Chapter 1 - Introduction

Contents

Introduction

This C3 orbit is the third of eleven orbits in Galileo's Tour of the Jovian system. This orbit has a targetted satellite flyby of Callisto and a non-targetted distant flyby of Europa. NIMS will make observations of Jupiter, Io, Europa, Callisto and Jupiter's Ring in this orbit. NIMS will also perform some calibrations in this orbit.

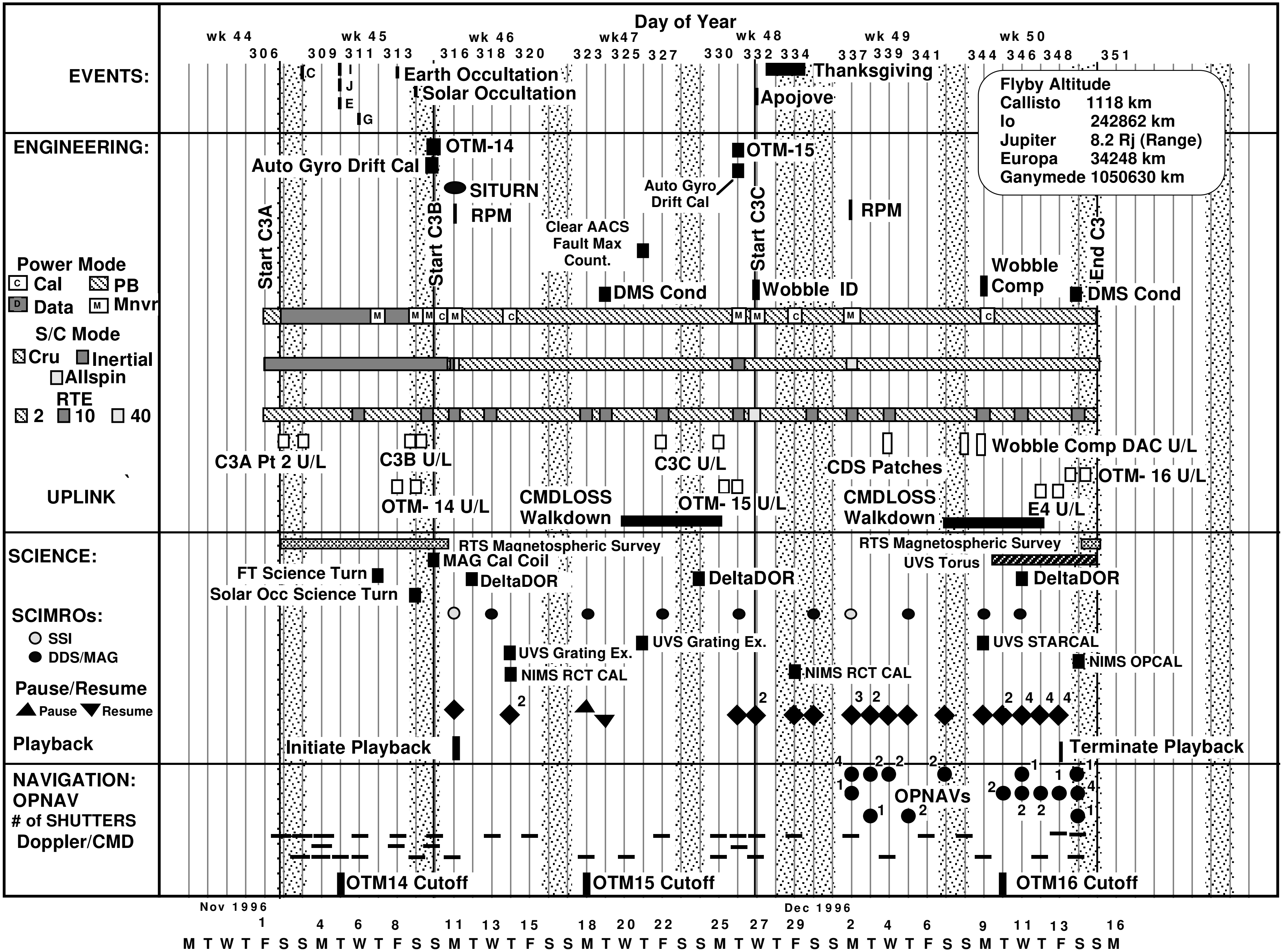
There are five autonomous reloads of the NIMS RAM code from CDS planned during the C3A encounter period with checksums of the NIMS RAM code before each reload. These reloads are in response to the NIMS G1 and G2 flight-anomalies where the NIMS RAM code took some bit hits and halted the instrument during the G1A and G2A encounter periods. NIMS will return realtime data on a daily basis during the C3A 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 C3 orbit is divided into 3 sequence loads: one Encounter Load (C3A) and two Orbital Cruise Loads (C3B and C3C). The Encounter Load, C3A, begins on D307 of 1996 (11/02/96) and ends on D316 of 1996 (11/11/96). This load contains the flybys of Jupiter, Callisto, Europa and Io and also the Ring observation and the Jupiter Occultation observation. The first Cruise Load, C3B, runs from D316 to D331. The second Cruise Load, C3C, runs from D331 to D350. Playback of the recorded data takes place during the two Cruise phases, C3B and C3C. A high-level overview timeline of the C3 orbit can be found on the following page.

The following table lists the major events during C3, including NIMS Real Time observations, in UTC.

11/02/96	96-307/16:00:00	C3 Encounter Start
11/04/96	96-309/09:22:00	NIMS R/T Callisto
11/04/96	96-309/13:35:29	Callisto Closest Approach (C3)
11/05/96	96-310/05:29:00	NIMS R/T Jupiter TAR
11/06/96	96-311/03:32:00	NIMS R/T Io
11/06/96	96-311/03:36:00	NIMS RAM Reload #1
11/06/96	96-311/09:40:00	NIMS RAM Reload #2
11/06/96	96-311/09:54:00	NIMS R/T Europa
11/06/96	96-311/13:26:00	NIMS R/T Health 05
11/06/96	96-311/13:32:16	Jupiter Closest Approach (PJ3)
11/06/96	96-311/18:50:00	Europa Closest Approach
11/06/96	96-311/15:54:00	NIMS RAM Reload #3
11/07/96	96-312/01:18:00	NIMS R/T Health 06
11/07/96	96-312/02:24:00	NIMS RAM Reload #4
11/09/96	96-314/03:01:00	NIMS RAM Reload #5
11/09/96	96-314/02:31:00	Start Solar Occultation by Jupiter
11/09/96	96-314/09:37:00	End Solar Occultation by Jupiter
11/11/96	96-316/02:00:00	Start C3 Playback
11/14/96	96-319/13:53:00	NIMS R/T RCT #1
11/30/96	96-335/02:12:00	NIMS R/T RCT #2
12/14/96	96-349/09:23:00	NIMS R/T OPCAL
12/15/96	96-350/00:00:00	End C3 Playback

C3 Overview



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