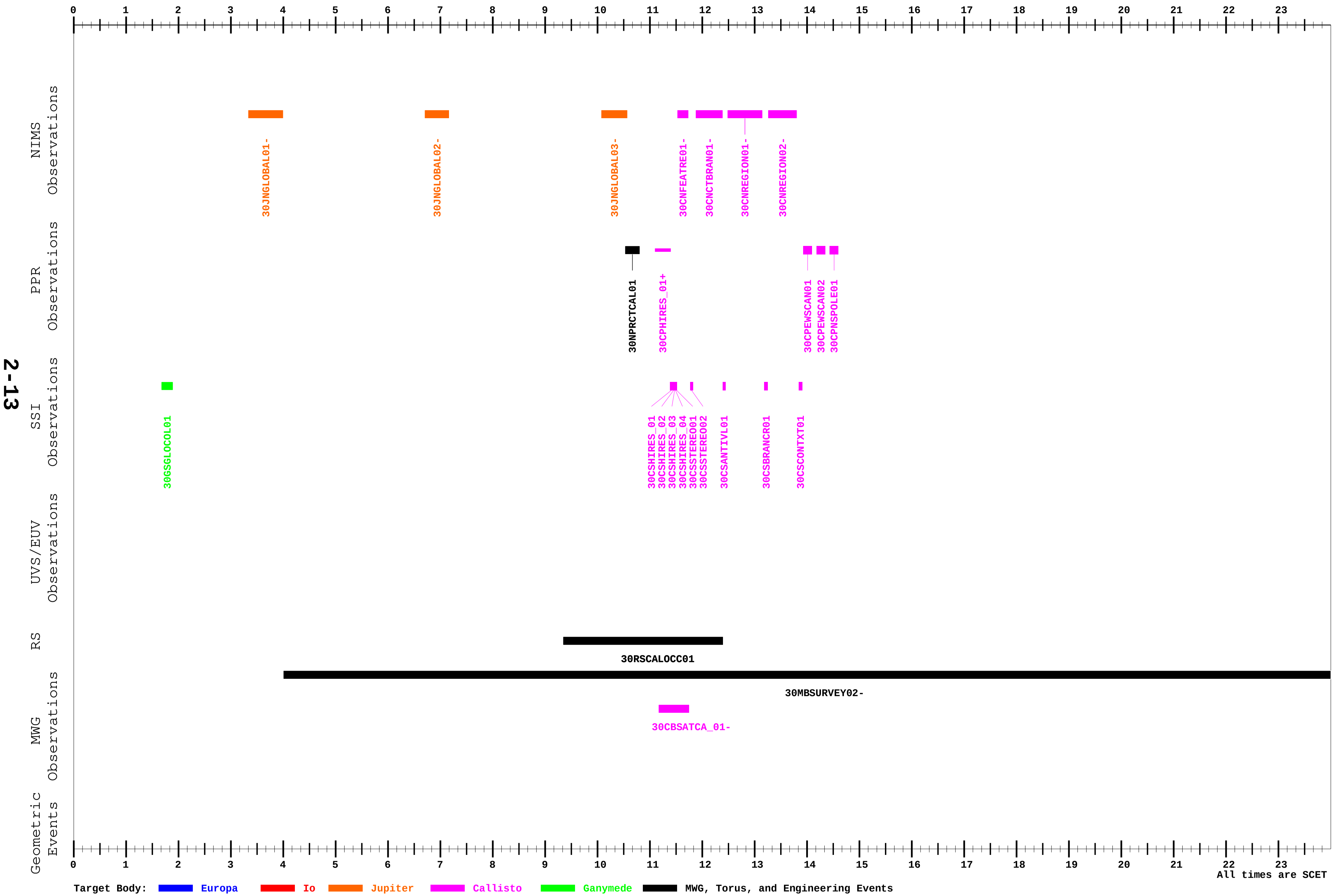

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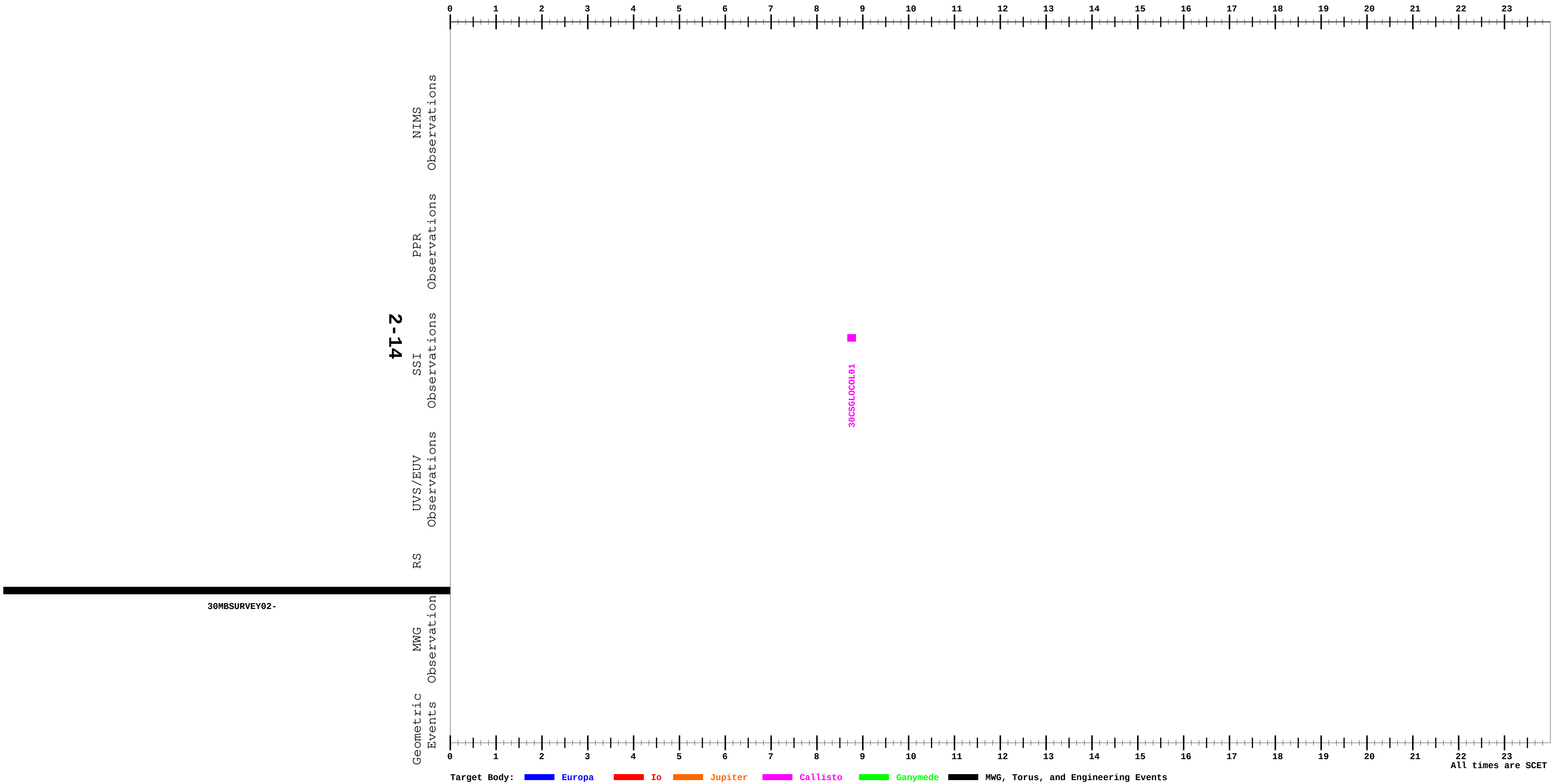
**Date of Plot: 9-May-101 11:26:12**



