Science Mission Office Report, TM 2018-01

# Hubble Space Telescope Phase I Proposal Processing

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**ABSTRACT**

*In some eyes, the Phase I proposal selection process is the most important activity handled by the Space Telescope Science Institute (STScI). Proposing for HST and other missions consists of requesting observing time or archival research funding. This step is called Phase I, where the scientific merit of a proposal is considered by a community based peer-review process. Accepted proposals then proceed through to Phase II, where the observations are specified in sufficient detail to enable scheduling on the telescope.*

*Each cycle the Hubble Space Telescope (HST) Telescope Allocation Committee (TAC) reviews proposals and awards observing time that is valued at $0.5B, when the total expenditures for HST over it's lifetime are figured on an annual basis. This is in fact a very important endeavor, that we continue to fine-tune and tweak. This process is open to the science community and we constantly receive comments and praise for this process and other Observatories use our system as a basis for their reviews.*

## Introduction

The Science Policies Group (SPG) of the Science Mission Office (SMO) of the Space Telescope Science Institute (STScI) is responsible for the planning and implementation of the annual Hubble Space Telescope (HST) solicitation process. Proposing for time and money for HST consists of requesting observing time or archival research funding. This step is called Phase I, where the scientific merit of a proposal is considered by a community based peer-review process. This includes the development of the annual Call for Proposals (CP) and other user documentation; selection of the peer review panels and support staff and associated logistics required; ingestion, tracking and distribution of the Phase I proposals (about 1000 per cycle) to the review panels and

support staff; coordination of associated data (grades, comments, rankings); coordination of the Director's Office Review and preparation and dissemination of the Notification results from the review panels. Accepted proposals then proceed through to Phase II, where the observations are specified in sufficient detail to enable scheduling on the telescope.

HST proposals are of three main types: General Observer (GO), Snapshot (SNAP) and Archival Research (AR). Briefly, GO proposals request observing time in an integral number of spacecraft orbits; Large GO proposals request 75 or more orbits (summed over 3 cycles) and small GO proposals request up to 34 orbits and mediums are from 35-74 orbits. Snap proposals use small amounts of otherwise idle time in the HST schedule; they are allocated a number of targets of which in practice only a fraction, ~30 - 70%, will actually be observed. AR proposals are to carry out investigations using the HST archive and are awarded a dollar amount (proposers from US institutions only). Regular GO, SNAP and AR proposals are currently reviewed by about fifteen broad review panels: 2 exo-planetary, 5 galactic, 7 extra-galatic and 1 solar system. In general, these panels will allocate all the resources available to these categories of proposals. The Telescope Allocation Committee (TAC) panel consists of the Chairs of the Panels, plus a TAC chair (who is not associated with any of the panels) and usually three members at large. The principal role of the TAC panel is to review and recommend allocation of the Large GO and other similar proposals and will adjudicate any cross-panel scientific issues, as needed. The TAC and panel recommendations are advisory to the STScI Director, who is responsible for the final allocation of HST observing time and funding.

This document will describe how the HST Peer Review process works along with the software tools and manual processes that are run by the SPG staff. It is broken down into the five main stages of the Phase I Process: Cycle Preparation; CP release to the Phase I Deadline; Phase I Deadline to the TAC Meeting; TAC Meeting; Post TAC to Notifications. This process then starts all over again for the next cycle. This document will also describe additional processing practices and generic duties that are performed by the SPG and SMO technical manager.

This document will also serve as a starting point for documenting the Peer Review process and tools that will be required for the James Webb Space Telescope (JWST). Appendix D will highlight the sections that are multi-mission applicable for the tools and process.

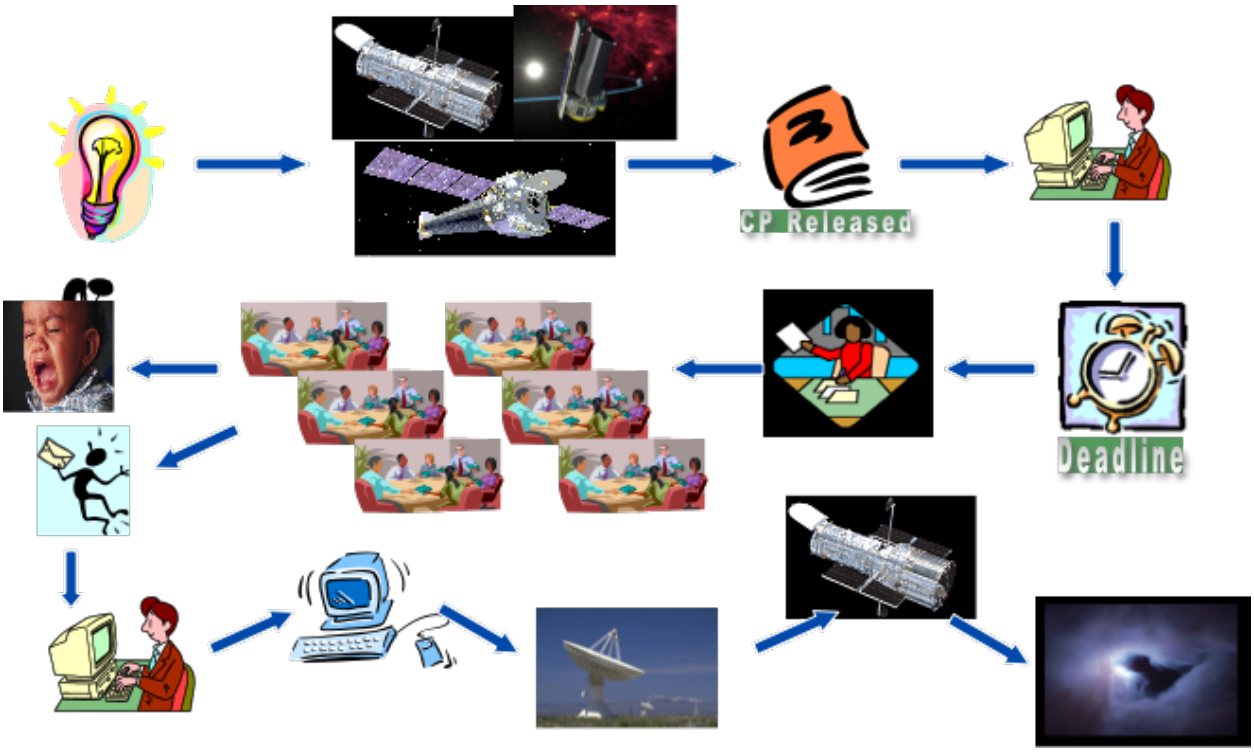



**Figure 1. HST Proposal Life Cycle**

## 2. Cycle Preparation

### 2.1 Schedule of Activities

In coordination with the SMO and the HST Mission Office (HSTMO) each cycle, the schedule of activities is determined based upon the current circumstances as well as our standard processing schedule for the peer review process. The nominal schedule along with the Cycle 25 dates are as follows:

| Task | Duration | Timeframe | Cycle 25 Dates |
|---|---|---|---|
| Documentation Preparations | 4-5 Months | Start until CP Release | September - January 13, 2017 |
| Proposal Writing | 3 Months | CP Release until Phase I Deadline | January 13 - April 7, 2017 |
| Proposal Processing | ~1 Month | Phase I Deadline until proposal distribution to panels | April 7 - April 30, 2017 |

| Task | Duration | Timeframe | Cycle 25 Dates |
|---|---|---|---|
| Panelist Review | ~1 Months | Proposal distribution until Panel Meetings | April 30 - June 11, 2017 |
| Panel/TAC Meetings | 1 week of 2 1/2 day for Panels + 2 1/2 days for TAC | Review Meetings | June 12 - 14, 2017 Panels<br>June 14 - 16, 2017 TAC |
| Compile Results | ~3 Week | End of TAC - Notifications | June 16 - June 30, 2017 |
| Adjudicate complaints and Load Phase II Information | As long as it takes | | July |

**Table 1. Overview of Peer-Review Schedule**

### *2.2 Software Requirements Definition*

We use the STScI Problem Report (PR) System to record and track hardware and software problems, and to monitor Problem Reports from initiation through closure. They system can be accessed from the following webpage:

https://www.ess.stsci.edu/prsystem/index.jsp?pr_type=PR.

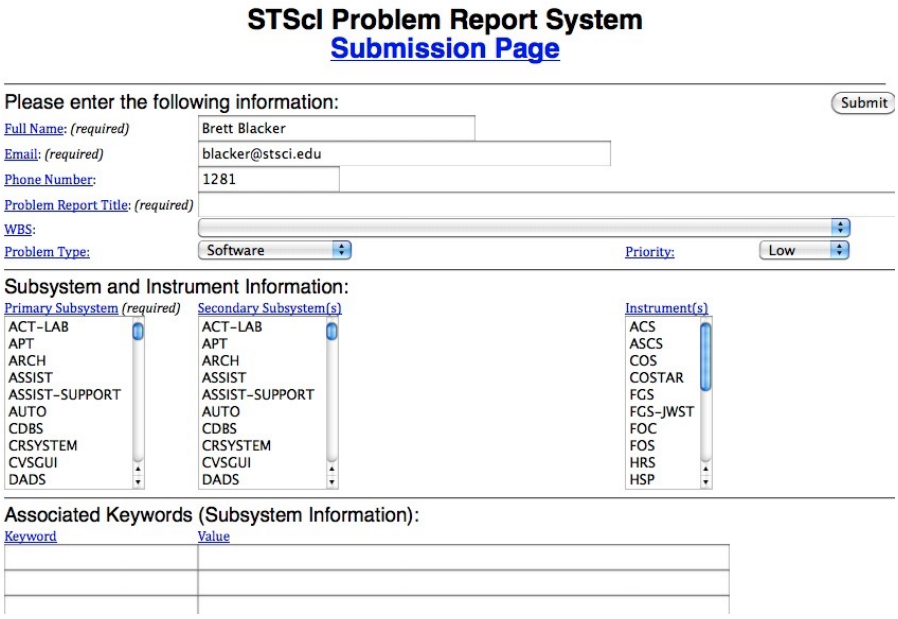



**Figure 2. PR System Page**

Some of the various systems that we normally provide input on are the Astronomer's Proposal Tool (APT) and Phase I toolset. APT is used to write, validate and submit proposals for the Hubble Space Telescope. (It will also be used eventually for James Webb Space Telescope proposals.) APT is an integrated toolset consisting of editors for filling out proposal information, an Orbit Planner for determining feasibility in Phase II, a Visit Planner for determining schedulability, diagnostic and reporting tools, a Bright Object Tool for performing bright object checks, and an integrated tool based on Aladin for viewing exposure specifications overlaid on FITS images and querying the HST Archive. The Proposal/Person Application (ProPer) is used to store and process all Address related information from the Grants Management System, the current repository for Proposer/Investigator information for HST. The Time Allocation Committee Panel Selection Application (TPS) is used to define and populate the yearly TAC and External Review Committees. The SPRINT Tool is used by the TAC members to enter their grades, comments and panel rankings. ProPer, SPRINT and TPS are maintained by the same group within OED, while APT is maintained by a different Group in OED. Requirements are reviewed and input is provided to the OED, development teams as required. In certain cases, requirements are discussed amongst the SMO and/or SPG teams to determine the desired results. The majority of the work for requirements is derived yearly from the annually updated Call for Proposals.

### *2.3 Software Maintenance and Testing Support*

In support of the various software development teams, some pieces of Phase I code are developed, maintained and tested by SPG staff since the development teams do not have the normal operational area's setup. The SMO Technical Manager supports the weekly APT users meetings, and monthly SPRINT and TPS meetings, for the discussion of Problem Reports priorities, issues and delivery schedules. Standard Programming techniques are followed when making updates.

### *2.4 Call for Proposal Update*

At about 4 months before the release of the Call for Proposals (CP) to the science community the process begins to update for the new cycle. Comments are solicited from within the STScI as well as a few external parties that provide changes to certain sections. Once comments have been received and edited into the document, it is then provided to Goddard Space Flight Center for their review and approval. This review is required to be about 30 days before the official release to the community. As changes are provided, anything that would require changes to software, such as APT, are then processed through the PR system as described in section 2.2 above.

Once the final version has been completed, the products are then converted to Portable Document Format (PDF) both for US and A4, the European format, for download, as well as HTML based for web access. The CP is then linked from the current cycle Announcement page. The Cycle 25 page can be found at:

http://www.stsci.edu/hst/proposing/docs/cycle25announce.

### *2.5 Website Maintenance*

All of our web pages are maintained in a configured Content Management System (CMS) called Zope. We have a three-phased approach to deploying our web pages. The first phase is undertaken on the development machine where changes to existing pages or new content pages are created. Access to this is by way of the http://www.stsci.edu:8072 interface with the /manage command on the end of your directory area.

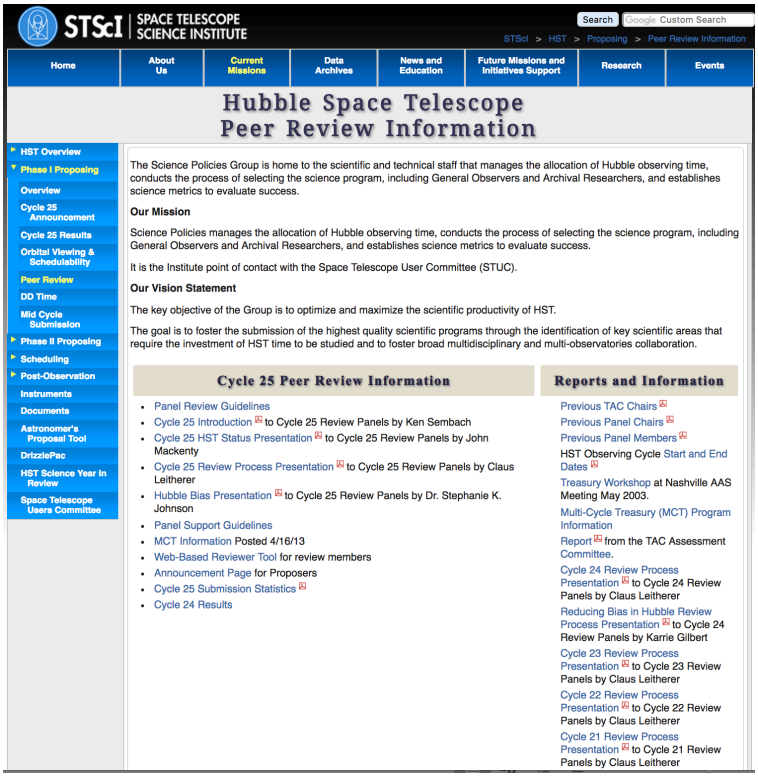



**Figure 3. Peer Review Site**

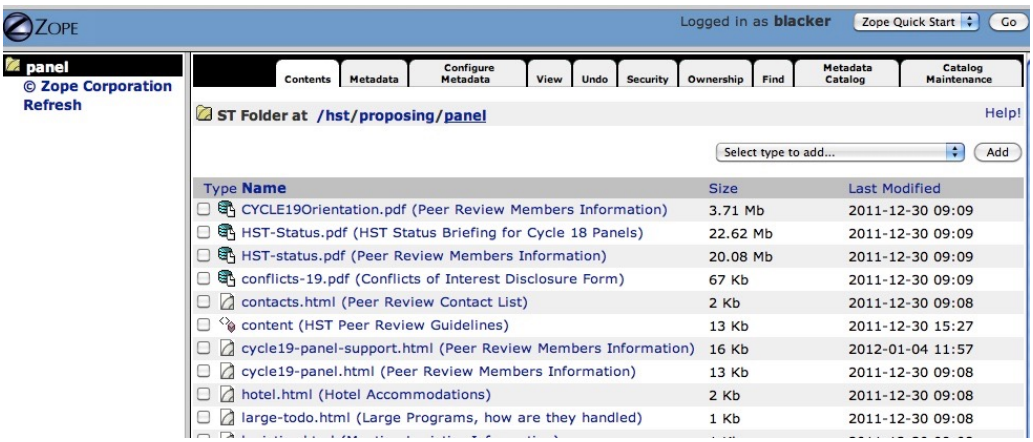



**Figure 4. Zope CMS directory**

Once changes have been made and the curator is happy, a request to move that page to the test system is made to ITSD via the web-updates@stsci.edu email address that utilizes the ServiceNow help desk system. The person assigned to the call then verifies and validates the page(s) and places them onto that system. They are then made available to a wider audience by way of the :8073 interface. Once everyone is happy with the content, they are then ported to the public or production machine, which is then accessed without the :8072 or :8073 mechanism. If content needs to be updated for an emergency basis or over the weekend, then changes can be made on :8074 and then will be propagated back to the develop and test machines respectively by the SMO Technical Manager.

### 2.6 Phase I Template updates

An HST Phase I Proposal consists of two parts: the completed APT form ("Coverpage" information) and the Scientific Justification. The justification is created from standard templates that we have created based on the required information desired by the TAC. We provide the templates in several different formats, but allow the proposers to use the word processing software of their choice. The templates are available to be downloaded in Microsoft Word, PDF and LaTeX formats. LaTeX is a high-quality typesetting system that includes features designed for the production of technical and scientific documentation.

We provide four different template formats for different proposal types, i.e. an Archival Research, an Observing, a Directories Discretionary (DD) time, and a Mid-Cycle Proposal (MC), template as each of these have different questions that are required to be filled in by the Proposers. These templates are stored and disseminated from the Zope web area. After the Call for Proposals has been drafted and approved for the new cycle, the phase I templates are updated to reflect any desired changes. The LaTeX templates and if necessary the "Style" file are changed and resulting output products are then placed on the announcement area in their appropriate location. After changes are made, these are verified by running the templates through the TeXshop software package to verify and produce the PDF output products.

Google is now our main source of help for updating the LaTeX templates and associated Style file as these were created over 20 years ago and our internal LaTeX knowledge is not very strong.

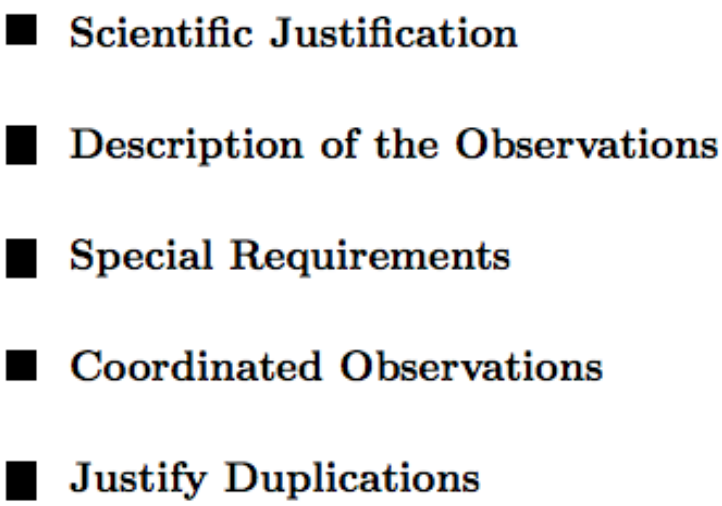



**Figure 5. Example Observing PDF Science Justification Template**

### *2.7 Panel Recruitment*

Each cycle a new TAC is selected from the science community at large. The process begins about 6-8 months prior to the review, by the selection of the TAC Chair, who has overall authority for the review panels and for running the actual TAC meeting. The TAC is currently organized into 15 sub-discipline panels and the Super-TAC panel, which consists of the TAC Chair, several at-large members and the chairs from the individual panels. Our current structure for the panels is seven extra-galactic, five galactic, two exoplanetary and one solar system panel. The 15 sub-discipline panels handle the small and medium GO (< 75 orbits), snapshot and regular archival research (AR) and Theory proposals. The TAC panel handles the large, treasury, AR legacy and any cross panel issues. The committee is usually made up of ~150 members.

Upon selection of the TAC chair, then the individual panel chairs and at-large members are selected. Once that process has been completed the regular panel members are then selected. The selection process is done by having the SMO/SPG staff put forth lists of names to attempt to recruit. A master list is maintained in our ProPer system of all members who have served in any role on the TAC from Cycle 1 to the present cycle. A combination of phone calls and emails is used for the recruiting process. The selection is done to handle diversity issues such as gender, age, Funding Agency (European Space Agency (ESA) or Canadian Space Agency (CSA) or NASA member), geographic location (east versus west coasts), large versus small institutions, theorists and desired expertise to fill in any gaps that might exist. The result of this process is to maintain a master list of recruited panel members and their information. The TPS application is now used to handle the recruiting process. Full help documentation for the application is maintained at: https://confluence.stsci.edu/display/WASAPSB/TPS+User+Help. Here we present a simple example workflow set of instructions.

### 2.7.1 **How to log into TPS**

The url for the software is: https://tps.stsci.edu. You will Log in with your email address and Active Directory (AD) Single Sign-on (SSO) password. Currently the system uses the STScI LaunchPad/ MyST portal developed for ProPer and Grants.

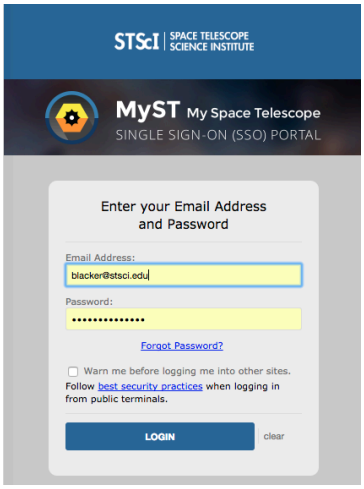



**Figure 6. TPS MyST/Launchpad Portal I/F**

### 2.7.2 **Create Meeting for the first time**

Once you are in any given meeting, you open the Meeting Details tool by clicking on the Meeting Details area. Then to create a new meeting, you select "New Meeting" and fill in the required fields and hit the Create Button. This will populate the Meeting in TPS and allow panel recruitment to begin.

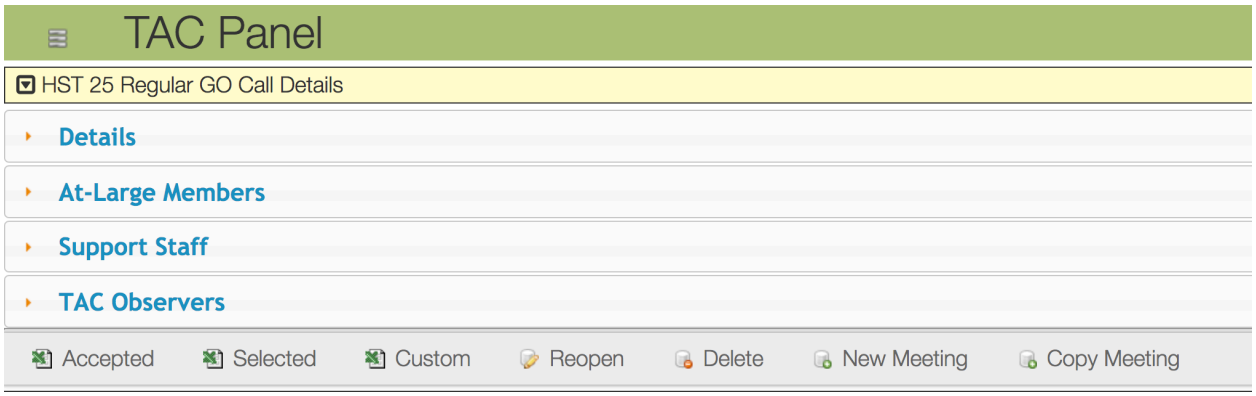



**Figure 7. TPS Meeting Details Tools**

### 2.7.3 **Locating the Cycle 24 meeting workspace**

If you land on the below page, click on "Regular GO Call" for Cycle 24 (second item from bottom).

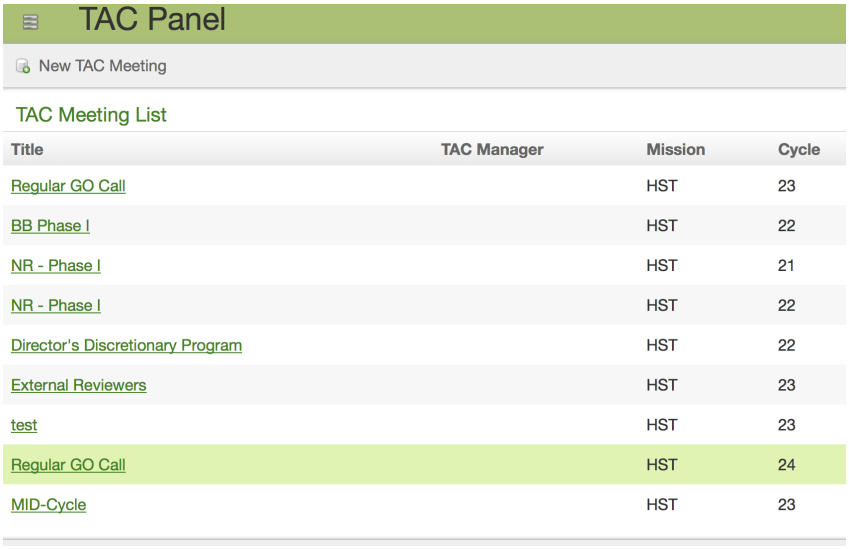



**Figure 8. TPS List of Meetings**

If you land on some other screen, click on the icon with the three lines at the top left corner, and you'll see this:

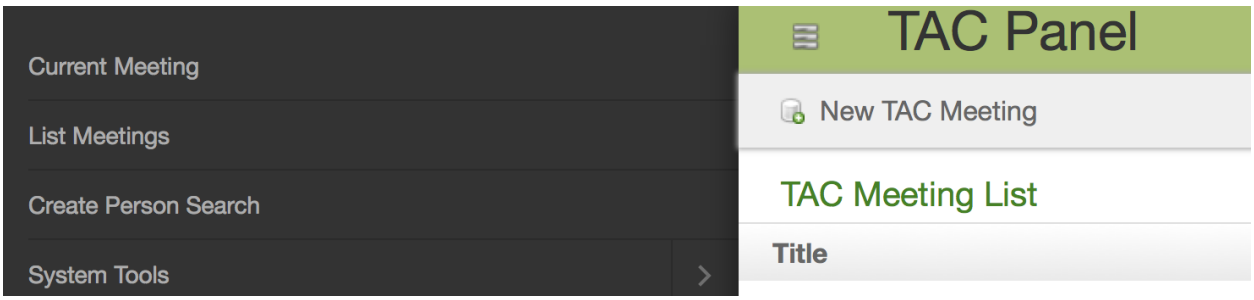
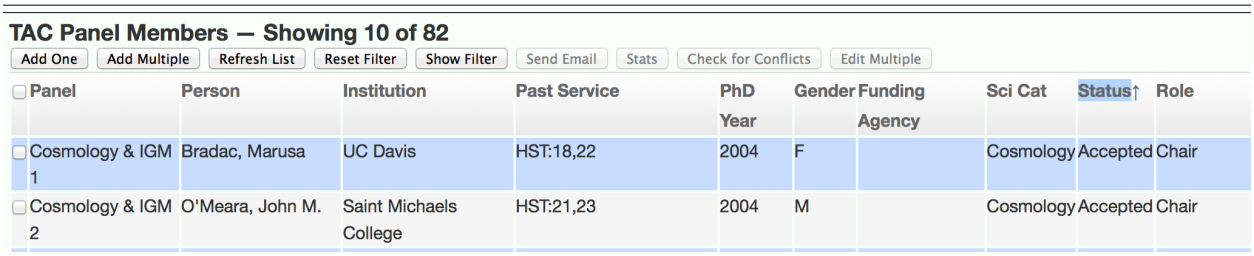



**Figure 9. TPS Home Screen Selection Pane**

Then you can go to "List Meetings" and find the screen shown in Figure 7.

### 2.7.4 **Adding a person to your panels**

Select the panels that you wish to work on by checking the boxes in the top table. The top table lists all of the panels, their chairs, and their SMO managers.



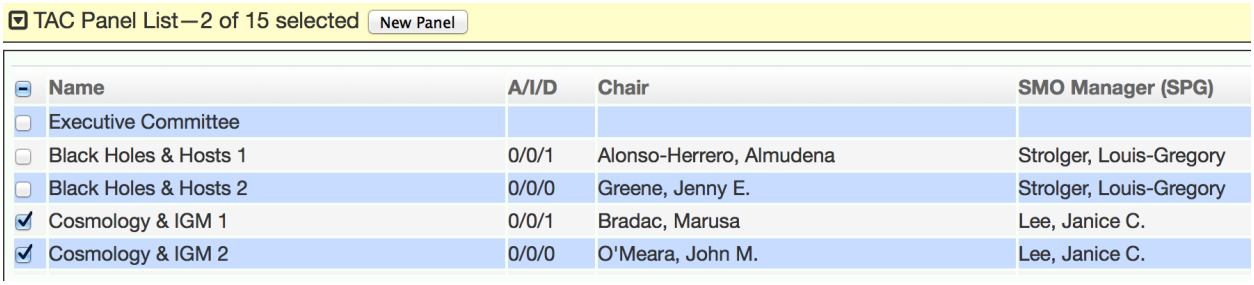
TAC Panel Members — Showing 10 of 82

Add One | Add Multiple | Refresh List | Reset Filter | Show Filter | Send Email | Stats | Check for Conflicts | Edit Multiple

| Panel | Person | Institution | Past Service | PhD Year | Gender | Funding Agency | Sci Cat | Status↑ | Role |
|---|---|---|---|---|---|---|---|---|---|
| Cosmology & IGM 1 | Bradac, Marusa | UC Davis | HST:18,22 | 2004 | F | | Cosmology | Accepted | Chair |
| Cosmology & IGM 2 | O'Meara, John M. | Saint Michaels College | HST:21,23 | 2004 | M | | Cosmology | Accepted | Chair |

**Figure 10. TPS Panel Selection**

The current membership of the selected panels will then appear in the bottom table.



TAC Panel List—2 of 15 selected | New Panel

| Name | A/I/D | Chair | SMO Manager (SPG) |
|---|---|---|---|
| Executive Committee | | | |
| Black Holes & Hosts 1 | 0/0/1 | Alonso-Herrero, Almudena | Strolger, Louis-Gregory |
| Black Holes & Hosts 2 | 0/0/0 | Greene, Jenny E. | Strolger, Louis-Gregory |
| Cosmology & IGM 1 | 0/0/1 | Bradac, Marusa | Lee, Janice C. |
| Cosmology & IGM 2 | 0/0/0 | O'Meara, John M. | Lee, Janice C. |

**Figure 11. TPS Panel Selection continued**

To add candidate panelists, click on the "add one" button in the bottom table. A pop-up will appear (screenshot below). The "person" field will auto-complete based on matches in our database. Select the correct name and then fill out the remaining fields. At this point, the status should be "proposed" since we will review all of the candidates at our SPG Panel Selection/Discussion meeting. The "Sci Cat" is a free-form field where you can enter notes on the sub-specialty expertise of the panelist. After saving, the proposed panelist will appear in the bottom table if his/her panel has been selected.

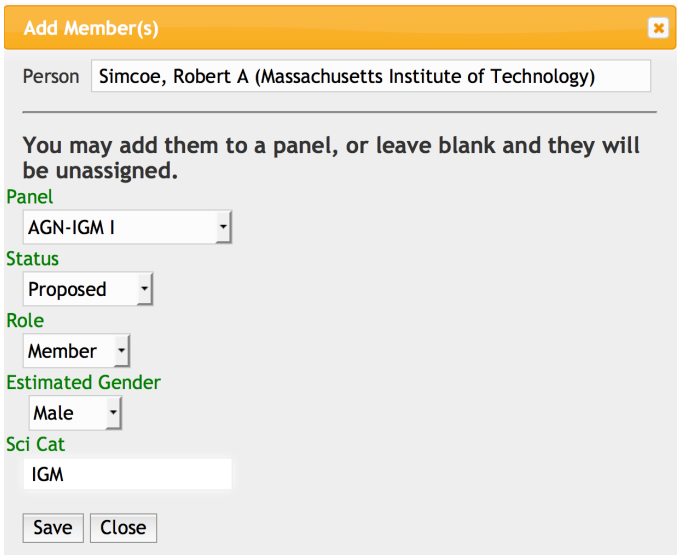



**Figure 12. TPS Panel Member Selection**

Please enter ~20 candidates per panel, either using the "add one" button, or the "add multiple" button (which adds names from the database based on search criteria that is described below).

2.7.4 **Updating a person's record/When a person does not exist in the database**

All of the name-associated fields in the software will auto-complete based on matches in the database. There are four common reasons for updating our database records.

2.7.4.1 There are multiple instances of the person (e.g., registered at different institutions). In this case, a Problem Report (PR) is file against Proper-Support to merge the records.

2.7.4.2 The person's affiliation needs to be updated. In this case, after adding the person, click on his/her row in the bottom table, and then in the pop-up that appears, click on his/her name or email address:

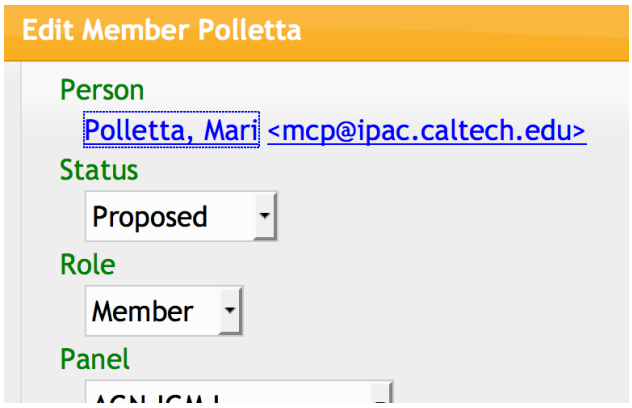



**Figure 13. Editing Panel Member information**

His/her profile will appear in a new window, and you can then update the information. The updated affiliation will appear in the bottom table after the page is refreshed.

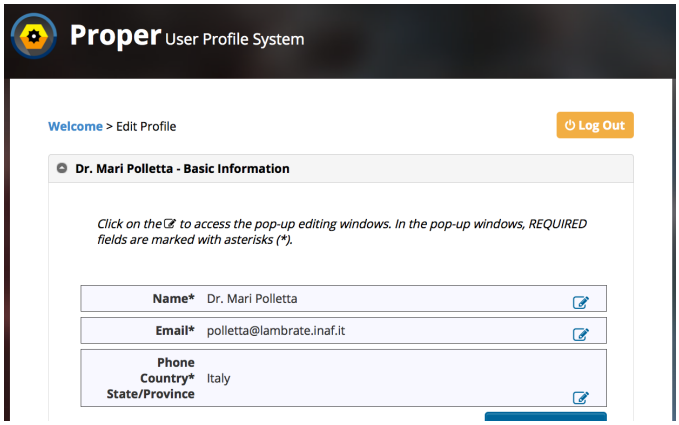



**Figure 14. ProPer Profile Information**

2.7.4.3 The person is not in our database. In this case, go to: https://proper.stsci.edu/proper/profile/index, click on "create new profile" and add the person to our database. After entering the information and clicking on "create profile" the person then can be added to your panel.

2.7.4.4 You wish to add/edit the person's PhD year/institution or other information. In this case, as in (2) above, click on his/her row in the table in Figure 14, and then in the pop-up that appears, click on his/her name.

