Chapter 1 - Introduction

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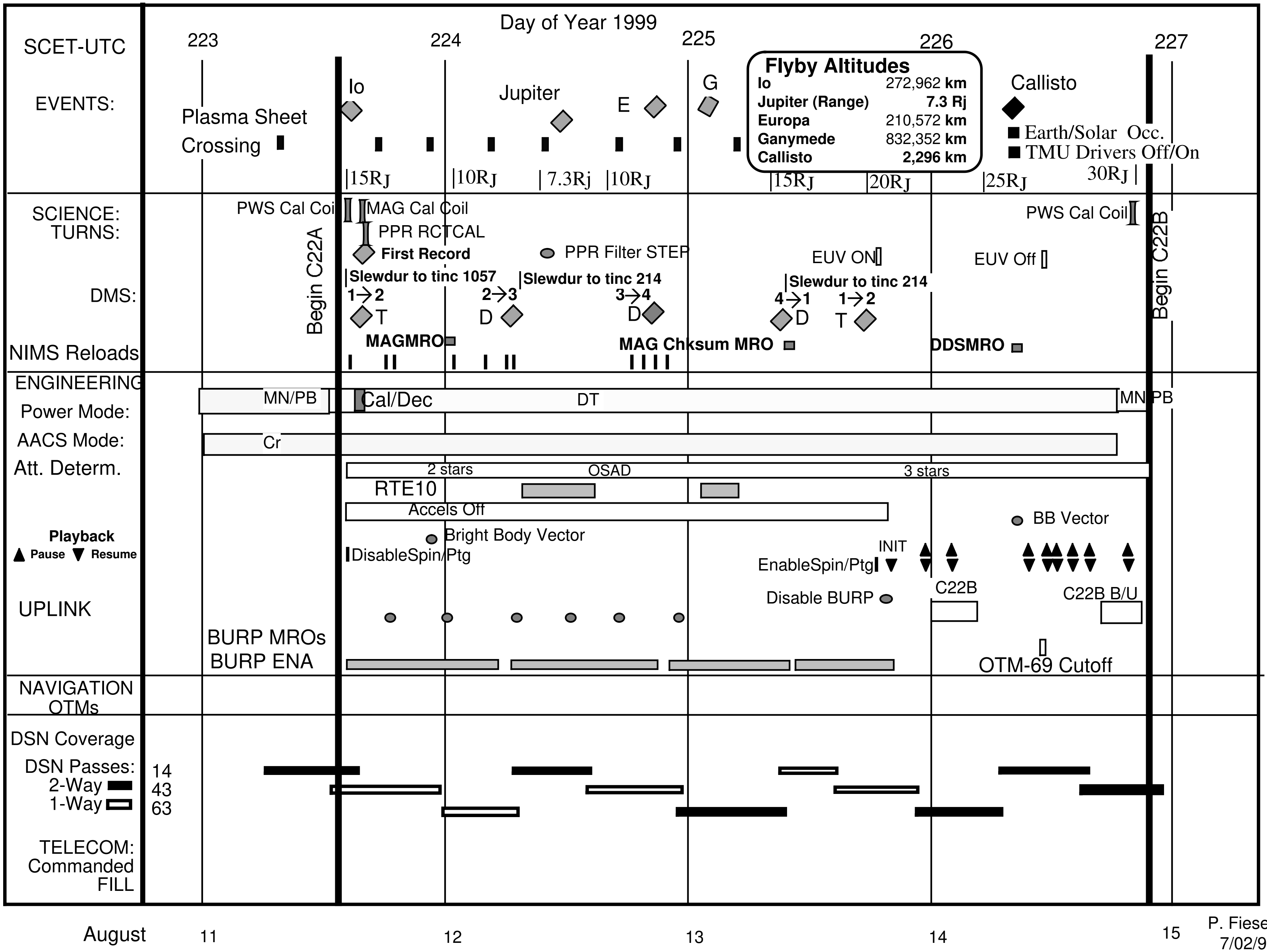
Introduction

This C22 orbit is the twenty-second of twenty-five orbits in Galileo’s Tour of the Jovian system and the eleventh orbit in the Galileo Europa Mission (GEM). C22 continues the perijove reduction part of the GEM. This orbit has a targetted satellite flyby of Callisto. NIMS will make observations of Jupiter, Europa and Io in this orbit.

There are 12 autonomous reloads of the NIMS RAM code from CDS planned during the C22A encounter period, one just before each science observation. 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 personnel will monitior the NIMS engineering telemetry data on a regular schedule to track the instrument’s status.