# GEM: C30

C30 ENCOUNTER
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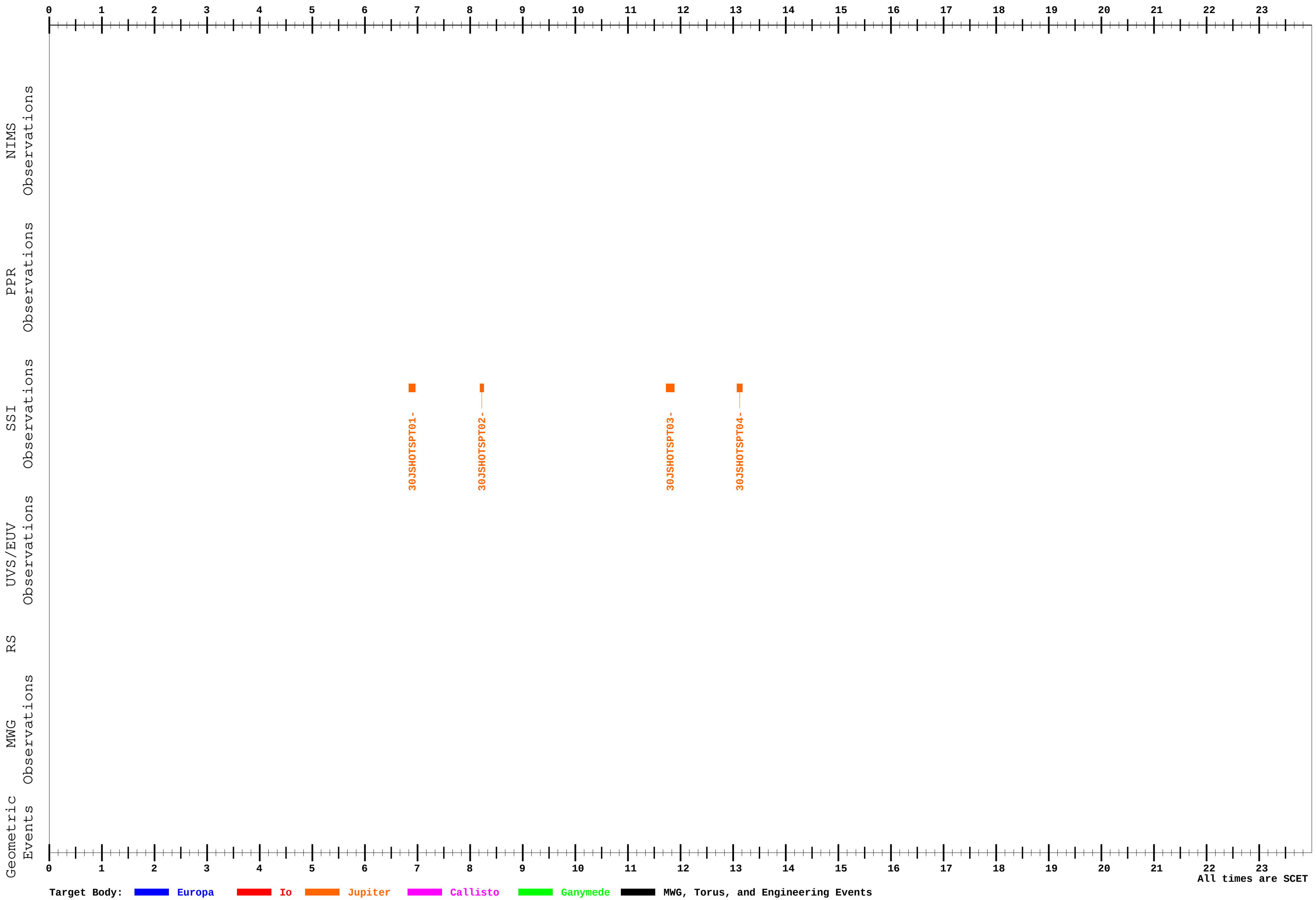
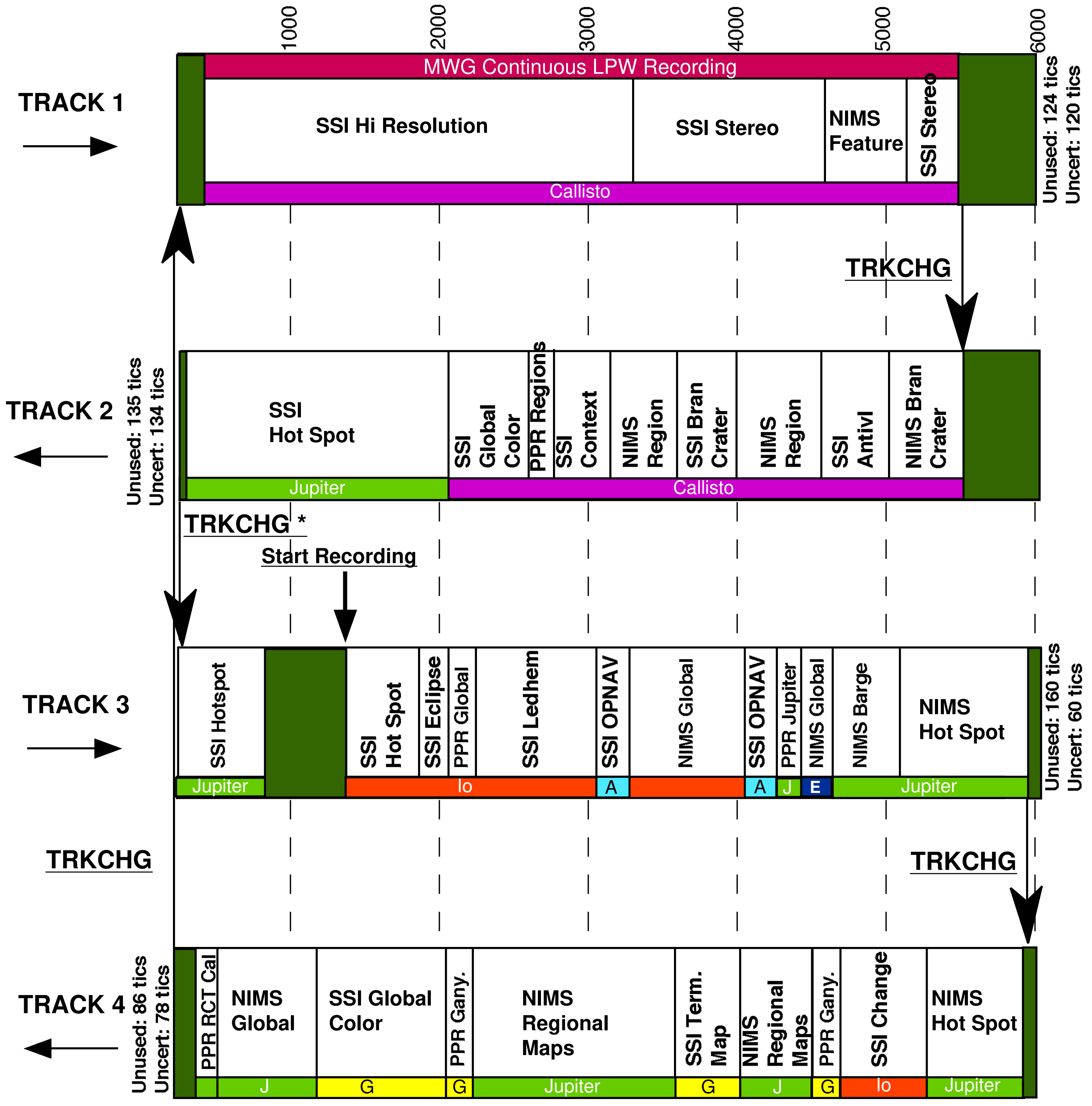
Date of Plot: 9-May-101 11:26:13



# C30 ENCOUNTER HIGH-LEVEL TAPEMAP

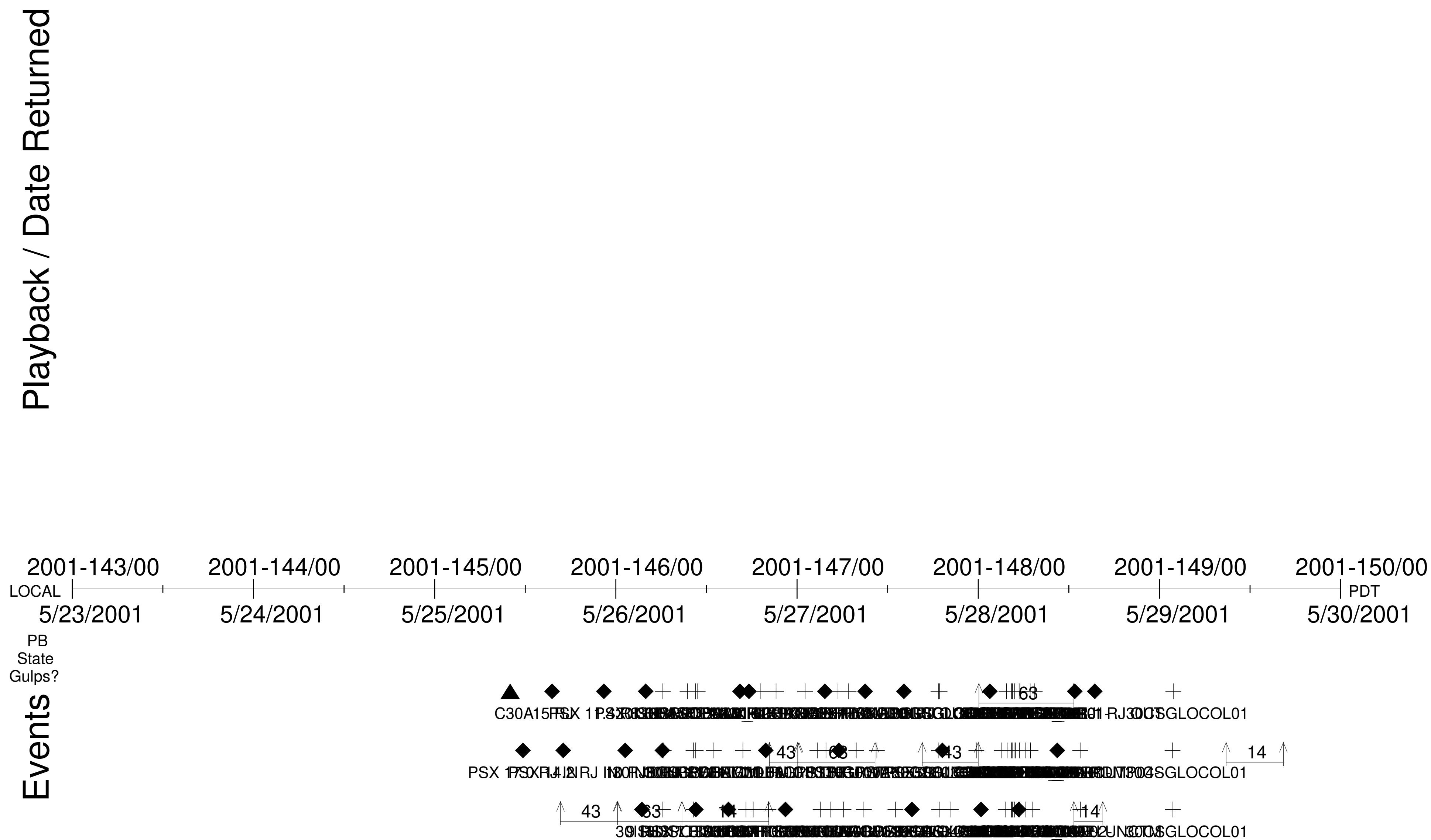



* Track Change from 2 to 4, followed by DTRN from 4 to 1 to clear uncertainties, followed by a slew to tic and track change to 3 to resume recording after the DMS conditioning.

