Chapter 1 - Introduction

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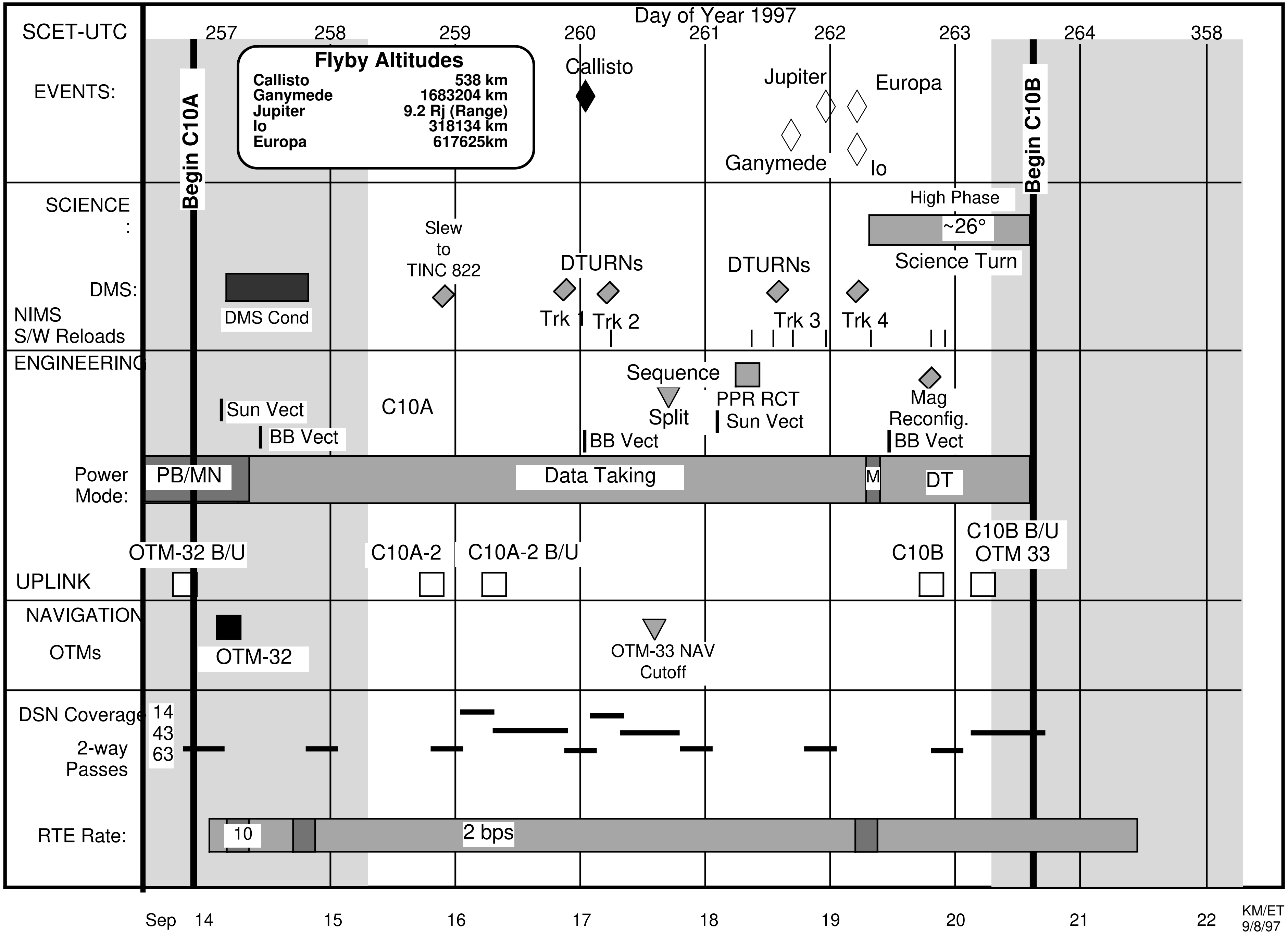
Introduction

This C10 orbit is the tenth of eleven orbits in Galileo's Tour of the Jovian system. This orbit has a targetted satellite flyby of Callisto. NIMS will make observations of Jupiter, Io, Europa, Ganymede and Callisto in this orbit. NIMS will also perform some calibrations in this orbit.

