Chapter 1 - Introduction

Contents

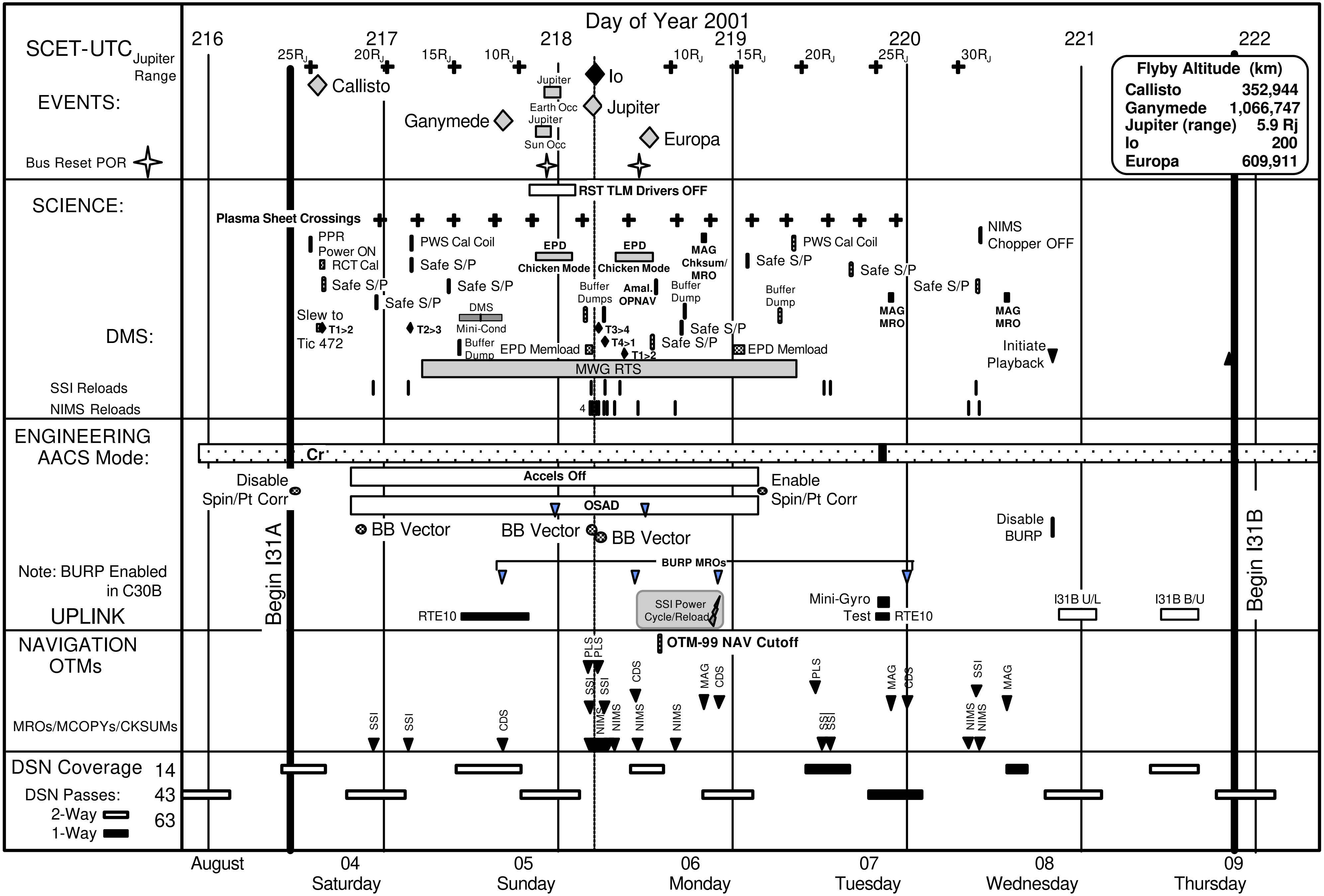
Introduction

This I31 orbit is the thirty-first of thirty-one orbits in Galileo's Tour of the Jovian system and the fifth orbit in the Galileo Millennium Mission (GMM). I31 is an Io Flyby.

There are 12 autonomous reloads of the NIMS RAM code from CDS planned during the I31A 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 I31 orbit is divided into 2 sequence loads: one Encounter Load (I31A) and one Orbital Cruise Loads (I31B). The I31A load begins on D216 (08/04/01) and ends on D221 (08/09/01). This load contains flyby of Io. The Cruise Load runs from D221 to D287. Playback of the recorded data takes place during the Cruise phase, I31B. A high-level overview timeline of the I31 orbit can be found on the following three pages.

