



11998 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Mission

Cycle: 17, 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) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:34:34.0	yes
02	(1) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:34:37.0	yes
03	(1) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:34:40.0	yes
04	(1) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:34:42.0	yes
05	(1) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:34:45.0	yes
06	(1) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:34:47.0	yes
07	(1) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:34:50.0	yes
08	(1) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:34:53.0	yes

<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>
09	(1) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:34:56.0	yes
10	(1) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:34:58.0	yes
11	(1) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:35:00.0	yes
12	(1) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:35:03.0	yes
13	(1) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:35:07.0	yes
14	(1) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:35:09.0	yes
15	(1) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:35:11.0	yes
16	(1) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:35:14.0	yes
17	(1) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:35:16.0	yes
18	(1) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:35:18.0	yes
19	(1) 9P-TEMPEL-1	WFC3/UVIS	1	06-Aug-2009 21:35:21.0	yes

19 Total Orbits Used

ABSTRACT

A primary objective of the StardustNExT mission is to image the crater created by NASA's Deep Impact (DI) mission. The 12-year ground- and space-based DI observing campaign provided an exceptional data set for investigating the rotation of comet 9P/Tempel 1. The just-completed analysis shows that the spin period increased in a stepwise manner through the perihelia in 2000 and 2005, due to an outgassing of water from a southern jet. Our water-sublimation jet torque model has been moderately successful in predicting the integrated change in the nucleus longitude at the 2005 perihelion and beyond, and has been used to predict the rotation state at the planned Stardust-NExT encounter just after

perihelion on 2/14/2011. We propose a 19-orbit Hubble program to perform light curve observations of 9P/Tempel 1 that will allow us to determine the time-of-arrival adjustment of the Stardust-NExT spacecraft trajectory that is needed to ensure that the spacecraft arrives at encounter with the (as yet unseen) artificial DI crater at the sub-spacecraft point and fully illuminated by the sun. The trajectory correction maneuver is in Feb 2010, and we need to know the nucleus rotation phase to a precision of 1% and the period to 10 sec by Jan 2010. HST is the only facility capable of obtaining the high quality data necessary to determine the shape and phase of the rotational light curve. When combined with ground-based data 2-3 months later, we will achieve the required precision.

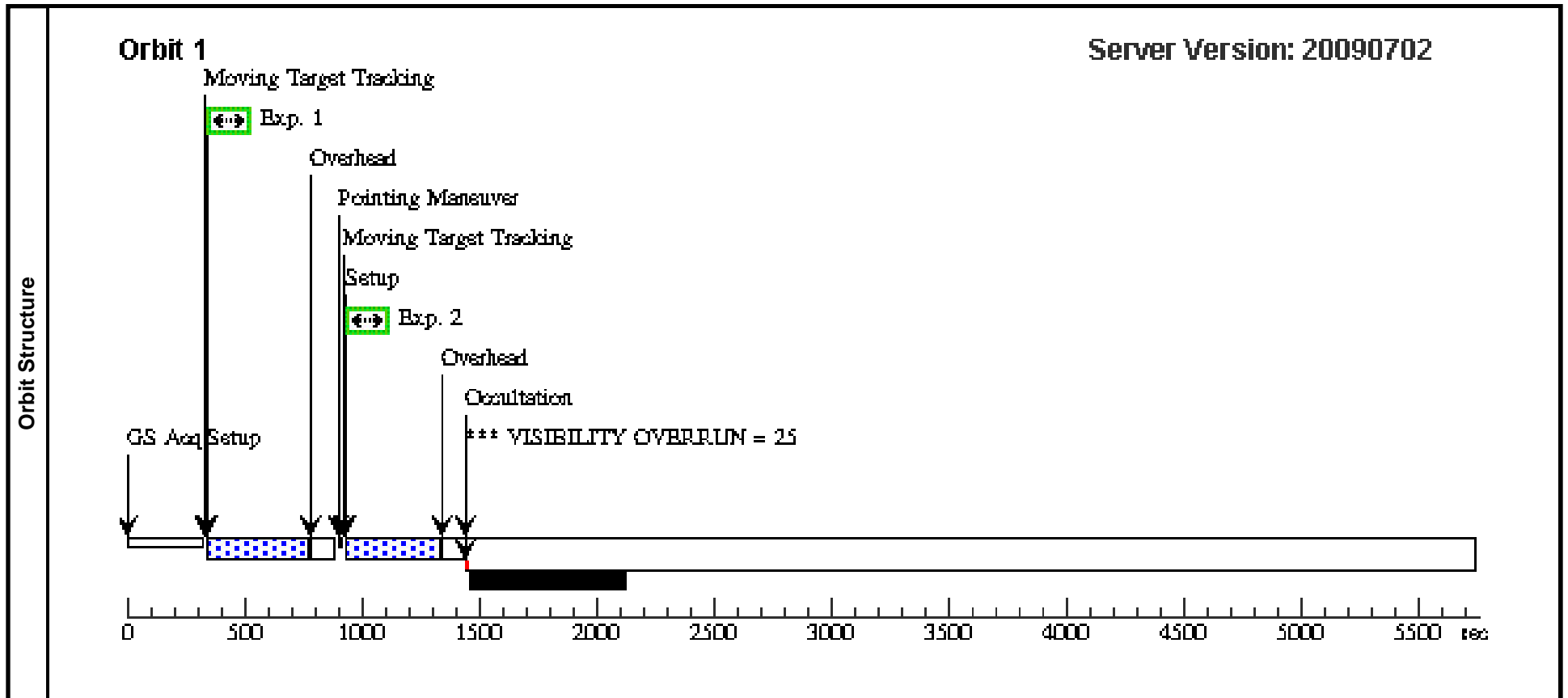
OBSERVING DESCRIPTION

The successful approach optimized for fewest orbits is to sample the nucleus every other orbit over one full rotation period of the nucleus (i.e., ~40 hr), and also fill in every 4th orbit to ensure good sampling of the phase curve. Labeling consecutive orbits from 1 to 26, we want to observe during orbit numbers 1, 3, 4, 5, 7, 8, 9, 11, 12, 13, 15, 16, 17, 19, 20, 21, 23, 25, and 26.

Proposal 11998 - Visit 01 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Miss...

Fri Aug 07 01:35:24 GMT 2009

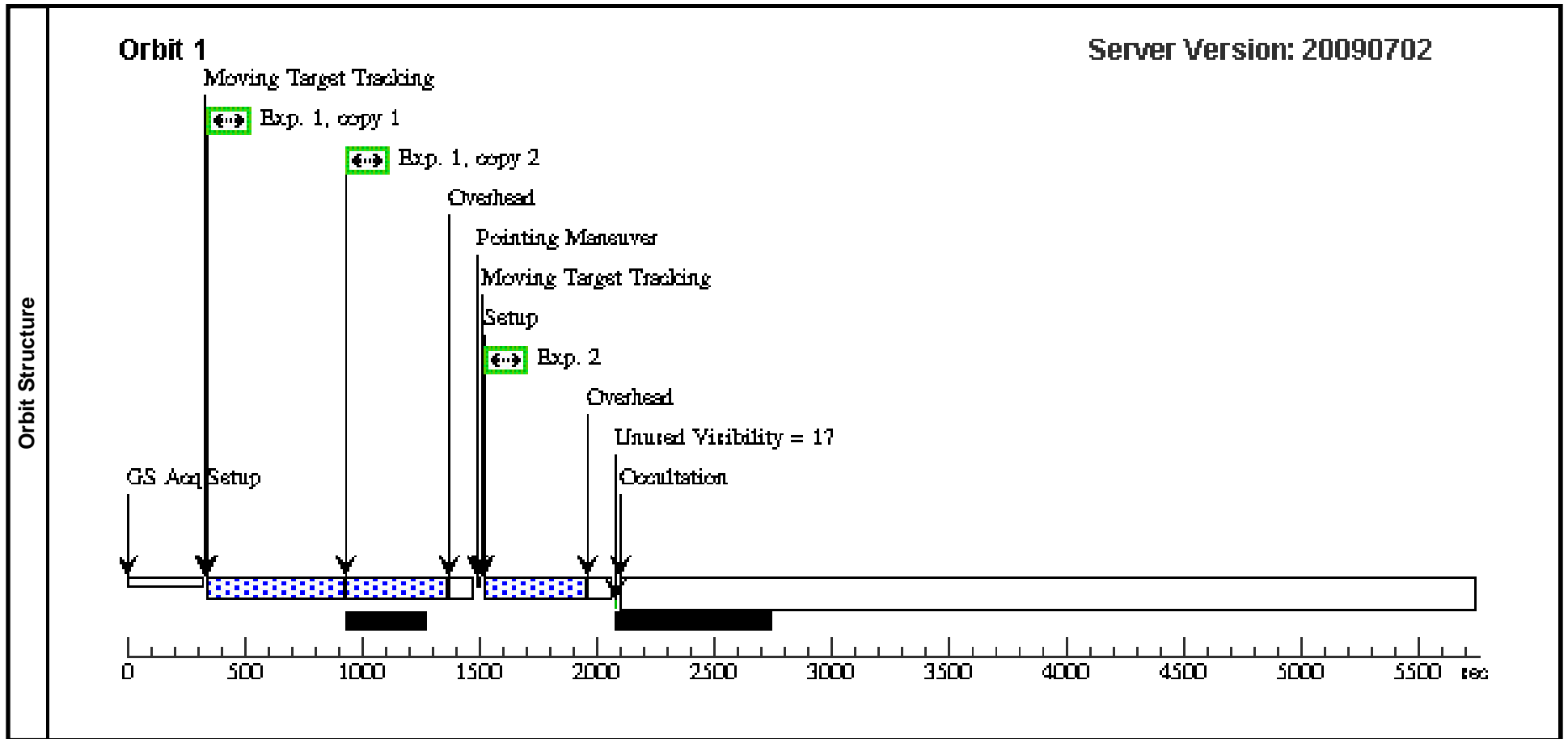
Visit	Proposal 11998, Visit 01, implementation Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: VISIBILITY INTERVAL 24 M									
	(Visit 01) Warning (Orbit Planner): VISIBILITY OVERRUN									
Diagnostics										
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO			400 Secs	
									[==>]	[1]
	2		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	POS TARG 0.145,0. 145			400 Secs
									[==>]	[1]



Proposal 11998 - Visit 02 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Miss...