L.Barnard, 5/16/01

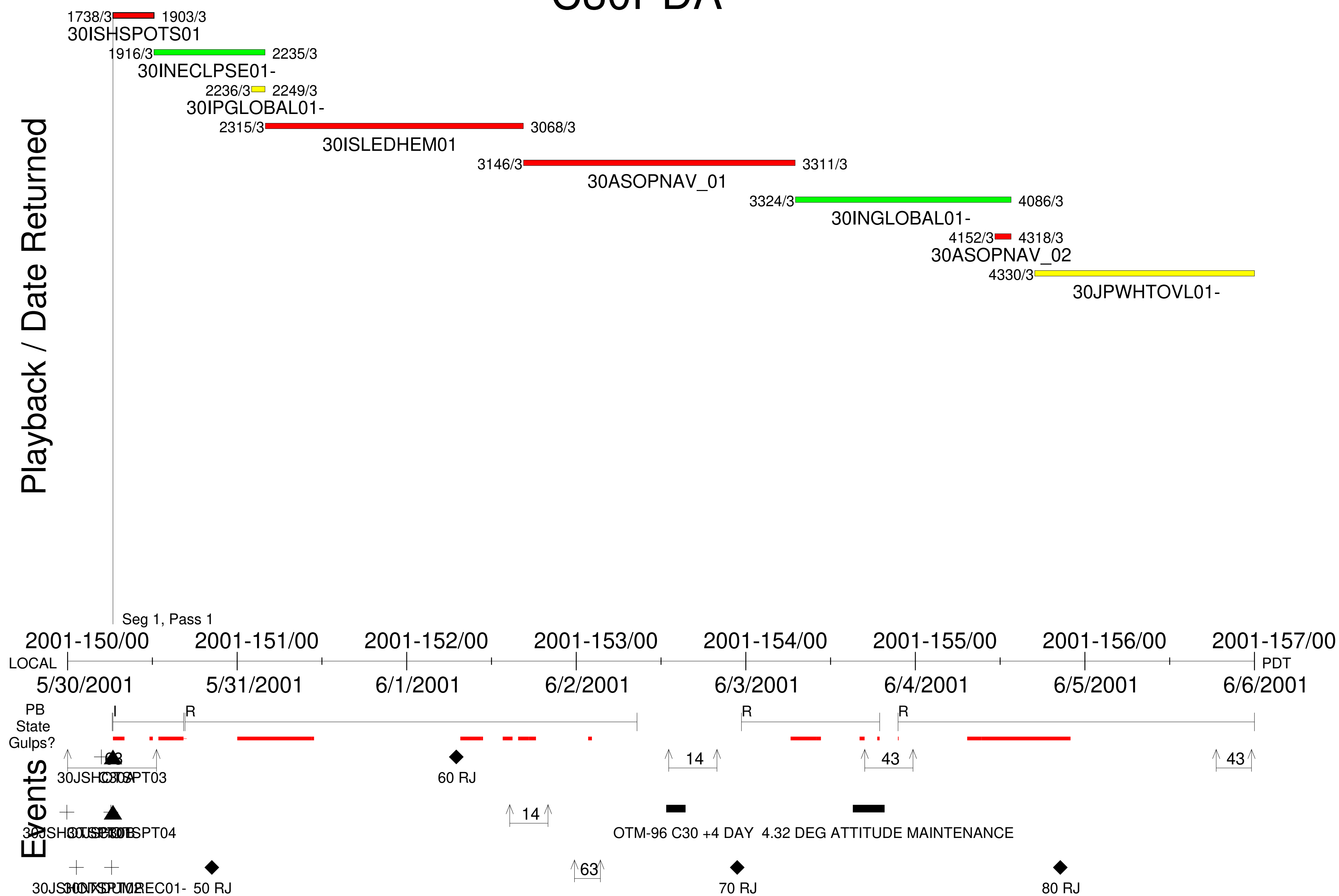
# C30PDA



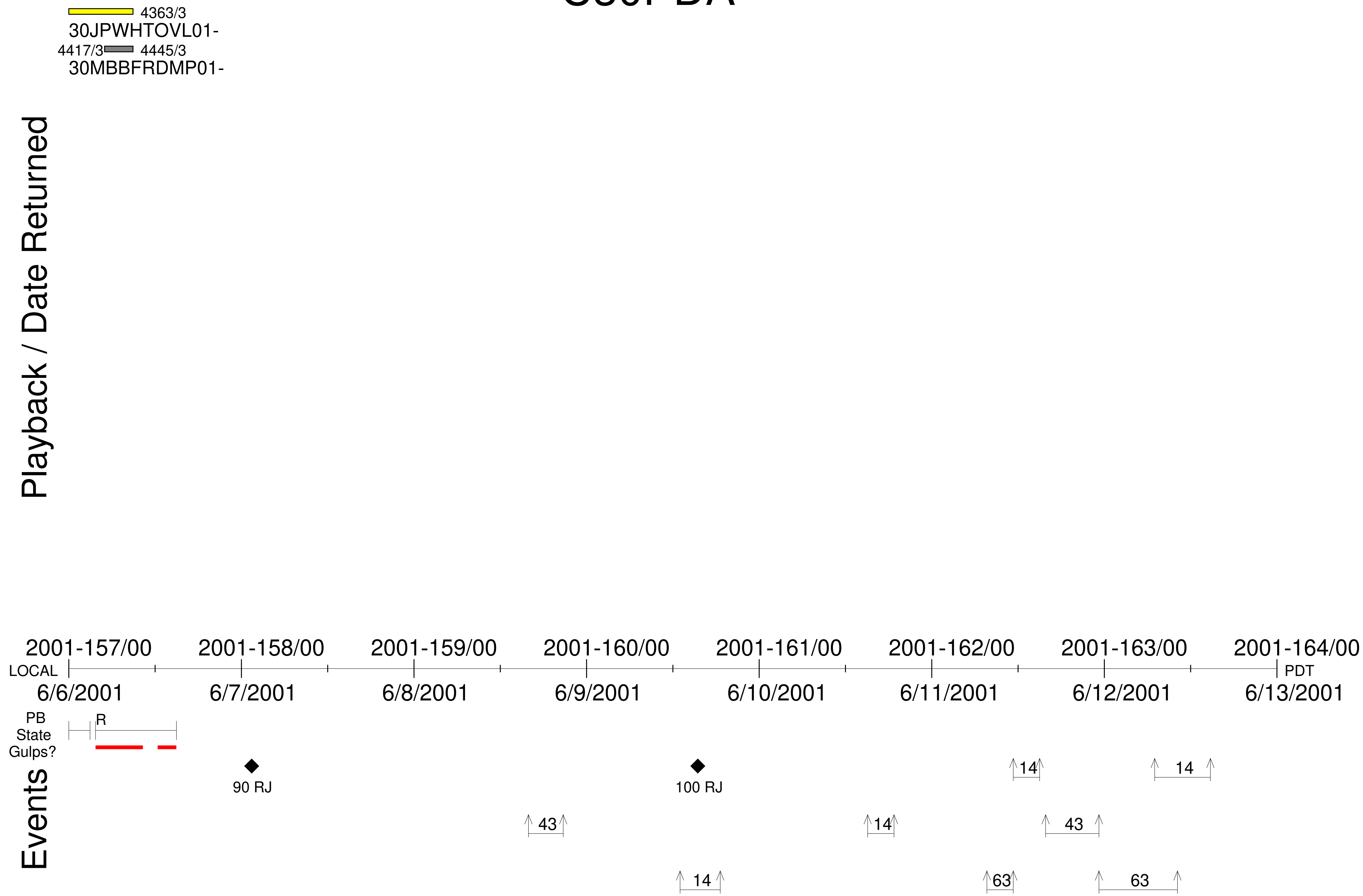


Playback / Date Returned
2001-143/00
2001-144/00
2001-145/00
2001-146/00
2001-147/00
2001-148/00
2001-149/00
2001-150/00
LOCAL
PDT
5/23/2001
5/24/2001
5/25/2001
5/26/2001
5/27/2001
5/28/2001
5/29/2001
5/30/2001
PB
State
Gulps?
Events
63
43
43
43
63
14
14

# C30PDA


Playback / Date Returned
1738/3 1903/3 30ISHSPOTS01
1916/3 2235/3 30INECLPSE01-
2236/3 2249/3 30IPGLOBAL01-
2315/3 3068/3 30ISLEDHEM01
3146/3 3311/3 30ASOPNAV_01
3324/3 4086/3 30INGLOBAL01-
4152/3 4318/3 30ASOPNAV_02
4330/3 30JPWHTOVL01-
Seg 1, Pass 1
2001-150/00 2001-151/00 2001-152/00 2001-153/00 2001-154/00 2001-155/00 2001-156/00 2001-157/00
LOCAL PDT
5/30/2001 5/31/2001 6/1/2001 6/2/2001 6/3/2001 6/4/2001 6/5/2001 6/6/2001
PB State
Gulps?
I R R R
Events
14 43 43
60 RJ
14
OTM-96 C30 +4 DAY 4.32 DEG ATTITUDE MAINTENANCE
63
50 RJ
70 RJ
80 RJ

