# Chapter 2 - Cruise Overviews

## Contents

# Chapter 2

# Introduction

**The Earth/Moon Overview on Page 3 shows time in Day of Year (DOY), PST time, engineering events, science events, navigation events, sequence load for the period, downlink capacity in Kbits/sec and the calendar date in month/day/year.**

**The activities are named and represented by dark blocks in the engineering, science and navigation sections. The shaded areas represent holidays and weekends for JPL employees.**

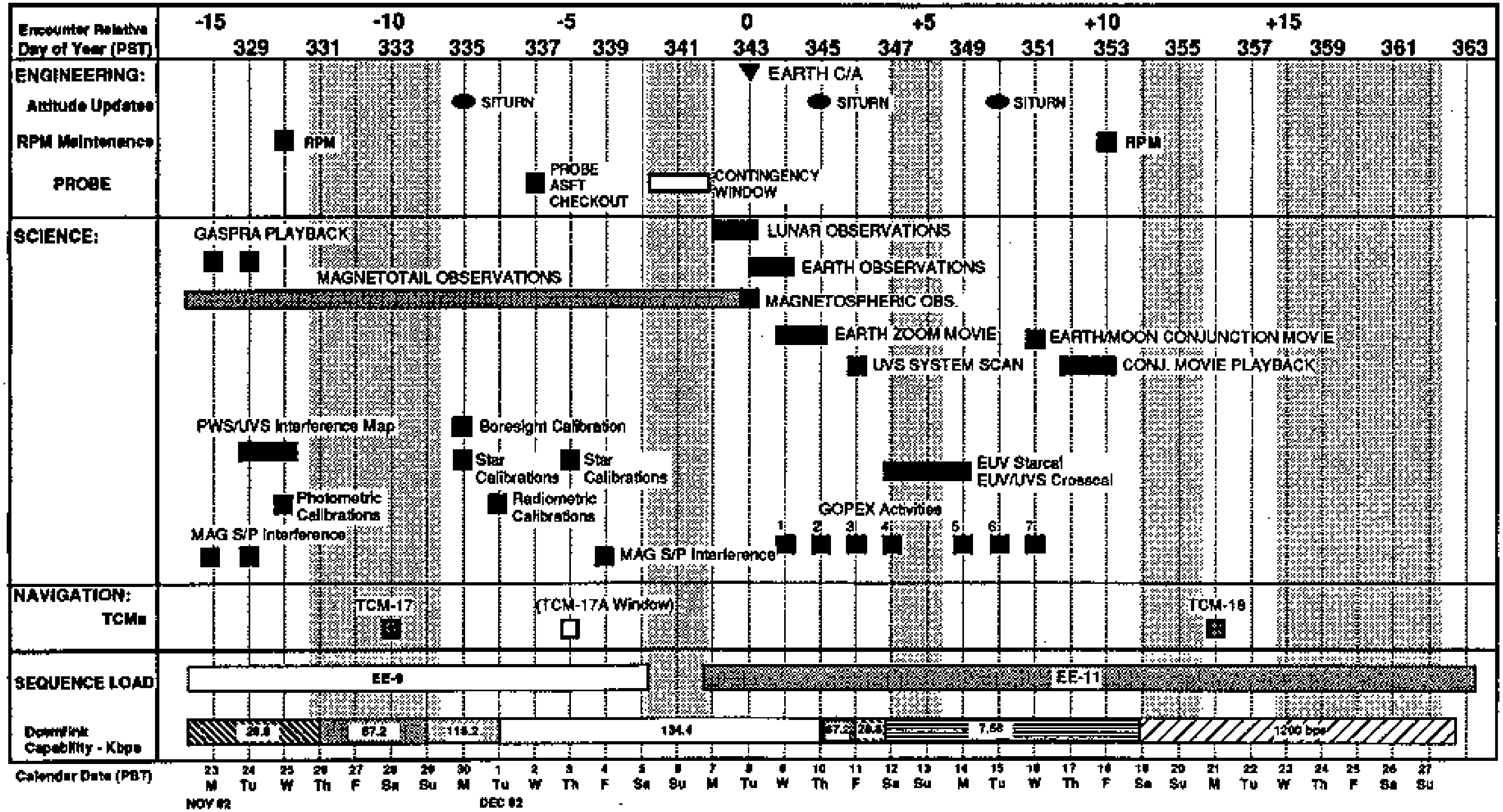
**The next four diagrams (pages 4,5,6 and 7) contain helpful details on science observations and should be self-explanatory.**

**Page 8 shows the Earth Closest Approach (ECA) activities.**

**Page 9 contains more details on engineering events and staffing requirements during the EE9 and EE11 sequence loads (E2). Again, shaded areas show holidays and weekend periods.**