Fri Aug 07 01:35:24 GMT 2009

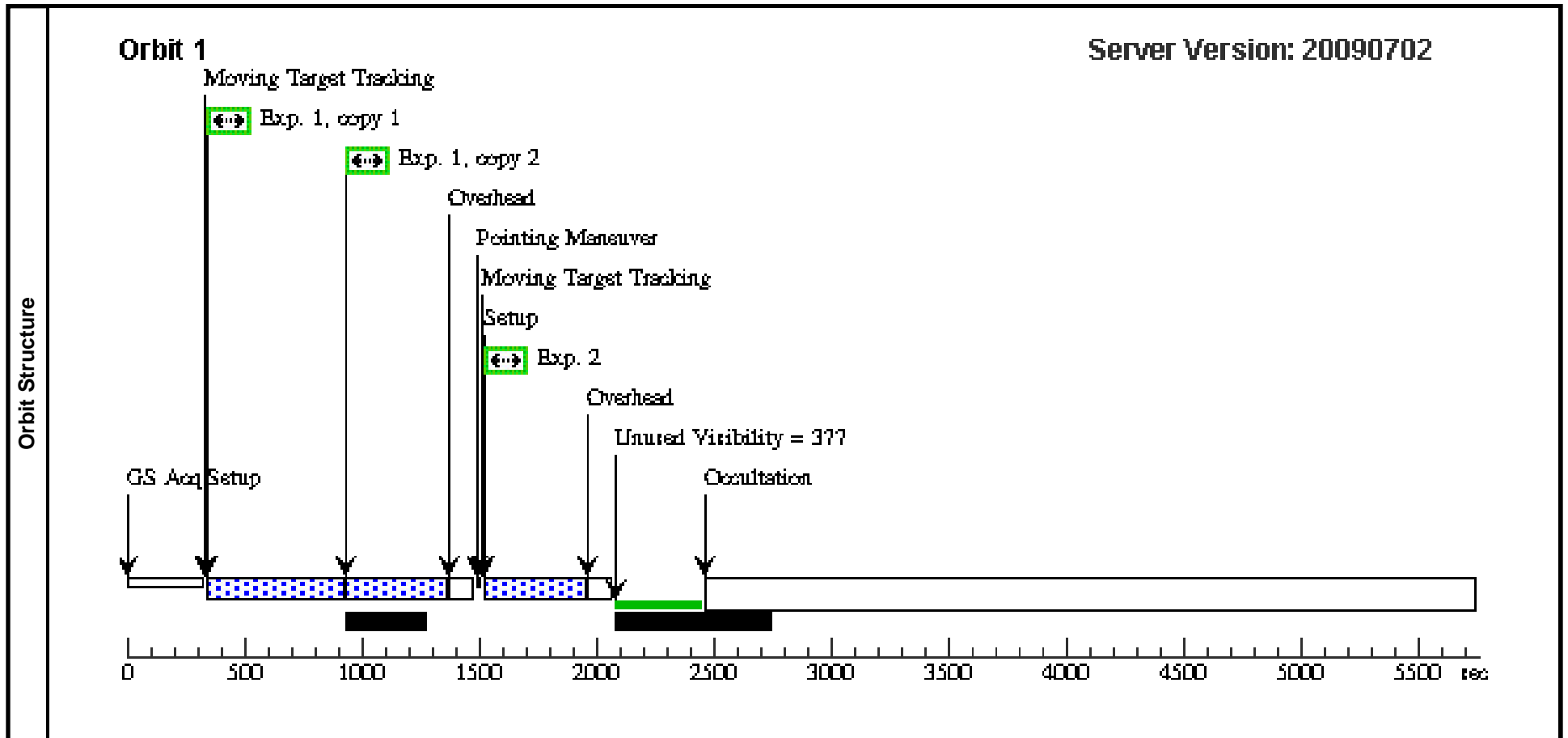
Visit	Proposal 11998, Visit 02, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: AFTER 01 BY 1.8 Orbits TO 2.2 Orbits; VISIBILITY INTERVAL 35 M									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
	(1)	9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO			430 Secs X 2 [==>(Copy 1)] [==>(Copy 2)]	[1]
	2		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	POS TARG 0.145,0.145		430 Secs [==>]	[1]



Proposal 11998 - Visit 03 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Miss...

Fri Aug 07 01:35:25 GMT 2009

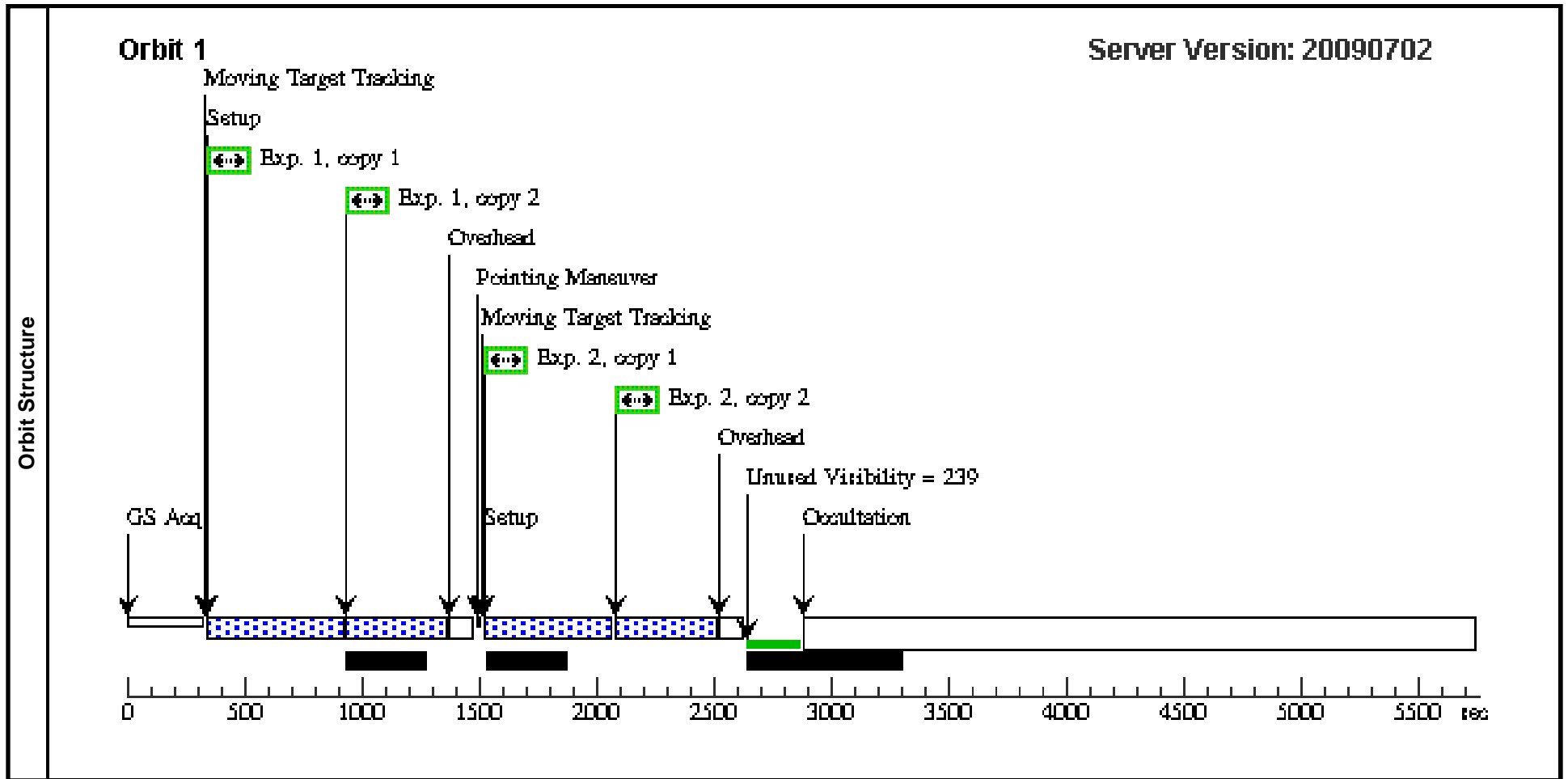
Visit		Proposal 11998, Visit 03, implementation								
Visit		Diagnostic Status: No Diagnostics								
Visit		Scientific Instruments: WFC3/UVIS								
Visit		Special Requirements: AFTER 01 BY 2.8 Orbits TO 3.2 Orbits; VISIBILITY INTERVAL 41 M								
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
		(1)	9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH	
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO			430 Secs X 2	
									[==>(Copy 1)]	[1]
									[==>(Copy 2)]	
2		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	POS TARG 0.145,0. 145			430 Secs	
									[==>]	[1]



Proposal 11998 - Visit 04 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Miss...