# C30PDA



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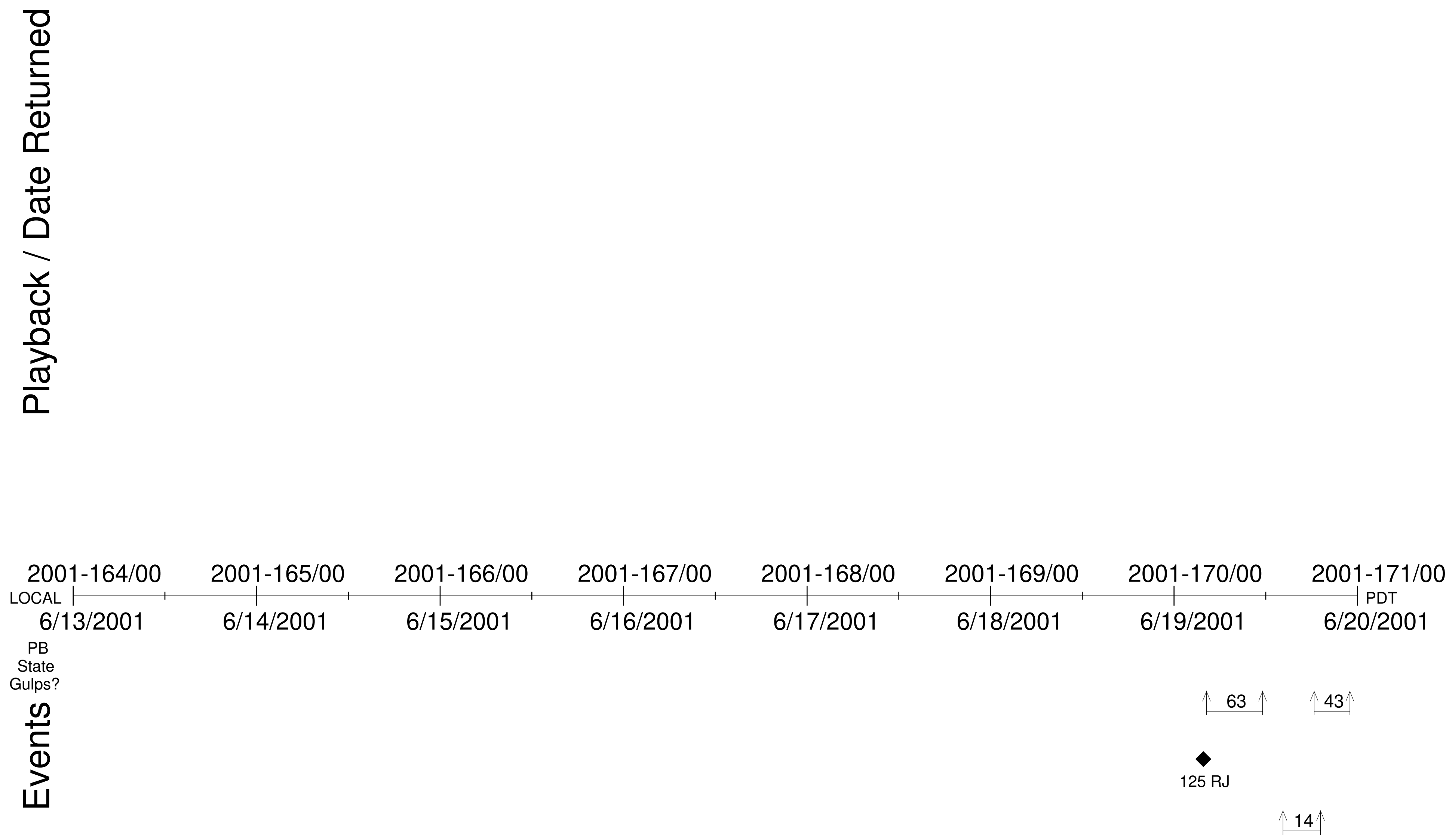


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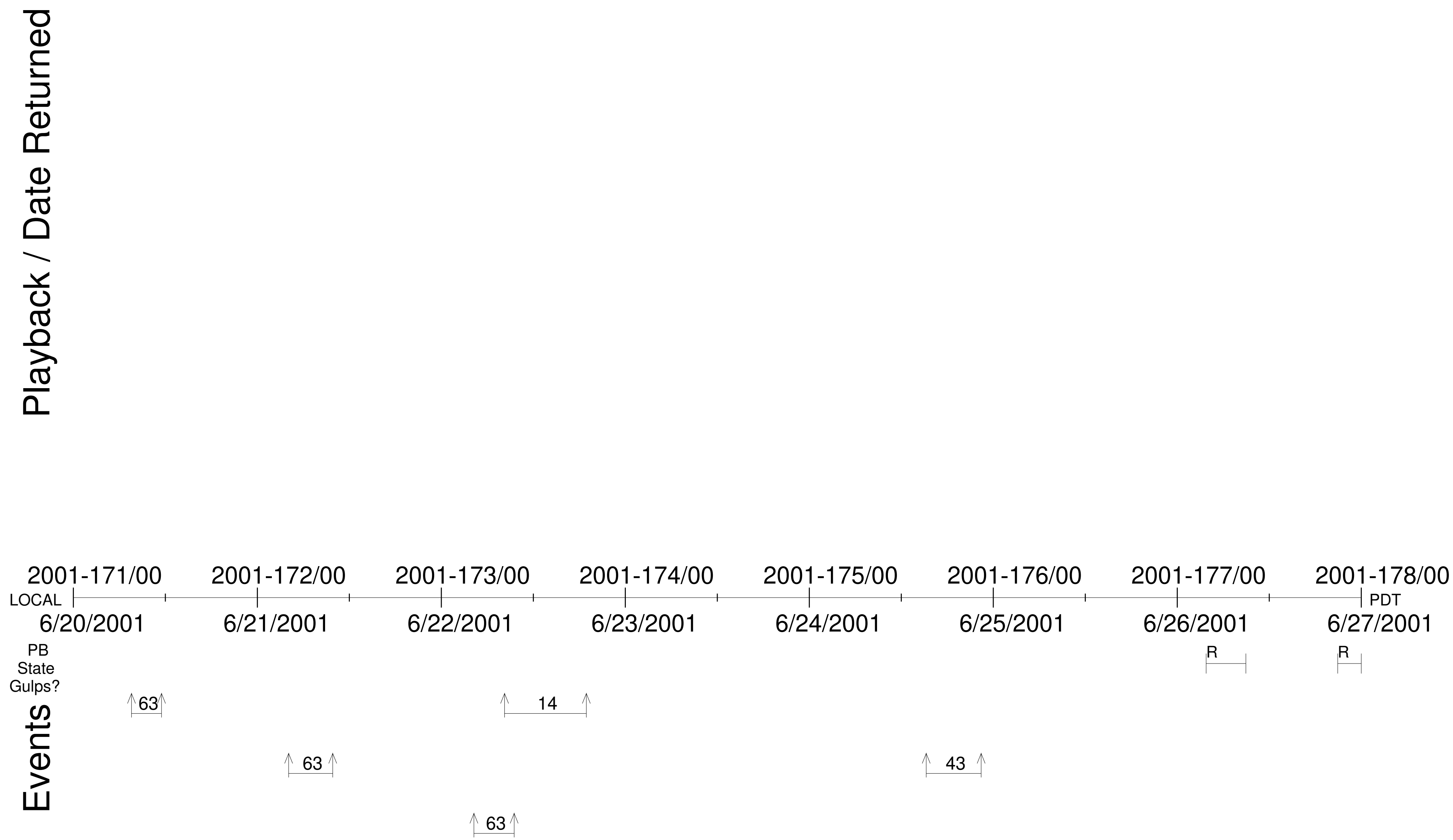


