

**National Aeronautics and Space Administration
and
U.S. Department of Energy**

JOINT OVERSIGHT GROUP

TO: Mr. David Betz, NASA/Goddard Space Flight Center; and
Mr. Daniel Lehman, Director, Construction Management Support Division, SC-81

Date:

RE: Request to Conduct a “Delta” Preliminary Design and Baseline Review of the Large Area Telescope Project

The Department of Energy (DOE) and the National Aeronautics and Space Administration (NASA) Joint Oversight Group (JOG) for the Large Area Telescope (LAT) project on the Gamma-ray Large Area Space Telescope (GLAST) Mission requests that a follow –on “Delta” Preliminary Design and Baseline Review be conducted on July 30 - August 1, 2002, at the Stanford Linear Accelerator Center (SLAC). The LAT is the principal scientific instrument to be flown on the NASA GLAST mission, scheduled for launch in 2006.

This review follows the joint DOE/NASA Preliminary Design Review (PDR) and Baseline Review of the LAT project at SLAC in January 2002. Four subsystems (Calorimeter, Anti-Coincidence Detector, Mechanical/Thermal, and Integration and Test) were deemed not ready for the DOE baselining status of the technical design, cost, schedule, and management structure in this review. Only one subsystem (Mechanical/Thermal) did not pass for technical issues. All subsystems except Mechanical/Thermal passed the NASA/PDR part of the review, which focuses on the technical design of each subsystem and the integrated instrument in addition to being concerned with its cost, schedule, and management structure.

The purpose of the review is to carry out an integrated examination of each of the four subsystems that did not pass the January review. This should cover cost, schedule and management aspects of these subsystems as well as technical aspects of the Mechanical/Thermal subsystem. There have been changes to the overall project since January and the committee should evaluate the cost, schedule and management of the entire project, keeping in mind the issues highlighted from past reviews.

In performance of a general assessment of progress, current status, and the identification of potential issues, the committee should address the following specific items:

1. Overall Project: Identify any changes made to the project plans (technical, cost, schedule, management) since the January 2002 review and comment on their impact.
2. Technical Progress: Review the technical progress of the subsystems that did not pass the January review, with special concentration on the Mechanical/Thermal subsystem, which still had technical issues at that time. Review the proposed design and associated implementation approach and resources and comment on whether they adequately satisfy the performance requirements.

3. Cost: Is the cost estimate consistent with the plan to deliver the LAT with the stated technical performance?
4. Risk: Assess the project's risk analysis, which should address technical, cost, and schedule risks. How effective is the project's management of these risks? Are the contingency funds and schedule float adequate and being utilized at an appropriate rate?
5. International Contributions: What is the status of the international contributions, and what is the schedule for finalizing these commitments? Are these consistent with the schedule?
6. Schedule: Is the proposed schedule reasonable and appropriate in view of the technical tasks and projected funding profiles? Have the various subsystem schedules been incorporated in a well-understood way, relative to product flow, critical paths, and linkage between various activities?
7. Management: Evaluate the management structure, including the relationships to the GLAST Mission organization and relationships with foreign entities, as to its adequacy to deliver the LAT within specifications, budget, and schedule.

Liz Citrin is the project manager for the GLAST Mission at NASA and will serve as the NASA contact person for the review. Kathleen Turner is the program manager for the LAT project at DOE and will serve as the DOE contact person for the review.

We appreciate your assistance in this matter. As you know, these reviews are an important element of the NASA/DOE joint oversight of the GLAST/LAT Project. They help to ensure that the U.S. astro-particle physics program remains robust and meets its commitments on cost and schedule.

You are asked to submit a formal report by October 1, 2002.

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cc:

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KRT:slp:3-4829:6/11/02
Q:Kathy/LAT-review-charge-July02-v5.

*Previous concurrence valid

SC-221	SC-222	SC-223
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SC-22	NASA	
JRO'Fallon	PHertz	
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