**Pages 10 and 11 are overviews of the NIMS observations for E2.**

# EARTH/MOON 2 ENCOUNTER OVERVIEW

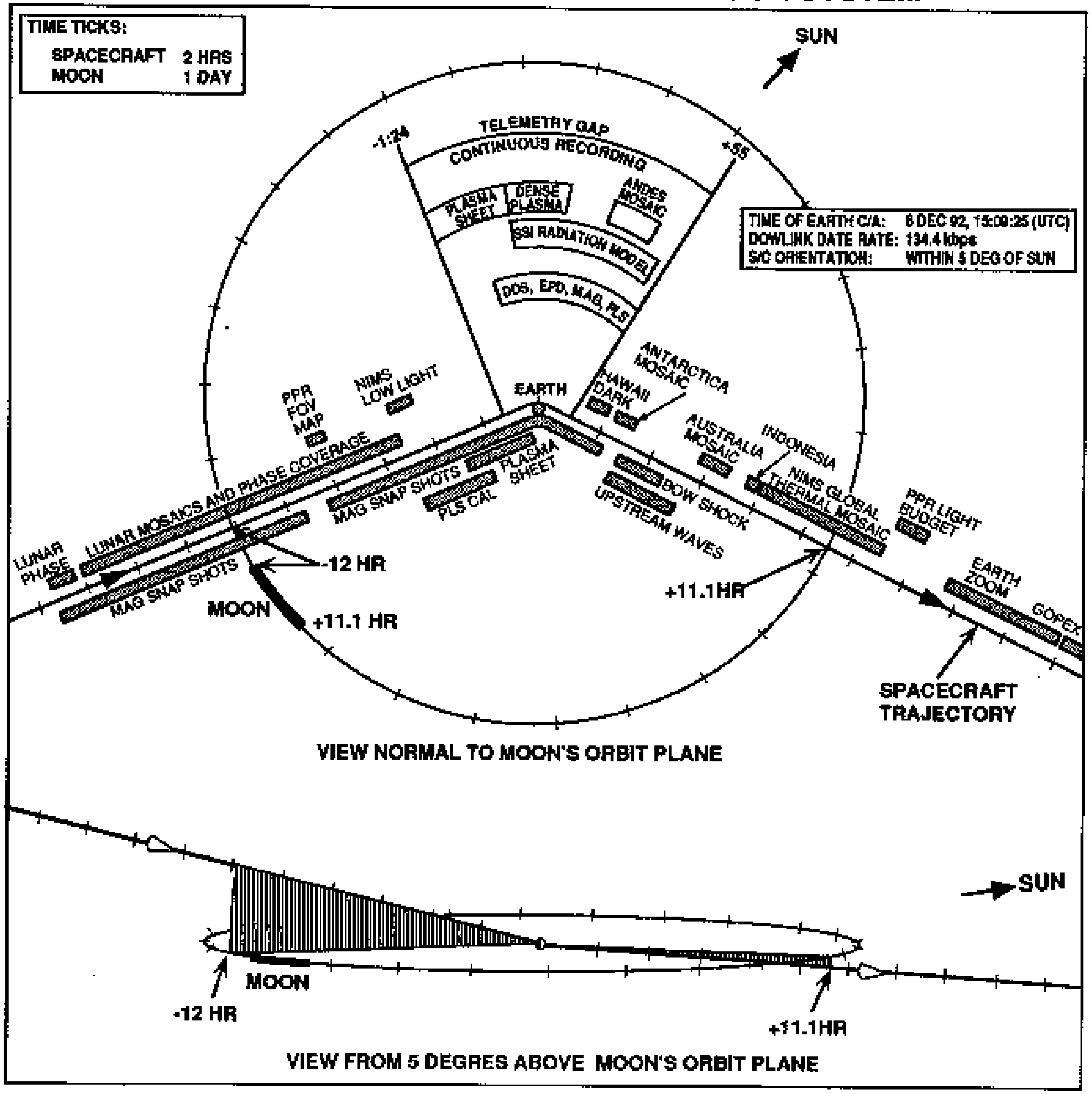



NOTE:
Downlink capability is defined here to be the
maximum data rate that can be acquired with a 70m DSN station

