13502 - Search for the Binary Companion of Deep Impact Target 2002 GT

Cycle: 20, Proposal Category: GO/DD

(Availability Mode: SUPPORTED)

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	(1) NEO2002GT	WFC3/UVIS	1	11-Jul-2013 22:07:19.0	yes
02	(1) NEO2002GT	WFC3/UVIS	1	11-Jul-2013 22:07:28.0	yes

2 Total Orbits Used

ABSTRACT

The first evidence for a possible companion to 2002 GT was acquired in April 2013. The current apparition is the only opportunity to verify or constrain possibly binary configurations for this Near Earth Asteroid before the 2020 arrival of the retargeted Deep Impact spacecraft. Ground-based options for verification have been nearly exhausted at this point. Rapid action is needed before 2002 GT's increasing distance from the Earth precludes any chance of direct confirmation of the presence of a companion. The presence, or not, of a companion, is absolutely essential information for the success of the mission. We are requesting two orbits of HST time as soon as is practical in July 2013.

OBSERVING DESCRIPTION

look at asteroid

Proposal 13502 - Visit 01 - Search for the Binary Companion of Deep Impact Target 2002 GT

Visit

Proposal 13502, Visit 01, implementation Fri Jul 12 02:07:35 GMT 2013

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: DROP TO GYRO IF NECESSARY ; BEFORE 27-JUL-2013:00:00:00

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(1)

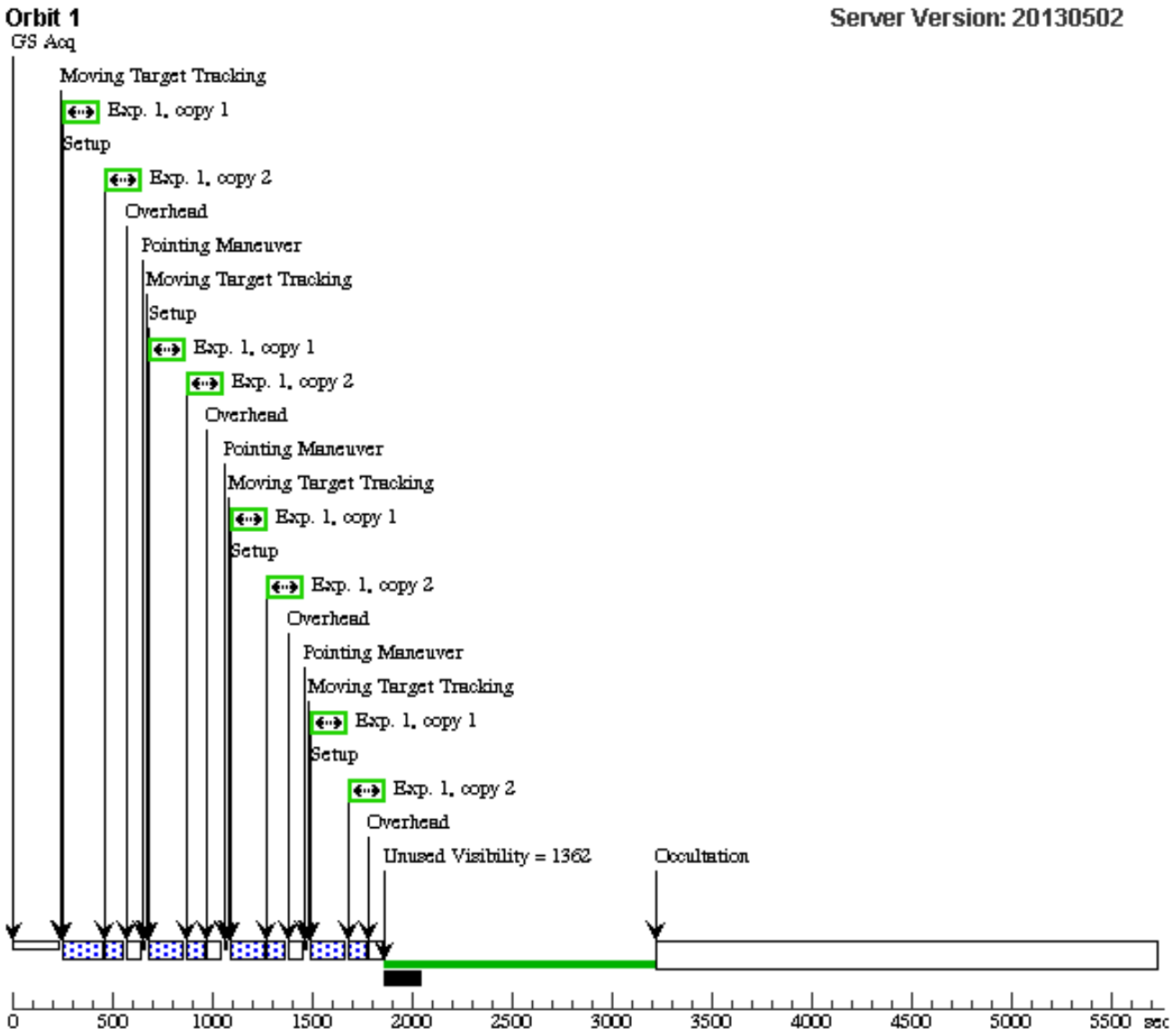
Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(1)	NEO2002GT	TYPE=ASTEROID,A=1.344583026399673,E=0.3348209301937053,I=6.96883353593068,O=201.86898630747860,W=134.97930896643310,M=288.36850047465880,EQUINOX=J2000,EPOCH=03-OCT-2011:00:00:00,EpochTimeScale=UTC				EARTH

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) NEO2002GT	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F555W	FLASH=6	GS ACQ SCENARIO SINGLE	Pattern 1, Exps 1-1 in Visit 01 (1)	90 Secs X 2 (720 Secs) *[==>(Pattern 1, Copy 1)]* *[==>(Pattern 1, Copy 2)]* *[==>(Pattern 2, Copy 1)]* *[==>(Pattern 2, Copy 2)]* *[==>(Pattern 3, Copy 1)]* *[==>(Pattern 3, Copy 2)]* *[==>(Pattern 4, Copy 1)]* *[==>(Pattern 4, Copy 2)]*	***[1]***

Orbit Structure



Visit

Proposal 13502, Visit 02, implementation Fri Jul 12 02:07:38 GMT 2013

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: DROP TO GYRO IF NECESSARY

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(1)

Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(1)	NEO2002GT	TYPE=ASTEROID,A=1.344583026399673,E=0.3348209301937053,I=6.96883353593068,O=201.86898630747860,W=134.97930896643310,M=288.36850047465880,EQUINOX=J2000,EPOCH=03-OCT-2011:00:00:00,EpochTimeScale=UTC				EARTH

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) NEO2002GT	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F555W	FLASH=6	GS ACQ SCENARIO SINGLE	Pattern 1, Exps 1-1 in Visit 02 (1)	90 Secs X 2 (720 Secs) *[==>(Pattern 1, Copy 1)]* *[==>(Pattern 1, Copy 2)]* *[==>(Pattern 2, Copy 1)]* *[==>(Pattern 2, Copy 2)]* *[==>(Pattern 3, Copy 1)]* *[==>(Pattern 3, Copy 2)]* *[==>(Pattern 4, Copy 1)]* *[==>(Pattern 4, Copy 2)]*	***[1]***

Orbit Structure