Pre-Observation INS Activities

Diane Karakla
INS User Support Coordinator
Phase I Proposal Processing
between Phase I and Phase II deadlines

- support **Phase I technical feasibility reviews** of GO proposals (Treasury/Large/MT/ToO)
  - **DD** proposals require quick reviews anytime during cycle

- support **TAC** with answers to technical questions
  TAC meets end of March.

- After TAC acceptance, Phase I summaries provided to INS by SPD
Preparations for Phase II

- **Prime Instrument (SI)** assignment based on Phase I summary
  - prime concern: instrument safety, then number of orbits
    (e.g. a proposal with 1 orbit of STIS/NUV-MAMA and 50 orbits of WFPC2 will be STIS prime)

- **Contact Scientist (CS)** assignment is made by CS Lead
  - all Large/Treasury/MT/ToO/DD/CAL proposals, PI request
  - in past cycles, all programs assigned CSs
  - depending on SI usage, an IS will have 10 – 20 proposals to review; CS for only ~3
Preparations for Phase II (cont’d)

📖 **Update Documentation:**
   Provide instrument-related updates to Phase II Proposal Instructions (Soderblom, ODM)

💻 **Update/test Software:**
   - Support APT requirements and testing (DAs, ISs) prior to release of APT+P2PI to GOs in early April.
   - Update CS Toolkit software
     - update instrument flags (new vs older instrument)

📞 **Manage the Helpdesk**
Update **Instrument flags** (implemented in proposal review template of CS Toolkit, APT, and eng. version of Phase II Proposal Instructions):

- Available-but-unsupported modes
- Non-default SIZEAXIS2
- Long visits
- ACS,NICMOS: Use of coronagraph/occulting finger
- STIS: POS TARG or PATTERN with MAMA
- STIS: No CR split on exposure
- NICMOS: unspecified PATTERN
- BOP-checking for STIS MAMAs, ACS/SBC
Assign all proposals to IS reviewers
- all GO programs reviewed by CS or IS
- review only those observations in prime observing mode
- exception: BOP-checking is done on STIS/MAMA parallel exposures (no ACS/SBC parallels allowed)

Update user support documentation:
- User Support Procedures guide
- User support web page (www.stsci.edu/ssd/CS)

Provide training to CSs, ISs, PCs, DAs
Cycle 12
User Support Procedures for Contact Scientists and Instrument Scientists

This page outlines the user support responsibilities of the Contact Scientists/Instrument Scientists (CS/IS). It describes, in detail, all proposal related aspects of CS/IS duties.

Documentation & Instructions:
User Support Procedures for Cycle 12 [PDF]
ACS Instrument Reviews (Useful for Other Instruments) [PDF]
User Support Viewgraphs [PDF]
PC Training Viewgraphs [PDF]
Activating ToQ programs

Other Web Pages You May Need to Visit:
Program Information
GO Duplication Resolution
Minor Change Requests are handled through the PC and the Change Lead, and forwarded to the TTRB if the Change Lead is unable to resolve the problem.
Major Change Request
HOPR Request
Paper Products: PI’s can now create the paper products from his or her program using the IRAF task stsdas.hst_calib.paperprod.

Use the CS Toolbox for:
Available Mode Approval
Instrument Review Submission

Verification/Duplication Lead & Change Lead Resources:
Old Precedents
TTRB Policies
Phase II Preparations (cont’d)

- Implement new instrument or observing **policies** in documents/announcements/web pages/software and letters to PI
- Prepare **cron jobs** to run at appropriate intervals

! **Phase II Deadline** !

mid-May
Run batch job on ingested proposals (ASSIST db) to provide statistics for INS resource allocation

Total of 215 GO Proposals (excl. DD), 7 late submissions
Phase II Proposal Processing (cont’d)

- CS or IS does the review
- Reviews done for each visit for scheduling purposes
- Primary exposures only

**Prime vs Secondary instruments**
**Primary vs Parallel exposures**

- Multiple-instrument reviews are submitted by prime instrument reviewer unless visit contains prime observations with a single secondary instrument!
- ~10% joint proposals in Cycle 12 (ACS,WFPC2)
Keeping Track

- **Prop-history file** keeps record of proposal review and correspondences between PC/CS/PI/TTRB/Helpdesk
- **Program Changes** – simple changes (e.g. improved target locations) handled by PCs, more complex by **Change_Lead**, or TTRB (instrument changes)
- Program Verification done by PCs + **Verif_Lead**
- Cycle 12: **CS_Lead = Verif_Lead = Change_Lead**

ACS=Shardha Jogee   STIS=Jesus Maiz
NICMOS=Al Schultz   FGS=Ed Nelan
WFPC2=James Rhoads
Process Changes in Recent Cycles

