



12785 - The Strange Supernova or Supernova Impostor SN2011ht

Cycle: 19, Proposal Category: GO/DD

(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) SN2011HT	STIS/CCD	1	14-Dec-2011 21:18:51.0	yes
03	(1) SN2011HT	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	1	14-Dec-2011 21:18:57.0	yes

2 Total Orbits Used

ABSTRACT

SN2011ht may be a peculiar supernova or new type of supernova impostor. In either case, the dramatic increase in its UV flux, combined with its exotic visual spectrum and strong blue continuum, are remarkable and not easy to explain. This object has a supernova-like luminosity with a spectrum that resembles a hot, dense wind, but its steep continuum slope and UV flux are not characteristic of a dense wind, even a very hot one. If

Proposal 12785 (STScI Edit Number: 0, Created: Wednesday, December 14, 2011 9:19:02 PM EST) - Overview

the wind is opaque, how can it produce such a steep continuum, and if it isn't, what produces the continuum with the SN-like brightness? To solve the paradox of SN2011ht's spectrum and peculiar eruption, we must look where it is emitting most of its energy, the ultraviolet. Emission and absorption lines in the near-UV will provide badly needed diagnostics on its temperature and other parameters. We are requesting one orbit of Director's Discretionary time to obtain a UV spectrum of SN2011ht.

