

GLAST User's Group (GUG)
Stanford/Physics & Astrophysics Bldg., Conf. Room 102/103
Feb. 4, 2007

Present:

User's Group Members: Josh Grindlay (Chair), Roger Brissenden, Wim Hermsen, Buell Jannuzi, Don Kniffen, Henric Krawczynski, Jim Ling, Alan Marscher, Rene Ong, Luigi Piro, Greg Stacy, Mark Strickman, Jim Ulvestad, Ann Wehrle

Ex Officio Members: David Band, Rick Harnden, Julie McEnery, Chip Meegan, Peter Michelson, Steve Ritz, Chris Shrader

Colleagues: Rob Cameron, Dave Thompson, Kent Wood

Meeting called to order at 1:05 pm.

Welcome to New Members (Josh)—Josh welcomed the three new members present: Buell Jannuzi—acting director of NOAO. His research area is AGN and AGN surveys. Jim Ulvestad—site director for VLA and VLBA. His research area is low luminosity AGN and radio studies of AGN. He is becoming head of NRAO's new initiatives office. Henric Krawczynski—professor at Washington University. His research area is studies of Blazars and experimental astrophysics. He is also working on developing the EXIST mission, and is head of VERITAS's Blazar interest group

Review of the November, 2006, Meeting Minutes (Josh)—No comments were offered by the Committee.

The View from NASA HQ and Other News (including the GLAST Fellows Program) (Rick)—The name of the GUC has been changed to GUG (GLAST Users' Group). The mission was re-baselined in October; there are currently appropriate reserves. HQ support for the mission remains strong. There are a number of problems with the spacecraft, and the reserves are in danger of being exhausted. The GUG rotation plan was presented (terms will be 3 years)—see Rick's presentation. The GI program is part of ROSES 2007. The Fellows program will have the same schedule as the Great Observatories Fellows programs (more details are presented below).

Mission Update and Issues (Steve)—GLAST had a special session at the AAS meeting in Seattle. CRESST (a consortium of two University of Maryland campuses and USRA) has proposed to run the Fellows Program; the proposal will probably be accepted after iteration. The Fellows will be employees at the sponsoring institution, which will be subcontractors through CRESST for this purpose. The GLAST project has been spreading information about the mission. Connections are being made about other facilities, such as the NRAO (an MOU is discussed later). We need more contact with the pulsar community; efforts to make these contacts will be made (and discussions are in

progress to add an additional member to GUG who would represent the pulsar community).

The instruments have been integrated onto the spacecraft. The flight battery and the antenna pointing assembly remain to be integrated. The antenna pointing assembly was returned to the subcontractor for modifications to reduce position readback noise. There have been problems with the Integrated Electronics Module (IEM), mainly the spacecraft data system hardware; the engineering unit has been used for tests. The mission schedule may be affected.

The Delta II transonic issue has been resolved, no impact on GLAST is expected, and the launch hold has been lifted. A number of other Delta II launches will precede GLAST. DAWN will be on a Delta II Heavy.

Preparations for launch at the Cape continue.

The MOC is nearly complete, and many additional ground system tests are planned.

The Science Working Group (SWG) advises the mission and NASA on Science Requirements issues. The SWG held (at Stanford) a successful review of the mission's compliance with the Science Requirements on Friday, Feb. 2.

The response to the Symposium has been greater than expected; ~275 abstracts were submitted and more than 333 scientists registered.

