17360 - WFC3 UVIS Shutter Monitoring

Cycle: 31, Proposal Category: CAL/WFC3

(Availability Mode: RESTRICTED)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	TUNGSTEN	WFC3/UVIS	1	20-Jul-2023 17:00:54.0	yes
02	TUNGSTEN	WFC3/UVIS	1	20-Jul-2023 17:00:55.0	yes

2 Total Orbits Used

ABSTRACT

We monitor the WFC3 UVIS shutter performance. The exposures in F555W need to be identical to previous cycles. Images with exposure times ranging from 0.5 to 17 seconds will be used to compare the photometric behavior of each shutter blade, for short vs long exposures and check for shutter shading effects. The first exposure of 0.5sec cannot be used since the lamp would be still heating during this exposure, so we will take a set of three 0.5sec exposures. Internal flats in each of the 4 amps will be used to monitor the repeatability and shutter shading effects. We want to include some wavelength dependence, so this proposal now includes exposures in F814W filter, exposure times for which have been estimated using information from WFC3 ISR 2008-21.

OBSERVING DESCRIPTION

Seven Full-frame internal flat field images are collected twice in two different visits, one using F555W and another in F814W using the default tungsten lamp with exposure times of 0.5, 1.0, and 17.0 seconds in order to monitor the shutter and test wavelength dependence. Pairs of flat field images are collected for each exposure time; one using shutter A and another using shutter B. An additional 0.5 exposure is used to heat up the tungsten lamp.

Visit

Proposal 17360, Visit 01 Thu Jul 20 21:00:55 GMT 2023

Diagnostic Status: Warning

Scientific Instruments: WFC3/UVIS

Special Requirements: BETWEEN 01-JUL-2023 AND 01-APR-2024

Diagnostics

(Visit 01) Warning (Orbit Planner): MAXIMUM DURATION EXCEEDED FOR INTERNAL OR EARTH CALIB SU

(Flat0.5 (01.001)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

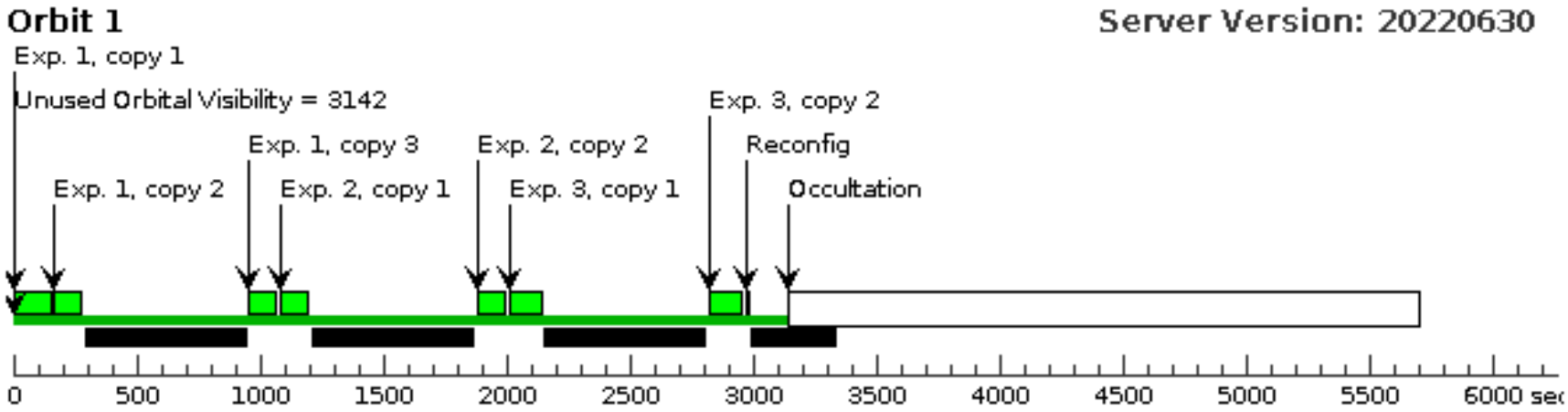
(Flat1.0 (01.002)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

(Flat17 (01.003)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Flat0.5	TUNGSTEN	WFC3/UVIS, ACCUM, UVIS	F555W				0.5 Secs X 3 (1.5 Secs)	
								[==>(Copy 1)] *[==>(Copy 2)]* *[==>(Copy 3)]*	***[1]***
Comments: This assumes Tungsten lamp 3. (2800 e-/sec/pix through F555W in TV3 testing)									
2	Flat1.0	TUNGSTEN	WFC3/UVIS, ACCUM, UVIS	F555W				1.0 Secs X 2 (2 Secs)	
								[==>(Copy 1)] *[==>(Copy 2)]*	***[1]***
Comments: This assumes Tungsten lamp 3. (2800 e-/sec/pix through F555W in TV3 testing)									
3	Flat17	TUNGSTEN	WFC3/UVIS, ACCUM, UVIS	F555W				17 Secs X 2 (34 Secs)	
								[==>(Copy 1)] *[==>(Copy 2)]*	***[1]***
Comments: This assumes Tungsten lamp 3. (2800 e-/sec/pix through F555W in TV3 testing)									

Orbit Structure



Visit

Proposal 17360, Visit 02 Thu Jul 20 21:00:55 GMT 2023

Diagnostic Status: Warning

Scientific Instruments: WFC3/UVIS

Special Requirements: BETWEEN 01-MAR-2024 AND 31-DEC-2024

Diagnostics

(Visit 02) Warning (Orbit Planner): MAXIMUM DURATION EXCEEDED FOR INTERNAL OR EARTH CALIB SU

(Flat0.5 (02.001)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

(Flat1.0 (02.002)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

(Flat2.0 (02.003)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Flat0.5	TUNGSTEN	WFC3/UVIS, ACCUM, UVIS	F814W				0.5 Secs X 3 (1.5 Secs)	
								[==>(Copy 1)] *[==>(Copy 2)]* *[==>(Copy 3)]*	***[1]***
Comments: This assumes Tungsten lamp 3. (20,000 e-/sec/pix through F814W, WFC3 ISR 2008-21)									
2	Flat1.0	TUNGSTEN	WFC3/UVIS, ACCUM, UVIS	F814W				1 Secs X 2 (2 Secs)	
								[==>(Copy 1)] *[==>(Copy 2)]*	***[1]***
3	Flat2.0	TUNGSTEN	WFC3/UVIS, ACCUM, UVIS	F814W				2 Secs X 2 (4 Secs)	
								[==>(Copy 1)] *[==>(Copy 2)]*	***[1]***
Comments: This assumes Tungsten lamp 3. (20,000 e-/sec/pix through F814W, WFC3 ISR 2008-21)									

Orbit Structure