

# **GLAST Minutes October 2-3, 2004, @ SLAC**

## **Attendees:**

### **France - CEA**

Pierre-Olivier Lagage

### **France - IN2P3**

David Smith for Stavros Katsanevas

### **Italy - ASI**

Elizabetta Cavazutti

Fabio Bracciaferri

### **Italy - INFN**

Bennetto D'ettore

### **Japan - Hiroshima**

Takashi Ohsugi

### **US - SLAC**

Jonathan Dorfan

Persis Drell

Steve Williams

Lowell Klaisner

Charlotte Chang

Rob Cameron

### **US - DOE**

Kathy Turner

### **US - NASA**

Don Kniffen

### **US - Stanford University**

Peter Michelson

## **Jonathan Dorfan – Welcome Talk**

## **Comments:**

Stavros Katsanevas: The NLC schedule you gave is aggressive in R&D. But proceeding

on this schedule will be determined by politics.

Gabriele Puglierin: What method is EXO using? Answer - double neutrino-less beta decay of Xenon.

## **Persis Drell – Events of Past Six Months and Goals of Meeting Talk**

Approved minutes from last meeting with changes requested by ASI.

## **Peter Michelson - Project Overview and Collaboration Status Talk**

## **Lowell Klaisner - Project Status : Technical and Costs Talk**

Fabio: Would like acknowledgement that they have completed their work. Process is done; qualification has been carried out. They can the start the production of the trays.

Lowell: OK will do. Never sure that all the tests have been sufficient. May be related problems downstream.

Don Kniffen: Commends Lowell and team for their achievements to date.

Fabio: Also thanks the team for their help in analysis with trackers/trays.

## **Rob Cameron – ISOC Talk**

Jonathan: Can the instrument be re-pointed to respond to unknown events?

Rob: yes Gamma Ray Burst will make such requests and also there will be ad hoc requests from ISOC to MOC.

Don Kniffen: Doesn't see ground calibration after launch where is it?

Project is front end oriented and science oriented right now. Later will deal with ground calibration.

Questions about ISOC testing at NRL: does it involve MOC (no); there is a MOC simulator

Kathy Turner: Is the increase in labor mostly already in project? Ans: There will be few new hires.

## **Lunch**

## **Tour of Building 33 (GLAST clean room) and 84 (GLAST Electronics test bed)**

## **Roundtable Discussion from the Agencies**

NASA Don Kniffen: A lot has happened. Vision is exploring Mars (not manned).

Problem is that it must be within current budgets. Particle Astro Physics doesn't fit the

mission. NASA budget is being cut. For instance Einstein, Lisa, JDEM not funded. But hope that all will eventually be done.

NASA is transforming program to address the mission. Also trying to reduce management - too top heavy. There is no longer an office of Space Sciences. Now it is in the Science Mission Directorate. All has been absorbed. GLAST is now in the Universe Division, lead by Ann Kenney. Fairly transparent to this project. Highest priority is being given to missions already in development (e. g. GLAST). De-scope plan is being considered – either in the science capability of the instrument, or taking risk by doing away with testing. No enthusiasm for either. The savings is modest and there is tremendous science impact. New issue is a new re-entry requirement (minimize impact on human life), needs reliability on controlled re-entry systems.

Kathy Turner **DOE**: Major science program is accelerator, Linear Collider, but PAP is growing. DOE committed to GLAST mission. Thanks for contributions to program from other agencies. DOE has severe budget constraints for next 2 years. DOE happy with GLAST overcoming problems. DOE is working with NASA on budget and schedule problems. Operations phase: SLAC operating phase is not so rigidly controlled as construction phase.

Lagage **CEA** - Software. No particular problems. GLAST is growing in the labs program.

David Smith **IN2P3** - calorimeter hardware is coming along. Support is smoothing out on GLAST program. Generally things are going pretty well. Funding will drop due to completion of hardware. In the future travel to contribute the budget needs. CNRS/NASA agreement has a problem with lawyers but meeting is scheduled next week to resolve.

Jonathan Dorfan - funding is a challenge for **SLAC** as a whole. Salaries frozen in 03 now have good increase in 04. Electric power for the labs accelerator faces a huge increase. From half market DOE pricing to full market pricing this coming year (\$8M increase). No budget in this US election year; we are on month-to-month continuing resolution. It will be 4-5 months before we have a budget. GLAST is protected. We have hired quality people for GLAST.

