GLAST SWG Telecon Minutes – April 22, 2004

Attended:

David Band
Guido Barbiellini
Ronaldo Bellazzini
Elliott Bloom
Chuck Dermer
Brenda Dingus
Kevin Grady
Isabelle Grenier
W. Neil Johnson
Donald Kniffen
Giselher Lichti
Julie McEnery
Chip Meegan
Peter Michelson
Jonathan Ormes
Martin Pohl
Steve Ritz
David Thompson
Stephen Thorsett
Kathy Turner
Al Vernacchio

Steve welcomed everyone and reviewed the agenda.

Announcements:

1. The press plan has been written up by Lynn and work has been progressing within the Agencies.
2. Jonathan organized a committee, with David Bertsch serving as Chair, to review the LAT calibration plans. Report has been completed. The committee confirmed that the beam test remains a very high priority. The report will be forwarded to LAT and will be made a mission document.
3. GLAST Symposium organization is moving forward. Several SWG people have joined the organization effort. More on this at the next telecon..
4. HEAD meeting coming up in September. Should we have a special GLAST evening session? There was general agreement that we do something. Steve and Jonathan will contact the organizers as an ACTION Item.

Kathy Turner – D.O.E.

-Joint DOE and NASA LAT project review took place at the March. Project is going well. One big issue - is keeping on the already tight schedule.

Don Kniffen – NASA HQ

-GP-B was successfully launched yesterday. Everything is going well.
-JOG meeting went well, not much to report.
-Agreements: CEA agreement is very close to signing. CNRS, some minor issues.
-ASI is very close to being signed. Funding that is needed by June will be available. LOA will be signed by then (states dispute is settled by US law, Italians want it settled by International Law). MOU goes thru the State Dept.

-Don is leaving at the end of October. No replacement has been named yet. Don is not retiring, he may become a scientist at GSFC. Anne Kinney has asked Don to serve on the independent review team for GLAST.
-Paul Hertz is moving up to Code S as Ed Weiler's Deputy. No replacement has been named yet, and the position will be advertised.
-Dan Blackwood is continuing. His only mission is GLAST.

Giselher asked Don if the meeting with DLR has taken place. Paul has talked with DLR and they are coming to HQ next week. DLR has assured Paul that the GBM needs are taken care of.

Peter Michelson – LAT Report:

-DOE/NASA joint review went well. Main concern is that the schedule is tight.
-Focusing on delivery of first flight hardware module to SLAC in August.
-Flight hardware is being fabricated now.
-Planning for the collaboration meeting in the Fall and hosting the SWG at SLAC.

Martin asked about the pointing knowledge issue, what is the present state. Steve stated things look quite good thus far. Have run several thermal-mechanical distortion case studies over the 16 towers and the results look quite good. Stability is good. Tested with simulations of all sky survey. No one is asking to change the requirements.

Isabelle Grenier – Report from France:

No report.

Guido Barbiellini/Ronaldo Bellazzini – Report from Italy:

Guido:
-The money is already allocated but it takes time to go through the system.
Ronaldo:
-ASI contract making progress. Examining the science contract now, should be approved in 3-4 weeks. All that can be done has already been done. No need for outside help at present. ASI will do it's best to have it completed by June.
-ASI-INFN delivery by end of July.
-Budget is already prepared, now it's just contract paperwork.

Chip Meegan and Giselher Lichti – GBM Report:

Chip:
-Thermal design still being worked out. The reason it has taken so long is the number of options, number of constraints, etc. MSFC now has the responsibility. MSFC is working with Spectrum Astro on solutions - More co-ordination rather than technical problems.
-Have procured most electrical parts and hope, by the end of the week to order the remainder. Want to accept delivery in 3 weeks.

-Flight crystal and flight detectors to MSFC are delayed, but have some leeway on the schedule.

Giselher:
-the NaI EQM crystal survived the vibration test.
-FM phototubes and FM-NaI crystals ordered.

Kevin Grady and Al Vernacchio - Mission Report:

-LAT Schedule is primary concern.
-Major reviews are: Observatory Critical design review will take place at the end of May, Mission CDR in Sept., and hoping to finalize the ground system review dates this week.
-February 07 launch date.
-They are in the middle of the POP budget process. FY04 has a little flexibility to deal with budget issues. It is critical that all elements live within the budget we have.
-Launch lift reserve is limited by mechanical loads (c.g.). Considering two changes to orbit: possible increase in altitude to increase lifetime and possible inclination decrease (few degrees) using excess lift capability.
Steve: with higher altitude, won't have to change solar array design. Background, radiation, and time in SAA increase by small amounts, as does the micrometeoroid flux. Decision has to be made by launch minus 66 weeks but would prefer to nail this down sooner.
Chip: inclination change – few degrees will positively affect GBM.
Don: Do we need to study?
Brenda: should be able to study with EGRET data.
Martin: any impact on ability to observe sources in North or South Poles with changes in inclination?
**Decision that needs to be made in about 3 weeks is solar array design.