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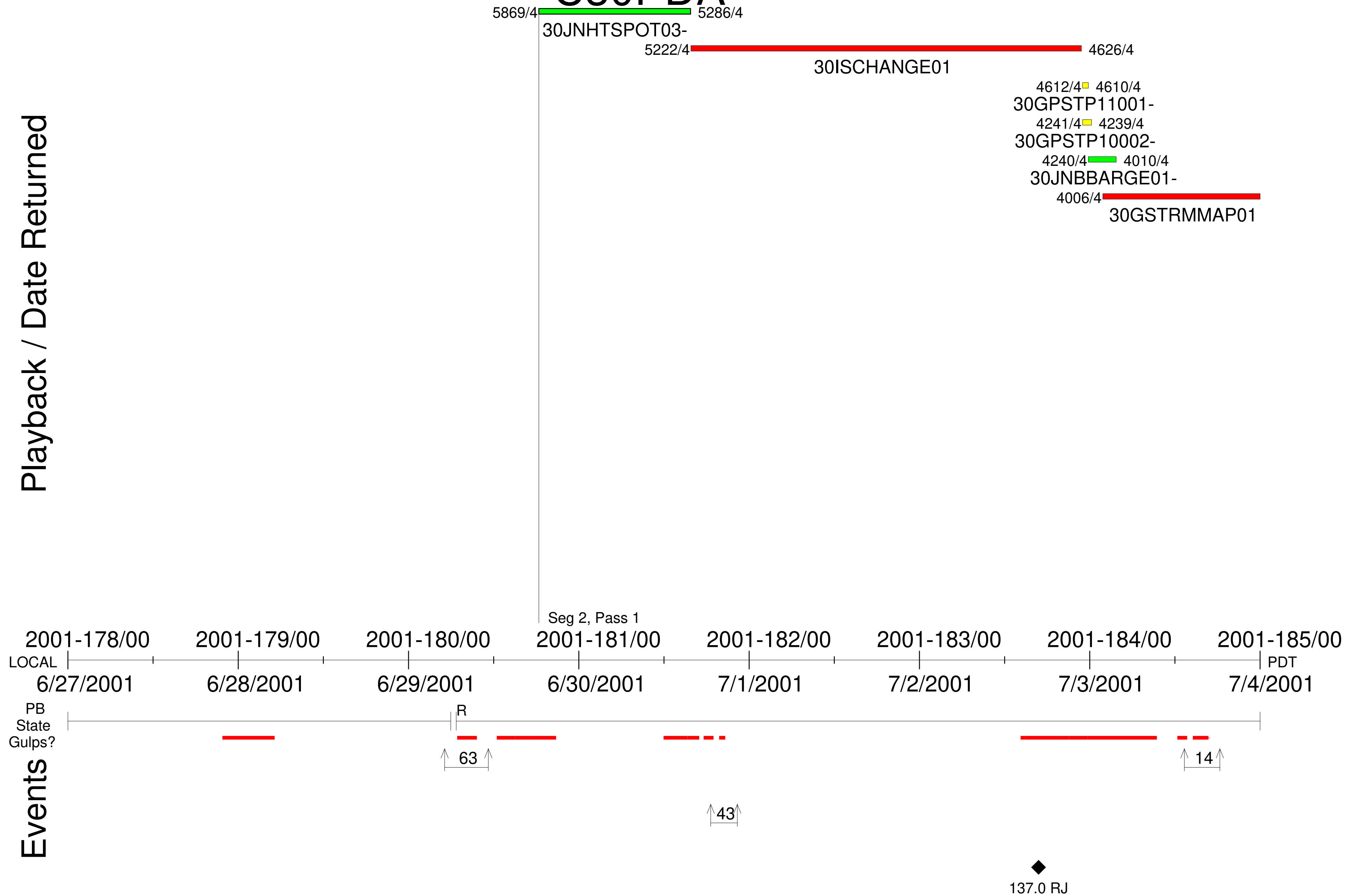
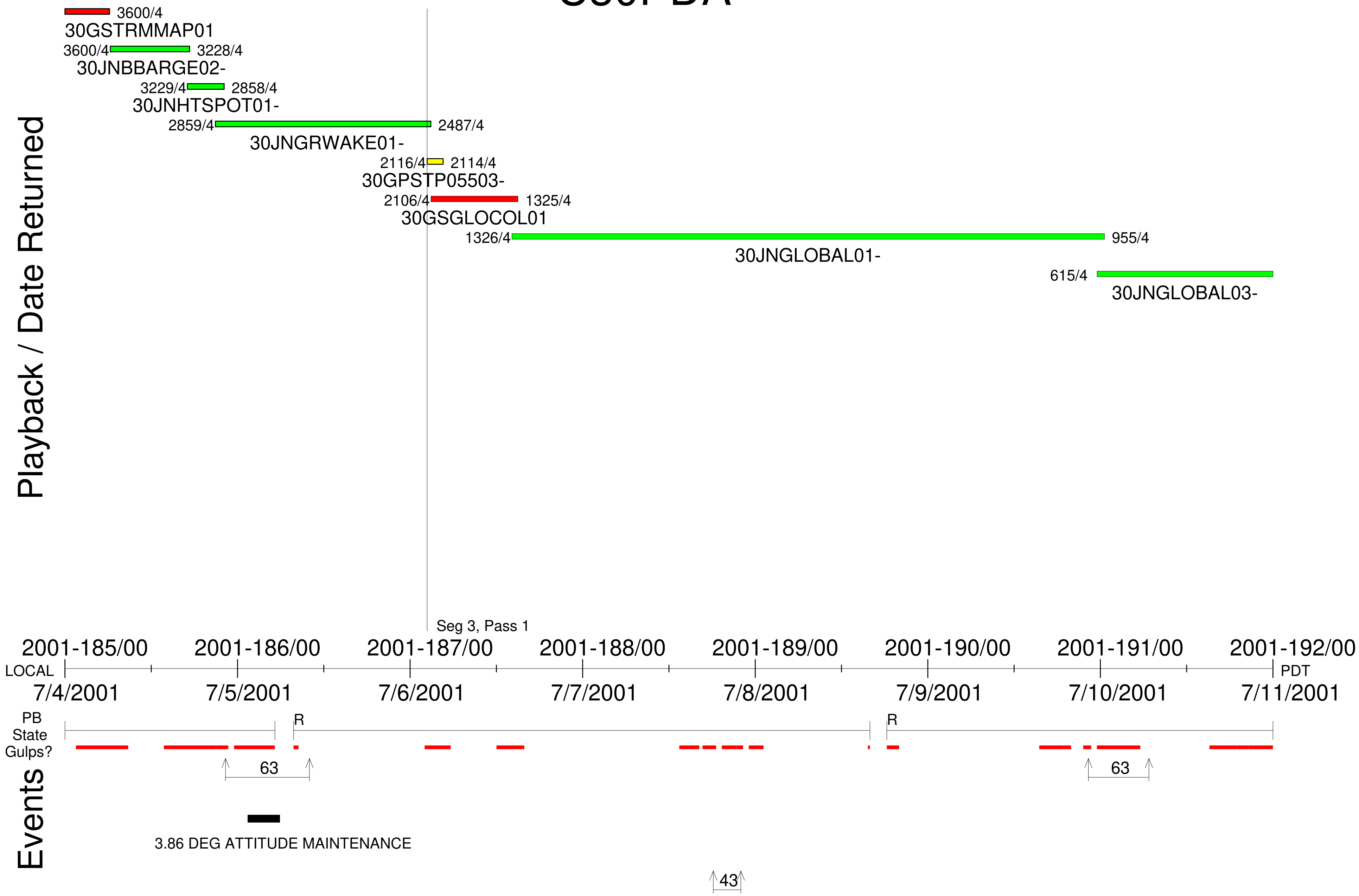
# C30PDA



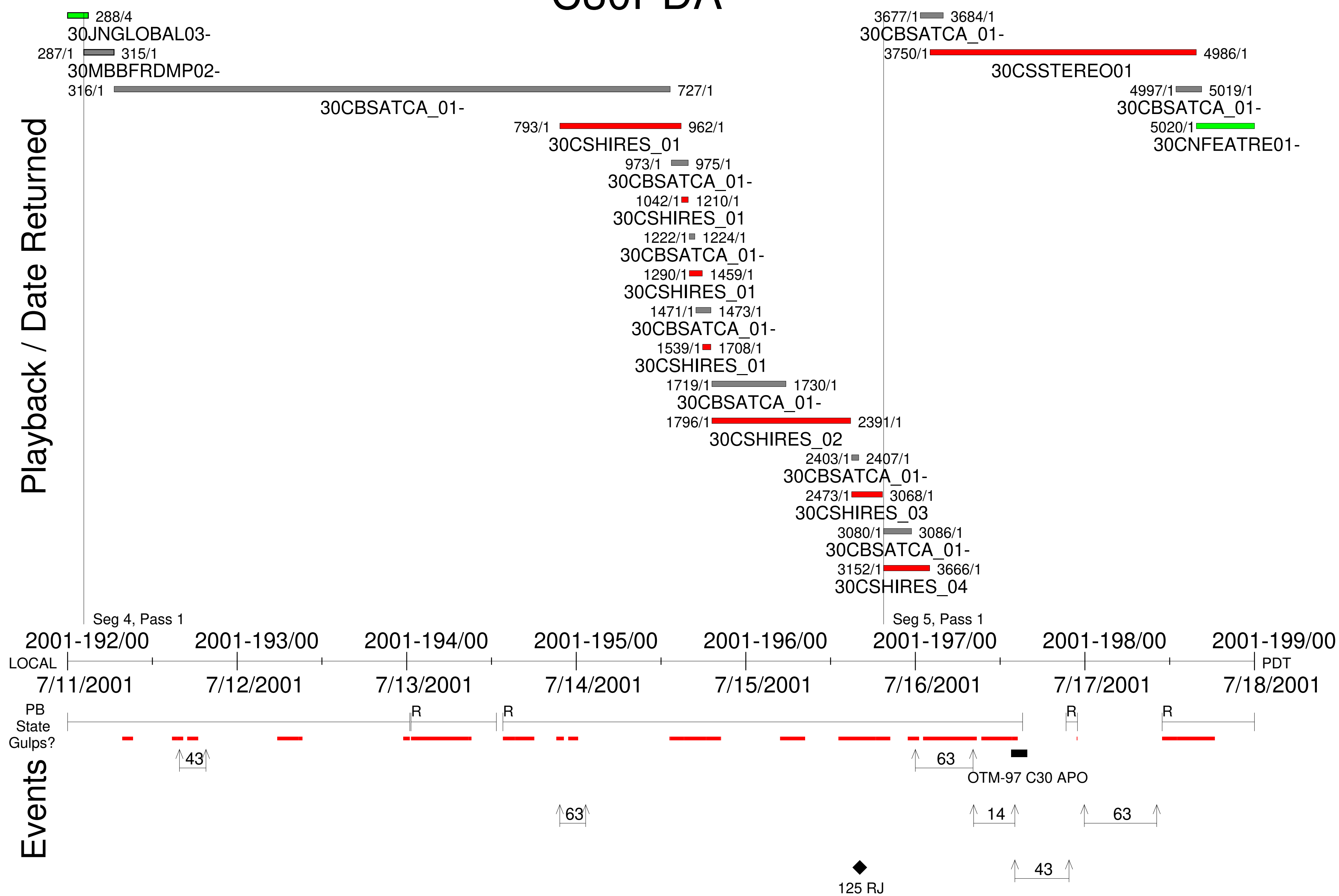
Playback / Date Returned
5869/4
5286/4
30JNHTSPOT03-
5222/4
4626/4
30ISCHANGE01
4612/4
4610/4
30GPSTP11001-
4241/4
4239/4
30GPSTP10002-
4240/4
4010/4
30JNBBARGE01-
4006/4
30GSTRMMAP01
Seg 2, Pass 1
2001-178/00
2001-179/00
2001-180/00
2001-181/00
2001-182/00
2001-183/00
2001-184/00
2001-185/00
LOCAL
PDT
6/27/2001
6/28/2001
6/29/2001
6/30/2001
7/1/2001
7/2/2001
7/3/2001
7/4/2001
PB
State
Gulps?
R
63
14
43
Events
137.0 RJ

