

Summary: 17 August - 9 October 1995

Instrument: Nominal operation; three reports of noisy diodes; one valid

Acquisition: 27 successful; 1 failure; 1 affected by GS Acq problem

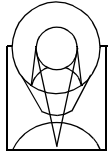
Science: 22 GO/GTO programs; 1 lost due to ACQ/BIN failure

Calibration: 3 programs (Cycle 5 darks, YBASEs, and wavelengths)

Publications and Updates: delivery of new YBASE settings and AIS reference files

Other: Polarimetry status update; TAC PC training and feasibility consulting;

IS Reviews, new group member, Alex Storrs



Instrument Status (17 August - 9 October 1995):

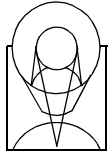
FOS instrumental operation mostly nominal

Diodes:

- three first-time noisy diodes reported; one added to “watch list”
 - FOS/BL diode 22 : GOs alerted; modify CALFOS scattered-light algorithm
 - FOS/BL diode 138 - reported by GO, resolved as noisy data
 - FOS/BL diode 148 - reported by OPUS, resolved as background

Target Acquisitions:

- one failed to single star guiding; 0.14 arcsec drift
- one ACQ/BIN failed due to incorrectly specified target brightness and target coordinates.



Publications/CDBS/PDB Updates (since 17 August 1995):

New YBASEs delivered - effective 16 October 1995
includes all detector/disperser combinations and supported
polarimetric modes; routine periodic update - normal trending continues.

Initial Average-Inverse-Sensitivity (AIS) Method reference files and
supporting tables delivered - effective after pipeline verification

Other:

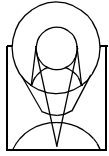
Instrument status change for polarimetry.

Training session for TAC Panel Coordinators - training document available.

Feasibility review consulting ongoing with TAC PCs.

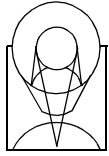
HST Data Handbook revision continues.

New FOS Instrument Scientist, Alex Storrs (410) 338-4903, *storrs@stsci.edu*



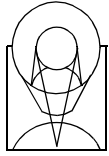
AIS Flux Calibration Method :

- establishes pipeline and STSDAS flux-calibration method accurate to <3% (with properly centered observations)
- uses Bohlin absolute flux calibration standard system
 - system described in ISR CAL/FOS-144 (Bohlin, Lindler, & Keyes) and in “Spectrophotometric Standards from the Far-UV to the Near-IR on the White Dwarf Scale,” Bohlin, submitted to A.J.
- starts with “average” 4.3 aperture sensitivity for each detector/disperser
 - included in AIS reference file (science header keyword AISHFILE)
- accounts for aperture throughput as function of wavelength
 - included in CCSB reference table
- accounts for time-dependence of sensitivity at each wavelength
 - included in CCSD reference table
- for the pre-COSTAR case, tracks focus change history and accounts for its impact on aperture throughput
 - included in CCSA and CCSC reference tables, respectively.



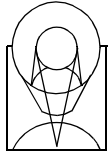
Polarimetry Status Changes:

- FOS Cycle 6 Instrument Handbook advised usage of FOS/RD for polarimetry
- Preliminary analysis of FOS/RD calibration indicated limiting accuracy for linear polarization of 1-1.5%
- FOS/BL has limiting accuracy of 0.7% (and a goal of 0.2% through further calibration seems achievable)
- effective 1 September, recommended to all proposers/users to switch to FOS/BL for all high-precision polarimetric observations
 - all current PIs and the FOS STAN mailing list were notified
 - full description of status change placed on FOS WWW page.
 - all current un-executed FOS polarimetry programs changed without significant science impact (2 FOS/RD programs had already executed)
- detailed FOS/RD calibration analysis continuing



Panel Coordinator FOS Feasibility Training Summary:

- described major aspects of FOS program feasibility review
- summary “cookbook” document is available from FOS group
 - indicates major problem areas when an IS should ALWAYS be called
 - appropriate to Phase I and Phase II reviews
 - includes summary checklist
 - describes bright object evaluation
 - target acquisition analysis
 - includes requirements as function of specific science goals
- comparison of FOS/BL and GHRS G140L capabilities
- brief description of instrument and important operating modes
- contains certain features specific to Phase I (e.g., orbit budgeting evaluation)



SPACE TELESCOPE SCIENCE INSTITUTE

TIPS: 12 October 1995
FOS
Keyes

The SSD FOS Group

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