

**SIRTF User's Panel (SUP)**  
**Meeting #1**  
**1998 November 2-3**

**Report submitted by Steve Strom (Chair)**

**General**

We thank the SSC management and scientific staff for providing a thorough and comprehensive summary of SIRTF instrumentation, the SSC goals, organization and management, as well as an initial survey of the tools that will be available to the user community. The quality of the presentations was uniformly high and the presenters and the larger SSC staff deserve kudos for their efforts.

By agreement, the SUP will meet by telecon one month prior to its next meeting with the aim of developing and proposing additional agenda items to the SSC. Strom, on behalf of the SUP, will work with Soifer and Helou to develop the agenda and a list of expected meeting outcomes. Materials relevant to all agenda items will be circulated to the SUP no later than 2 weeks prior to the meeting. If necessary, a second pre-meeting telecon will be held in order to prepare for the next meeting.

**AOTs**

The proposed astronomical observing templates (AOTs) are an essential component of a system designed to facilitate planning and execution of SIRTF observations, efficient pipeline reduction and data archiving. We strongly endorse the AOT concept. Effective implementation of the AOTs promises substantial benefits to the user community as well as significant savings in a cost-capped environment.

Based on the presentations of the SSC staff, it appears as if the current template design concept and format represent a sound basis for developing the final AOTs. However, since the AOT is a crucial component of the User interface, an extensive series of pre-launch tests is warranted -- not only by the GTOs and the SSC staff, but by the user community. We therefore urge the SSC to propose a structured program for user-testing of the AOTs, and to circulate it to the SUP for comment 6 weeks prior to its next meeting.

In addition, the SUP has tasked itself with examining the extant versions of the AOTs with the goal of providing top level impressions and SUMMARIZING THEM FOR THE SSC PRIOR TO 15 DEC. Members of the SUP should examine the AOTs and provide comments to George Helou with a copy to me.

### **Deferred Observing Modes**

The SUP notes that the current SSC baseline plan to support only 4 of the planned 7 AOT options [at the time of launch]. While we understand the need to restrict modes in order to meet cost caps and Project schedule, restricting the number of available modes has the unfortunate consequences that (1) the full discovery potential of the early flight mission will be limited by this approach, and that (2) the deferred modes will not be available to the Legacy Science observing programs.

The SUP would like to understand the implications and risks of observing mode deferral more thoroughly. We therefore ask the SSC to summarize the (1) potential science losses; (2) cost implications; (3) risks and timescales associated with implementing the 3 additional modes following on-orbit commissioning via a summary document to be submitted to the SUP 6 weeks prior to our next meeting.

### **Legacy Science Program**

The SIRTf Legacy Science Program represents an imaginative effort to involve members of the community in designing and carrying out large-scale programs aimed at exploiting the power of SIRTf to address fundamental scientific problems. The Legacy Program has the added important benefit of providing an archived database of representative observations and their associated modes early in the mission -- thus enhancing the community's ability to plan observations for GO cycle 2. We thus strongly affirm our support for the Legacy Program.

Because this program represents such an important component of the SIRTf mission, we urge that the SSC work with the community to develop well accepted policies and protocols for implementation. Toward that end, we recommend that the SSC prepare for circulation to the Users Panel a document summarizing key elements of the solicitation for Legacy proposals, the criteria for evaluating the proposals, and the mechanisms proposed for evaluating and scheduling them.

We would expect to receive a draft document from SSC summarizing proposed TOP LEVEL policies, implementation philosophy and plans on or before 01 FEB. Strom will appoint a subcommittee of the SUP to work with SSC management and staff to review the draft and circulate our comments to the full committee 3 weeks prior to the next SUP meeting.

### **Funding of Archival Research**

Archival research has proven to provide an important and ongoing component of the scientific output of the Great Observatories, and will continue to do so long after the observatories themselves cease to operate. We thus strongly endorse the plans of the SSC and the SIRTf project to provide support for archival research programs.

The early availability of extensive and coherent archived data deriving from the Legacy Programs will provide a significant opportunity for archival research by the community. We therefore urge the SIRTf Project and the SSC to explore the possibility of funding archived research earlier than currently planned (preferably in conjunction with GO Cycle 1) in order to exploit this opportunity. We request the SSC to report on the implications of this recommendation and the likelihood of its implementation prior to, or at our next meeting.

### **Community Task Force**

The SIRTf Community Task Force (CTF), chaired by Bob Gehrz, has been an enormously effective group -- providing structured community input into the SIRTf project and multiple forums for introducing SIRTf's capabilities to the broad astronomical community. The Users Panel would like to express its formal thanks to the CTF for its hard and effective work over the past 6 years. The SUP also notes the importance to the community of CTF's ongoing efforts to organize two major SIRTf-focused sciences conferences in both 1999 and 2000.

We are pleased and gratified that key members of the CTF have agreed to serve on the SIRTf Users Panel -- thus providing SUP with "corporate memory" of past CTF efforts, and deep insight into the SIRTf project, facility and instruments. The Users Panel recognizes that other members of the CTF also represent valuable potential resources for the Panel and for the community. We note and greatly appreciate their continued willingness to serve the community and the SIRTf Project.

### **Pointing**

The SUP strongly shares the concerns of the SIRTf Science Working Group regarding the potential losses of relaxing the current 1.2 arcsec requirement for reconstructed pointing accuracy: (1) severely compromised ability to construct accurate large area maps with MIPS; (2) reduced limit sensitivity; (3) compromised source position knowledge, resulting in compromised ability to identify SIRTf sources with those in extant catalogs or in highly source-confused regions. In combination, these represent significant losses to the SIRTf user community. We thus urge the Project to work vigorously to explore solutions that enable meeting the current requirements within the cost caps.

### **SSC Scientific and Technical Staff**

A first-rate scientific and technical staff is critical to the long-term success of the SSC. Attracting and retaining such people represents a challenge, given the mixed service and research missions of the center. To do so requires both establishing a culture that values and rewards research and technical excellence and innovation, and incentives sufficient to

attract the very best people. As representatives of the SIRTf user community we feel strongly that our interests will best be served in the long run by a vigorous and high quality SSC staff.

The SUP requests that 6 weeks prior to our next meeting, the SSC circulate a document summarizing its approach to staffing the center, with particular emphasis on proposed strategies for attracting and retaining first rate scientific and technical staff. The document will serve as the centerpiece for a structured discussion of this issue at the next SUP meeting. We also urge the SSC to work with us to develop a mechanism for ensuring close communication with the SSC Oversight Committee, particularly on this and similar “overlap” issues.