



GLAST Monthly PSR

Ground System/Mission Ops

April 2003

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GLAST Ground Sys/Ops Manager

- 1



Accomplishments

- ▶ **Completed bottoms-up review of ground system and mission operations budget for POP 03-1**
- ▶ **Completed documentation required for issuance of MOC RFP**
 - *SOW, In-House Estimate, Incentive Fee Plan, Acquisition Plan*
 - *Next step – issue RFP to Goldbelt Orca*
- ▶ **Made good progress in planning and coordinating GLAST MOC facility space allocation with Code 444 (SSMO) and other missions slated for Bld 14 (EO-1, ST-5, SDO)**
- ▶ **Worked up plan to get Ground System Requirements Document generated (assignments, format, numbering convention, schedule)**
- ▶ **Working to update Ops Concept Document**
 - *Distributed new write-up for Burst Alert processing concept*
 - *Document update now being led by FOT*



Accomplishments



- ▶ ***Worked with System Management, SAI, and USN teams to come to agreement on a simplified S-band approach (interleaved I & Q channel at 2.5 Mbps)***
- ▶ ***Reviewed GDS MAR Document with Code 300 (David Harmon)***
 - *Currently reviewing updated version*
 - *Trying to balance Code 300 requirements/desires against what is deemed necessary and affordable*
- ▶ ***LAT IOC generated LAT Operating Plan for internal review***
 - *Defines operations concepts, instrument modes, etc.*
 - *External review may not be until LAT PDR*
- ▶ ***GBM IOC updated Mission Ops/Data Analysis (MO/DA) Software Functional Requirements specification***
 - *External review shortly – update for upcoming IOC PDR*



Issues/Problems

- ▶ ***Spacecraft/instrument issues on our radar:***
 - *10% duty cycle limitation – MAY BE RESOLVED*
 - *Lack of cross strapping with SSR design – MAY BE RESOLVED*
 - *Inability to send telemetry to TDRSS at multiple rates*
 - *Increases in dump time requirements if HK rate increases above about 40 kbps*
 - *Instrument simulator requirements/capabilities relative to mission ops simulations needs*

- ▶ ***Finalization of MOC contract award to Golbelt Orca***
 - *Temporary support via Swift GSA Task to July 1st*
 - *All contract documentation complete – awaiting issuance of RFP*
 - *Need to baseline MOC portion of Ground System Requirements Document*



Upcoming Events



- ▶ **GBM IOC PDR – May 6th**
 - *Main focus is on IOC software needed for I&T*
 - *GDS/Ops team will attend review*
 - *Will also conduct Technical Interchange meeting to discuss ops concepts requirements, schedules, and interfaces*
- ▶ **Ground System SRR June 18th**
 - *Ground system implementation and test approach, concept, schedule, organization*
 - *Ground system architecture*
 - *Ground system requirements – system and element level*
 - *Operations readiness approach*
- ▶ **Swift TDRSS RF interface testing early April, with one primary objective being to try to better characterize initial lock up performance**



Upcoming Events



▶ **Documentation deliveries:**

– *GDS Project Management Plan*

- *Draft – April 17th*
- *Final – May 22nd*

– *GDS Requirements Document*

- *MOC only – April 15th*
- *Draft – April 30th*
- *SRR Version – June 2nd*

– *Ops Concept Update (Rev 1)*

- *Draft – April 23rd*
- *Final – May 30th*

– *Operations Agreement: Ops Roles and Responsibilities*

- *Draft – June 6th*
- *2nd Draft – Aug 1st*
- *Final – Sept 19th*



Rolling Wave Schedule



Activity ID	Activity Description	Start DDr	Finish	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Ground System & Mission Operations															
Ground System Wide Reviews															
Ground System Wide Reviews															
0100	Ground System Requirements Review	03FEB03	18JUN03												
0103	Ground System Preliminary Design Review	19JUN03	03DEC03												
0106	Ground System Critical Design Review	04DEC03	01JUN04												
Ground System Wide Documentation															
Ground System Wide Documentation															
0204	Ground System Project Management Plan	02JAN03	30APR03												
0186	Operations Concept Document Rev. 1	02JAN03	15MAY03												
0168	Ground System Requirements Documents-SRR Ver.	02JAN03	02JUN03												
Ground System Development															
Ground System Development Documentation															
0265	SN / MOC ICD - Preliminary	19JUN03	19JUN03												
0175	MOC / GBM IOC ICD - Final	19JUN03	26MAY04												
0205	MOC / Commercial Ground Station ICD - Final	19JUN03	26MAY04												
0214	MOC / Malindi Ground Station ICD - Final	19JUN03	26MAY04												
0604	MOC / LAT IOC ICD - Final	19JUN03	26MAY04												
0619	LAT IOC / DPF ICD - Final	19JUN03	26MAY04												
0643	MOC / SSC ICD - Final	19JUN03	26MAY04												
0646	MOC / GCN ICD - Final	19JUN03	26MAY04												
0655	SSC / HEASARC ICD - Final	19JUN03	26MAY04												
0661	MOC / SC ICD - Final	19JUN03	26MAY04												
0664	SSC / LAT IOC ICD - Final	19JUN03	26MAY04												
0667	SSC / GBM IOC ICD - Final	19JUN03	26MAY04												
0163	SN / MOC ICD - Final	20JUN03	27MAY04												
0613	Ground System Verification Plan	01AUG03	14MAY04												
Ground System MOC Development															
0631	MOC Requirements Document (SRD)	31JUL03	06FEB04												
Ground System LAT IOC Development															
1078	LAT IOC (SAS/DPF) Release 1	02JAN03	15APR03												
1081	LAT IOC (SAS/DPF) Release 2	16APR03	01JUN04												
1087	LAT IOC (SAS/Sci Tools) Release 1	02JUN03	01JUN04												
Ground System GBM IOC Development															
1036	GBM IOC (DA/MO) PDR	05MAR03	05MAR03												
1039	GBM IOC (DA/MO) CDR	01OCT03	01OCT03												
1042	GBM IOC (DA/MO) Release 1	02OCT03	14JUL04												
Mission Operations															
Mission Operations Documentation															
0489	Operations Agreements	19MAY03	01OCT03												

Start Date	03APR00		Early Bar
Finish Date	22DEC06		Progress Bar
Data Date	01MAR03		Critical Activity
Run Date	31MAR03 17:15		

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GLAST Project Summary
Schedule - Ground System PSR DRAFT
4/2/03

Date	Revision	Checked	Approved