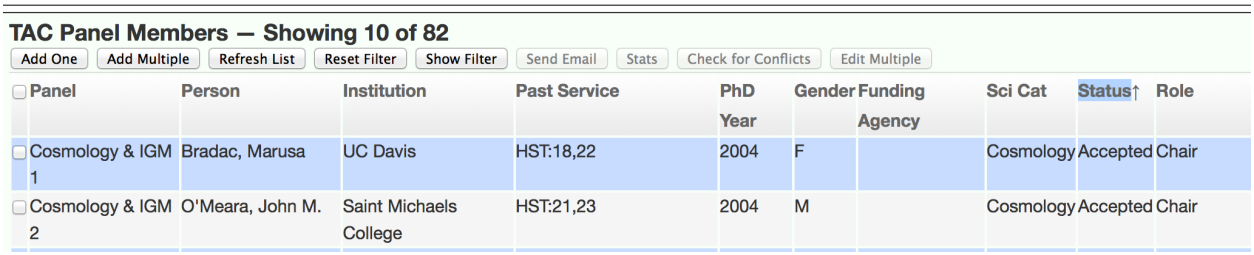



**Figure 15. TPS List of Panel Members**

His/her profile will appear in a new window, and you can then edit the education tab as shown on the next page:

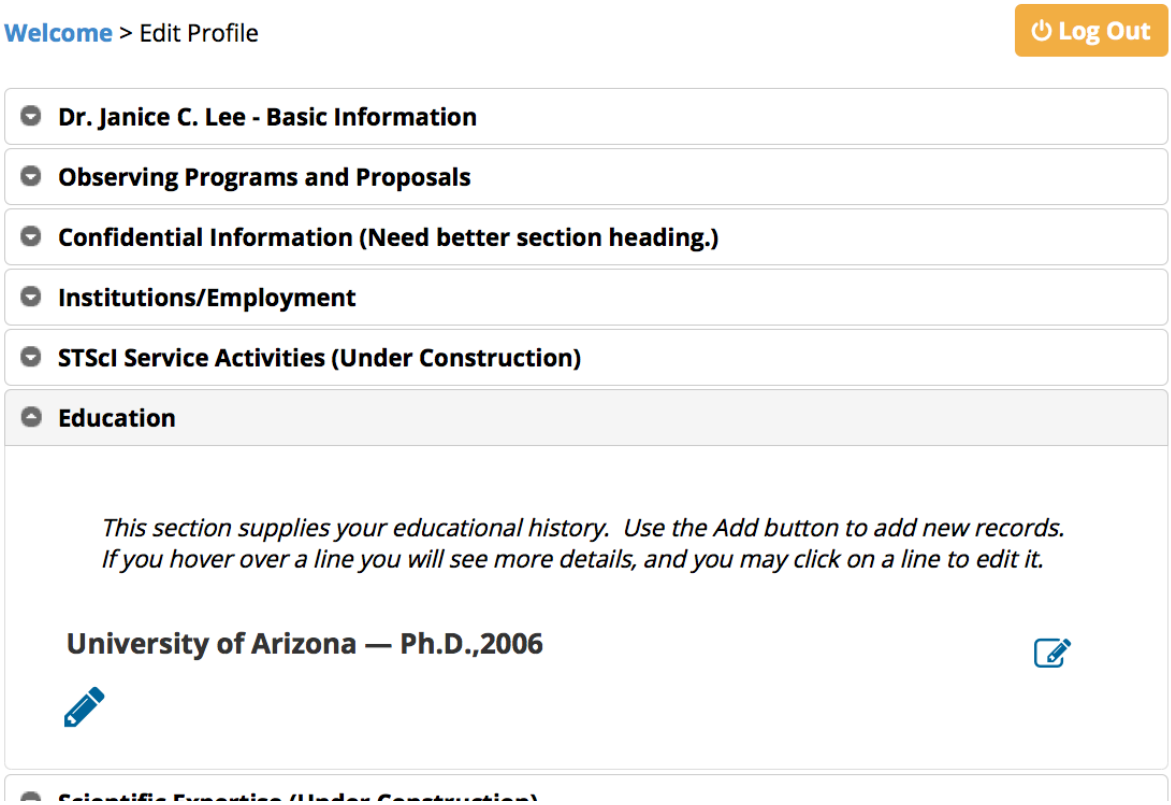



**Figure 16. ProPer Profile Information for TAC Members**

### 2.7.5 **Adding one or more candidates to panels using simple database searches**

1) Click on the "add multiple button" shown in Figure 14, where the members of your panels are displayed which will give you a list of searches. We have several types of searches at the moment. The options will be better organized in the next version of TPS.
2) Examine the drop-down menu to locate the pre-defined searches that are of interest to you.

- **Past HST reviewers** grouped by the panels on which they served (e.g., "cos: past reviewers"). Panel names have changed over time, so if you have questions about what the designations mean, please ask. There are also lists of the folks just from the last cycle, if you'd like to use that as a starting point.
- **Past HST program PIs** grouped by the science category (e.g., cosmology: past program PIs).
- **Hubble Fellows**
- **Canadians**
- **ESA Pre-approved** by Antonella. Remember that if you'd like to add panelist from an ESA country who is not on this list, we MUST get approval from Antonella.

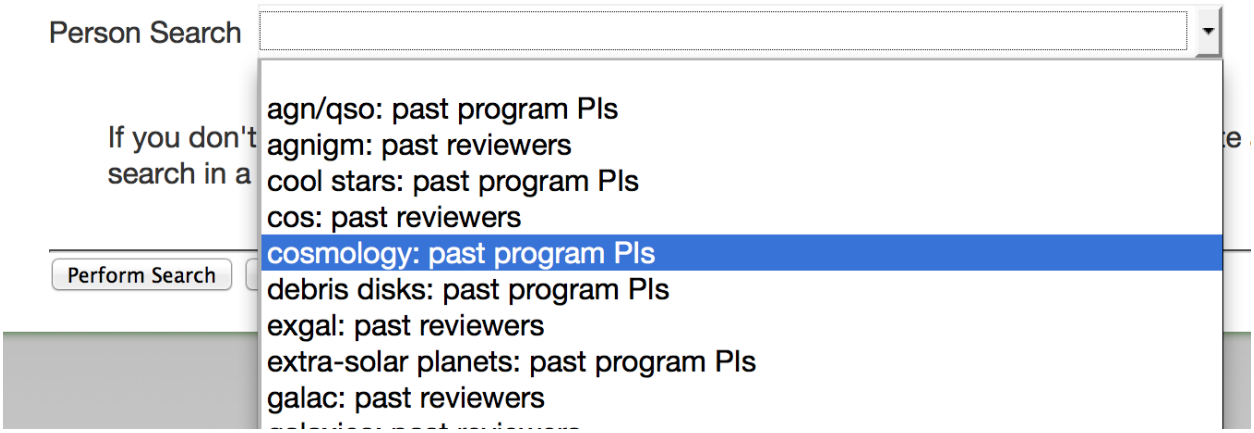
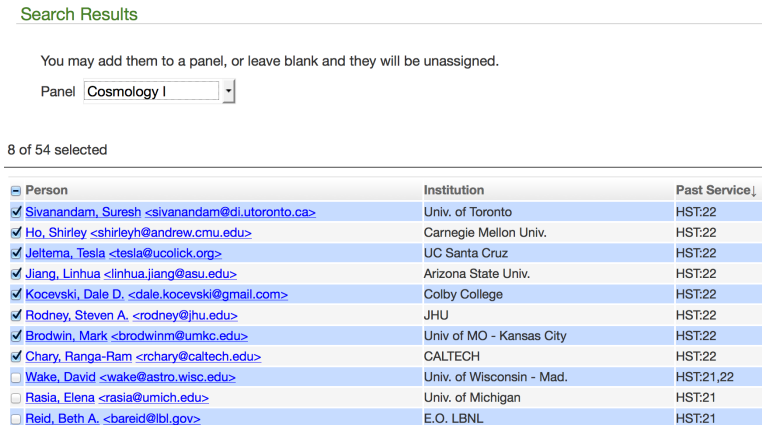



**Figure 17. Partial listing of Canned Searches**

3) Select the search of interest and click on "Perform Search." A list should then appear. Note that all columns are sortable by clicking on the column heading (especially useful if you would like to find people who have not served before, or have not served in a long time). Then, select the panel that you are working on using the drop down menu at the top of the page.




| Person | Institution | Past Service↓ |
|---|---|---|
| Sivanandam, Suresh <sivanandam@di.utoronto.ca> | Univ. of Toronto | HST:22 |
| Ho, Shirley <shirleyh@andrew.cmu.edu> | Carnegie Mellon Univ. | HST:22 |
| Jeltema, Tesla <tesla@ucolick.org> | UC Santa Cruz | HST:22 |
| Jiang, Linhua <linhua.jiang@asu.edu> | Arizona State Univ. | HST:22 |
| Kocevski, Dale D. <dale.kocevski@gmail.com> | Colby College | HST:22 |
| Rodney, Steven A. <rodney@jhu.edu> | JHU | HST:22 |
| Brodwin, Mark <brodwinm@umkc.edu> | Univ of MO - Kansas City | HST:22 |
| Chary, Ranga-Ram <rchary@caltech.edu> | CALTECH | HST:22 |
| Wake, David <wake@astro.wisc.edu> | Univ. of Wisconsin - Mad. | HST:21,22 |
| Rasia, Elena <rasia@umich.edu> | Univ. of Michigan | HST:21 |
| Reid, Beth A. <bareid@lbl.gov> | E.O. LBNL | HST:21 |

**Figure 18. Search Results**

4) Select the people you'd like to add as proposed candidates, by using the checkboxes along the left-most column, and clicking on "add selected" at the bottom of the window:

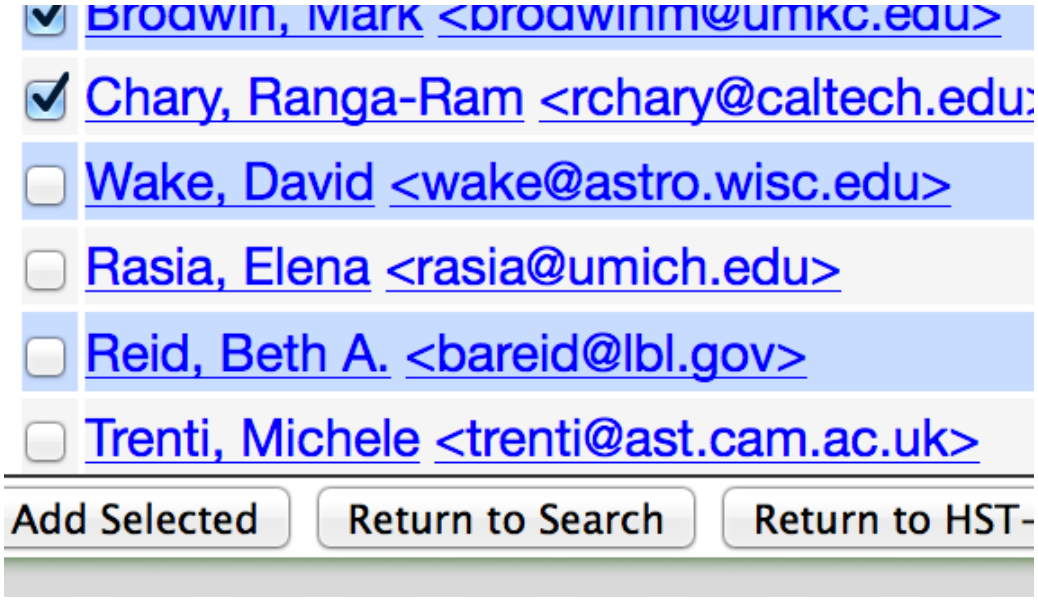



**Figure 19. Adding Members to Panel from Search**

You are then returned to the table, where the panel membership is displayed. The selected candidates have been added to the table. Columns can be sorted in this table as well, by clicking on the column heading.

### 2.7.6 **Demographics of the panels**

If you want a quick overview of the demographics of your panelists, select all of them, using the checkbox feature in the leftmost column, and then hit the "stats" button as seen in Figure 14 which is now enabled. A pop-up window will then appear which gives the geographic, age, and gender diversity of your panels. This function can be applied to any subset of review panelists.

**Region**

| Group | Count | Percent |
|---|---|---|
| Europe | 6 | 18.18 |
| USA - Midwest, East North Central | 3 | 9.09 |
| North America | 1 | 3.03 |
| USA - Northeast, Middle Atlantic | 4 | 12.12 |
| USA - Pacific Mountain | 3 | 9.09 |
| USA - Midwest, West South Central | 2 | 6.06 |
| USA - Northeast, South Atlantic | 3 | 9.09 |
| USA - Pacific West | 8 | 24.24 |
| USA - Northeast, New England | 3 | 9.09 |

**PhD Decade**

| Group | Count | Percent |
|---|---|---|
| 1990 | 5 | 15.15 |
| 1980 | 2 | 6.06 |
| 2000 | 20 | 60.61 |
| Unspecified | 1 | 3.03 |
| 2010 | 5 | 15.15 |

**Figure 20. Panel Demographics**

### 2.7.7 **Accepting the Panel**

Once all of the panel members have accepted and their status has been properly reflected in TPS, those members are then finalized amongst their mirror panels. The SMO manager then marks TPS with the Population Complete flag, which sets up that they are valid TAC members in ProPer and allows for further processing. This is done by clicking on the TAC Details as seen in Figure 20 below.

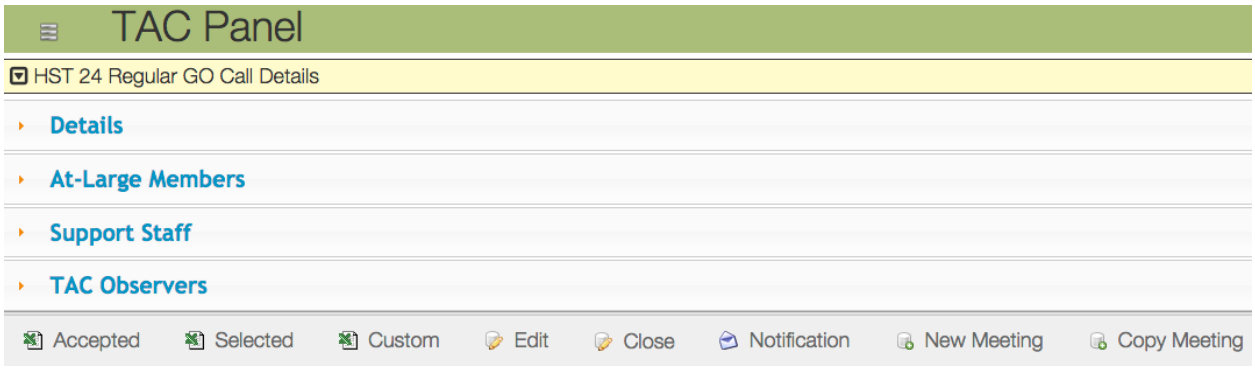



**Figure 21. TAC Panel Details**

Clicking on the Edit button brings up the meeting details where the Population Complete button resides. Check the box and then Update the settings as seen in Figure 21.

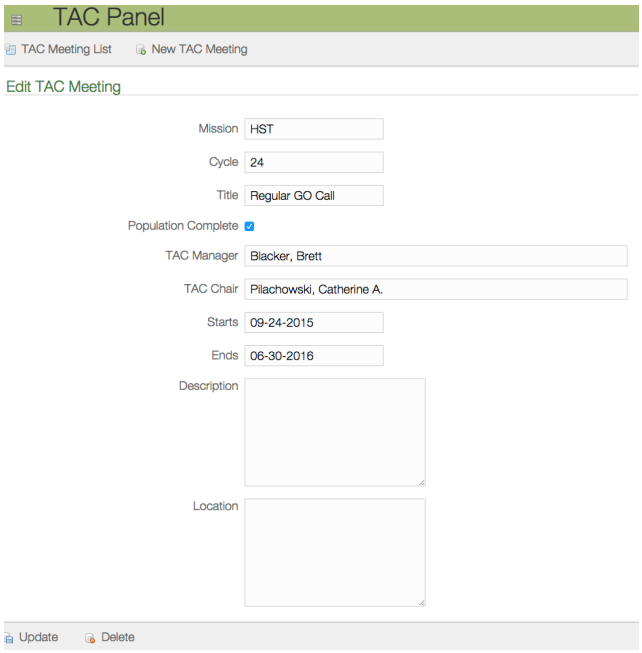



**Figure 22. Population Complete**

That step in the process also sets up the database fields in ProPer, which are required for further downstream processing. This also allows for any and all of the accepted panel members to

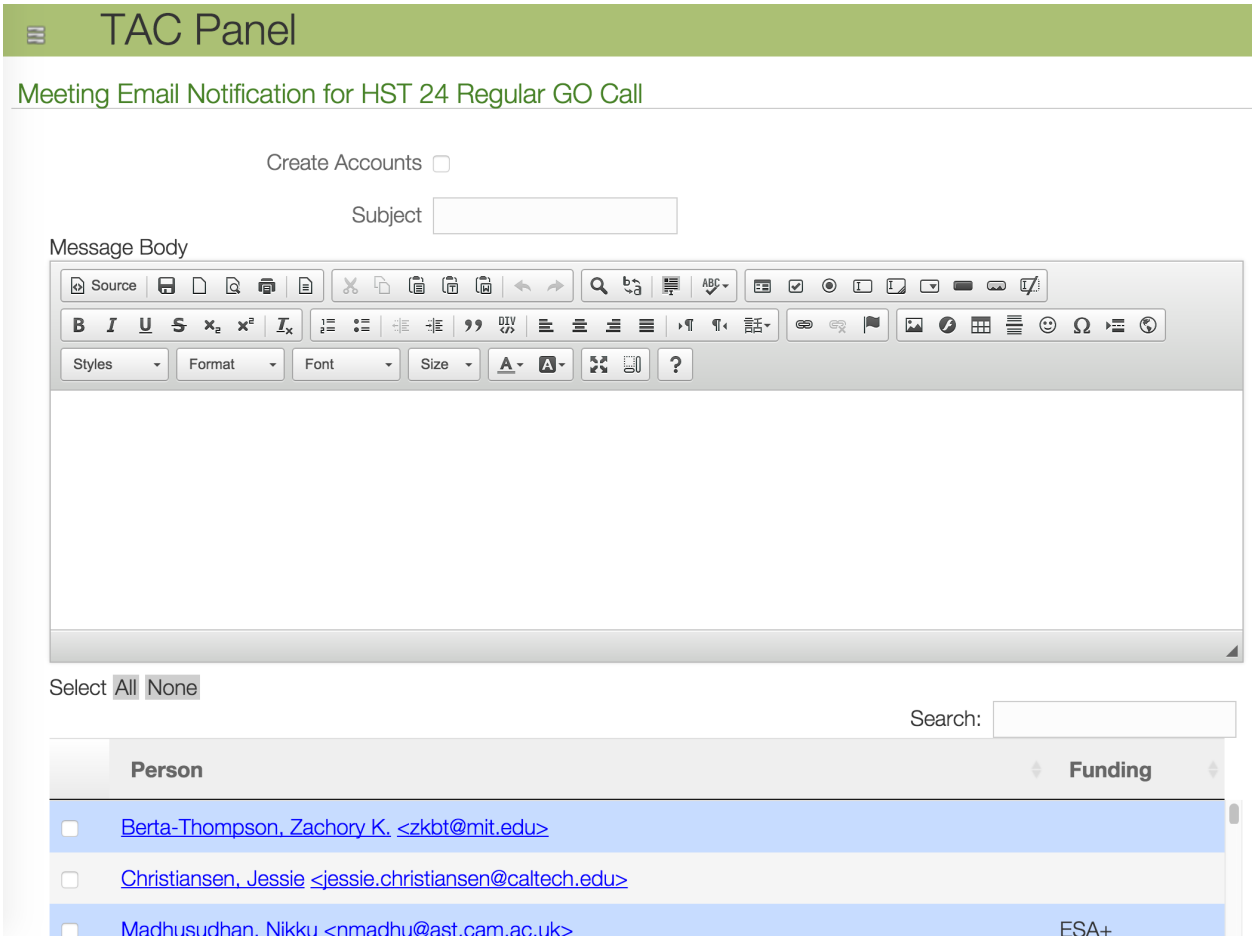
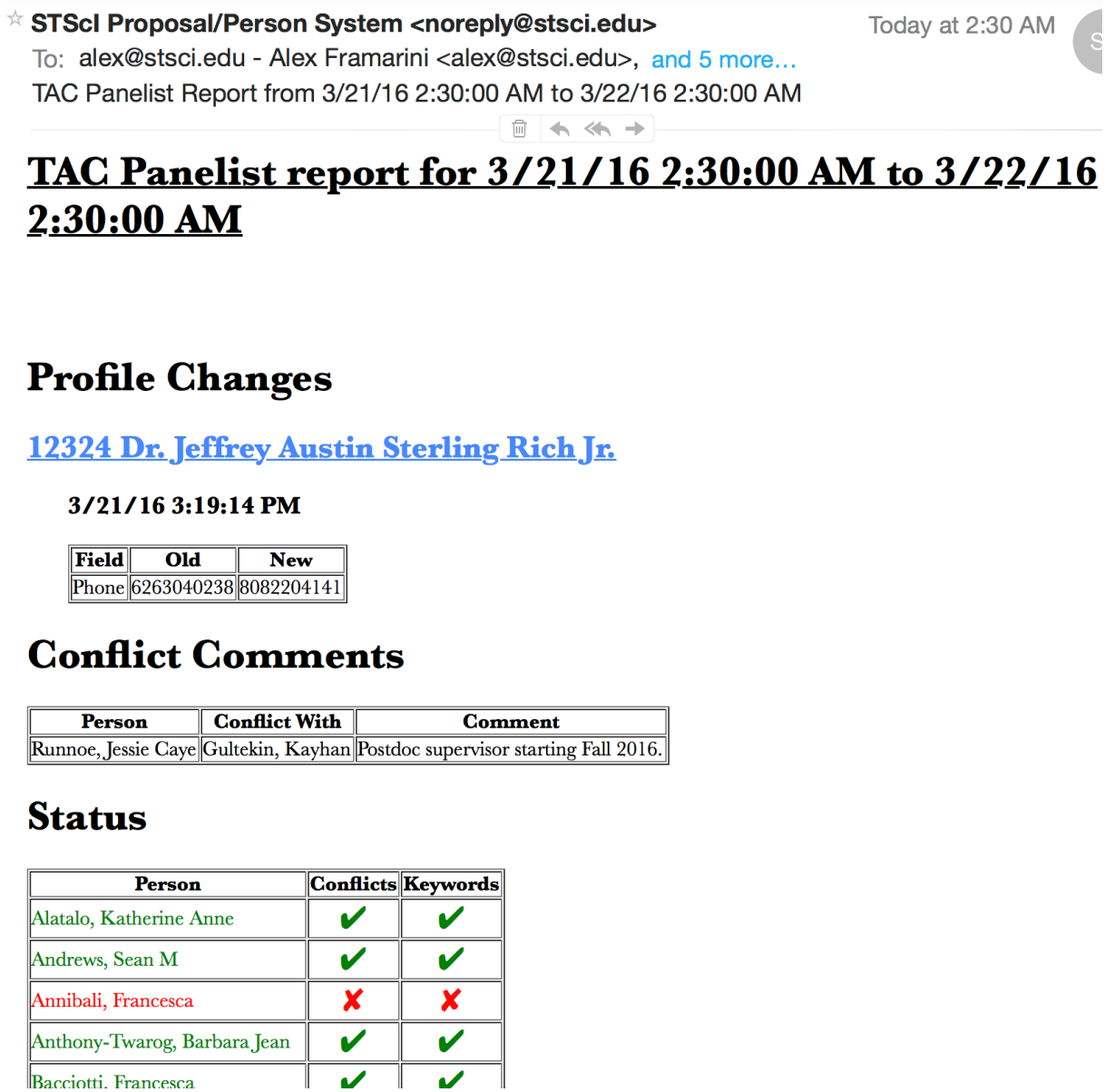



**Figure 23. Notification Pane**

be notified via the tool for any panel related communications that we wish to send via the Notification button as seen in Figure 21. Emails can be sent to individual members, selected members or the entire membership. The initial email sent after acceptance is to request the members to specify their conflicts of interest and their scientific expertise to be used during the Proposal to Panel to Reviewer assignment process. This request is nominally sent out about 4-6 weeks before the Phase I Deadline.

The status of request for Conflicts of Interest and Scientific Expertise is handled by a nightly script that queries the ProPer database and reports via email, who has submitted what information so that everything that is required to run the Review Assignment software is in place prior to the Phase I deadline. An example snapshot report is shown in Figure 24.



STScI Proposal/Person System <noreply@stsci.edu> Today at 2:30 AM
To: alex@stsci.edu - Alex Framarini <alex@stsci.edu>, and 5 more…
TAC Panelist Report from 3/21/16 2:30:00 AM to 3/22/16 2:30:00 AM

# TAC Panelist report for 3/21/16 2:30:00 AM to 3/22/16 2:30:00 AM

## Profile Changes

### 12324 Dr. Jeffrey Austin Sterling Rich Jr.

**3/21/16 3:19:14 PM**

| Field | Old | New |
|---|---|---|
| Phone | 6263040238 | 8082204141 |

## Conflict Comments

| Person | Conflict With | Comment |
|---|---|---|
| Runnoe, Jessie Caye | Gultekin, Kayhan | Postdoc supervisor starting Fall 2016. |

## Status

| Person | Conflicts | Keywords |
|---|---|---|
| Alatalo, Katherine Anne | ✔ | ✔ |
| Andrews, Sean M | ✔ | ✔ |
| Annibali, Francesca | ✘ | ✘ |
| Anthony-Twarog, Barbara Jean | ✔ | ✔ |
| Bacciotti, Francesca | ✔ | ✔ |

**Figure 24. TAC Panelist Nightly Report**

### *2.8 Panel Support Recruitment*

Once the new panels are in place or about 2 months before the Phase I deadline, we start the process of recruiting for staff to support each panel. The participation of the Institute's staff in the TAC process has always been an important part of our oversight duties. The support member is used to assist in the organizational work before the meetings, then during the actual meetings to monitor the submission of comments and grades, and to run the SPRINT tool for the ranking phase of the review. They also help provide scientific and technical information when requested

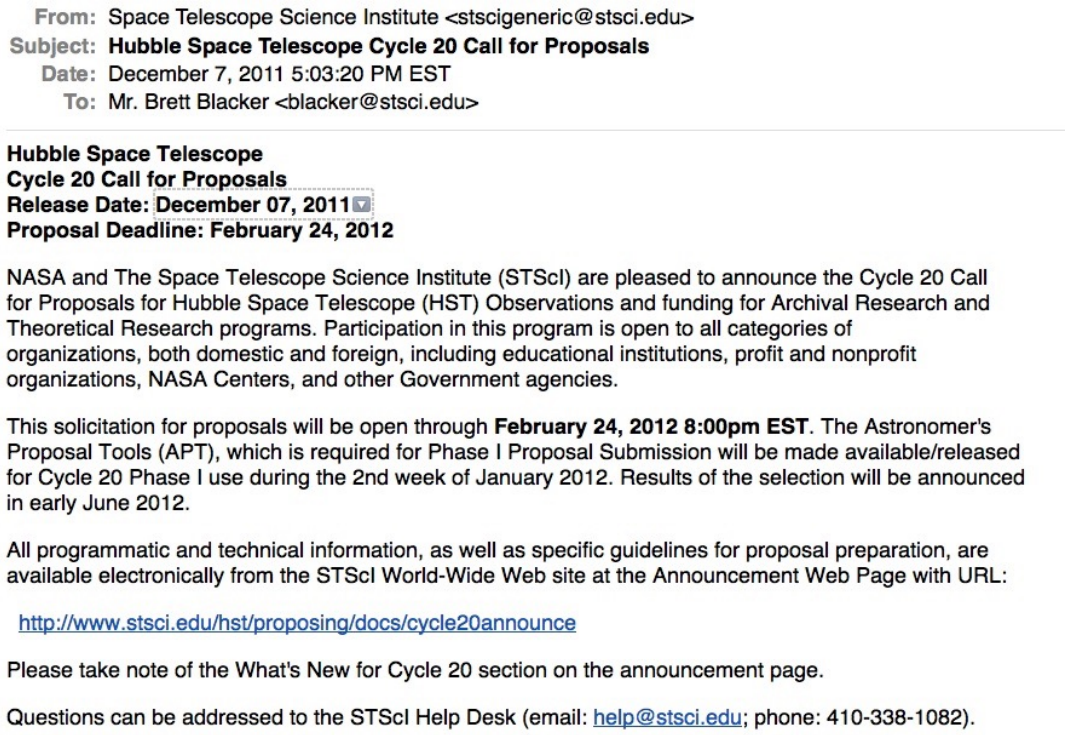
by a TAC member to investigate an issue. They are present in each panel meeting during the 2 1/2 day meeting. We recruit 15 staff members to provide the Panel Support, we mostly get Program Coordinators, Data Analysts, Scientists or Post-Docs, however anyone is eligible to serve. This recruitment process is handled by email and the results are maintained in an Excel spreadsheet, which is also provided to our logistical staff for contact information as required.

### *2.9 Panel Communications*

Most required communication(s) to all of the TAC is normally sent through one person to maintain the proper flow of information. We now use hubblereview@stsci.edu for this process. This is in addition to utilizing the TPS email notification process. Once SPRINT is open for use by the review members, the notification process is handled via SPRINT to communicate with the members, either by panel or the entire meeting body.

## 3. CP Release to Phase I Deadline

Upon approval of the CP by NASA, we then make the documents available to the science community.



From: Space Telescope Science Institute <stscigeneric@stsci.edu>
Subject: **Hubble Space Telescope Cycle 20 Call for Proposals**
Date: December 7, 2011 5:03:20 PM EST
To: Mr. Brett Blacker <blacker@stsci.edu>

**Hubble Space Telescope**
**Cycle 20 Call for Proposals**
**Release Date: December 07, 2011**
**Proposal Deadline: February 24, 2012**

NASA and The Space Telescope Science Institute (STScI) are pleased to announce the Cycle 20 Call for Proposals for Hubble Space Telescope (HST) Observations and funding for Archival Research and Theoretical Research programs. Participation in this program is open to all categories of organizations, both domestic and foreign, including educational institutions, profit and nonprofit organizations, NASA Centers, and other Government agencies.

This solicitation for proposals will be open through **February 24, 2012 8:00pm EST**. The Astronomer's Proposal Tools (APT), which is required for Phase I Proposal Submission will be made available/released for Cycle 20 Phase I use during the 2nd week of January 2012. Results of the selection will be announced in early June 2012.

All programmatic and technical information, as well as specific guidelines for proposal preparation, are available electronically from the STScI World-Wide Web site at the Announcement Web Page with URL:

http://www.stsci.edu/hst/proposing/docs/cycle20announce

Please take note of the What's New for Cycle 20 section on the announcement page.

Questions can be addressed to the STScI Help Desk (email: help@stsci.edu; phone: 410-338-1082).

**Figure 25. Example Release notice to community**

### *3.1 CP Release to Community*

We do this using several different mechanisms. Our Announcement of Opportunity is published on our webpage at:

http://www.stsci.edu/hst/proposing/docs/cycle25announce.

On this page we summarize the release notice that is sent out to the community, we list the Deadlines, any last minute "late-breaking" news items, a summary of what is new and different for the cycle and provide links to our release documentation, help pages and software. This page is kept up to date throughout the time from the release of the CP until the Phase I deadline using the process described above in section 2.5

We send out our release notice to the community through the use of the ProPer burst-email function. Normally, we send to all proposers and investigators for all announcements from the GMS based address information stored in ProPer.

An example Release notice is shown in Figure 25. We also send this notice to the American Astronomical Society (AAS) and request that they disseminate it by way of their electronic newsletter. We also request NASA Headquarters to disseminate it by way of their electronic solicitation notices.

### *3.2 Coordination with ITSD*

Every cycle we need to coordinate our phase I activities with the Information Technology Services Division (ITSD). We want to make sure that around the Phase I deadline that the systems are up 24/7 with no planned downtime and/or software/systems being upgraded that might cause issues. We also request ITSD to monitor our systems during this timeframe to help prevent any loading or network problems from occurring. ITSD provides us with a 24/7 contact during the deadline day and weekend to handle any issues that arise. A meeting is set up with the ITSD contact nominally about 4-6 weeks prior to the Phase I deadline to review the requirements of the deadline and subsequent review period. At this meeting, we will provide the rooms that we will be utilizing during the review and request for ITSD to begin the contact with the JHU personal.

### *3.3 Help Desk Support*

The STScI utilizes a general help desk system to answer questions from our community. SMO handles all of the Phase I related help desk calls pertaining to the Call for Proposals, policies and procedures for a given cycle.

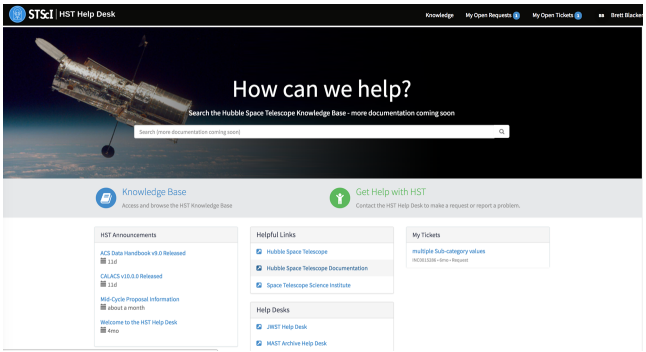



**Figure 26. STARs HST Portal**

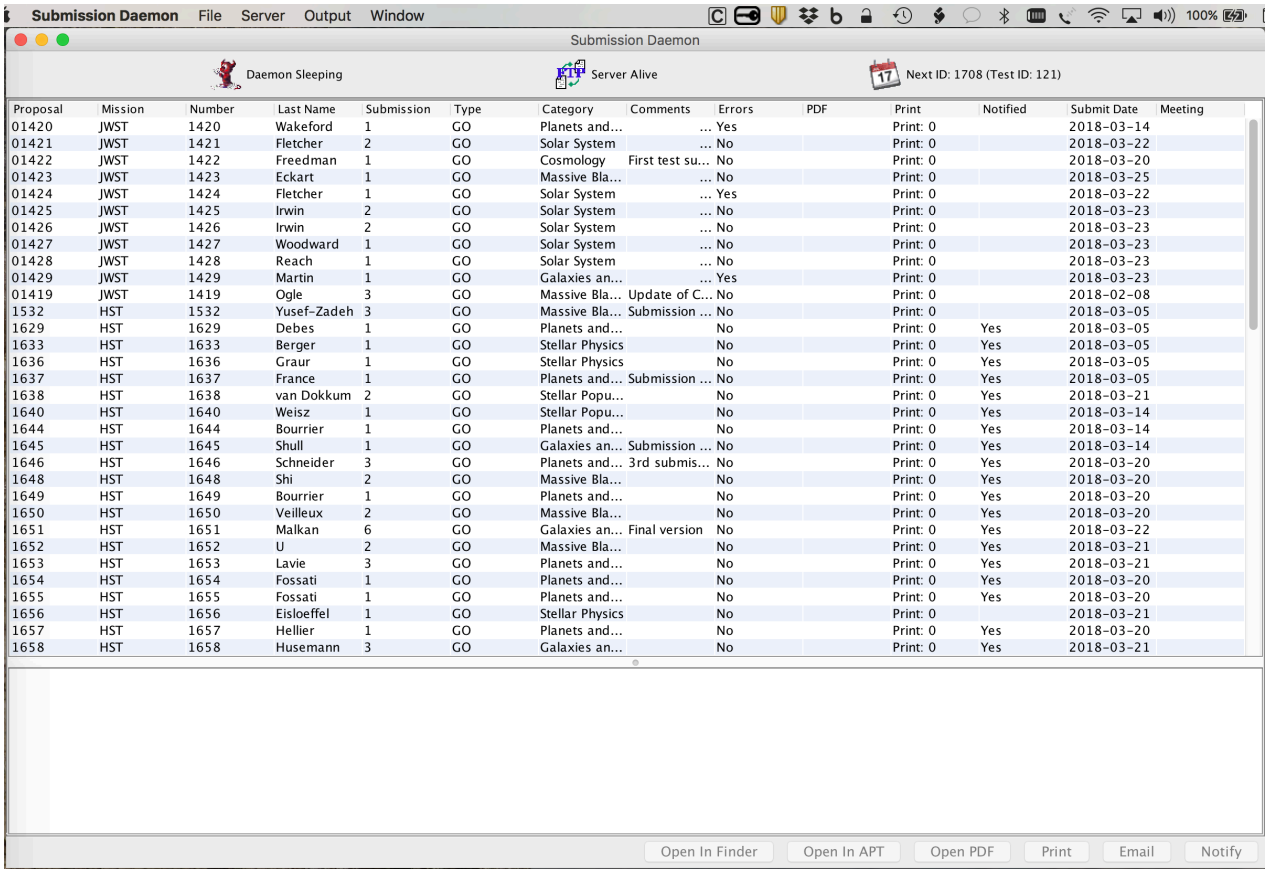
Users can submit help desk calls via email to help@stsci.edu or they can go to hsthelp.stsci.edu and utilize the STARs Portal. The Help desk is based on the ServiceNow platform that supports custom workflows and submission forms to directly send the requester right to the proper team for quicker processing. The system has a modern backend with user-friendly tracking and search capabilities. Access to the help desk is made by way of http://hsthelp.stsci.edu/ and then logging in using your Active Directory (AD) credentials. External users must also log in utilizing their MyST account profile. See Figure 26 for a view of the HST help portal. There is also a direct dial telephone number to call, 410-338-1082 that voicemail can be left on as the number isn't answered directly. To check the voicemail box, follow the following steps:

1) Dial 1234 (410-338-1234) to get to voice mail, or press the envelope key on your Cisco phone.
2) Dial * (to access another mail box)
3) Dial 4415# (the actual extension for the help voice mail box)
4) Dial 3510# (the password for this line)
5) Listen to see if there are any new messages

### *3.4 Monitor Phase I Submissions*

To handle the ingestion of the Phase I proposals we use a Java-based tool called the Phase I Submission Daemon. It was developed to run locally on a Macintosh system, and is currently deployed on the laptop of the SMO Technical Manager. To run the software, the local machine needs to be on the STScI internal network or connected via the STScI Virtual Private Network (VPN). The Daemon runs continually monitoring the secure server, elmer.stsci.edu, for new Phase I submissions at whatever chosen time interval is desired. These submissions are a result of a proposer using APT and submitting that proposal to us to process. Upon submission by the proposer, a Phase I Proposal ID is automatically generated from an ID server running on elmer. This ID server keeps track of operational as well as test proposals and Director's Discretionary (DD) proposals for all missions that are supported, currently HST and JWST.

