Phase II Proposal Processing

Denise Taylor
Observation Planning Branch
Program Coordinators (PCs) implement Phase IIs:
Observation Planning Branch (ODM/OPB)

• **Tony Roman:** Lead Program Coordinator
  PC Calibration Manager, PC SMOV Manager, Solar System Proposals
• **Andy Lubenow:** Senior Program Coordinator
  Solar System Proposals
• **Ray Lucas:** Senior Program Coordinator
  APT Support
• **Alison Vick:** Senior Program Coordinator
  ACS calibrations, comet observations, LRP
• **Beth Perriello:** Program Coordinator II
  NICMOS calibrations, ACS GTOs, inter-observatory coordinations
• **Tricia Royle:** Program Coordinator II
  BOA manager, Hubble Heritage programs, UDF, LRP
• **Bill Januszewski:** Program Coordinator II
  WFPC2 calibrations, COS GTOs
• **Gala Soutchkova:** Program Coordinator II
  STIS calibrations, pure parallels
• **Denise Taylor:** Branch Head
  FGS calibrations, FGS proposals

Also:

• **Ian Jordan (ODM/SMSB)**
• **Karla Peterson (ESS/APSB)**
PCs are assigned to specific proposals until all observations are executed.

- PCs work with Principle Investigators (PI) and other operational staff (ODM, INS) to develop a technically feasible, scientifically valid observing plan.
- Work begins before Phase II deadline and continues until all observations in a proposal are successfully executed.
- A single PC may have 20-60 active proposals at a given time, spanning more than one observing cycle, and containing a mixture of General Observer (GO), Guaranteed Time Observer (GTO), Snapshot (SNAP), Director’s Discretionary (DD), calibration (CAL) and/or Servicing Mission Orbital Verification (SMOV) proposals.
Proposal Processing

- PI develops and submits Phase II using APT within 6 weeks of notification of acceptance.
- PC loads Phase II into Proposal Library (PLIB) and begins preliminary ground system processing.
- Phase II is run through Verification: must meet TAC approved orbit allocation; must use same targets and instrument configurations as were approved by TAC; must conform to any TAC-mandated changes; must not duplicate other observations. Major differences (# orbits, instrument usage, or duplications) must be reviewed by the Telescope Time Review Board (TTRB). Minor differences (target changes or filter changes) are reviewed by an Instrument Scientist.
General Processing Steps

• PLIB and the Preprocessor: store the proposal (every version!) and check for syntax errors, illegal instrument configurations; create input files for Trans
• Transformation (TRANS or TransVerse or TV): convert proposal into database insertion files containing visit structure information (# orbits, visit #, exposure times, instrument and filters used, targets observed).
• Assist Database: proposal processing and status tracking.
• Proposal Management Database (PMDB): observation information used by schedulers.
• New Guide Star System (NGSS): guide star searches and bright object alerts.
• Spike: scheduling constraints.
• Science Planning and Scheduling System (SPSS): combines proposal information, guide star information, spacecraft constraints, and instrument management for onboard execution.
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- Transformation  ☐ Generate Links AF  ☐ MOSS  ☐ PMDB Load  ☐ Guide Star Request  ☐ Spike  ☐ Visit Update

- Transformation Options
- MOSS Options
- PMDB Load Options
- Guide Star Request Options
- Visit Update Options

- Verbose  ☐ Meter  ☐
Processing Steps (continued)

• Confirmation Charts: images for target coordinate confirmation.
• Moving Object Selection System (MOSS): for Solar System targets only – calculates viewing constraints and orbital information of target so SPSS can determine tracking parameters.
• Parallel Observation Matching System (POMS): generates pure parallel science observations from special proposals.
• Instrument reviews by INS: on all proposals (except calibrations).
• Plan windows produced by LRP: needed for planning analysis.
• Galley proof approved by PI.
• Observations become ready for flight.
Program Information for 9879 – **GO**

(as of Fri Oct 03 10:31:08 EDT 2003)

**Principal Investigator:** George Benedict  
**PI Institution:** University of Texas at Austin  
**PI and Co-1 Address Information**

**Title:** An Astrometric Calibration of the Cepheid Period-Luminosity Relation

**Program Status:** Implementation

**Program Coordinator:** Denise Taylor (dctaylor@stsci.edu) 410–338–4824

**Program Contents**

- Phase 2 File  
- Formatted Listing  
- Target Confirmation Charts (answers to frequently asked questions)  
- HST Archive Information (calibration proposals not included)

This program is currently allocated 60 orbits.

**Visit Status Information**

[Search](http://www.stsci.edu/cgi-bin/get-prt) Daily Status Reports for Program 9879
### Formatted Phase 2

Visit: 01

Visit Priority: <none>

Visit Requirements: POS MODE FIRE SCHED 80% ORIENT 100.0D 70.118.0D BETWEEN 13-SEP-2003 00:00:00 AND 15-SEP-2003 00:00:00

On Hold Comments: <none>

Additional Comments: TVUL

#### Exposures

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Data Status: Archived
Configs: FGS

Visit: 20
Status: Scheduling
Configs: FGS
Start Time: Oct 11 2003 20:03:00 UT

Visit: 50
Status: Scheduling
Targets: FF–2 FF–3 FF–4 FF–5 FF–6 FF–7 FFAGL
Configs: FGS
Start Time: Oct 7 2003 01:38:04 UT
End Time: Oct 7 2003 02:31:21 UT

Visit: 51
Status: Scheduling
Targets: FF–2 FF–3 FF–4 FF–5 FF–6 FF–7 FFAGL
Configs: FGS
Start Time: Oct 12 2003 08:04:30 UT
End Time: Oct 12 2003 08:57:47 UT

Visit: 02
Status: Scheduling
Targets: TV–2 TV–3 TV–5 TV–6 TV–7 TV–8 TVUL TV–44
Configs: FGS
Plan Windows:

Visit: 03
Problems

- No guide stars: PI must change constraints (ORIENT, BETWEEN) or choose a new target. May be acceptable to switch to single star guiding instead of using a pair of guide stars.
- Scheduling conflict with another proposal(s): adjust scheduling requirements on all or one proposal to best retain scientific goals.
- Infeasible orbit structure: need too many consecutive orbits in a visit, or too many CVZ orbits in a cycle. One visit may have to be broken into 2 or more visits. CVZ orbits may have to execute in non-CVZ time.
- Changes in instrument performance: follow advice of INS.
- Bright object concerns: change target or filters
Special Proposals

- SNAPs: “fillers” of less than one orbit duration. Not guaranteed to execute. Used to maintain scheduling efficiency.
- Target of Opportunity (ToO): little or no planning before observations needed. Interrupts calendar building and must be implemented quickly.
- Large proposals: Proposals allocated 100+ orbits can require special implementation due to scheduling constraints. Also take longer to process due to sheer size.
- Calibration proposals: different cycle boundaries, so are submitted at different times. Often require non-routine implementation for special capabilities. Mix of internal and external targets.
- Coordinated proposals: coordinate with observations on other observatories. Requires intense communications with PIs and schedulers.
- Pure Parallels: take advantage of HST’s ability to use multiple instruments at once. Special processing in POMS and scheduling.
Observation Failures

- Guide star acquisition failures
- STIS or NICMOS resets
- Target acquisition failures (STIS)
- Telescope or instrument safing
- PI error in target specification or exposure time calculation
- Implementation errors

Causes of re-scheduling:
- ToO activation
- Servicing mission observations
- Telescope or instrument safing