

# GLAST Project Configuration Control Board (CCB) Minutes

A GLAST Project CCB Meeting was held on Thursday, April 19, 2002, at 3:00 p.m., in Building 16, Room, Room 8E (Liz Citrin's Office).

**CCB No.:** CCB-006

**List of Attendees:**

Liz Citrin, Al Vernacchio, Norman Rioux, Bill Browne, Dennis Small, Ed Shippey, Arun Guha, Bill Anderson, Jim Chipouras

The Following CCRs were discussed and dispositioned:

<u>CCR No.</u>	<u>Subject</u>	<u>Sponsor</u>
433-0020	Ground Network (GN) Interfaces	Norman Rioux

**Disposition:** *Approved as Submitted.* The purpose of this CCR was to delete the references to the LAT IOC receiving downlink science data from the ground network stations.

**Actions items:**

The GLAST Project CMO will obtain CCR approval signature from the GLAST Project Manager on the CCR form and incorporate the approved changes to the Mission System Specification.

**Note:** This CCR was not submitted for review through the GLAST on-line CM system. The CCR sponsor obtained the reviewer comments that were provided with the CCR for CCB.

---

<u>CCR No.</u>	<u>Subject</u>	<u>Sponsor</u>
433-0021	Packet Data	Norman Rioux

**Disposition:** *Approved with Changes.* The purpose of this CCR was to clarify the requirement for the data delivered to the ground to support stand-alone processing of science data. Clarify that the requirement is to provide a stand-alone data science data processing capability and that it is implemented via the ancillary data packets. The change to Section 3.1.2.5.1.2 as submitted with the CCR was modified by the CCB and approved as follows:

**FROM (as submitted):**

**“3.1.2.5.1.2 Ancillary Data**

Source data packets for ~~science data~~ shall be constructed to contain ~~the~~ ancillary data from the spacecraft ~~that is necessary for stand-alone science processing of the packets on the ground.~~ (Calibration and alignment data will be constructed separately from science data sets.)”

TO (as approved):

**“3.1.2.5.1.2 Ancillary Data**

LAT and GBM shall transmit data packets containing all data necessary for stand alone processing on the ground. Source data packets for science data shall be constructed to contain the ancillary data from the spacecraft that is necessary for stand-alone science processing of the packets on the ground.  
(Calibration and alignment data will be constructed separately from science data sets.)”

**Actions items:**

The CMO will update CCR 433-0021 with the approved changes and obtain CCR approval signature from the GLAST Project Manager on the CCR form and incorporate the approved changes to the Mission System Specification.

**Note:** This CCR was not submitted for review through the GLAST on-line CM system. The CCR sponsor obtained the reviewer comments that were provided with the CCR for CCB.

---

<u>CCR No.</u>	<u>Subject</u>	<u>Sponsor</u>
433-0022	Data Corruption	Norman Rioux

**Disposition:** *Deferred.* The purpose of this CCR was to decompose and flow down the data corruption requirement from the Science Requirement Document to the Mission System Specification. This CCR was deferred pending further discussions with the Project Scientists.

**Actions items:**

Norman Rioux will meet with the Project Scientists to discuss this CCR.

**Note:** This CCR was not submitted for review through the GLAST on-line CM system. The CCR sponsor obtained the reviewer comments that were provided with the CCR for CCB.

---

<u>CCR No.</u>	<u>Subject</u>	<u>Sponsor</u>
433-0023	Non-Technical Changes	Norman Rioux

**Disposition:** *Approved as submitted.* The purpose of this CCR was to correct non-technical errors in the document.

**Actions items:**

The GLAST Project CMO will obtain CCR approval signature from the GLAST Project Manager on the CCR form and incorporate the approved changes to the Mission System Specification.

**Note:** This CCR was not submitted for review through the GLAST on-line CM system. The CCR sponsor obtained the reviewer comments that were provided with the CCR for CCB.

---

<u>CCR No.</u>	<u>Subject</u>	<u>Sponsor</u>
433-0024	Applicable and Reference Documents	Norman Rioux

**Disposition:** *Approved as submitted.* The purpose of this CCR was to add and edit document listings as appropriate to the Applicable and reference portion of the Mission System Specification.

**Actions items:**

The GLAST Project CMO will obtain CCR approval signature from the GLAST Project Manager on the CCR form and incorporate the approved changes to the Mission System Specification.

**Note:** This CCR was not submitted for review through the GLAST on-line CM system. The CCR sponsor obtained the reviewer comments that were provided with the CCR for CCB.

---

<u>CCR No.</u>	<u>Subject</u>	<u>Sponsor</u>
433-0025	VCDU	Norman Rioux

**Disposition:** *Approved as submitted.* The purpose of this CCR was to correct the requirement in section 3.3.2.6.1 of the Mission System Specification that incorrectly states the use of the CCSDS VCDU service.