Fri Aug 07 01:35:25 GMT 2009

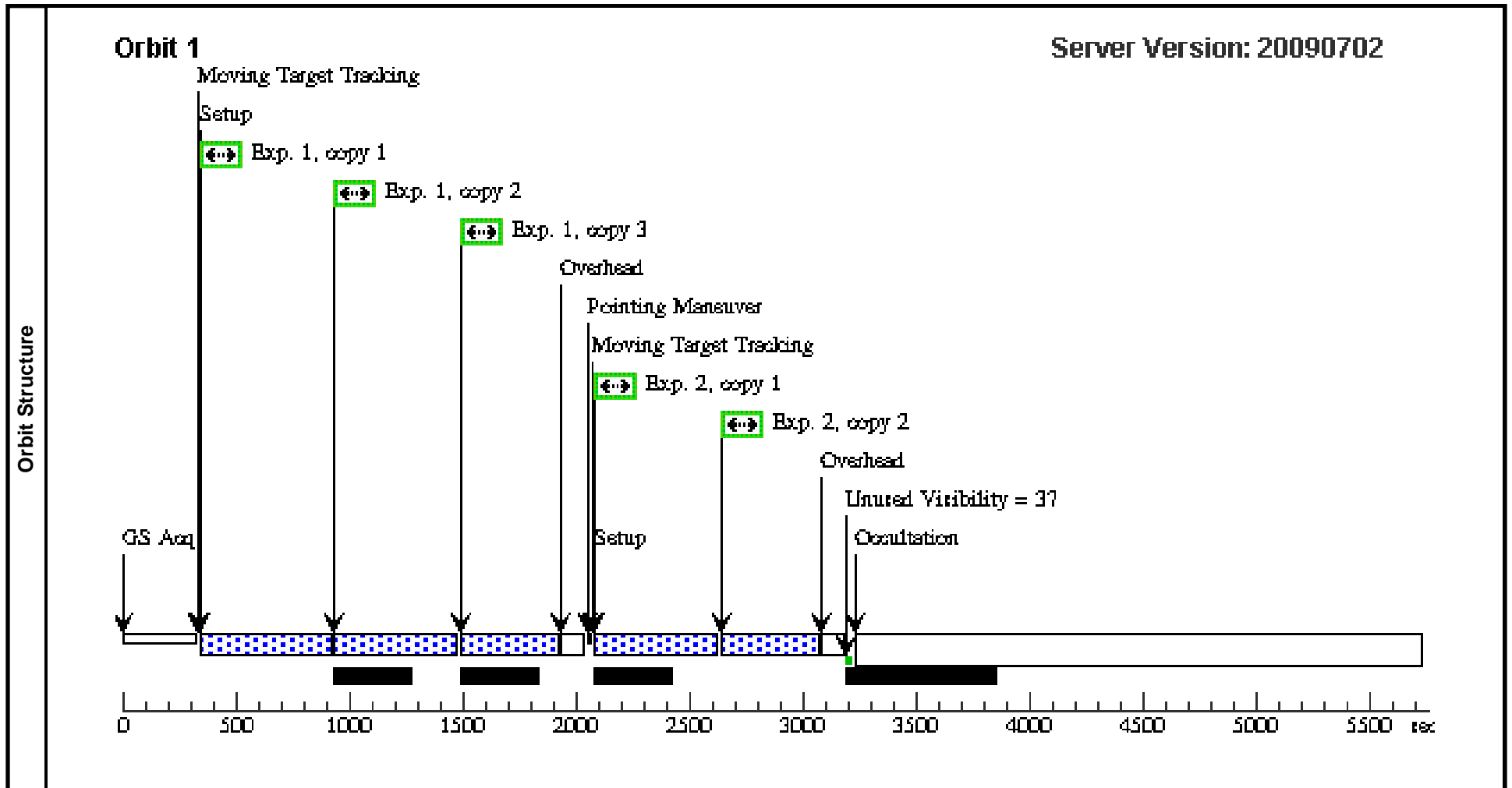
Visit	Proposal 11998, Visit 04, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: AFTER 01 BY 3.8 Orbits TO 4.2 Orbits; VISIBILITY INTERVAL 48 M									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
	(1)	9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO			430 Secs X 2 [=>(Copy 1)] [=>(Copy 2)]	[1]
	2		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	POS TARG 0.145,0.145		430 Secs X 2 [=>(Copy 1)] [=>(Copy 2)]	[1]



Proposal 11998 - Visit 05 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Miss...

Fri Aug 07 01:35:25 GMT 2009

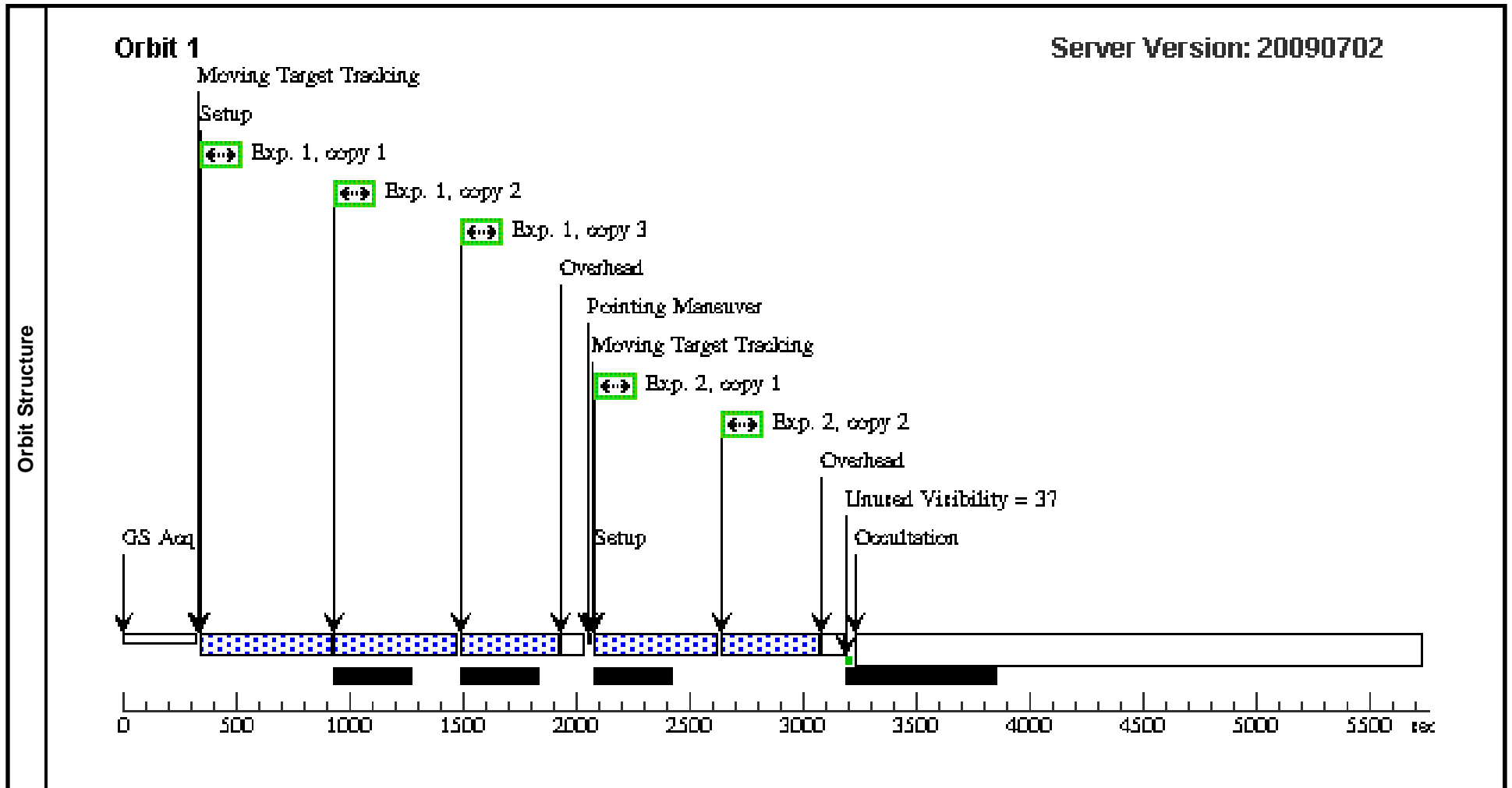
Visit	Proposal 11998, Visit 05, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: AFTER 01 BY 5.8 Orbits TO 6.2 Orbits									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
	(1)	9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO			430 Secs X 3 [=>(Copy 1)] [=>(Copy 2)] [=>(Copy 3)]	[1]
	2		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	POS TARG 0.145,0.145		430 Secs X 2 [=>(Copy 1)] [=>(Copy 2)]	[1]



Proposal 11998 - Visit 06 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Miss...