# C30PDA



Playback / Date Returned
3600/4
30GSTRMMAP01
3600/4 3228/4
30JNBBARGE02-
3229/4 2858/4
30JNHTSPOT01-
2859/4 2487/4
30JNGRWAKE01-
2116/4 2114/4
30GPSTP05503-
2106/4 1325/4
30GSGLOCOL01
1326/4 955/4
30JNGLOBAL01-
615/4
30JNGLOBAL03-
Seg 3, Pass 1
2001-185/00
2001-186/00
2001-187/00
2001-188/00
2001-189/00
2001-190/00
2001-191/00
2001-192/00
LOCAL
PDT
7/4/2001
7/5/2001
7/6/2001
7/7/2001
7/8/2001
7/9/2001
7/10/2001
7/11/2001
PB
State
Gulps?
R
R
63
63
3.86 DEG ATTITUDE MAINTENANCE
43
Events

# C30PDA

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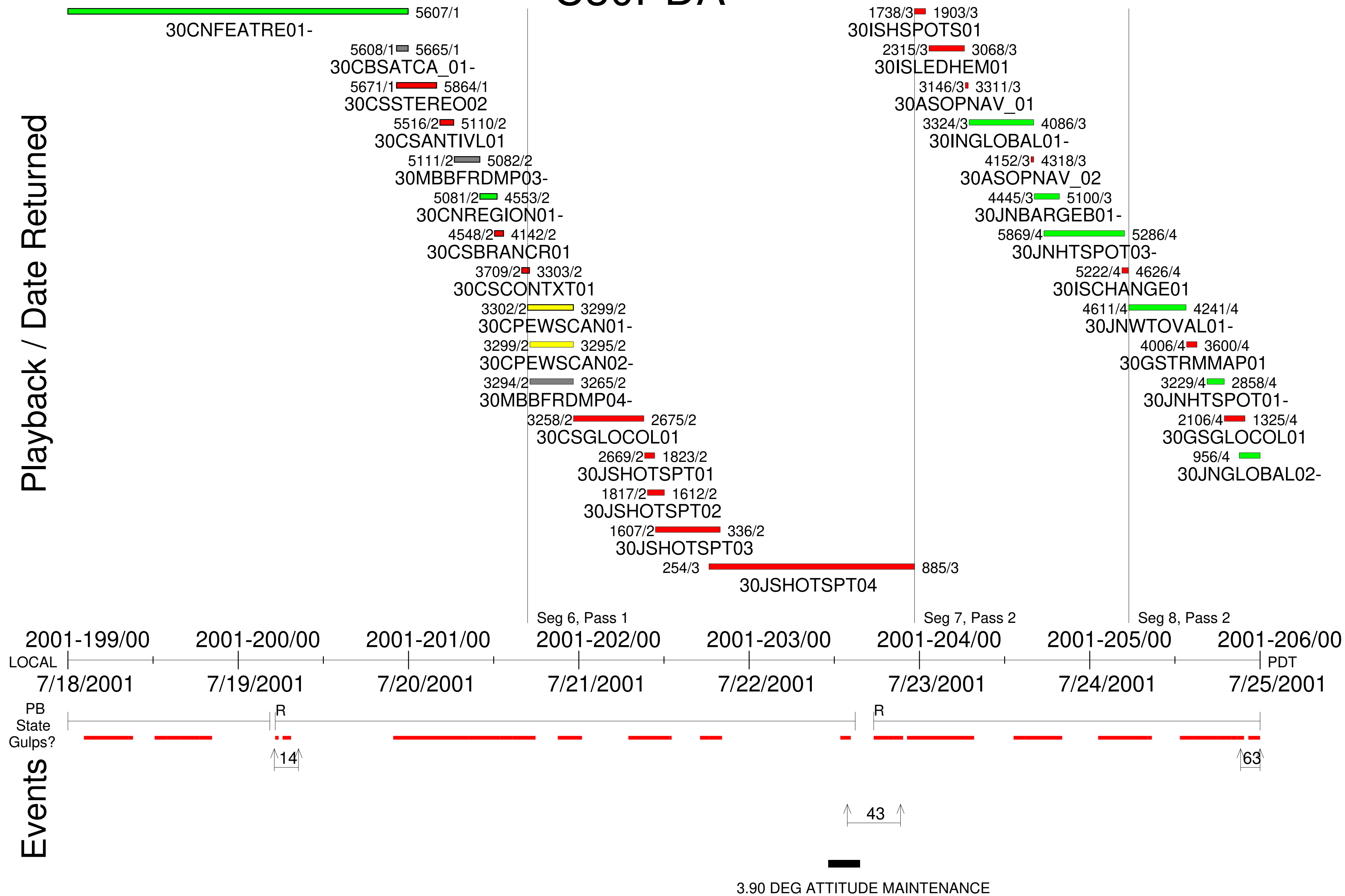
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5671/1 5864/1
30CSSTEREO02
5516/2 5110/2
30CSANTIVL01
5111/2 5082/2
30MBBFRDMP03-
5081/2 4553/2
30CNREGION01-
4548/2 4142/2
30CSBRANCR01
3709/2 3303/2
30CSCONTXT01
3302/2 3299/2
30CPEWSCAN01-
3299/2 3295/2
30CPEWSCAN02-
3294/2 3265/2
30MBBFRDMP04-
3258/2 2675/2
30CSGLOCOL01
2669/2 1823/2
30JSHOTSPT01
1817/2 1612/2
30JSHOTSPT02
1607/2 336/2
30JSHOTSPT03
254/3 885/3
30JSHOTSPT04
1738/3 1903/3
30ISHSPOTS01
2315/3 3068/3
30ISLEDHEM01
3146/3 3311/3
30ASOPNAV_01
3324/3 4086/3
30INGLOBAL01-
4152/3 4318/3
30ASOPNAV_02
4445/3 5100/3
30JNBARGEB01-
5869/4 5286/4
30JNHTSPOT03-
5222/4 4626/4
30ISCHANGE01
4611/4 4241/4
30JNWTOVAL01-
4006/4 3600/4
30GSTRMMAP01
3229/4 2858/4
30JNHTSPOT01-
2106/4 1325/4
30GSGLOCOL01
956/4
30JNGLOBAL02-
Seg 6, Pass 1
Seg 7, Pass 2
Seg 8, Pass 2
2001-199/00
2001-200/00
2001-201/00
2001-202/00
2001-203/00
2001-204/00
2001-205/00
2001-206/00
LOCAL
PDT
7/18/2001
7/19/2001
7/20/2001
7/21/2001
7/22/2001
7/23/2001
7/24/2001
7/25/2001
PB State
Gulps?
R
R
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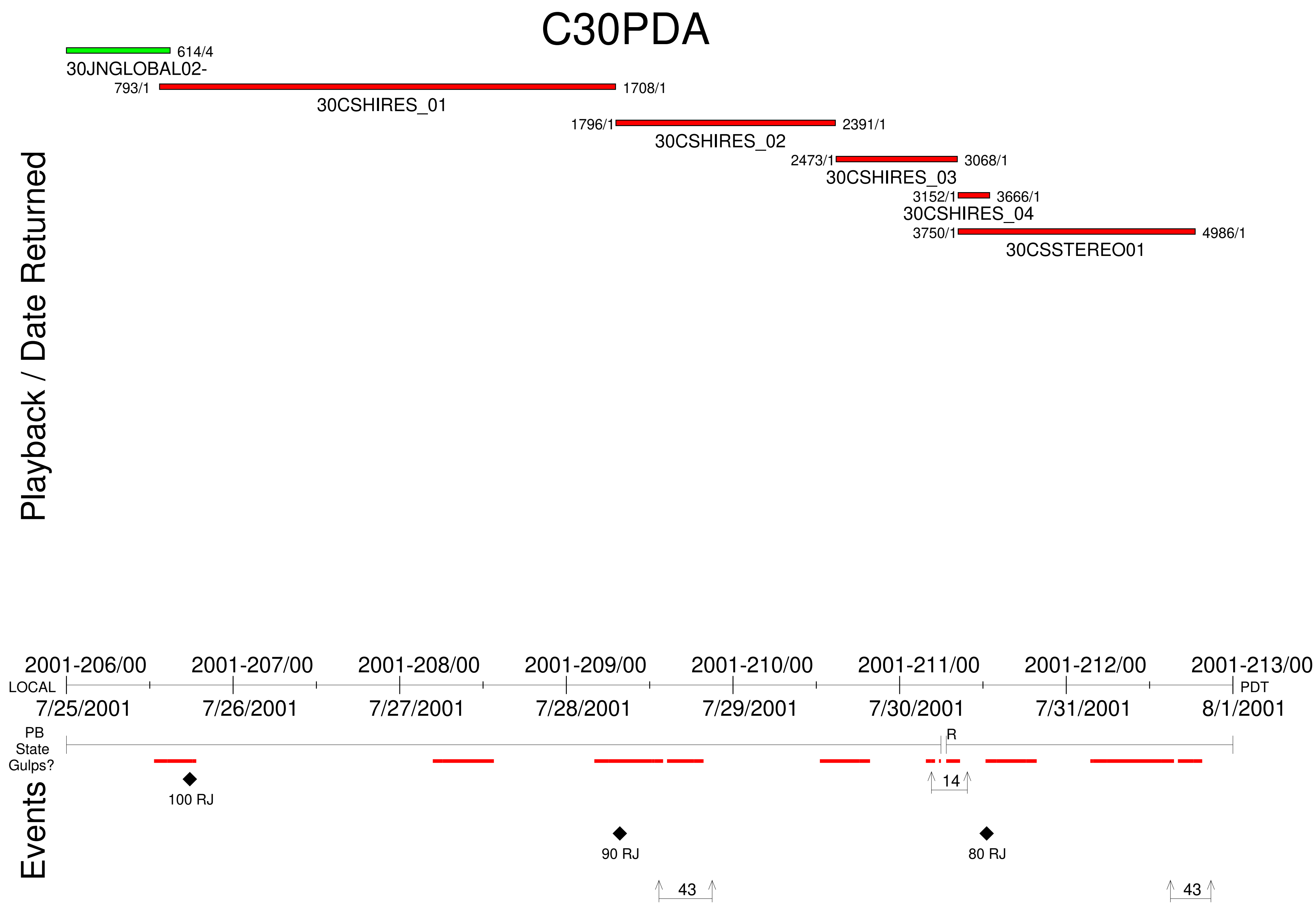
63
43
3.90 DEG ATTITUDE MAINTENANCE

