Chapter 1 - Introduction

Contents

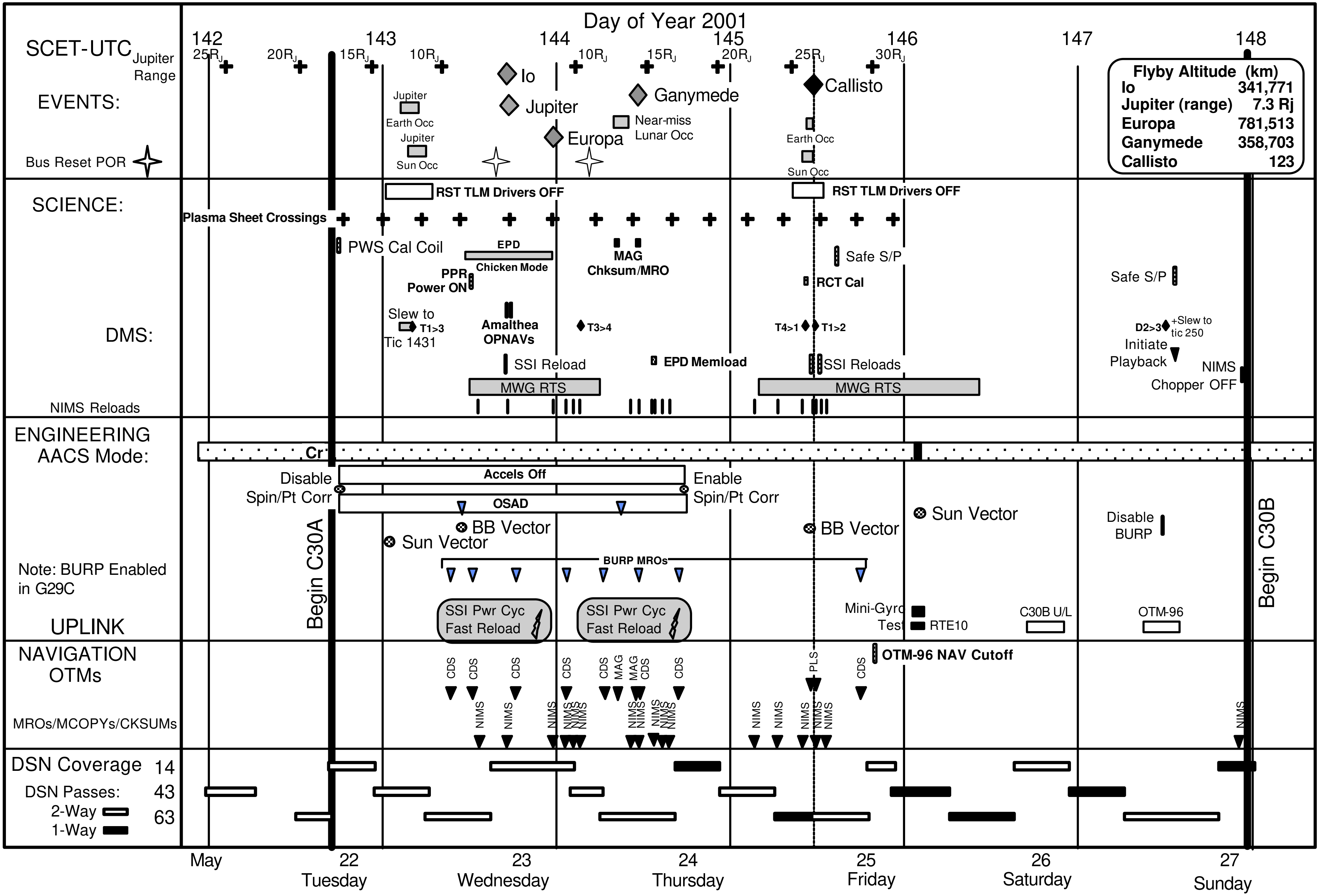
Introduction

This C30 orbit is the thirtieth of thirty orbits in Galileo's Tour of the Jovian system and the fourth orbit in the Galileo Millennium Mission (GMM). C30 is a Callisto Flyby.

There are 21 autonomous reloads of the NIMS RAM code from CDS planned during the C30A 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 C30 orbit is divided into 2 sequence loads: one Encounter Load (C30A) and one Orbital Cruise Loads (C30B). The C30A load begins on D142 (05/21/01) and ends on D147 (05/26/01). This load contains flyby of Callisto. The Cruise Load runs from D147 to D216. Playback of the recorded data takes place during the Cruise phase, C30B. A high-level overview timeline of the C30 orbit can be found on the following three pages.