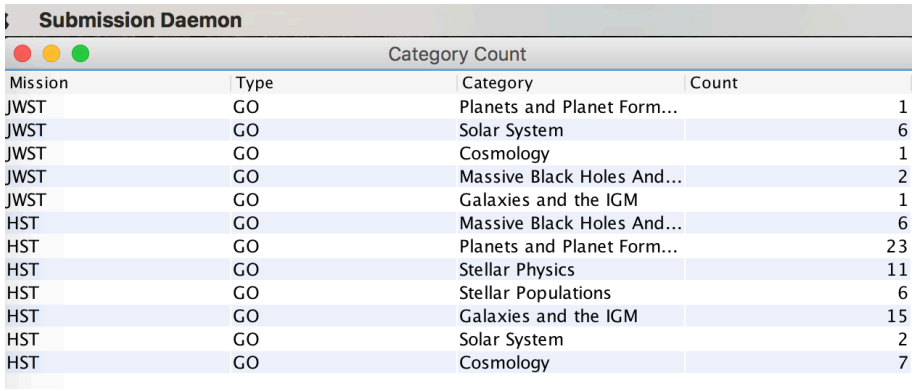
Upon an ID being provided back to the user by way of APT, the APT products are then transmitted to elmer. We receive three files for each proposal submitted: the APT coverpage information .apt file, the science justification attachment, and a combined APT and science justification merged attachment. Another file is created on elmer to mark that a new submission has been received. Once that file has been processed by the Submission Daemon it is changed to mark that it was processed. The resulting files are then stored on the laptop in the Daemon directory structure (which is defined as a preference in the Daemon). The current directory of files is located at /Users/blacker/Daemon-files; the APT file is stored in the /APT directory; the merged PDF file is stored in the /PDF directory; the PDF attachment is stored in the /PDF Attachment directory; and a tracking record is created and stored in the /Tracking directory. New unprocessed submissions are kept in the /Submission directory until they have been completely processed. This only occurs during the day of the deadline when multiple submissions are occurring and are processed by way of the Daemon. The tool is now mission-neutral and handles either HST or JWST proposals by appropriately storing everything under the Top Level folders of HST or JWST in either the Operational or Test environments.




| Proposal | Mission | Number | Last Name | Submission | Type | Category | Comments | Errors | PDF | Print | Notified | Submit Date | Meeting |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01420 | JWST | 1420 | Wakeford | 1 | GO | Planets and... | ... | Yes | | Print: 0 | | 2018-03-14 | |
| 01421 | JWST | 1421 | Fletcher | 2 | GO | Solar System | ... | No | | Print: 0 | | 2018-03-22 | |
| 01422 | JWST | 1422 | Freedman | 1 | GO | Cosmology | First test su... | No | | Print: 0 | | 2018-03-20 | |
| 01423 | JWST | 1423 | Eckart | 1 | GO | Massive Bla... | ... | No | | Print: 0 | | 2018-03-25 | |
| 01424 | JWST | 1424 | Fletcher | 1 | GO | Solar System | ... | Yes | | Print: 0 | | 2018-03-22 | |
| 01425 | JWST | 1425 | Irwin | 2 | GO | Solar System | ... | No | | Print: 0 | | 2018-03-23 | |
| 01426 | JWST | 1426 | Irwin | 2 | GO | Solar System | ... | No | | Print: 0 | | 2018-03-23 | |
| 01427 | JWST | 1427 | Woodward | 1 | GO | Solar System | ... | No | | Print: 0 | | 2018-03-23 | |
| 01428 | JWST | 1428 | Reach | 1 | GO | Solar System | ... | No | | Print: 0 | | 2018-03-23 | |
| 01429 | JWST | 1429 | Martin | 1 | GO | Galaxies an... | ... | Yes | | Print: 0 | | 2018-03-23 | |
| 01419 | JWST | 1419 | Ogle | 3 | GO | Massive Bla... | Update of C... | No | | Print: 0 | | 2018-02-08 | |
| 1532 | HST | 1532 | Yusef-Zadeh | 3 | GO | Massive Bla... | Submission ... | No | | Print: 0 | | 2018-03-05 | |
| 1629 | HST | 1629 | Debes | 1 | GO | Planets and... | | No | | Print: 0 | Yes | 2018-03-05 | |
| 1633 | HST | 1633 | Berger | 1 | GO | Stellar Physics | | No | | Print: 0 | Yes | 2018-03-05 | |
| 1636 | HST | 1636 | Graur | 1 | GO | Stellar Physics | | No | | Print: 0 | Yes | 2018-03-05 | |
| 1637 | HST | 1637 | France | 1 | GO | Planets and... | Submission ... | No | | Print: 0 | Yes | 2018-03-05 | |
| 1638 | HST | 1638 | van Dokkum | 2 | GO | Stellar Popu... | | No | | Print: 0 | Yes | 2018-03-21 | |
| 1640 | HST | 1640 | Weisz | 1 | GO | Stellar Popu... | | No | | Print: 0 | Yes | 2018-03-14 | |
| 1644 | HST | 1644 | Bourrier | 1 | GO | Planets and... | | No | | Print: 0 | Yes | 2018-03-14 | |
| 1645 | HST | 1645 | Shull | 1 | GO | Galaxies an... | Submission ... | No | | Print: 0 | Yes | 2018-03-14 | |
| 1646 | HST | 1646 | Schneider | 3 | GO | Planets and... | 3rd submis... | No | | Print: 0 | Yes | 2018-03-20 | |
| 1648 | HST | 1648 | Shi | 2 | GO | Massive Bla... | | No | | Print: 0 | Yes | 2018-03-20 | |
| 1649 | HST | 1649 | Bourrier | 1 | GO | Planets and... | | No | | Print: 0 | Yes | 2018-03-20 | |
| 1650 | HST | 1650 | Veilleux | 2 | GO | Massive Bla... | | No | | Print: 0 | Yes | 2018-03-20 | |
| 1651 | HST | 1651 | Malkan | 6 | GO | Galaxies an... | Final version | No | | Print: 0 | Yes | 2018-03-22 | |
| 1652 | HST | 1652 | U | 2 | GO | Massive Bla... | | No | | Print: 0 | Yes | 2018-03-21 | |
| 1653 | HST | 1653 | Lavie | 3 | GO | Planets and... | | No | | Print: 0 | Yes | 2018-03-21 | |
| 1654 | HST | 1654 | Fossati | 1 | GO | Planets and... | | No | | Print: 0 | Yes | 2018-03-20 | |
| 1655 | HST | 1655 | Fossati | 1 | GO | Planets and... | | No | | Print: 0 | Yes | 2018-03-20 | |
| 1656 | HST | 1656 | Eisloeffel | 1 | GO | Stellar Physics | | No | | Print: 0 | | 2018-03-21 | |
| 1657 | HST | 1657 | Hellier | 1 | GO | Planets and... | | No | | Print: 0 | Yes | 2018-03-20 | |
| 1658 | HST | 1658 | Husemann | 3 | GO | Galaxies an... | | No | | Print: 0 | Yes | 2018-03-21 | |

**Figure 27. HST Phase I Submission Daemon**

In addition to handling the incoming submissions, the Daemon also handles any proposals that need to be reprocessed. The proposal is just selected in the tool and then the reprocess tool is selected. The Daemon can be configured to poll elmer on whatever time interval is desired by way of the preferences. Proposals can be set to be printed out automatically or not, and can be sent to several difference printers along with the number of copies desired. Other preferences are the mail server and accounts to process and send mail through our stsci.edu system; the location of the elmer server; utilizing the operational or test directories from which to process proposals; as well as the mechanism to reset the APT Phase I ID servers on elmer. The tool also provides for a mechanism to cleanly remove proposals that are no longer required, i.e., a duplication was submitted. The Daemon also provides for a counting mechanism of the proposals received by Science Category, Type and Mission. This can be found under the tool Category Count under the Window pull-down.




| Mission | Type | Category | Count |
|---|---|---|---|
| JWST | GO | Planets and Planet Form... | 1 |
| JWST | GO | Solar System | 6 |
| JWST | GO | Cosmology | 1 |
| JWST | GO | Massive Black Holes And... | 2 |
| JWST | GO | Galaxies and the IGM | 1 |
| HST | GO | Massive Black Holes And... | 6 |
| HST | GO | Planets and Planet Form... | 23 |
| HST | GO | Stellar Physics | 11 |
| HST | GO | Stellar Populations | 6 |
| HST | GO | Galaxies and the IGM | 15 |
| HST | GO | Solar System | 2 |
| HST | GO | Cosmology | 7 |

**Figure 28. Category Count tool as part of Submission Daemon**

### *3.5 Reviewer Assignment Software*

The Daemon also handles the reviewer to proposal conflict checking and assignment software. This can be found from the Window pull-down menu by selecting, Reviewer Assignments. The tool utilizes data from the APT XML file and the Reviewers ProPer profile that is populated by each review member for their scientific expertise as well as their known conflicts of interest as discussed in section 2.7.4 as well as the designated Panel Membership as defined by TPS. The details on the process and further discussion for using the system are discussed in section 4.7. The assignment tool communicates via APIs to pull data out of TPS and generates text files to load SPRINT with the results as discussed in section 4.

### *3.6 SPRINT System*

We utilize a Web based system for our panel members to use to provide us with their logistical information and keywords for use in the reviewer assignment tool, to download their panel products from a secure server, to enter preliminary grades, to enter final grades after the panel discussion of each proposal, and to enter the notification comments that we will send back to the proposers. The system can be found at: https://tac.stsci.edu/tac and more discussion will be in section 4.

### *3.7 FileMaker Pro Database*

Since Hubble Space Telescope proposers are required to submit an electronic version of each Phase I proposal via APT, we utilize a database to store these proposals, that is built upon the FileMaker Pro Software system that has been around for over 20 years. This database can be operated on both the Mac OS and Windows operating systems, even though we mainly run it on the Mac platform for consistency sake. SMO owns a license for using this software. The database structure has been created using past experience and has been in use since cycle 5. The database is very easy to modify and is simple to use both during the creation of the new cycle database as well as during use to support the review process. Due to the ease of use factor in creating and modifying this database, we have elected to stay with the stand-alone version running on a computer versus the Sybase database structure that is in use for HST Phase II and other information.

Each cycle after determining if there are any needed changes based on the Call for Proposals or processing changes, the initial database is generated by making a copy of the final previous

cycle database. All of that information that is stored in the database is then cleaned out (removed) and the appropriate field labels are changed to reflect the new cycle. Proposal information can be viewed via several different layouts, each of which can be accessed at any time via the pop-up menu at upper left. Any changes made while using one layout will be reflected in all others. Changes to the database are automatically saved during periods of inactivity.

Proposals are uniquely identified in the database by a proposal ID consisting of the proposer's unique number (e.g. 0315). This ID is the same that is generated from the proposer submitting the proposal via APT, and is reflected the same in all of the Phase I tools. The database structure is based upon the fields from the APT XML file submission, as well as those fields that are required during the proposal review and subsequent processing. The database has been configured to handle both HST and JWST Proposal information. For the majority of this document we are showing HST Products and information, but the tools handle the JWST proposals in the same manner.

There are several different types of accounts available to use the database. The main account has full permissions to edit, import, duplicate and delete records. There are several "guest" accounts that provide read-only access to the data. Access to these accounts is under the File-Manage-Security menu item.

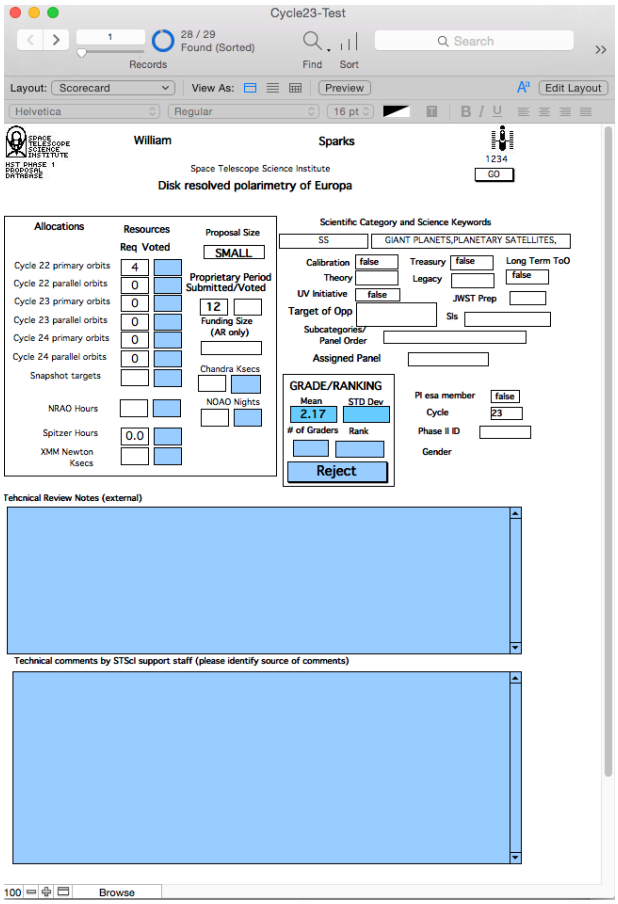



**Figure 29. FileMaker Pro Database Scorecard Layout**

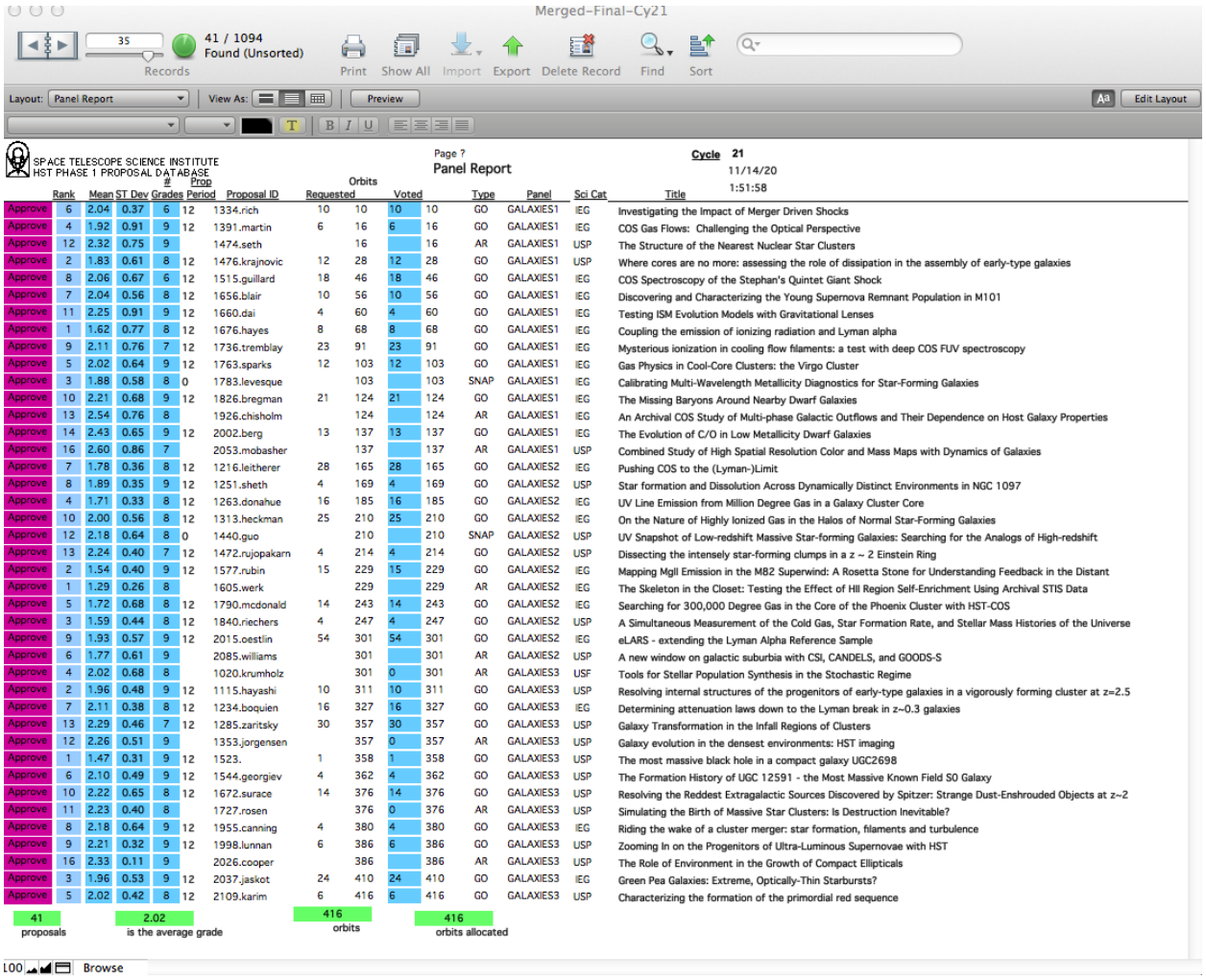
As mentioned above the database has several different layouts available for use. The scorecard layout is the top-level default layout that is used. The majority of the information is provided from the APT “Coverpage” with grading information added from the review meeting. On the scorecard there is also the technical review comments field that is used by SMO to communicate any technical review issues about a particular proposal, prior to the meetings, as well as any relevant review comments from the PSS that SMO should be made aware of.

This section is treated as the PSSs personal notebook and all comments are loaded from the SPRINT tool, conflicts-of-interest, reasons for modifications to the proposal, etc. These comments are separate from the panel's comments and are strictly for in-house use. The scorecard layout is optimized for quick recording of allocations, grades, and comments during the TAC meeting. The database is no longer used for the individual panel meetings. The SPRINT tool handles that process and the data is then back-loaded into the database at the conclusion of the panel meetings.

A similar layout as the scorecard is the Abstract Layout, which allows for generation of the Proposal Abstract Catalogs that are sent to the Panel Review Members. The slight differences between this layout and the scorecard is the addition of a merged list of Co-Investigators as well as the actual Abstract from the Phase I proposal. All grading and ranking information is also removed from this layout. The next 2 layouts are almost identical, but display the database records in spreadsheet mode. These are the Panel Report and Panel Report Without Color. These layouts are used during the panel ranking and allocation phase of the TAC meeting as they provide an overview of the proposal pool before the panel. This is useful for comparing and ranking proposals, assessing the cumulative allocations, and for creating concise printed reports.

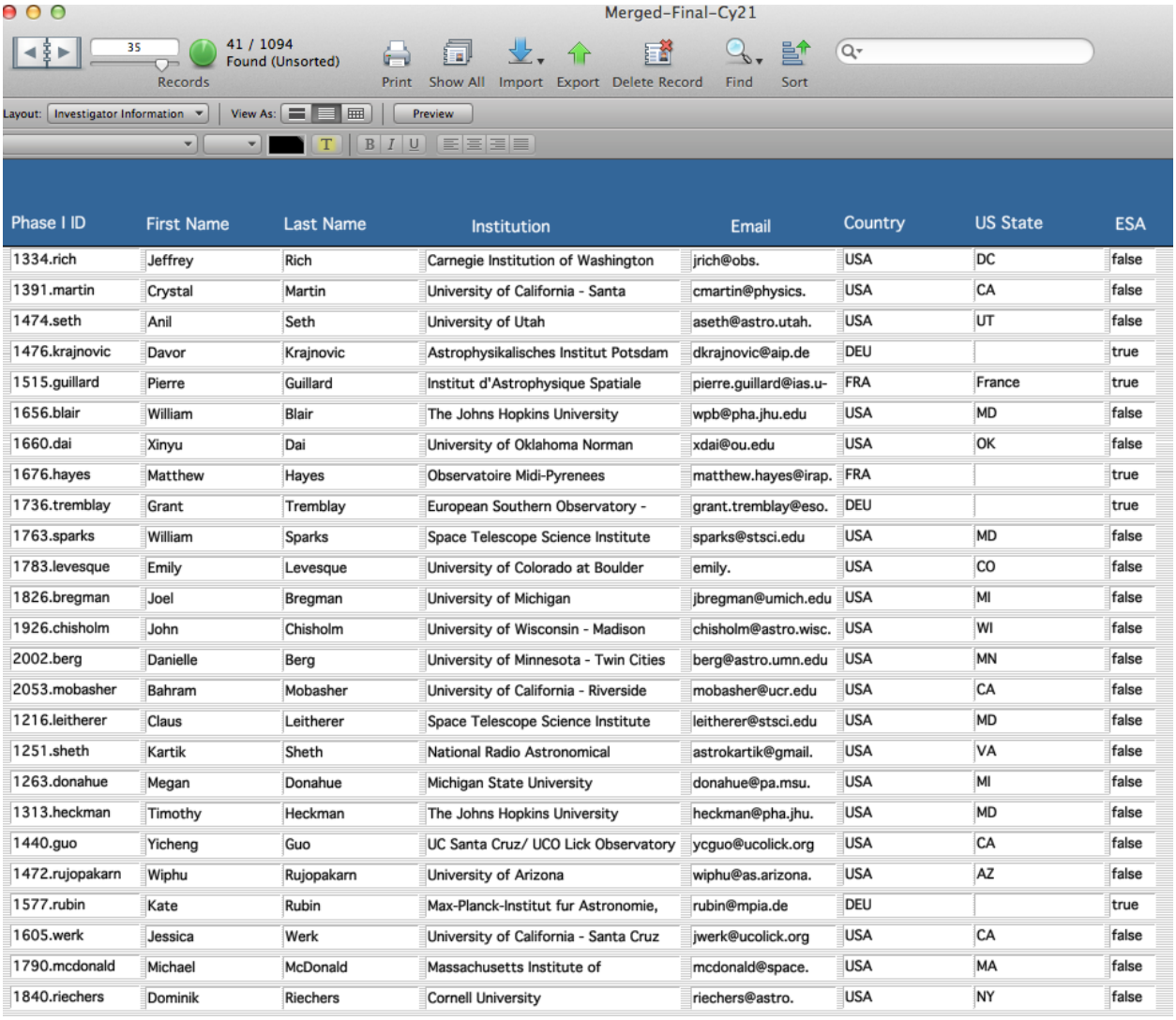
The other most useful spreadsheet layouts are the Principal Investigator (PI) and Co-Investigator (CoI) layouts as well as the Exposure Catalog layout. There are additional spreadsheet layouts for the Archival Research and SNAPshot proposal types, as well as the Joint Observatory Proposals with Chandra, NOAO, NRAO, and XMM, and a preliminary grades layout, that are all used after the review meetings during the preparation of the Director’s Review Package. Other post review layouts are the Notification Review Comments layout, as well as all of the layouts that are necessary to prepare for the Phase I to II database load and Notification Generation process.

To navigate among proposals, you may click on the "rolodex" at upper left to go back and forth, use the slide to go to a particular area, or enter a number and it will go to that proposal sorted order record. The user may also employ several different operating modes that are available under the different menus. The standard mode is Browse, for viewing and editing the database. The Find mode presents a blank database template -- anything the user enters into any field becomes a search constraint. For example, to find proposals submitted by a particular proposer, select Find mode, type the proposer's last name into the field that displays last names, and hit the return key. To get back all the other proposals, select Find All under the Select menu or Command-J. The Preview mode shows what a printed report will look like. By using the sorting tools under the Scripts menu in conjunction with the Find capability, an endless variety of reports can be created. The Scripts Menu provides for the ~15 most frequently used canned reports.




| | Rank | Mean | ST Dev | # Grades | Prop Period | Proposal ID | Orbits Requested | | Voted | | Type | Panel | Sci Cat | Title |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approve | 6 | 2.04 | 0.37 | 6 | 12 | 1334.rich | 10 | 10 | 10 | 10 | GO | GALAXIES1 | IEG | Investigating the Impact of Merger Driven Shocks |
| Approve | 4 | 1.92 | 0.91 | 9 | 12 | 1391.martin | 6 | 16 | 6 | 16 | GO | GALAXIES1 | IEG | COS Gas Flows: Challenging the Optical Perspective |
| Approve | 12 | 2.32 | 0.75 | 9 | | 1474.seth | | 16 | | 16 | AR | GALAXIES1 | USP | The Structure of the Nearest Nuclear Star Clusters |
| Approve | 2 | 1.83 | 0.61 | 8 | 12 | 1476.krajnovic | 12 | 28 | 12 | 28 | GO | GALAXIES1 | USP | Where cores are no more: assessing the role of dissipation in the assembly of early-type galaxies |
| Approve | 8 | 2.06 | 0.67 | 6 | 12 | 1515.guillard | 18 | 46 | 18 | 46 | GO | GALAXIES1 | IEG | COS Spectroscopy of the Stephan's Quintet Giant Shock |
| Approve | 7 | 2.04 | 0.56 | 8 | 12 | 1656.blair | 10 | 56 | 10 | 56 | GO | GALAXIES1 | IEG | Discovering and Characterizing the Young Supernova Remnant Population in M101 |
| Approve | 11 | 2.25 | 0.91 | 9 | 12 | 1660.dai | 4 | 60 | 4 | 60 | GO | GALAXIES1 | IEG | Testing ISM Evolution Models with Gravitational Lenses |
| Approve | 1 | 1.62 | 0.77 | 8 | 12 | 1676.hayes | 8 | 68 | 8 | 68 | GO | GALAXIES1 | IEG | Coupling the emission of ionizing radiation and Lyman alpha |
| Approve | 9 | 2.11 | 0.76 | 7 | 12 | 1736.tremblay | 23 | 91 | 23 | 91 | GO | GALAXIES1 | IEG | Mysterious ionization in cooling flow filaments: a test with deep COS FUV spectroscopy |
| Approve | 5 | 2.02 | 0.64 | 9 | 12 | 1763.sparks | 12 | 103 | 12 | 103 | GO | GALAXIES1 | IEG | Gas Physics in Cool-Core Clusters: the Virgo Cluster |
| Approve | 3 | 1.88 | 0.58 | 8 | 0 | 1783.levesque | | 103 | | 103 | SNAP | GALAXIES1 | IEG | Calibrating Multi-Wavelength Metallicity Diagnostics for Star-Forming Galaxies |
| Approve | 10 | 2.21 | 0.68 | 9 | 12 | 1826.bregman | 21 | 124 | 21 | 124 | GO | GALAXIES1 | IEG | The Missing Baryons Around Nearby Dwarf Galaxies |
| Approve | 13 | 2.54 | 0.76 | 8 | | 1926.chisholm | | 124 | | 124 | AR | GALAXIES1 | IEG | An Archival COS Study of Multi-phase Galactic Outflows and Their Dependence on Host Galaxy Properties |
| Approve | 14 | 2.43 | 0.65 | 9 | 12 | 2002.berg | 13 | 137 | 13 | 137 | GO | GALAXIES1 | IEG | The Evolution of C/O in Low Metallicity Dwarf Galaxies |
| Approve | 16 | 2.60 | 0.86 | 7 | | 2053.mobasher | | 137 | | 137 | AR | GALAXIES1 | USP | Combined Study of High Spatial Resolution Color and Mass Maps with Dynamics of Galaxies |
| Approve | 7 | 1.78 | 0.36 | 8 | 12 | 1216.leitherer | 28 | 165 | 28 | 165 | GO | GALAXIES2 | IEG | Pushing COS to the (Lyman-)Limit |
| Approve | 8 | 1.89 | 0.35 | 9 | 12 | 1251.sheth | 4 | 169 | 4 | 169 | GO | GALAXIES2 | USP | Star formation and Dissolution Across Dynamically Distinct Environments in NGC 1097 |
| Approve | 4 | 1.71 | 0.33 | 8 | 12 | 1263.donahue | 16 | 185 | 16 | 185 | GO | GALAXIES2 | IEG | UV Line Emission from Million Degree Gas in a Galaxy Cluster Core |
| Approve | 10 | 2.00 | 0.56 | 8 | 12 | 1313.heckman | 25 | 210 | 25 | 210 | GO | GALAXIES2 | IEG | On the Nature of Highly Ionized Gas in the Halos of Normal Star-Forming Galaxies |
| Approve | 12 | 2.18 | 0.64 | 8 | 0 | 1440.guo | | 210 | | 210 | SNAP | GALAXIES2 | USP | UV Snapshot of Low-redshift Massive Star-forming Galaxies: Searching for the Analogs of High-redshift |
| Approve | 13 | 2.24 | 0.40 | 7 | 12 | 1472.rujopakarn | 4 | 214 | 4 | 214 | GO | GALAXIES2 | USP | Dissecting the intensely star-forming clumps in a z ~ 2 Einstein Ring |
| Approve | 2 | 1.54 | 0.40 | 9 | 12 | 1577.rubin | 15 | 229 | 15 | 229 | GO | GALAXIES2 | IEG | Mapping MgII Emission in the M82 Superwind: A Rosetta Stone for Understanding Feedback in the Distant |
| Approve | 1 | 1.29 | 0.26 | 8 | | 1605.werk | | 229 | | 229 | AR | GALAXIES2 | IEG | The Skeleton in the Closet: Testing the Effect of HII Region Self-Enrichment Using Archival STIS Data |
| Approve | 5 | 1.72 | 0.68 | 8 | 12 | 1790.mcdonald | 14 | 243 | 14 | 243 | GO | GALAXIES2 | IEG | Searching for 300,000 Degree Gas in the Core of the Phoenix Cluster with HST-COS |
| Approve | 3 | 1.59 | 0.44 | 8 | 12 | 1840.riechers | 4 | 247 | 4 | 247 | GO | GALAXIES2 | USP | A Simultaneous Measurement of the Cold Gas, Star Formation Rate, and Stellar Mass Histories of the Universe |
| Approve | 9 | 1.93 | 0.57 | 9 | 12 | 2015.oestlin | 54 | 301 | 54 | 301 | GO | GALAXIES2 | IEG | eLARS - extending the Lyman Alpha Reference Sample |
| Approve | 6 | 1.77 | 0.61 | 9 | | 2085.williams | | 301 | | 301 | AR | GALAXIES2 | USP | A new window on galactic suburbia with CSI, CANDELS, and GOODS-S |
| Approve | 4 | 2.02 | 0.68 | 8 | | 1020.krumholz | | 301 | 0 | 301 | AR | GALAXIES3 | USF | Tools for Stellar Population Synthesis in the Stochastic Regime |
| Approve | 2 | 1.96 | 0.48 | 9 | 12 | 1115.hayashi | 10 | 311 | 10 | 311 | GO | GALAXIES3 | USP | Resolving internal structures of the progenitors of early-type galaxies in a vigorously forming cluster at z=2.5 |
| Approve | 7 | 2.11 | 0.38 | 8 | 12 | 1234.boquien | 16 | 327 | 16 | 327 | GO | GALAXIES3 | IEG | Determining attenuation laws down to the Lyman break in z~0.3 galaxies |
| Approve | 13 | 2.29 | 0.46 | 7 | 12 | 1285.zaritsky | 30 | 357 | 30 | 357 | GO | GALAXIES3 | USP | Galaxy Transformation in the Infall Regions of Clusters |
| Approve | 12 | 2.26 | 0.51 | 9 | | 1353.jorgensen | | 357 | 0 | 357 | AR | GALAXIES3 | USP | Galaxy evolution in the densest environments: HST imaging |
| Approve | 1 | 1.47 | 0.31 | 9 | 12 | 1523. | 1 | 358 | 1 | 358 | GO | GALAXIES3 | USP | The most massive black hole in a compact galaxy UGC2698 |
| Approve | 6 | 2.10 | 0.49 | 9 | 12 | 1544.georgiev | 4 | 362 | 4 | 362 | GO | GALAXIES3 | USP | The Formation History of UGC 12591 - the Most Massive Known Field S0 Galaxy |
| Approve | 10 | 2.22 | 0.65 | 8 | 12 | 1672.surace | 14 | 376 | 14 | 376 | GO | GALAXIES3 | USP | Resolving the Reddest Extragalactic Sources Discovered by Spitzer: Strange Dust-Enshrouded Objects at z~2 |
| Approve | 11 | 2.23 | 0.40 | 8 | | 1727.rosen | | 376 | 0 | 376 | AR | GALAXIES3 | USP | Simulating the Birth of Massive Star Clusters: Is Destruction Inevitable? |
| Approve | 8 | 2.18 | 0.64 | 9 | 12 | 1955.canning | 4 | 380 | 4 | 380 | GO | GALAXIES3 | IEG | Riding the wake of a cluster merger: star formation, filaments and turbulence |
| Approve | 9 | 2.21 | 0.32 | 9 | 12 | 1998.lunnan | 6 | 386 | 6 | 386 | GO | GALAXIES3 | USP | Zooming In on the Progenitors of Ultra-Luminous Supernovae with HST |
| Approve | 16 | 2.33 | 0.11 | 9 | | 2026.cooper | | 386 | | 386 | AR | GALAXIES3 | USP | The Role of Environment in the Growth of Compact Ellipticals |
| Approve | 3 | 1.96 | 0.53 | 9 | 12 | 2037.jaskot | 24 | 410 | 24 | 410 | GO | GALAXIES3 | IEG | Green Pea Galaxies: Extreme, Optically-Thin Starbursts? |
| Approve | 5 | 2.02 | 0.42 | 8 | 12 | 2109.karim | 6 | 416 | 6 | 416 | GO | GALAXIES3 | USP | Characterizing the formation of the primordial red sequence |
| | 41 proposals | | 2.02 is the average grade | | | | 416 orbits | | 416 orbits allocated | | | | | |

**Figure 30. FileMaker Pro Database Panel Report Layout**




| Phase I ID | First Name | Last Name | Institution | Email | Country | US State | ESA |
|---|---|---|---|---|---|---|---|
| 1334.rich | Jeffrey | Rich | Carnegie Institution of Washington | jrich@obs. | USA | DC | false |
| 1391.martin | Crystal | Martin | University of California - Santa | cmartin@physics. | USA | CA | false |
| 1474.seth | Anil | Seth | University of Utah | aseth@astro.utah. | USA | UT | false |
| 1476.krajnovic | Davor | Krajnovic | Astrophysikalisches Institut Potsdam | dkrajnovic@aip.de | DEU | | true |
| 1515.guillard | Pierre | Guillard | Institut d'Astrophysique Spatiale | pierre.guillard@ias.u- | FRA | France | true |
| 1656.blair | William | Blair | The Johns Hopkins University | wpb@pha.jhu.edu | USA | MD | false |
| 1660.dai | Xinyu | Dai | University of Oklahoma Norman | xdai@ou.edu | USA | OK | false |
| 1676.hayes | Matthew | Hayes | Observatoire Midi-Pyrenees | matthew.hayes@irap. | FRA | | true |
| 1736.tremblay | Grant | Tremblay | European Southern Observatory - | grant.tremblay@eso. | DEU | | true |
| 1763.sparks | William | Sparks | Space Telescope Science Institute | sparks@stsci.edu | USA | MD | false |
| 1783.levesque | Emily | Levesque | University of Colorado at Boulder | emily. | USA | CO | false |
| 1826.bregman | Joel | Bregman | University of Michigan | jbregman@umich.edu | USA | MI | false |
| 1926.chisholm | John | Chisholm | University of Wisconsin - Madison | chisholm@astro.wisc. | USA | WI | false |
| 2002.berg | Danielle | Berg | University of Minnesota - Twin Cities | berg@astro.umn.edu | USA | MN | false |
| 2053.mobasher | Bahram | Mobasher | University of California - Riverside | mobasher@ucr.edu | USA | CA | false |
| 1216.leitherer | Claus | Leitherer | Space Telescope Science Institute | leitherer@stsci.edu | USA | MD | false |
| 1251.sheth | Kartik | Sheth | National Radio Astronomical | astrokartik@gmail. | USA | VA | false |
| 1263.donahue | Megan | Donahue | Michigan State University | donahue@pa.msu. | USA | MI | false |
| 1313.heckman | Timothy | Heckman | The Johns Hopkins University | heckman@pha.jhu. | USA | MD | false |
| 1440.guo | Yicheng | Guo | UC Santa Cruz/ UCO Lick Observatory | ycguo@ucolick.org | USA | CA | false |
| 1472.rujopakarn | Wiphu | Rujopakarn | University of Arizona | wiphu@as.arizona. | USA | AZ | false |
| 1577.rubin | Kate | Rubin | Max-Planck-Institut fur Astronomie, | rubin@mpia.de | DEU | | true |
| 1605.werk | Jessica | Werk | University of California - Santa Cruz | jwerk@ucolick.org | USA | CA | false |
| 1790.mcdonald | Michael | McDonald | Massachusetts Institute of | mcdonald@space. | USA | MA | false |
| 1840.riechers | Dominik | Riechers | Cornell University | riechers@astro. | USA | NY | false |

**Figure 31. FileMaker Pro Database Investigator Layout**

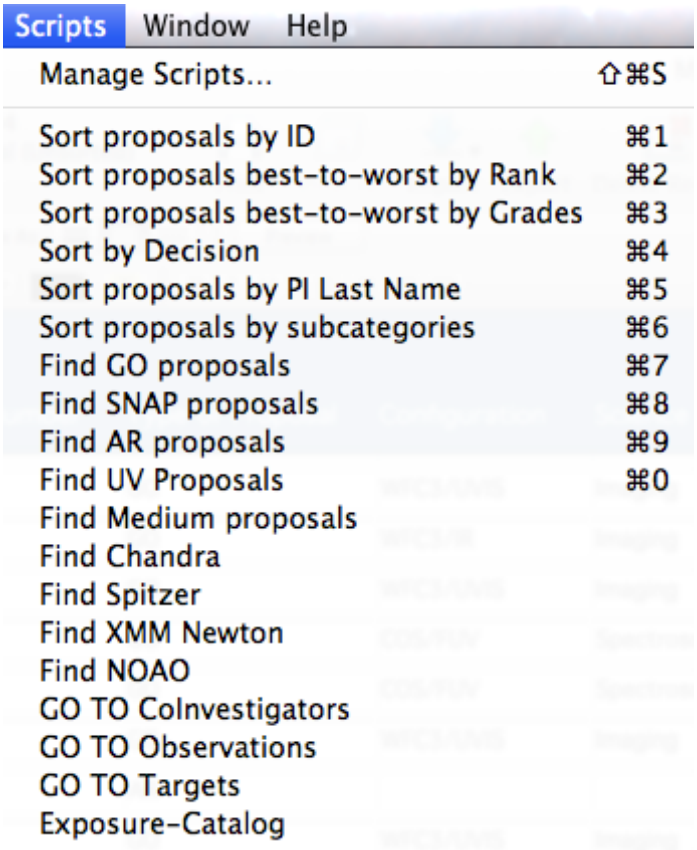



**Figure 32. Built in Scripts**

As stated previously, during the TAC meeting, the database is used to record the final proposal allocations, grades, and ranks. The panel's notification comments (usually written by the primary reviewer) are loaded into the database following the meeting. Proposal grading is accomplished by polling each panel member for his or her grade via the SPRINT tool. Each possible grade is on the scale of 1-5. All grades are loaded into the database following proposal discussion. After grading, the proposals must be ranked. The final Approve/Reject status (initially set to "Pending") will be assigned at the conclusion of the Panel meetings.