KLB-1
11/2/92

# Galileo

## SECOND TRAVERSE OF EARTH / MOON SYSTEM

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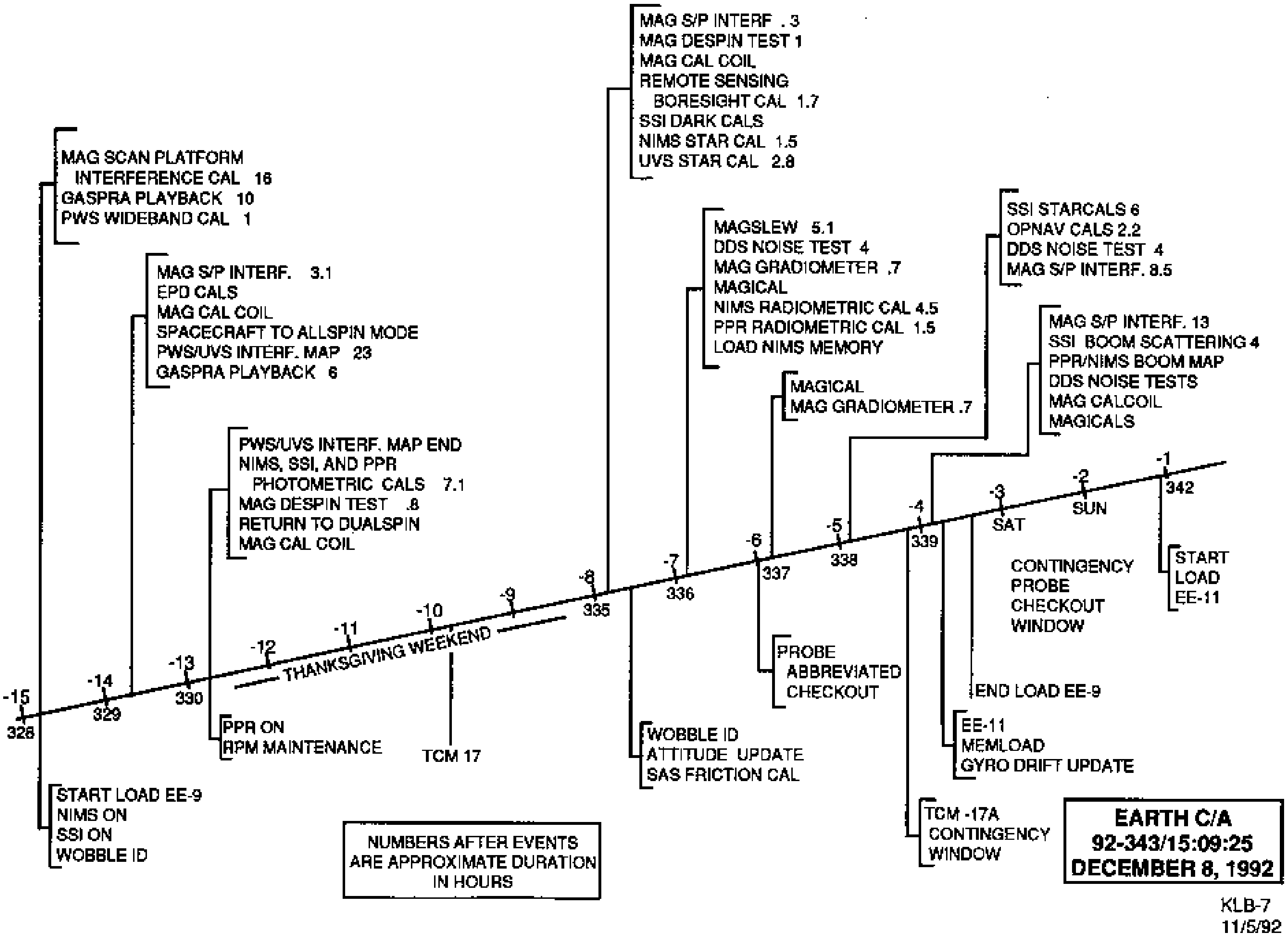
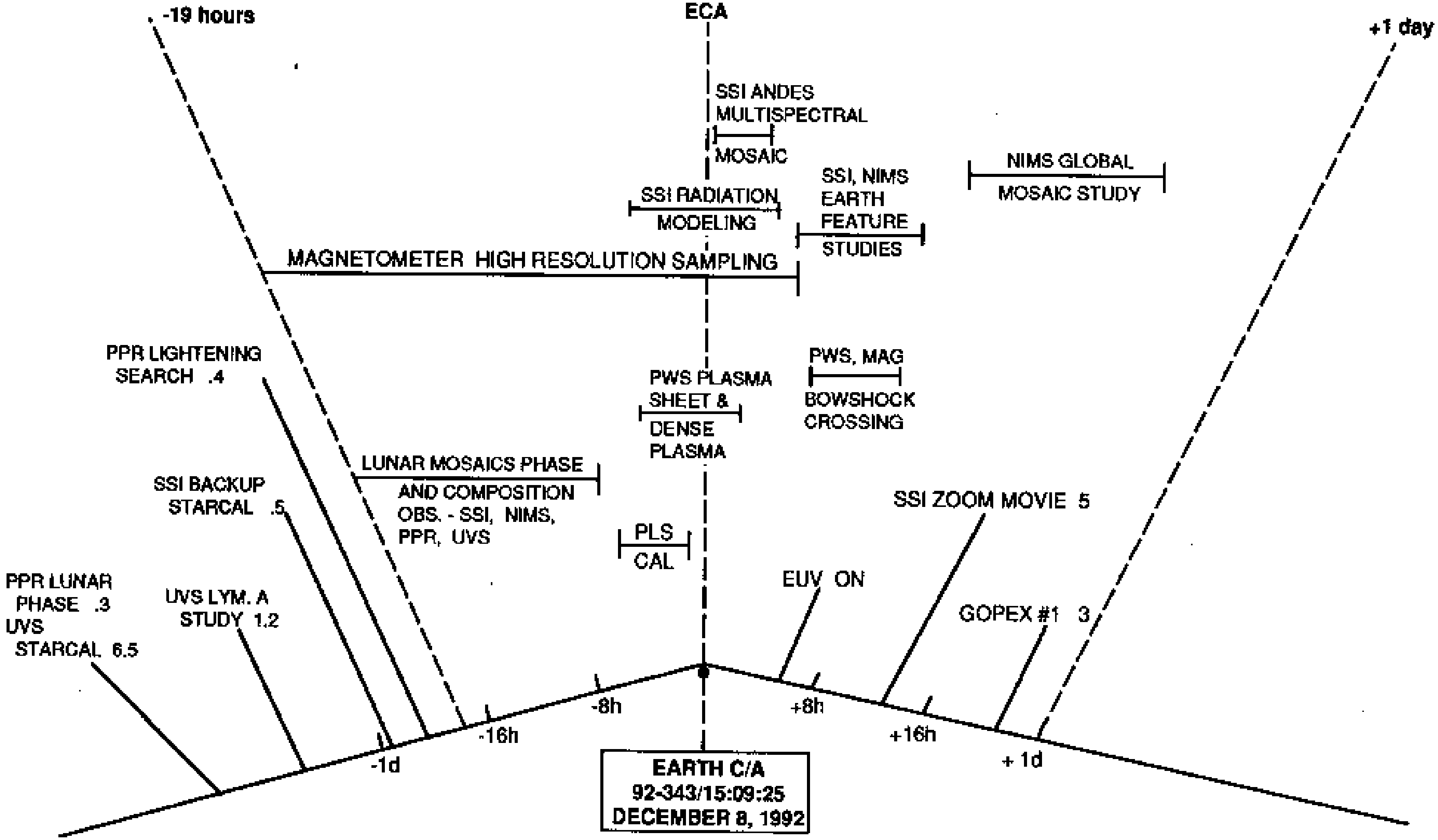
# EARTH/MOON 2 ACTIVITIES (-15 TO -1 DAYS)