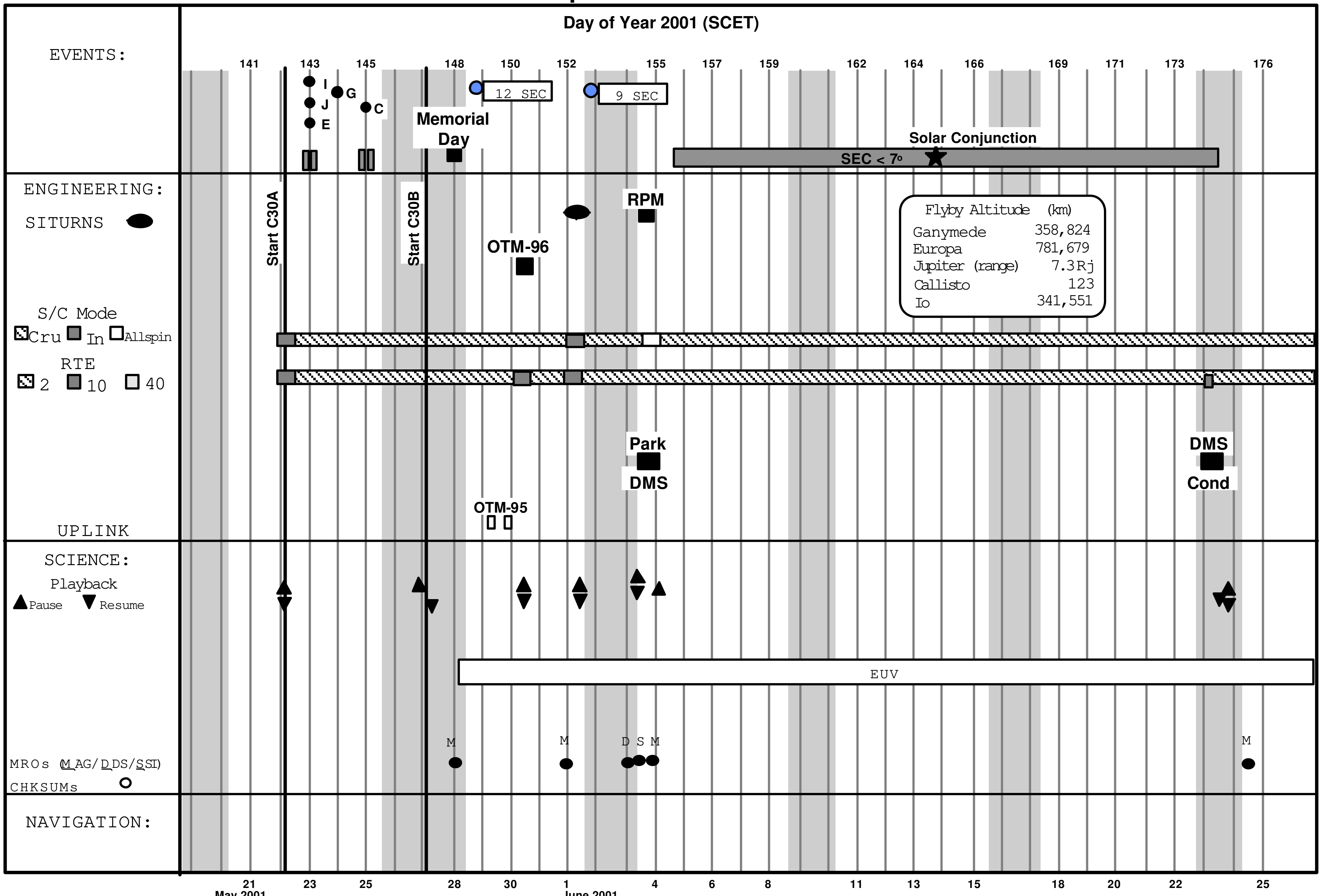
C30A Encounter Overview



Note: 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: 01-143/15:49:08 SCET and 01-144/04:34:19 SCET.
SSI Power cycle and fast reloads were sent at 01-143/21:30:00 TRM and 01-144/16:25:00 TRM.

