

=FUG Meeting, Feb. 23, 2011 (phone)=

==Attendance==

Cui, Wei
Frail, Dale
Hartmann, Dieter
Holder, Jamie
Jannuzi, Buell
Kniffen, Don
Koushiappas, Sawas
Marscher, Alan
Ransom, Scott
Soderberg, Alicia
Watts, Anna

Cominsky, Lynn
Ferrara, Elizabeth
Harrus, Ilana
McEnery, Julie
Michelson, Peter
Paciesas, Bill
Perkins, Jeremy
Ritz, Steve
Shrader, Chris
Thompson, Dave

==Status of the Observatory (JM)==

* The observatory is operating very smoothly and there are no problems with the spacecraft or data.

* There was a ToO on PSR B1259 which was done under a modified survey mode instead of pointing. This involved 2 orbits pointing south to 1 pointing north. We plan on doing a better job of informing the community during ToOs by sending emails to Fermi News.

** phone: Did the modified survey mode satisfy the requesters?

** JM: They said it was suitable.

* The SM profile is being optimized to slightly reduce the acceleration when rocking between +/- which will reduce the load on the reaction wheels. This also results in a slight increase in sky uniformity during routine survey mode. We are switching the rocking between +/- 50 deg to orbit eclipse to reduce the thermal load on the batteries.

* There is some noise in the sun sensors - these are only used for coarse pointing during safe holds and not needed for normal operations. . We are currently assessing the root cause of this.

* A possible government shutdown (NOTE [JSP]: this was possible at the time of the meeting but the probability of this happening has been reduced in the

intervening weeks) would minimally impact operations due to the forward funding of the contract. The FSSC and flight ops would continue to operate as normal with 1 or 2 'essential' civil servants. During the previous shutdown, GSFC was open to contractors but it might be more stringent this time.

** phone: You should decide which personnel are 'essential' before a shutdown (i.e. now).

** JM: We do not know until we get direction from the administration (NASA).

* The NASA senior review will be in spring of 2012. The Fermi report is due in Dec. 2011/Jan. 2012. This is the first review that Fermi has been through so we will write the draft early to give ample review time. We will appreciate support from the FUG on this. We will provide an outline at the next FUG F2F and ask for help on specific sections from the FUG.

** phone: This is an excellent plan.

* w.r.t the Fermi symposium, we are working through a credit card payment system so the abstract submission and registration has not been posted yet but will open in the next few weeks and the abstract due date will be delayed. (NOTE [JSP]: since the time of the meeting, both have been opened to the community and the abstract deadline set to Mar. 20). This will be a very good meeting and the Italian collaborators are putting a lot of effort into the planning.

* There have been many Press Releases lately. The press release on the Fermi Bubbles was on the ASD website for multiple weeks. The press team works hard on these. There was a TGF press release and the Crab flare press release at the AAS meeting, both were very successful. The NASA Fermi news archive has all of the graphics and animations from all of the past press releases.

==Update on GRB Mode Data or LLE (JM)==

* The LAT Low Energy (LLE) event selection is a very loose selection using data up to 5 minutes after a GBM trigger to get access to lower energies in the LAT. The LAT team is still evaluating and validating this method but will release it to the community when the first papers using this method are published.

* The GBM GCN notices are now flagging (with a comment in the GCN notice) bursts which have properties that make them likely to be LAT detections..

==FSSC Report (CS)==

* There was a 10% increase in submitted GI proposals this year. 1/3 requested 2-year projects. There were only a few Suzaku time requests. Cycle one is nearing close out which means there is less obligated money. There were five pointed mode requests. Of the 7 two year proposals, 2 to 3 were 'large projects'. There were 5 continuation requests.

* There will be a software release in april (pass 6 version 11) and another after the Fermi Symposium (pass 7).

* The problem with the FSSC websites being offline was due to a mysql injection attack on the FSSC database. No harm was done but CNE required a shutdown so that a complete review and audit could be done on the website scripts. Proposal

support was still available on HEASARC and data were still available via FTP. The problem has since been fixed and there was a redesign to prevent similar incidents in the future.

** phone: What is the plan for the future?

** CS: We do not have a specific plan in place but have taken action to prevent similar incidents.

** phone: It would be wise to have a plan in place to communicate alternative ways to get to the data to the user community.

** CS: Point taken.

* The FSSC is evaluating pointlike. There are no new capacities in this package but it is faster and easier to perform certain tasks. It is not an end-user package as yet. We will report more at the next FUG F2F.

* An ABC guide is in development and will be broader in scope than just a simple document.

* Web based tutorials are being developed to replace the workshops. Using EVO is a possibility and there will be a demo available at the next FUG F2F.

==LAT Status (PM)==

* The LAT is operating well

* New flight software will be uploaded soon.

* Every thing is stable. We are very pleased with the tracker: out of 885,000 modules, only 203 are masked out. These 203 are minimally impacting the performance. They are in a single SS ladder in Tracker Tower 3 and 42 were masked out in Jan. 2010. We are investigating the root cause now. The problem is negligible but we want to understand it.