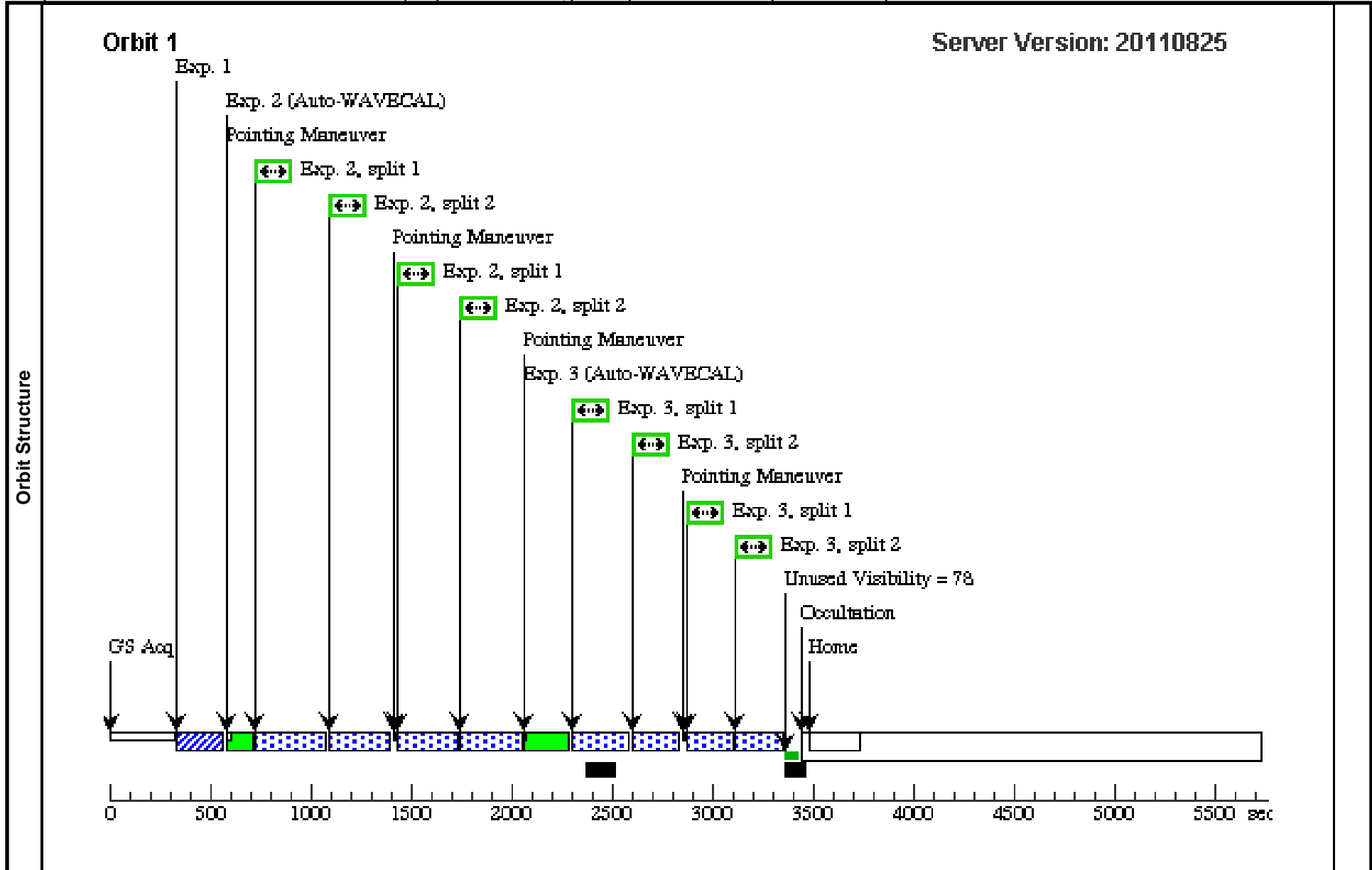
OBSERVING DESCRIPTION

TBD

Proposal 12785 - SN2011ht-STISCCD (01) - The Strange Supernova or Supernova Impostor SN2011ht

Thu Dec 15 02:19:02 GMT 2011

Visit	Proposal 12785, SN2011ht-STISCCD (01) Diagnostic Status: No Diagnostics Scientific Instruments: STIS/CCD Special Requirements: (none)									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=STIS-ALONG-SLIT	Coordinate Frame=POS-TARG						
		Purpose=DITHER	Pattern Orientation=90.0							
		Number Of Points=2	Angle Between Sides=							
		Point Spacing=0.43	Center Pattern=false							
		Line Spacing=								
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(1)	SN2011HT	RA: 10 08 10.5900 (152.0441250d) Dec: +51 50 57.20 (51.84922d) Equinox: J2000			V=14.8+/-0.5 Flambda=roughly 1e-14 in range 2000--3000 AA, based on Swift data. Decreasing about 0.05 magn/day.	Reference Frame: ICRS			
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	ACQ1 (342923)	(1) SN2011HT	STIS/CCD, ACQ, F28X50LP	MIRROR				2 Secs [==>]	[1]
	2	SN2011ht-G 230LB (342918)	(1) SN2011HT	STIS/CCD, ACCUM, 52X0.5E1	G230LB 2375 A	CR-SPLIT=2		Pattern 1, Exps 2-2 in SN2011ht-STISCCD (01) (1)	540 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)]	[1]
	3	SN2011ht-2 800 (342922)	(1) SN2011HT	STIS/CCD, ACCUM, 52X0.5E1	G230MB 2794 A	CR-SPLIT=2		Pattern 1, Exps 3-3 in SN2011ht-STISCCD (01) (1)	400 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)]	[1]



Proposal 12785 - SN2011ht-STISMAMA (03) - The Strange Supernova or Supernova Impostor SN2011ht

Thu Dec 15 02:19:04 GMT 2011

Fixed Targets	#		Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)		SN2011HT	RA: 10 08 10.5900 (152.0441250d) Dec: +51 50 57.20 (51.84922d) Equinox: J2000		V=14.8+/-0.5 Flambda=roughly 1e-14 in range 2000--3000 AA, based on Swift data. Decreasing about 0.05 magn/day.	Reference Frame: ICRS

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	ACQ1 (342923)	(1) SN2011HT	STIS/CCD, ACQ, F28X50LP	MIRROR				2 Secs [==>]	[1]
	2	NUV-MAM A-G230L (342940)	(1) SN2011HT	STIS/NUV-MAMA, ACCUM, 52X0.5	G230L 2376 A				200 Secs X 2 [==>(Copy 1)] [==>(Copy 2)]	[1]
	3	NUV-MAM A-2800A (342941)	(1) SN2011HT	STIS/NUV-MAMA, ACCUM, 52X0.5	G230M 2800 A				400 Secs [==>]	[1]
	4	FUV-MAM A-G140L (342938)	(1) SN2011HT	STIS/FUV-MAMA, ACCUM, 52X0.5	G140L 1425 A				300 Secs X 2 [==>(Copy 1)] [==>(Copy 2)]	[1]

