



11422 - SOFA Test

Cycle: 17, Proposal Category: SM4/WFC3

(Availability Mode: RESTRICTED)

INVESTIGATORS

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VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	TUNGSTEN	WFC3/UVIS	1	17-Apr-2008 21:00:42.0	yes
02	TUNGSTEN	WFC3/UVIS	1	17-Apr-2008 21:00:46.0	yes

2 Total Orbits Used

ABSTRACT

This proposal will verify the operation of all SOFA filter wheels using the default calsystem tungsten lamp. Internal flatfields will be obtained in one filter from each of the twelve filter wheels, establishing an initial baseline over a broad wavelength range. Subsequent proposals (e.g., WF19, proposal 11432) will obtain full internal flatfield coverage in all UVIS filters. Filters for this proposal were chosen based upon a balance of multiple factors: reasonable countrate with calsystem tungsten lamp (no long exposure times), science priority of the filter, overall coverage of UVIS wavelength regime, and slot location in the wheel. Exposures will be taken in the default full-frame, four-amp, unbinned readout mode.

This proposal corresponds to SMOV activity id WFC3-09.

OBSERVING DESCRIPTION

A flatfield using one filter per wheel will be obtained with the default tungsten lamp assigned to the UVIS channel, verifying both wheel and lamp operability. A check of the spare tungsten lamp for the UVIS channel will be done later via proposal 11529 (the two tungsten bulbs assigned to the IR channel will be checked in proposals 11423 and 11543).

wheel filter / slot

1 F656N / 4

2 F200LP / 3

3 F657N / 3

4 F645N / 4

5 F625W / 1

6 F606W / 2

7 F555W / 1

8 F763M / 4

9 F467M / 3

10 F475X / 3

11 F350LP / 2

12 FQ889N / 3

CALIBRATION JUSTIFICATION

All SOFA wheels and at least one tungsten lamp must function before the CCD functional test (WFC3-06, proposal 11419) can be run. The flatfield illumination patterns will be analyzed and compared to previous ground test results to check for any changes in filter structures, vignetting within field, etc. Flux levels of the tungsten lamp will be compared to previous ground test results to verify performance of the bulb. Data will be used, along with internal flats from other proposals, to generate on-orbit updates for the calibration pipeline flatfield reference files.

Visit		Proposal 11422, Visit 01, implementation								
		Diagnostic Status: No Diagnostics								
		Scientific Instruments: WFC3/UVIS								
		Special Requirements: (none)								
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	Wheel 1, la mp 3	TUNGSTEN	WFC3/UVIS, ACCUM, UVIS	F656N				320. Secs [==>]	[1]
	2	Wheel 2, la mp 3	TUNGSTEN	WFC3/UVIS, ACCUM, UVIS	F200LP				1.0 Secs [==>]	[1]
	3	Wheel 3, la mp 3	TUNGSTEN	WFC3/UVIS, ACCUM, UVIS	F657N				50. Secs [==>]	[1]
	4	Wheel 4, la mp 3	TUNGSTEN	WFC3/UVIS, ACCUM, UVIS	F645N				73. Secs [==>]	[1]
	5	Wheel 5, la mp 3	TUNGSTEN	WFC3/UVIS, ACCUM, UVIS	F625W				4.4 Secs [==>]	[1]
	6	Wheel 6, la mp 3	TUNGSTEN	WFC3/UVIS, ACCUM, UVIS	F606W				3.6 Secs [==>]	[1]

Orbit Structure		Orbit 1		Server Version: 20071214	
<p>The diagram shows a timeline for Orbit 1 from 0 to 5500 seconds. A green bar at the bottom represents the total visibility period. Several black bars indicate periods of 'Unused Visibility'. Key events are marked with arrows: Exp. 1 (0-50s), Exp. 2 (50-100s), Exp. 3 (1300-1500s), Exp. 4 (1500-1700s), Exp. 5 (2400-2500s), Exp. 6 (2600-2700s), Reconfig (2700-2800s), and Occultation (3000-3400s). The text 'Unused Visibility = 3028' is displayed at the top left of the chart area.</p>					

Visit	Proposal 11422, Visit 02, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	Wheel 7, la mp 3	TUNGSTEN	WFC3/UVIS, ACCUM, UVIS	F555W				11.4 Secs [==>]	[1]
	2	Wheel 8, la mp 3	TUNGSTEN	WFC3/UVIS, ACCUM, UVIS	F763M				4.3 Secs [==>]	[1]
	3	Wheel 9, la mp 3	TUNGSTEN	WFC3/UVIS, ACCUM, UVIS	F467M				300. Secs [==>]	[1]
	4	Wheel 10, la mp 3	TUNGSTEN	WFC3/UVIS, ACCUM, UVIS	F475X				11.4 Secs [==>]	[1]
	5	Wheel 11, la mp 3	TUNGSTEN	WFC3/UVIS, ACCUM, UVIS	F350LP				1.0 Secs [==>]	[1]
	6	Wheel 12, la mp 3	TUNGSTEN	WFC3/UVIS, ACCUM, UVIS-QUAD	FQ889N				39. Secs [==>]	[1]
<i>Comments: Quad filter being used with full-frame image.</i>										

