Summary: 10 October - 29 November 1995

Instrument: Nominal operation
Acquisition: 45 successful; 4 failures - all affected by FGS1 LOL problem
Science: 29 GO/GTO programs; 3 lost due to LOL problems
Calibration: 3 programs (Cycle 5 focus, YBASEs)
Publications and Updates: new YBASE settings implemented
Other: General TAC support; IS Reviews.

Instrument Status (10 October - 29 November 1995):

FOS instrumental operation nominal

Target Acquisitions:

- two failed due to FGS1 loss-of-lock during ACQ/PEAK slews
  - GHRS science proceeded for one of these instances; the other was lost
- two failed due to loss-of-lock during or associated with offset slews
  - FOS science partially lost for one; entirely lost for other.

Other:

General TAC support.

Cycle 4 Calibration Plan Summary

Program	Responsible	Publication	Status
Location of Spectra	Koratkar, Dahlem	CAL/FOS-133 PDB updates	closed
Dark Monitoring	Hayes	CAL/FOS-146 (draft)	pending closure
Aperture Wheel Repeatability	Dahlem	CAL/FOS-131	closed
Focus, X-pitch, Y-pitch	Koratkar, Martin		closed - no changes
Discriminator Test	Wheeler		closed - no changes
FOS/BL GIM characterization	Dahlem		open
Polarimetry	Allen	CDBS updates	open
Wavelength Calibration	Dahlem	HST Workshop	pending closure
Flat Fields	Keyes	CAL/FOS-143 (draft) HST Workshop	pending closure
Photometric Monitor, Aperture Throughputs	Bohlin, Lindler, Keyes, Colina	CAL/FOS-136, -144 HST Workshop	closed

Location of Spectra:

FOS/BL shows predictable evolution as function of time.
FOS/RD measures show large scatter with no clear trend.
CAL/FOS-133 and semi-annual PDB updates.

Aperture Wheel Repeatability:

consistent with pre-launch measures; no indication of mechanical wear
upper limit of 0.1 diodes, which includes GIM uncertainty
CAL/FOS-131.

Focus, X-pitch, Y-pitch, Discriminator:

no measurable changes during cycle.

FOS/BL GIM Characterization:

analysis in early 1996.

Wavelength Calibration:

Dispersion relations established for all 10 Cycle 4 epochs. Formal comparison with re-calibrated pre-COSTAR relations now in progress.

No substantive changes to date.

Final results await re-analysis with new analytical methodology to objectively isolate bad lines from fits (Dahlem and Rosa, forthcoming).

Dark Calibration:

SV and Cycle 1-4 measures all consistent; no temporal trends.
clearly dependent upon geomagnetic latitude; no longitude correlation.
CAL/FOS-146 (draft).

Flat Field Calibration:

Superflats delivered; applicability is strongly dependent on pointing accuracy.
Superspectra characterized for small aperture flat field measures.
CAL/FOS-143 (draft) and HST Calibration Workshop.
CDBS updates.

Photometric Monitor and Aperture Throughputs:

Observationally derived calibration for all apertures except bars and 0.1-PAIR
Calibration system accurate to <3% for well-centered observations.
CAL/FOS-136, CAL/FOS-144, and HST Calibration Workshop.
CDBS updates.

Polarimetry Calibration:

FOS/BL linear polarization limiting accuracy currently 0.7%
- goal of 0.2% with further calibration.

FOS/RD linear polarization limiting accuracy of 1-1.5%
- improvement may be possible for 1.0 aperture only.

4.3 aperture should no longer be used for polarimetry
ONLY FOS/BL should be calibrated in Cycle 5.

ACQ/PEAK Scan Pattern

21	22	23	24	25
20	19	18	17	16
11	12	13	14	15
10	9	8	7	6
1	2	3	4	5

typical 0.3 aperture, step-size=0.17 ACQ/PEAK PSF sampling

		.01		
	.02	.033	.02	
.01	.033	1.000	.033	.01
	.02	.033	.02	
		.01		