

BASELINE CHANGE PROPOSAL (BCP)

1) BCP Number: LAT – 002		2) BCP Title: Project Rebaseline	
3) Budget Number: MIE # KA050102-EQU01CC		4) Title: Large Area Telescope (LAT)	
5) Date Received (Field Office):		Date Received (Program Office):	
6) Change Designation: Routine	7) BCP Level: Level 0 [<input type="checkbox"/>] Level 2 [<input type="checkbox"/>] Level 1 [<input checked="" type="checkbox"/>] Level 3 [<input type="checkbox"/>]	8) Directed Change? Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]	9) Program: SC-20, Office of High Energy Physics
10) Point of Contact: <u>Evaristo J. Valle</u>		12) FAX: <u>(650) 926-3210</u>	
11) Phone: <u>(650) 926-4552</u>		13) Location: SSO	
14) Change Description:			
<p>This BCP is to request a change in the DOE LAT project scope and DOE TEC from \$42 Million (M) to \$45M. An additional \$3M in DOE funding is requested with this BCP. This change is consistent with the Administration's action to limit DOE's exposure to further cost growth in the LAT project by capping the DOE funding at \$45M. This financial limitation requires that the remaining DOE contribution for the LAT fabrication be limited to a well defined scope of work in the form of a deliverable within this funding cap, described later in this BCP. There are no changes to the DOE schedule milestones; however, the DOE Critical Decision 4 "End of Fabrication" will be redefined to apply only to the DOE deliverable and renamed Critical Decision 4 "DOE Project Closeout"</p>			
15) Change Justification: (If Directed Change specify authority and documentation)			
<p>The overall LAT project is to fabricate the primary instrument for NASA's Gamma-ray Large Area Space Telescope (GLAST) Mission and is collaboration between DOE, NASA and four foreign partners.</p> <p>The current DOE baseline TEC of \$42M was approved in July 2003. Since then, the overall LAT project entered into its fabrication phase and encountered various technical problems. While acceptable solutions have been identified; however, additional funds are required. This BCP requests the DOE contribution to the overall LAT project be increased by \$3M to a total of \$45M.</p> <p>Because of the DOE's funding limitations, the nature of the DOE/NASA joint agency management has changed. NASA has agreed to assume the risk associated with the completion of the overall LAT project. As of the end of January 2005, \$40M of DOE's contribution has been costed by the overall LAT project. This BCP proposes that the Electronic Data Acquisition, Project Controls and Systems Engineering subsystems, which will cost the \$5M in remaining available DOE funding, be defined as the remaining deliverables. These subsystems provide essential electronic hardware need for the capturing of experimental data, maintenance of the LAT's master schedule and budget, and coordination and tracking of LAT instrument requirements, subsystem designs, tests, and test interfaces. Once the DOE deliverables have been fabricated and tested to demonstrate full functionality and compliance with NASA's GLAST Mission requirements, DOE's commitment to the overall LAT project will be fulfilled, allowing the closeout of the DOE LAT project.</p> <p>A re-baseline review of the DOE LAT project was held on February 18, 2005 at the DOE Germantown facility. The review committee looked at the reasonableness of the BCP, completeness of the proposed solutions, and how the new DOE deliverable fits and supports the scope of the overall LAT project. The committee recognized the change to the overall agency management of the LAT project and supported DOE's responsibilities to be only that of the remaining DOE deliverable within the overall LAT project. The committee supported the re-baseline plan for the DOE LAT project, the newly established DOE deliverables and recommended that the BCP be approved by DOE.</p>			

