



14627 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Cycle: 24, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
Dr. Susan D. Benecchi (PI) (Contact)	Planetary Science Institute	susank@psi.edu
Dr. Marc W. Buie (CoI)	Southwest Research Institute	buie@boulder.swri.edu
Dr. Keith S. Noll (CoI)	NASA Goddard Space Flight Center	keith.s.noll@nasa.gov
Dr. Simon Porter (CoI)	Southwest Research Institute	porter@boulder.swri.edu
Dr. John R. Spencer (CoI)	Southwest Research Institute	spencer@boulder.swri.edu
Dr. S. Alan Stern (CoI)	Southwest Research Institute	astern@swri.edu
Dr. Anne J. Verbiscer (CoI)	The University of Virginia	verbiscer@virginia.edu

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) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:01:58.0	yes
02	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:01:59.0	yes
03	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:00.0	yes
04	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:01.0	yes
05	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:02.0	yes
06	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:03.0	yes
07	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:04.0	yes
08	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:05.0	yes
09	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:06.0	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>
10	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:06.0	yes
11	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:07.0	yes
12	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:08.0	yes
13	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:09.0	yes
14	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:10.0	yes
15	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:10.0	yes
16	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:11.0	yes
17	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:12.0	yes
18	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:13.0	yes
19	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:14.0	yes
20	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:14.0	yes
21	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:15.0	yes
22	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:16.0	yes
23	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:17.0	yes
24	(1) 2014MU69	WFC3/UVIS	1	19-Jun-2017 21:02:18.0	yes

24 Total Orbits Used

ABSTRACT

The New Horizons spacecraft was recently redirected to encounter the Transneptunian Object (TNO) 2014 MU69 on 1 January 2019. In order to optimally plan the fly-by sequencing, we must learn as much about this object in advance of the encounter as possible. In particular, it is critical that we determine, to the best of our ability, if the object is binary (as is the case for ~20% of cold classical TNOs in this size range), the rotation period and shape of the body. All of these parameters influence the encounter design and timing. Existing and proposed HST astrometric datasets constrain its diameter (21-41 km for an albedo of 0.15-0.04) and orbit, and suggest a rotational lightcurve amplitude of >0.3 mags, but cannot determine the rotation period or lightcurve shape. To that end we propose to use 24 HST orbits over ~4 days to measure the lightcurve amplitude of 2014 MU69, and constrain its rotation period to better than 5%. 2014 MU69's orbit identifies it as very typical member of the "cold classical" TNO population. This makes it an ideal target for our spacecraft mission because close-up observations obtained of 2014 MU69 can be extrapolated to understand the

cold classical population as a whole, which is the most primitive and least disturbed part of the Kuiper Belt.

