Gemini Users Committee

Report, 2nd Meeting

Preface:

The newly constituted User's Committee for Gemini (UCG) assembled in person at the Gemini Offices in La Serena on October 17-19, 2012. This second meeting – the first full meeting of the committee followed an introductory meeting with a portion of the committee at the Gemini Science Meeting on July 19th, 2012. The UCG is charged *"To provide feedback to the Gemini Observatory on all areas of its operations that affect current users of the facility, based on the experience of the committee members as well as input collected from the larger community of Gemini users"*. The fall meeting included nighttime experience of observatory operations, as well as extensive discussion and analysis of a user community survey completed prior to the meeting. The following is a brief synopsis of the major themes discussed, and conclusions reached.

Major Themes:

These themes emerged from both the discussions of the UCG and the survey of users as areas of significant concern and attention.

Communication*:* The user survey revealed a number of individual concerns and complaints. Discussion with the observatory reveals that many of these issues have already been addressed, though some users are unaware of the solutions. The web-site is complex, with a vast wealth of information. It's unclear how to improve accessibility of information, beyond promoting the use of the search bar, and (for changes to the web-site) the RSS feed.

Data Reduction: In a prior 2008 survey of users, 37% of users agreed that the Gemini IRAF package was good for data reduction. In the 2012 UCG survey, 66% of users indicated that they use the Gemini IRAF package, a clear improvement. Nevertheless, difficulty with data reduction was the single most common complaint from users. A notable frustration was the difficulty for users of identifying and rapidly downloading the appropriate calibration files for a particular observation. Many users commented that some non-Gemini software worked very well for them.

Technical Issues: Many users expressed concern that overheads for Gemini observing seemed high. Concern was also expressed that real-time queue decision-making could be more flexible. Users and the UCG expressed frustration with the functionality of GMMPS, which they felt performs poorly compared to software elsewhere.

Instruments: A small portion of the user's community strongly advocated for Gemini retaining a mid-IR capability. (Decisions on future instrumentation are outside the purview of the UCG and were clearly indicated as such – nevertheless a small but vocal portion of the community used the user survey as an opportunity to advocate for mid-IR capabilities).

Commendations:

A comparison of this most recent survey of users to a similar (though not identically constructed) survey in 2008 showed areas of significant improvement, an outcome also indicated by the experience of UCG members over the past few years of Gemini usage. The UCG commends the observatory for:

- The new **Phase I Tool**, which is well liked by users. (In the user survey in 2008, 58% of respondents thought the PIT was easy to use. In our 2012 survey, 77% of respondents thought the PIT is comparable to or better than proposal tools at other telescopes. Only 11% of respondents thought PIT requires further improvement.)

- The **Observing Tool**, which is also well liked. (In 2008, only 41% of respondents thought OT was easy to use. In our 2012 survey, 71% of respondents think the OT is comparable to or better than observing tools at other scopes, and only 14% of respondents thought the OT needs further improvement.)

- The improvement in **observing overheads** over the last few years, which translates to a more efficient telescope (but, see below).

- The data-reduction workshops, which were valuable to many users.

Recommendations*:*

The experience of the committee, and of the user community as expressed in the most recent survey of users, leads to a number of suggested improvements to observatory activities. A significant fraction of the suggested effort highlights the ongoing need for excellence of communication. Specifically, the UCG suggests the following would improve the user experience and strengthen the scientific output of the user community:

- Activate and promote a Users' Forum, to help create a sense of community and enable access to the expertise of users and the observatory community. This should take advantage of the success of iraf.net, and UCG encourages Gemini to migrate as much support as possible from Helpdesk to the Users' Forum. The preliminary design shown to the UCG looked excellent.

- Promote the UCG as an ally for the broader user community in advocating for improvements in Gemini operations.

- Ensure that users are aware of multiple problem-resolution pathways beyond the Helpdesk.

- Capture more details from the data-reduction workshops.

- Make available the real-time data reduction software QAP to the user community, even if not formally supported. (This could be especially useful for astronomers trying to interpret data during the eavesdropping mode.)

- Compile, document and make easily available a standard set of calibration data for quick-look analysis, for each instrument.

- Ensure that all the specific calibration files necessary to process each observation are easily available (i.e., clearly identified) in the archive.

- Ensure that the user community can readily remove instrumental signatures from the data and perform appropriate calibrations. Create cookbooks sufficient to allow users to do these tasks. Continue developing and updating data reduction software.

- Update the actual estimates of the overheads on the Gemini web-site for Phase I proposing, and promote Gemini's success in reducing overheads.

- Assemble a small committee of experienced mask-making users to discuss in detail what is so problematic with GMMPS, and how it can be improved.

- Promote mid-IR visiting instruments.

- Work with the UCG to distill the 2012 survey results and make them publicly available.

Feedback on Eavesdropping:

Gemini is in the process of enabling an "eavesdropping" mode for queue observations, permitting interested users to watch Gemini collect their data. This new queue eavesdropping mode was a topic of significant and extensive discussion. The UCG thought our opportunity to observe Gemini-South in action was extremely valuable for understanding queue operations, informing our recommendations. The UCG thinks that the new eavesdropping mode will help users understand the issues involved in obtaining Gemini data, and should allow the observatory an opportunity to engage the user community and capture some of their expertise.

The UCG strongly supports the development of an eavesdropping capability, and suggests the following:

- The ability of the PI to examine and interact with their data quickly is paramount to the success of eavesdropping.

- A formal acceptance of eavesdropping conditions by PIs should be required, in order to protect the data rights of other observers in the context of interleaved queue observations.

- A standard top-level note should be added to programs, indicating whether the user would like to eavesdrop; to be called with questions during night observing; or not to do either.

- UCG notes that nighttime execution would benefit from increased flexibility in responding to changes in observing conditions during observation of a target. For many programs with multiple long integrations, PIs and Gemini would benefit from clarifying whether a particular worsening in conditions would be acceptable, possibly in exchange for slightly increased observing time.

Feedback on the concept of a Fast, Peer-reviewed TAC:

The UCG was generally in favor of further development of this idea, which we thought was a creative and innovative concept. Increasing how quickly proposals get on the telescope found general favor, while the evaluation process drew concerns. These concerns included the lack of expertise among reviewers, the lack of continuity in proposal consideration, conflicts of interest, the integration of technical reviews into evaluation of proposals, and the question of exactly where such objects would fall into the queue priority order. If such a program becomes available, each partner should be free to contribute as much of their time as they like.

The Gemini User's Committee:

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