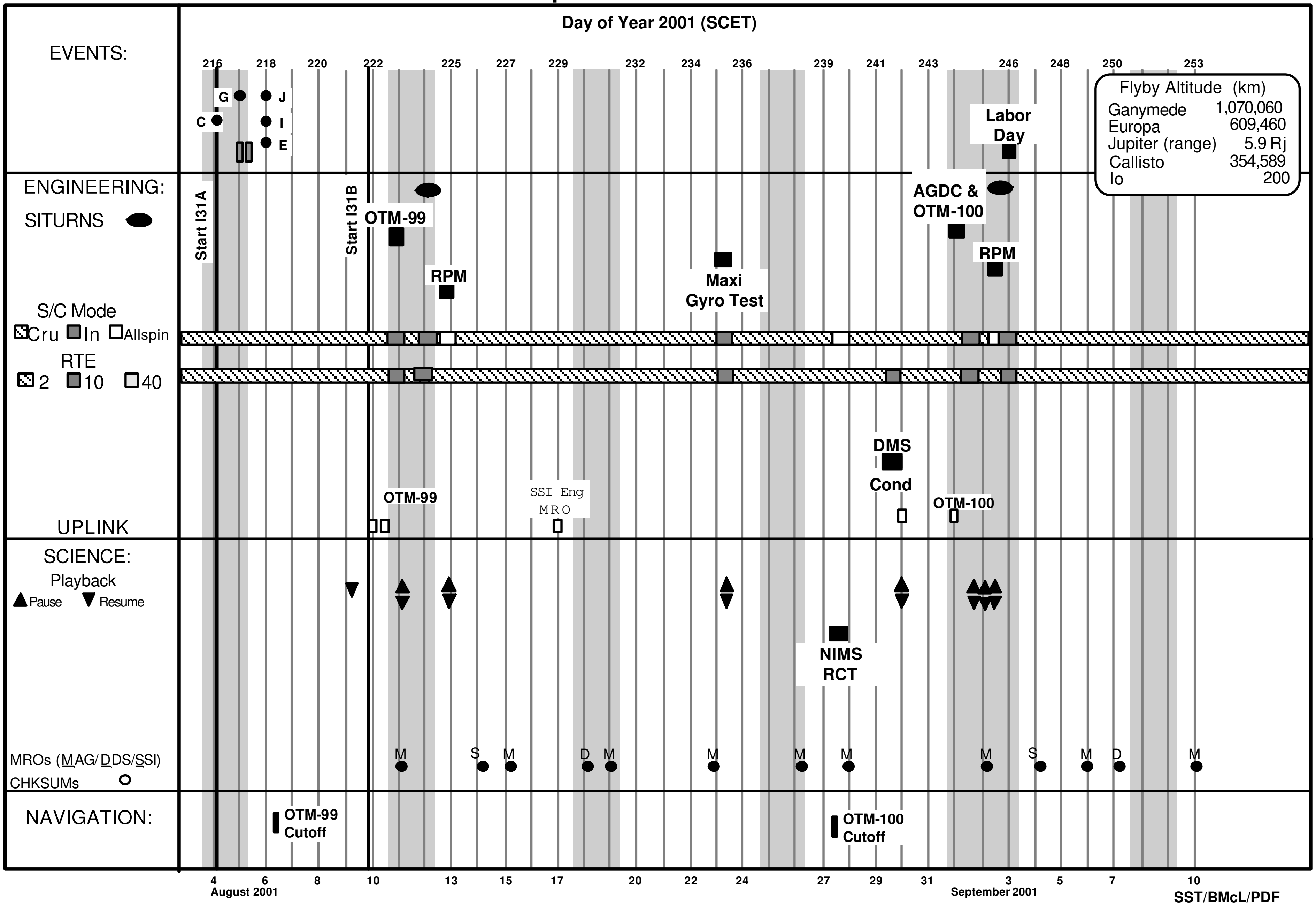
I31A Encounter Overview



Note: DSS-63 is off-line for an extended period of X-Band Uplink upgrades, and is unavailable for use.
Two Bus Reset PORs occurred during the encounter time period, both of which were properly handled by the on-board recovery routine.
The times were: 01-217/22:21-22:47 SCET (exact time is indeterminate) and 01-218/11:12:09 SCET.

