



## 10560 - Confirming Planetary Candidates in the Stellar Graveyard with NICMOS

Cycle: 14, Proposal Category: GO

(Availability Mode: SUPPORTED)

### INVESTIGATORS

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### VISITS

<i>Visit</i>	<i>Targets</i>	<i>Configurations</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	(1) WD-1620-391	NIC2	1	10-Feb-2006 21:00:32.0	yes
02	(1) WD-1620-391	NIC2	1	10-Feb-2006 21:00:36.0	yes

2 Total Orbits Used

### ABSTRACT

We propose to follow up planetary candidates imaged near the white dwarf WD 1620-391 with second epoch images from NICMOS. This white dwarf was imaged during Cycle 12 as part of a campaign to detect massive planetary companions to nearby white dwarfs with photospheric metal line absorption. While at a low galactic latitude, a puzzling excess of objects are present  $< 4''$ , suggesting the possibility of objects physically associated with the white dwarf. With second epoch information we can test these candidates for common proper motion, a test for physical association. If any of these candidates are confirmed, they will be consistent with 6-10  $M_{\text{Jup}}$  companions at projected orbital separations of between 25-50 AU.

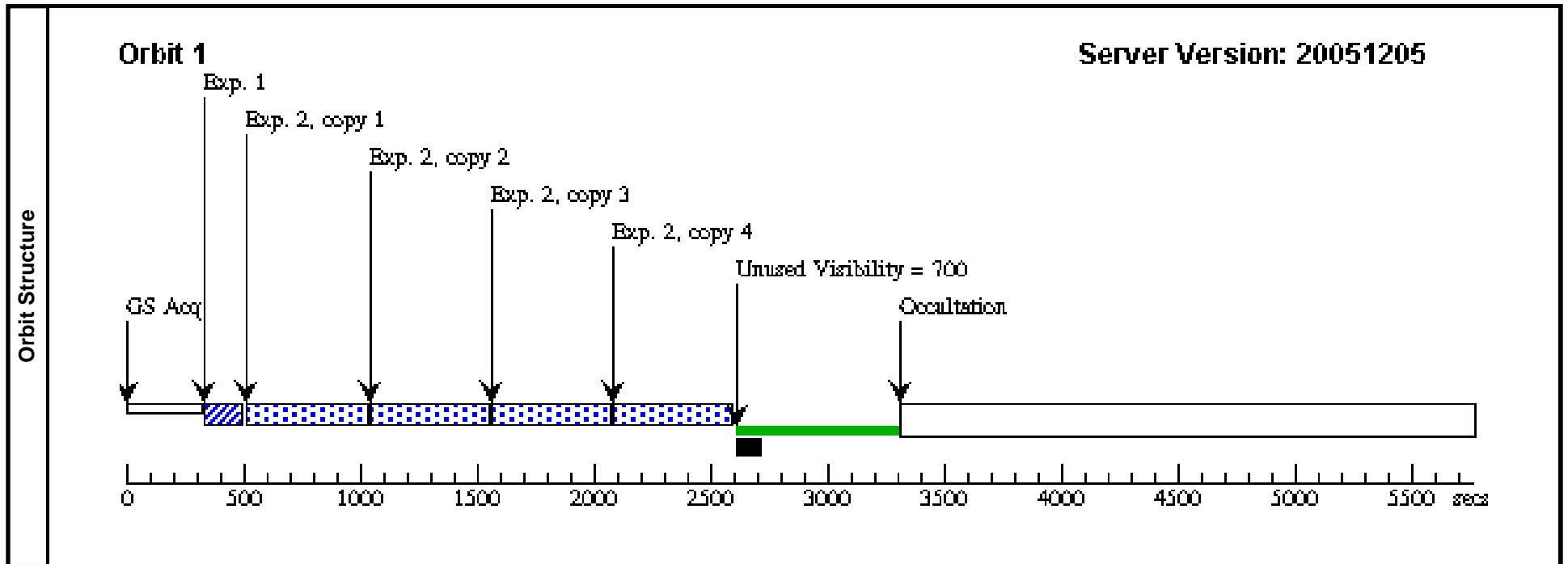
**OBSERVING DESCRIPTION**

In 2 Gyro mode, two orbits will be used to observe WD 1620-391. This target will be observed behind the NIC2 coronagraphic spot at one orientation in the first orbit, and then in the very next orbit will be observed at a different spacecraft roll, preferably at a difference of ~10-30 degrees.

Proposal 10560 - Visit 01 - Confirming Planetary Candidates in the Stellar Graveyard with NICMOS

Sat Feb 11 02:00:38 GMT 2006

<b>Visit</b>	<b>Proposal 10560, Visit 01</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: ORIENT 120.0D TO 340.0 D; ORIENT 20.0D TO 60.0 D <i>Comments: First coronagraphic observations, with acquisition and direct observing behind the spot. To be used if 2 Gyro mode is active. Orientation restrictions are in place to ensure that two candidate planetary companions with separations of ~3.6 and 3.9 arcseconds at pointing angles (East of North) of 27 degrees and 279 degrees are still in the FOV.</i>									
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(1)	WD-1620-391	RA: 16 23 33.7500 (245.8906250d) Dec: -39 13 46.00 (-39.22944d) Equinox: J2000 Plate Id: 061B	Proper Motion RA: 0.005s/yr Proper Motion Dec: 0.0"/yr Parallax: 0.068" Epoch of Position: 1987.385	V=11.16+/-0.37 H=11.708	Coordinate Source: GSC_SURVEY_PLATE				
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1	Coronagraph acquisition	(1) WD-1620-391	NIC2, ACQ, NIC2-ACQ	F160W		GS ACQ SCENARIO BASE1TNS		6.5 Secs	
	2	Coronagraph Observations	(1) WD-1620-391	NIC2, MULTIACCUM, NIC2-CORON	F160W	NSAMP=12; SAMP-SEQ=STEP2 56			[==>] [==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)]	[1]



Proposal 10560 - Visit 02 - Confirming Planetary Candidates in the Stellar Graveyard with NICMOS

Sat Feb 11 02:00:38 GMT 2006

<b>Visit</b>	<b>Proposal 10560, Visit 02</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: ORIENT 10.0D TO 30.0D FROM 01; AFTER 01 BY 0.8 Orbits TO 1.2 Orbits Comments: <i>This visit follows visit 1 with a spacecraft orientation change of between 10 and 30 degrees</i>									
	<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>			
(1)		WD-1620-391	RA: 16 23 33.7500 (245.8906250d) Dec: -39 13 46.00 (-39.22944d) Equinox: J2000 Plate Id: 061B	Proper Motion RA: 0.005s/yr Proper Motion Dec: 0.0"/yr Parallax: 0.068" Epoch of Position: 1987.385	V=11.16+/-0.37 H=11.708	Coordinate Source: GSC_SURVEY_PLATE				
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1	Coronagraph acquisition	(1) WD-1620-391	NIC2, ACQ, NIC2-ACQ	F160W		GS ACQ SCENARIO BASE1TNS		6.5 Secs [==>]	[1]
	2	Coronagraph Observations	(1) WD-1620-391	NIC2, MULTIACCUM, NIC2-CORON	F160W	NSAMP=12; SAMP-SEQ=STEP2 56			[==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)]	[1]