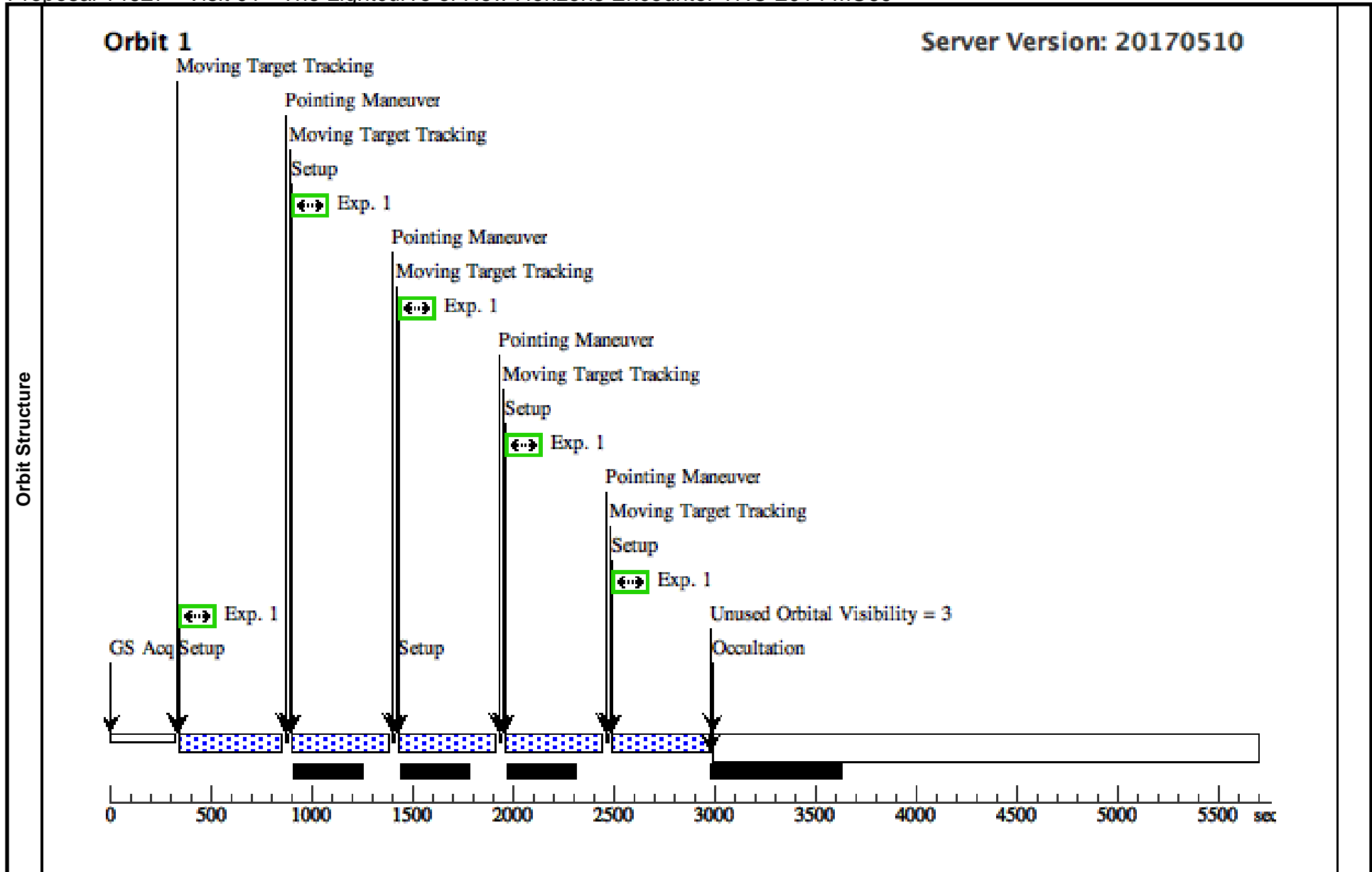
OBSERVING DESCRIPTION

Our measurement sequence utilizes 4 sets of 6 consecutive HST orbits for a total of 24 orbits within the timespan of ~90 hours (4 days) near opposition when 2014 MU69 will be the brightest (July). Each visit includes 5x367 second exposures in the 350LP filter. The first sequence of orbits (visits 1-6 and 7-12) are separated by ~14 hours (~9 orbits) and the second sequence (visits 7-12 and 13-18) are separated by ~47 hours (~32 orbits) and the final sequence (visits 13-18 and 19-24) are separated by ~158 hours (~106 orbits). The orbits within a sequence must be consecutive in order to minimize aliasing interpretations of the period, however they do not require an identical set of guide stars, which should make scheduling easier. Observations near opposition are required because of the faintness of the object. Fields will be pre-searched for background sources as has been done effectively for previous programs. This involves selecting the times that are best for HST scheduling followed by the PI checking those pointings and fields for background sources, and either proceeding with the STScI selected time or suggesting another time when the field is clear. Adjustments to the exact timing and cadence will be analyzed as observations are being scheduled to deal with background star issues. This project imposes no orientation constraints and uses ordinary blind target acquisition. Target motion rates are very slow, at most a few arcsec per hour, so tracking under FGS control is feasible, regardless of the gyroscopic mode in use.