Fri Aug 07 01:35:26 GMT 2009

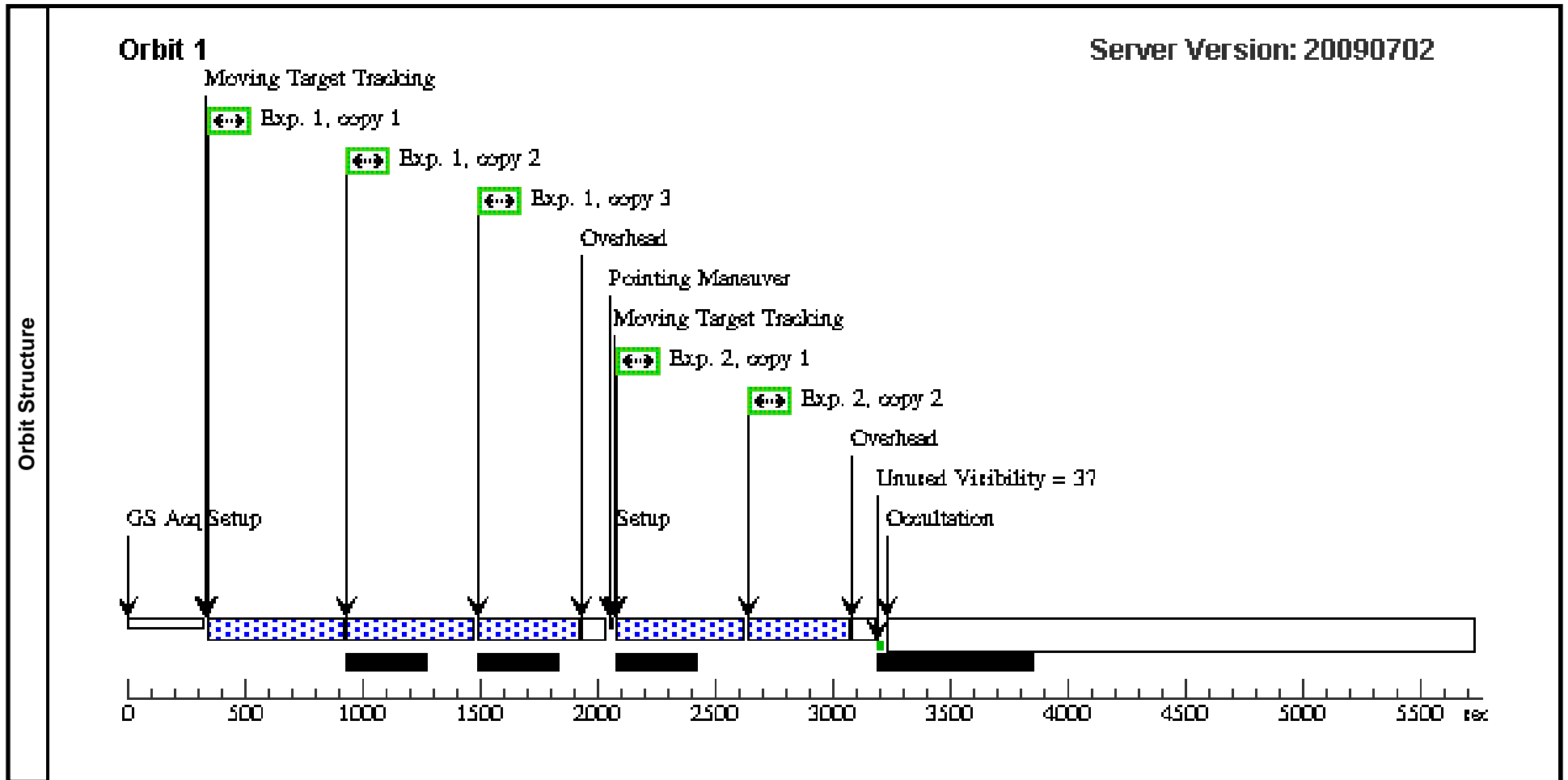
Visit	Proposal 11998, Visit 06, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: AFTER 01 BY 6.8 Orbits TO 7.2 Orbits									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
	(1)	9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO				430 Secs X 3 [=>(Copy 1)] [=>(Copy 2)] [=>(Copy 3)]	[1]
2	(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	POS TARG 0.145,0.145			430 Secs X 2 [=>(Copy 1)] [=>(Copy 2)]	[1]	



Proposal 11998 - Visit 07 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Miss...

Fri Aug 07 01:35:26 GMT 2009

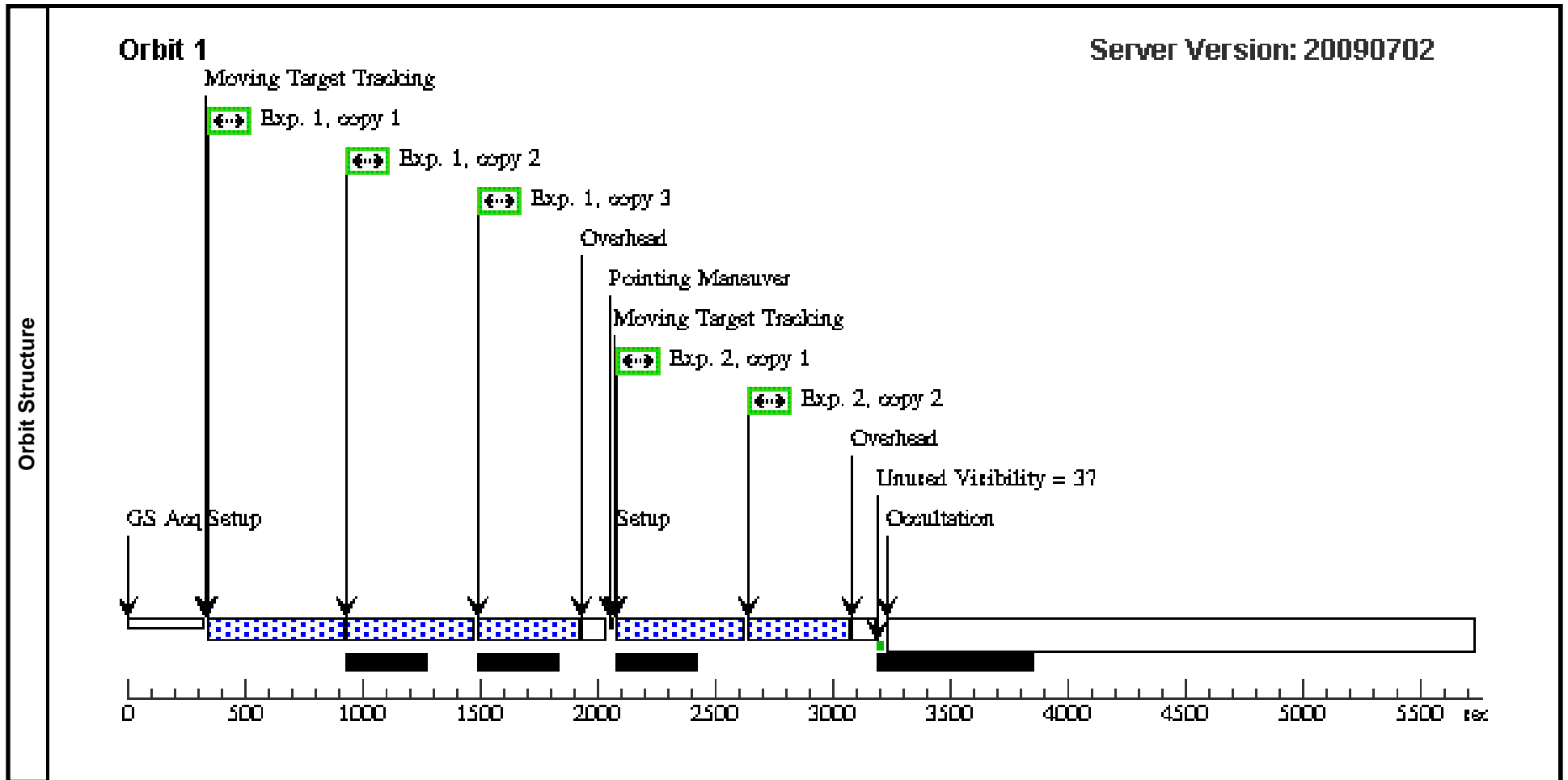
Visit	Proposal 11998, Visit 07, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: AFTER 01 BY 7.8 Orbits TO 9.2 Orbits									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
	(1)	9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO			430 Secs X 3 [=>(Copy 1)] [=>(Copy 2)] [=>(Copy 3)]	[1]
	2		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	POS TARG 0.145,0.145		430 Secs X 2 [=>(Copy 1)] [=>(Copy 2)]	[1]



Proposal 11998 - Visit 08 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Miss...

Fri Aug 07 01:35:27 GMT 2009

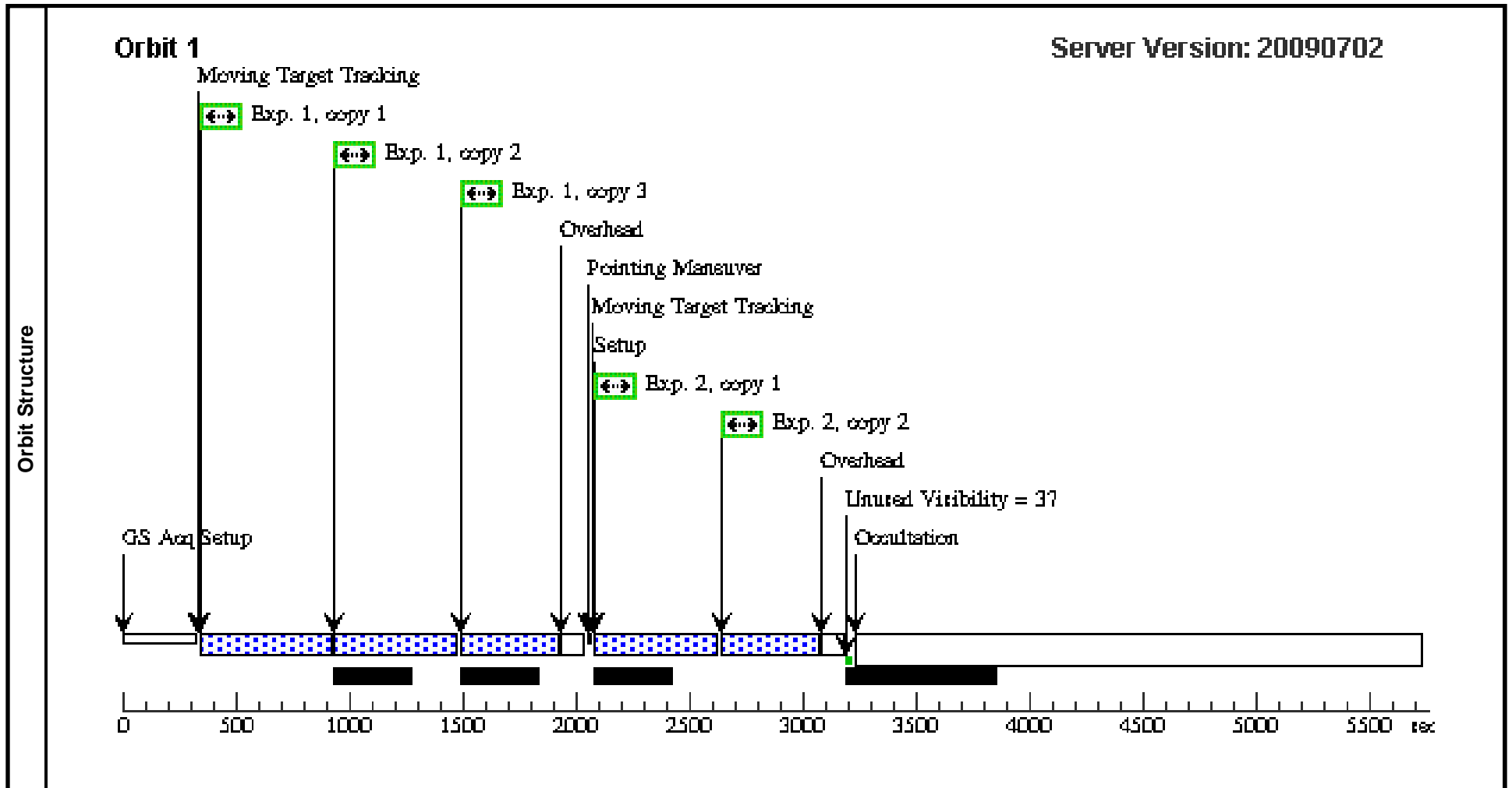
Visit	Proposal 11998, Visit 08, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: AFTER 01 BY 9.8 Orbits TO 10.2 Orbits									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
	(1)	9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO			430 Secs X 3 [=>(Copy 1)] [=>(Copy 2)] [=>(Copy 3)]	[1]
2		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	POS TARG 0.145,0.145		430 Secs X 2 [=>(Copy 1)] [=>(Copy 2)]	[1]	