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<p>16) Impact of Non-Approval:</p> <p>It is in the best interest of the overall LAT project that this BCP be approved so the currently proposed baseline can be implemented and the DOE deliverable established.</p> <p>If this BCP is not approved, the project will run out of DOE funding by May, 2005 causing a halt to fabrication and a day-by-day schedule slip. This will increase the overall LAT project's total estimated cost. The overall LAT project is currently dependent upon receipt of the additional \$3M in DOE funding during the April financial plan. If the BCP is not approved the schedule delays will cost the overall LAT project approximately an additional \$2 million per month and the overall GLAST Mission an additional \$5 million per month.</p>																																							
17) Impact on Cost Baseline:	Baseline (As of December 2004)	Proposed	Change																																				
Estimate without contingency	\$ 41.0M	\$ 44.1M	\$ +2.9M																																				
Contingency	<u>1.0M</u>	<u>0.9M</u>	<u>+0.1M</u>																																				
TEC	\$ 42.0M	\$ 45.0M	\$ +3.0M																																				
<p>18) Impact on Funding Profile (BA):</p> <p>Approval of this Baseline Change Proposal will provide MIE funds in FY 2005 only. The changes to the funding profile are shown below:</p> <table style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 20%;"></th> <th style="width: 15%; text-align: center;">Prior FY</th> <th style="width: 15%; text-align: center;">FY03</th> <th style="width: 15%; text-align: center;">FY04</th> <th style="width: 15%; text-align: center;">FY05</th> <th style="width: 20%; text-align: center;">Total</th> </tr> </thead> <tbody> <tr> <td>Baseline (\$M)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DOE TEC</td> <td style="text-align: center;">16.8</td> <td style="text-align: center;">8.9</td> <td style="text-align: center;">7.9</td> <td style="text-align: center;">8.4</td> <td style="text-align: center;">42.0</td> </tr> <tr> <td>Proposed (\$M)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DOE TEC</td> <td style="text-align: center;">16.8</td> <td style="text-align: center;">8.9</td> <td style="text-align: center;">7.9</td> <td style="text-align: center;">11.4*</td> <td style="text-align: center;">45.0</td> </tr> <tr> <td>Change in DOE TEC (\$M)</td> <td></td> <td></td> <td></td> <td style="text-align: center;">3.0</td> <td style="text-align: center;">3.0</td> </tr> </tbody> </table> <p>*Request for this funding change will be submitted to SC-2 after the rebaseline has been approved.</p>					Prior FY	FY03	FY04	FY05	Total	Baseline (\$M)						DOE TEC	16.8	8.9	7.9	8.4	42.0	Proposed (\$M)						DOE TEC	16.8	8.9	7.9	11.4*	45.0	Change in DOE TEC (\$M)				3.0	3.0
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<p>19) Explanation of Impact on Cost and Funding Baseline:</p> <p>The DOE funding is increased by \$3M in FY 2005 for a total of \$45M</p>																																							
<p>20) Impact on Schedule Baseline:</p> <p>No change in the date of Critical Decision 4 (CD-4) "End of Fabrication" approval milestone but it has been renamed as the CD-4 "DOE Project Closeout" milestone.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 20%;">Milestone (No. and Description)</th> <th style="width: 20%;">Baseline (Month/Year)</th> <th style="width: 20%;">Proposed (Month/Year)</th> <th style="width: 40%;">Change</th> </tr> </thead> <tbody> <tr> <td>CD-4</td> <td style="text-align: center;">3/15/06</td> <td style="text-align: center;">3/15/06</td> <td style="text-align: center;">0 months</td> </tr> </tbody> </table>				Milestone (No. and Description)	Baseline (Month/Year)	Proposed (Month/Year)	Change	CD-4	3/15/06	3/15/06	0 months																												
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<p>21) Explanation of Impact on Schedule Baseline:</p> <p>There is no impact to the DOE schedule baseline. The DOE baseline is associated with the successful completion and acceptance of the DOE deliverables by the GLAST Mission.</p>																																							

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<p>22) Impact on Scope Baseline: The scope of the DOE LAT project will change to include work performed by utilizing DOE funds through January 2005 (costed at \$40M) plus a remaining DOE deliverable funded at \$5M, which consists of Data Acquisition Hardware and Systems Engineering. This will permit an orderly and focused conclusion of the DOE LAT project and permit NASA to provide total management support of the overall LAT project. This will not limit DOE's overall scientific participation in the GLAST Mission.</p>	
<p>23) Explanation of Impact on Scope Baseline: The impact is the change in scope to be a well-focused deliverable as DOE's remaining contribution to the overall LAT project, funded with the remaining \$5M. Upon approval of the BCP, DOE will not directly support the overall LAT project scope. Instead, the DOE scope will be limited to a well-defined deliverable in support of the overall LAT project scope.</p>	
<p>24) Other Impacts (Health, Safety, Environment, etc.) None</p>	
<p>25) Interim or Corrective Actions: At this stage of the project the Project Control Subsystem is being streamlined. As subsystems are complete the remaining support work is planned as level of effort. This is true already for the ground support and science support systems. This will decrease the effort required to support this subsystem freeing up staff to track the critical components on a weekly basis.</p> <p>One-off boxes, such as the GASU, are tracked using milestones. The multiple components where production rate is critical, such as the tracker MCMs, are tracked using a weekly production plan and performance against that plan. This is the technique that was used effectively at PEP-II during the end game at that project.</p>	

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FIELD DISPOSITION - LEVEL 2	
26) Members	Recommendations
<p>_____ _____</p> <p>Evaristo J. Valle Date LAT Federal Project Director Stanford Site Office</p>	
<p>_____ _____</p> <p>Robert Wunderlich Date Acting Stanford Site Office Director</p>	
PROGRAM DISPOSITION - LEVEL 1	
27) Advisors (Specialized Support, as required)	Recommendations
<p>_____ _____</p> <p>Kathleen R. Turner Date LAT Program Manager Office of High Energy Physics</p>	
<p>_____ _____</p> <p>Aesook Byon-Wagner Date Senior Program Manager Office of High Energy Physics</p>	
<p>_____ _____</p> <p>James F. Decker Date Principal Deputy Director Office of Science</p>	
ACQUISITION EXECUTIVE - LEVEL 1	
Disposition <input type="checkbox"/> Approved <input type="checkbox"/> Endorsed <input type="checkbox"/> Rejected	Comments:
<p>_____ _____</p> <p>Robin Staffin Date Associate Director Office of High Energy Physics</p>	