- **Compressed review period** from Phase II deadline to start of observations (~1.5 months)
- ~1 month for reviews
  - to improve scheduling efficiency (LRP difficulties), subset of proposals require quick review (no flags)
- **Cycle 12** implemented phased review deadlines:
  - top priority: ~20 proposals required 1 week reviews!
  - second priority: ~20 more required review at specific times before deadline in mid-July (2 to 6 weeks)
  - third priority: SNAPS used as schedule fillers
  - remainder: deadline in mid-July (6 weeks)
How a Phase II Review is Conducted

1. Use CS Toolkit “schedule status” to check which visits are ready for review
2. Obtain the **standard instrument review template**
   - performs automatic check for instrument flags
   - includes an instrument checklist
3. View **visit structure** from proposal information web page
4. Complete and submit review via CS Toolkit (changes may be required). Copies to PI, prop-history.
5. If problem found – email PI and consult with changes
6. PI submits new version of proposal with APT

~2-3 hours to review proposal w/o BOP-check X 15
CS Toolkit Main GUI
Standard Instrument Review Template

**Flags**

**Checklist**

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**Proposal ID:** 10065
**Title:** Mars at Closest Approach
**PI:** BELL
**Program Coordinator:** LUBENOW
**Name of Reviewer:**
**Instrument(s) Being Reviewed:** WPPC2
**Date of Review:**
**Visit Number(s) (or ALL):**

**Changes Needed Before Execution:**

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*Note: The CS review done flag should only be set to complete if the answers to the last 2 header entries are YES and NO. When the PC completes the changes, and if the reviewer does not wish to re-review the program, the PC should manually set the CS review flag to complete.*

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For multiple instrument reviews, e-mail completed form to the primary reviewer. The primary reviewer should submit all completed forms via the CS Report Tool GUI.

**IF REVIEW IDENTIFIES SERIOUS PROBLEMS,** the primary reviewer should discuss the problems with the PI directly, and also consult with the PC personally to resolve the problems.

This program uses the following features which may require special attention:

- **WPPC2**
  - RAMPS (01 02)
  - UV (01 02)
  - RED LEAK FILTER (01 02)

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1) If there are any changes which need to be made before the program is ready for the long range plan, describe the changes, and include a statement about whether you need to review the program after the changes are made.

2) If there are any changes which need to be made before the program is ready for execution, describe the changes, and include a statement about whether you need to review the program after the changes are made.

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**WPPC2 INSTRUMENT CHECKLIST**

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*Note: The following issues need to be checked manually only if they have been flagged by the automated proposal software as requiring*
ACS checklist

- BOP checking to ensure count rates below limits for the SBC. IS must submit BO review form
- Coronograph? Check for correct sequence of images, adequate PSF images included
- HRC-ACQ justified? Followed by spot image?
- Polarization studies require 3 different polarizers
- Dithering adequate for CR rejection?
- Patterns implemented correctly?
- Available-but-unsupported modes. CS/IS reviewer must okay. Failed observations not repeated!
### Visit information from Web

Visit: 01
Visit Priority: <none>
Visit Requirements: DROP TO CYRO IF NECESSARY SCHED 100% BETWEEN 21-AUG-2003:00:00:00 AND 05-SEP-2003:00:00:00
On Hold Comments: <none>
Additional Comments: <none>

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Comments: WF3 image with Mars center near (552, 394)
Phase II Reviews
BOP checking

- ACS/SBC and STIS MAMAs
- Verification of GO-supplied target and flux info
- Peculiarities of target and field objects (within 5”)
  - e.g. emission line or variable source?
- Check details of the flux calculation
  - other UV observations in literature?
  - compute the UV flux, specify assumptions
- Provide suggested resolution; different instrument config., filter, orientation, even target!!
- ROBOT tool in CS Toolbox is used to check GSC2 for target and field object fluxes
How ROBOT Works

- Run from **CS Toolkit**, select prop and visit
- Tool gets *instrument + exposure* info from **ASSIST**
- Tool gets stellar data from **GSC2** *(F and J mag)*
- Processes magnitudes to determine *count rates or counts*
- Compares derived counts with *screening limits*
- Flags problem stars on interactive **VTT display**
ROBOT visit selection

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ROBOT VTT display
Phase II reviews - How things can go terribly wrong!

 Proposal 9xxx    Reviewed by P. Goudfrooij

- ROBOT: LMC too crowded, GSC2 problems
- Review required another source for magnitudes
- Retrieved ACS and NTT mags to determine colors of bright stars
- Model with synphot to get spectral types
- Identified bright object concerns
- Test other observation modes with ETC
- None worked → re-orient!!
- Proposal took **2 full days** to complete review (1 visit)
Other INS Products

- Instrument Calibration program (based on GO proposed instrument usage)
- HST Primer (overview of instrument capabilities, observing strategies, GO resources)
- HST Instrument Handbooks