* The data pipelines are running like clockwork. There is now 800 Tb processed which corresponds to 10 CPU-years/month.

* The 1FGL paper is highly cited.

* The P6_V11 IRFs include flight corrected IRFs only for the diffuse class. This is ready now and is undergoing testing. There are corrections to the PSF included among other things. It should be released to the public at the end of April.

* 2FGL will be shown at the Fermi Symposium in early May based on the Pass 7 IRFs and will use a new galactic diffuse model. There will be better spectra, extended sources and include improved associations.

* P7_V6 will be released to the public in mid June along with the new diffuse models. This pass will improve the low energy effective area and there will be several new event classes.

* The LAT team wants advice on how they discuss non-LAT papers.

** phone: Is the LAT team not criticizing papers?

** PM: We are looking for advice on this topic. We try to be objective by not giving opinions. How are we doing on this? What does the FUG think?

** phone: What about the Galactic Center dark matter paper?

** PM: The GC is a busy place and we try to be reserved about our response to this result.

** PL: But the LAT team endorsed the finding of the Fermi Bubble paper.

** PM: The DM paper has not been published in a peer reviewed journal yet. The

Fermi Bubble paper was. The Fermi telecon is the place to discuss scientifically broad publications and not just the LAT.

** phone: Anyone heard any complaints on this issue?

[silence followed]

** PM: Ok, if anyone hears any complaint on how we are handling this issue please contact me. We want to support the community on this and not to seem to be overly critical of anyone's work.

==GBM Status (BP)==

* The GBM is working well. One detector's pedestals have substantially changed to a new plateau (actually better than before). This is similar to what happened in another detector earlier in the mission. We don't have an understanding as to why this is happening but the detector seems completely healthy.

* Human in the loop locations of GRBs are not as good as possible and we're working to improve it. Systematics are not better than the automated processing.

* The response matrix is not uniform and we need to incorporate the pre-launch calibrations. These should be released via the FSSC.

* The GBM is currently the best instrument to study TGFs. There is a geographic region defined for TTE studies and these data are released through the FSSC.

* The flight software is stable and there are no changes planned.

* GBM papers are starting to come out. We have a good sample size now which allows for good analysis.. There are 12 team papers on GBM data. Six have been submitted or are in progress. There are 3 independent papers using GBM data and there are 4 or 5 more submitted or are in progress.

* The analysis is complete on the GBM catalog. A draft manuscript is in progress.

===GBM Data Analysis (phone)===

* A member of the FUG was working with the GBM team on a paper. At one point, the FUG member tasked a graduate student to reproduce the GBM analysis without any help from the GBM team. This student was unsuccessful and found that there were several key things missing from the FSSC website about analyzing GBM data.

* BP stated that this was an FSSC issue but we desire this capability and will work with the FSSC on this.

* JM proposed that we need to improve our documentation. There is not an efficient path for getting calibrations and documentation to the FSSC and issues are not announced to the community. JM requested that a sub-group of the FUG be set up to improve this. A sub-group should be formed with AW from the FUG, the SSC and the GBM. Also someone from the solar flare community (such as Richard Schwartz) should be involved and members of the LAT team such as Giacomo Vianello.

==NASA HQ Report (IH)==

* Fermi is relatively protected due to it being in the prime phase which ends Aug. 18, 2013. The upcoming Senior Review will be very important in determining future funding for 2013/2014 and will provide the recommended level of funding for 2015/2016 to the 2014 Senior Review. If the 2012 review is poor then it will be

difficult to have a good 2014 review.

- * There should not be undue worry but there are things to pay attention to. The oversubscription to the GI program is low (even with the 10% increase seen this cycle). This point will need to be addressed in the review. The oversubscription rate plays a large roll in determining the budget numbers

- * Fermi is safe but the total budget for Fermi is not.

- * The FUG's input is critical in the Senior Review process. They will play a very large role and the success of the project depends on them.

- * JM stated that panelists during the R and A review commented that the Fermi GI program over subscription rate cannot be compared to others since it is a different type of mission. The over subscription rate is important at HQ but needs to be interpreted with care.

- * It needs to be shown that the community using Fermi is larger than just those taking part in the GI program.

==EPO (LC)==

- * There continues to be good involvement in the project at the AAS press conferences.

- * There are videos on the website on each of the press releases.

- * The Fermi LAT team won the Rossi Prize.

- * The EPO is in the 2nd and 3rd version of a plan that has been accepted by HQ.

- * An iPhone app is being developed showing the Fermi Sky.

- ** IH said that the NASA iPhone app has Fermi in there but it is very outdated (still called GLAST). HQ needs input from the Fermi team.

- ** Who do we talk to to get it updated?

- * There is an online multiwavelength NASA educational outreach program and it is being offered for credit at Sonoma State.