Proposal 11998 - Visit 09 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Miss...

Fri Aug 07 01:35:27 GMT 2009

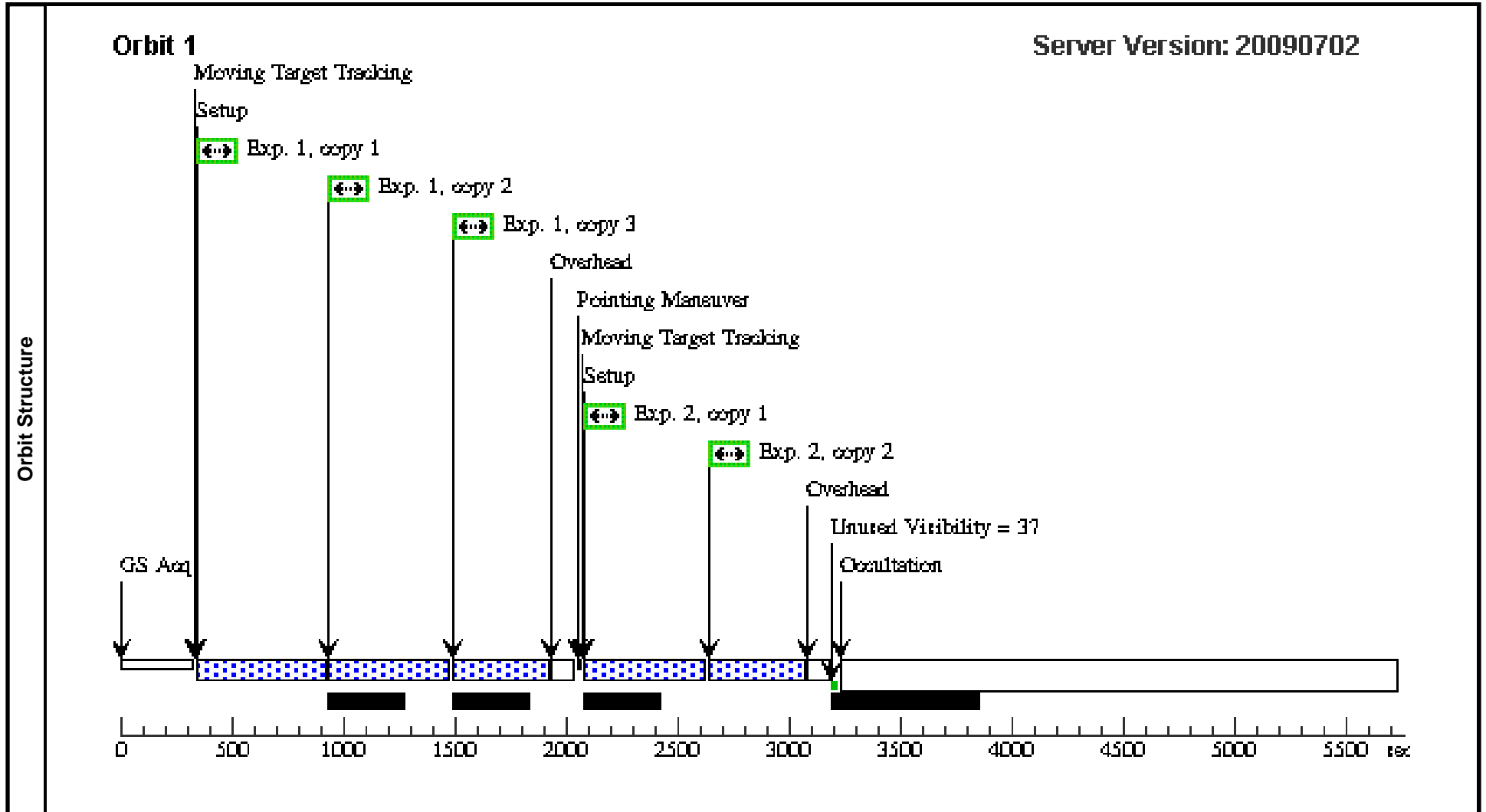
Visit	Proposal 11998, Visit 09, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: AFTER 01 BY 10.8 Orbits TO 11.2 Orbits									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
	(1)	9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO			430 Secs X 3 [=>(Copy 1)] [=>(Copy 2)] [=>(Copy 3)]	[1]
2		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	POS TARG 0.145,0.145		430 Secs X 2 [=>(Copy 1)] [=>(Copy 2)]	[1]	



Proposal 11998 - Visit 10 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Miss...

Fri Aug 07 01:35:27 GMT 2009

Visit	Proposal 11998, Visit 10, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: AFTER 01 BY 11.8 Orbits TO 12.2 Orbits									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
	(1)	9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO			430 Secs X 3 [=>(Copy 1)] [=>(Copy 2)] [=>(Copy 3)]	[1]
2		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	POS TARG 0.145,0.145		430 Secs X 2 [=>(Copy 1)] [=>(Copy 2)]	[1]	