At the conclusion of the panel meetings, it is necessary to merge all of the panel information from the SPRINT tool into one complete database for use during the remainder of the review process. This is accomplished by the SMO Technical Manager. The final TAC decision is recorded using the Approve/Reject button. Any new allocations or comments will also be recorded. After the TAC/Panel review meetings, the STScI director conducts a review of the TAC's recommendations. Further editing of the comments may occur during this process, and in some cases, even changes to the allocation or the proposal's Approve/Reject status.

Upon conclusion of the TAC meeting, the FileMaker Pro database is fully processed to ensure all proposals have been properly updated to determine their final status. Since the panels are not provided an allocation for AR or SNAP proposals, we examine each panel’s ranked list to determine the overall resources for ARs and SNAPs. The instructions we provide to the panels are that if they would like an AR or SNAP proposal approved, it needs to be ranked above their

GO Allocation ranked cutoff. We use that proposal rank against each panel's cutoff to review which ARs and SNAPs would be then approved. If the panels' lists provide for ~1000 SNAPshot targets, then we set all of those proposals to be approved and all others are then set as rejected. If the lists contain > than 1000 SNAPshot targets, we go up each panel's ranked list by a grade of 1/10th until we are close to the 1000 target recommended allocation. If the lists contain < 1000 SNAPshot targets, we go down each panel's ranked list by a grade of 1/10th until we hit the target allocation. The same process is done for the Regular AR and Theory proposals against the current cycle recommended funding allocation. Our starting allocations have been ~$1M for Theory, ~$1M for Legacy and ~$2M for Regular Archival Research. We use the basis of an average Small AR is $50K, an average Medium AR is $100K and an average Legacy is $150K to determine the recommended funding profile. After the AR and Snap proposal allocations are determined and their decisions have been set in the database, each panel is then analyzed to ensure all proposals have been given a final grade, panel rank and proposal status (Approved or Rejected).

For any Joint Observing proposals that are recommended for approval, we enter into the FileMaker Pro database the contact information for the joint observatories so that they are sent a carbon copy of the notification emails. This information is currently stored in the contact scientist email field as we no longer provide contact scientists for all proposals at Phase I notification. We also populate this field with the gms_help@stsci.edu address to send a copy of the notifications to the Grants Management system for approved proposals only.

A complete database schema is presented in Appendix B.

### *3.8 Phase I Ingestion Process*

All of the proposals are processed through the submission daemon as they come in. As stated above, whenever the system polls elmer and finds a new file, the file is transferred by way of the daemon to the computer system that is currently running the software. As they are received on the local machine, the files are placed into their appropriate directories and are checked for errors and/or PDF print/display issues. The daemon works with the APT servers on elmer to send an automatic email back to the proposers stating that we have received their submission. This is also communicated to them by way of the popup and submission windows in APT. Proposers can update their proposals and resubmit them as often as they like up until the Phase I deadline.

Each Phase I is checked to make sure all of the required information is correct and complete for the APT coverpage material. The science justification is also reviewed to make sure all of the figures, tables, formulas and text are properly and legible rendered in the PDF. We also verify the requested resources (i.e. orbits, targets, funding) match from the coverpage to the text description in the proposal. To verify the PDF is good, we review the files onscreen. If errors are identified that should be fixed by the investigators, we use the daemon to generate an email which is sent to the proposer detailing what needs to be corrected. They can then update their proposal in APT and use the resubmit tool to send us the corrections. All of the APT submissions are stored behind a firewall on a secure server machine, elmer.stsci.edu, which has access limited by STScI staff to the SMO technical manager, the APT development/testing team, the Program Coordinators and our IT group.

Once all of the proposals have been received at the deadline, we then remove any duplicate proposals that might have been submitted, such as by a proposer changing the PI name and/or the

title of the proposal. Once we have all of the proposals in hand, we then start the "Acknowledgement" process, which informs the proposers that their submission were successfully processed by our group at the STScI and will be made available to the review members for scientific review.

**From:** Brett Blacker <blacker@stsci.edu>
**Subject:** **HST Phase I Submission #1 received.**
**Date:** January 17, 2012 7:16:10 AM EST
**To:** Barry Madore <barry@ipac.caltech.edu> ,
Wendy Freedman <wendy@obs.carnegiescience.edu>

Your Phase I submission 1 with Madore as Principal Investigator and a title of:

Calibrating the Type Ia Supernova Distance Scale: M101 and SN2011fe

was received by STScI.

You will receive an email indicating whether your proposal was successfully processed after the Phase I deadline.

If you do not receive an e-mail acknowledgment by Tuesday following the deadline your submission was NOT RECEIVED and the Telescope Allocation Committee WILL NOT see your proposal.

In this case, please contact us at help@stsci.edu and provide the submission ID information from the APT Submission Log window.

Thank you.

**Figure 33. Phase I Submission Received Email**

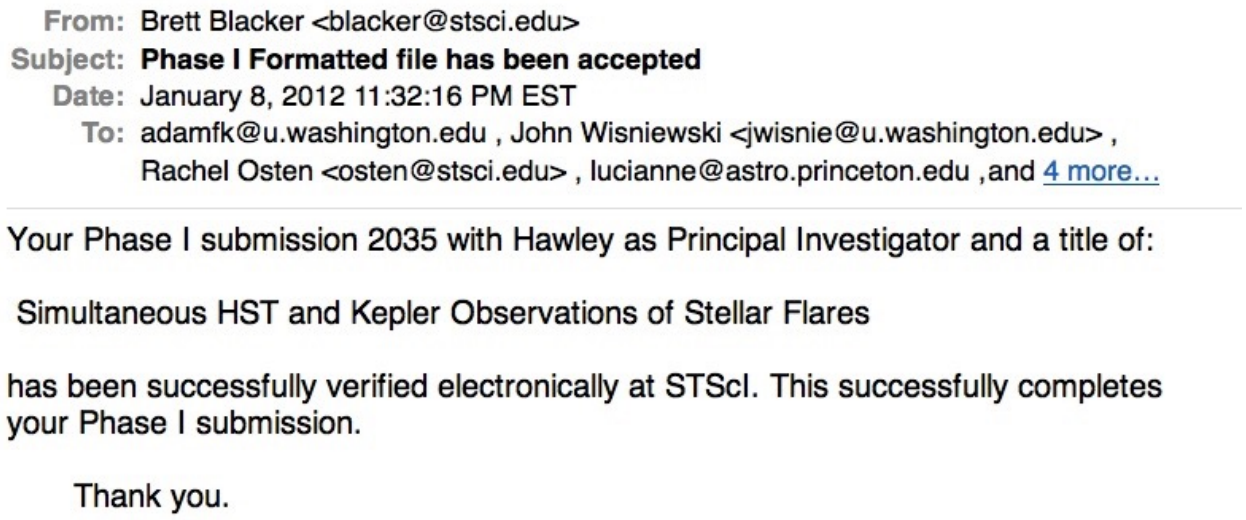
**From:** Brett Blacker <blacker@stsci.edu>
**Subject:** **Problem with HST Phase I Submission #6**
**Date:** February 9, 2012 12:19:47 PM EST
**To:** steven.penton@colorado.edu

Hello,

We received your HST Phase I submission #6, titled
Multiwavelength Spectroscopy of the Interstellar Medium: O and Ne Abundance ratio, however
We have reviewed your proposal as a Joint HST/Chandra proposal and have also had it reviewed by the Chandra staff, and we both believe that the Primary science goals of your proposal are the Chandra part vs the HST part. As per our policies this proposal should be submitted to the Chandra Review and we will be removing it from our review. Please confirm your receipt of this email. If you wish to change the proposal to keep it as part of the HST review, please let me know how you wish to proceed.

Brett Blacker
Space Telescope Science Institute
Science Mission Office

**Figure 34. PDF Proposal Submission Error Email**



From: Brett Blacker <blacker@stsci.edu>
Subject: **Phase I Formatted file has been accepted**
Date: January 8, 2012 11:32:16 PM EST
To: adamfk@u.washington.edu , John Wisniewski <jwisnie@u.washington.edu> , Rachel Osten <osten@stsci.edu> , lucianne@astro.princeton.edu ,and 4 more…

Your Phase I submission 2035 with Hawley as Principal Investigator and a title of:

Simultaneous HST and Kepler Observations of Stellar Flares

has been successfully verified electronically at STScI. This successfully completes your Phase I submission.

Thank you.

**Figure 35. PDF Electronic Verification Email**

### *3.9 Proposer Questions*

In addition to the help desk mechanism for questions from proposers, we also receive phone calls, emails and office visits. Each question is handled a soon as possible to allow the proposers as much time is required for them to prepare their submissions. Several examples are "did you receive my test submission?", or "can you send me last year's apt file as I've misplaced it and don't want to start from scratch?"

### *3.10 APT Submission Issues*

When an ID is taken from the APT Submission ID servers and a submission never happens, it's possible to look in the server logs and try to determine who attempted the submission so that they could be contacted to see if they are in need of help. To find the logs you need to be on the elmer machine and then you need to do the following command from the unix command line prompt:

```
ssh -l sstadmin elmer.stsci.edu
```

***Logs are in*** `aptserver/Server/<version>/log/` ***where <version> is currently 62. There is a rotating set of log files named*** `APTServer.0.<version>.log` ***where lower <version> numbers are more recent.***

```
grep "New HST OPERATIONAL" APTServer.0.0.log
```

cd to /elmer/usr/local/APT/Servers
then cd to the current operational Server which is now: 52
cd V.52/log

grep -i "New ID" *.log
APTServer.1.0.log:INFO: New ID requested by: djasps@rit.edu at IP address 129.21.69.119. Returning ID: 21
APTServer.1.0.log:INFO: New ID requested by: travis@whitedwarf.org at IP address 128.117.104.93. Returning ID: 22
APTServer.1.1.log:INFO: New ID requested by: srao@pitt.edu at IP address 150.212.1.57. Returning ID: 20

The location of the servers has changed so here is how to find the relevant logs:
>cd to /elmer/usr/local/APT/Servers
> sadmin list
Version Status
1
2
3
4
5 Test
6 Test
7 Test

The last non-Test version is the operational one, i.e. currently 52
> cd V.52/log
> grep -i "New ID" *.log

If there are APT Problems that aren't evident to the user, they can provide the APT processing logs to the APT development team. The logs are stored in ~/.APTLogs.

## *3.11 APT Submission Daemon File Structure*

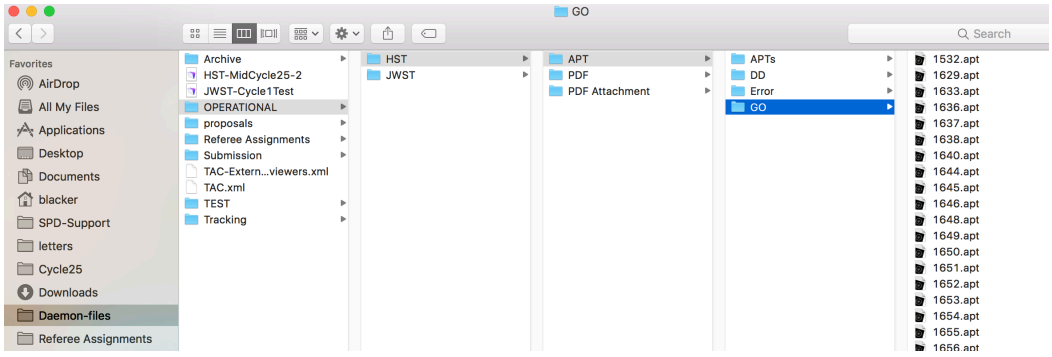



**Figure 36. Operational HST APT Directory Tree**

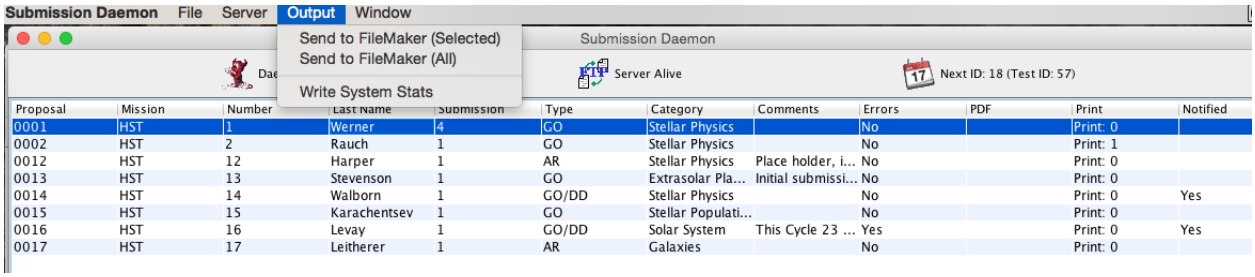
# 4. Phase I Deadline to TAC Meeting

## *4.0 Process APT Submission Errors*

As proposals are being received, as well as after the deadline, they are assessed as discussed above. Any proposals that require Proposer input are sent back to them for an update by way of the Submission Daemon email tool, an example is shown in Figure 33 above, and/or explanation of the issues. If errors are simple to understand and/or permission is given from the proposing team, the proposal will be updated in APT by the SMO technical manager and resubmitted.

## *4.1 Database Loading*

Upon the conclusion of the HST Phase I Proposal deadline and after all of the Phase I proposals have been analyzed for errors and corrections submitted, the proposal products are then loaded into the HST Phase I Proposal Database. The database is now directly loaded by way of the Submission Daemon by utilizing the File sharing Open Database Connectivity (ODBC) mechanism in FileMaker Pro. Proposals can be added one at a time or all at once by way of a pull-down menu item in the Submission Daemon.




| Proposal | Mission | Number | Last Name | Submission | Type | Category | Comments | Errors | PDF | Print | Notified |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0001 | HST | 1 | Werner | 4 | GO | Stellar Physics | | No | | Print: 0 | |
| 0002 | HST | 2 | Rauch | 1 | GO | Stellar Physics | | No | | Print: 1 | |
| 0012 | HST | 12 | Harper | 1 | AR | Stellar Physics | Place holder, i... | No | | Print: 0 | |
| 0013 | HST | 13 | Stevenson | 1 | GO | Extrasolar Pla... | Initial submissi... | No | | Print: 0 | |
| 0014 | HST | 14 | Walborn | 1 | GO/DD | Stellar Physics | | No | | Print: 0 | Yes |
| 0015 | HST | 15 | Karachentsev | 1 | GO | Stellar Populati... | | No | | Print: 0 | |
| 0016 | HST | 16 | Levay | 1 | GO/DD | Solar System | This Cycle 23 ... | Yes | | Print: 0 | Yes |
| 0017 | HST | 17 | Leitherer | 1 | AR | Galaxies | | No | | Print: 0 | |

**Figure 37. Submission Daemon Tool to Load FMPro Database**

Once loaded, certain fields need to be cleaned up as APT stores values in certain fields regardless of the proposal type. An example is that for SNAPshot proposals, in addition to the Submitted Targets requested fields, the Current Cycle Primary orbits is set to 1 and needs to be changed to 0 for proper statistics. Certain fields need to be populated manually, such as the rank and decision status. The TAC proposals are also manually identified based on the submitted results. Other examples of fields to be cleaned up are Institutions, Countries, States and ESA members, which are required to be consistent for the statistics discussed in Section 4.2.

## 4.2 Statistics/Report Generation

Based on the HST Phase I proposal submissions, we generate those submission statistics as required for NASA as well as internal STScI Management. The statistics are compiled from the Phase I database. These statistics are the published on our website at our Peer Review information portal: http://www.stsci.edu/hst/proposing/panel/peer_review. Various presentations are created to support meetings, such as the Monthly TIPS and/or Science staff meeting and the HST Users Committee (STUC) meeting. Their spring meeting, which nominally occurs between the Phase I proposal deadline and the Review meetings.

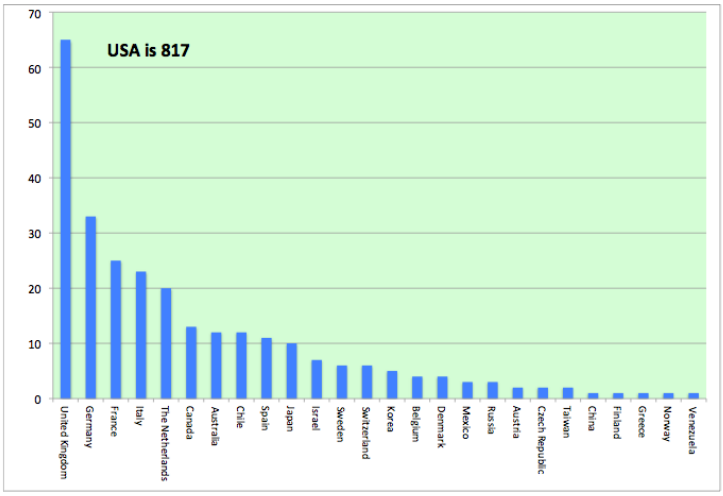



**Figure 38. Example Country Submission Statistics**

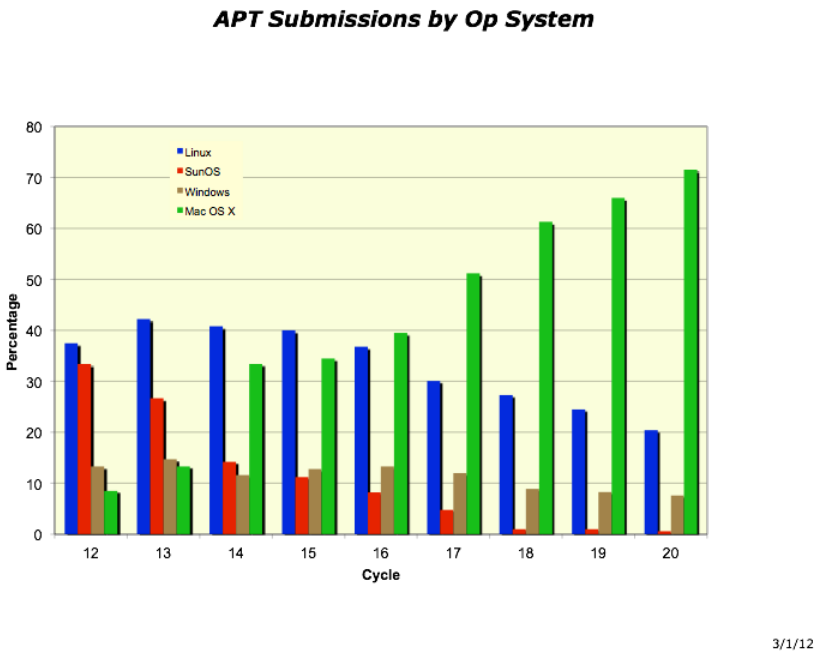



**Figure 39. APT Phase I Operating System Submissions**

To generate the submission statistics on APT operating system (OS) usage we run another tool from the Submission Daemon. The tool produces a CSV file with the following fields: Phase I ID, Proposal Category (Type), APT Version, Submission Counter, If Errors, OS Architecture, Name, Version, Java Version, Runtime MaxMemory, Linux distribution/version, PI First/Last and Institution. This file is then imported into Excel to be sorted and processed to obtain the OS statistics which is then added into the historical OS usage since APT started as seen in Figure 39.

### *4.3 Support Staff Training*

After the proposals have been received and processed into the referee assignment software, we begin the steps of training those staff members who volunteered to assist the review process by being Panel Support Staff members. We conduct three training sessions at multiple times to allow for varied schedules since we are training ~20 staff members. We offer onsite as well as WebEx sessions and are always available for additional one-on-one sessions as required. The first meeting we hold is our Orientation, where we provide an overview of the process and the support staff member role in that process. The current Orientation presentation is posted at our Peer Review website, ***http://www.stsci.edu/hst/proposing/panel/peer_review*** under the Panel Support Guidelines link. All of the necessary documentation to support the Review as a Panel Support member is maintained on this link as well. This session is usually held about two to three weeks following the Phase I Deadline.

The second training session is a SPRINT tool session, where we provide a detailed walk-through of the tool and allow for user questions and answers. At this meeting, we discuss how they will navigate through the system and make changes to the review assignments and how they can review the panel review assignment status and make changes and updates to those reviews and follow along on the preliminary grading status, final grading, ranking and panel member feedback to the proposers. This session is usually held about 8 weeks before the panel meetings.

Our last training session is what we call our "Mock" meeting, where we try to simulate the panel meeting and answer any last minute questions that might arise by the panel support staff. This session is usually held the week before the panel meetings. We will also run through the Panel Orientation that will be given to the panel members to discuss their roles and guidelines for the review process. Our "Mock" meeting panel cheat-sheet for the support staff is also posted on the Peer Review site. The Panel Support Staff members report to the SMO technical manager for any questions, problems or issues.

### *4.4 Panel Communications/Questions*

SPG handles all of the panel communications with the review panels until the proposal products are distributed to the review members. Once that occurs, we transition to the Panel support staff members taking over this process, as they will be representing the STScI in each panel room, where as SPG plays an oversight role during the process. For Policy questions, the panel members are asked to contact the SMO technical manager who will forward those questions onto the appropriate expert if he cannot answer it. For Scheduling questions, those will also come to the technical manager who will forward on to our Scheduling group if it cannot be answered. Instrument related questions are currently entered in our Help Desk portal at hsthelp.stsci.edu, this way the appropriate instrument team experts can answer the questions as soon as possible.

### *4.5 Update of Panel Review Documentation*

Our Panel Review Guidelines and Panel Support Guidelines are hosted on our Peer Review site under the appropriate links. Each cycle we update the materials as required for any changes that are being made to the process, such as the logistical issues of the meeting schedule, location and room assignments. We also update our conflicts of interest rules as required and any changes that are being made to policy issues. The change process is discussed in Section 2.5 Web Page maintenance.

### *4.6 Distribute Products for Internal Reviews*

After the Phase I submission statistics have been distributed both internally and externally, the proposals are packaged up to begin the internal review process. Proposal master lists and abstract catalogs are created from the Phase I database and these are combined with the PDF proposals into a directory that is posted to our internal BOX web-server for limited access.

We provide downloads to 3 internal groups at STScI. The INS division receives all of the proposals to be able to answer any instrument related questions that might arise from panel members. The OED division receives 2 sets of products, the first set is delivered to the Program Coordinator lead, which is used to review the Large, Treasury and Target of Opportunity proposals. The second set for OED is given to the Long Range Planning group, where they create a pseudo Long Range Plan to determine what, if any, scheduling issues might arise between the current ongoing observations and any of the new proposed observations (mostly the Large and Treasury proposals). All of these are provided via our BOX server as shown in Figure 38.

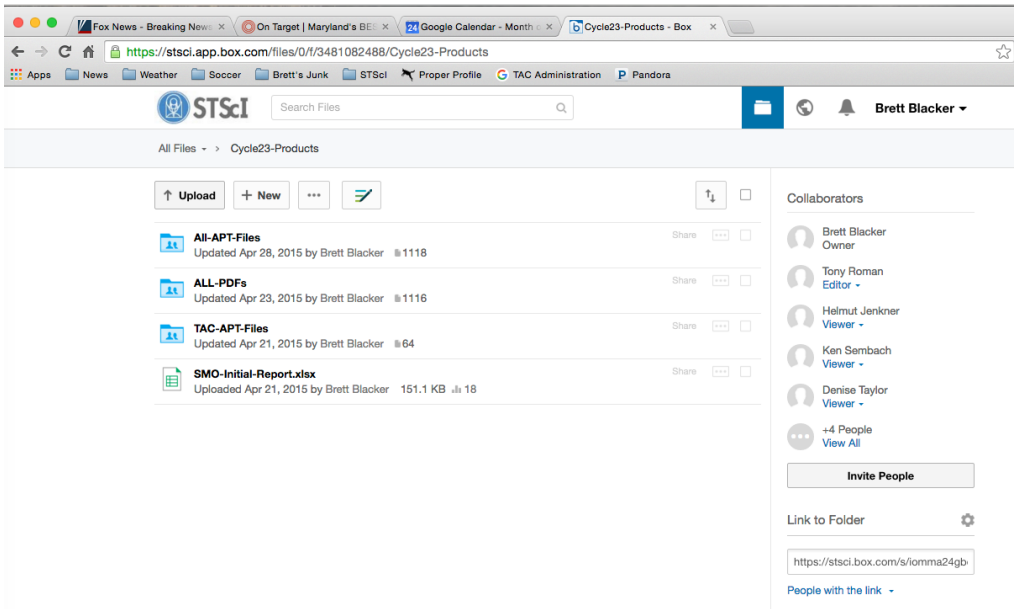



**Figure 40. Box Server for Cycle 23 Products**

## *4.7 Reviewer Assignments*

For panel proposals, each proposal is nominally assigned one primary and one secondary reviewer. During the meeting, the primary and secondary reviewer lead the initial discussion of each proposal. The primary reviewer will start the discussion, and is also responsible for capturing relevant comments that come up during the discussion to formulate the proposer feedback. In making the reviewer assignments, STScI makes an effort to avoid conflicts of interest. We ask reviewers to take a broad view of each proposal, with particular emphasis on the importance of the proposed science to astronomy as a whole. This does not necessarily require the reviewer to be an expert in the particular sub-field of the proposal. Indeed, the CP requests that proposals address a broad audience, commensurate with the scope of the selection Panels. Nonetheless, in making the reviewer assignments, STScI takes into account the expertise of the reviewers.

Utilizing the power of the Phase I Submission Daemon, the reviewer assignment task was implemented into this tool. Used as input for this task are the Phase I APT files as well as the information that is collected from the TAC members as previously discussed in section 2.7 and shown in Figure 41.

| A | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|
| Unique ID | Name | Institution | Panel | Email | Funding | Role | Keywords | Conflicts |
| 8908 | Civano, Francesca | Smithsonian Institution Astrophysical Observatory | Black Holes & Hosts 1 | francesca.civano@gmail.com | | Member | | |
| 11970 | Isler, Jedidah | Vanderbilt University | Black Holes & Hosts 1 | jedidah.isler@vanderbilt.edu | | Member | | |
| 8862 | Kocevski, Dale D. | Colby College | Black Holes & Hosts 1 | dale.kocevski@gmail.com | | Chair | | |
| 1163 | Krolik, Julian H. | The Johns Hopkins University | Black Holes & Hosts 1 | jhk@jhu.edu | | Member | ACCRETION DISKS AND JETS, REVERBERATION, LOW-LUMINOSITY AGN/SEYFERTS, AGN HOST GALAXIES, TRANSIENTS, HIGH-LUMINOSITY AGN/QUASARS, ACCRETION DISKS, JETS, WINDS AND OUTFLOWS, RADIO AGN, EMISSION LINES, BAL QUASARS, SUPERMASSIVE BLACK HOLES, GRAVITATIONAL LENSING, X-RAY AGN | Hawley, John F. 3191 (CC), Piran, Tsvi 7895 (CC), Schnittman, Jeremy 12615 (CC), Noble, Scott 18499 (CC), Blaes, Omer 5620 (CC) |
| 13551 | Meyer, Eileen T | University of Maryland Baltimore County | Black Holes & Hosts 1 | meyer@umbc.edu | | Member | | |
| 12721 | Ogle, Patrick Michael | California Institute of Technology | Black Holes & Hosts 1 | ogle@ipac.caltech.edu | | Member | BULGES, SPHEROIDS AND ELLIPTICALS, LOW-LUMINOSITY AGN/SEYFERTS, X-RAY AGN, SCALING RELATIONS, INTERACTING/MERGING GALAXIES, GALAXY FORMATION AND EVOLUTION, WINDS AND OUTFLOWS, DISKS AND SPIRALS, JETS, RADIO AGN, DUST, SPECTRAL ENERGY DISTRIBUTIONS, EMISSION LINES, QUENCHED GALAXIES, AGN HOST GALAXIES, STARBURST GALAXIES, BAL QUASARS, ACCRETION DISKS, HIGH-LUMINOSITY AGN/QUASARS, QUENCHED GALAXIES, FEEDBACK, IR-LUMINOUS GALAXIES | Guillard, Pierre 14038 (former.postdoc), Cluver, Michelle 12831 (FC), Lanz, Lauranne 13949 (CP), Appleton, Philip N. 62 (CC), Mazzarella, Joseph M. 3554 (OT) |
| 13639 | Runnoe, Jessie Caye | The Pennsylvania State University | Black Holes & Hosts 1 | runnoejc@psu.edu | | Member | | |
| 2977 | Schmitt, Henrique R. | Naval Research Laboratory | Black Holes & Hosts 1 | hschmitt@ccs.nrl.navy.mil | | Member | WINDS AND OUTFLOWS, ASTROMETRY, EMISSION LINES, AGN HOST GALAXIES, SPECTRAL ENERGY DISTRIBUTIONS, STELLAR POPULATIONS, RADIO AGN, BINARIES, LOW-LUMINOSITY AGN/SEYFERTS, LINERS, STARBURST GALAXIES | Storchi-Bergmann, Thaisa 2497 (PA), Kraemer, Steven 4182 (CC), Crenshaw, D. Michael 447 (CC), Fischer, Travis 8922 (CC), Secrest, Nathan John 17806 (CP), Clarke, Tracy 9150 (FA) |
| 9135 | Shen, Yue | University of Illinois at Urbana - Champaign | Black Holes & Hosts 1 | shenyue@illinois.edu | | Member | EMISSION LINES, WINDS AND OUTFLOWS, REVERBERATION, AGN HOST GALAXIES, HIGH-LUMINOSITY AGN/QUASARS, BAL QUASARS, M-SIGMA RELATION, SUPERMASSIVE BLACK HOLES | Strauss, Michael A. 2502 (PA), Liu, Xin 9136 (FA), Brandt, W. Nielsen 4563 (CC), Denney, Kelly D. 8912 (CC), Peterson, Bradley M 2049 (CC), Greene, Jenny E. 7788 (CC), Ho, Luis C. 941 (CC), Jiang, Linhua 8933 (CC), Richards, Gordon T. 6115 (CC), Hall, Patrick B. 6188 (CC), McGreer, Ian 8990 (CC), Barth, Aaron J. 132 (CC), Trump, Jonathan R 9036 (CC), Loeb, Abraham 3936 (CC), Tremaine, Scott D. 2600 (CC), Green, Paul J. 3538 (CC), Eracleous, Michael 3073 (CC) |
| 9047 | Whitaker, Katherine E. | University of Massachusetts - Amherst | Black Holes & Hosts 1 | kwhitaker@astro.umass.edu | | Member | SCALING RELATIONS, DUST, STELLAR POPULATIONS, EXTRA-GALACTIC LEGACY & DEEP FIELDS, GALAXY FORMATION AND EVOLUTION, QUENCHED GALAXIES, STRUCTURE AND MORPHOLOGY, PHOTOMETRIC REDSHIFTS, SPECTRAL ENERGY DISTRIBUTIONS, EMISSION LINE GALAXIES | van Dokkum, Pieter 4301 (PA), Rigby, Jane R. 5571 (FC), Brammer, Gabriel 7284 (CC), Momcheva, Ivelina G 11951 (CC), Bezanson, Rachel 8901 (CC), Marchesini, Danilo 8099 (CC), Nelson, Erica June 13829 (CC), Skelton, Rosalind Eugenie 13171 (CC), Franx, Marijn 699 (CC), Labbe, Ivo 6697 (CC), Kriek, Mariska 8172 (CC), Lundgren, Britt 13394 (CC) |
| 11895 | Alatalo, Katherine Anne | Carnegie Institution of Washington | Black Holes & Hosts 2 | kalatalo@carnegiescience.edu | | Member | QUENCHED GALAXIES, FEEDBACK, QUENCHED GALAXIES, STAR-FORMATION HISTORIES, GALAXY ENVIRONMENTS, GALAXY FORMATION AND EVOLUTION, GROUPS OF GALAXIES, WINDS AND OUTFLOWS, BULGES, SPHEROIDS AND ELLIPTICALS, JETS | Heiles, Carl E. 8546 (PA), Appleton, Philip N. 62 (FC), Lacy, Mark D. 3639 (CC), Lisendfeld, Ute 17096 (CC) |
| 12798 | Barro, Guillermo | University of California - Santa Cruz | Black Holes & Hosts 2 | gbarro@ucolick.org | | Member | | |
| 447 | Crenshaw, D. Michael | Georgia State University Research Foundation | Black Holes & Hosts 2 | crenshaw@astro.gsu.edu | | Member | SUPERMASSIVE BLACK HOLES, FEEDBACK, RADIO AGN, M-SIGMA RELATION, JETS, REVERBERATION, ACCRETION DISKS, BAL QUASARS, AGN HOST GALAXIES, LINERS, LOW-LUMINOSITY AGN/SEYFERTS, WINDS AND OUTFLOWS, EMISSION LINES, QUENCHED GALAXIES, HIGH-LUMINOSITY AGN/QUASARS, X-RAY AGN | Peterson, Bradley M 2049 (PA), Bentz, Misty C. 7354 (OT) |
| 7788 | Greene, Jenny E. | Princeton University | Black Holes & Hosts 2 | jgreene@astro.princeton.edu | | Chair | | |
| 9446 | Gultekin, Kayhan | University of Michigan | Black Holes & Hosts 2 | kayhan@umich.edu | | Member | FEEDBACK, M-SIGMA RELATION, SUPERMASSIVE BLACK HOLES, HIGH-LUMINOSITY AGN/QUASARS, REVERBERATION, X-RAY AGN, ACCRETION DISKS, LOW-LUMINOSITY AGN/SEYFERTS, WINDS AND OUTFLOWS, AGN HOST GALAXIES, RADIO AGN | Miller, M. Coleman 8326 (PA), King, Ashley 12777 (FS), Cackett, Edward M. 11926 (CC), Miller, Jon Matthew 6790 (CC), Gebhardt, Karl 3732 (CC), van den Bosch, Remco 12579 (CC), Walsh, Jonelle L. 9026 (CC) |
| 1092 | Keel, William C. | University of Alabama | Black Holes & Hosts 2 | wkeel@ua.edu | | Member | | |
| 13981 | Maksym, Walter Peter | Smithsonian Institution Astrophysical Observatory | Black Holes & Hosts 2 | peter.maksym@gmail.com | | Member | M-SIGMA RELATION, GROUPS OF GALAXIES, TRANSIENTS, FEEDBACK, SUPERMASSIVE BLACK HOLES, JETS, STELLAR POPULATIONS, CLUSTERS OF GALAXIES, AGN HOST GALAXIES, X-RAY AGN, EMISSION LINES, LOW-LUMINOSITY AGN/SEYFERTS | Ulmer, Melville P. 2624 (PA), Irwin, Jimmy A. 6894 (FC), Keel, William C. 1092 (FC), Fabbiano, Giuseppina 632 (CA), Elvis, Martin 607 (CA), Johnson, Lucas 18155 (CS), Paggi, Alessandro 18488 (CC), Karovska, Margarita 1079 (CC), Wang, Junfeng 9140 (CC), Storchi-Bergmann, Thaisa 2497 (CC), Raymond, John C. 2144 (CC), Lin, Dacheng 13697 (CC), Schawinski, Kevin 8350 (CC), Sartori, Lia 17705 (CC), Cenko, Stephen Bradley 7374 (CC), Lintott, Chris J. 8614 (CC), Guillochon, James Francis 17106 (CC), Dupke, Renato A. 6976 (CC) |
| 13055 | Mueller-Sanchez, Francisco | University of Colorado at Boulder | Black Holes & Hosts 2 | francisco.mullersanchez@colora | | Member | | |
| 7917 | Simmons, Brooke Devlin | University of California - San Diego | Black Holes & Hosts 2 | bdsimmons@ucsd.edu | | Member | DISKS AND SPIRALS, HIGH-LUMINOSITY AGN/QUASARS, BULGES, SPHEROIDS AND ELLIPTICALS, M-SIGMA RELATION, GALAXY FORMATION AND EVOLUTION, SUPERMASSIVE BLACK HOLES, LOW-LUMINOSITY AGN/SEYFERTS, QUENCHED GALAXIES, STRUCTURE AND MORPHOLOGY, STAR-FORMATION HISTORIES, STELLAR POPULATIONS, EXTRA-GALACTIC LEGACY & DEEP FIELDS, AGN HOST GALAXIES | Urry, Claudia Megan 2880 (PA), Lintott, Chris J. 8614 (FC), Schawinski, Kevin 8350 (CC), Willett, Kyle 13698 (CC), Smethurst, Rebecca 17846 (CC), Masters, Karen Louise 12577 (CC), Coil, Alison L. 7779 (OT), Treister, Ezequiel 12142 (CC) |
| 13148 | Wylezalek, Dominika | The Johns Hopkins University | Black Holes & Hosts 2 | dwylezalek@jhu.edu | | Member | HIGH-LUMINOSITY AGN/QUASARS, GALAXY ENVIRONMENTS, RADIO AGN, EMISSION LINES, WINDS AND OUTFLOWS, SPECTRAL ENERGY DISTRIBUTIONS, AGN HOST GALAXIES, FEEDBACK, CLUSTERS OF GALAXIES, PHOTOMETRIC REDSHIFTS | De Breuck, Carlos 6834 (PA), Vernet, Joel 4722 (PA), Stern, Daniel 4419 (CC), Zakamska, Nadia L 6732 (CA), Gonzalez, Anthony H. 7081 (CC), Brodwin, Mark 6473 (CC), Galametz, Audrey 13145 (CC) |