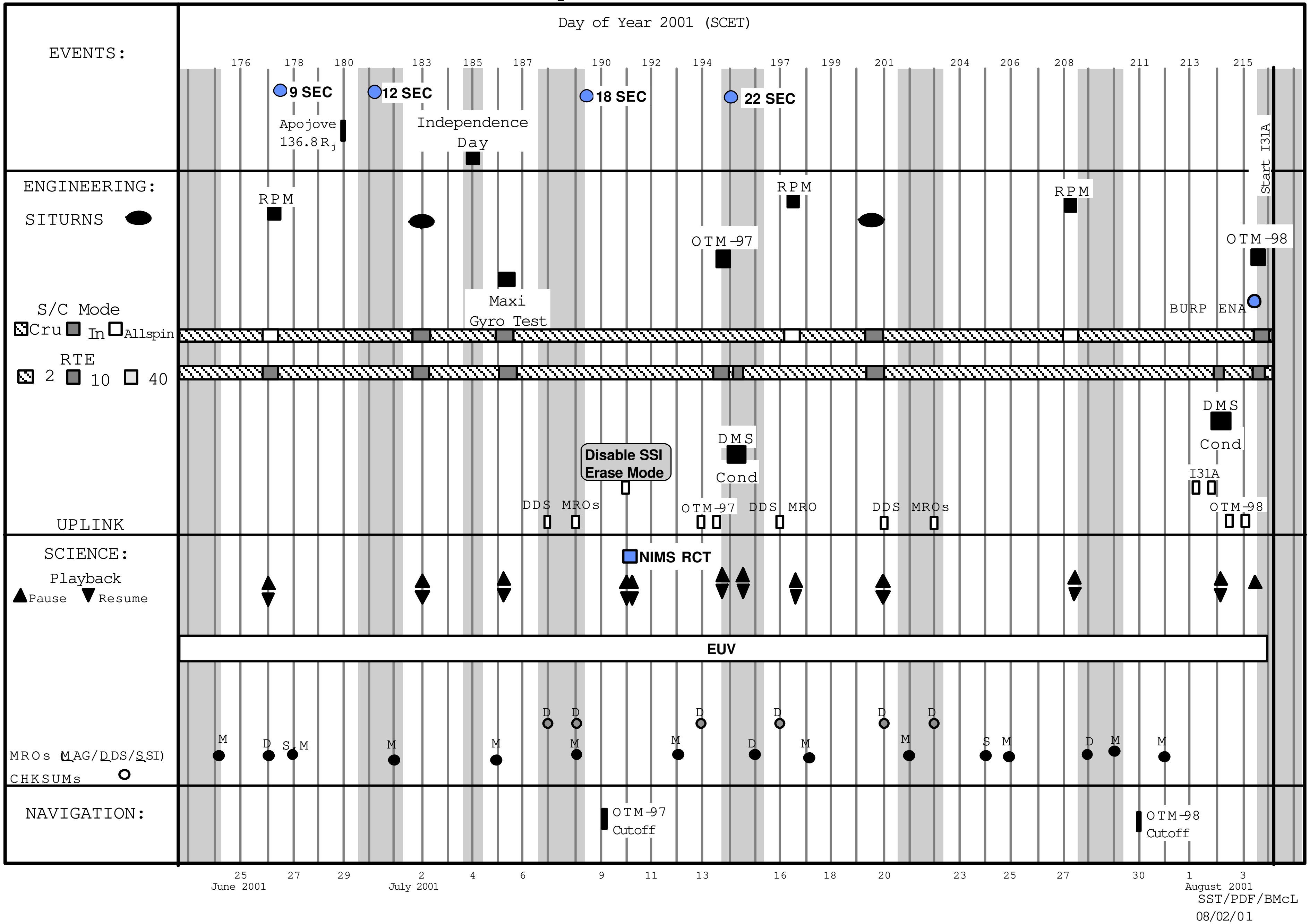
BMcL/SST
06/06/01

C30B Sequence Overview - Part 1



SST/PDF/BMcL
05/07/01

C30B Sequence Overview -Part 2



1-05

Introduction

The following table lists the major events during C30, including NIMS Real Time observations, in UTC.

05/22/01	01-142/17:00:00	C30 Encounter Start
05/23/01	01-143/13:13:39	NIMS RAM Reload 01
05/23/01	01-143/17:17:09	Io Closest Approach
05/23/01	01-143/17:27:19	NIMS RAM Reload 02
05/23/01	01-143/17:34:12	PJ-30 Jupiter Closest Approach
05/23/01	01-143/23:40:26	NIMS RAM Reload 03
05/23/01	01-143/23:50:28	Europa Closest Approach
05/24/01	01-144/01:08:01	NIMS RAM Reload 04
05/24/01	01-144/02:08:41	NIMS RAM Reload 05
05/24/01	01-144/03:09:21	NIMS RAM Reload 06
05/24/01	01-144/10:03:54	NIMS RAM Reload 07
05/24/01	01-144/11:23:47	NIMS RAM Reload 08
05/24/01	01-144/13:04:54	NIMS RAM Reload 09
05/24/01	01-144/13:45:20	NIMS RAM Reload 10
05/24/01	01-144/14:45:00	NIMS RAM Reload 11
05/24/01	01-144/15:46:40	NIMS RAM Reload 12
05/25/01	01-145/03:16:15	NIMS RAM Reload 13
05/25/01	01-145/06:38:28	NIMS RAM Reload 14
05/25/01	01-145/09:59:41	NIMS RAM Reload 15
05/25/01	01-145/11:25:23	C30 Callisto Closest Approach
05/25/01	01-145/11:28:38	NIMS RAM Reload 16
05/25/01	01-145/11:49:54	NIMS RAM Reload 17
05/25/01	01-145/12:26:18	NIMS RAM Reload 18
05/25/01	01-145/13:14:21	NIMS RAM Reload 19
05/27/01	01-147/22:27:28	NIMS RAM Reload 20
05/27/01	01-147/13:24:50	Start C30 Playback
07/10/01	01-191/19:28:49	NIMS RAM Reload 21
07/10/01	01-191/19:55:29	NIMS R/T RCT CAL
08/03/01	01-215/21:48:21	End C30 Playback