# EARTH/MOON 2 ACTIVITIES (-1 TO +1 DAYS)

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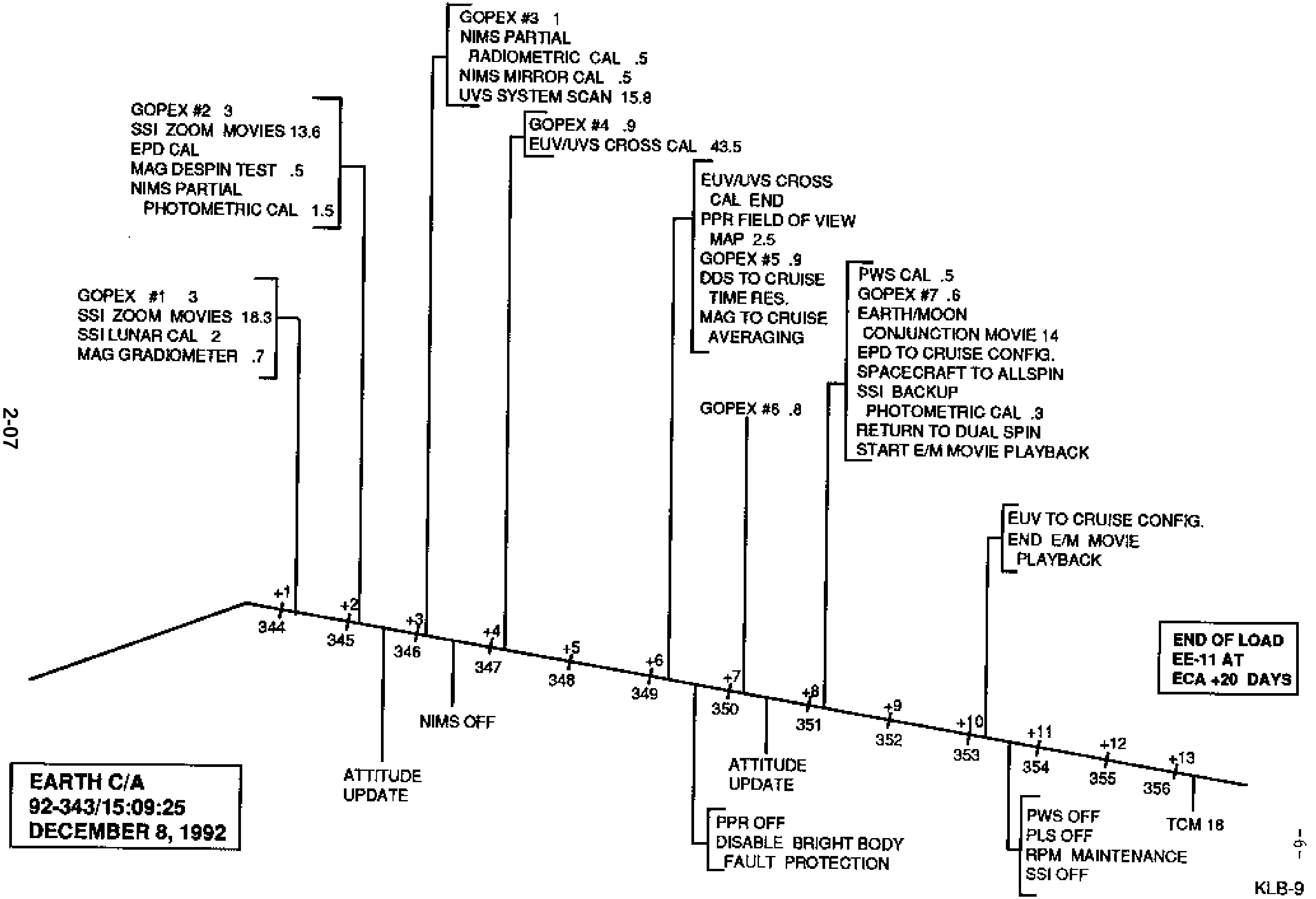
# EARTH/MOON 2 ACTIVITIES (+1 TO +13 DAYS)

