GLAST Large Area Telescope
Engineering Meeting

LAT Technical Status for January Lehman Review

January 21, 2003
Lowell A. Klaisner
Stanford Linear Accelerator Center
Chief Engineer

Klaisner@slac.stanford.edu
650-926-2726
Agenda

• Review the “LAT Top Design Issues” chart (attached)
  – Which of these are closed or reduced risk
  – What new issues should be added
• Discussion of achievements since last Lehman Review that should be highlighted this review
# LAT Top Design Issues

<table>
<thead>
<tr>
<th>Issue</th>
<th>Plan</th>
<th>Status</th>
</tr>
</thead>
</table>
| Structural Integrity of the attachment points on the bottom tray of the Tracker tower | • Designing and testing Ti reinforcements  
• Backup design using Invar | [ ] Issue stable/adequately addressing |
| Calorimeter photodiode window cracking                                | • Switch to silicon encapsulant  
• French investigating                                                 | ![ ] Issue stable/concerned |
| Adequacy of the GRID to CAL mechanical connection                     | • Improve design and test  
• Working with GSFC on alternatives                                   | ![ ] Issue stable/concerned |
| ACD Performance issues due to gaps in coverage required by vibration and thermal testing | • Revise design in a number of places  
• Review environmental specifications                                  | ![ ] Issue dynamic/concerned |
| Schedule for the delivery of the TEM with ASICS                       | • Current schedule has time for 2 prototype runs of ASIC  
• Use XILINX FPGAs                                                    | ![ ] Issue dynamic/concerned |
| Environmental Specifications -- Vibration                            | • Revisit earlier analysis of subsystem environments  
• Review process with GSFC                                             | ![ ] Issue stable/concerned |
| Environmental Specifications -- Thermal                               | • Complete current analysis  
• Work with subsystem engineers                                        | ![ ] Issue stable/concerned |
| Test Plans – much work to be done                                     | • Complete environmental specification  
• Identify missing plans                                               | ![ ] Issue stable/concerned |