Chapter 1 - Introduction

Contents

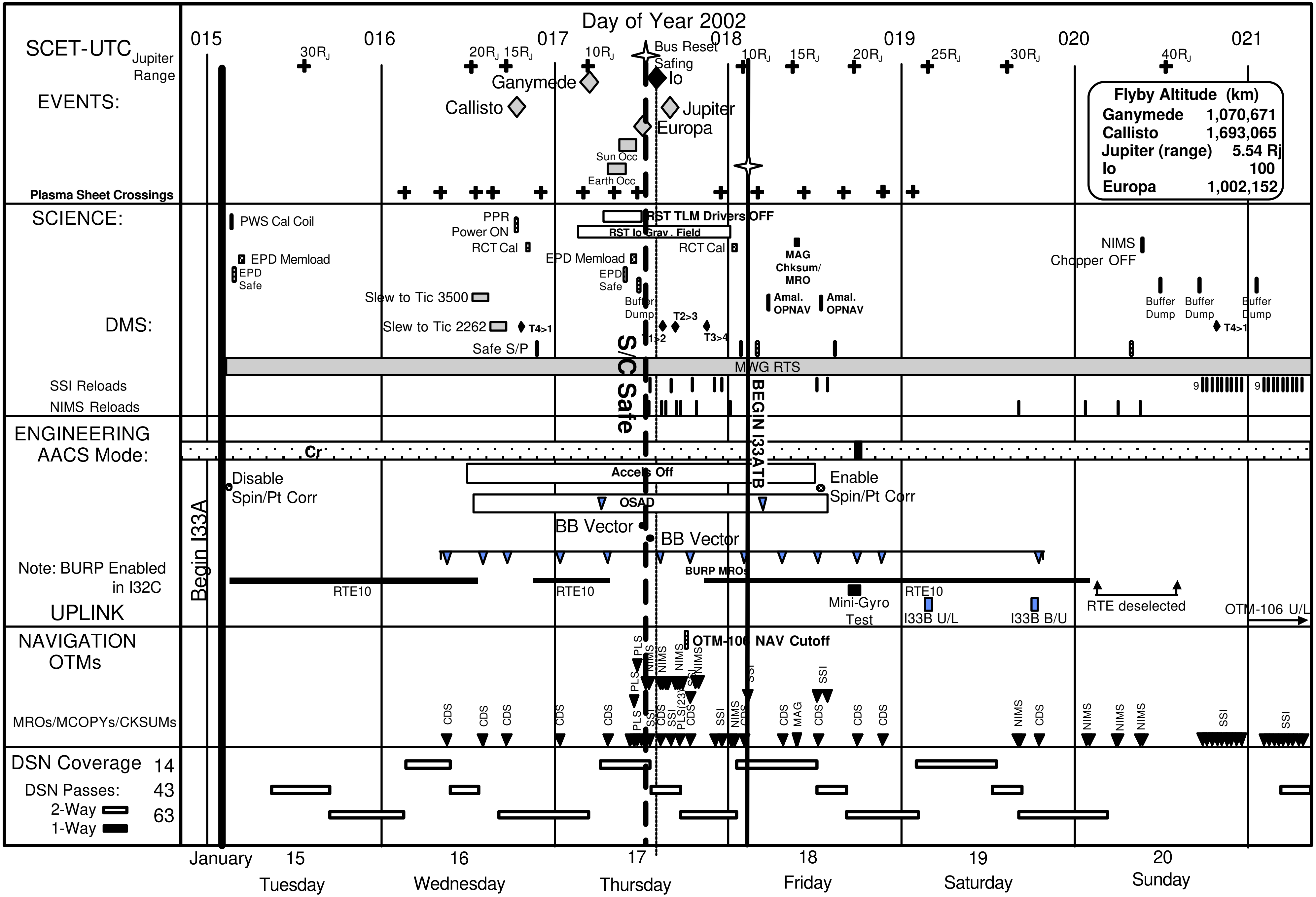
Introduction

This I33 orbit is the thirty-third of thirty-three orbits in Galileo's Tour of the Jovian system and the seventh orbit in the Galileo Millennium Mission (GMM). I33 is an Io Flyby.

There are 12 autonomous reloads of the NIMS RAM code from CDS planned during the I33A 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 I33 orbit is divided into 2 sequence loads: one Encounter Load (I33A) and one Orbital Cruise Loads (I32B and I33C). The I33A load begins on D015 (01/15/02) and ends on D021 (01/21/02). This load contains a flyby of Io. The Cruise Load runs from D021 to D307. Playback of the recorded data takes place during the Cruise phase, I33B. A high-level overview timeline of the I33 orbit can be found on the following three pages.