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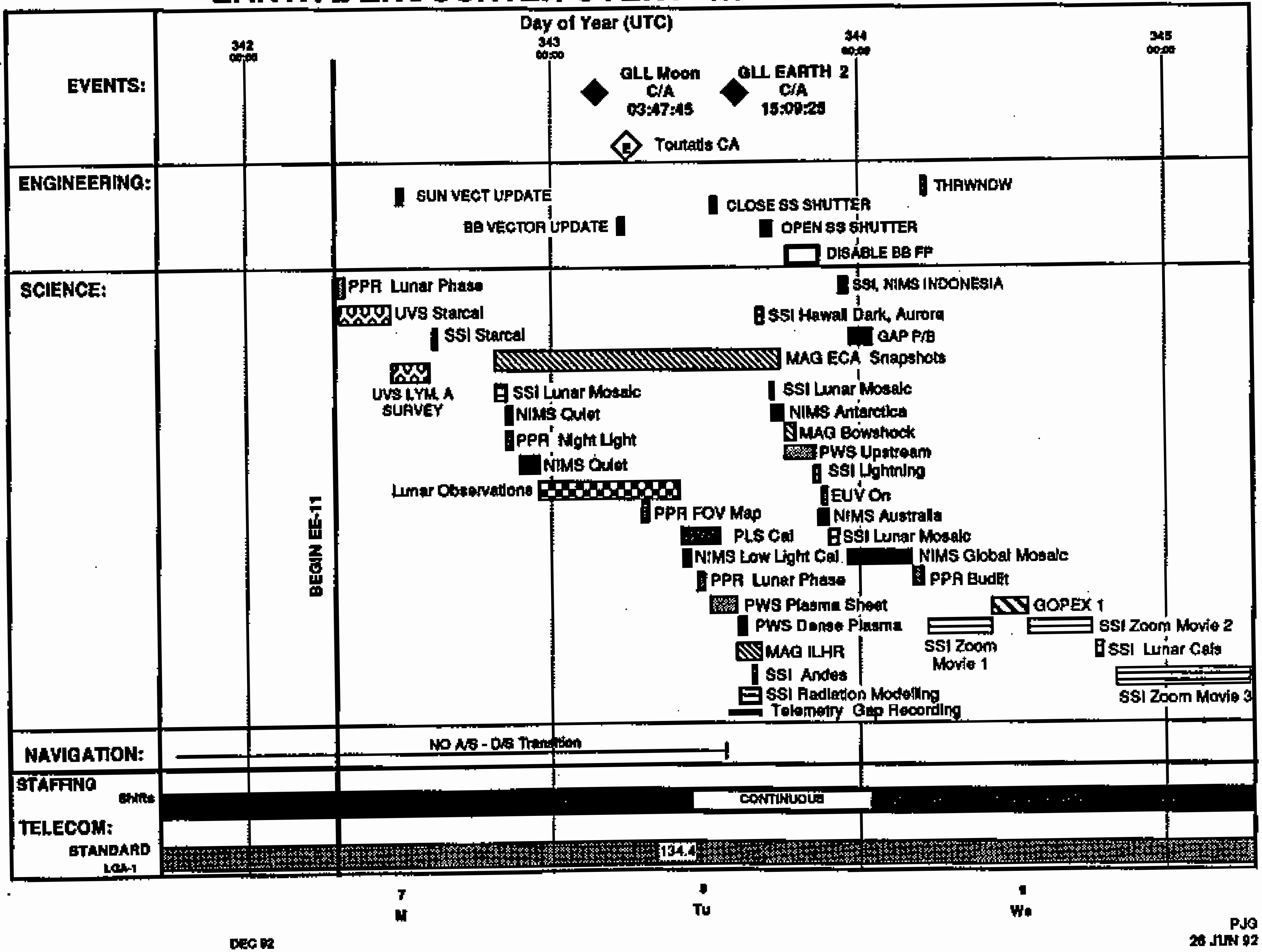
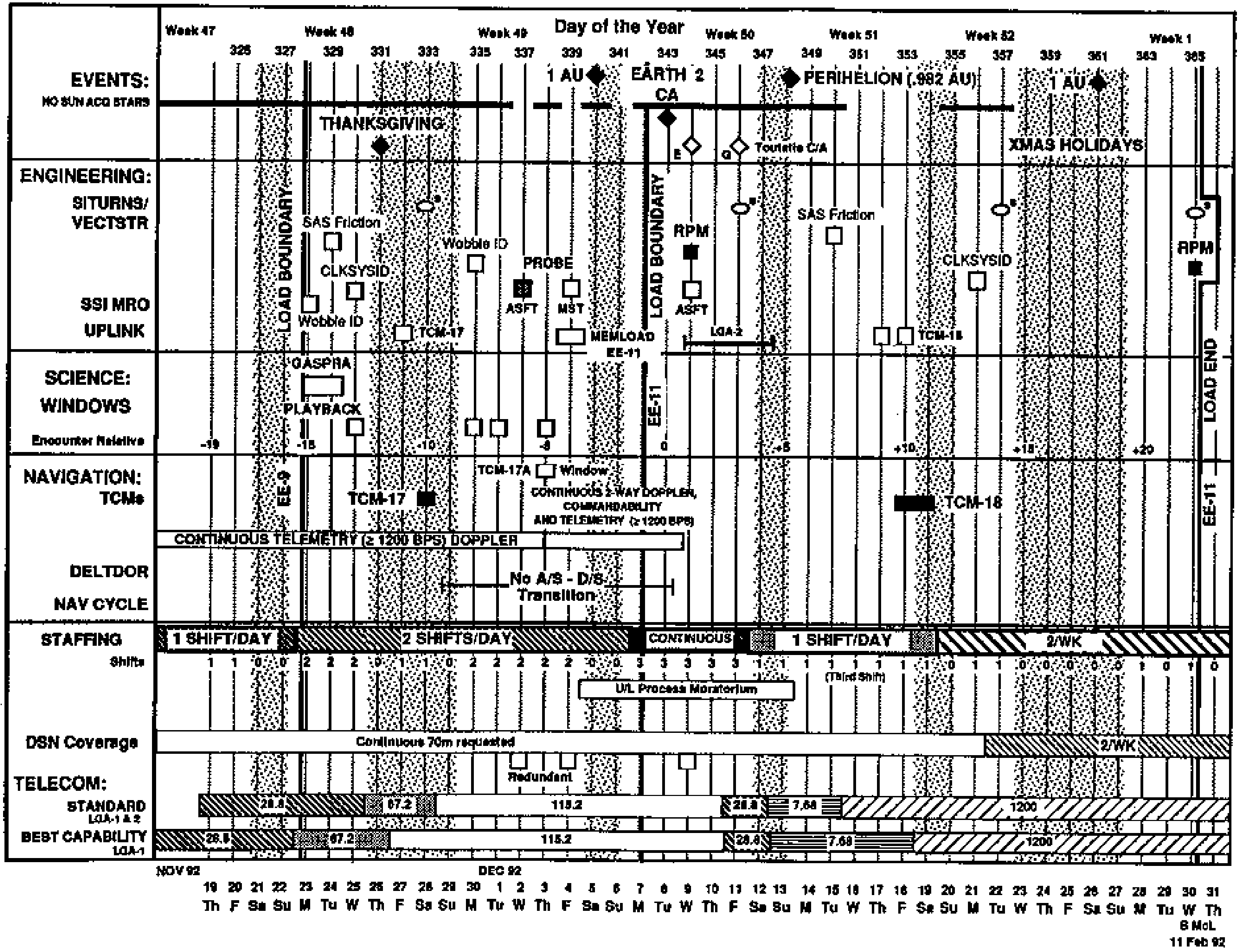
11/5/92