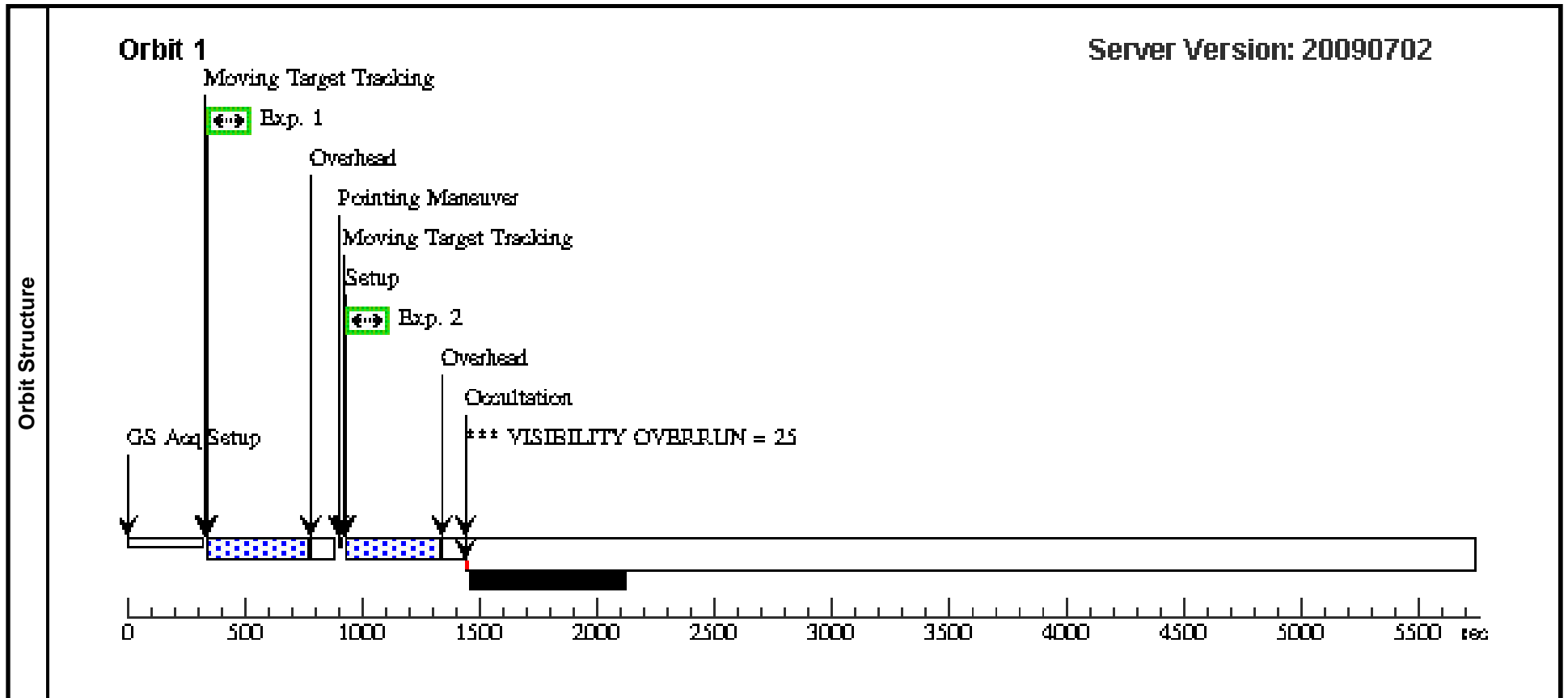


Visit	Proposal 11998, Visit 11, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: AFTER 01 BY 13.8 Orbits TO 14.2 Orbits; VISIBILITY INTERVAL 21 M									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
(1)		9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(1) 9P-TEMPEL-1	(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO			300 Secs X 2 [==>(Copy 1)] [==>(Copy 2)]	[1]
Orbit Structure	Orbit 1 Server Version: 20090702 Moving Target Tracking <p>The diagram shows a timeline for Orbit 1. Key events include GS Acq Setup at approximately 200s, followed by two exposure periods for 'Exp. 1, copy 1' and 'Exp. 1, copy 2' between 400s and 1000s. This is followed by an 'Overhead' period and 'Unused Visibility = 30' until about 1200s, and finally an 'Occultation' period starting at 1200s and ending at 1800s. The x-axis represents time in seconds from 0 to 5500.</p>									
	GS Acq Setup Exp. 1, copy 1 Exp. 1, copy 2 Overhead Unused Visibility = 30 Occultation 0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 sec									

Proposal 11998 - Visit 12 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Miss...

Fri Aug 07 01:35:28 GMT 2009

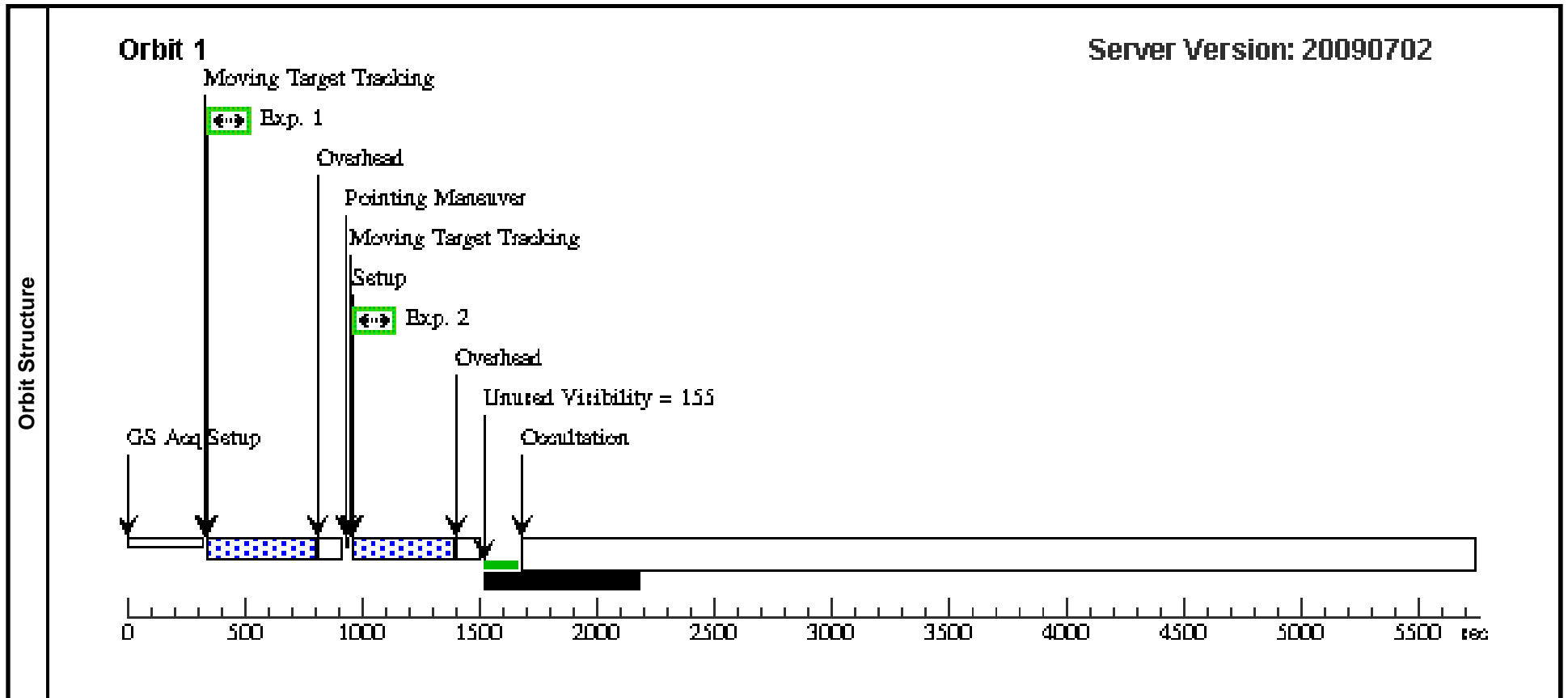
Visit	Proposal 11998, Visit 12, implementation Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: AFTER 01 BY 14.8 Orbits TO 15.2 Orbits; VISIBILITY INTERVAL 24 M									
	(Visit 12) Warning (Orbit Planner): VISIBILITY OVERRUN									
Diagnostics										
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO			400 Secs	
									[==>]	[1]
	2		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	POS TARG 0.145,0. 145			400 Secs
									[==>]	[1]



Proposal 11998 - Visit 13 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Miss...

Fri Aug 07 01:35:28 GMT 2009

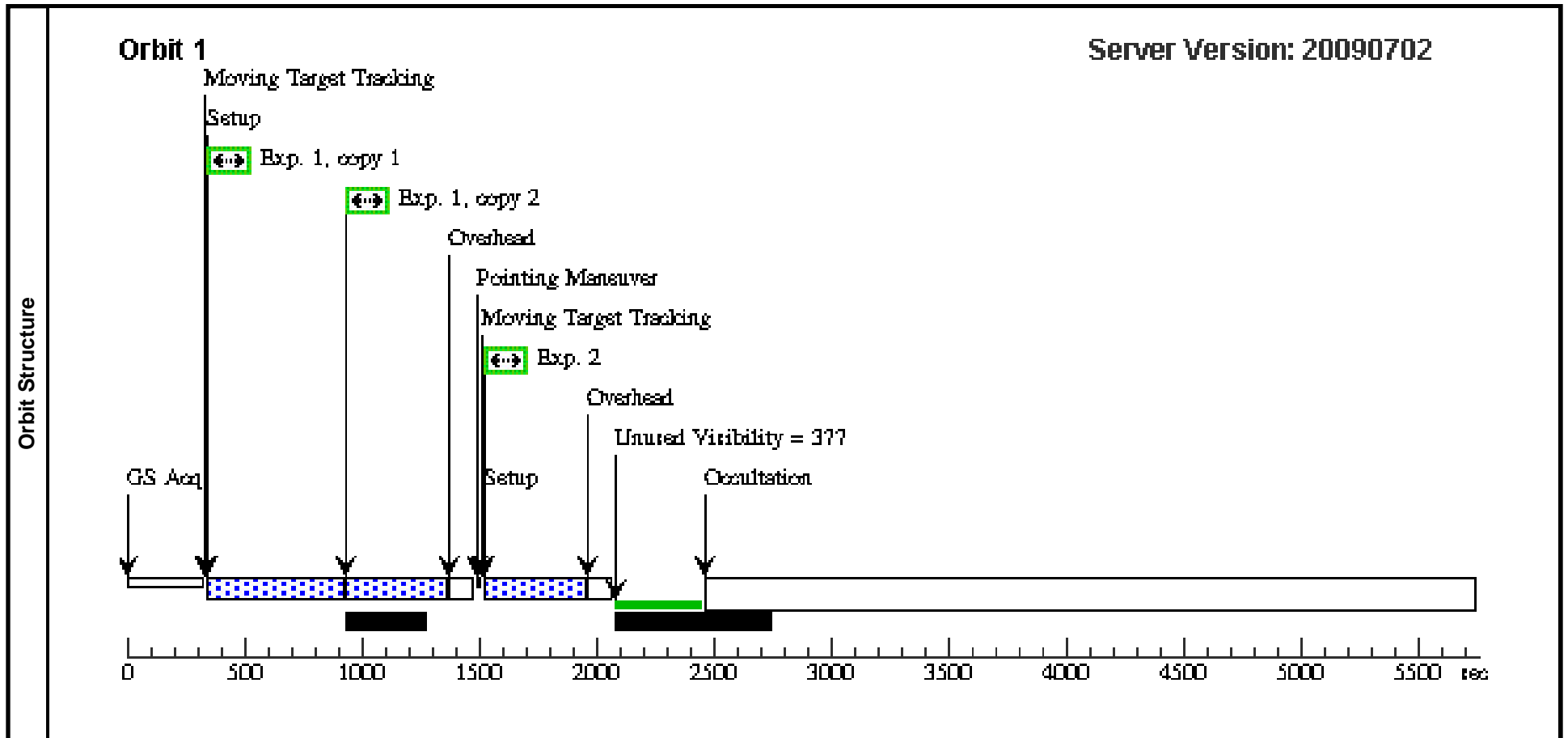
Visit	Proposal 11998, Visit 13, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: AFTER 01 BY 15.8 Orbits TO 17.2 Orbits; VISIBILITY INTERVAL 28 M									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
	(1)	9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO			430 Secs [==>]	[1]
	2		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	POS TARG 0.145,0.145		430 Secs [==>]	[1]



Proposal 11998 - Visit 14 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Miss...