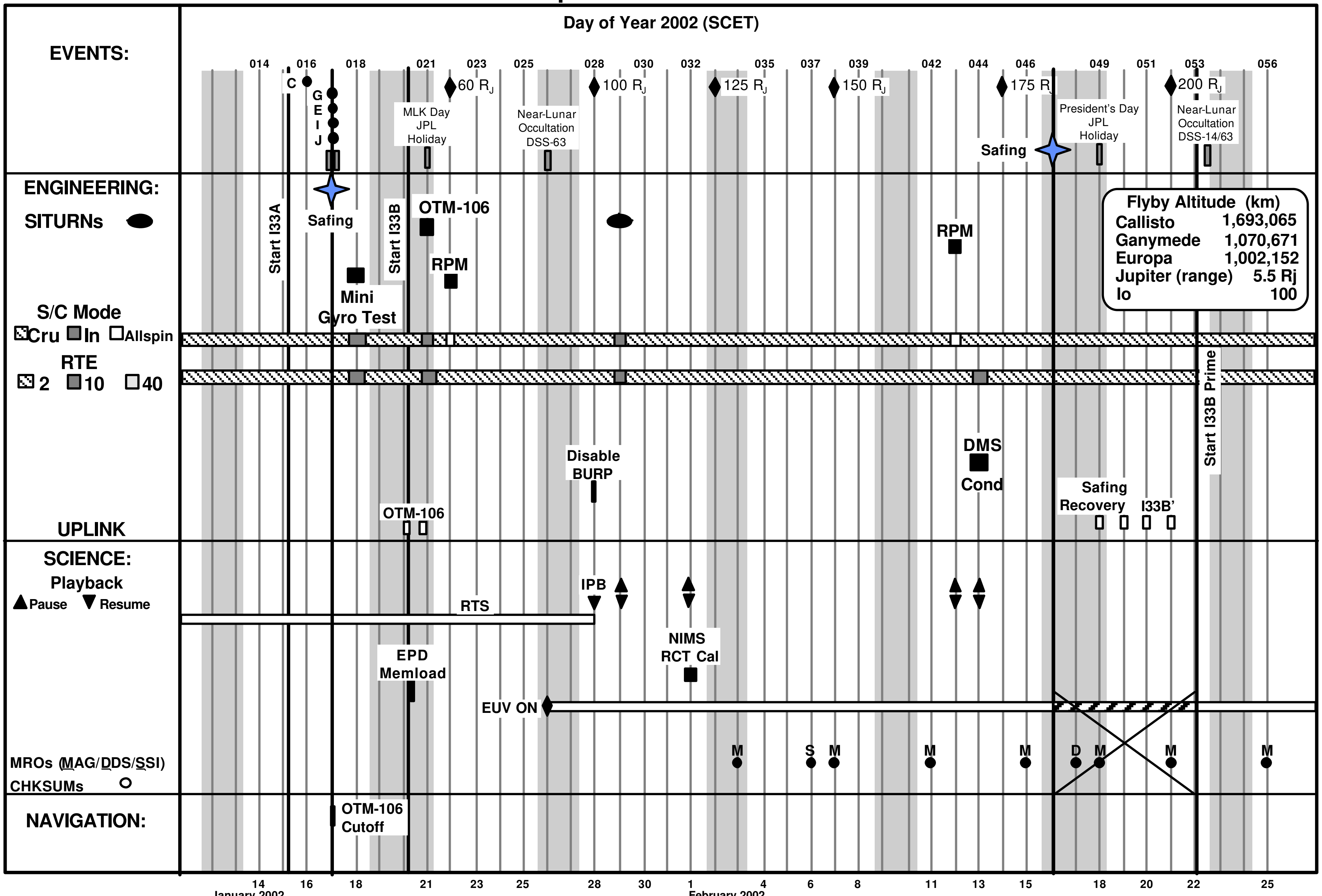
I33A Encounter Period Overview



SAB/BMcL/SST
1/24/02

Note: Sequence activities were cancelled at 02-017/13:41:09.933 by safing apparently caused by a despun bus reset that was not caught by the patch.
Another despun bus reset occurred at 02-018/02:44:56.400 that was correctly handled by the patch.

I33B Sequence Overview - Part 1



Note: Spacecraft activities were halted at 02-017/13:41:10 SCET by spacecraft safing (Despun Bus Parity Error), and again at approximately 02-047/20:51 SCET by a spacecraft safing incident (A-String down).