**Figure 41. Reviewer Export File from TPS**

We utilize the information from each panel review member, such as their employee institution(s), their correct name as defined by the ProPer system and their scientific expertise as specified by the 10 scientific keywords that are matched between the Reviewers and the APT Proposal Submissions. As defined by the Call for Proposals in Section 8.8, the Review panels are based on the Scientific Categories that are chosen by the proposer in APT and that are established in TPS to form our Panels. The current scientific categories are as follows:

- Solar System
- Extra-Solar Planets and Planet Formation

- Stellar Physics
- Stellar Populations
- Galaxies
- Massive Black Holes and their Hosts
- Intergalactic Medium and Cosmology

Once all input files, the individual APT (Proposals) files, the TPS Panel definitions, the Panelists Keywords and Conflicts, are ready, the Submission Daemon is started and the Reviewer Assignment tool is selected from the Pull-down menu as shown in Figure 40.

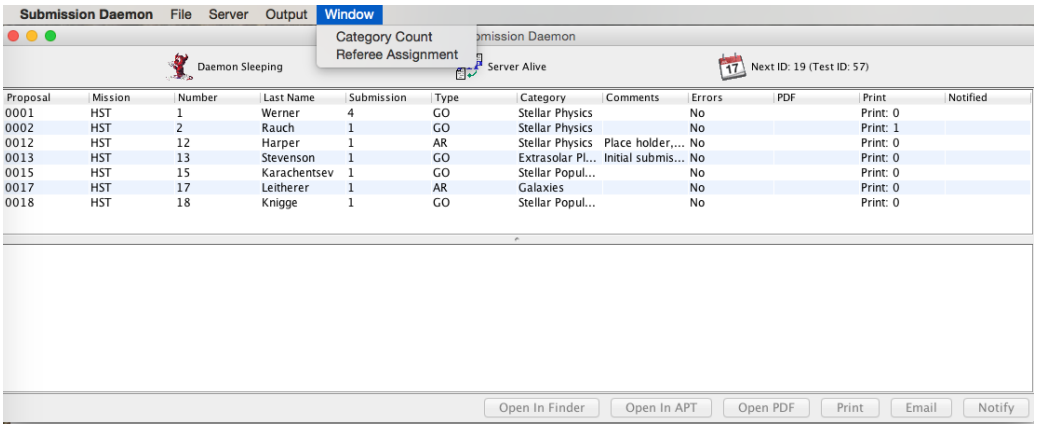



**Figure 42. Reviewer Assignment Tool Startup**

Each time the tool is opened it is left in the state from the previous run. So for an initial Cycle startup, you must be connected via the VPN or on the internal STScI network and then open up a new meeting as shown in Figure 43.

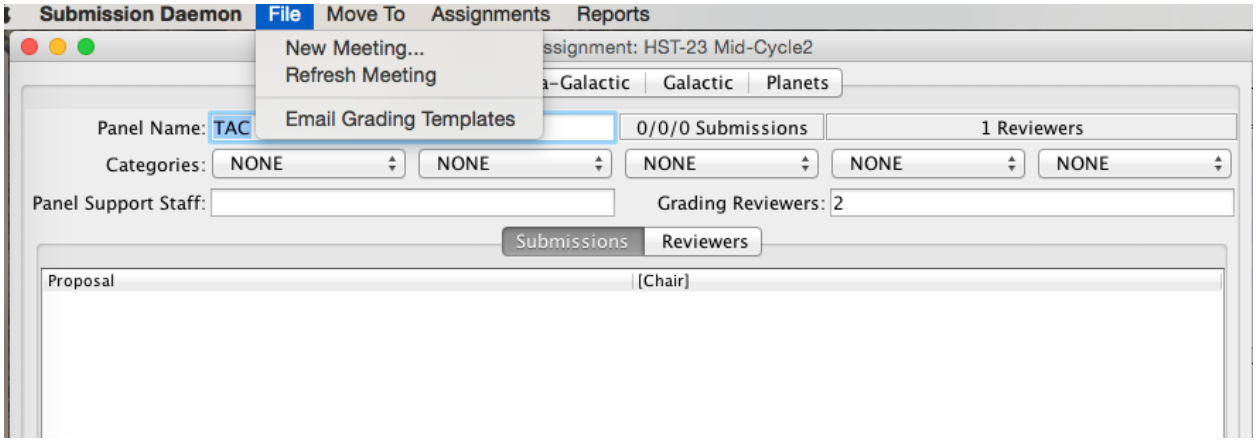



**Figure 43. TPS Meeting Selection Initialization for Reviewer Assignments**

Once the meeting has been loaded, the different panels are set up as defined from TPS with the relevant Panel members with their associated Profile information that they have entered as shown in Figure 44. This "state" information is maintained in associated tracking files that are located in the operational area of the Submission Daemon File Structure as described in section 3.4.

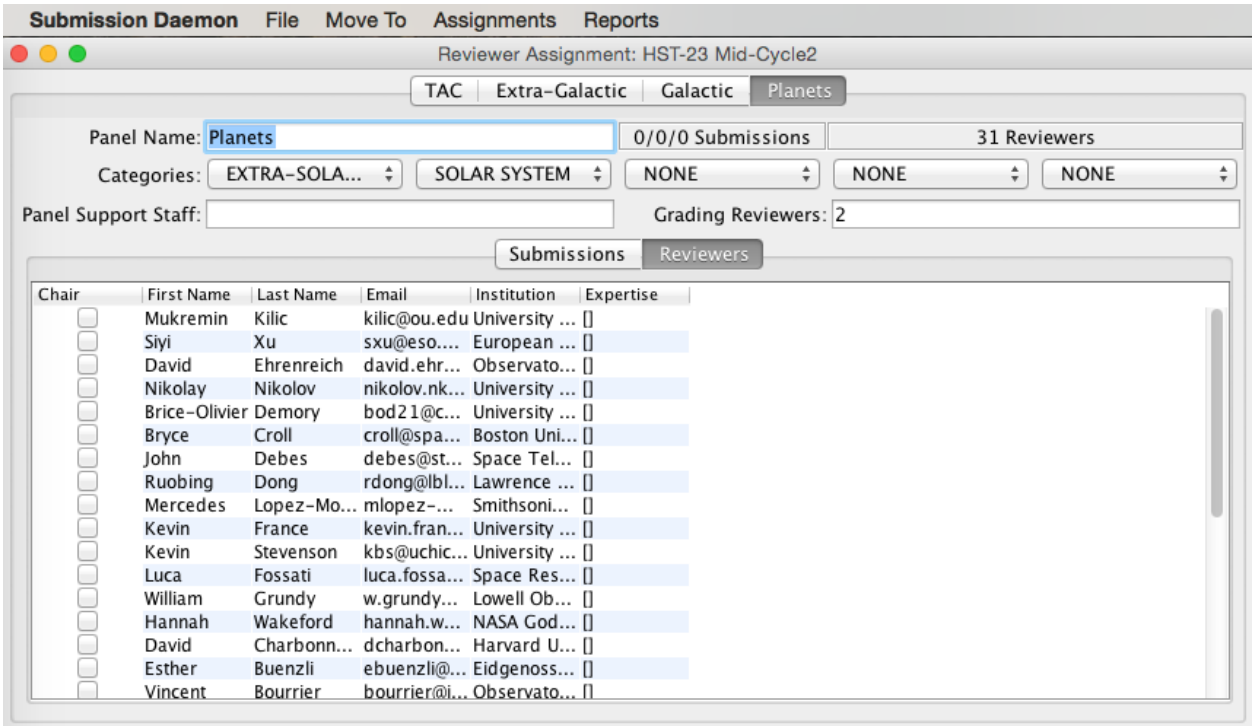



**Figure 44. Reviewer Assignment Panel View**

After the initial meeting population of the panels is set, some initialization is required for the initial meeting. The Science Category selections need to be set. This happens as seen in Figure 42, by selecting the category that matches the Panel science category. For Cycle 24 this is now a one-to-one setup, but for specialized meetings, as seen above for the Cycle 23 Mid-Cycle review, broad panels can be established that will handle similar science proposals. This is also how different categories can be set for handling the conflicts of interest via the mirror panels, i.e. in the normal cycle we have 2 or 3 sets of mirror panels. The TAC panel is also a manual setup, as proposals from all science areas are placed in that panel, because of their size and/or proposal type, i.e. AR Legacy or Treasury or Pure Parallels. So from a database listing of the TAC proposals they need to be manually moved to the TAC panel from the other panels as assigned by the tool during its initial assignment of proposals to panels. The main steps of the reviewer assignment process/tool are as follows:

1) Determine the number of panels to which a proposal can be assigned.
2) Determine name, institutional conflicts and pre-defined reviewer conflicts.
3) Determine the best match for the proposal by minimizing conflicts of interest and assignment based on the Science Keywords that have been selected by the Investigators as well as the reviewers' profile definitions.

4) Balance each panel for proposals.

5) Determine Primary and Secondary assignments based on keyword matching score and proposal to reviewer balance.

6) Display assignments in GUI and flag Primary, Secondary and Conflicts by colors: Green is Primary "A" assignment; Yellow is Secondary "B" assignment; and Red is Conflict designation.

After the assignments have been made, reporting files can be generated from the pull-down menu, either all at the same time or by individual reports. There is a command to completely restart the process which goes back to the beginning. There is the capability to move a proposal

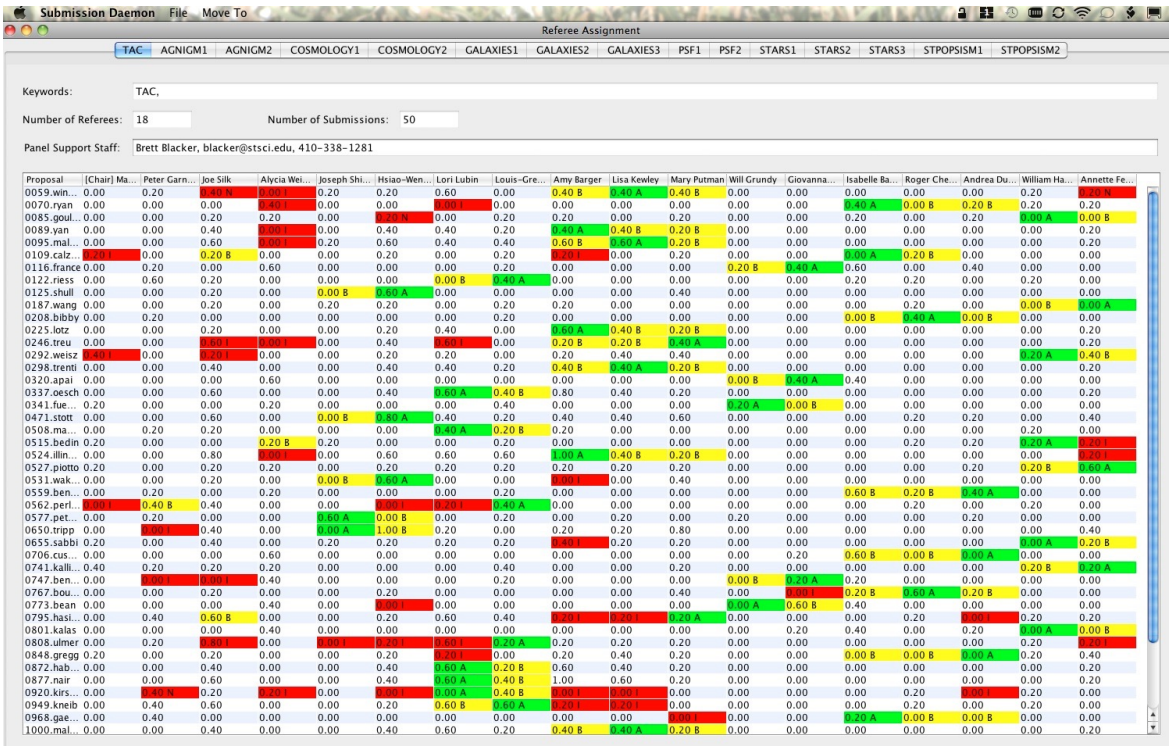



**Figure 45. Example GUI Screen for Reviewer Assignment S/W for a Panel**

to another panel: highlight the proposal you want to move and go to the pull-down MOVE TO and select the panel. The proposal is moved and automatically assigned a new Primary and Secondary Reviewer, and conflicts are flagged. The standard "I" is used for an Institutional Conflict and "N" is for a PI or CoI conflict. The reviewers are flagged by "A" for Primary and "B" for Secondary and there can be as many Secondary Reviewers as necessary for mirror panels for TAC review members. There is one layout GUI for each panel that is needed. After the initial run has been done, the output spreadsheets are provided to the SPG scientists for their review

and modifications. They review the assignments and adjust for balance as well as other known conflicts of which the software cannot be made aware. These changes are then sent to the SMO technical manager who will make the changes in the GUI by changing the assignments by using a pull-down selector. This is an iterative process that can be done once or multiple times until the scientist is happy with the results for their particular panels. Once all of the changes have been made and approved by the SPG group, the assignments can be sent to the review members, which is done by using the pull-down menu "Email to all reviewers" command. At this time, the proposals can be packaged up for the review members and the SPRINT tool can be loaded for the review as described below.

### *4.8 Load Reviewer assignments into the Database*

Upon completion of the assignment to panel and to reviewer process, this information is then loaded into the FileMaker Pro database to aid in the review process. This is done by loading the panel-assignments.txt file via an Excel or csv conversion into the appropriate fields in the database. Once in the database, we then sort the proposals by panel and export the necessary information to generate the download packages and the Abstract Catalogs. We then copy all of the appropriate proposals to their respective panels by creating a copy script that is run from the unix command line that creates appropriate folders. We use the following unix command line statement: tar cvzf Name.tgz ./Folder to create the tar folders for distribution.

### *4.9 Distribute Products for Panel Members and Outside Experts*

Once the proposals to panel and to reviewer member assignments have been completed, we utilize the same process to create the download packages for the panels. In addition to the proposals, abstract catalog and proposal spreadsheet, we also include some panel documentation and include their relevant TAC proposals for their review. Once the download tars have been created, they are transferred to a secure location on the STScI Central Storage system, where the SPRINT tool accesses them. From the SPRINT Admin tool, each download is attached to its respective panel for the reviewers to access.

In addition to the currently 15 + TAC panel review packages, we also create one for the Chandra, NOAO, NRAO, and XMM centers to review the proposals that are requesting Joint HST time with their Observatory. Details about the Joint Observations can be found in the Call for Proposals in Chapter 3. The Joint Observatory files are distributed to the respective contacts for their technical reviews, with any comments to be returned via email prior to our review. Any relevant comments are loaded into the SPRINT tool.

In Cycle 22 and continuing today, we introduced a new component in the proposal review process in order to decrease the workload of the panelists. We solicit external reviews from community experts for the subset of proposals to be discussed by the Telescope Allocation Committee (TAC), which evaluates Large and Treasury proposals. Typically, about 50-70 proposals fall into this category. We distribute about 1-4 proposals per reviewer and they are asked to comment on the following questions:

- What are the major and minor strengths of the proposal?
- What are the major and minor weaknesses of the proposal?
- How timely is the proposed science?
- What impact will the results have on the subject area?

These reviews are received via email and are loaded into the SPRINT tool additional documents section for all of the TAC members to see. We utilize the same process of using TPS to recruit the panel and load their information into the Reviewer Assignment tool. However, we break up the reviewers into 3 groups, Extra-Galactic, Galactic and Planets, to do their assignments.

### *4.10 Load SPRINT Tool*

Once we have the completed review assignments packages generated and transferred to Central Store, the appropriate files/folders/downloads are placed into their specific panel locations at /grp/hst/tac/src. The files generated from the Reviewer assignment process are then loaded into the tool to make the initial setups. That file is PANELNAME.webreviewer.txt. Each individual panel needs to be loaded by itself. Once all of the panels and reviewer assignments have been loaded into the tool, the system can then be set up for deployment to the reviewers. To do this, the TAC manager logs into the Admin application, changes the settings on the Developer tab to disable email debugging. Then go to Users>Manage Reviewers>Actions>Initialize Passwords, which will initialize the system for the reviewers to be allowed to login and begin their download of the products as well as to enter grades and comments as discussed in section 4.17. We also make sure that the appropriate panel support staff are assigned to their panels and then the downloads are made active for them as well at the same time.

### *4.11 TAC Proposal Reviewer assignments and Conflicts*

The SMO technical manager handles the TAC reviewer assignments acting as the TAC Panel support staff member, after review by the SPG head. Any review assignments that require changing are maintained in the TAC assignments/conflicts master spreadsheet and the SPRINT tool, based on any newly declared conflicts by the TAC members as is done for the regular panels.

### *4.12 Preliminary Grades*

We require a set of preliminary grades from each reviewer. The Space Telescope Users Committee (STUC) has emphasized the importance of ensuring that proposals are reviewed by a broad cross-section from each panel. Reviewers are required to submit preliminary grades on two-thirds of the proposals before their panel, except where a conflict of interest exists. Panelists are not required to submit preliminary grades for the TAC proposals. Review members will submit their preliminary grades through our Web-based Reviewer system at: http://tac.stsci.edu/tac, normally 1 1/2 weeks before the Panel Meetings start.

STScI works with a system of grades that runs from 1.0 to 5.0. The best grade available is 1.0 and the worst is 5.0. (Note that this scale runs opposite to that used by some NASA review panels!) Grades need not be integer numbers. Reviewers should attempt to spread out their grades over the full range if at all feasible. The grades have the following meaning:

1) Outstanding; project must be done (if technically feasible).
2) Very Good; should be done (if technically feasible).
3) Good; worth doing if time permits.
4) Fair; lowest priority for implementation.
5) Unsatisfactory; not recommended for implementation.

The preliminary grades are used by STScI to make an initial ranking of the proposals. The proposal oversubscription in most cycles is sufficiently high that proposals near the bottom of their preliminary ranking (approximately the bottom 35-40%) are highly unlikely to be approved. By default, those proposals are rejected without further discussion by the whole panel. This process of triage has been shown to work well in the past. Panelists have the option of reviving for discussion any triaged proposal they think worthy of approval (unless they have a conflict on the proposal in question). The concept of triage is critical to the HST review process; without it, it would not be possible to review 80 or more proposals per panel in a 2 1/2 - day meeting. For proposals not rejected by triage, the grade voted during the review supersedes any preliminary grade. We must have preliminary grades by the deadline in order to return triage lists to the panels in advance of the review. If the grades of only a single panelist are missing, we cannot adequately perform triage, and the fairness of the review for that entire panel will be jeopardized.

Upon receipt of an entire panel's preliminary grades, the SMO technical manager then exports those grades from the SPRINT tool in Excel format and creates a ranked list, which includes the proposal ID, title, proposal type, average and standard deviation, and flags the proposals in the bottom 35-40% that have been triaged. This ranked list is then sent back to the panel in PDF and Excel format by way of email.

### *4.13 Load Calibration and Joint Reviews and disseminate to the panels*

If there are any relevant comments necessary for the Calibration proposals and/or the Joint Proposals, these comments are then loaded into the SPRINT tool into the technical notes Comments tab that all reviewers can see unless they are conflicted.

### *4.14 Meeting Room setups*

Determining which panels go into which meeting rooms usually takes into account the meeting location, whether it is on-site or off-site. We attempt to place the mirror panels in close proximity to each other in case there are inter-panel proposal discussions, as well as to minimize travel time for our SPG scientists. The only real driving factor is when we have larger or smaller sized panels, they usually are placed into a larger or smaller meeting room. In addition, we need to maintain access security in all conference rooms inside the secure area of the Mueller building.

### *4.15 Determine Resource Allocations*

Once all of the proposals have been assigned to their respective panels, we are then able to determine their panel resource allocations. We have a scheme where we use proposal pressure as well as orbit pressure to determine each allocation. Input to the panel allocations is the total number of available orbits that we will allocate for the given cycle. We then subtract the amount we are going to allow for large proposals and treasury proposal allocation. We load the requested orbits and proposal numbers into an excel spreadsheet and apply the formula we are planning on using and the output is a table of potential allocations. The values we used for Cycle 25 were 3400 total orbits to allocate, minus 1000 for the TAC/Large proposals and about 600 orbits for Mediums, leaving 1800 orbits to be allocated by the panels. For AR and SNAPshot proposals, no direct allocation is provided to the review panels. The allocation of AR and SNAP proposals is handled by the SMO group during their review of the panel results by looking at the GO program cutoff in relation to where the AR and SNAPshot proposals are ranked.

| | GO | ORBITS | Medium Props | Medium Orbits | AR | SNAPS | TOTAL |
|---|---|---|---|---|---|---|---|
| AGN1 | 60 | 1047 | 5 | 242 | 16 | 9 | 85 |
| AGN2 | 64 | 1272 | 5 | 290 | 17 | 6 | 87 |
| COS1 | 46 | 811 | 2 | 100 | 25 | 5 | 76 |
| COS2 | 49 | 914 | 3 | 122 | 20 | 6 | 75 |
| GAL1 | 50 | 973 | 3 | 154 | 14 | 2 | 66 |
| GAL2 | 49 | 838 | 2 | 99 | 14 | 2 | 65 |
| GAL3 | 56 | 1001 | 0 | 0 | 8 | 2 | 66 |
| PSF1 | 73 | 835 | 1 | 48 | 8 | 5 | 86 |
| PSF2 | 70 | 669 | 2 | 89 | 14 | 3 | 87 |
| STARS1 | 53 | 466 | 0 | 0 | 10 | 5 | 68 |
| STARS2 | 55 | 597 | 1 | 54 | 8 | 3 | 66 |
| STARS3 | 55 | 561 | 1 | 53 | 4 | 4 | 63 |
| STPOPS1 | 64 | 995 | 0 | 0 | 13 | 0 | 77 |
| STPOPS2 | 59 | 892 | 2 | 149 | 14 | 0 | 73 |
| TAC | 42 | 4896 | 0 | 0 | 5 | 3 | 50 |
| | 845 | 16767 | 27 | 1400 | 190 | 55 | 1090 |

**Figure 46. Example Panel Breakdown to determine Allocations**

| Panel | # of Small GO Props | # of Small GO Orbs | A #GO/TOT Props | B #ORB/TOT Orbits | C 1/2 props 1/2 orbits | D 1/4 props 3/4 orbs | E 1/3 props 2/3 orbs |
|---|---|---|---|---|---|---|---|
| AGNIGM1 | 65 | 908 | 0.09 | 0.0992 | 0.0927 | 0.0960 | 0.0949 |
| AGNIGM2 | 69 | 1052 | 0.0915 | 0.1149 | 0.1032 | 0.1091 | 0.1071 |
| COS1 | 32 | 378 | 0.0424 | 0.0413 | 0.0419 | 0.0416 | 0.0417 |
| COS2 | 28 | 416 | 0.0371 | 0.0455 | 0.0413 | 0.0434 | 0.0427 |
| GAL1 | 48 | 722 | 0.0637 | 0.0789 | 0.0713 | 0.0751 | 0.0738 |
| GAL2 | 45 | 588 | 0.0597 | 0.0642 | 0.0620 | 0.0631 | 0.0627 |
| GAL3 | 43 | 641 | 0.0570 | 0.0700 | 0.0635 | 0.0668 | 0.0657 |
| Planets1 | 54 | 627 | 0.0716 | 0.0685 | 0.0701 | 0.0693 | 0.0695 |
| Planets2 | 51 | 676 | 0.0676 | 0.0739 | 0.0708 | 0.0723 | 0.0718 |
| STARS1 | 67 | 478 | 0.0889 | 0.0522 | 0.0705 | 0.0614 | 0.0644 |
| STARS2 | 65 | 639 | 0.0862 | 0.0698 | 0.0780 | 0.0739 | 0.0753 |
| STARS3 | 63 | 691 | 0.0836 | 0.0755 | 0.0795 | 0.0775 | 0.0782 |
| STPOPS1 | 34 | 490 | 0.0451 | 0.0535 | 0.0493 | 0.0514 | 0.0507 |
| STPOPS2 | 48 | 607 | 0.0637 | 0.0663 | 0.0650 | 0.0657 | 0.0654 |
| SS | 42 | 239 | 0.0557 | 0.0261 | 0.0409 | 0.0335 | 0.0360 |
| *Totals* | *754* | *9152* | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* |
| | | **Proposed** | **A*1800** | **B*1800** | **C*1800** | **D*1800** | **E*1800** |
| AGNIGM1 | 0.18 | **167** | 155 | 179 | 167 | 173 | 171 |
| AGNIGM2 | 0.18 | **186** | 165 | 207 | 186 | 196 | 193 |
| COS1 | 0.20 | **76** | 76 | 74 | 75 | 75 | 75 |
| COS2 | 0.18 | **74** | 67 | 82 | 74 | 78 | 77 |
| GAL1 | 0.18 | **129** | 115 | 142 | 128 | 135 | 133 |
| GAL2 | 0.19 | **112** | 107 | 116 | 112 | 114 | 113 |
| GAL3 | 0.18 | **115** | 103 | 126 | 114 | 120 | 118 |
| Planets1 | 0.20 | **124** | 129 | 123 | 126 | 125 | 125 |
| Planets2 | 0.19 | **125** | 122 | 133 | 127 | 130 | 129 |
| STARS1 | 0.32 | **152** | 160 | 94 | 127 | 110 | 116 |
| STARS2 | 0.26 | **166** | 155 | 126 | 140 | 133 | 135 |
| STARS3 | 0.24 | **168** | 150 | 136 | 143 | 140 | 141 |
| STPOPS1 | 0.18 | **89** | 81 | 96 | 89 | 93 | 91 |
| STPOPS2 | 0.19 | **117** | 115 | 119 | 117 | 118 | 118 |
| SS | 0.00 | | 100 | 47 | 74 | 60 | 65 |
| *Totals* | | ***1800*** | *1700* | *1753* | *1726* | *1740* | *1735* |
| | | | | | | | |
| **TOTAL = 3400 -** | | **TAC = 1000** | **-** | **Panels = 1800 -** | | **Medium pool = 600** | |

**Figure 47. Example Panel Allocations Schemes**

### *4.16 Coordination of TAC Members Pre-Meeting Telecon*

About 2 weeks before the TAC meeting, we have been holding a teleconference with all of the TAC Members so that they are all aware of the process and attempting to follow similar paths for the review. Some of the agenda topics we have included are

Update & news
Proposal grading & on-line system
Conflicts of interests
Role of panel chairs
The TAC process
Outstanding questions

We coordinate the teleconference by conducting a "Doodle" poll and attempt to select the best time when as many members as possible can participate. We use a voice-only WebEx meeting.

### *4.17 Management of SPRINT Tool*

The SMO technical manager, along with the ITSD developer for the SPRINT tool are both set up to be managers of the SPRINT tool. We import and export data for creation purposes, we handle password resets, we handle moving proposals between panels, or review assignment changes until it is handed off to the Panel Support Staff member. We support testing the system in the alpha as well as beta modes and recruit support staff members to assist in the testing process. This section will describe the operation for an Admin to utilize the tool for panel work. See Appendix C for the detailed operational aspects for the Review member. The tool can be found at https://tac.stsci.edu/tacadmin and is usable with the most recent versions of Google Chrome, Firefox, and Safari. To log in, use your MyST (AD) userid and the password.

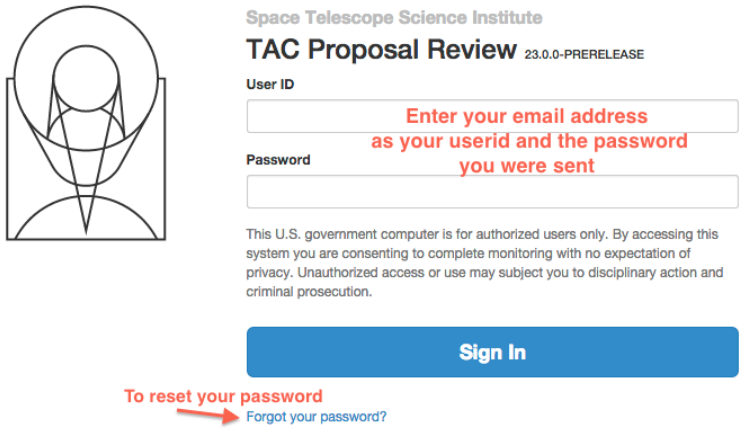



**Figure 48. SPRINT Admin Client Login Screen**

To download your proposals, use the link in the upper right corner as seen in Figure 49. This figure also provides a top-level page where most of the review summary information necessary for each panel can be seen. To see the panel proposals, click on the Panel Details button, which is actually the Panel name in the upper left corner.

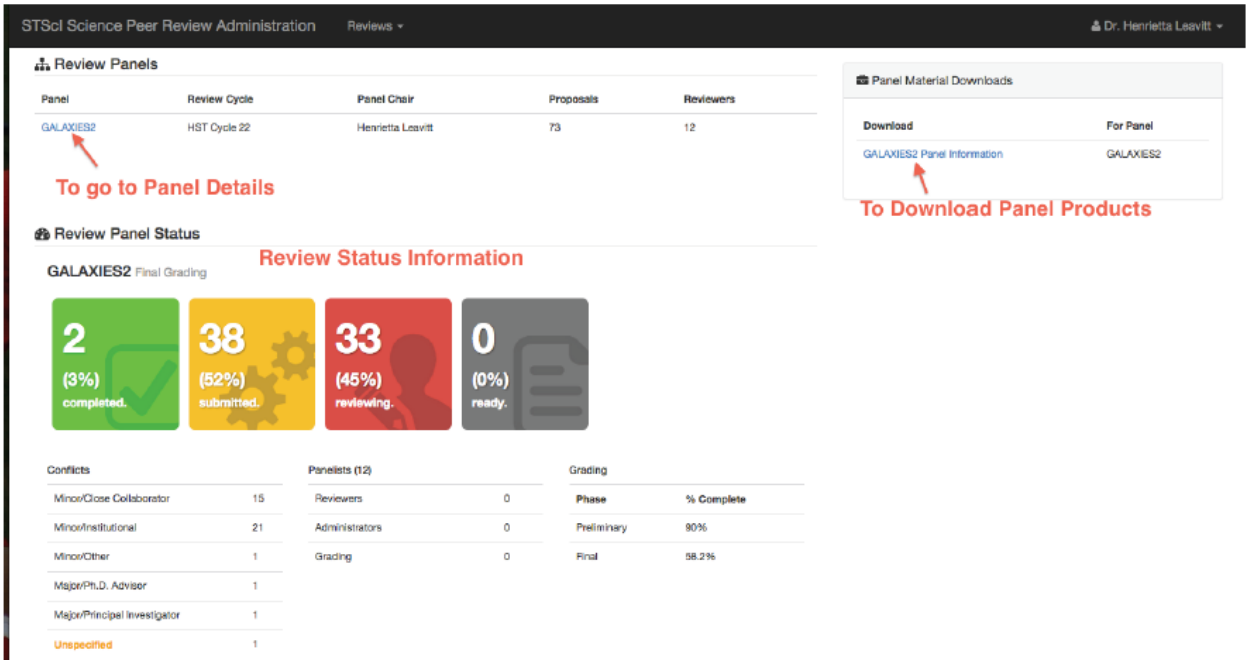



**Figure 49. Main Panel Summary and Screens**

To view Proposal details, click on that proposal ID, which shows the screen as seen in Figure 50.

