



11231 - Calibration of the WFPC2 HeII and [SII] Filters.

Cycle: 16, Proposal Category: GO

(Calibration)

(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) NGC6720	WFPC2	2	18-Jan-2008 04:48:30.0	yes

2 Total Orbits Used

ABSTRACT

Observations of NGC 6720 (the Ring Nebula) will be used to determine the calibration constants for the important emission-line filters that isolate nebular HeII (F469N) and [SII] (F673N) emission. The pre-launch calibrations are inadequate because of possible temporal changes and the fact that these interference filters are used in a different configuration from that of the ground calibration. The Ring Nebula is a nearly ideal reference source as multiple 2.4"x4.0" samples have been accurately measured spectro-photometrically and five of the six samples can be imaged with one pointing of the HST.

The method of derivation of the calibration constants will be the same as previously employed to calibrate the primary emission-line filters for the WFPC2 (F487N, F502N, F656N, F658N) and ACS (F502N, F658N, F660N) using the Orion Nebula as a reference source. However, Orion cannot

be used for this calibration because the targeted lines are weak ([SII]) or absent (HeII) and the scattered-light continuum is strong. The Ring Nebula has strong HeII emission in its middle, strong [SII] emission in its main ring, and a weak (atomic only) continuum.

OBSERVING DESCRIPTION

We will make WFPC2 observations of the Ring Nebula (NGC 6720) in the F469N, F547M, and F673N filters for the purpose of calibrating the F469N and F673N filters.

Proposal 11231 - Visit 01 - Calibration of the WFPC2 Hell and [SII] Filters.

Fri Jan 18 09:48:34 GMT 2008

Visit	Proposal 11231, Visit 01 Diagnostic Status: No Diagnostics Scientific Instruments: WFPC2 Special Requirements: ORIENT 258.0D TO 260.0 D <i>Comments: This visit uses the same target and orientation as the PI's Visit 1 of program 11232 and optimally would be executed immediately before Visit 1 of program 11232. If that is done, then the exposure times of 11232 should be increased to take advantage of not having to do a new guidestar acquisition.</i>									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(1)	NGC6720 Alt Name1: RING-NEBULA	RA: 18 53 35.5400 (283.3980833d) Dec: +33 01 48.00 (33.03000d) Equinox: J2000		V=15+/-1	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) NGC6720	WFPC2, IMAGE, WF3-FIX	F469N	CR-SPLIT=NO			600.0 Secs X 3 [==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)]	[1]
	2		(1) NGC6720	WFPC2, IMAGE, WF3-FIX	F547M	CR-SPLIT=NO			200.0 Secs X 3 [==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)]	[2]
	3		(1) NGC6720	WFPC2, IMAGE, WF3-FIX	F673N	CR-SPLIT=NO			260.0 Secs X 3 [==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)]	[2]