# EARTH 2 ENCOUNTER OVERVIEW - ECA ACTIVITIES



## Strawman EE-9/12 Overview, Part 1/3



| NIMS Oapel Name | Team in Charge | Oapel Name | Start RIM ECA REL. | Total (RIMs) | NIMS Byte | Instrument State | Gain State | Slew rate | DN or N (Nyquist) | Grating Start Position | Chopper State | Objectives |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| --EE9 | | | | | | | | | | | | |
| NNNIMSON01 | NIMS | | -21372 | 10 | 67 | SAFE | 2 | | | 0 | CR | Turn on NIMS |
| NNQUICAL01 | NIMS | NWPWUMA001 | -18464 | 148 | 14 | SAFE | 4 | | | 0 | CR | Listen/UVS grating motor |
| NNPCT 01 | NIMS | | -18306 | 217 | 872 | ALL | ALL | | | Sel. | 63/CR | Full PCT cal. |
| NNSAFE 01 | NIMS | | -18088 | 7179 | 14 | SAFE | 4 | | | 0 | CR | SAFE |
| HNSTARFL01 | PPR | HPTSTAR | -10908 | 98 | 28 | XM | 4 | .02&.04 | DN | 6 | CR | Pointing/Jitter |
| HNSTAR 01 | NIMS | | -10809 | 90 | 183 | XM | 4 | 0.02 | DN | 6 | CR | Pointing/Jitter |
| NNMRO 01 | NIMS | | -10716 | 4 | 34 | SAFE | 4 | | | 0 | CR | Verify memory |
| NNRCTON 01 | NIMS | | -9877 | 386 | 20 | SAFE | 4 | | | 0 | CR | RCT warm up |
| NNQUICAL02 | NIMS | NMINTCAL04 | -9595 | 100 | 0 | SAFE | 4 | | | 0 | CR | Listen/MAGinb_flip,int_coil |
| NNRCTCAL01 | NIMS | | -9490 | 267 | 1163 | ALL | ALL | | | Sel. | 63/CR | Full RCT cal. |
| NNLOAD 01 | NIMS | | -9131 | 2 | 425 | SAFE | 4 | | | 0 | CR | SPECIAL Load Memory |
| NNQUICAL03 | NIMS | NMINTCAL07 | -8446 | 26 | 0 | SAFE | 4 | | | 0 | CR | Listen/MAG outb_flipper |
| NNQUICAL04 | NIMS | HSSTRCALs | -7189 | 114 | 0 | SAFE | 4 | | | 0 | CR | Listen/SSI Filter wheel |
| NNQUICAL05 | NIMS | NDNOISE04 | -7071 | 121 | 0 | SAFE | 4 | | | 0 | CR | Listen/DDS High voltage |
| NNBOOM 01 | MAG | NMMAPSP03 | -6823 | 539 | 24 | XM | 1 | | | 0 | 63 | BOOM MAP 1 |
| NNBOOM 02 | MAG | NMMAPSP04 | -5735 | 772 | 0 | XM | 1 | | | 0 | 63 | BOOM MAP 2 |
| --EE11 Moon | | | | | | | | | | | | |
| NNQUICAL06 | PPR | WPNITLIT01 | -1138 | 28 | 56 | SAFE | 4 | | | 0 | CR | Listen/EPD Stepper motor |
| NNQUICAL07 | PPR | LPLUNFAZ02 | -1105 | 109 | 0 | SM | 1 | 0.06 | DN | 2 | 63 | Listen/PPR filter_phase 0 |
| LNPHASE 01 | SSI* | LSLUNMOS01 | -995 | 39 | 14 | SM | 1 | 0.06 | DN | 2 | 63 | Lunar Phase 1 |
| LN4GAIN 01 | NIMS | LN4GAIN01 | -950 | 10 | 320 | XM | ALL | Fix&.01 | DN | 6 | 63 | 4 Gain state cal/limb |
| LNPHASE 02 | SSI* | LSLUNMOS02 | -939 | 58 | 0 | FM | 1 | 0.03 | DN | 0 | 63 | Phase 2 |
| LNPHASE 03 | SSI* | LSLUNMOS03 | -880 | 141 | 14 | SM | 1 | 0.06 | DN | 2 | 63 | Phase 3 & Stereo |
| LNPHASE 04 | UVS | LUINRLMB01 | -735 | 23 | 42 | XM | 1 | 0.074 | DN | 6 | 63 | Phase 4/HNDARK/limbs |
