



11921 - WFC3 IR PSF Wings

Cycle: 17, Proposal Category: CAL/WFC3

(Availability Mode: SUPPORTED)

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	(1) GD153	WFC3/IR	5	27-Apr-2010 21:02:46.0	yes

5 Total Orbits Used

ABSTRACT

The IR PSF wings will be evaluated at 5 field points (near the field center and corners) in two filters (F098M and F160W) to check for image stability. Full frame images of a moderately bright, isolated star will be obtained at each field position with a series of increasing exposure times designed to permit construction of a very high SNR PSF with dynamic range sufficient to evaluate the wing intensity to >5 arcsec radius. The images will also permit examination of potential straylight effects, electronic cross-talk and image persistence.

This is a repeat of SMOV activity WFC3-26 (program 11439.) The results of the two programs will be compared. The data will be analyzed using the code and techniques described in ISR WFC3 2008-41 (Hartig). Profiles of encircled energy will be compared to those obtained from program 11439.

OBSERVING DESCRIPTION

An isolated star will be observed at 5 points on the detector, near the center and the corners, through filters F098M and F160W, as in SMOV proposal 11439. At each location, a STEP timing sequence is used for one filter, a small offset is performed, and another STEP timing sequence is used for the other filter. The timing sequences have been chosen for their dynamic range, and the small offset minimizes the effects of persistence on the PSF (point spread function). For the central location, a larger offset between exposures with the two filters is used to move the target away from the point where the four quadrants meet at the center of the detector. Each PSF is read out by a single amplifier to a radius of at least 5 arcsec.

ADDITIONAL COMMENTS

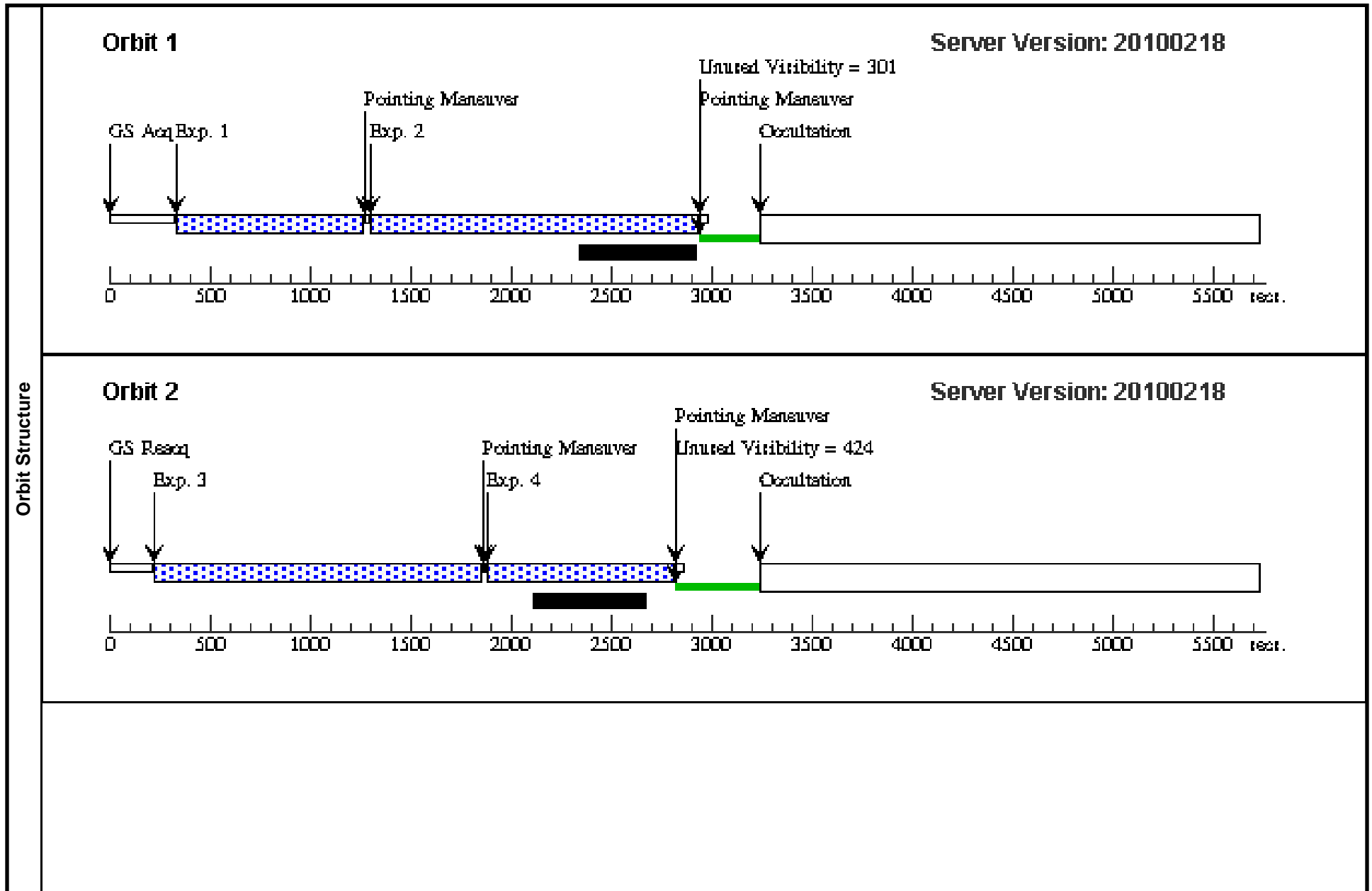
The program should be performed towards the end of cycle 17. A BETWEEN interval has been chosen based on schedulability.