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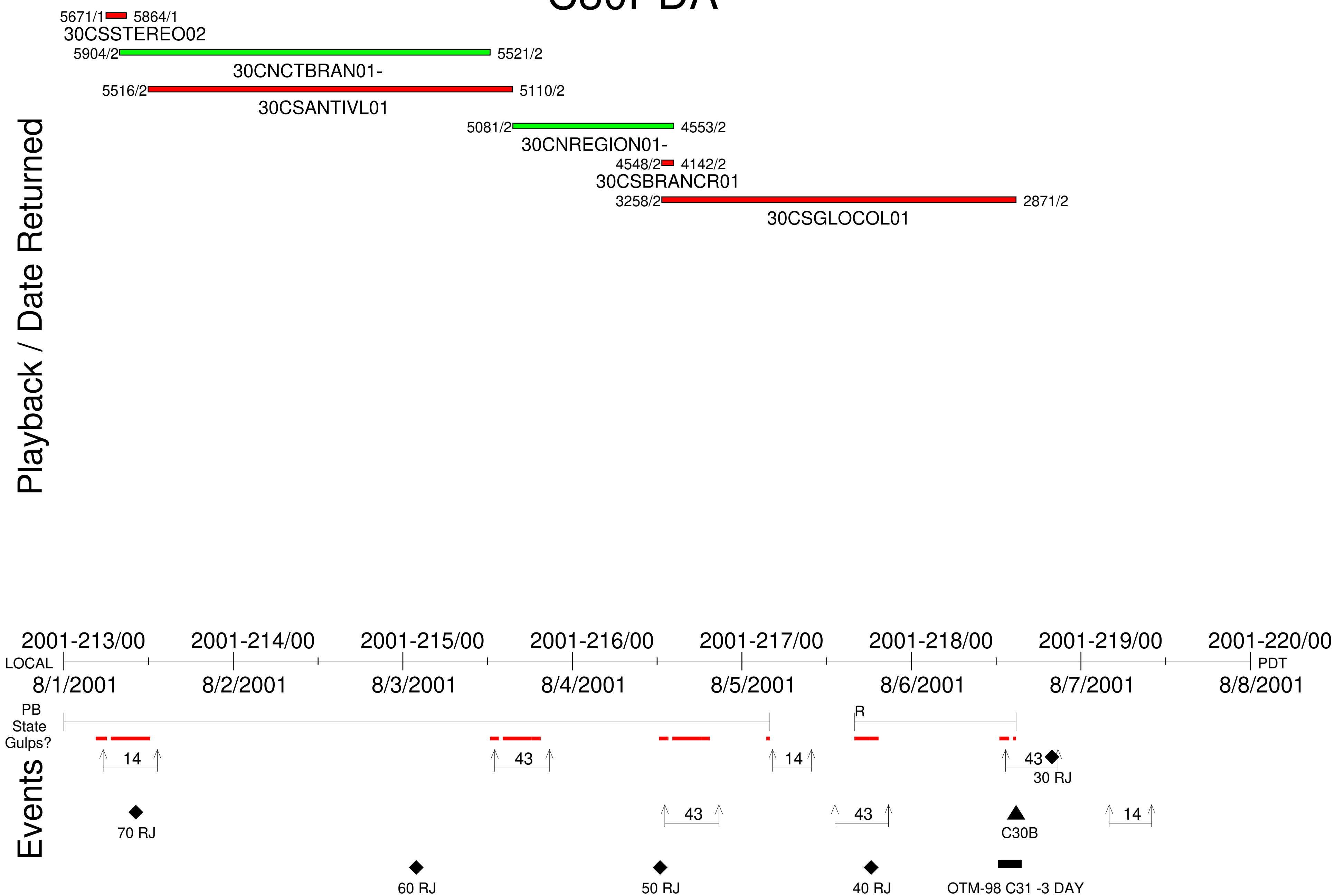
# C30PDA

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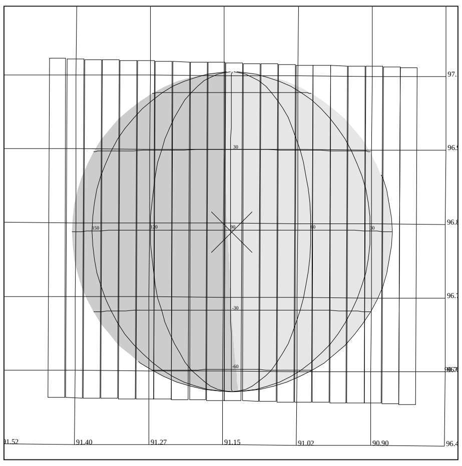
# C30 NIMS  A



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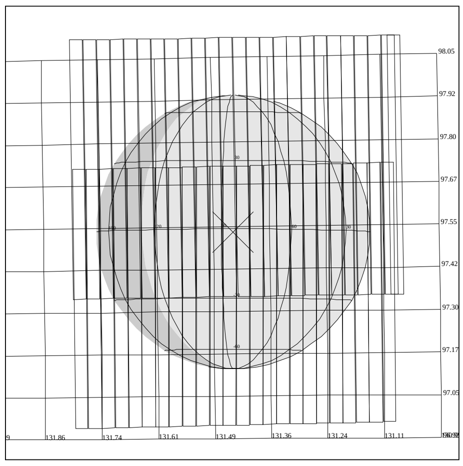

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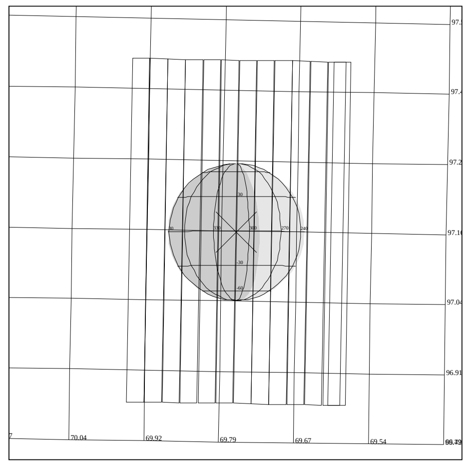

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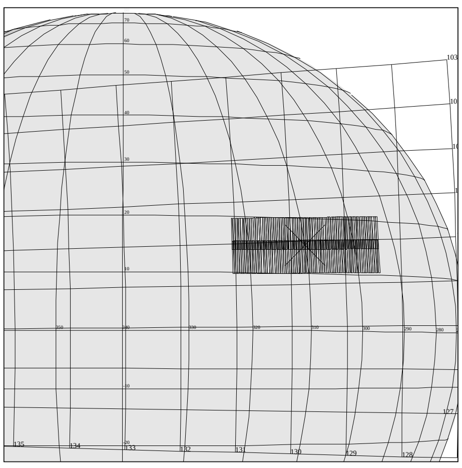

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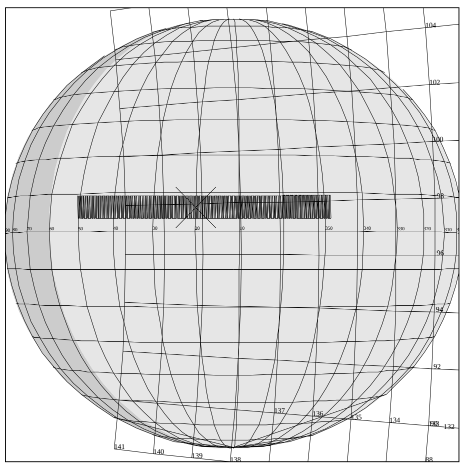

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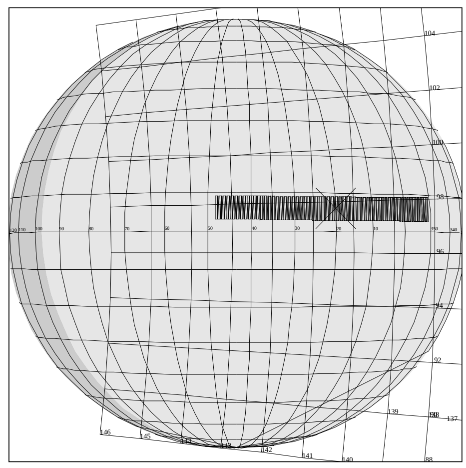