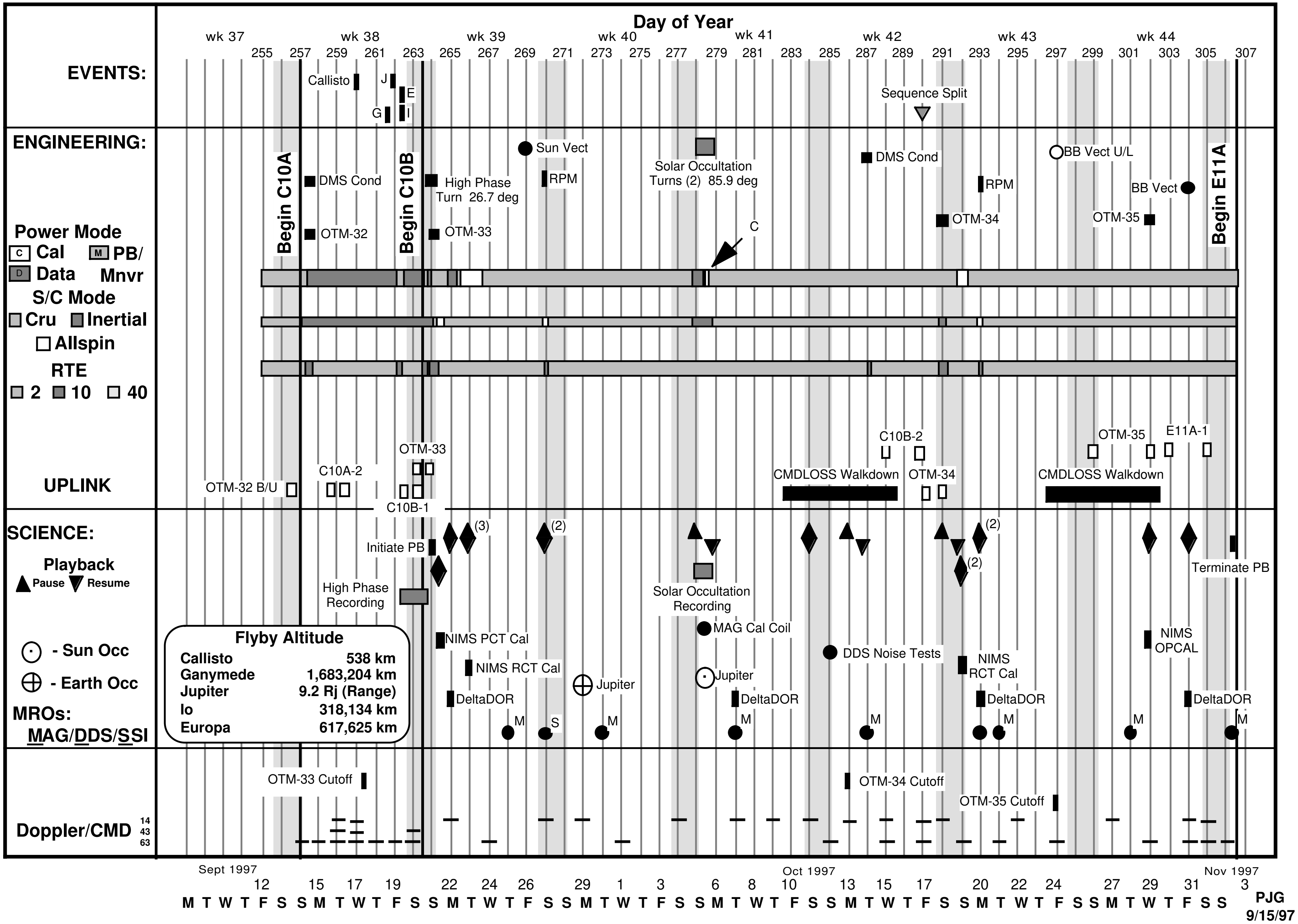
There are 9 autonomous reloads of the NIMS RAM code from CDS planned during the C10A encounter period with checksums of the NIMS RAM code before each reload. These reloads are in response to the on-going flight-anomalies where the NIMS RAM code takes some bit hits and halts the instrument during when the spacecraft is close to Jupiter. NIMS NIMS will also return realtime data on a daily basis during the C10A 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 C10 orbit is divided into 2 sequence loads: one Encounter Load (C10A) and one Orbital Cruise Load (C10B). The C10A load begins on D257 of 1997 (09/14/97) and ends on D263 of 1997 (09/20/97) This load contains the flybys of Jupiter, Europa, Io, Ganymede and Callisto. The Cruise Load C10B runs from D263 to D306. Playback of the recorded data takes place during the Cruise phase, C10B. A high-level overview timeline of the C10 orbit can be found on the following two pages.

C10A Sequence Overview (Version C10A)



C10 Overview



Introduction

The following table lists the major events during C10, including NIMS Real Time observations, in UTC.

09/14/97	97-257/00:00:00	C10 Encounter Start
09/16/97	97-259/18:16:19	NIMS R/T Callisto
09/16/97	97-259/20:40:55	NIMS R/T Callisto
09/17/97	97-260/00:19:22	Callisto Closest Approach
09/17/97	97-260/05:56:04	NIMS RAM Reload 01
09/17/97	97-260/06:22:18	NIMS R/T Europa
09/18/97	97-261/09:08:00	NIMS RAM Reload 02
09/18/97	97-261/12:35:13	NIMS R/T Health 01
09/18/97	97-261/13:29:53	NIMS RAM Reload 03
09/18/97	97-261/15:22:03	NIMS R/T Hotspot
09/18/97	97-261/16:59:11	NIMS RAM Reload 04
09/18/97	97-261/17:56:49	Ganymede Closest Approach
09/18/97	97-261/18:17:59	NIMS R/T Hotspot
09/18/97	97-261/20:59:46	NIMS R/T Health 02
09/18/97	97-261/23:10:15	Jupiter Closest Approach
09/18/97	97-261/23:45:39	NIMS RAM Reload 05
09/19/97	97-262/00:41:12	NIMS R/T Hotspot
09/19/97	97-262/04:43:55	Io Closest Approach
09/19/97	97-262/05:20:19	Europa Closest Approach
09/19/97	97-262/05:30:22	NIMS R/T Health 03
09/19/97	97-262/07:43:54	NIMS RAM Reload 06
09/19/97	97-262/13:59:58	NIMS R/T Health 04
09/19/97	97-262/19:09:26	NIMS RAM Reload 07
09/19/97	97-262/21:43:07	NIMS RAM Reload 08
09/19/97	97-262/22:29:34	NIMS R/T Health 05
09/20/97	97-263/00:10:45	NIMS RAM Reload 09
09/20/97	97-263/05:59:31	NIMS R/T Health 06
09/20/97	97-263/15:30:00	Start C10 Playback
09/21/97	97-264/20:24:51	NIMS R/T PCT CAL
09/23/97	97-266/15:27:14	NIMS R/T RCT CAL
10/19/97	97-292/22:25:14	NIMS R/T RCT CAL
10/29/97	97-302/12:05:39	NIMS R/T OPCAL
11/02/97	97-306/16:00:00	END C10 Playback