NOTICE: To avoid affecting subsequent observations with persistence, no WFC3 IR exposures should be scheduled in the 6 hours following the completion of the last exposure in this program.

Proposal 11921 - Visit 01 - WFC3 IR PSF Wings

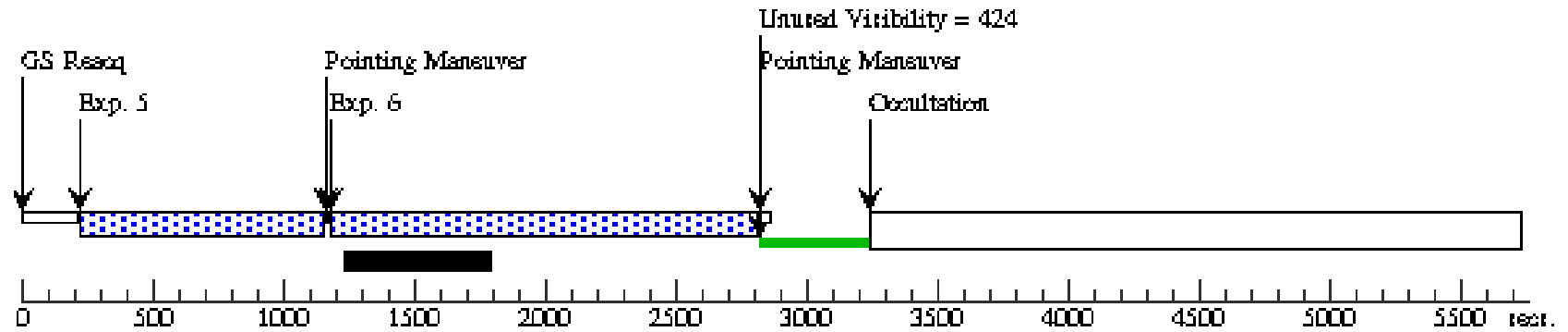
Wed Apr 28 01:02:51 GMT 2010

Visit	Proposal 11921, Visit 01, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: BETWEEN 11-MAY-2010:00:00:00 AND 11-AUG-2010:00:00:00 <i>Comments: To avoid affecting subsequent observations with persistence, no WFC3 IR exposures should be scheduled in the 6 hours following the completion of the last exposure in this program.</i>									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(1)	GD153	RA: 12 57 2.3700 (194.2598750d) Dec: +22 01 56.00 (22.03222d) Equinox: J2000	Proper Motion RA: -0.0015s/yr Proper Motion Dec: -0.1893"/yr Epoch of Position: 1982.38	V=13.346+/-0.005	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(1) GD153	WFC3/IR, MULTIACCUM, IR-FIX	F098M	SAMP-SEQ=STEP1 00; NSAMP=15	POS TARG 5,5; GS ACQ SCENARI O BASE1B3	[==>]	[1]		
	2	(1) GD153	WFC3/IR, MULTIACCUM, IR-FIX	F160W	SAMP-SEQ=STEP2 00; NSAMP=15	POS TARG -5,-5	[==>]	[1]		
	3	(1) GD153	WFC3/IR, MULTIACCUM, IR-FIX	F160W	SAMP-SEQ=STEP2 00; NSAMP=15	POS TARG 38,32	[==>]	[2]		
	4	(1) GD153	WFC3/IR, MULTIACCUM, IR-FIX	F098M	SAMP-SEQ=STEP1 00; NSAMP=15	POS TARG 37,31	[==>]	[2]		
	5	(1) GD153	WFC3/IR, MULTIACCUM, IR-FIX	F098M	SAMP-SEQ=STEP1 00; NSAMP=15	POS TARG 38,-32	[==>]	[3]		
	6	(1) GD153	WFC3/IR, MULTIACCUM, IR-FIX	F160W	SAMP-SEQ=STEP2 00; NSAMP=15	POS TARG 37,-31	[==>]	[3]		
	7	(1) GD153	WFC3/IR, MULTIACCUM, IR-FIX	F160W	SAMP-SEQ=STEP2 00; NSAMP=15	POS TARG -38,-32	[==>]	[4]		
	8	(1) GD153	WFC3/IR, MULTIACCUM, IR-FIX	F098M	SAMP-SEQ=STEP1 00; NSAMP=15	POS TARG -37,-31	[==>]	[4]		
	9	(1) GD153	WFC3/IR, MULTIACCUM, IR-FIX	F098M	SAMP-SEQ=STEP1 00; NSAMP=15	POS TARG -38,32	[==>]	[5]		
10	(1) GD153	WFC3/IR, MULTIACCUM, IR-FIX	F160W	SAMP-SEQ=STEP2 00; NSAMP=15	POS TARG -37,31	[==>]	[5]			



Orbit 3

Server Version: 20100218



Orbit 4

Server Version: 20100218

