GLAST Large Area Telescope: Introduction

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Master Schedule

• LAT complete and tested September 2005
  – To NRL for environmental testing

• Delivery to Observatory Integration January 2006
  – Mate with spacecraft and GBM and test

• Launch February 2007
  – Kennedy Space Flight Center

• Science operation begins May 2007

• This schedule has no float in the LAT plan

SIRTF Launch on a Delta II Heavy
LAT Schedule – No Float

TKR A
12/06/04

TKR 14
06/07/05

ACD
04/20/05

CAL A
11/09/04

CAL 14
03/21/05

DAQ
04/28/05

TEM/PS A
11/15/04

TEM/PS 14
04/26/05

X-LAT
12/09/04

GRID
Assembly
10/05/04

Install
Twrs A&B
8 wks

2 Tower
CPT
3 wks

Install
Twrs 1-13
13 wks

Install
Tower 14
1 wk

Install Gbl
Items
4 wks

FSW
Complete
01/07/05

FSW
Formal Test
05/01/05

System Test
9 wks

09/28/05

Ship LAT
1 wk

Enviro Test
15 wks

01/17/06

LAT RFI

Observ. Integration

Launch
02/07

Pre-Ship Review Review
12/01/05

Pre-Environ. Review
07/14/05

Rev. -

Rev. 3
# Dates modules are ready for integration

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<tr>
<th>M/E September 2004</th>
<th>Forecast Dates and Float (working days) to &quot;Preship Review&quot;</th>
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- **Yellow** = Float between 15 and 1
- **Red** = Float < 1
LAT Schedule

• The baseline schedule for shipment to NRL for environmental testing (CD-4 Review) is June 7, 2005
• The current plan is September 28, 2005 (3.75 Month slip)
• The critical path goes through the fabrication of the Tracker
• The next critical path is through the fabrication of the flight electronics
• Both of these paths are at risk
Baseline plan

- September, 2004: $3.9M
- October, 2004: $3.1M
- November, 2004: $2.3M
- December, 2004: $1.6M
- January, 2005: $1.7M
- February, 2005: $1.5M
- March, 2005: $1.6M
- April, 2005: $1.4M
- May, 2005: $1.3M
- June, 2005: $1.3M
- July, 2005: $0.5M
Timeline

- Telecon w/ DOE and Mission office October 22, 2004
- JOG meeting at NASA Headquarters October 29, 2004
- One day review of proposal Week of December 6, 2004

- The DOE Office of Science budget is committed in FY05 and tighter in FY06
- The impact of schedule slips is greater on the mission budget than on the fabrication phase plan
- Even though all of the parties are looking for ways to support the project’s needs, there isn’t a funding plan on the table
Goal of this meeting

• “Desperate times require desperate actions”

• Need to cut staff aggressively
  – Ramp down as work ends
    • Combine tasks
  – Functions that could be eliminated with minimum impact
  – Functions that could be executed by collaborators

• Work that can be reprogrammed
  – Tests delayed to higher level of integration at increased risk
  – Steps that can be eliminated

• Catch 22
  – Steps that cut costs put schedule at risk
  – Steps that cut schedule often add costs