BMcL/SST
08/20/01

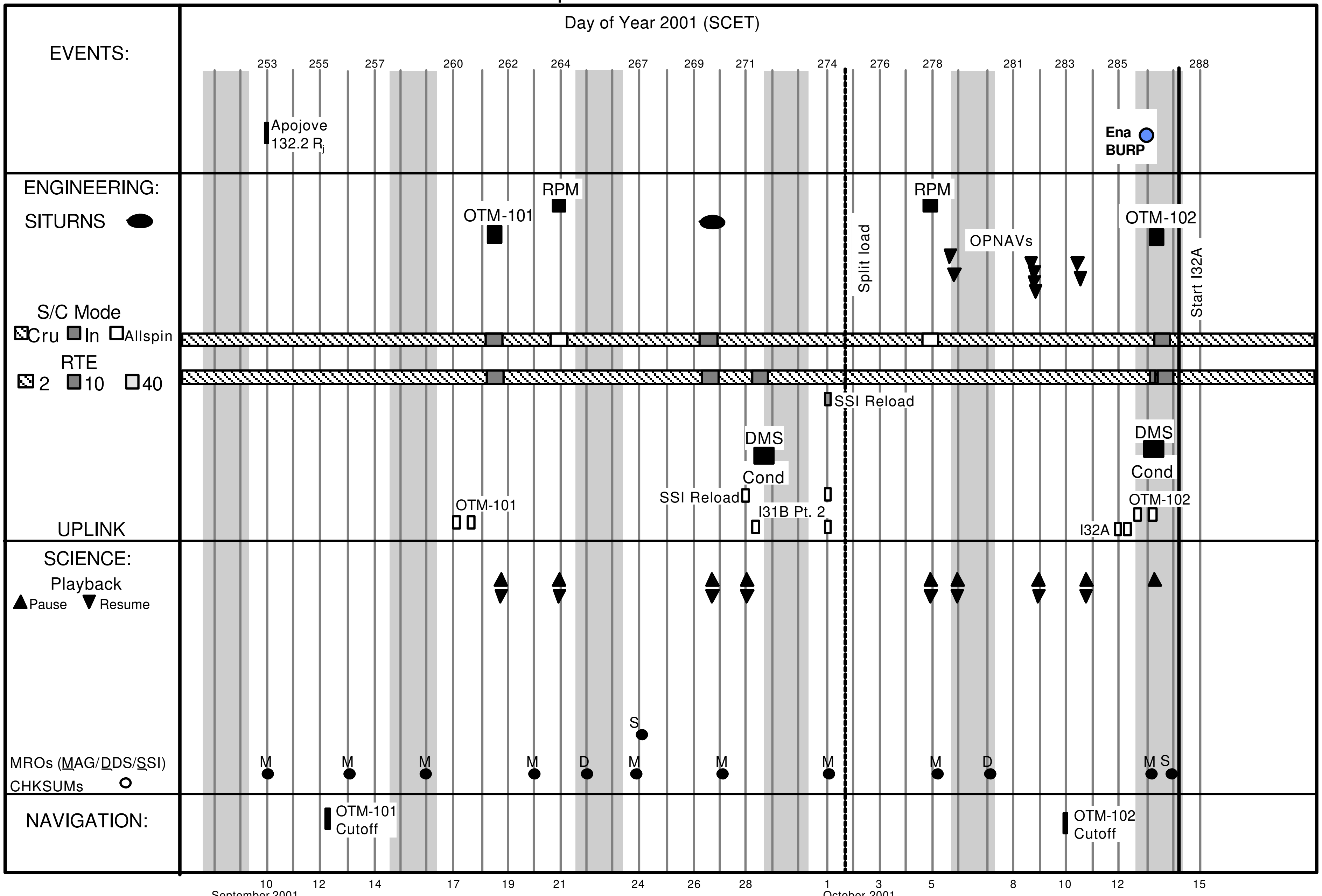
I31B Sequence Overview - Part 1



SST/BMcL/PDF

9/25/01

I31B Sequence Overview - Part 2



SST/BMcL/PDF/SAB
10/17/01

Introduction

The following table lists the major events during I31, including NIMS Real Time observations, in UTC.

08/04/01	01-216/12:00:00	I31 Encounter Start
08/06/01	01-218/04:26:37	NIMS RAM Reload 01
08/06/01	01-218/04:54:49	NIMS RAM Reload 02
08/06/01	01-218/04:53:14	PJ-31 Jupiter Closest Approach
08/06/01	01-218/05:00:21	I31 Io Closest Approach
08/06/01	01-218/05:09:11	NIMS RAM Reload 03
08/06/01	01-218/05:36:29	NIMS RAM Reload 04
08/06/01	01-218/06:15:55	NIMS RAM Reload 05
08/06/01	01-218/06:39:58	NIMS RAM Reload 06
08/06/01	01-218/08:03:53	NIMS RAM Reload 07
08/06/01	01-218/11:01:06	NIMS RAM Reload 08
08/06/01	01-218/16:03:26	NIMS RAM Reload 09
08/08/01	01-220/08:26:03	NIMS RAM Reload 10
08/08/01	01-220/09:59:21	NIMS RAM Reload 11
08/08/01	01-220/19:59:16	Start I31 Playback
08/27/01	01-239/10:14:15	NIMS RAM Reload 12
08/27/01	01-239/10:33:42	NIMS R/T RCT CAL
10/13/01	01-286/02:58:24	End I31 Playback