## Chapter 1 - Introduction

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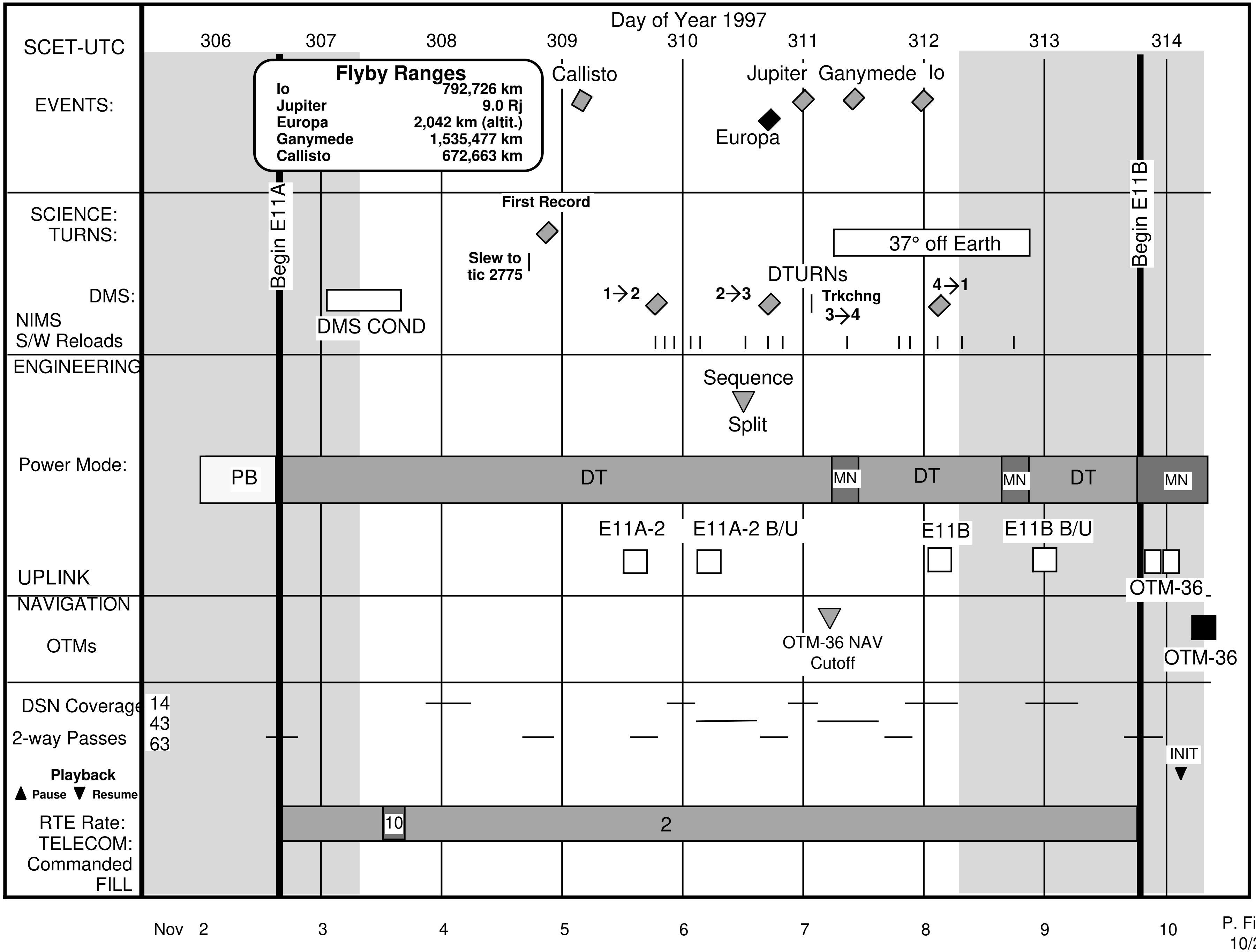
**Introduction**

This E11 orbit is the eleventh of eleven orbits in Galileo's Tour of the Jovian system. This orbit has a targetted satellite flyby of Europa. NIMS will make observations of Jupiter, Io, Europa, Ganymede and Callisto in this orbit. NIMS will also perform some calibrations in this orbit.