| LNPHASE 05 | SSI | LSLUNMOS04 | -711 | 18 | 0 | XS | 1 | ~1.2 | DN | 6 | 63 | Phase 5 & Stereo |
| LNHIRES 01 | NIMS | LNHIRES01 | -692 | 56 | 290 | FM | 1 | 0.03 | DN | 0 | 63 | Hi-resolution/phase |
| LNPHASE 06 | SSI | LSLUNMOS05 | -635 | 18 | 28 | XS | 1 | ~1.2 | DN | 6 | 63 | Phase 6 & Stereo |
| LNPHASE 07 | NIMS | LNPHASE07 | -616 | 30 | 240 | SM | 1 | 0.06 | DN | 2 | 63 | Phase 7 |
| LNPHASE 08 | SSI* | LSLUNMOS06 | -585 | 107 | 0 | SM | 1 | 0.06 | DN | 2 | 63 | Phase 8 & Stereo |
| LNPHASE 09 | PPR | LPFOVMAP01 | -477 | 30 | 14 | XM | 1 | 0.12 | DN | 6 | 63 | Phase 9 & limb |
| LNPHASE 10 | SSI* | LSLUNMOS07 | -426 | 97 | 14 | FM | 1 | 0.03 | DN | 0 | 63 | Phase 10 & Stereo |
| LNPHASE 11 | NIMS | LNPHASE11 | -328 | 28 | 194 | FM | 1 | 0.03 | DN | 0 | 63 | Phase 11 |
| --EE11 Earth | | | | | | | | | | | | |
| WNLOWCAL01 | NIMS | | -297 | 60 | 207 | spec. | 4 | 0.12 | N | | CR | Aurora & Dark cal. |
| NNNOOBS 01 | NIMS | | -168:52 | 0:04 | 350 | | | | | | | AVOID HEAT |
| NNNOOBS 02 | NIMS | | -1:39 | 0:06 | 0 | | | | | | | AVOID HEAT |
| NNNOOBS 03 | NIMS | | 5:85 | 0:80 | 0 | | | | | | | AVOID HEAT |
| NNNOOBS 04 | NIMS | | 11:59 | 4:06 | 0 | | | | | | | AVOID HEAT |
| NNNOOBS 05 | NIMS | | 26:64 | 10 | 0 | | | | | | | AVOID HEAT |
| WNANDES 01 | SSI | WSANDES01 | 36 | 10 | 14 | LM | 1 | | | 0 | 63 | Andes |
| NNNOOBS 06 | NIMS | | 50 | 4 | 0 | | | | | | | AVOID HEAT |
| WNHAWAUR01 | SSI | WSHAWAUR01 | 59 | 12 | 14 | XM | 1 | | | 0 | 63 | HAWAII & Aurora |
| WNANTAR 01 | NIMS | | 135 | 44 | 234 | LM | 1 | 0.02 | DN | 0 | 63 | Antarctica |
| WNLTNING01 | SSI | WSLTNING01 | 317 | 15 | 14 | XM | 1 | | | 0 | 63 | Lghtning |
| WNAUSIE 01 | NIMS | | 337 | 60 | 212 | LM | 1 | 0.02 | DN | 0 | 63 | Australia |
| WNINDO 01 | NIMS | | 440 | 20 | 0 | LM | 1 | 0.02 | DN | 0 | 63 | Indonesia |
| WNGMOS 01 | NIMS | | 476 | 295 | 0 | LM | 1 | 0.03 | N | 0 | 63 | Global mosaic 1 |
| WNGMOS 02 | SSI | WSZOOM01 | 896 | 296 | 0 | LM | 1 | | | 0 | 63 | Global mosaic 2 |
| WGOPEX 01 | SSI | | 1191 | 178 | | | | | | | | |
| WNGMOS 03 | SSI | WSZOOM02 | 1372 | 231 | 0 | LM | 1 | | | 0 | 63 | Global mosaic 3 |
| WNGMOS 04 | SSI | WSZOOM03 | 1740 | 867 | 0 | LM | 1 | | | 0 | 63 | Global mosaic 4 |
| WGOPEX 02 | SSI | | 2608 | 120 | | | | | | | | |
| NNPCTMIN01 | NIMS | | 3885 | 90 | 184 | Selected | | | | 0 | 63/CR | Partial PCT cal |
| NNRCTON 02 | NIMS | | 4036 | 386 | 20 | | | | | | | Turn RCT on |
| NNRCTMIN01 | NIMS | | 4423 | 30 | 420 | Selected | | | | 0 | 63/CR | Partial RCT cal |
| NNMIRCAL01 | NIMS | | 4457 | 32 | 65 | XM/LM | | | | 0 | 63/CR | Mirror Cal. |
| NNNIMOFF01 | NIMS | | 4490 | 8 | 50 | | | | | | 63 | Turn off NIMS |