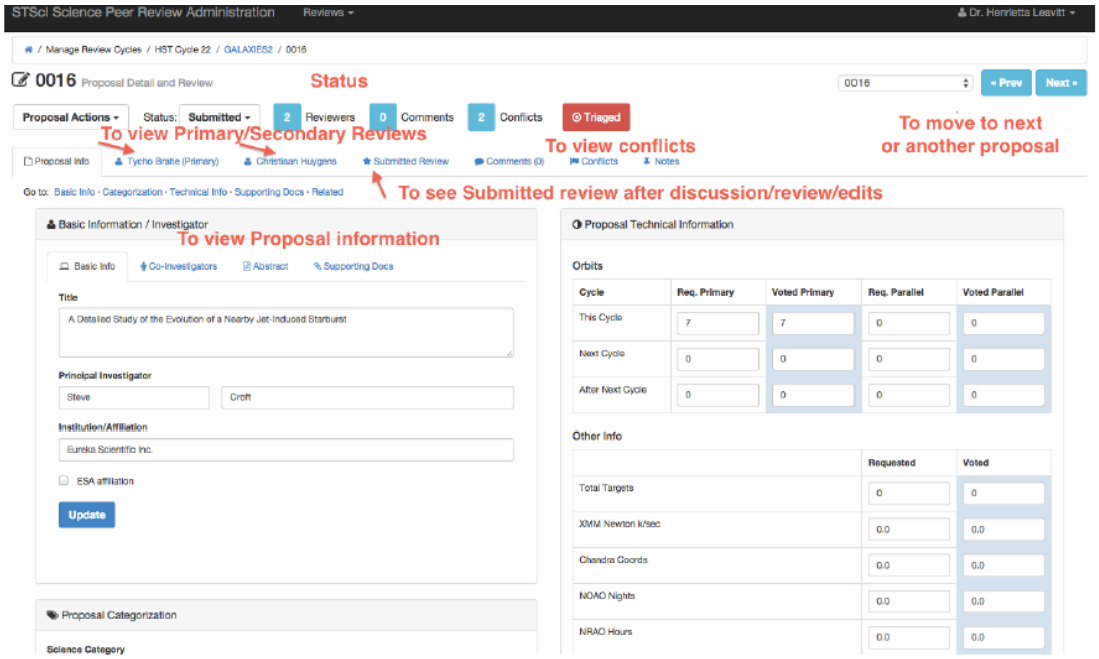



**Figure 50. Proposal Details**

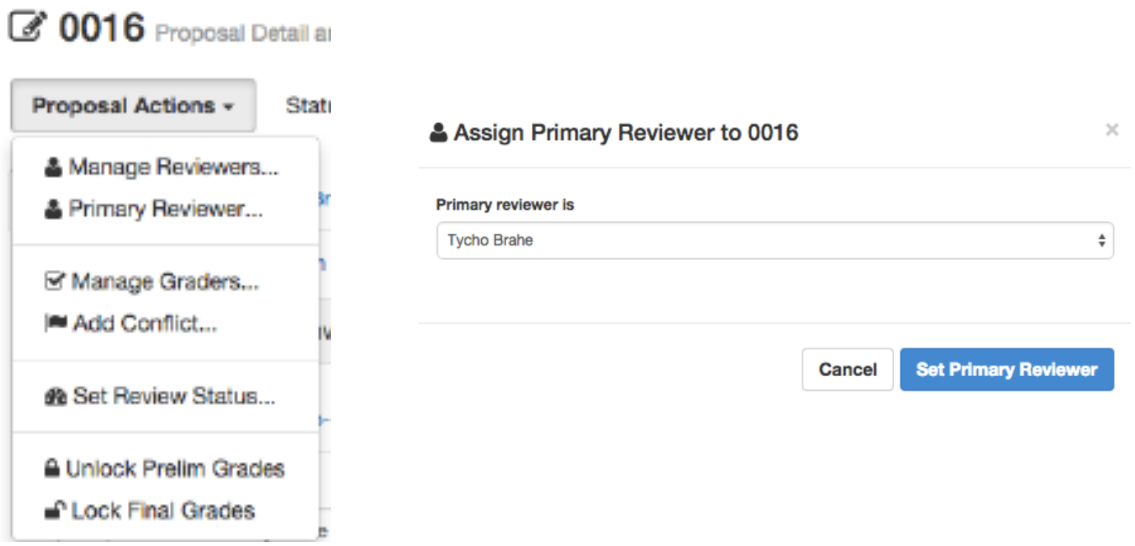



**Figure 51. Proposal Actions**

To change Review assignments click on the proposal action buttons and select the desired change, as seen in Figure 51.

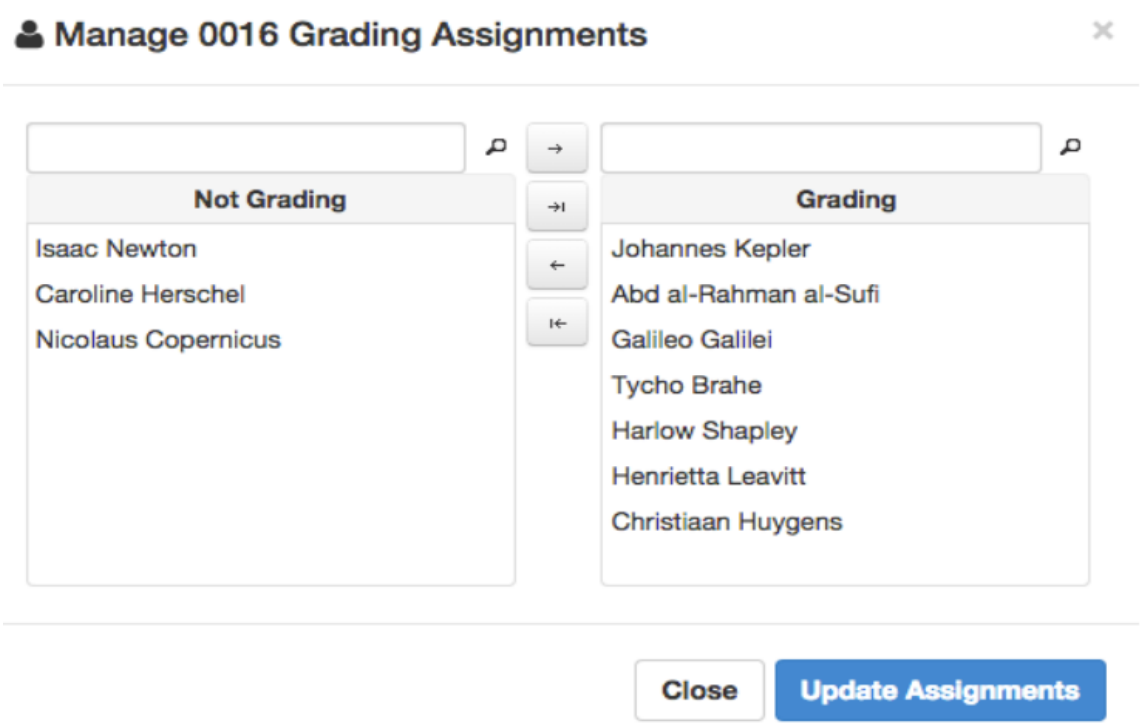



**Figure 52. To change Grading or Reviewer Assignments**

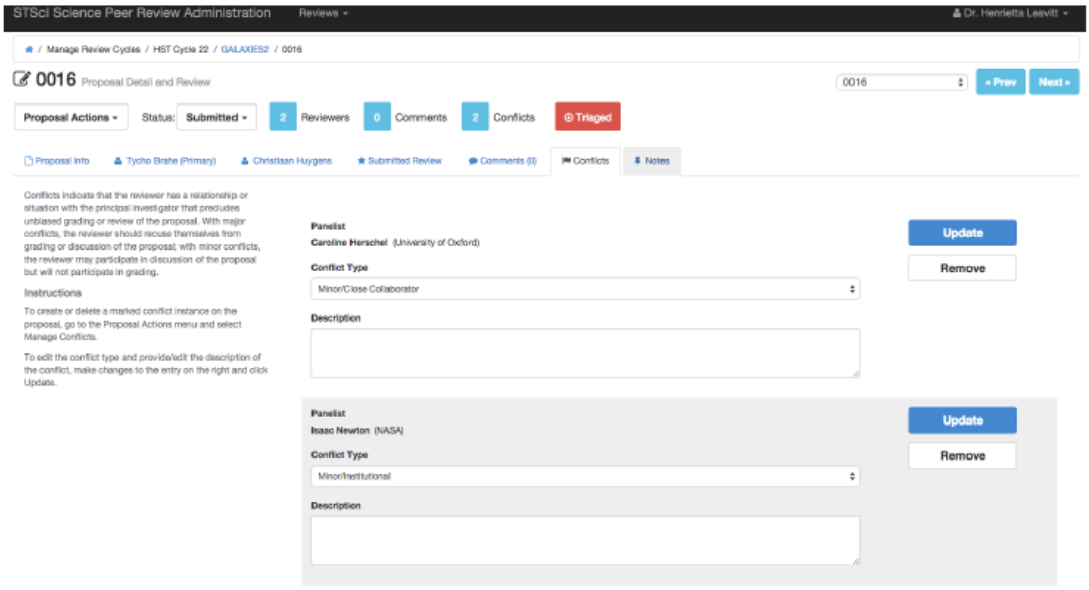



**Figure 53. To Manage Conflicts**

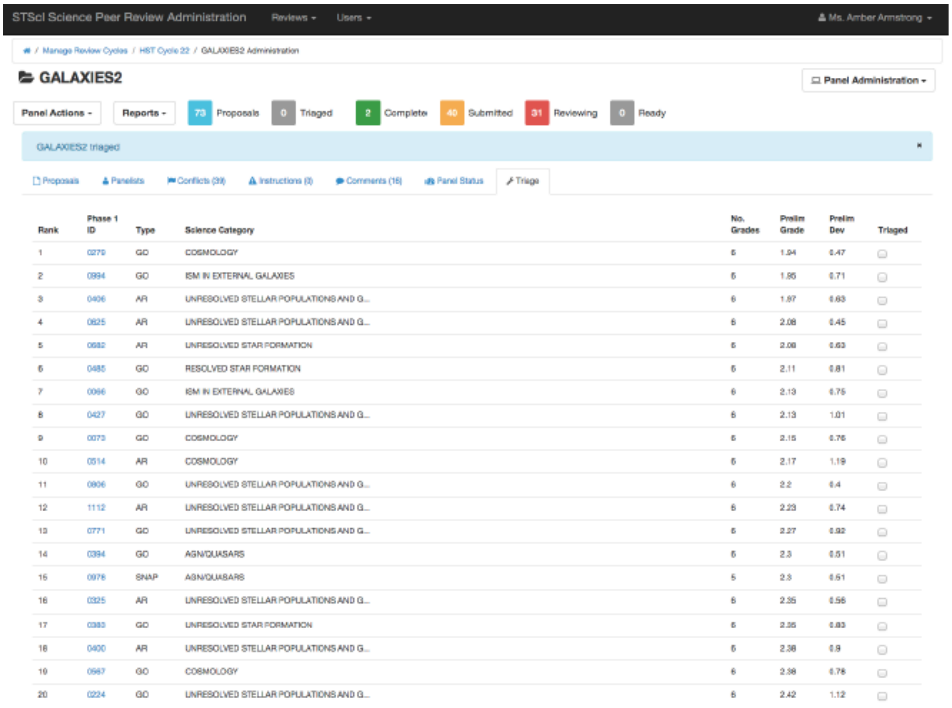



**Figure 54. To Manage Triaged Proposals**

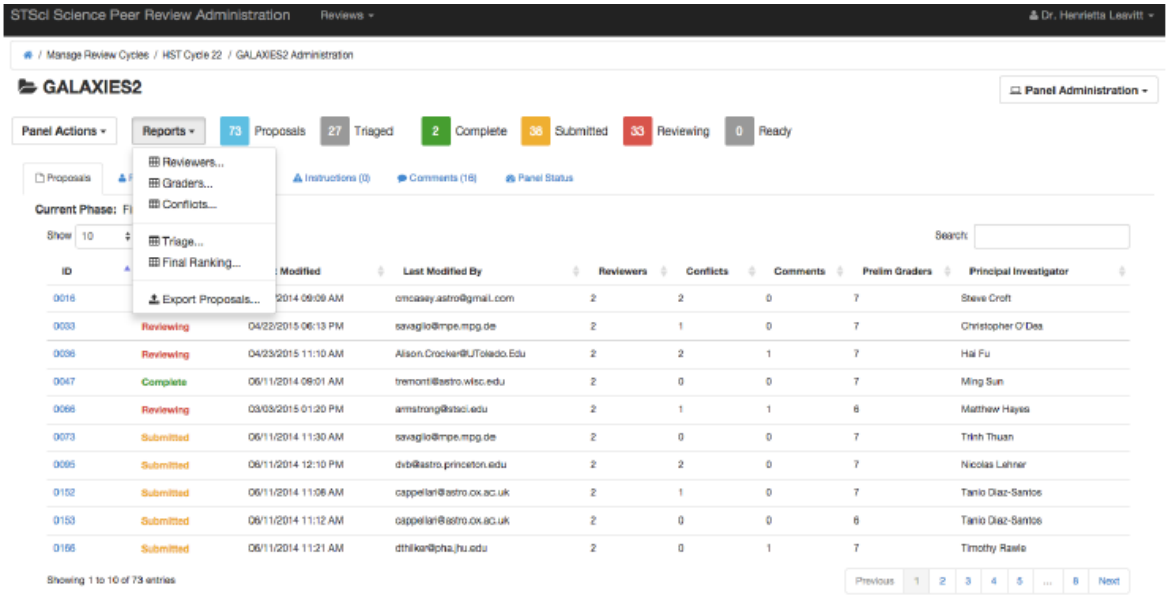



**Figure 55. To Create Reports**

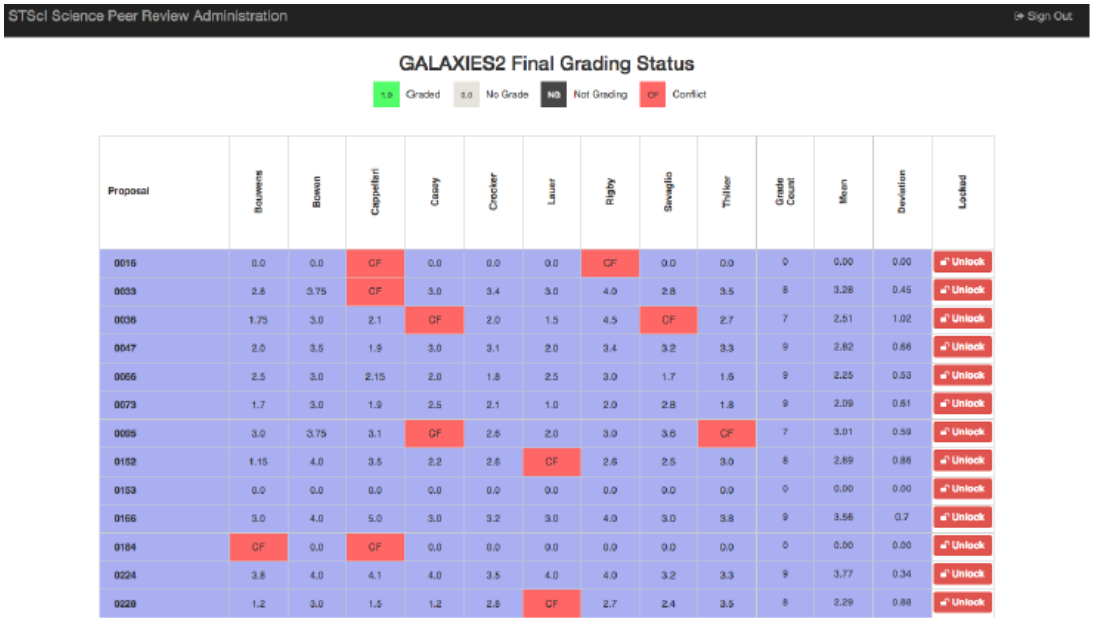



**Figure 56. HTML Report of Grading Status**

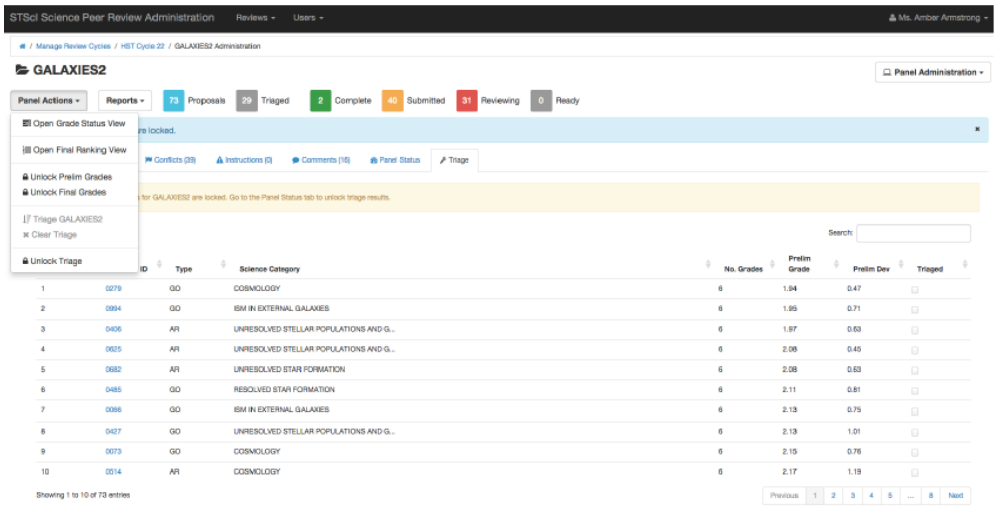



**Figure 57. To go to the Final Ranking Table**

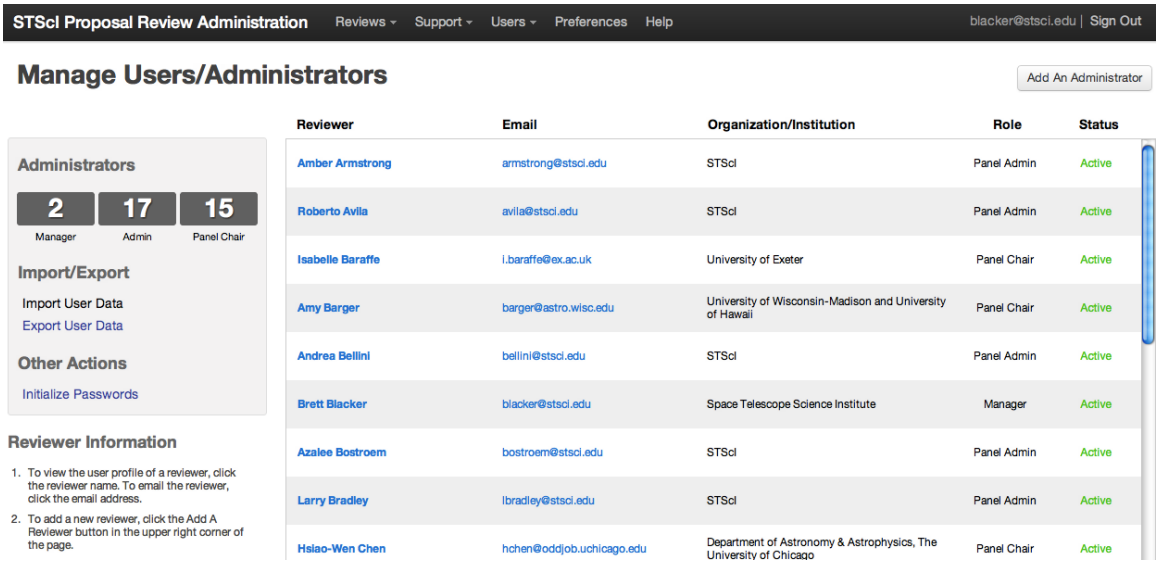



**Figure 58. To Manage Users and Administrators**

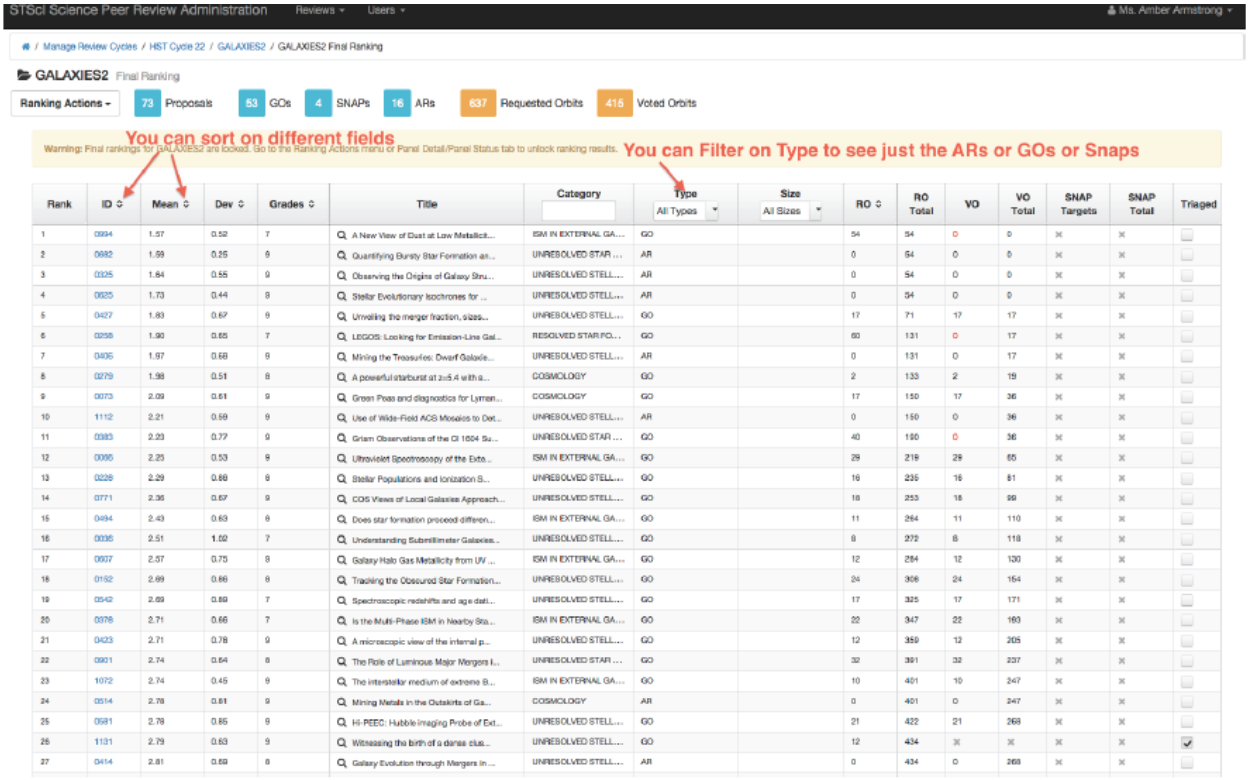



**Figure 59. Final Ranking Table Drag and Drop**

## *4.18 Review Meeting Logistics Support*

The location of the Review meetings determines the effort required for the logistics support. It has been a few cycles since we have held an off-site review, but we will include in this section the tasks required to support such a review. The SMO administrative team handles the majority of the logistics work; however, there are certain issues that are addressed by the SMO technical manager. The technical manager supports and reviews the entire Purchasing Requisition (PR) effort, from statement of work, to site visits, and the bid results. The ultimate decision resides within the BRC division; however, we try to influence the process to support our required needs. We coordinate with the Hotel and/or vendor for Internet and technical meeting requirements as well as within our own organization of ITSD for printers and copy machines. We determine the panel-to-room assignments and work with the staff to ensure the meeting rooms are set up to our desired specifications. We provide extension cords and power strips to handle our needs to save on vendor costs. If it turns out that we are on-site for the review, we

work with our Facilities staff to set up the rooms in the desired configurations and the logistics effort is minimized and handled by the SMO administrative staff in conjunction with the SMO Technical Manager.

### *4.19 Review Meeting Readiness*

Our last step in the review meeting readiness is to provide all of the panel support staff with a detailed presentation on the guidelines and procedures that will be provided to the panel review members at their orientation session. We also hold a 'mock' meeting where we simulate the review meeting discussion process and give the tools a last minute walkthrough. We perform a panel room readiness status to make sure all required issues have been handled and the room is laid out as required. We also ensure that the Internet and printing capability is configured for all rooms. We ensure that all panel support staff have everything they need to make the meeting a success. We set up a Slack Channel that is accessible to all for communication purposes to all those supporting the review.

# 5 Panel/TAC Meetings

### *5.1 Support Panel Support Staff Members as required*

During the panel review meetings the Panel Support Staff members are the main points of contact with the review members. We make sure they have everything they need to get the job done in as seamless and smooth a process as possible. During the meetings, we answer their questions and attempt to solve any issues that come up. We monitor the status of the grading and commenting by way of the SPRINT tool for each panel and assist with any problems, questions or issues that arise because of the tool. We monitor the Slack Channel as well as roam from room to room during the meetings. Any technical or IT related problems are attempted to be resolved or we obtain help from our ITSD staff that are supporting the review. We monitor the SPRINT tool throughout the meeting to ensure the panel support staff are entering the required data into the proper fields and that there are no data issues. Once all proposals for a given panel have been graded, we will assist the panel support member in creating their initial ranked list and generating the reports to distribute to their panel members as necessary.

In addition to ensuring that the system/database is being populated properly, we maintain a backup in case the panel support member runs into troubles, as well as to monitor completion rates for the panels. This is done by exporting out grade reports at various times during the review process. In addition, SPRINT is backed up hourly during the review by ITSD.

A final database is created after notification that all processing has been finished for a particular panel. This is done via the Export Reports from the SPRINT tool. An Excel file is created per panel and then that information is loaded back into the final FileMaker Pro database. Upon completion of all panels the final sanity checks are performed to ensure that all of the necessary information was received from each panel. That information should consist of all proposals that were discussed having a final meeting grade, standard deviation and the necessary resources values specified. This means for GO and SNAP proposals the voted fields for the resources should be properly specified; for AR proposals there is no field to worry about. For the Joint proposals, their fields should also be specified for voted resources. The final ranking table

from the SPRINT tool allows the SMO technical manager to process the Decision fields that are to be changed as follows: 1) For GO proposals, the Decision should be set to Approved for those proposals up to each panel's allocation; set to Reject for those proposals that should not ever be executed if HST had unlimited resources; and left as Pending for those proposals in between. Panels should normally rank carefully about twice their panel allocation in case of the need to go further down their lists in case of future instrument anomalies. 2) For SNAP and AR proposals, only the "Do not support-Reject" line is required, as there is no specific SNAP or AR allocation given to each panel. The final ranking table is used to determine those AR and SNAP proposals that are above the GO allocation cutoff. Those are not set to Approved until a complete analysis has been performed across all panels to determine the total allocated ARs and SNAPs. The individual panel rankings are then utilized to determine if additional AR or SNAPshot resources can be allocated.

### *5.2 Support SMO Head, SPG Head and TAC Chair report requests*

At various times during the meeting, requests for reports from the SPRINT tool and database are made. These reports are provided to those people who are allowed to see the data. In some cases, issues arise about how panel members are grading, so a check is made of their grades. In other cases, it is just a matter of seeing what the panels have done with the proposals they have graded and/or to see where a particular proposal has ended up in their grading discussion.

### *5.3 Consolidate Panel Reviews*

If there are any questions, the panel support member(s) are contacted to help resolve the issue. Once all of the panels have been completed, each of the individual results is then merged into a final version to be used during the TAC meeting for processing and analysis.

### *5.4 TAC Panel Support Staff Member*

The SMO technical manager handles the role of Panel Support Staff member during the TAC meeting as described above. This involves maintaining the FileMaker Pro database, making notes of conflicts of interest and monitoring the grading and comments for the TAC proposals being entered by the TAC members utilizing the SPRINT tool.

## 6. Post TAC to Notifications

### *6.1 Final Comments Processing*

The notification comments undergo various reviews before being sent out to the proposers as part of the Notification Letter process. The primary reviewer has the responsibility for capturing the panel discussion and drafting the notification comments. Comments are required for all proposals discussed as well as those that were triaged by the panels. We ask the reviewers to provide feedback to the proposers in four categories: Strengths, Weaknesses, Reasonableness of Resources and any Additional Comments. We give a few guidelines for the reviewers to comment on each proposal. The following may be useful issues on which to comment:

- The degree to which the proposal meets the selection criteria.
- Specific recommendations, such as reductions in the scope of the program or other modifications (e.g., elimination of specific targets in cases of competing or duplicate proposals, etc.).
- For AR and Theory proposals, the (gross) reasonableness of the requested resources as explained in the budget narrative, and their necessity for achieving the scientific goals of the project. Comments on resources will be used later by the STScI Financial Review Committee in its detailed consideration of the budgets of approved proposals.
- Do not make up reasons for rejection; if a proposal was good and did not make the cut, just say that.
- Use "Mandatory" comments only to exclude targets due to duplication or to reduce the time allocation. All other comments are "Advisory" to the proposers.
- No proposals can be rejected based on technical reasons without confirmation by the relevant STScI team.

As previously discussed, the reviewers use the SPRINT tool to enter their notification comments. Once the Primary has finished with the comments, they are then submitted for review by the Panel Chair. The chair uses the "TacAdmin" portion of the system to review the comments and make any necessary changes. Once the chair has finished his or her review, they then hit the "Submit as Final" button to notify us that those comments are now ready for our review.

Upon completion of the Chair review, the relevant SMO scientist reviews their panel comments and notifies the SMO technical manager when they have completed each panel review. The comments are then imported into the FileMaker Pro database and are reviewed by the SMO technical manager for the last sanity check prior to being sent to the proposers. This review is done in the database to verify comments against their outcomes, allocations and ranks.

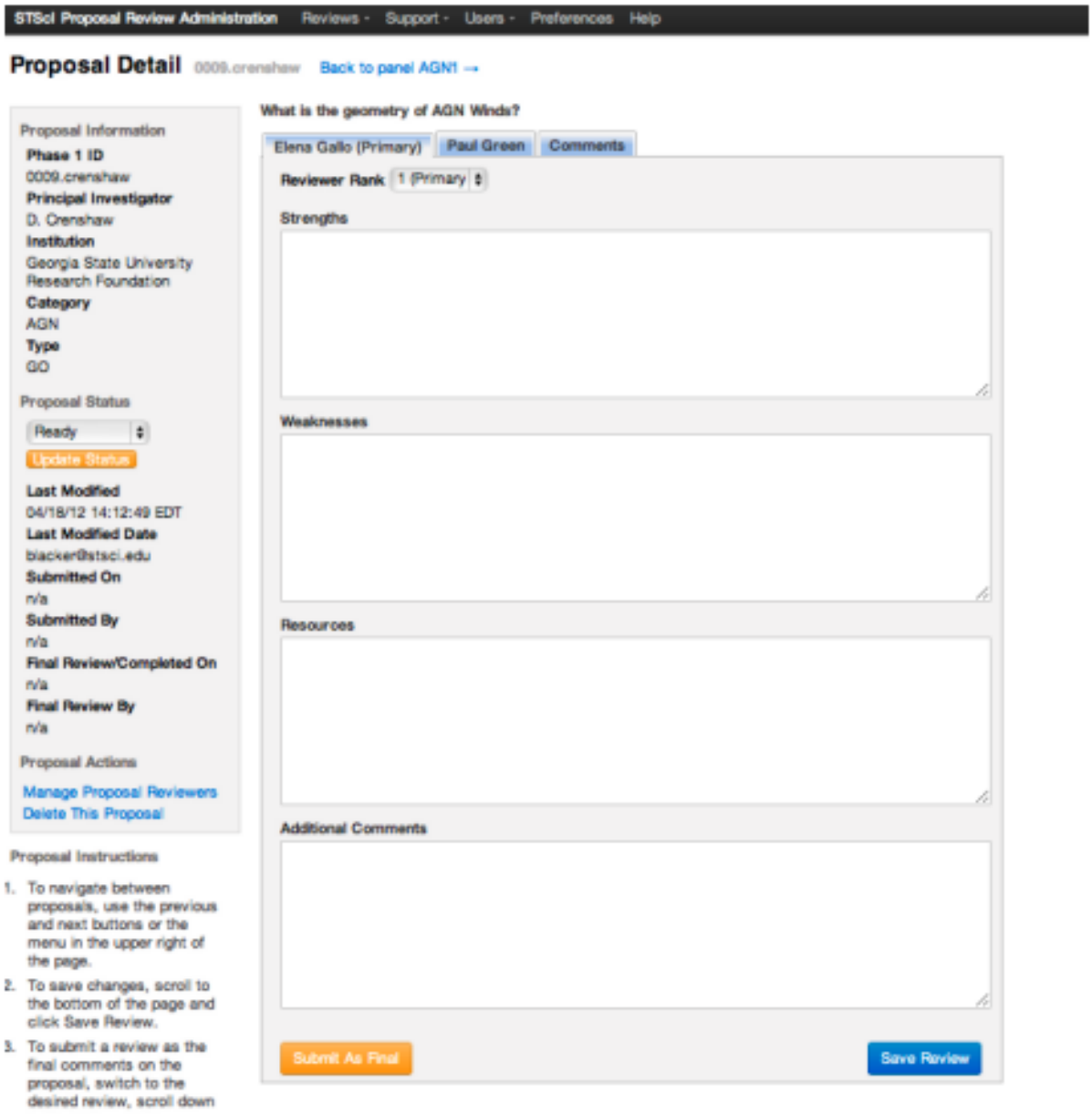



**Figure 60. Example Comments Layout from SPRINT Tool**

## *6.2 Final Database Processing*

Upon conclusion of the TAC meeting, the FileMaker Pro database is fully processed to ensure all proposals have been properly updated to determine their final status. Since the panels are not provided an allocation for AR or SNAP proposals, we examine each panel's ranked list to determine the overall resources for ARs and SNAPs. The instructions we provide to the panels are that if they would like an AR or Snap proposal approved, it needs to be ranked above their

GO Allocation ranked cutoff. We use that proposal rank against each panel's cutoff to review which AR and SNAPs would be then approved. If the panels' lists provide for ~1000 SNAPshot targets, then we set all of those proposals to be approved and all others to then be rejected. If the lists contain > than 1000 targets, we go up each panel's ranked lists by a grade of 1/10th until we are close to the 1000 target recommended allocation. If the lists contain < 1000 targets, we go down each panel's ranked list by a grade of 1/10th until we hit the target allocation. The same process is done for the Regular AR and Theory proposals against the current cycle recommended funding allocation. Our starting allocations have been ~$1M for Theory, ~$1M for Legacy and ~$2M for Regular Archival Research. We use the basis of an average Regular AR is $80K, and an average Legacy is $300K to determine the recommended funding profile. After the AR and SNAP proposal allocations are determined and their decisions have been set in the database, each panel is then analyzed to ensure all proposals have been given a final grade, panel rank and proposal status (Approved or Rejected).

For any Joint Observing proposals that are recommended for approval, we enter into the FileMaker Pro database the contact information for the joint observatories so that they are sent a carbon copy of the notification emails. This information is currently stored in the contact scientist email field as we no longer provide contact scientists for all proposals at Phase I notification. We also populate this field with the gms_help@stsci.edu address to send a copy of the notifications to the Grants Management system.

### *6.3 Program Coordinator Assignments*

Once the final recommended list of Observing proposals (GO and SNAPs) has been derived, we provide that list to the Program Coordinator (PC) lead who then works with the PCs to determine their assignments for the upcoming cycle. Once they have made their assignments, this information is then returned to the SMO technical manager who loads it into the FileMaker Pro database for the notification process. The required information is: PC Name, PC email address and PC phone number.

### *6.4 Long Range Plan Analysis from TAC Results*

Upon conclusion of the TAC meeting, the tentatively approved proposals are provided to the Long Range Planning group to perform a final analysis of the selected programs against a pseudo Long Range Plan for the upcoming cycle. Experience has shown us that some programs can introduce substantial difficulties in generating an effective and efficient long range observing plan. Their analysis is provided back to us to include in the Director's Review package, which is discussed in the next section.