IDS report:

Chuck Dermer:
Wrote two papers with Armen Atoyan on radio galaxy jets observed with Chandra, arguing against the standard model that extended jet X-ray emission is due to Compton-scattered CMBR. An important study for GLAST is to evaluate the maximum steady emission from a blazar, which places an upper limit on the level of nonvarying extended jet radiation that can test an external Compton CMB model. Attended the External Science Advisory Committee for VERITAS. The TeV community is faced with similar problems of coordinating multiwavelength ground-based and space-based observations. Issues involved in joint ground-based (TeV) and space-based (GLAST) gamma-ray observations and coordinated observations are jointly relevant to GLAST and the imaging air-Cherenkov telescopes.Talked with Julie McEnery about efforts to form a multiwavelength collaboration for GLAST studies, beginning with astronomers in the DC area.

Brenda Dingus:
Brenda Dingus is working on Milagro TeV observations. A paper was recently accepted by Ap J on the sky survey of the Northern Hemisphere with detections of Mrk 421 and the Crab nebula and upper limits of 300-600 mCrab flux. Milagro has also detected the galactic plane and a paper is being written. Also, Brenda has been working with Dirk Petry to measure the spectrum of Earth albedo gamma-rays using EGRET data. This source of gamma-rays will be a background of GLAST's and might be a useful calibration source.

Martin Pohl:
My PhD student Ingo Buesching is in the process of submitting his thesis on time-dependent propagation of cosmic-ray nucleons in the Galaxy. He finds that the flux of CR nucleons can substantially vary over spatial scales of a few hundred parsecs, in line with earlier findings that the EGRET emissivities at local molecular cloud complexes and in the Perseus arm seemed to be different. The spectra of CR nucleons do not change much, in contrast to the case of CR electrons. The flux of CR secondaries is virtually onstant on account of the averaging over 10 millions years in CR primary history. Then the standard tools of CR astrophysics, secondary-to-primary ratios such as B/C, can misguide us.

Stephen Thorsett:
Thorsett reported very briefly on ongoing science projects related to preparing for GLAST pulsar work. He has been working with Dave Thompson and LAT team members on the draft multiwavelength plan and the associated presentation to SSAC. He is also working on the Phase A study for the NuSTAR small explorer, which would be an important complement to GLAST, particularly for blazar studies.

Transient Discussion:
Isabelle: The idea is to display flux history on web. 20 or so sources will be observed.
Steve: How do we expect the data to be used? What is publishable?
Chuck: A policy is in place regarding flares, but it will have to be revisited with input from the GLAST User's group.
Peter: LAT team needs to make proposal to what it will support.
Brenda: What does it mean to release data?
Chuck: In the alerts, we need a disclaimer stating that the results may change, so check with GLAST team first or publish at your own risk.
Julie stated people have stated XTE data misused – misinterpreted.
Isabelle: scientists take risks on whether they want to observe or not.
Much discussion followed.

Peter needs to separate on line list from transients release.
David B.: 2 issues here, 1) monitoring source and b) know where there is something interesting and want to pursue.

**Peter agrees that the LAT will report at the next telecon and have a proposal at the September meeting. Will also be presented to the User's Committee.

September Meeting:

-LAT meeting will take place Monday thru Wednesday, Joint symposium on Thursday and SWG face-to-face on Friday. Subject is Science with GLAST and Ground-based VHE Gamma-ray experiments.
-Julie to help organize the joint symposium. Chuck will also help.
3 sections: 1) expected ground-based observatory status in the GLAST era, 2) recent results and science looking forward, and 3) discussions on cooperation. Need to start planning and inviting presenters. Milagro and VERITAS people have been contacted. Short talk on neutrinos.
Julie will circulate draft when completed.
-Symposium at SLAC's Redwood Room.

ACTION ITEMS:

1. Peter: Updated Institution List for Lynn.
2. Peter: LAT publication policy to be sent to the SWG.
3. Steve & Jonathan: Contact Roger Blandford regarding HEAD meeting. Invited talk on data, special session with open forum.

LAT Calorimeter measurements during bursts, issue raised by Guido:
Discussion on an e-mail that Jay sent.
Julie added to the discussion on studies she has done.
Neil J. – presentation done in France, will send to Steve and Guido.

Adjourned – Next telecon June 24, 2004.

Revised: 5/10/2004