**Actions items:**

The GLAST Project CMO will obtain CCR approval signature from the GLAST Project Manager on the CCR form and incorporate the approved changes to the Mission System Specification.

**Note:** This CCR was not submitted for review through the GLAST on-line CM system. The CCR sponsor obtained the reviewer comments that were provided with the CCR for CCB.

---

<u>CCR No.</u>	<u>Subject</u>	<u>Sponsor</u>
433-0026	Communications Changes	Norman Rioux

**Disposition:** *Approved as submitted.* The purpose of this CCR was to address a number of issues in the communications section of the Mission System Specification.

**Actions items:**

The GLAST Project CMO will obtain CCR approval signature from the GLAST Project Manager on the CCR form and incorporate the approved changes to the Mission System Specification.

**Note:** This CCR was not submitted for review through the GLAST on-line CM system. The CCR sponsor obtained the reviewer comments that were provided with the CCR for CCB.

---

<u>CCR No.</u>	<u>Subject</u>	<u>Sponsor</u>
433-0027	Environments	Norman Rioux

**Disposition:** *Approved with Changes.* The purpose of this CCR was to change the environments specifications in the Mission System Specification to reflect the current mission altitude and estimated launch date. The change to Section 3.3.5.1.2 as submitted with the CCR was modified by the CCB and approved as follows:

**FROM (as submitted):**

**“3.3.5.1.32 Atomic Oxygen Environment**

~~The observatory shall withstand the TBD atomic oxygen environment for the specified orbit and operational lifetime with no loss of functionality or performance capability.~~

The observatory shall be designed to meet its performance requirements in an atomic oxygen environment fluence of  $1.8 \times 10^{22}$  O atoms per square centimeter.”

**TO (as approved):**

**“3.3.5.1.32 Atomic Oxygen Environment**

~~The observatory shall withstand the TBD atomic oxygen environment for the specified orbit and operational lifetime with no loss of functionality or performance capability.~~

The observatory shall be designed to meet its performance requirements in an atomic oxygen environment fluence of  $1.8 \times 10^{22}$  (TBR) O atoms per square centimeter.”

**Actions items:**

The CMO will update CCR 433-0027 with the approved changes and obtain CCR approval signature from the GLAST Project Manager on the CCR form and incorporate the approved changes to the Mission System Specification.

**Note:** This CCR was not submitted for review through the GLAST on-line CM system. The CCR sponsor obtained the reviewer comments that were provided with the CCR for CCB.

<u>CCR No.</u>	<u>Subject</u>	<u>Sponsor</u>
433-0028	Mass Margin	Norman Rioux

**Disposition:** *Approved with Changes.* The purpose of this CCR was to increase the observatory mass allocations.

The change to Section 3.3.1.9.2 as submitted with the CCR was modified by the CCB and approved as follows:

**FROM (as submitted):**

**“3.3.1.9.2 Spacecraft Mass**

The dry mass of the spacecraft including ~~propellant and contingency~~ shall not exceed ~~4390~~1170 kg.”

**TO (as approved):**

**“3.3.1.9.2 Spacecraft Mass**

The mass of the spacecraft including propellant and contingency shall not exceed ~~4390~~1530 kg.”

The following section was proposed to be added with the CCR and was not approved by the CCB:

Deleted from CCR:

**“3.3.1.9.3 Propellant Mass**

Propellant mass shall not exceed 360kg.”

**Actions items:**

The CMO will update CCR 433-0028 with the approved changes and will obtain CCR approval signature from the GLAST Project Manager on the CCR form and incorporate the approved changes to the Mission System Specification.

**Note:** This CCR was not submitted for review through the GLAST on-line CM system. The CCR sponsor obtained the reviewer comments that were provided with the CCR for CCB.

---

<u>CCR No.</u>	<u>Subject</u>	<u>Sponsor</u>
433-0029	Pointing Requirements Clarification	Norman Rioux

**Disposition:** *Deferred.* The purpose of this CCR was to clarify the pointing requirements in the Mission System Specification. This CCR was deferred pending the results of a pointing requirements meeting scheduled 04/22/02.

**Actions items:**

Norman Rioux will schedule pointing requirements meeting to review this CCR.

**Note:** This CCR was not submitted for review through the GLAST on-line CM system. The CCR sponsor obtained the reviewer comments that were provided with the CCR for CCB.  
Minutes approved by:

 Date 5/14/02

Liz Citrin  
GLAST Project Manager  
(GLAST Project CCB Chairperson)

Minutes prepared by: Jim Chipouras, GLAST Project Configuration Management Office