### *6.5 Director's Review*

Since the results of the Peer Review meetings are just a recommendation to the STScI Director, we provide a detailed package of charts to enable the final decision to be made by the Director. We have been using a standard package for quite some time that has been upgraded as required to show new information. The current review package is over 100 PowerPoint slides and about 50 pages from the Phase I FileMaker Pro database showing the detailed panel by panel ranked lists. About half of the PowerPoint slides are shown during the actual review meeting and the other half as additional backup materials along with the panel ranked lists. The Director's

review package is broken down into the following sections which are shown and discussed during the meeting: Executive Summary; Oversubscription and orbit analysis plots; Panelist, STScI, ESA, Science Category and Institutional acceptance rates and resources; Instrument Summary; Special Proposal cases (Targets of Opportunity, Joint Observing, Pure Parallels, Future Allocations and any proposal issues that need to be brought forward and discussed); and the LRP Analysis.

The following sections are included as backup materials for the Director: Detailed panel results by proposals, resources and science categories; Mirror Panel analysis; ESA results; Shortened proprietary periods; Investigator demographics; Approved proposal lists; and detailed panel ranked lists from the FileMaker Pro database.

The Director's Review is held with the Director, Deputy Director, HST Mission Office Head, ESA Representative, SMO, Long Range Planning Lead and the PC Lead, usually within one week of the conclusion of the panel review meetings. The majority of the information in the package is confidential, however quite a bit becomes part of the public results packages that are provided to external groups as discussed in the Statistics section below.

In a few cases, the Director will make changes to the recommendations that are presented from the TAC. If that does happen, those changes are processed into the FileMaker Pro database and if necessary that information is provided to the PC, LRP and Grants groups for their downstream processing.

### *6.6 Grade Percentile Processing*

In order to provide feedback to the proposers about how well their proposal was graded, we inform them of what quintile their proposal was graded in during the review. The top quintile is the first quintile and the bottom is the fourth. This provides another way of informing all proposers that a lot of great proposals are rejected because of the high oversubscription rate that we have. For each panel the proposals are then sorted by their average grade, best to worst, and then are ranked from 1 to N, where N is the number of proposals in that panel. The calculation is the following: (N - Proposal Rank in Panel) * 100/ N. This value is then loaded back into the FileMaker Pro database and used for the Notification Letters. Just to simplify the process, all Triaged proposals are set to the fifth or bottom quintile. The numerical grade percentile is converted to the quintile in the Notification Letter tool. The grade percentile processing is done from an export from the FileMaker Pro database into an Excel spreadsheet.

### *6.7 PLib create Processing*

One of the last steps in the Phase I to II process is to run PLib create, which is required to add a new proposal to the Proposal Library (PLib) for Phase II. PLib create ensures that a proposal with that title and cycle is not already in PLib. It uses the plib create command to assign the next sequential proposal number to the proposal. It then places the Phase II file into PLib, and creates the first records for this new proposal in the ASSIST database, and records TAC allocation and review information into the database. The terminal screen shows a message that each proposal was loaded successfully and gives the Phase II id, or error messages will be displayed on the screen. A script is created from the FileMaker Pro database output based on the usage required for a new proposal each cycle start. All of the data is exported from FileMaker

Pro to a text file, which is then loaded into Excel for easy manipulation. Once the values have been specified properly, the file is converted to a text only file and then processed to remove Mac-specific features by running the command in the terminal of mac2unix filename > output filename. It is then placed on the SOGS system as described in the next section and run there. A copy of the PDF file is also placed in the same directory and then that file is automatically transferred to its proper secure location on the SOGS system.

Usage:

```
plib create [-h] --cycle CYCLE --input INPUT_FILE_NAME
            [--allocating-tac {Chandra,HST,NRAO,Spitzer,XMM}]
            [--contact-scientist {scientist's name }]
            [--continue-id CONTINUATION_ID]
            [--coordinated-observatory {Chandra,NOAO,NRAO,Spitzer,XMM}]
            [--coordinated-parallel-time COORDINATED_PARALLEL_TIME]
            [--cvz-time CVZ_TIME] [--debug]
            [--external-time EXTERNAL_TIME]
            [--internal-time INTERNAL_TIME]
            [--low-sky-time LOW_SKY_TIME] [--pdf PDF]
            [--phase2ID PHASE2ID] [--parallel-time PARALLEL_TIME]
            [--program-coordinator {PC name }]
            [--prime-si PRIME_SI]
            [--proprietary-period PROPRIETARY_PERIOD]
            [--pure-parallel-time PURE_PARALLEL_TIME]
            [--second-cycle-parallel-time SECOND_CYCLE_PARALLEL_TIME]
            [--second-cycle-prime-time SECOND_CYCLE_PRIME_TIME]
            [--science-category SCIENCE_CATEGORY]
            [--shadow-time SHADOW_TIME] [--submit-deadline YYYY-MM-DD]
            [--tac-panel TAC_PANEL] [--tac-rank TAC_RANK]
            [--too-disruptive-time TARGET_OF_OPPORTUNITY_DISRUPTIVE_TIME]
            [--too-long-term-time TARGET_OF_OPPORTUNITY_LONG_TERM_TIME]
            [--too-non-disruptive-time TAR-
GET_OF_OPPORTUNITY_NON_DISRUPTIVE_TIME]
            [--third-cycle-parallel-time THIRD_CYCLE_PARALLEL_TIME]
            [--third-cycle-prime-time THIRD_CYCLE_PRIME_TIME]
            [--time-requested TIME_REQUESTED]
```

A simple example to run plib create from the unix command line on the SOGS machine is
***plib create --phase2 phase2_file --cycle 10 --program-coordinator Vick --external-time 5***

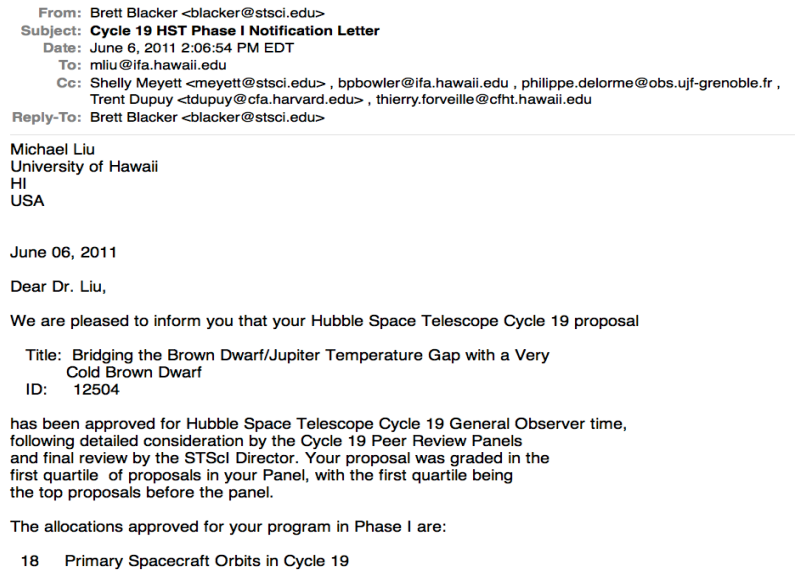
Upon completion of the plib create run, the corresponding Phase I to II ID file that is generated by plib create is then loaded into the FileMaker Pro database. Most of the optional fields in plib create are only loaded for the initial cycle ingestion. This data is used by various groups for their processing needs during the given cycle.

### *6.8 Notification Letter Processing*

The Notification Letter tool is used to generate letters of acceptance and rejection for GO and AR proposals. This tool is written in PERL (Program Extraction and Reporting Language) which is a scripting language created by Larry Wall. It is perfectly suited to the task. It is a very powerful tool with regards to manipulating text and outputting formatted reports, which are needed in this letter generation process. The PERL code runs under the current release of PERL on the Mac operating system and is maintained in the Code directory of the SMO technical manager. This tool is updated every cycle to include the current cycle dates and submission statistics as well as any other desired changes to the letter and/or letter format.

This tool receives input information from the TAC database and generates 1 of 6 possible letters, Reject and Approved for each proposal type of AR, GO and SNAP. The letters will be sent out by way of electronic mail, but when the program is run, all the files are generated and stored. The program is run from the unix command line of ./gen-letters letter-data, where letter-data is a text file created from the FileMaker Pro database that is then stripped of any special characters by running the mac2unix command on the file. The following fields are required to be output from the Filemaker Pro Phase I database as input for the gen-letters tool. These fields are to be separated by tabs, all on one line per letter/record:

file_id (phase I ID), decision (APPROVE or REJECT), first name, last name, institution, state, country, email, proposal type (GO, AR, or SNAP), title, phaseII_id (plib ID), category (scientific category), prim_orb, prim_orb_next, prim_orb_after_next, par_orb, par_orb_next, par_orb_after_next, SNAP (number of SNAP orbits), PC, PC email, CS email, ESA (YES or NO or blank (for no)), notification_strengths, notification_weaknesses, notification_resources, notification_additional_comments, grade_percentile, CoIEmails, Approved Chandra Time, Approved NOAO Time, Approved XMM Time.



From: Brett Blacker <blacker@stsci.edu>
Subject: **Cycle 19 HST Phase I Notification Letter**
Date: June 6, 2011 2:06:54 PM EDT
To: mliu@ifa.hawaii.edu
Cc: Shelly Meyett <meyett@stsci.edu> , bpbowler@ifa.hawaii.edu , philippe.delorme@obs.ujf-grenoble.fr , Trent Dupuy <tdupuy@cfa.harvard.edu> , thierry.forveille@cfht.hawaii.edu
Reply-To: Brett Blacker <blacker@stsci.edu>

Michael Liu
University of Hawaii
HI
USA

June 06, 2011

Dear Dr. Liu,

We are pleased to inform you that your Hubble Space Telescope Cycle 19 proposal

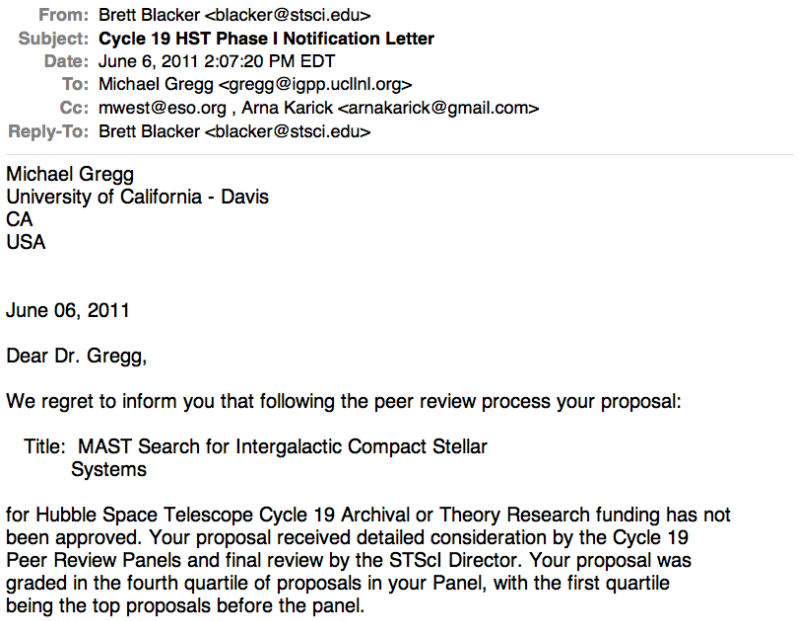
Title: Bridging the Brown Dwarf/Jupiter Temperature Gap with a Very Cold Brown Dwarf
ID: 12504

has been approved for Hubble Space Telescope Cycle 19 General Observer time, following detailed consideration by the Cycle 19 Peer Review Panels and final review by the STScI Director. Your proposal was graded in the first quartile of proposals in your Panel, with the first quartile being the top proposals before the panel.

The allocations approved for your program in Phase I are:

18 Primary Spacecraft Orbits in Cycle 19

**Figure 61. Example Approval Letter**



From: Brett Blacker <blacker@stsci.edu>
Subject: **Cycle 19 HST Phase I Notification Letter**
Date: June 6, 2011 2:07:20 PM EDT
To: Michael Gregg <gregg@igpp.ucllnl.org>
Cc: mwest@eso.org , Arna Karick <arnakarick@gmail.com>
Reply-To: Brett Blacker <blacker@stsci.edu>

Michael Gregg
University of California - Davis
CA
USA

June 06, 2011

Dear Dr. Gregg,

We regret to inform you that following the peer review process your proposal:

Title: MAST Search for Intergalactic Compact Stellar Systems

for Hubble Space Telescope Cycle 19 Archival or Theory Research funding has not been approved. Your proposal received detailed consideration by the Cycle 19 Peer Review Panels and final review by the STScI Director. Your proposal was graded in the fourth quartile of proposals in your Panel, with the first quartile being the top proposals before the panel.

**Figure 62. Example Reject Letter**

Once all of the letters have been generated they are manually reviewed for consistency to ensure data was properly manipulated from the FileMaker Pro database to the text files. In certain cases proposals are provided with manually edited comments based on any special information that is required to be sent for certain proposals at the direction of the STScI Director. After review, the letters are then transferred to the secure SOGS system by using the Rsync process, from the local work machine to behind the SOGS firewall by way of the following steps:

```
tib.stsci.edu> ftp sogs-gw.stsci.edu
  Connected to sogs-gw.stsci.edu (130.167.174.4).
  220-Proxy first requires authentication
  220 sogs-gw.stsci.edu FTP proxy (Version V2.1) ready.
  Name (sogs-gw.stsci.edu:bob): bob@cerberus.sogs.stsci.edu
  331 PASSCODE: you can use password@PASSCODE
  Password:    <--Enter your password for the destination host, an "@",
                        followed by your SecurID passcode (PIN+Tokencode).
  230-User bob authenticated by SecurID
  230-Connected to server. Logging in...
  230-220 rye FTP server (SunOS 5.8) ready.
  230-331 Password required for bob.
  230 230 User bob logged in.
  Remote system type is UNIX.
  ftp>.
```

Once successfully connected using ftp, you then type prompt to turn off interactive mode for mput, which transfers multiple files at once. All of the letters are placed into their appropriate directories by using the mput *letters command. The directory for the letters is: /home/blacker/phaseone/code/Post-TAC/archive-files/letters/accept/ar. All of the letters can be stored in the temporary location to be sent, as the tool searches each of the directories in the tree to send files. After exiting from FTP, you must connect to SOGS via the following procedure and then send the letters.

-> telnet sogs-gw.stsci.edu 259
- authenticate
Choose:
(1) Standard Sign-on
(2) Sign-off
(3) Specific Sign-on
Enter your choice: 3
Service (^D to Quit): ssh
Host: bugs.sogs.stsci.edu
Client Authorized for service
Service (^D to Quit): (**this is CONTROL-D**) Connection closed by foreign host.
-> ssh -Y bugs.sogs.stsci.edu

Once the letters are ready to be sent out by way of email you enter the following command ./gn-letters -send and answer YES. The letters will be emailed out in groups of 750, wait about 3 minutes then the next group is sent until all have been processed. This tool is using the built-in Unix sendmail command. All of these emails are sent from blacker@stsci.edu and are automatically archived into a Notification Letter email directory that is changed each cycle. The notifications are sent to all investigators for a given proposal usually about 2-3 weeks after the conclusion of the review meetings, after the Director has given final concurrence to send.

### *6.9 Program Coordinator Phase I to II Handoff*

As soon as the Phase I notification letters have been sent out, we then process the information necessary for the Program Coordinators (PCs) to be able to begin their Phase I processing. Their initial step is to send out what they call their PC Greeting emails. In order for them to create these letters, they require several flat files to load their database tools. The files consist of 1) Phase II ID and orbit allocations; 2) Phase II ID and PI email address; 3) Phase II ID, PI First Name, and PI Last Name. These files are created from exports from the FileMaker Pro database of the approved proposals and are then emailed to Tony Roman, aroman@stsci.edu who handles the Phase I to II process. We also send to the PCs, by way of Tony, any mandatory scheduling requirements, but these aren't required immediately upon handoff.

### *6.10 Grants/ProPer Phase I to II Handoff*

Also during the Phase I to II handoff to the PCs, we provide the necessary information for the Grants system to process their grants for the new investigators. The only special file that is now required is a mapping of the Phase I to II IDs, as the rest of their required information is processed during plib create.

### *6.11 Statistics/Reporting Needs*

After the Director has given his approval to the cycle's new observations and archival research program, the results are released to the science community. As discussed above, all of the investigators are sent an email discussing the disposition of their proposals. We then scale back the Director's Review package and send that to NASA Goddard Space Flight Center HST Project Management as well as NASA Headquarters HST Program Management to satisfy our NASA obligations. We also provide a package to ESA to satisfy our ESA obligations as well.

We post information, such as the list of approved proposals, a list of the approved abstracts and a list of the approved Phase I observation summaries to our HST Proposing Web page, http://www.stsci.edu/hst/proposing/ and move the previous cycle's data to the Past Program Information page.

We provide information to the HST Mission Office for their HST Phase I Metrics page, http://www.stsci.edu/hst/metrics/SelectionStats/ as well as to the Archive group that maintains the HST Treasury, Archive Legacy and Large Programs page, http://archive.stsci.edu/hst/tall.html. We also provide information to the STScI Newsletter team by way of an Excel spreadsheet, to report on the Cycle selection in their next Newsletter. This information consists of the list of panel members, the list of approved proposals, investigator demographics, review summary, orbit oversubscription plot, instrument summary, and the science category results.

Various presentations are generated to support internal as well as external meetings, such as the Telescope and Instrument Performance (TIPS) meeting, the STScI Science Staff meeting, HST Quarterly, the Space Telescope Institute Committee (STIC) and the STUC meeting. Requests for selection statistics are received at many times during the year and are handled as necessary as described below.

### *6.12 Complaint and Query Analysis for Director*

Whenever a proposer makes a complaint to the SMO Head, SPG Lead or the STScI Director or any other external source, we perform a detailed analysis of the case and present that information to the STScI Director. We provide the details from the panel meetings: proposal rank, proposal grade, reviewer conflicts, notification comments and any other relevant comments added by SPG, SMO or the panel support member. In certain cases we will discuss with the Panel Chair and/or Primary and Secondary reviewers as well as other members of the review panel that handled the proposal in question.

## 7. Generic Assignments

### *7.1 Director's Discretionary (DD) Proposal Processing*

Along the same lines as the normal HST Phase I processing, the SMO technical manager runs the Phase I Submission Daemon at set intervals every day to check for and process any DD submissions. When DD submissions are received, they are automatically sent the Proposal Receipt email as specified previously and they are verified electronically and acknowledged as if they were normal Cycle proposal submissions. Upon receipt of a DD submission, the Phase I

Submission Daemon sends an email to the dd-review@stsci.edu distribution list to start the review process. Required information is sent to the SMO review group about the DD request, whether it might be tied to a previously submitted normal cycle proposal and/or Phase I, and scheduling checks are performed to determine the target visibility to determine the time-criticality of the proposed observations. Upon the acceptance of a DD proposal for execution, the APT XML file is provided to the Program Coordinator lead to run plib create and provide a PC and a Phase II proposal ID. As required, DD statistics are provided to the SMO and SPG leads.

### *7.2 Maintenance of Webpages*

As discussed earlier, all of our HST webpages are managed by way of the Zope Configuration Management process. The webpages that the SMO technical manager has the primary responsibility for are the HST Proposing area, http://www.stsci.edu/hst/proposing/ and all of its associated pages, which includes the current Cycle Announcement of Opportunity and past cycles' Phase I results; and the HST Peer Review area, http://www.stsci.edu/hst/proposing/panel/peer_review and all of its associated pages for running the TAC process; the HST DD area, http://www.stsci.edu/hst/proposing/docs/dd-submission and all of its associated pages; the HST Users Committee (STUC), http://www.stsci.edu/institute/stuc and all of its associated pages as well as the STUC Wiki site, http://www.stsci.edu/wiki/stuc/files. These pages are all (except for the STUC wiki) linked from the main HST left-hand navigation panes on the STScI pages.

The SMO technical manager provides backup support to the main curators of the SMO webpages, http://www.stsci.edu/institute/sd, and the Hubble and Giaconni Fellowship pages, http://www.stsci.edu/institute/sd/fellowships/hubble and http://www.stsci.edu/institute/sd/fellowships/giacconi, as well as the main HST portal. The technical manager provides data annually for the HST Treasury, Archival Legacy and Large Programs page, http://archive.stsci.edu/hst/tall.html, as well as to the HST Metrics Phase I selection statistics, http://www.stsci.edu/hst/metrics.

### *7.3 Burst-Email Communications to the Science Community*

The SMO technical manager is one of the main contacts to the Science Community for handling email communications to them. We currently utilize a tool developed as part of the Grants Management system that has been adapted for bulk email communication that is run in the Proposal Person (ProPer) web interface. Once a burst-email has been requested to be sent out, depending upon the desired distribution, a new query list is generated or an existing list is selected (such as every one in the system or all HST users or all internal or cycle by cycle users etc.). The Message template is then created from the requested message. Attachments can be sent as well as standard HTML and/or text messages. A job is then created to determine when to start sending the message. Once the job has been created, a test email is sent to verify the look of the email as well as any links or attachments. After verification, the job is then set to run as required. The burst-email will then be delivered to the desired distribution list (assuming the entire list) in about 1 hour or less.

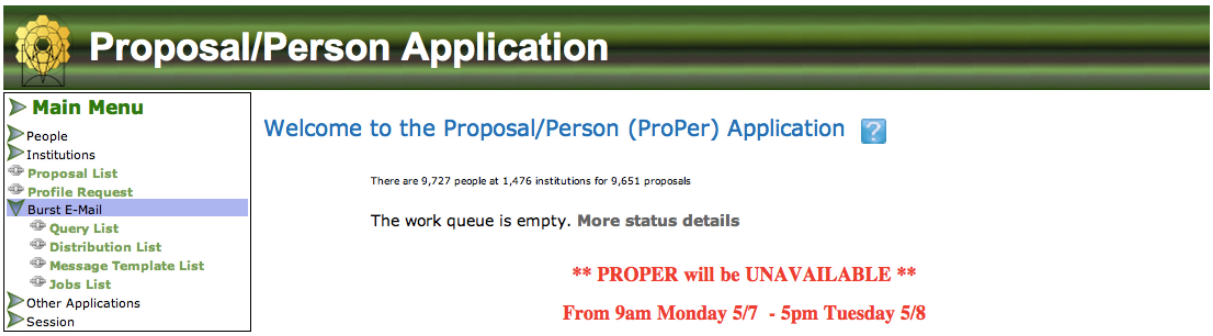



**Figure 63. Burst-Email Tool Interface**

### *7.4 SMO Support*

In addition to supporting the TAC process the SMO technical manager provides support to the Science Mission Office as required. These tasks can involve assisting with the yearly budgeting process for staff, equipment and travel. Also supported is the generation of schedules and assisting with various purchase requisition activities, as required. The SMO technical manager generates various surveys and polls using the doodle.com system.

### *7.5 Phase I and II Metrics Support*

As mentioned above, various queries come to our group throughout the year requesting information on previous selection statistics and/or metrics. We respond to these internal and external Phase I metrics queries as required.

When Phase I information is required, we query the combined FileMaker Pro database that has electronic data from Cycles 5 - the current cycle. Earlier data from cycles 1 - 4 is mostly maintained in currently existing electronic files (Excel spreadsheets) or by way of paper.

When Phase II information is required, we query the ASSIST database and that documentation can be found at: http://www-int.stsci.edu/dsd/cns/database/hal9000/hal9000.html, under the ASSIST link. We currently run isql under the SOGS system to gain access to the database. A user must first log into a SOGS machine by way of VPN and telnet, such as the following:

1) Connect to STScI VPN or internal STScI network

2) telnet elrond.sogs.stsci.edu

1) enter SecureID card userid and password information to gain access to SOGS

2) enter SOGS userid and password to connect to the SOGS machine elrond

### *7.6 Joint Observatory Phase I Interface*

By agreement with the Chandra X-Ray Center (CXC), the XMM-Newton Observatory, the National Optical Astronomy Observatory (NOAO) and the National Radio Astronomy Observatory (NRAO), STScI is able to award time on their facilities for highly ranked proposals that request time on both HST and their missions. All except NOAO are able to award time on HST from their TAC processes. The SMO technical manager is a point of contact for these

observatories for this review process and handles the joint review of the different Call for Proposals. A detailed technical review is performed by all observatories for these joint proposals and that is coordinated and performed by the SMO technical manager. If required, technical comments are provided to the observatory or received from the observatory and provided to review members and/or instrument teams and scheduling staff, depending upon the type of comments received. Currently all observatories support each review remotely and provide their technical support by way of email or phone conversations. After the reviews, the results are communicated to the different observatories for approved proposals only as discussed previously. The Phase I to II transition is handled in a similar manner to the normal cycle proposal ingest by using plib create, with a subset of the required data uploaded by using pseudo-APT created Phase I files.

### *7.7 Science Community User Surveys*

At various times during a given cycle a user survey might be conducted. The SMO technical manager will assist these surveys by sending out the survey, by helping to create and/or edit and update a yearly survey.

### *7.8 Load STScI and Community Service*

When provided internal committee or external data the SMO Technical Manager will load Service into our ProPer portal so that this information is maintained and utilized as necessary.

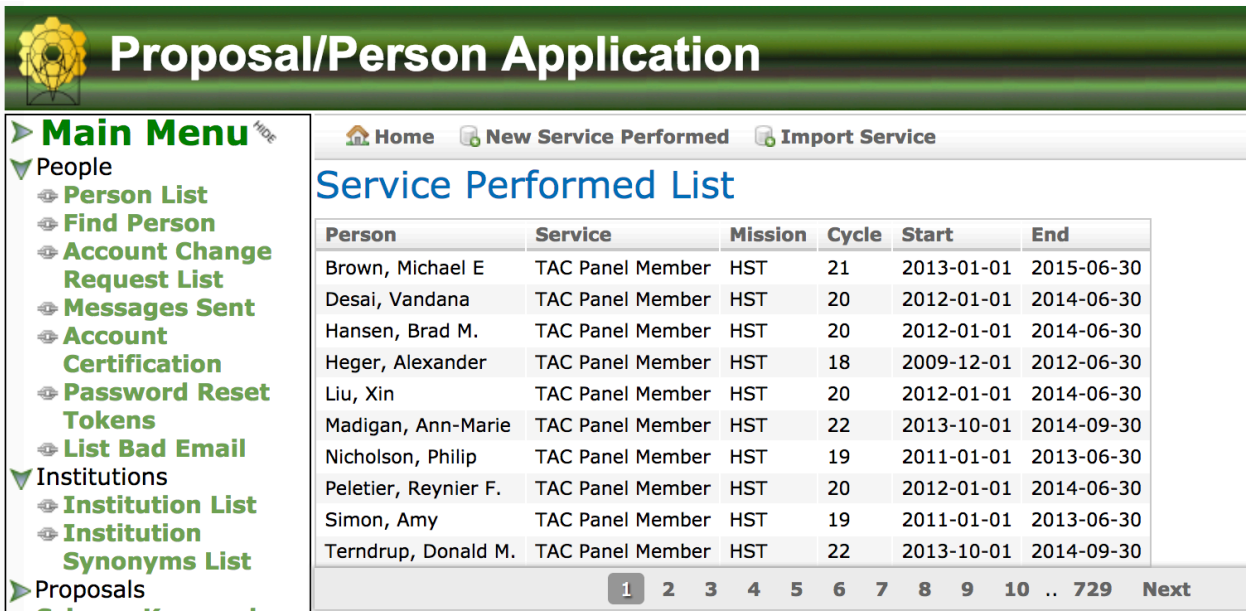



**Figure 64. Service Listing in ProPer**

### *7.9 Special Projects*

The SMO technical manager currently serves on the STScI awards committee, the Flexible Workplace Initiative team, the head of the Employee Recreation committee and is assisting with the STScI Website redesign. The SMO technical manager also supports the HST Mission

Office social media dissemination by way of Twitter and Facebook through the HubbleObserver accounts that were created.

### *7.10 ProPer Database/User Profile Support*

In addition to supporting the ProPer database for User Profile information for past Service, the SMO technical manager has access privileges to be able to maintain and update User profile information as required, especially during the Phase I season, but also during the remainder of the year. One of the major tasks is to approve Email change requests that come via the APT/Help desk interface. This is done by logging into the ProPer system via https://proper.stsci.edu, using email address and AD password. To approve a requested email change, click on the Profile Change Request List as shown in the figure below, find the person that requested the change, verify the information matches their request and click on the Approve task.

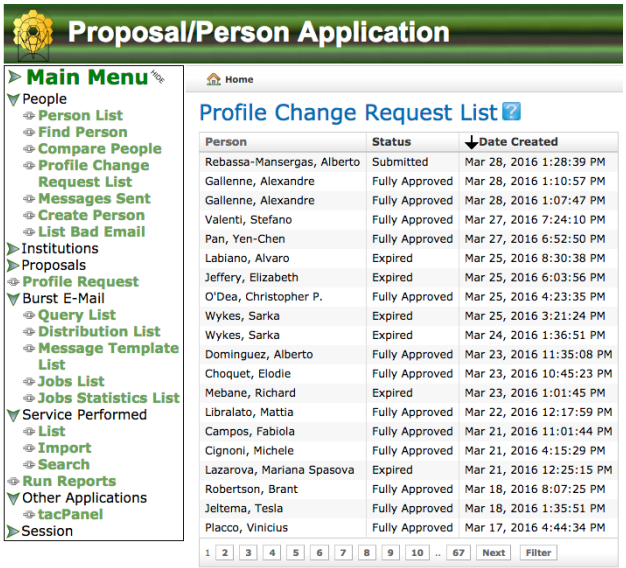



**Figure 65. ProPer Profile Change Request Listing**

### *7.11 Mid Cycle Reviews*

Up to 200 orbits per cycle will be available for Mid-Cycle GO programs. Mid-Cycle programs were initiated in Cycle 23 to provide the community with an opportunity to propose for in-cycle observations of recently discovered, non-transient objects. As such, they complement Director's Discretionary programs, which target unexpected transient phenomena and time-critical observations.

Mid-Cycle GO Proposals must meet the following prime criteria:

- Proposers must provide an explanation of why the proposal could not have been submitted in response to the standard annual Call for Proposals. For example, the target source may have been identified subsequent to the most recent proposal deadline.

- Proposers must provide a clear description of the scientific urgency of these observations and why they should be executed in the present cycle.

Proposals should be submitted via the Astronomer's Proposal Tool (APT) as type GO, using the Mid-Cycle template for the pdf attachment. Upon completion of the Mid-Cycle submission, the program will be transferred to the STScI for processing. If proposers run into problems submitting an Mid-Cycle Request, they can send email to help@stsci.edu for investigation/resolution.

For Cycle 25, Mid-Cycle proposals could be submitted at any time between August 2017 and 23:59PM on March 11, 2018.

Proposals for Mid-Cycle time must be sufficiently detailed for adequate evaluation, and comparable with proposals submitted for the regular observing cycles as described in the current Call for Proposals.

Among other things,

- Both the proposed observations and the use of Mid-Cycle time must be justified explicitly.
- There must be an adequate description of how the proposed observations relate to the current state of knowledge.
- The proposed observations must be described in sufficient detail to allow technical evaluation.

For Cycle 25, Mid-Cycle GO proposals had the following characteristics:

- Proposals are limited to requesting no more than 10 orbits;
- Observations should have minimal constraints to maximize scheduling flexibility;
- Observations taken for accepted programs will have a proprietary period of no more than 3 months;
- Proposals may request only HST time - joint proposals are not permitted;
- Proposers may apply for all available instruments. Proposals must be compliant with the technical restrictions described in the most recent Call for Proposals.

