



11437 - WFC3 IR Image Quality

Cycle: 17, Proposal Category: SM4/WFC3

(Availability Mode: RESTRICTED)

INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
Dr. George Hartig (PI)	Space Telescope Science Institute	hartig@stsci.edu

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) NGC188-58 (2) NGC188-58-OFF1 (3) NGC188-58-OFF2	WFC3/IR	2	30-May-2008 21:12:26.0	yes

2 Total Orbits Used

ABSTRACT

The IR imaging performance over field will be assessed in two passbands to verify PSF encircled energy CEI specifications and other performance metrics at 1 and 1.6 um, after the instrument has been aligned to the OTA.

This proposal is activity ID WFC3-24.

OBSERVING DESCRIPTION

The IR imaging performance over field will be assessed in two passbands to verify PSF encircled energy CEI specifications at 1 and 1.6 μm , after the instrument has been aligned to the OTA. The observed field must be sufficiently dense to provide good sampling over the FOV while providing enough isolated stars to permit accurate PSF measurement. If the field is astrometric and astrometric guide stars are used, the plate scale and image orientation may also be determined. NGC-188 star 58 is a likely target, available year-round and used previously for ACS alignment. The F098M and F164N filters will be used. Additional measurements will be made with several other filters, including F127M, for direct comparison with proposal 11435 images. Full frame images will be obtained at each of 4 dither positions designed to improve PSF sampling. Sampling of the field will be improved by larger POS-TARG offsets in some filters. Offset target positions are defined for observations late in the sequence, to enable assessment of the level of persistence from saturated point source images and avoid its effects on the image quality measurement.

CALIBRATION JUSTIFICATION

The image quality of WFC IR science data is fully assessed at the CEI spec wavelengths.

Proposal 11437 - Visit 01 - WFC3 IR Image Quality

Sat May 31 01:12:32 GMT 2008

Visit	Proposal 11437, Visit 01 Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: (none) <i>Comments: Schedule after IR Fine Alignment, prop 11435, visit 3.</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false					(1), (2)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	NGC188-58	RA: 00 47 4.4540 (11.7685583d) Dec: +85 16 32.70 (85.27575d) Equinox: J2000 Plate Id: ZZZZ	Proper Motion RA: -0.00257s/yr Proper Motion Dec: -0.0112"/yr Epoch of Position: 2000	V=14.65+/-0.05	Reference Frame: GSC1				
	<i>Comments: Use guide stars from the NGC188 Astrometric Catalog (Plate-ID ZZZZ)</i>									
	(2)	NGC188-58-OFF1	RA: 00 47 4.4540 (11.7685583d) Dec: +85 16 42.70 (85.27853d) Equinox: J2000 Plate Id: ZZZZ	Proper Motion RA: -0.00257s/yr Proper Motion Dec: -0.0112"/yr Epoch of Position: 2000	V=14.65+/-0.05	Reference Frame: GSC1				
<i>Comments: Use guide stars from the NGC188 Astrometric Catalog (Plate-ID ZZZZ)</i>										
	(3)	NGC188-58-OFF2	RA: 00 47 4.4540 (11.7685583d) Dec: +85 16 22.70 (85.27297d) Equinox: J2000 Plate Id: ZZZZ	Proper Motion RA: -0.00257s/yr Proper Motion Dec: -0.0112"/yr Epoch of Position: 2000	V=14.65+/-0.05	Reference Frame: GSC1				
<i>Comments: Use guide stars from the NGC188 Astrometric Catalog (Plate-ID ZZZZ)</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) NGC188-58	WFC3/IR, MULTIACCUM, IR	F164N	SAMP-SEQ=SPARS 25; NSAMP=7		Pattern 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2		(1) NGC188-58	WFC3/IR, MULTIACCUM, IR	F127M	SAMP-SEQ=RAPID ; NSAMP=15		Pattern 2-2 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]

Proposal 11437 - Visit 01 - WFC3 IR Image Quality

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
Exposures (continued)	3	(1) NGC188-58	WFC3/IR, MULTIACCUM, IR	F160W	SAMP-SEQ=RAPID ; NSAMP=7			[==>]	[2]
	4	(1) NGC188-58	WFC3/IR, MULTIACCUM, IR	F160W	SAMP-SEQ=RAPID ; NSAMP=7	POS TARG 20.0,0.		[==>]	[2]
	5	(1) NGC188-58	WFC3/IR, MULTIACCUM, IR	F160W	SAMP-SEQ=RAPID ; NSAMP=7	POS TARG 20.,20.		[==>]	[2]
	6	(1) NGC188-58	WFC3/IR, MULTIACCUM, IR	F160W	SAMP-SEQ=RAPID ; NSAMP=7	POS TARG 0.,20.		[==>]	[2]
	7	(2) NGC188-58-OFF 1	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=RAPID ; NSAMP=7			[==>]	[2]
	8	(2) NGC188-58-OFF 1	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=RAPID ; NSAMP=7	POS TARG 20.,0.		[==>]	[2]
	9	(2) NGC188-58-OFF 1	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=RAPID ; NSAMP=7	POS TARG 20.,20.		[==>]	[2]
	10	(2) NGC188-58-OFF 1	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=RAPID ; NSAMP=7	POS TARG 0.,20.		[==>]	[2]
	11	(3) NGC188-58-OFF 2	WFC3/IR, MULTIACCUM, IR	F105W	SAMP-SEQ=RAPID ; NSAMP=7			[==>]	[2]
	12	(3) NGC188-58-OFF 2	WFC3/IR, MULTIACCUM, IR	F105W	SAMP-SEQ=RAPID ; NSAMP=7	POS TARG 20.,0.		[==>]	[2]
	13	(3) NGC188-58-OFF 2	WFC3/IR, MULTIACCUM, IR	F105W	SAMP-SEQ=RAPID ; NSAMP=7	POS TARG 20.,20.		[==>]	[2]
	14	(3) NGC188-58-OFF 2	WFC3/IR, MULTIACCUM, IR	F105W	SAMP-SEQ=RAPID ; NSAMP=7	POS TARG 0.,20.		[==>]	[2]