**Japan** - Ohsugi Hiroshima - Thanks for your support of the GLAST program in Japan. We have been able to complete their silicon contribution. The committee thought that the hardware contribution was to be completed this year - a problem. The budget system has changed. It is now between government system and private system. We have seen a change in method of funding. US-Japan agreement now all has funds in KEK. KEK director would like to reform the system. We will have to find new method to fund GLAST. Hopefully can do.

This may affect hardware delivery and commissioning.

**INFN** Benedetto - many physics studies being funded. The number of projects is increasing but funding is decreasing. GLAST is regarded as a frontier facility. The situation is weak but GLAST will have maximum support.

**ASI Fabio** - Just completed hard job. Fully approved the GLAST program. Simona had to explain "Why GLAST?" She did it! Now the budget is completely approved to the end of program. Production will be 2 towers per month starting November. Last ships in June 05. Contrast to schedule. Can go faster. But G&A needs more money to go faster. We are working on it.

Elizabetta: schedule and cost will be evaluated after delivery of first two. Not a lot of \$ but need to understand the necessity.

Ohsugi - Do we have sufficient silicon? Startup at Hammatsu would take time if more is needed.

Lowell - Believes we have enough for 18 towers. He said they are receiving excellent product from Hammatsu. Need 192 tiles. Next inventory will be done in a couple of weeks. We'll be ok, but there will not be a lot extra. We might leave a tray unpopulated if necessary.

### **OCF Discussion led by Persis Drell**

Smith: regarding the formula - France has no PhDs.

Don Kniffen: Why is the start date for OCF not launch? Rob: ISOC is fully up and running at start of 06, a year before launch. Maybe need to accommodate delay in launch.

Peter - since budget has to be approved, why not just rely on IFC to determine by approval of funding.

Fabio: will budget be fixed and then the PI spends or. No. Present budget each year 6 months in advance for consideration, approve at year start, as done with Babar.

Fabio: easier for him to request operating budget for life of experiment. Babar experience is that it is flat except for some significant computing costs which was not anticipated.

Stavros: supports the common fund. Concerned with cash versus in-kind. ISOC needs software France would like to supply. He needs to understand the in-residence (at SLAC) science leaders funding. Is this from OCF or account as in-kind contribution? Valuation of in-kind will be determined by the IFC.

NASA: can't pay two overheads to Stanford.

NASA: Ann Kinney is the official member of IFC.

DOE: SLAC will use its operating budget. KT does approve of SLAC funds.

Ohsugi may have similar problem do to changing systems.

Discussion of living expenses - no change.

Officially GLAST is in use until 2012, the end of planned life.

PM will change Multilateral agreement to working agreement. done

Need asterisks for each agency on what signature means.

Action Item: IFC members should consider the OCF Working Agreement as a document to be signed by the members expressing their intent toward meeting the points contained therein.

## **Peter Michelson - Operations Phase Collaborations Support Talk**

DK - Is ISOC core support in addition to what was originally planned. No

Proposed algorithm: has current membership. Elizabetta – expects to have many more new members in science phase.

KT: what is incentive to pay after first year when data is “free”?

Babar - SLAC share covers NSF members.

Italy - post docs and graduate students will grow. PM benefit to being members of collaboration.

Example leads to \$10K per full member using algorithm B.

Action: IFC needs to agree to algorithm

Action: IFC needs agree to categories in OCF budget.

Action: what should level of total funding be, multiplier \$10K?

Members will need to discuss with agencies.

Lagage will have problem with staff support.

DK- NASA would come out of Peters money. Needs to check categories.

Benedetto - about member, affiliated and post docs and students, need to discuss with others.

IFC needs more detail about items such as living expense details.

David Smith: Also need more discussion of in kind

After discussion here is the weighting formula proposal: 1.0 member, 1.0 Postdoc, 0.2 affiliated member, 0.0 for grad students.

## **Sunday**

The IFC identified 4 categories tentatively accepted to be reviewed at home

Level of cost per unit \$6.5k sounds fine to all at this point.

Multi agency countries should discuss how the algorithm might be achieved for their members and affiliates

Action: Chang to put together a cost basis document for the first budget.