# 8.0 Appendix

## A. Computer Accounts Required

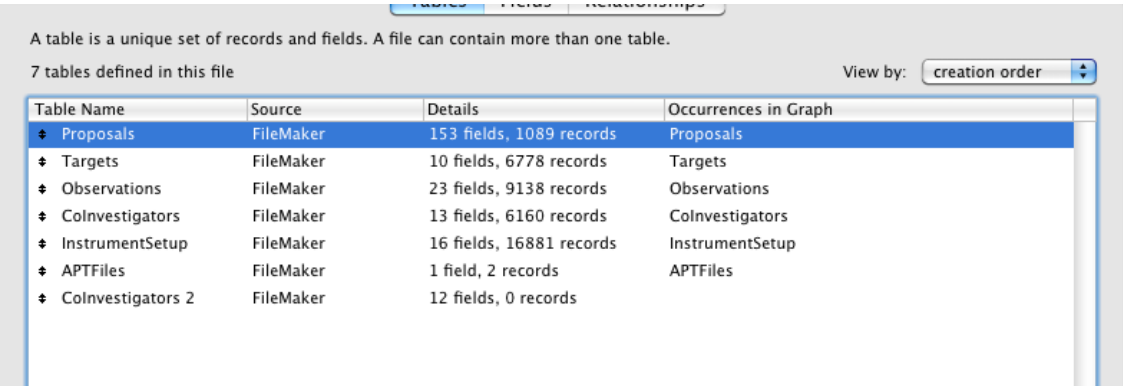
Access to various STScI machines and accounts is required to perform the job, which is granted by the ITS Division. Required computer accounts are:

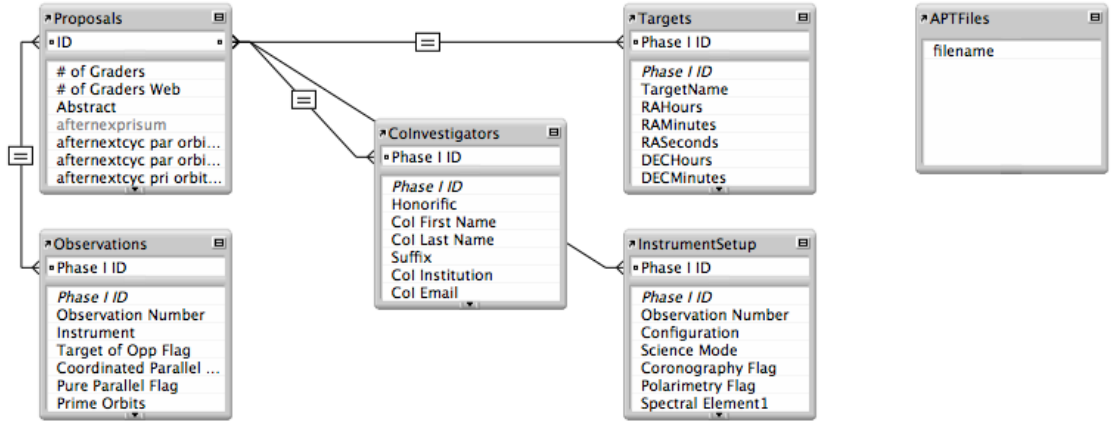
- Active Directory (allows authenticated access to most systems at STScI, but not all).
- SOGS (restricted access as it is directly involved in HST and JWST mission operations)
- SecureID Card (allows access to the SOGS machines)
- ELMER (Phase I and II APT Server secure machine, access is via the "newprop" account)

Required Webserver accounts are:

- ProPer (Access to Burst-Email and GMS Address database)
- Footprints (Access to STScI Help Desk Platform)
- Zope (Access to Web Configuration Management system)
- Central Storage (Access for TACAdmin tool)
- TACAdmin (Access to Web-Based Reviewer Management tool)
- Zeppo (ASSIST Database access for queries)

## B. FileMakerPro Database Schema




| Field Name | Field Type | Where Derived | Information | Table | Mission |
|---|---|---|---|---|---|
| Investigator Co-PI | Boolean | APT | CoI | Investigator | Both |
| Investigator Country | Text | APT | PI or CoI | Investigator | Both |
| Investigator CSA Flag | Boolean | APT | PI or CoI | Investigator | Both |
| Investigator Email | Text | APT | PI or CoI | Investigator | Both |
| Investigator ESA Flag | Boolean | APT | PI or CoI | Investigator | Both |
| Investigator First Initial | Text | APT | PI or CoI | Investigator | Both |
| Investigator First Name | Text | APT | PI or CoI | Investigator | Both |
| Investigator Gender | Text | SMO | PI or CoI | Investigator | Both |
| Investigator Honorific | Text | APT | PI or CoI | Investigator | Both |
| Investigator Institution | Text | APT | PI or CoI | Investigator | Both |
| Investigator Last Name | Text | APT | PI or CoI | Investigator | Both |
| Investigator US State | Text | APT | PI or CoI | Investigator | Both |
| Merged CoIs | Calculation | DB | Listing of merged CoIs for reports | Investigator | Both |
| Merged Investigator Emails | Calculation | DB | | Investigator | Both |

| | | | | | |
|---|---|---|---|---|---|
| ChargedDuration | Number | APT | | Observations | JWST |
| Coordinated Parallel Flag | Boolean | APT | | Observations | HST |
| Coronography | Boolean | APT | | Observations | HST |
| CVZ Flag | Boolean | APT | | Observations | HST |
| Duplications Flag | Boolean | APT | | Observations | HST |
| Instrument | Text | APT | | Observations | HST |
| Observation Number | Number | APT | | Observations | HST |
| Parallel Orbits | Number | APT | | Observations | HST |
| Polarimetry | Boolean | APT | | Observations | HST |
| Prime Orbits | Number | APT | | Observations | HST |
| Pure Parallel Flag | Boolean | APT | | Observations | HST |
| Science Configuration | Text | APT | | Observations | HST |
| Science Mode | Text | APT | | Observations | HST |
| ScienceDuration | Number | APT | | Observations | JWST |
| ScienceTemplate | Text | APT | | Observations | JWST |
| Spectral Elements | Text | APT | | Observations | HST |
| Target of Opportunity Flag | Boolean | APT | | Observations | HST |
| Wavelength | Text | APT | | Observations | HST |

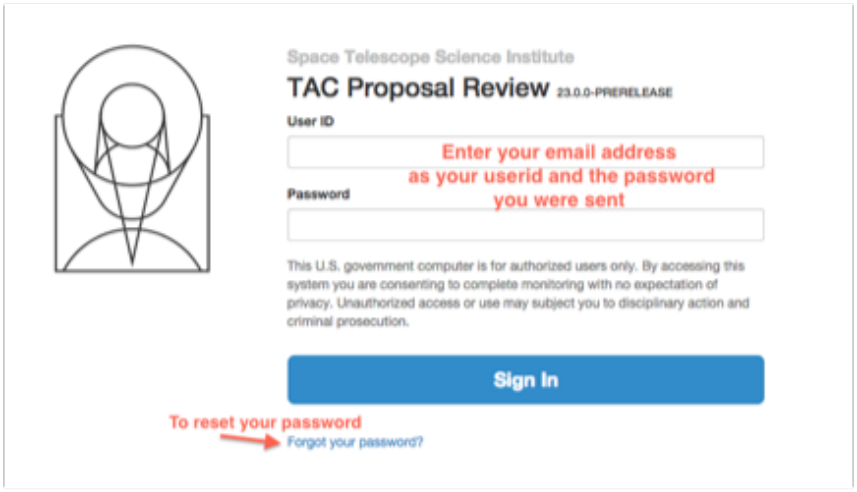
| | | | | | |
|---|---|---|---|---|---|
| After Next Cycle Parallel Orbits Approved | Number | TAC Meeting | | Proposal | HST |
| After Next Cycle Parallel Orbits Requested | Number | APT | | Proposal | HST |
| After Next Cycle Prime Orbits Approved | Number | TAC Meeting | | Proposal | HST |
| After Next Cycle Prime Orbits Requested | Number | APT | | Proposal | HST |
| After Next Parallel Orbits Approved Summary | Calculation | DB | | Proposal | HST |
| After Next Parallel Orbits Requested Summary | Calculation | DB | | Proposal | HST |
| After Next Prime Orbits Approved Summary | Calculation | DB | | Proposal | HST |
| After Next Prime Orbits Requested Summary | Calculation | DB | | Proposal | HST |
| Approved Joint Chandra Time | Number | TAC Meeting | | Proposal | HST |
| Approved Joint Chandra Time Summary | Calculation | DB | | Proposal | HST |
| Approved Joint NOAO Time | Number | TAC Meeting | | Proposal | HST |
| Approved Joint NOAO Time Summary | Calculation | DB | | Proposal | HST |
| Approved Joint NRAO Time | Number | TAC Meeting | | Proposal | HST |
| Approved Joint NRAO Time Summary | Calculation | DB | | Proposal | HST |
| Approved Joint Spitzer Time | Number | TAC Meeting | | Proposal | HST |
| Approved Joint Spitzer Time Summary | Calculation | DB | | Proposal | HST |
| Approved Joint XMM Time | Number | TAC Meeting | | Proposal | HST |
| Approved Joint XMM Time Summary | Calculation | DB | | Proposal | HST |
| Approving TAC | Text | TAC Meeting | | Proposal | Both |
| Archival Research Legacy Flag | Text | APT | | Proposal | HST |
| Archival Research Regular Flag | Text | APT | | Proposal | HST |
| Archival Research Theory Flag | Text | APT | | Proposal | HST |
| Assigned Panel | Text | TAC Meeting | | Proposal | Both |
| Average Grade | Number | TAC Meeting | | Proposal | Both |
| Average Grade Standard Deviation | Number | TAC Meeting | | Proposal | Both |
| Current Cycle Parallel Orbits Approved | Number | TAC Meeting | | Proposal | HST |
| Current Cycle Parallel Orbits Requested | Number | APT | | Proposal | HST |
| Current Cycle Prime Orbits Approved | Number | TAC Meeting | | Proposal | HST |
| Current Cycle Prime Orbits Requested | Number | APT | | Proposal | HST |
| Current Parallel Orbits Approved Summary | Calculation | DB | | Proposal | HST |
| Current Parallel Orbits Requested Summary | Calculation | DB | | Proposal | HST |
| Current Prime Orbits Approved Summary | Calculation | DB | | Proposal | HST |

| | | | | | |
|---|---|---|---|---|---|
| Pure Parallel Allocation | Number | DB | Derive from Approved Prime=0 and Parallel > 0 | Proposal | HST |
| Requested Joint Chandra Time | Number | APT | | Proposal | HST |
| Requested Joint Chandra Time Summary | Calculation | DB | | Proposal | HST |
| Requested Joint NOAO Time | Number | APT | | Proposal | HST |
| Requested Joint NOAO Time Summary | Calculation | DB | | Proposal | HST |
| Requested Joint NRAO Time | Number | APT | | Proposal | HST |
| Requested Joint NRAO Time Summary | Calculation | DB | | Proposal | HST |
| Requested Joint Spitzer Time | Number | APT | | Proposal | HST |
| Requested Joint Spitzer Time Summary | Calculation | DB | | Proposal | HST |
| Requested Joint XMM Time | Number | APT | | Proposal | HST |
| Requested Joint XMM Time Summary | Calculation | DB | | Proposal | HST |
| Science Category Abbreviation | Text | APT | Derive | Proposal | Both |
| Science Category Name | Text | APT | | Proposal | Both |
| Science Instruments Requested | Text | APT | | Proposal | Both |
| Science Keywords | Text | APT | | Proposal | Both |
| Secondary Reviewer | Text | TAC Meeting | | Proposal | Both |
| Shadow Orbits Approved | Number | TAC Meeting | Not really requested/used anymore | Proposal | HST |
| Shadow Orbits Approved Summary | Calculation | DB | Not really requested/used anymore | Proposal | HST |
| Shadow Orbits Requested | Number | APT | | Proposal | HST |
| Shadow Orbits Requested Summary | Calculation | DB | | Proposal | HST |
| Snapshot Targets Approved | Number | TAC Meeting | | Proposal | HST |
| Snapshot Targets Approved Summary | Calculation | DB | | Proposal | HST |
| Snapshot Targets Requested | Number | APT | | Proposal | HST |
| Snapshot Targets Requested Summary | Calculation | DB | | Proposal | HST |
| Special Type Calibration | Boolean | APT | | Proposal | HST |
| Special Type Large | Boolean | APT | | Proposal | HST |
| Special Type Legacy | Boolean | APT | | Proposal | HST |
| Special Type Long Term ToO | Boolean | APT | | Proposal | HST |
| Special Type Theory | Boolean | APT | | Proposal | HST |
| Special Type Treasury | Boolean | APT | | Proposal | HST |
| STScI Review Notes | Text | TAC Meeting | | Proposal | Both |
| Target of Opportunity Approved Activations | Number | TAC Meeting | | Proposal | HST |
| Target of Opportunity Approved Activations Summary | Calculation | DB | | Proposal | HST |
| Target of Opportunity Disruptive/Non | Text | APT | | Proposal | HST |
| Target of Opportunity Flag | Boolean | APT | | Proposal | HST |
| Target of Opportunity Orbits Approved | Number | TAC Meeting | | Proposal | HST |
| Target of Opportunity Orbits Approved Summary | Calculation | DB | | Proposal | HST |
| Target of Opportunity Orbits Requested | Number | APT | | Proposal | HST |
| Target of Opportunity Orbits Requested Summary | Calculation | DB | | Proposal | HST |
| Target of Opportunity Requested Activations | Number | APT/SMO | | Proposal | HST |
| Target of Opportunity Requested Activations Summary | Calculation | DB | | Proposal | HST |
| Technical Review Comments | Text | SMO/TAC Meeting | | Proposal | Both |
| Third Reviewer | Text | TAC Meeting | | Proposal | Both |
| ThirdCycleDurationApproved | Number | APT | | Proposal | JWST |
| ThirdCycleDurationRequest | Number | APT | | Proposal | JWST |
| TimeApprovedThisCycle | Number | APT | | Proposal | JWST |
| TimeRequestThisCycle | Number | APT | | Proposal | JWST |
| Title | Text | APT | | Proposal | Both |
| Total Proposals | Calculation | DB | Count of IDs per cycle | Proposal | Both |
| Triage Flag | Boolean | SMO/TAC Meeting | | Proposal | Both |
| Type of Proposal | Text | APT | | Proposal | Both |
| UV Initiative | Boolean | APT | | Proposal | HST |
| Target DEC Hours | Number | APT | | Targets | Both |
| Target DEC Minutes | Number | APT | | Targets | Both |
| Target DEC Seconds | Number | APT | | Targets | Both |
| Target Name | Text | APT | | Targets | Both |
| Target RA Hours | Number | APT | | Targets | Both |
| Target RA Minutes | Number | APT | | Targets | Both |
| Target RA Seconds | Number | APT | | Targets | Both |
| Proprietary Period from TAC | Number | TAC Meeting | If they recommend something different | Proposal | Both |

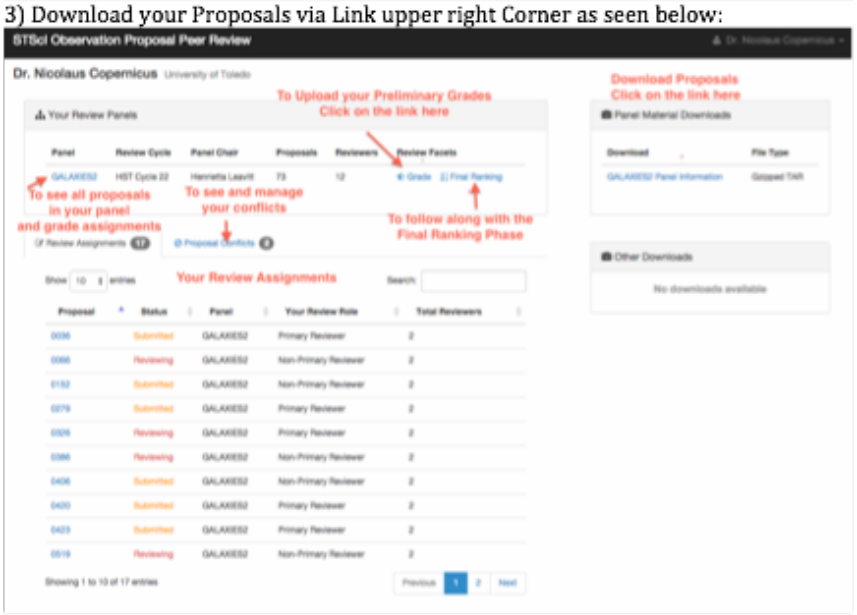
**Step by Step Guide for Review Process**

**Between Now and June 1st**

1) Read all of the Documentation at: http://www.stsci.edu/hst/proposing/panel/
2) Log into the Web-Reviewer Application at: https://tac.stsci.edu/tacreview/

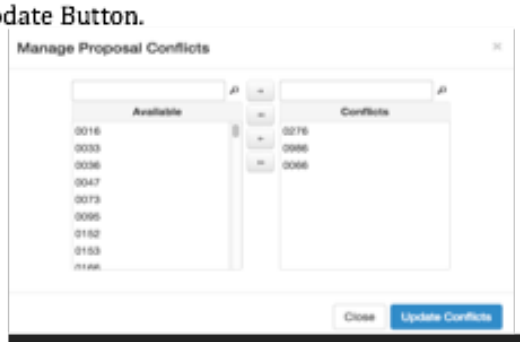


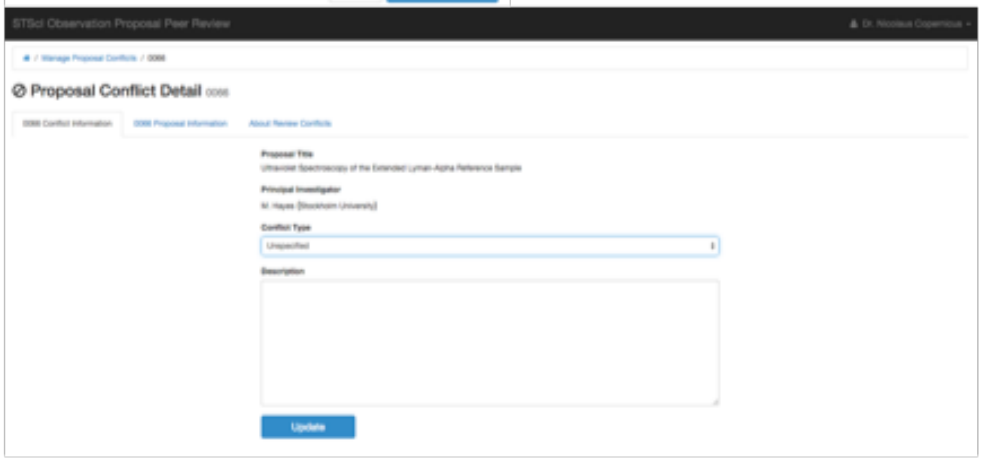

3) Download your Proposals via Link upper right Corner as seen below:



3) Check for Conflicts of Interest using Abstracts Catalog in your Download folder.
4) Submit any new conflicts of interest using the tool and email your Panel Support Staff Member.

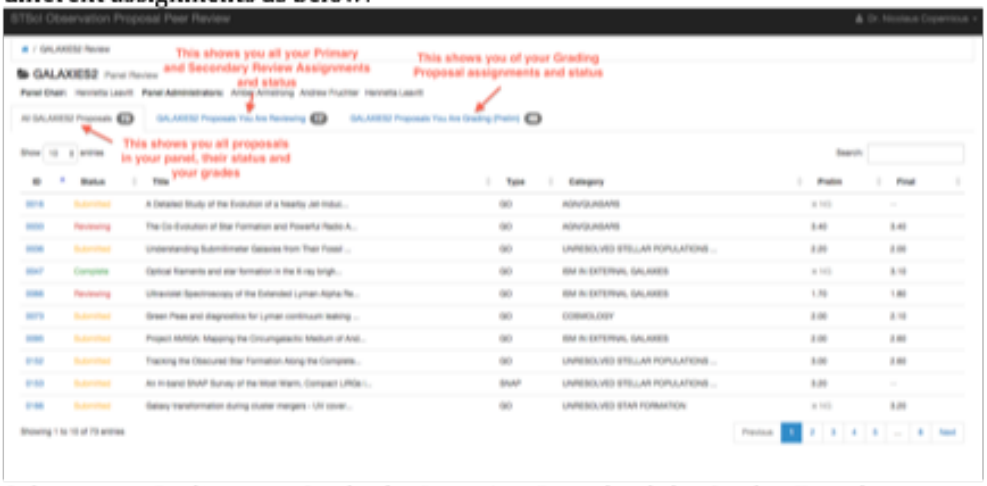

Click on the Proposal Conflicts button to manage your conflicts. Click on the Add button to add a new conflict. Selected the Proposal from the list and move it over (Double-Click); Select the Conflict Type, add any additional description and hit the Update Button.



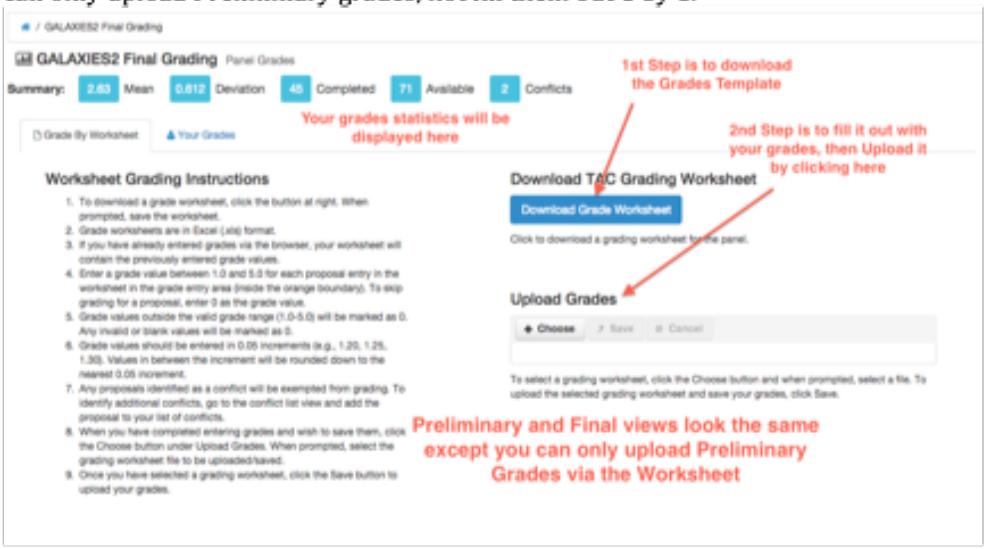



5) Review the Proposals as per Selection Criterion from Call for Proposals.

6) **The Proposals in your Panel**: Each proposal is assigned to a Primary and a Secondary Reviewer to lead the proposal discussion and to finalize the Notification comments. Each proposal is assigned 4 additional "graders" to review the proposal and submit preliminary grades. You can see your different assignments as below:

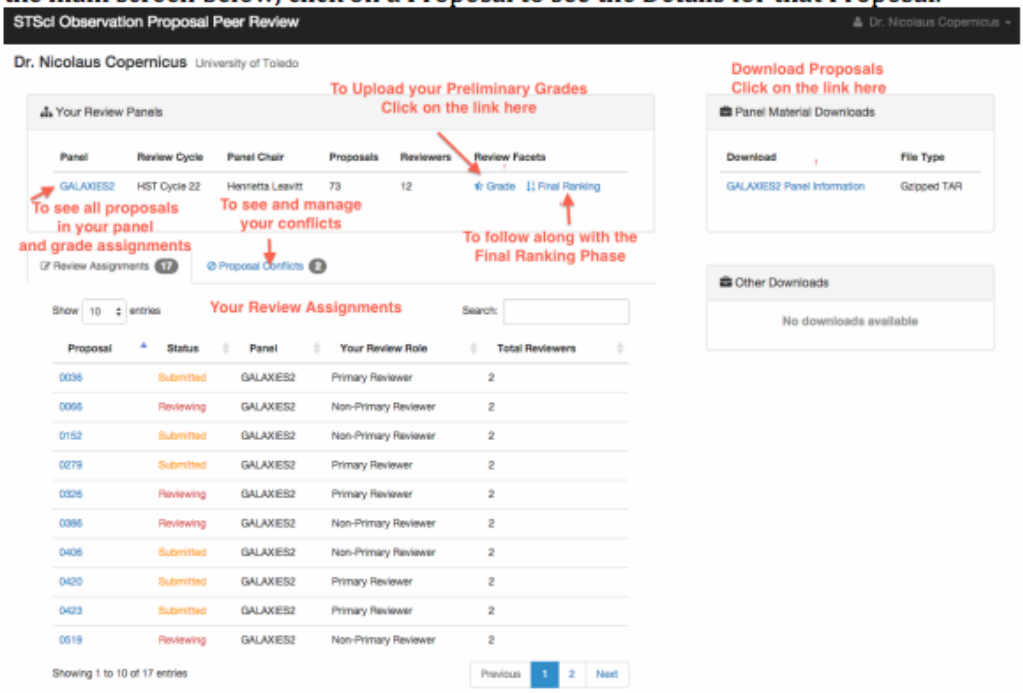



7) Submit your Preliminary Grades by **June 1st.** Download the Grades Template, fill it out and then Upload it as shown below. ***Grades are 1 is Best and 5 is Worst.*** The Preliminary and Final Grading Views are the same, except you can only upload Preliminary grades, not fill them out 1 by 1.

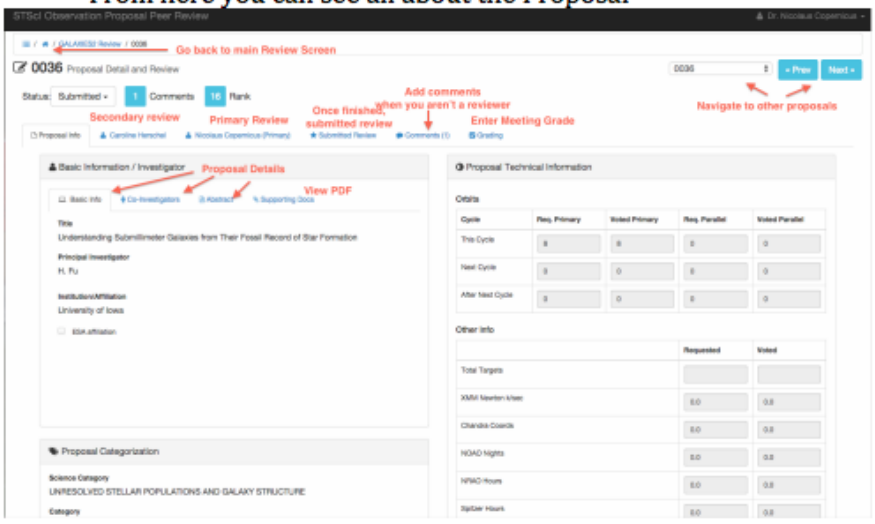


## Between June 3rd and the Meeting

8) Review the Triage List that should be distributed by June 3rd. Please then read any proposals that are above that line that weren't part of your Grading assignments.
9) Different Views/Steps for Viewing the Proposal Review Data; Going back to the main screen below, click on a Proposal to see the Details for that Proposal.

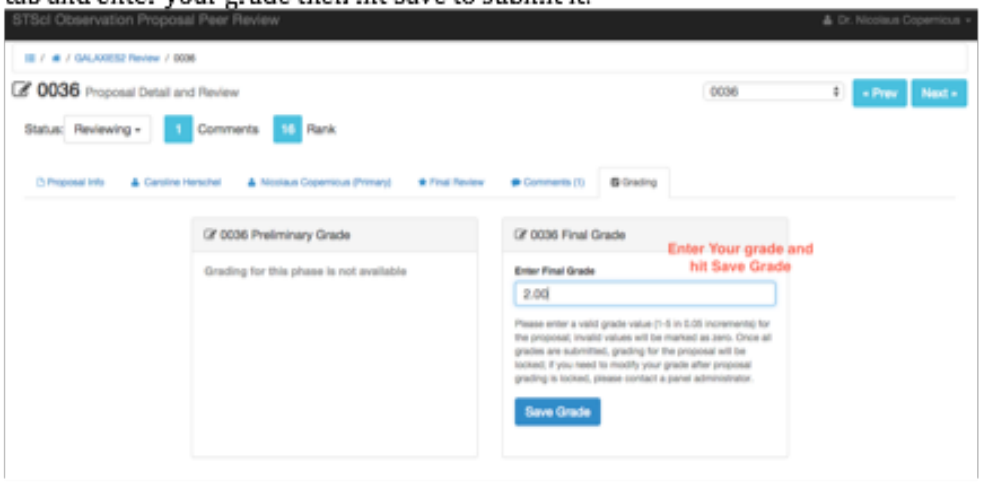



From here you can see all about the Proposal

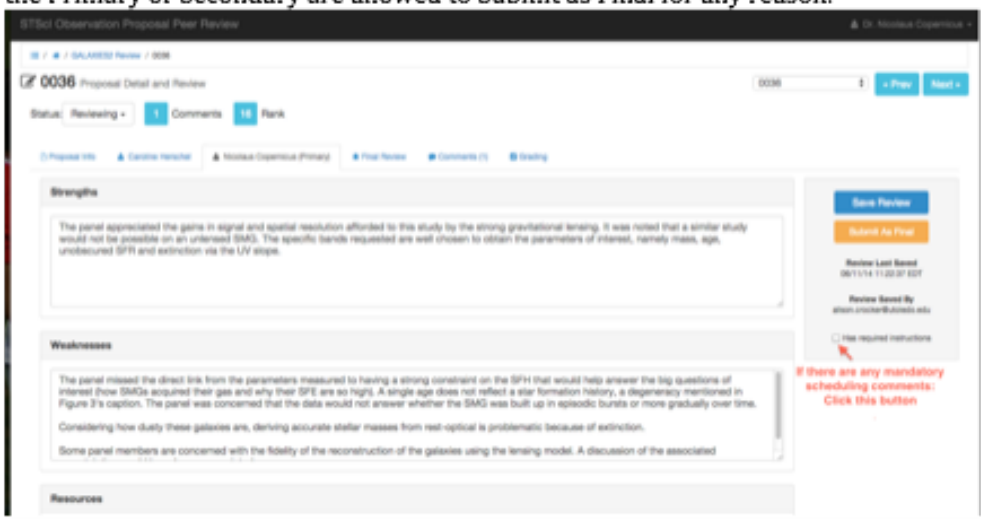


**During the Meeting**

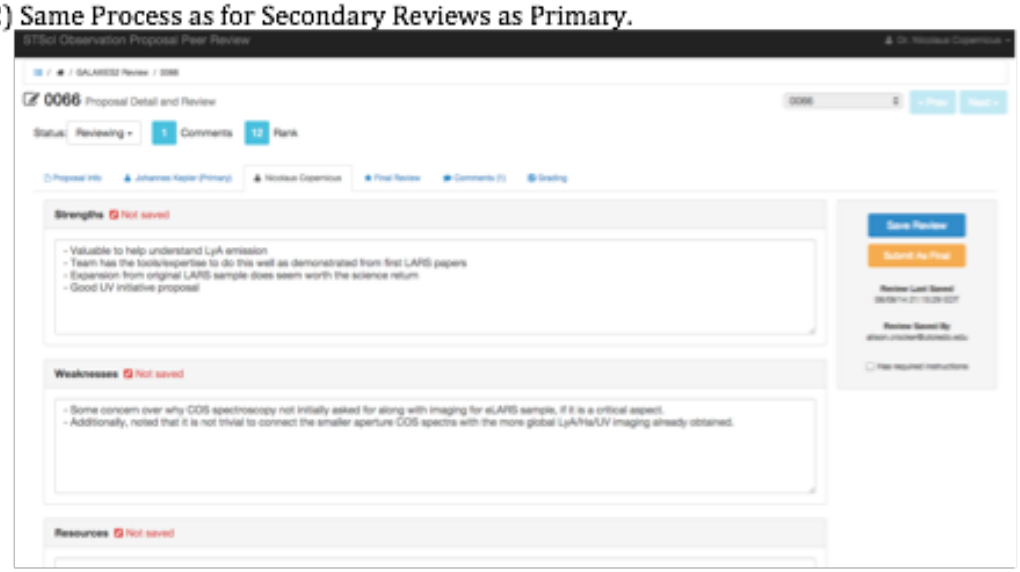
10) To enter your Grade for a proposal after the discussion click on the Grading tab and enter your grade then hit Save to submit it.




11) To enter Review Comments for a Proposal click on your name if you are the Primary (annotated) or secondary as below, enter your comments in the sections and hit the Save Review button. Once both the Primary and Secondary agree on the comments and they are entered, then you can click on the Submit as Final button and that will lock them for Panel Chair review and approval. If necessary you can unlock the review to revise it again. Either the Primary or Secondary are allowed to Submit as Final for any reason.

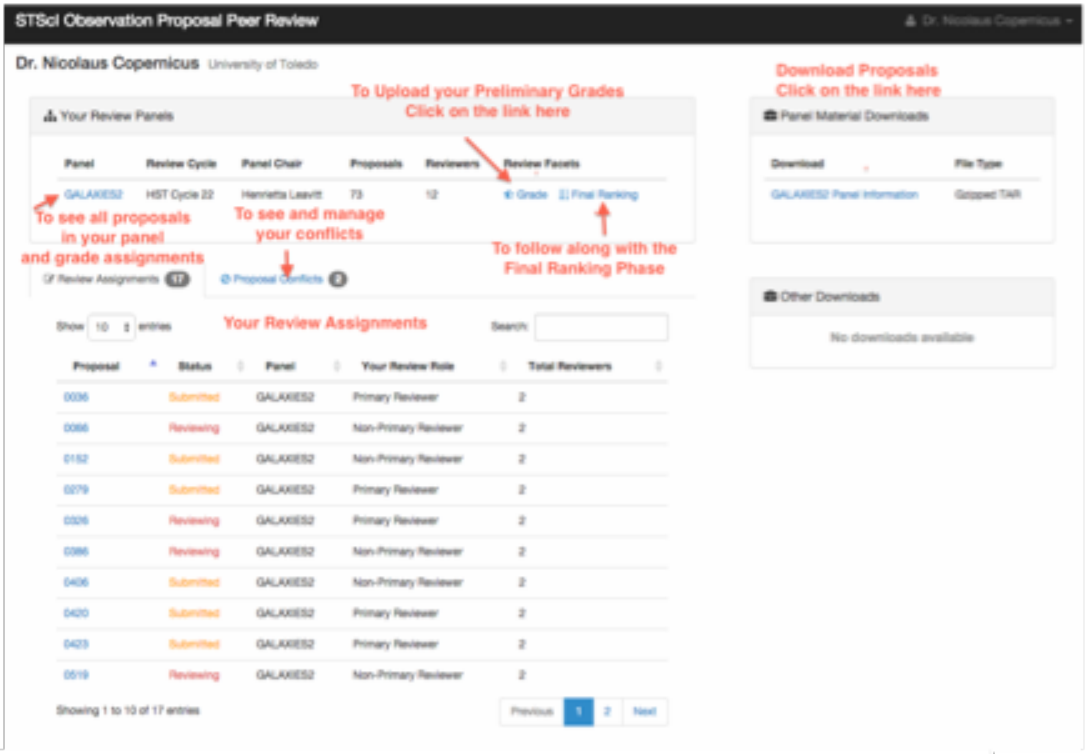


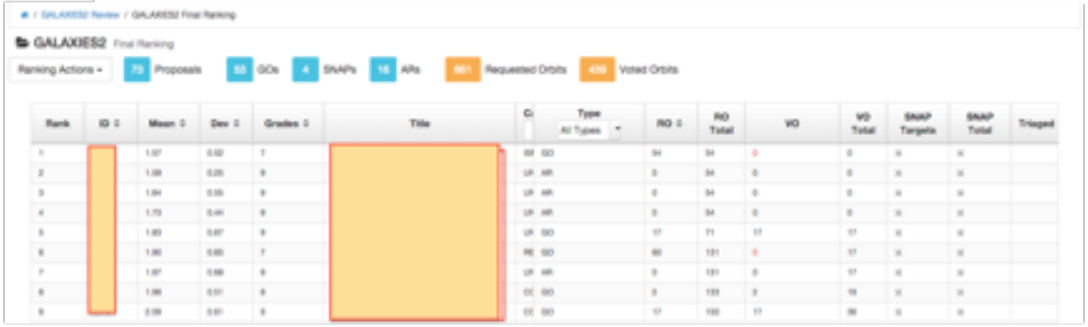
12) Same Process as for Secondary Reviews as Primary.




13)To add comments to a proposal that you aren't a reviewer on click on the Comments Tab and enter your comments as below:

14) To follow along during the Ranking process click on the Final Ranking button on the Home screen



## D. JWST Process and Tools

The majority of this document processing procedures will be the same for the JWST Mission. At this time all pieces are Mission dependent and can run and handle different reviews for HST and JWST. The following sections can be assumed to work for JWST or HST. The SPRINT tool hasn't been fully updated to handle the JWST data structure, but otherwise can handle 2 reviews at once.

| | |
|---|---|
| Section 2.1 | Schedule of Activities |
| Section 2.2 | Software Requirements Definition |
| Section 2.3 | Software Maintenance and Testing Support |
| Section 2.4 | Call for Proposals Update |
| Section 2.5 | Phase I Template updates |
| Section 2.6 | Panel Recruitment |
| Section 2.8 | Panel Support Recruitment |
| Section 3.1 | CP Release to Community |
| Section 3.2 | Coordination with ITSD |
| Section 3.3 | Help Desk Support |
| Section 3.4 | Monitor Phase I Submissions |
| Section 3.5 | Reviewer Assignment Software |
| Section 3.6 | SPRINT System |
| Section 3.7 | FileMaker Pro System |
| Section 3.8 | Phase I Ingestion |
| Section 3.9 | Proposer Questions |
| Section 3.10 | APT Submission Issues |
| Section 3.11 | APT Submission Daemon File Structure |
| Section 4.1 | Process APT Submission Errors |
| Section 4.2 | Database Loading |
| Section 4.3 | Statistics/Report Generation |
| Section 4.4 | Support Staff Training |
| Section 4.5 | Panel Communications/Questions |
| Section 4.6 | Update of Panel Review Documentation |
| Section 4.7 | Distribute Products for Internal Review |
| Section 4.8 | Reviewer Assignments |
| Section 4.9 | Load Reviewer Assignments into the Database |
| Section 4.10 | Distribute Products for Panel Members and Outside Experts |
| Section 4.11 | Load Web Reviewer Tool |
| Section 4.12 | TAC Proposal Reviewer assignments and Conflicts |
| Section 4.13 | Preliminary Grades |
| Section 4.14 | Load Calibration and Joint Reviews and disseminate to the panels |
| Section 4.15 | Meeting Room setups |
| Section 4.16 | Determine Resource Allocations |

| | |
|---|---|
| Section 4.17 | Coordination of TAC Members Pre-Meeting Telecon |
| Section 4.18 | Management of SPRINT Tool |
| Section 4.19 | Review Meeting Logistics Support |
| Section 4.20 | Review Meeting Readiness |
| Section 5.1 | Support Panel Support Staff Members as required |
| Section 5.2 | Support SMO Head, SPG Head and TAC Chair report requests |
| Section 5.3 | Consolidate Panel Reviews |
| Section 5.4 | TAC Panel Support Staff Member |
| Section 6.1 | Final Comments Processing |
| Section 6.2 | Final Database Processing |
| Section 6.3 | Program Coordinator Assignments |
| Section 6.4 | Long Range Plan Analysis from TAC Results |
| Section 6.5 | Director's Review |
| Section 6.6 | Grade Percentile Processing |
| Section 6.7 | Plib Create Processing |
| Section 6.8 | Notification Letter Processing |
| Section 6.9 | Program Coordinator Phase I to II Handoff |
| Section 6.10 | Grants/ProPer Phase I to II Handoff |
| Section 6.11 | Statistics/Reporting Needs |
| Section 6.12 | Complaint and Query Analysis for Director |
| Section 7.1 | Director's Discretionary (DD) Proposal Processing |
| Section 7.2 | Maintenance of Webpages |
| Section 7.3 | Burst-Email Communications to the Science Community |
| Section 7.4 | SMO Support |
| Section 7.5 | Phase I and II Metrics Support |
| Section 7.6 | Joint Observatory Phase I Interface |
| Section 7.7 | Science Community User Surveys |
| Section 7.8 | Backup and Cleanup of Phase I data storage areas |
| Section 7.9 | Special Projects |
| Section 7.10 | ProPer Database/User Profile Support |