Steve visited the Chandra and Spitzer science centers to discuss the GI program, the Fellows program and the GLAST science opportunities. Cooperative time with Chandra is not feasible. Not many areas of formal cooperation may be necessary. A possible issue to address is that Chandra time may not be awarded if GLAST pointed observations (after Cycle 1) have not yet been awarded. Therefore, perhaps the Chandra peer review should be able to award a small fraction of GLAST pointed observations (1-2 weeks), with technical evaluation by GLAST. There are a number of issues. Should similar agreements be made with other missions (e.g., XMM)? However, having many such agreements will complicate GLAST scheduling, and the fractions of pointed time will become significant. Julie pointed out that the Chandra peer review panels need to be instructed not to downgrade a proposal if the GLAST technical review says that a GLAST pointed observation is unnecessary. This is a cycle 2 issue. Roger pointed out that joint agreements are often not triggered. Steve also reported that the schedule for the final Spitzer cycle for cold operations (November 2007) and the expected proposal pressure level also exclude cooperative time with GLAST for that phase. However, GLAST will overlap with Spitzer's post-cryogen operations. Although currently the need for joint observations has not been identified, GLAST will be invited to the 'Spitzer Warm Mission Workshop' to discuss science that could be done with both missions. Cooperative time in the warm phase of Spitzer is much more likely, programmatically.

Launch outreach needs to begin. In particular, invitees need to be identified. The instrument PIs will collect names related to their teams. Please send all other names to Steve. The invitation does not allow people into a special viewing area. Launch outreach coordination telecons will start soon.

Mission update, cont. (Julie)—Julie has contacted a number of groups about the list of ~20 sources the LAT team will monitor; feedback is due by March 1. Although some feedback has been received thus far, no actions should be taken until the deadline. Margo Aller commented that some sources that were active in the EGRET era are not currently active. She suggested three additional sources: BL Lac, 0235+164 and 4C 39.25. Margo also discussed balancing Northern and Southern hemisphere sources. WEBT (Massimo Villata) is observing 28 blazars to support GLAST and AGILE; 8 are not on the GLAST list of monitored sources.

The science workshop at GSFC was well attended by ~100 scientists from many institutions. Additional workshops are planned (see below) for several other sites to familiarize the community with proposal opportunities in time for cycle 1 submissions.

LAT Status and Schedule, Upcoming Milestones (Peter)—Peter mentioned that Herb Gursky and Joe Ballam, who were instrumental in developing GLAST, died recently, and should be remembered for their support of the mission. Testing of the flight software continues (data compression has been installed; the gamma-ray burst software will be soon). Beam tests of spare LAT hardware (2 trackers and 3 calorimeters) were conducted at CERN to verify the Monte Carlo calculations. The ISOC is well established. The LAT collaboration is getting ready for science analysis (including development of the science tools). Instead of the originally planned 3rd Data Challenge (no longer needed in view of the success of DC2), the collaboration is engaged in Service Challenges.

The random reboots of the LAT are being investigated. Some causes have been found and eliminated, while others remain.

GBM Status and Schedule, Upcoming Milestones (Chip)—All detectors are now installed, and functional tests and calibrations have been performed. All GIOC hardware have been procured. The boxes that switch between the redundant electronics paths have been installed and tested (news of the successful completion of the functional tests arrived during the meeting!). Reinstalling the IEM on the S/C may require a BGO detector to be removed temporarily. A Huntsville GRB Symposium is planned for late 2008.

GSSC Status and Issues (Chris)—A new programmer will be hired in March, 2007, resulting in a net increase of 0.5 FTE. The changes to the SAE resulting from the beta test are in progress. New tools are under development. GSSC is planning face-to-face meetings with the LAT software team to continue to work out technical details. A SAE 'gamma-test' by the GUG is proposed for Fall, 2007. A full beta release to the community is planned for April, 2008, with a full release to support Cycle 2. Development of the GSSC's operations system continues.

The interface to the data released by the LAT team will be discussed by representatives of the GSSC, ISOC and ASDC during the Symposium.

Cycle 1 GI Program (Chris)—Chris first gave a general review of the program. The cycle 1 program is expected to be able to support ~50 grants at \$50-100K each. Proposal aids will be posted on the website by approximately March 15. Proposals are due June 15. Initial proposals (phase 1) will not include budgets; these will be submitted (for successful phase 1 proposals) in phase 2.