There are 13 autonomous reloads of the NIMS RAM code from CDS planned during the E11A encounter period with checksums of the NIMS RAM code before each reload. These reloads are in response to the on-going flight-anomalies where the NIMS RAM code takes some bit hits and halts the instrument during when the spacecraft is close to Jupiter. NIMS NIMS will also return realtime data on a daily basis during the E11A encounter period as a means of monitoring the instrument's status. NIMS personnel will also monitior the NIMS engineering telemetry data on a regular schedule to track the instrument's status.

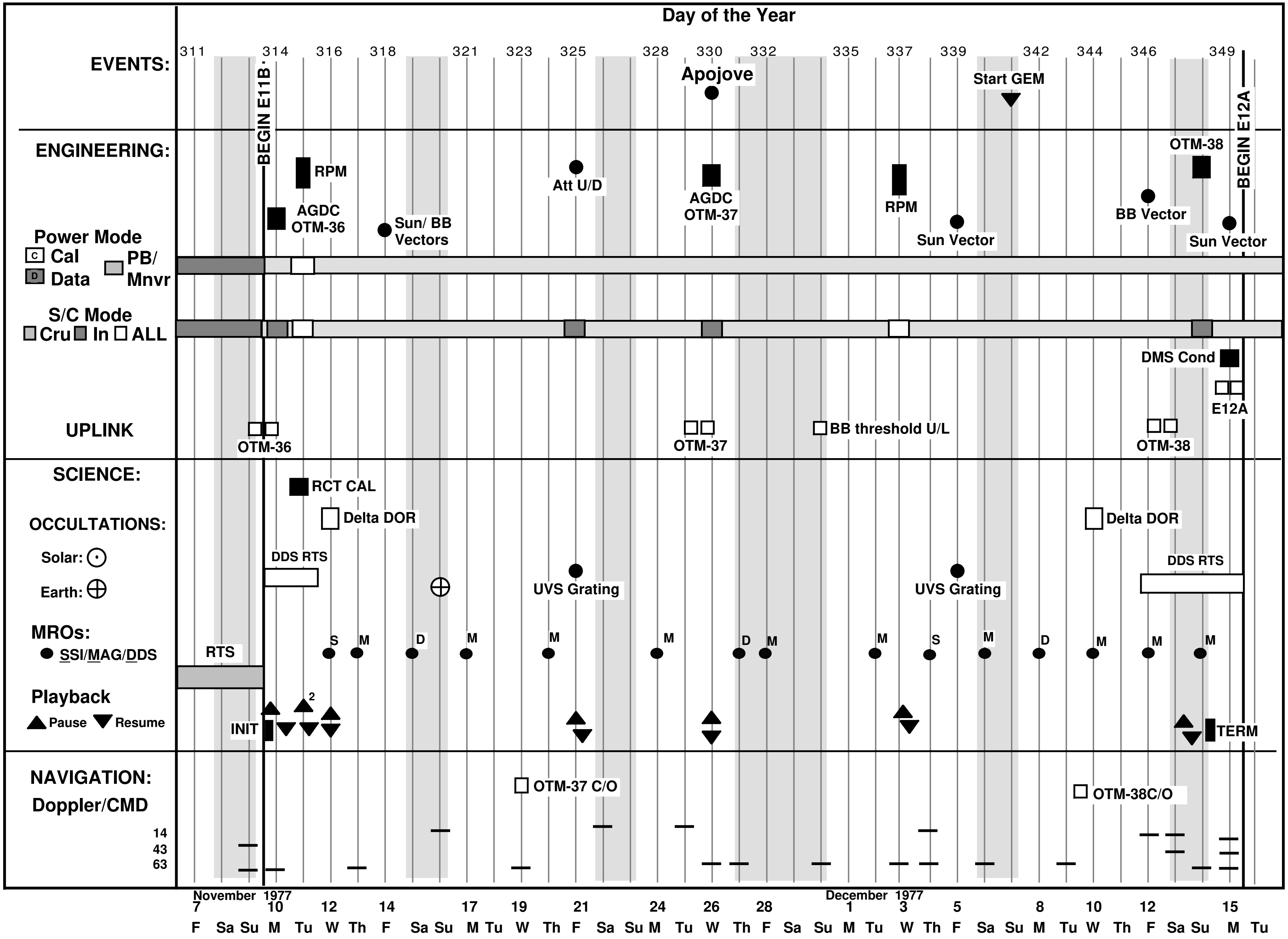
The E11 orbit is divided into 2 sequence loads: one Encounter Load (E11A) and one Orbital Cruise Load (E11B). The E11A load begins on D306 of 1997 (11/02/97) and ends on D313 of 1997 (11/09/97) This load contains the flybys of Jupiter, Europa, Io, Ganymede and Callisto. The Cruise Load E11B runs from D313 to D349. Playback of the recorded data takes place during the Cruise phase, E11B. A high-level overview timeline of the E11 orbit can be found on the following two pages.