Fri Aug 07 01:35:28 GMT 2009

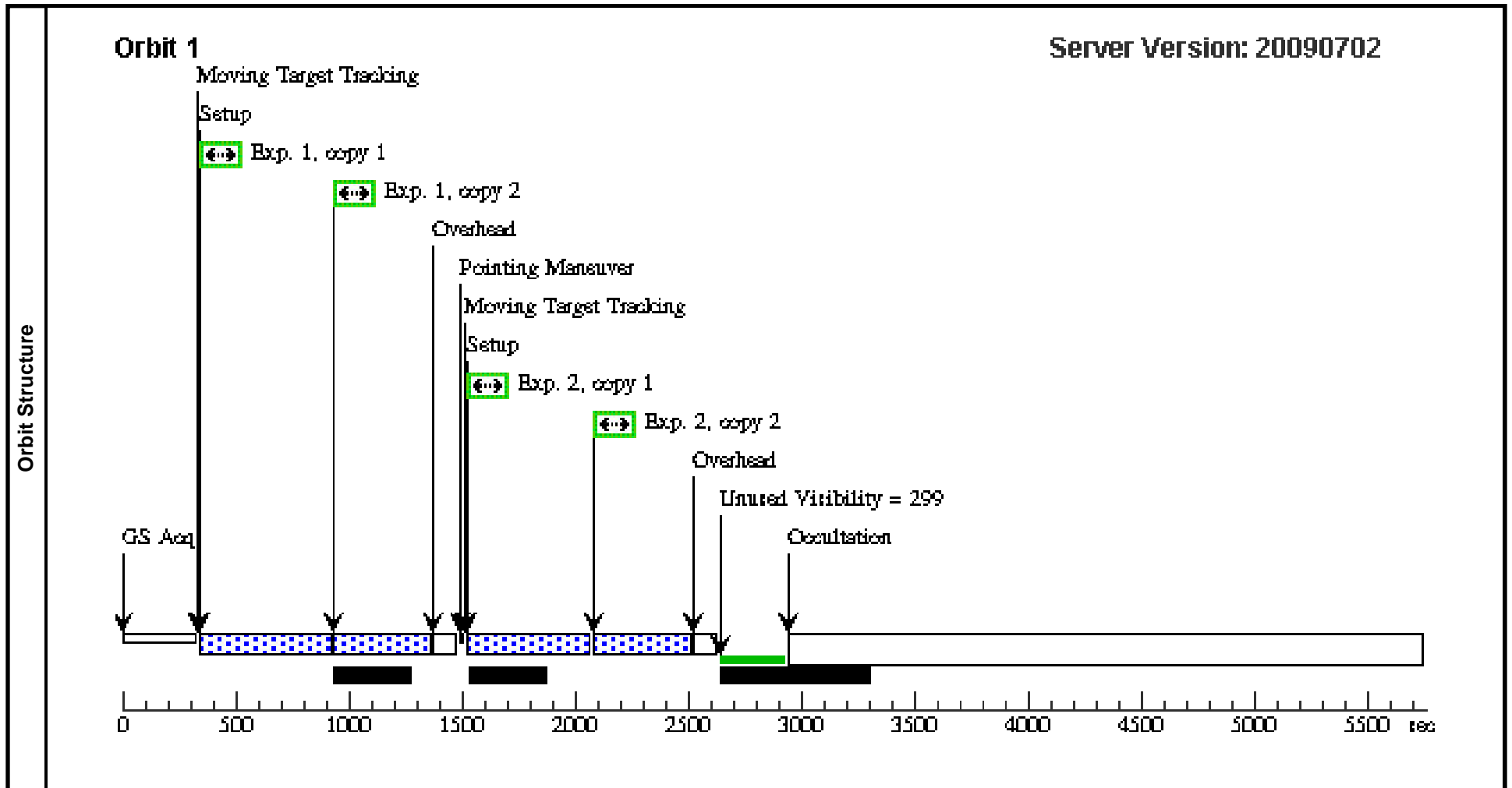
Visit	Proposal 11998, Visit 14, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: AFTER 01 BY 17.8 Orbits TO 18.2 Orbits; VISIBILITY INTERVAL 41 M									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
	(1)	9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO			430 Secs X 2 [==>(Copy 1)] [==>(Copy 2)]	[1]
	2		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	POS TARG 0.145,0.145		430 Secs [==>]	[1]



Proposal 11998 - Visit 15 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Miss...

Fri Aug 07 01:35:29 GMT 2009

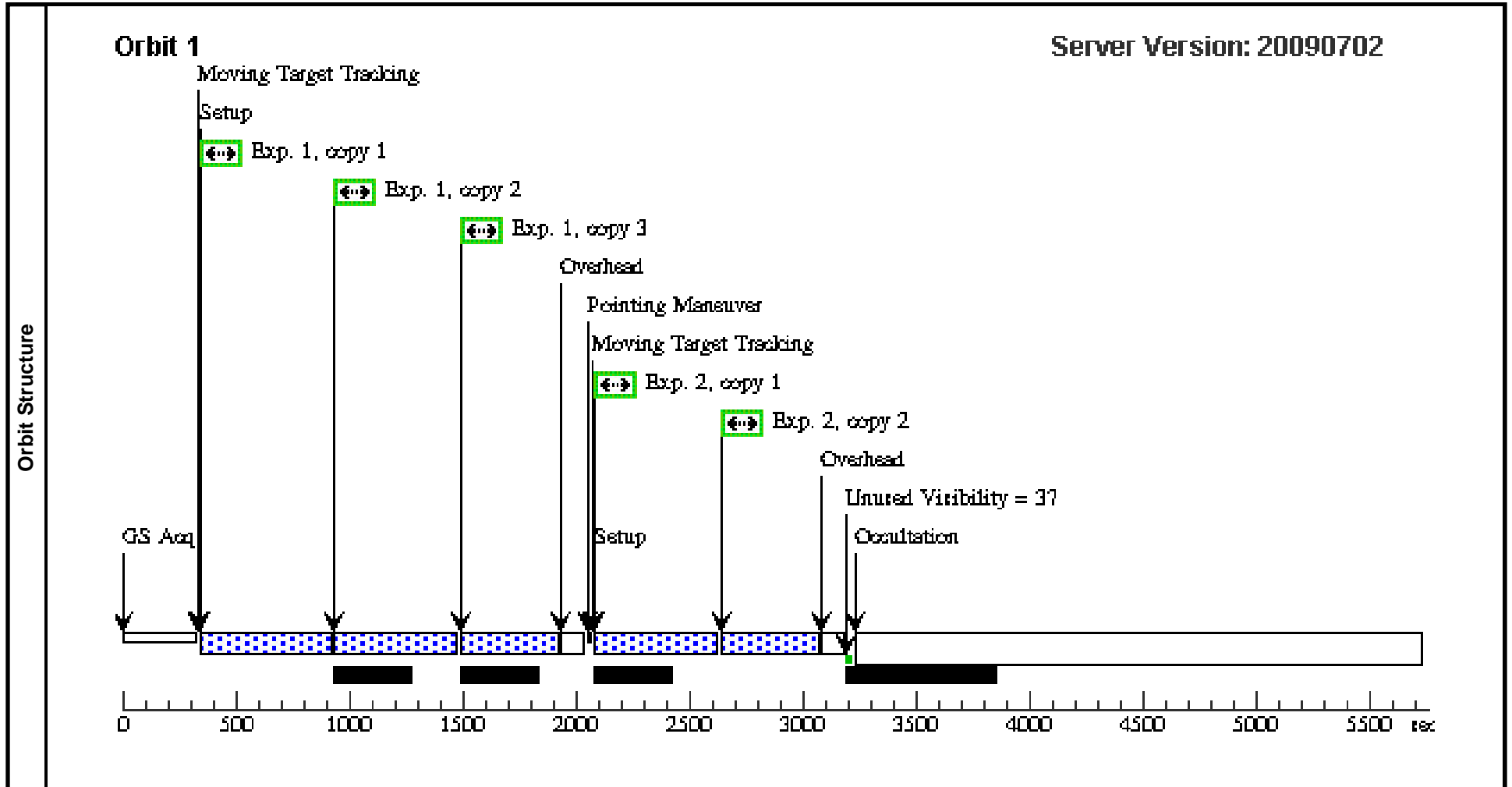
Visit	Proposal 11998, Visit 15, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: AFTER 01 BY 18.8 Orbits TO 19.2 Orbits; VISIBILITY INTERVAL 49 M										
	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center				
Solar System Targets	(1)	9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH			
	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit	
Exposures	1	(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO			430 Secs X 2 [=>(Copy 1)] [=>(Copy 2)]	[1]		
	2	(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	POS TARG 0.145,0.145		430 Secs X 2 [=>(Copy 1)] [=>(Copy 2)]	[1]		



Proposal 11998 - Visit 16 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Miss...

