10892 - Imaging Dust Near Type Ia Supernovae: A New Light Echo Candidate

Cycle: 15, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets*	*Configurations*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) SN1995E	ACS/WFC	1	16-May-2006 21:44:40.0	yes
02	(1) SN1995E	ACS/WFC	1	16-May-2006 21:44:45.0	yes

2 Total Orbits Used

ABSTRACT

Light echos are excellent probes of circumstellar and interstellar dust. We have been using the unique power of light echos to study the progenitors of type Ia supernovae, but currently, only two distant echos are known: SN 1991T and 1998bu. Both events show dust close to the progenitors and the echo light curve suggests that the dust actually surrounds SN 1991T. Here we propose to use HST to confirm a third echo and study its size, brightness and color.

OBSERVING DESCRIPTION

We propose to observe the site of the supernova sn1995E in ngc 2441 with HST/ACS
to determine is the source discoverd in eariler snap images is a light echo.
1 orbit F435W
1 orbit F555W

Visit

Proposal 10892, Visit 01 Wed May 17 01:44:47 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: SEQ 01,02 WITHIN 10 D

Patterns

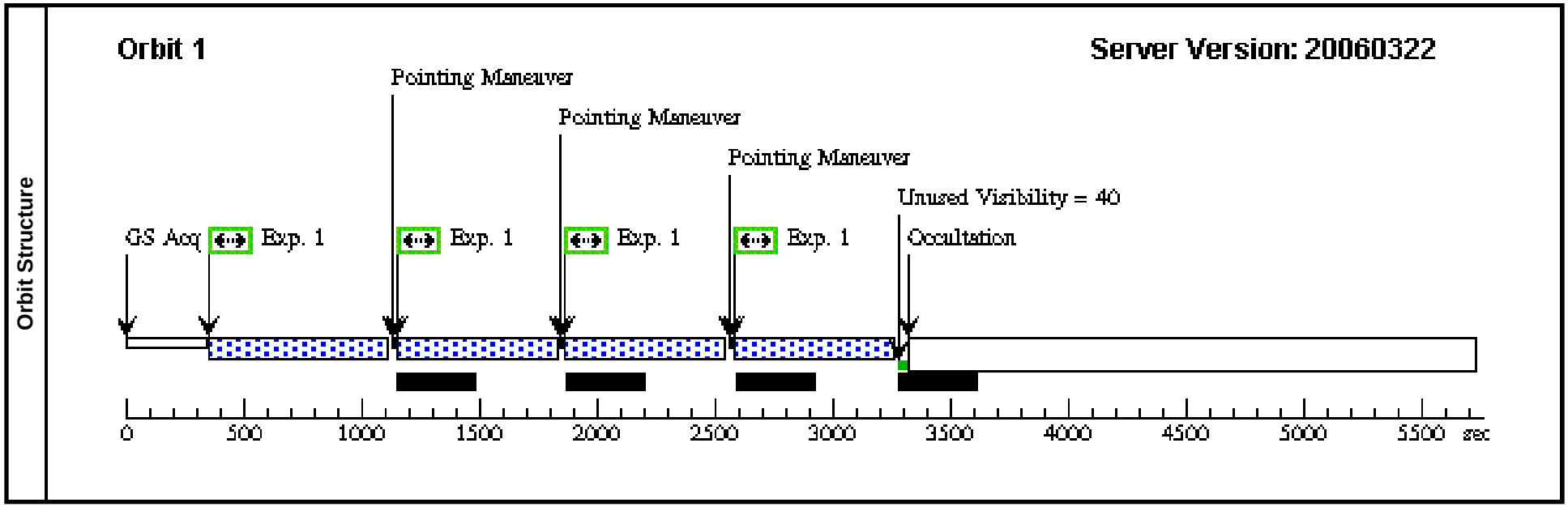
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187	Coordinate Frame=POS-TARG Pattern Orientation=20.7 Angle Between Sides=69.1 Center Pattern=false		(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SN1995E	RA: 07 51 56.5400 (117.9855833d) Dec: +73 00 35.10 (73.00975d) Equinox: J2000		V=24.0+/-0.3	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(1) SN1995E	ACS/WFC, ACCUM, WFC1	F435W	CR-SPLIT=NO		Pattern 1-1 (1)	560.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20060322
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Visibility = 40
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 10892, Visit 02 Wed May 17 01:44:48 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187	Coordinate Frame=POS-TARG Pattern Orientation=20.7 Angle Between Sides=69.1 Center Pattern=false		(1)

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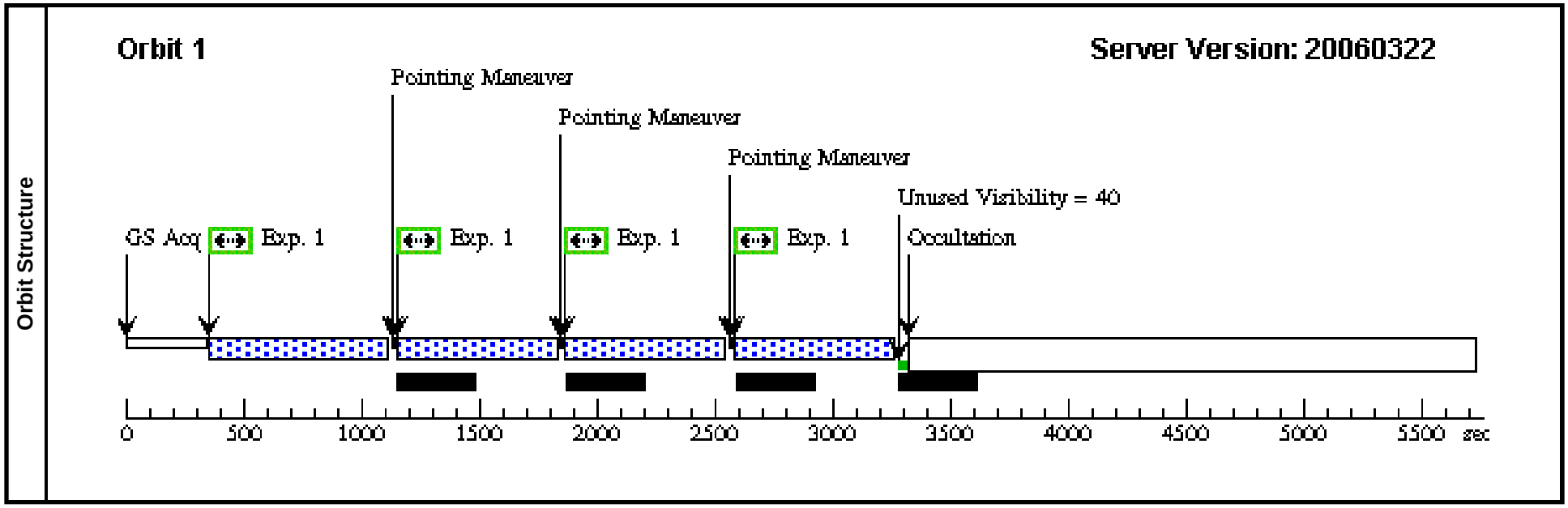
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(1) SN1995E	ACS/WFC, ACCUM, WFC1	F555W	CR-SPLIT=NO		Pattern 1-1 (1)	560.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***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Orbit 1
Server Version: 20060322
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Exp. 1
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Occultation
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3500
4000
4500
5000
5500
sec