# E11A Sequence Overview (Version E11A)




P. Fieseler
10/28/97

# E11B Overview




B. McLaughlin
11/6/97

## Introduction

The following table lists the major events during E11, including NIMS Real Time observations, in UTC.

| | | |
|---|---|---|
| 11/02/97 | 97-306/16:00:00 | E11 Encounter Start |
| 11/05/97 | 97-309/07:16:18 | Callisto Closest Approach |
| 11/05/97 | 97-309/19:31:23 | NIMS RAM Reload 01 |
| 11/05/97 | 97-309/21:13:30 | NIMS RAM Reload 02 |
| 11/05/97 | 97-309/23:36:04 | NIMS RAM Reload 03 |
| 11/06/97 | 97-310/01:05:03 | NIMS RAM Reload 04 |
| 11/06/97 | 97-310/02:14:49 | NIMS RAM Reload 05 |
| 11/06/97 | 97-310/13:14:03 | NIMS RAM Reload 06 |
| 11/06/97 | 97-310/13:39:20 | NIMS R/T Jupiter Brown Barge |
| 11/06/97 | 97-310/14:13:34 | NIMS R/T Jupiter Brown Barge |
| 11/06/97 | 97-310/17:59:11 | NIMS RAM Reload 07 |
| 11/06/97 | 97-310/18:09:18 | NIMS R/T Health 01 |
| 11/06/97 | 97-310/19:15:01 | NIMS R/T Europa |
| 11/06/97 | 97-310/20:31:52 | Europa Closest Approach |
| 11/06/97 | 97-310/20:36:55 | NIMS R/T Europa |
| 11/07/97 | 97-311/00:23:25 | NIMS R/T Jupiter Brown Barge |
| 11/07/97 | 97-311/00:41:37 | Jupiter Closest Approach |
| 11/07/97 | 97-311/12:49:37 | NIMS RAM Reload 08 |
| 11/07/97 | 97-311/19:19:54 | NIMS R/T Health 03 |
| 11/07/97 | 97-311/21:21:14 | NIMS RAM Reload 09 |
| 11/07/97 | 97-311/23:45:49 | Io Closest Approach |
| 11/07/97 | 97-311/10:19:58 | Ganymede Closest Approach |
| 11/08/97 | 97-312/03:19:10 | NIMS RAM Reload 10 |
| 11/08/97 | 97-312/04:47:08 | NIMS RAM Reload 11 |
| 11/08/97 | 97-312/08:13:24 | NIMS RAM Reload 12 |
| 11/08/97 | 97-312/18:24:07 | NIMS RAM Reload 13 |
| 11/08/97 | 97-312/19:00:31 | NIMS R/T Health 04 |
| 11/09/97 | 97-313/16:00:00 | Start E11 Playback |
| 11/10/97 | 97-314/11:59:32 | NIMS R/T RCT CAL |
| 11/10/97 | 97-314/11:59:32 | NIMS R/T OPCAL |
| 12/07/97 | 97-341/16:00:00 | END E11 Playback |