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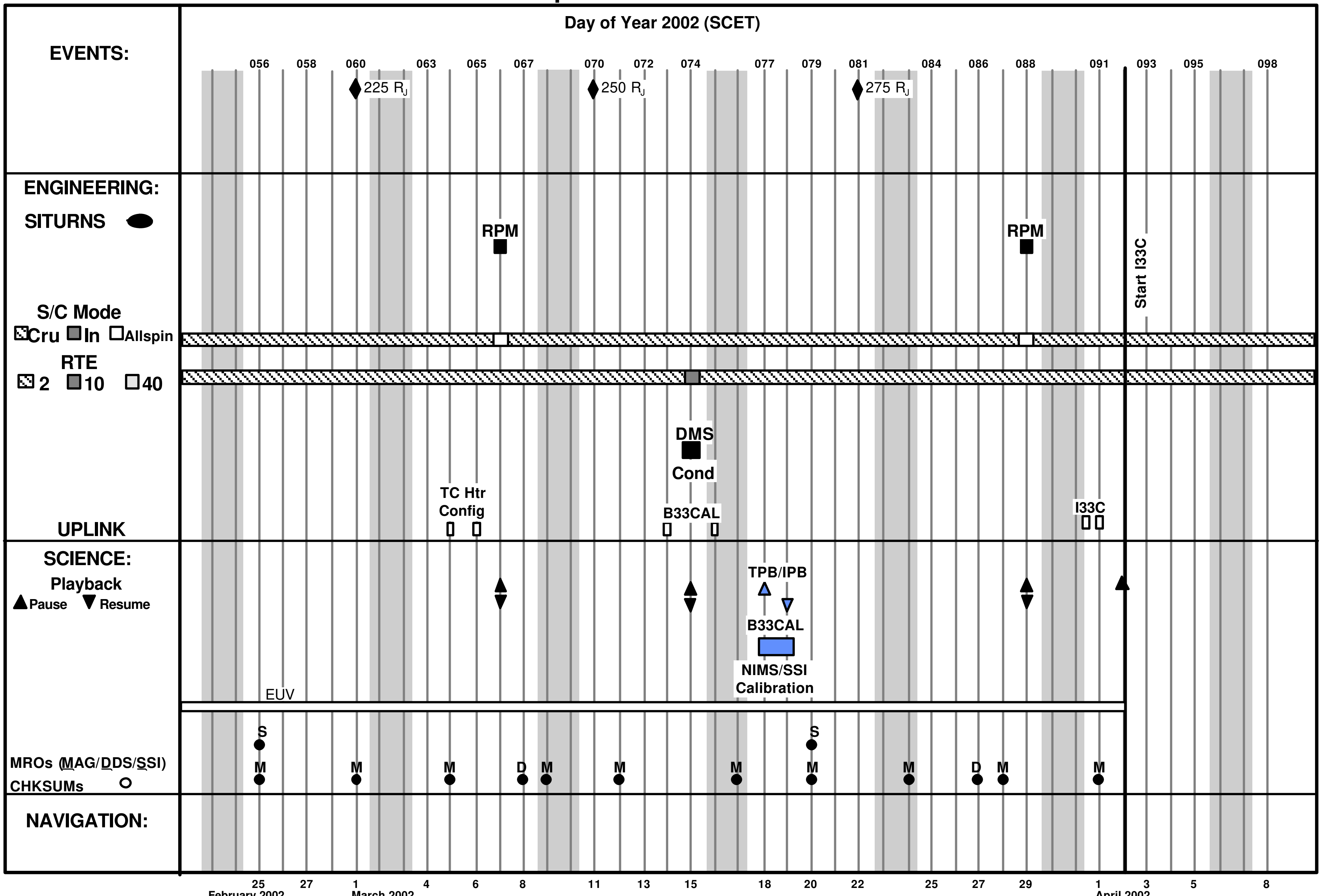
I33B Sequence Overview - Part 2



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Introduction

The following table lists the major events during I33, including NIMS Real Time observations, in UTC.

01/15/02	02-015/02:00:00	I33 Encounter Start
01/17/02	02-017/13:47:49	NIMS RAM Reload 01
01/17/02	02-017/14:09:27	I33 Io Closest Approach
01/17/02	02-017/14:15:33	NIMS RAM Reload 02
01/17/02	02-017/14:34:26	NIMS RAM Reload 03
01/17/02	02-017/15:15:53	NIMS RAM Reload 04
01/17/02	02-017/15:38:08	NIMS RAM Reload 05
01/17/02	02-017/16:23:35	PJ-33 Jupiter Closest Approach
01/17/02	02-017/19:06:12	NIMS RAM Reload 06
01/17/02	02-018/00:06:30	NIMS RAM Reload 07
01/17/02	02-019/23:37:06	NIMS RAM Reload 08
01/17/02	02-020/02:56:17	NIMS RAM Reload 09
01/17/02	02-020/06:16:29	NIMS RAM Reload 10
01/17/02	02-020/08:27:12	NIMS RAM Reload 11
01/28/02	02-028/00:29:52	Start I33 Playback
02/02/02	02-033/00:13:45	NIMS RAM Reload 14
02/02/02	02-033/00:32:21	NIMS R/T RCT CAL
03/31/02	02-090/23:59:59	End I33 Playback