

# GLAST Ground System Open Risks

<u>Risk ID</u>	<u>Risk Name</u>	<u>Risk Status</u>	<u>Risk Planning Stage</u>
002	Simulators	Open Closed Rejected	Research Accept Watch Mitigate
<u>Open Date</u>	<u>Originator</u>		
01/30/04	Jonathan DeGumbia		

<u>Risk Impact</u>	<u>Risk Probability</u>	<u>Risk Period</u>	<u>Risk Value</u>
Very High High Medium Low Verv Low	Very High High Medium Low Verv Low	Short (< 4 mo.) Mid (4-9 mo.) Long (> 9 mo.)	8 Low =  Med. =  High = 

## Risk Description

There is currently no consensus on what simulators will be provided to the MOC, when they will be provided, and what their capabilities will be. Failure to produce adequate simulators in within the timeframe required by the MOC may impact MOC system development, testing, and training.

## Risk Mitigation

- 1) Define a complete set of requirements for the PSS, CTS (including LAT and GBM simulators), and MTS (including LAT and GBM simulators).
- 2) Develop a simulator delivery schedule that corresponds to the MOC development schedule.
- 3) Task the simulator developers with delivering simulators that meet the requirements by the scheduled delivery date.

**Risk Mitigation Manager – John Teter**

## Risk Log

2/6/04 – Risk Accepted at GOWG.  
 2/2/04 – John Teter provided simulator requirements to Spectrum.  
 3/31/04 - A CCR will be written to provide instrument functionality as part of the MTS. The same CCR will ask for a phased delivery of the MTS, with the first delivery at L-17.  
 The CTS will be removed from the deliverables list since the functionality is the same as the PSS.  
 10/7/04 – MTS requirements still need to be defined. Probability changed from medium to low. (GOWG)

**Risk ID**

008

**Risk Name**

Hot Bench Hours For OPS

**Risk Status**

Open  
Closed  
Rejected

**Risk Planning Stage**

Research  
Accept  
Watch  
Mitigate

**Open Date**

9/21/04

**Originator**

Howard Dew

**Risk Impact**

Very High  
High  
Medium  
Low  
Verv Low

**Risk Probability**

Very High  
High  
Medium  
Low  
Verv Low

**Risk Period**

Short (< 4 mo.)  
Mid (4-9 mo.)  
Long (> 9 mo.)

**Risk Value**

8  
Low =   
Med. =   
High = 

**Risk Description**

There is no guaranteed time on the single Hot Bench for the Ground System PROCs to be validated or verified against prior to running against the GLAST Observatory. MTS is being used as a replacement but its fidelity is questionable.

**Risk Mitigation**

1. Create a second Hot Bench (lessons learned – Swift had a second Hot Bench and this is what saved the Project for this process).
2. Allow the estimated time in hours as predicted by the GLAST FOT to be officially on the single Hot Bench schedule signed by Spectrum Astro.
3. Guarantee in writing that any PROC validated against the MTS is ready to be run against the GLAST Observatory without running on the Hot Bench first.

**Risk Log**

10/7/04 – Risk opened at GOWG.

**Risk ID**

009

**Risk Name**

Stable POC For OPS at

**Risk Status**

Open  
Closed  
Rejected

**Risk Planning Stage**

Research  
Accept  
Watch  
Mitigate

**Open Date**

9/21/04

**Originator**

Howard Dew

**Risk Impact**

Very High  
High  
Medium  
Low  
Verv Low

**Risk Probability**

Very High  
High  
Medium  
Low  
Verv Low

**Risk Period**

Short (< 4 mo.)  
Mid (4-9 mo.)  
Long (> 9 mo.)

**Risk Value**

2  
Low =   
Med. =   
High = 

**Risk Description**

The Ground System operations requires a stable point of contact from Spectrum Astro, Inc. to access data format information from the spacecraft bus manufacturer. There is no single stable POC allocated to provide information to the OPS group. This is shown by the conflicting information received regarding the science data formats output by the SSR. This impacts the development of the GLAST PSS and the MOC ITOS workstation software.

**Risk Mitigation**

1. Operations personnel will have to delve deeper into the engineering staff at Spectrum Astro to get the required information.
2. Do not immediately implement the science receipt portion of the MOC ITOS workstation and update the PSS after a real SSR-generated science data file has been received from Spectrum Astro

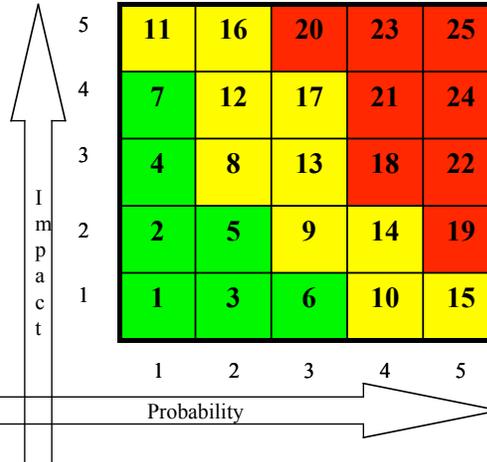
**Risk Log**

10/7/04 – Risk opened at GOWG. It is expected that the POC will be announced on 10/18.

**LEGEND**

- High – Implement new process(es) or change baseline plan(s)
- Med – Aggressively manage; consider alternative process
- Low - Monitor

What is the probability of the situation or circumstances happening?		
Level	Probability	The current process
5	Very High	Near Certainty
4	High	Highly Likely
3	Moderate	May prevent this event, but additional actions will be required
2	Low	Is usually sufficient to prevent this type of event
1	Very Low	Is likely sufficient to prevent this event



Given the event occurs, what is the magnitude of the impact to the mission?					
Level	Very Low (1)	Low (2)	Moderate (3)	High (4)	Very High (5)
Technical	Minimal or no Impact	Moderate reduction, same approach retained	Moderate reduction, workarounds required	Major Reduction, workarounds required	Must be Mitigated
Schedule	Minimal Impact	Additional activities required in order to meet need date	Level 2 Milestone slip of up to <= 1 month	Level 2 Milestone slip of > 1 month, or critical path impacted	Cannot achieve major program milestone
Cost	Minimal Impact of <\$25k	Budget increase between \$25k and \$100k	Budget increase between \$100k and \$250k	Budget increase between \$250k and \$1M	Budget increase greater than \$1M