Fri Aug 07 01:35:29 GMT 2009

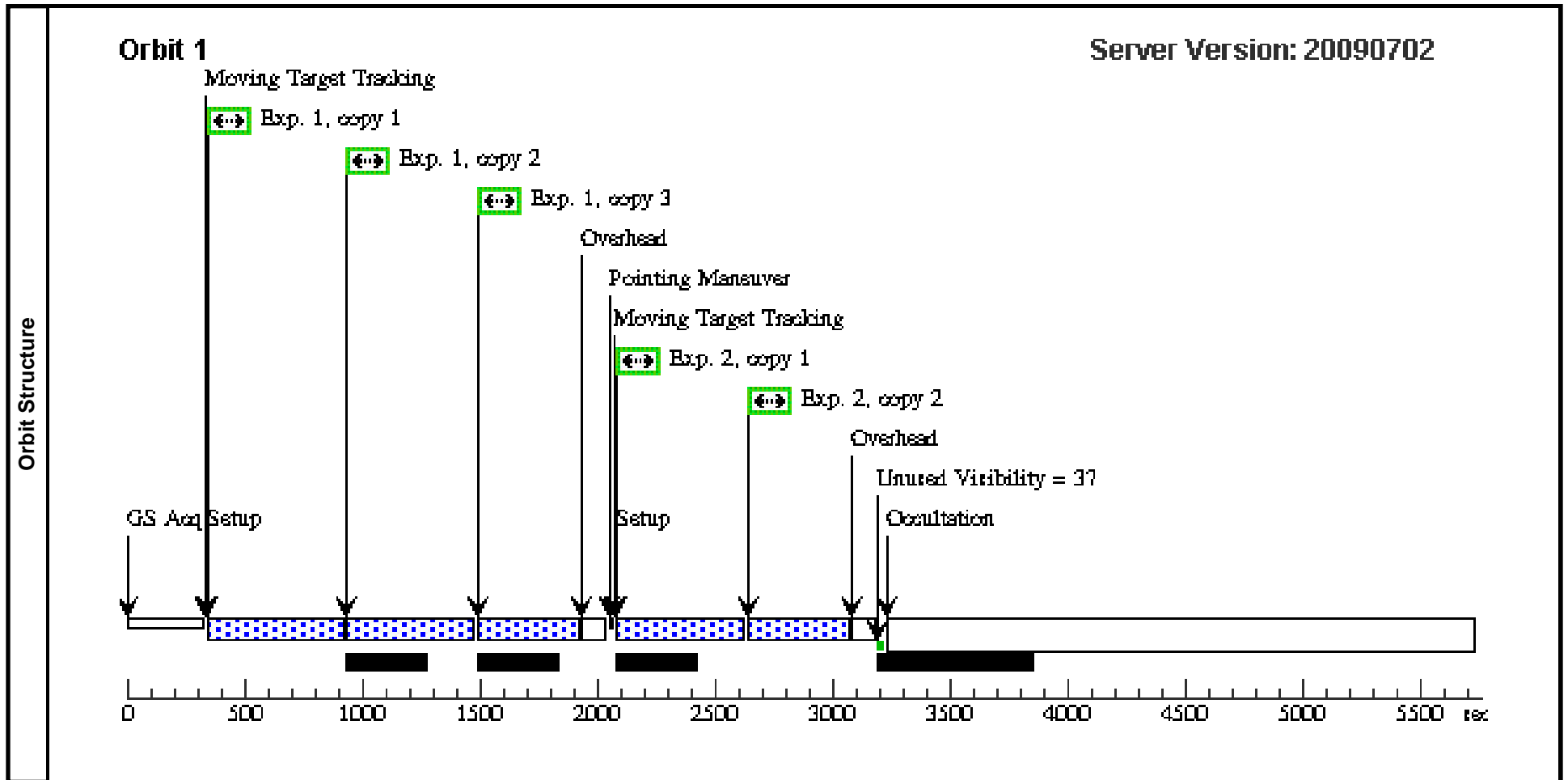
Visit	Proposal 11998, Visit 16, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: AFTER 01 BY 19.8 Orbits TO 20.2 Orbits									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
	(1)	9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO			430 Secs X 3 [=>(Copy 1)] [=>(Copy 2)] [=>(Copy 3)]	[1]
2		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	POS TARG 0.145,0.145		430 Secs X 2 [=>(Copy 1)] [=>(Copy 2)]	[1]	



Proposal 11998 - Visit 17 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Miss...

Fri Aug 07 01:35:29 GMT 2009

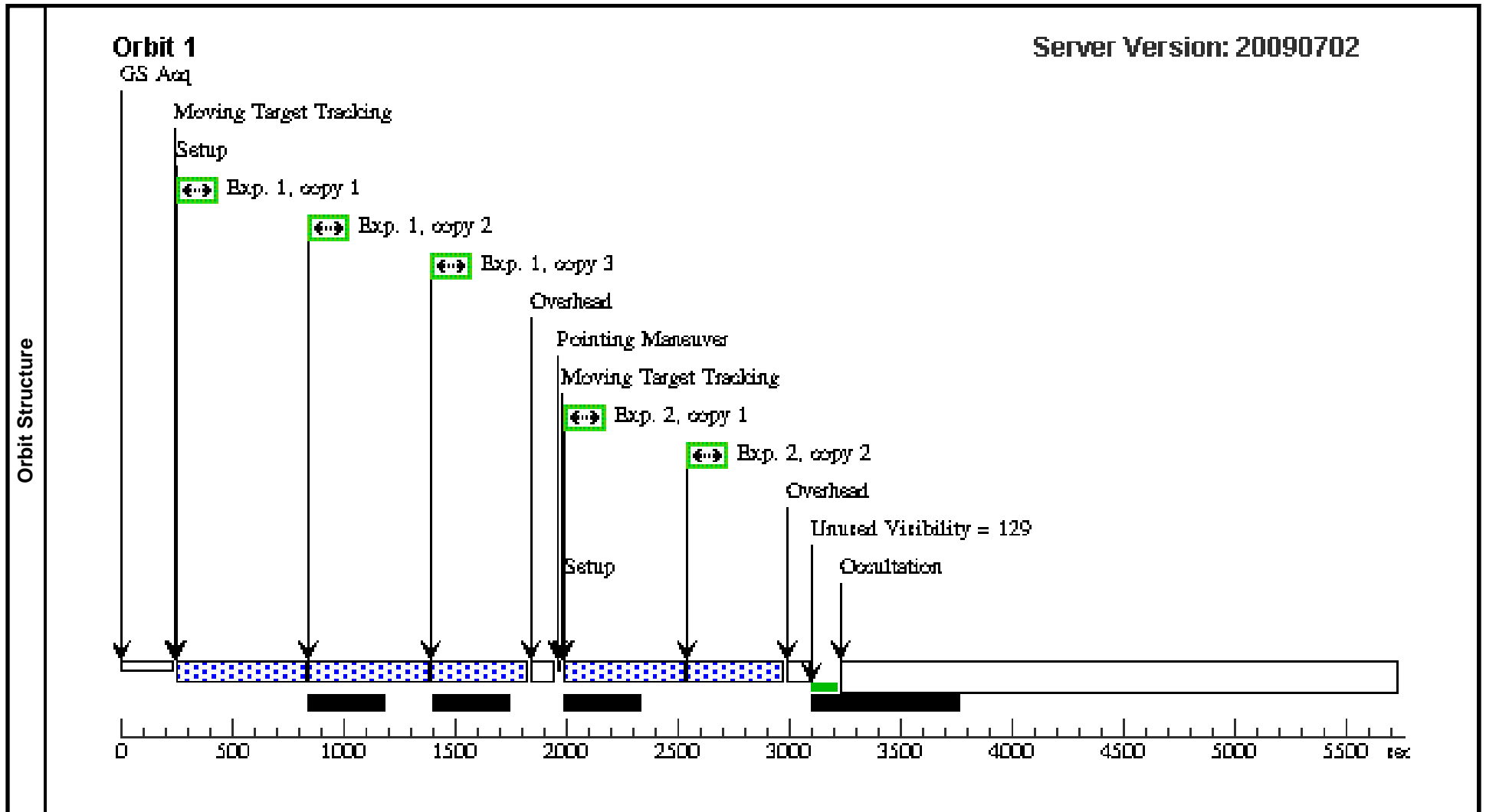
Visit	Proposal 11998, Visit 17, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: AFTER 01 BY 21.8 Orbits TO 22.2 Orbits									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
	(1)	9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO			430 Secs X 3 [=>(Copy 1)] [=>(Copy 2)] [=>(Copy 3)]	[1]
	2		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	POS TARG 0.145,0.145		430 Secs X 2 [=>(Copy 1)] [=>(Copy 2)]	[1]



Proposal 11998 - Visit 18 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Miss...

Fri Aug 07 01:35:29 GMT 2009

Visit	Proposal 11998, Visit 18, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: AFTER 01 BY 23.8 Orbits TO 24.2 Orbits									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
	(1)	9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	GS ACQ SCENARI O SINGLE		430 Secs X 3 [=>(Copy 1)] [=>(Copy 2)] [=>(Copy 3)]	[1]
2		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	POS TARG 0.145,0. 145		430 Secs X 2 [=>(Copy 1)] [=>(Copy 2)]	[1]	



Proposal 11998 - Visit 19 - Determining the Rotational Phase of Comet 9P/Tempel 1 in Support of the StardustNExT Miss...

Fri Aug 07 01:35:30 GMT 2009

Visit	Proposal 11998, Visit 19, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: AFTER 01 BY 24.8 Orbits TO 25.2 Orbits									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
	(1)	9P-TEMPEL-1	TYPE=COMET,Q=1.5084906674732 3,E=0.5171007800527672,I=10.52698 377735023,O=68.93306928065827,W =178.926168693708,T=12-JAN- 2011:02:05:41,EQUINOX=J2000,EPO CH=01-NOV- 2008:00:00:00,A1=2.563459E- 10,A2=4.958175E-12,A3=2.023489E- 10					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	GS ACQ SCENARI O SINGLE		430 Secs X 3 [=>(Copy 1)] [=>(Copy 2)] [=>(Copy 3)]	[1]
2		(1) 9P-TEMPEL-1	WFC3/UVIS, ACCUM, UVIS1	F606W	CR-SPLIT=NO	POS TARG 0.145,0. 145		430 Secs X 2 [=>(Copy 1)] [=>(Copy 2)]	[1]	