Demo of RPS Proposal Submission Tools (David)—David first showed the proposal submission RPS form. The presence of a maximum budget request (the word ‘estimated’ should be dropped from the field’s label) led to a discussion of whether this request will be shown to the peer review panel since a large request (e.g., from an investigator at an institution with a high overhead rate) might bias the panel. Rick stated that this maximum budget request will not be shown to the panel, but NASA HQ will use the requests to determine the cut between accepted and rejected proposals. The clarity of the error messages (e.g., if a person entered the budget request in the wrong units) needs to be checked.

Josh asked when source sensitivity maps will be available; David responded soon (March 15 is the target date for all proposal materials).

The source sensitivity tool took an inordinate time to run (the well-known demonstration effect). Wim asked whether the background based on the source location included both the Galactic and extragalactic diffuse components; David responded that both are included.

The energy units for the GLASTspec spectral models were discussed. David said that keV is XSPEC’s energy unit. The greater concern is that the normalization parameter for some models is defined at 1 keV, introducing a large correlation between the normalization and other spectral parameters. Julie pointed out that an XSPEC analysis of LAT data is not an appropriate data analysis methodology in most cases; David concurred strongly and said out that this is stated in the help pages.

Alan commented that the tools appear to be very useful from an end-user’s perspective. Josh encouraged Steve to provide some detail about the tools available for cycle 1 proposal preparation in his overview presentation at the Symposium.

GLAST-NRAO Draft MOU (Steve, Jim U.)—The MOU deals with two types of NRAO-GLAST proposal. In the first, NRAO dedicates a certain amount of time for joint NRAO-GLAST proposals. What is not stated in the MOU, but is understood—and will be made more clear in the final MOU wording—is that the NRAO-GLAST proposals will be reviewed during the GLAST peer review. As currently structured, there could be a duplication of accepted NRAO observations, based on proposals submitted through the joint GLAST-NRAO and the NRAO programs. For Cycle 1, NRAO has a deadline of

June 1 and GLAST of June 15; thus the two programs will communicate about common proposed sources. The NRAO TAC (telescope allocation committee, the equivalent of GLAST's peer review panels) meets much earlier than the GLAST peer review panel. After some discussion it was concluded that because the NRAO time allocated to GLAST is small, the cost of duplication is not large. Therefore it is easiest to not try to remove the duplication, especially since the GLAST-type sources are variable and additional observations will be scientifically useful.

The second proposal category discussed in the MOU is for very large NRAO time allocations. These proposals will be submitted through the NRAO process.

How can the MOU be implemented? The awarding of NRAO time probably does not need to be in ROSES, only advertised to the community (e.g., on the GSSC website). The RPS form needs to be updated.

If the GLAST-NRAO joint program is heavily over-subscribed, NRAO may be able to provide additional observation time, as noted in the MOU

Review Open Action Items (Josh, and leads for each AI)

AI#7—Science Policy Document. Steve has updated the document. Steve would like guidance about the text on the responsibilities of the instrument PIs and their teams. EPO should be covered. The text on the peer review process will be updated based on the presentations at the meeting. The 'Internal Project Policies' and the 'GSSC scientist research time' sections will be deleted, as discussed previously. The text acknowledging the use of GLAST resources will be provided; this text should also be on the GSSC website. Authors should be asked to provide the GSSC with links to their GLAST-related publications. The section on MOUs needs to be updated given the NRAO MOU. This AI is still open.

AI#20—Instrument and spacecraft parameters controlled at the project level. The Science Operations Oversight Group (SOOG), discussed previously, will determine the list. This AI is still open.

AI#26—Multiwavelength statement. Rene has language for an open letter about the importance of multiwavelength observations. Josh will circulate this draft Statement to the GUG for review and it will then be posted on the GUG website under an appropriate link. This AI is closed.

AI#34—White paper on scanning vs. pointing. Julie has a rough draft; she is finding it difficult keeping the document to two pages. This AI is still open. The white paper should be finished by the next telecon. This AI is still open.