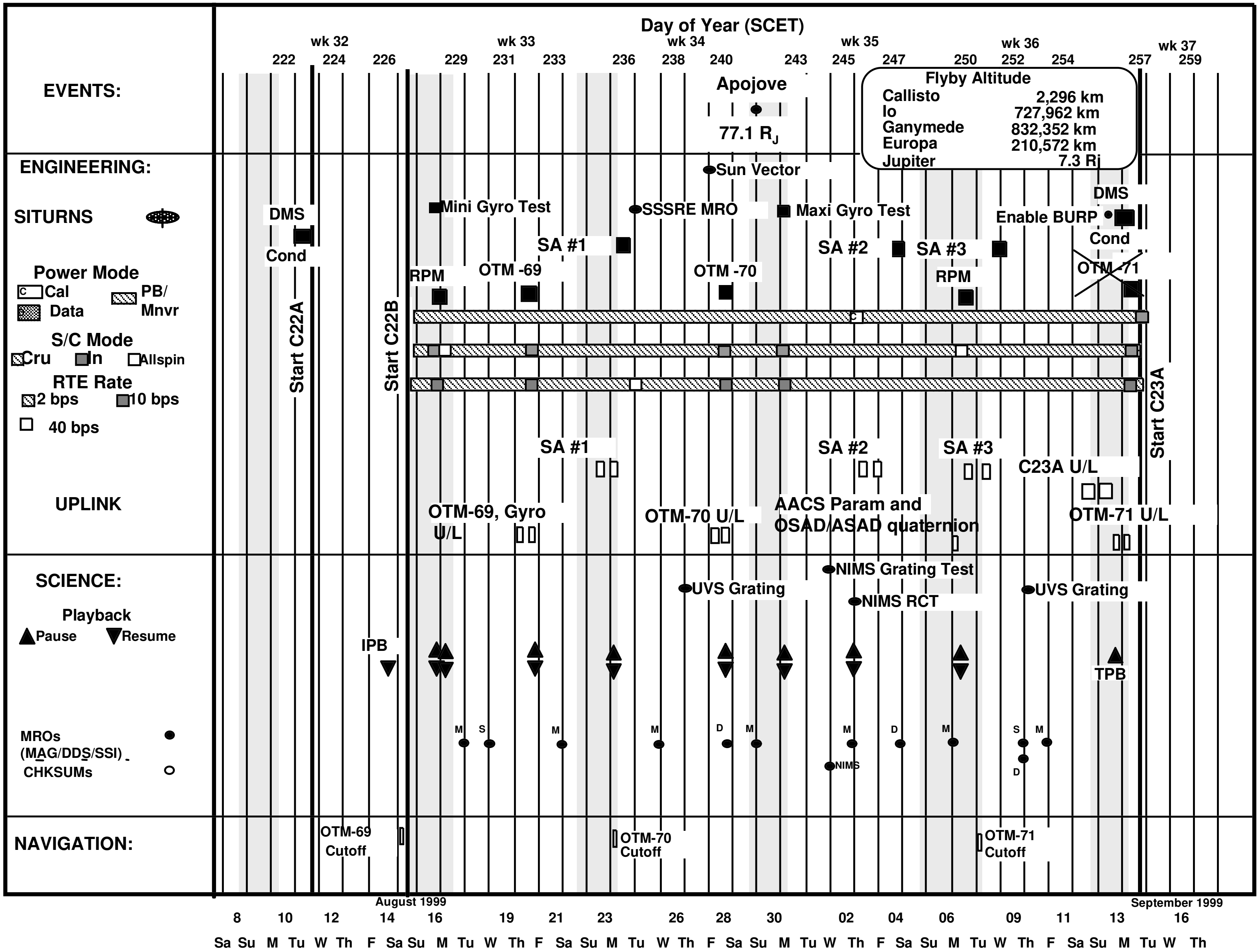
The C22 orbit is divided into 2 sequence loads: one Encounter Load (C22A) and one Orbital Cruise Load (C22B). The C22A load begins on D223 (08/11/99) and ends on D226 (08/14/99). This load contains the flybys of Jupiter and Callisto. The Cruise Load C22B runs from D226 to D256. Playback of the recorded data takes place during the Cruise phase, C22B. A high-level overview timeline of the C22 orbit can be found on the following two pages.

C22A Sequence Overview



P. Fieseler
7/02/99

C-22B Overview



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Introduction

The following table lists the major events during C22, including NIMS Real Time observations, in UTC.

08/11/99	99-223/14:00:00	C22 Encounter Start
08/11/99	99-223/14:46:39	NIMS RAM Reload 01
08/11/99	99-223/14:52:32	NIMS R/T Jupiter 01
08/11/99	99-223/19:16:37	NIMS RAM Reload 02
08/11/99	99-223/19:25:32	NIMS R/T Jupiter 02
08/12/99	99-224/00:48:19	NIMS RAM Reload 03
08/12/99	99-224/04:36:18	NIMS RAM Reload 04
08/12/99	99-224/04:56:02	NIMS RAM Reload 05
08/12/99	99-224/06:40:11	NIMS RAM Reload 06
08/12/99	99-224/11:08:32	PJ-22 Jupiter Closest Approach
08/12/99	99-224/18:06:36	NIMS RAM Reload 07
08/12/99	99-224/19:41:43	NIMS RAM Reload 08
08/12/99	99-224/20:02:53	NIMS RAM Reload 09
08/12/99	99-224/20:37:15	NIMS RAM Reload 10
08/12/99	99-224/21:07:35	NIMS RAM Reload 11
08/13/99	99-225/14:59:22	NIMS RAM Reload 12
08/14/99	99-226/08:39:35	C22 Calisto Closest Approach
08/14/99	99-226/22:00:00	Start C22 Playback
09/03/99	99-245/11:34:44	NIMS R/T RCT CAL
09/13/99	99-255/19:54:08	End C22 Playback