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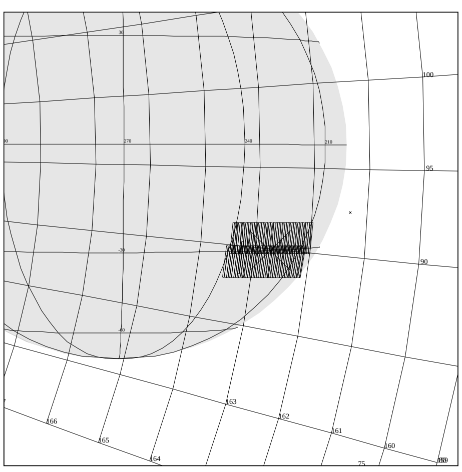

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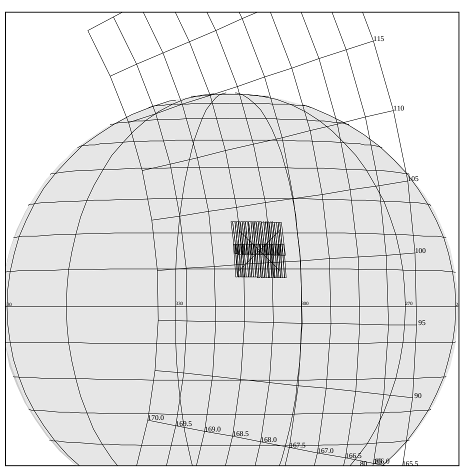

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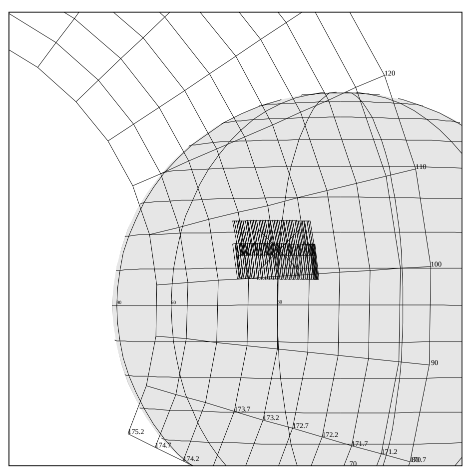
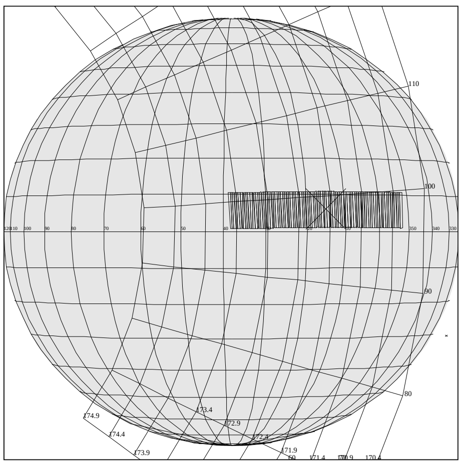


30JNBBARGE02
01-144/13:06:13

# C30 NIMS B



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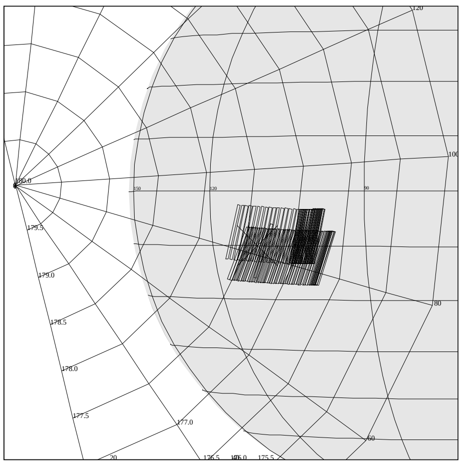

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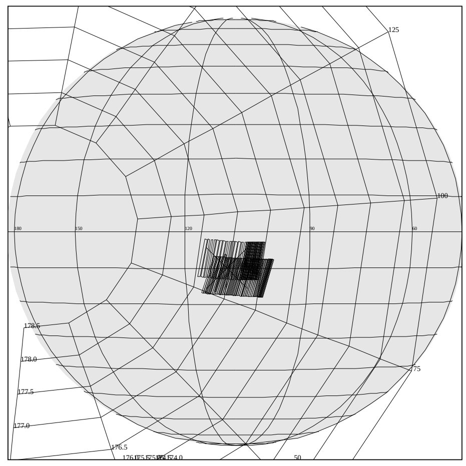

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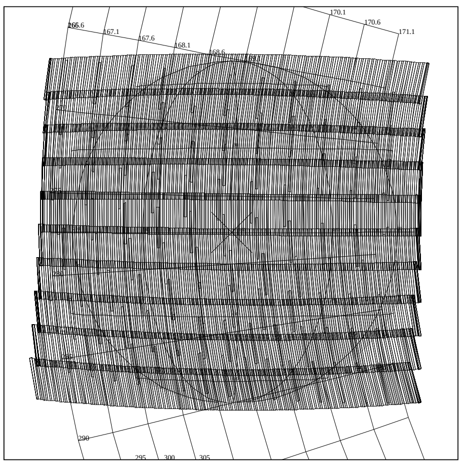

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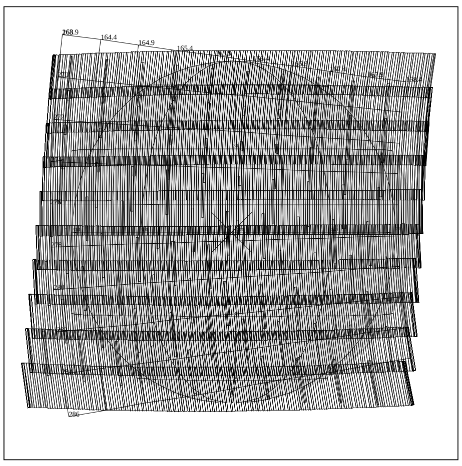
01-145/03:19:36



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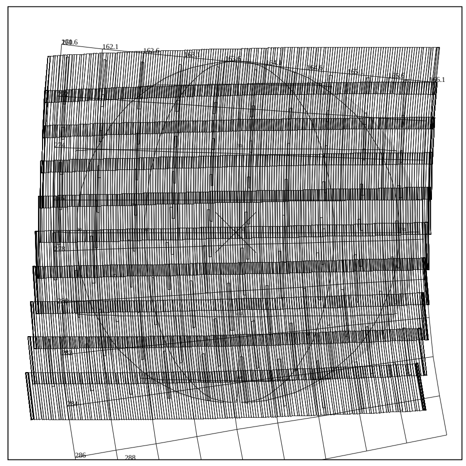

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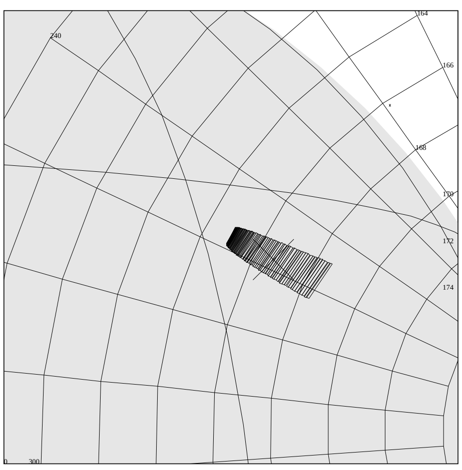

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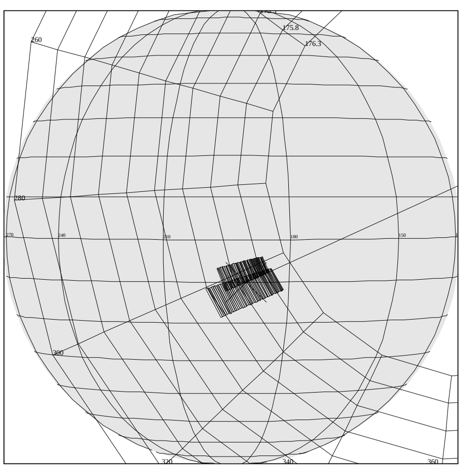

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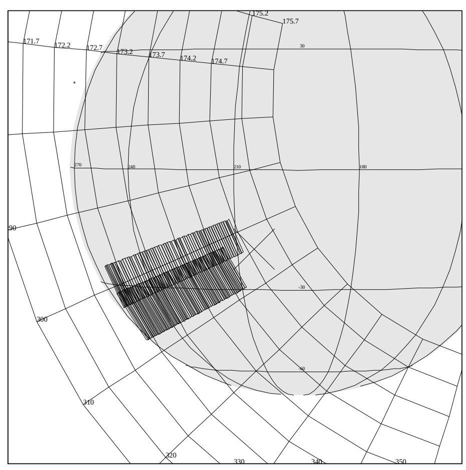

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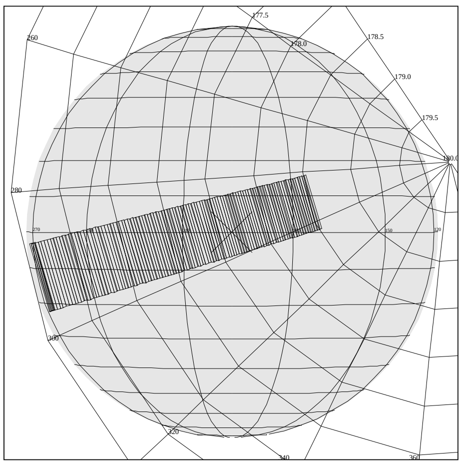
# C30 NIMS C



**30CNREGION02**

**01-145/13:15:08**