Chapter 1 - Introduction

Contents

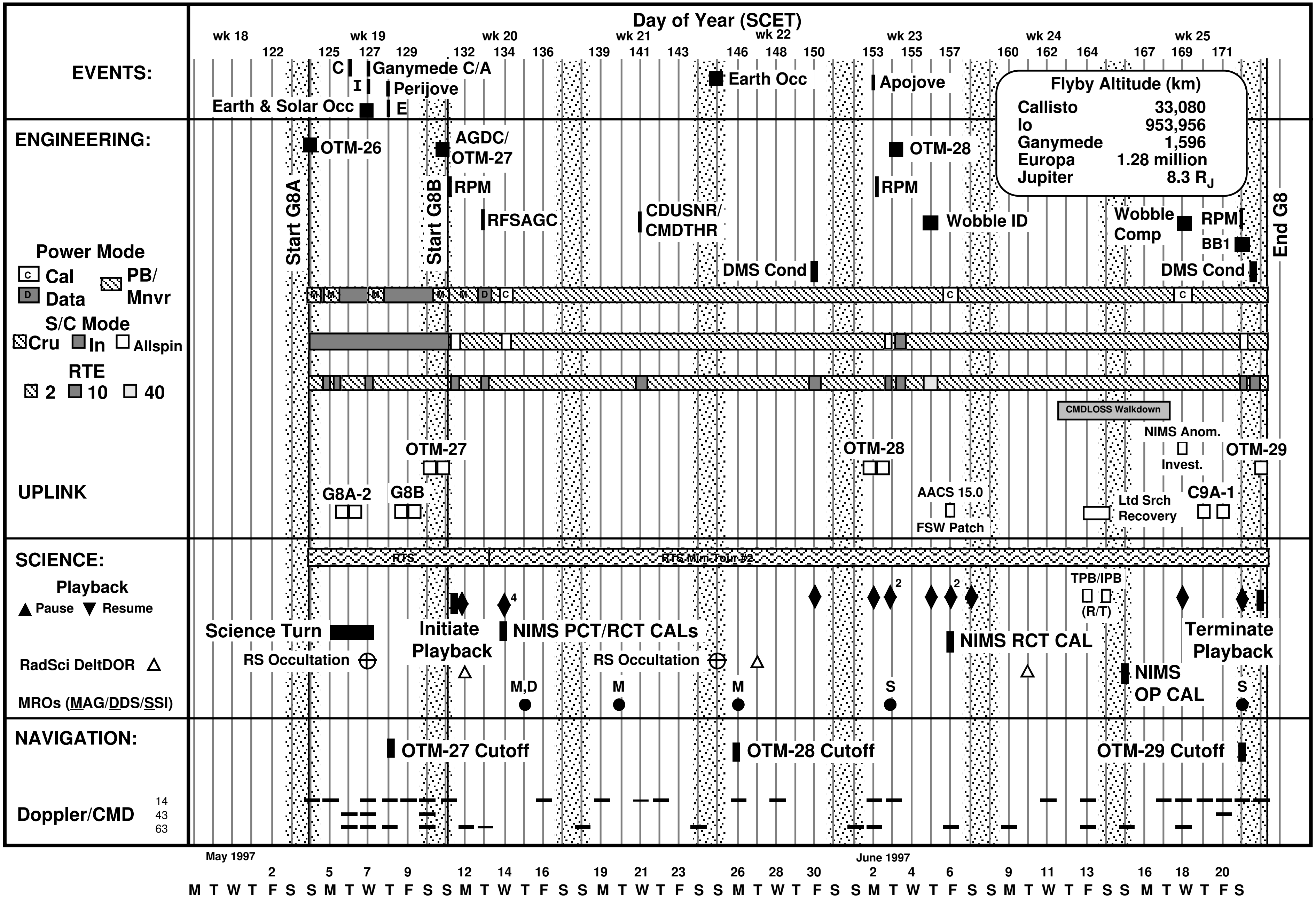
Introduction

This G8 orbit is the eighth of eleven orbits in Galileo's Tour of the Jovian system. This orbit has a targetted satellite flyby of Ganymede. 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 12 autonomous reloads of the NIMS RAM code from CDS planned during the G8A 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 G8A 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 G8 orbit is divided into 2 sequence loads: one Encounter Loads (G8A) and one Orbital Cruise Load (G8B). The G8A load begins on D124 of 1997 (05/04/97) and ends on D131 of 1997 (05/11/97) This load contains the flybys of Jupiter, Europa, Io, Ganymede and Callisto. The Cruise Load, G8B, runs from D131 to D173. Playback of the recorded data takes place during the Cruise phase, G8B. A high-level overview timeline of the G8 orbit can be found on the following page.

G8 Overview



BMcL
6/18/97

Introduction

The following table lists the major events during G8, including NIMS Real Time observations, in UTC.

05/04/97	97-124/16:00:00	G8 Encounter Start
05/06/97	97-126/12:10:53	Callisto Closest Approach
05/07/97	97-127/07:30:38	Io Closest Approach
05/07/97	97-127/12:55:12	NIMS RAM Reload 01
05/07/97	97-127/15:56:11	Ganymede Closest Approach
05/07/97	97-127/21:07:36	NIMS R/T Health 02
05/07/97	97-127/22:36:35	NIMS RAM Reload 02
05/07/97	97-127/23:41:19	NIMS R/T Europa 01
05/08/97	97-128/01:49:42	NIMS RAM Reload 03
05/08/97	97-128/02:00:50	NIMS R/T Europa 02
05/08/97	97-128/08:25:03	NIMS RAM Reload 04
05/08/97	97-128/09:48:58	Europa Closest Approach
05/08/97	97-128/10:04:08	NIMS R/T Europa 03
05/08/97	97-128/10:48:38	NIMS RAM Reload 05
05/08/97	97-128/11:42:13	Jupiter Closest Approach
05/08/97	97-128/19:46:32	NIMS R/T Health 04
05/08/97	97-128/19:50:35	NIMS RAM Reload 06
05/08/97	97-128/20:53:16	NIMS RAM Reload 07
05/08/97	97-128/23:04:43	NIMS R/T Jupiter HotSpot 01
05/09/97	97-129/01:53:31	NIMS R/T Jupiter HotSpot 02
05/09/97	97-129/02:32:57	NIMS R/T Jupiter HotSpot 03
05/09/97	97-129/06:23:32	NIMS RAM Reload 08
05/09/97	97-129/07:06:00	NIMS RAM Reload 09
05/09/97	97-129/16:34:15	NIMS RAM Reload 10
05/09/97	97-129/16:52:27	NIMS R/T Health 05
05/10/97	97-130/02:31:49	NIMS RAM Reload 12
05/10/97	97-130/22:41:06	NIMS RAM Reload 13
05/11/97	97-131/17:00:00	Start G8 Playback
05/13/97	97-133/19:34:31	NIMS R/T PCT CAL
05/14/97	97-134/04:38:30	NIMS R/T RCT CAL
06/06/97	97-157/07:38:25	NIMS R/T RCT CAL
06/15/97	97-166/07:38:25	NIMS R/T OPCAL
06/22/97	97-173/17:00:00	End G8 Playback