AI#35—Multiwavelength statement. This AI is already closed.

AI#36—RPS proposal form for Cycle 2. This AI is still open.

AI#38—Capturing advance analysis threads. This AI is open ended and is therefore still open.

AI#39—Science workshop locations. Josh developed a list of possible science workshop locations, based on geographical considerations. European sites should be included. However the GUG concluded that scheduling 10 workshops (as per Steve's original suggestion) by June 15 is probably impossible, although we should at least make sure that talks are given in all these locations. We can probably schedule only 3-4 actual workshops similar to that held at GSFC. Rene has agreed to help organize a Southern California workshop. A Boston-area workshop makes sense; Josh, Roger and Alan are the logical convenors. We will try to organize a Chicago-area workshop. This AI is closed.

AI#40—GUG gamma test. Chris has proposed Fall, 2007. This AI is closed.

AI#41—GUG beta test 'lessons learned.' Chris has developed a prioritized list, and these are being implemented. This AI is closed.

AI#42—Demonstration of proposal tools. The tools were demonstrated at the current meeting. This AI is closed.

VOEventNet issue (Dave T.)—VO-GCN is an automated system like GCN for non-GRB transients. A 'VOEvent' is a standard packet definition recognized by the International Virtual Observatory Association in November; these packets have more information than GCN Notices currently include. 'VOEventNET' is conceived as the system to distribute VOEvents from projects such as OGLE, SDSS, ESSENCE and GCN. VO-GCN is the proposed NASA implementation. A node at GSFC distributes notices to Berkeley, Caltech and NOAO, from which the notices are disseminated. Scott Barthelmy will supervise two networks: GCN and VO-GCN. The GUG should make a statement that such a network will be useful to GLAST, while not specifically endorsing the VO-GCN implementation. Dave and Steve have drafted such a statement, which Steve will circulate.

New Business (all)—Buell asked about optical multiwavelength agreements. The GUG has discussed this issue, and Josh mentioned that discussions are planned to facilitate possible joint agreements between GLAST and NOAO.

The plans for the Help Desk will be discussed at the next meeting. Henric is concerned that the responsiveness of the Help Desk be timely.

Next Meeting (all)—The next telecon will be March 16, at 11:30 ET. The next face to face meeting will be June 4-5 at GSFC. The subsequent face-to-face meeting will be September 24-25, also at GSFC

THANK YOU to GUG Members rotating off the Committee (Rick, Josh, Steve). The GUG thanks Jim Buckley, Jim Ling, Alan Marscher, Rene Ong, Greg Stacy and Mark Strickman for their fine service to the initial GUC and to the GLAST mission development for the User community.

Adjourn 5:30 PM

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Agenda for GLAST User's Group (GUG)
Stanford/Physics & Astrophys. Bldg., Conf. Room 102/103 (see map)
Feb. 4, 2007

Sunday, Feb. 4:

1:05 Welcome and Introductions (Josh, Steve)
1:10 **Welcome to New Members** (Rick, Steve, Josh)
1:15 Review Nov '06 meeting Minutes (Josh)
1:17 The view from HQ and other News (incl. GLAST Fellows program) (Rick)
1:25 Mission update and issues (Steve and Julie)
1:50 LAT status and schedule, upcoming milestones (Peter)
2:00 GBM status and schedule, upcoming milestones (Chip)
2:10 GSSC status and issues (Chris)
2:15 GLAST Symp. Planning and SWG activities (Steve)
2:30 Cycle 1 GI program & demo of RPS proposal submission tools (Chris, David)
3:00 Break
3:30 GLAST-NRAO Draft MOU (Steve, Jim U.)
3:45 Review open Action Items (see GUC webpage for current AI's due) (all as named)
4:45 VOEventNet issue (Dave T.)
5:00 New business (all)
5:15 Next meeting (all)
5:20 **THANK YOU to GUG Members rotating off the Committee** (Rick, Josh, Steve)
5:30 Adjourn