*=Joint Observation

by John Hui 10/28/92

# E2 DATA RECEIVE TIME

| | Activities | Date | Day of Year | Local Receive Time | | | |
|---|---|---|---|---|---|---|---|
| | | | | Start | End | | |
| EE9: | NIMSON | 23-Nov-92 | 328 | 6:59 AM | 7:09 AM | | |
| | Gaspra Playback | 23-Nov-92 | 328 | 8:15 AM | 6:25 PM | | |
| | Gaspra Playback | 23-Nov-92 | 328 | 6:25 PM | 9:50 PM | | |
| | Gaspra Playback | 24-Nov-92 | 329 | 5:30 PM | 10:00 PM | | |
| | QUICAL01 | 25-Nov-92 | 330 | 8:21 AM | 10:00 AM | | |
| | PCTCAL01 | 25-Nov-92 | 330 | 10:40 AM | 2:19 PM | | |
| | STARFL01 | 30-Nov-92 | 335 | 3:20 PM | 5:00 PM | | |
| | NSTAR01 | 30-Nov-92 | 335 | 5:00 PM | 6:31 PM | | |
| | MRO01 | 30-Nov-92 | 335 | 6:34 PM | 6:38 PM | | |
| | QUICAL02 | 1-Dec-92 | 336 | 1:27 PM | 3:08 PM | | |
| | RCTCAL01 | 1-Dec-92 | 336 | 3:13 PM | 7:43 PM | | |
| | LOAD01 | 1-Dec-92 | 336 | 9:16 PM | 9:18 PM | | |
| | QUICAL03 | 2-Dec-92 | 337 | 8:49 AM | 9:16 AM | | |
| | QUICAL04 | 3-Dec-92 | 338 | 6:00 AM | 7:56 AM | | |
| | QUICAL05 | 3-Dec-92 | 338 | 7:59 AM | 10:03 AM | | |
| | BOOM01 | 3-Dec-92 | 338 | 12:10 PM | 9:15 PM | | |
| | BOOM02 | 4-Dec-92 | 339 | 6:30 AM | 7:31 PM | | |
| EE11: | QUICAL06 | 7-Dec-92 | 342 | 11:58 AM | 12:27 PM | | |
| | QUICAL07 | 7-Dec-92 | 342 | 12:32 PM | 2:23 PM | | |
| | PHASE01 | 7-Dec-92 | 342 | 2:23 PM | 3:04 PM | | |
| | 4GAIN01 | 7-Dec-92 | 342 | 3:07 PM | 3:18 PM | | |
| | PHASE02 | 7-Dec-92 | 342 | 3:19 PM | 4:18 PM | | |
| | PHASE03 | 7-Dec-92 | 342 | 4:19 PM | 6:43 PM | | |
| | PHASE04 | 7-Dec-92 | 342 | 6:46 PM | 7:10 PM | | |
| | PHASE05 | 7-Dec-92 | 342 | 7:10 PM | 7:29 PM | | |
| | HIRES01 | 7-Dec-92 | 342 | 7:29 PM | 8:26 PM | | |
| | PHASE06 | 7-Dec-92 | 342 | 8:27 PM | 8:46 PM | | |
| | PHASE07 | 7-Dec-92 | 342 | 8:46 PM | 9:17 PM | | |
| | PHASE08 | 7-Dec-92 | 342 | 9:18 PM | 11:06 PM | | |
| | PHASE09 | 7-Dec-92 | 342 | 11:07 PM | 11:38 PM | | |
| | PHASE10 | 12/7 to 12/8 | 342/343 | 11:58 PM | 1:36 AM | | |
| | PHASE11 | 8-Dec-92 | 343 | 1:37 AM | 2:06 AM | | Track/Tick |
| | LOWCAL01 | 8-Dec-92 | 343 | 2:09 AM | 3:10 AM | | T3/2230 |
| | ANDES01 | 8-Dec-92 | 343 | 6:45 AM | 6:55 AM | RECORDED | to |
| | HAWAUR01 | 8-Dec-92 | 343 | 8:05 AM | 8:21 AM | | T4/4720 |
| | ANTAR01 | 8-Dec-92 | 343 | 9:25 AM | 10:14 AM | | |
| | LTNING01 | 8-Dec-92 | 343 | 12:28 PM | 12:49 PM | | |
| | AUSIE01 | 8-Dec-92 | 343 | 12:50 PM | 1:51 PM | | |
| | INDO01 | 8-Dec-92 | 343 | 2:32 PM | 2:55 PM | | |
| | GMOS01 | 8-Dec-92 | 343 | 3:07 PM | 8:10 PM | | |
| | Playback ANDES | 8-Dec-92 | 343 | 4:16 PM | 5:31 PM | PLAYBACK | Track 3 & 4 |
| | GMOS02 | 12/8 to 12/9 | 343/344 | 10:12 PM | 3:13 AM | | |
| | GOPEX01 | 9-Dec-92 | 344 | 3:14 AM | 6:14 AM | | |
| | GMOS03 | 9-Dec-92 | 344 | 6:16 AM | 10:10 AM | | |
| | GMOS04 | 12/9 to 12/10 | 344/345 | 12:26 PM | 3:05 AM | | |
| | GOPEX02 | 10-Dec-92 | 345 | 3:06 AM | 5:14 AM | | |
| | PCTMIN01 | 11-Dec-92 | 346 | 12:34 AM | 2:05 AM | | |
| | RCTMIN01 | 11-Dec-92 | 346 | 9:39 AM | 10:11 AM | | |
| | MIRCAL01 | 11-Dec-92 | 346 | 10:15 AM | 10:48 AM | | |
| | NIMSOFF | 11-Dec-92 | 346 | 11:03 AM | 11:06 AM | | |

By John Hui
11/30/92