Proposal 14627 - Visit 01 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:19 GMT 2017

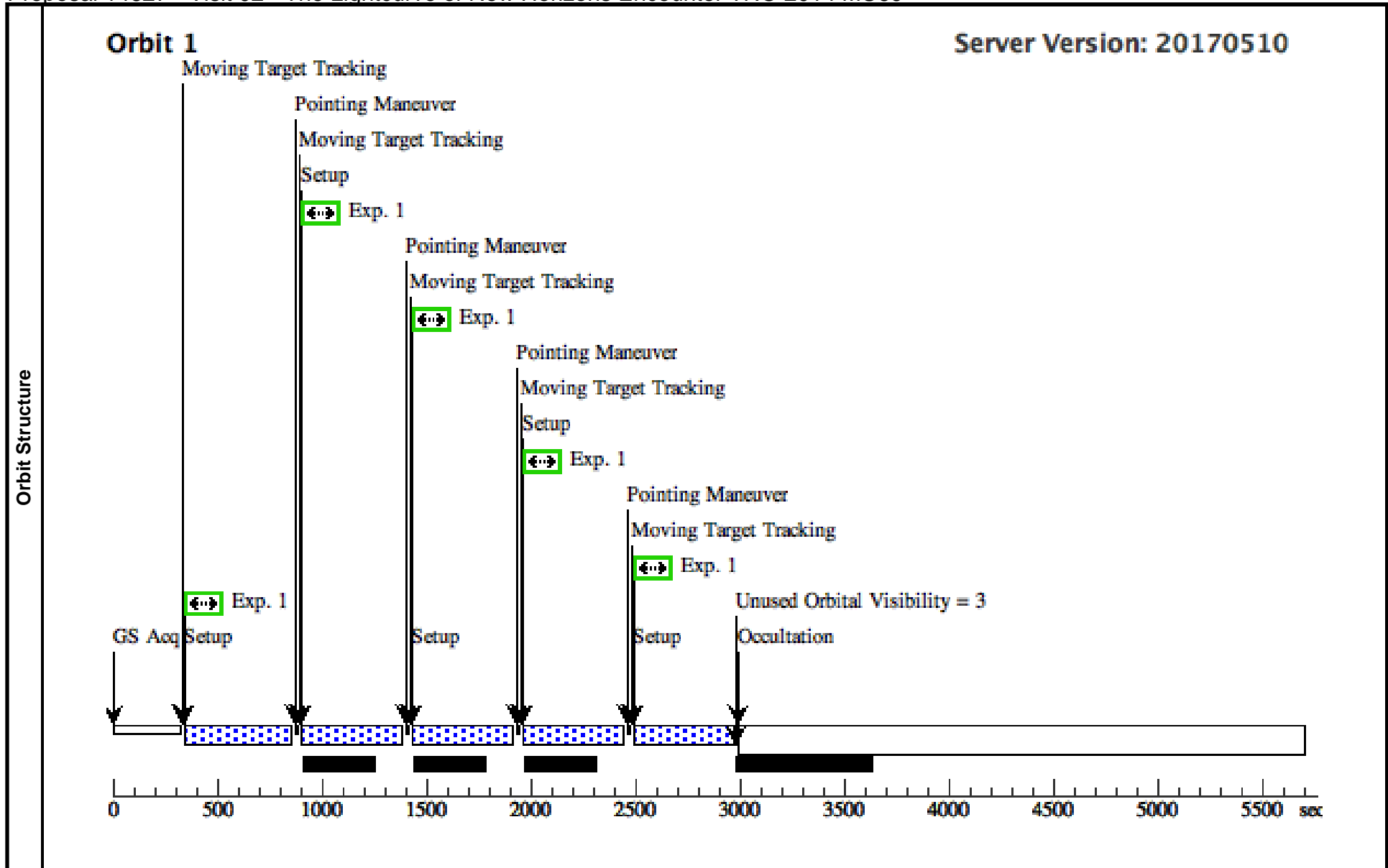
Visit	Proposal 14627, Visit 01, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%; BETWEEN 25-JUN-2017:07:10:00 AND 25-JUN-2017:07:50:00; SEQ 01,02,03,04,05,06 WITHIN 6.1 Orbits Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true		(1)				
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 01 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 01 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 02 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:19 GMT 2017

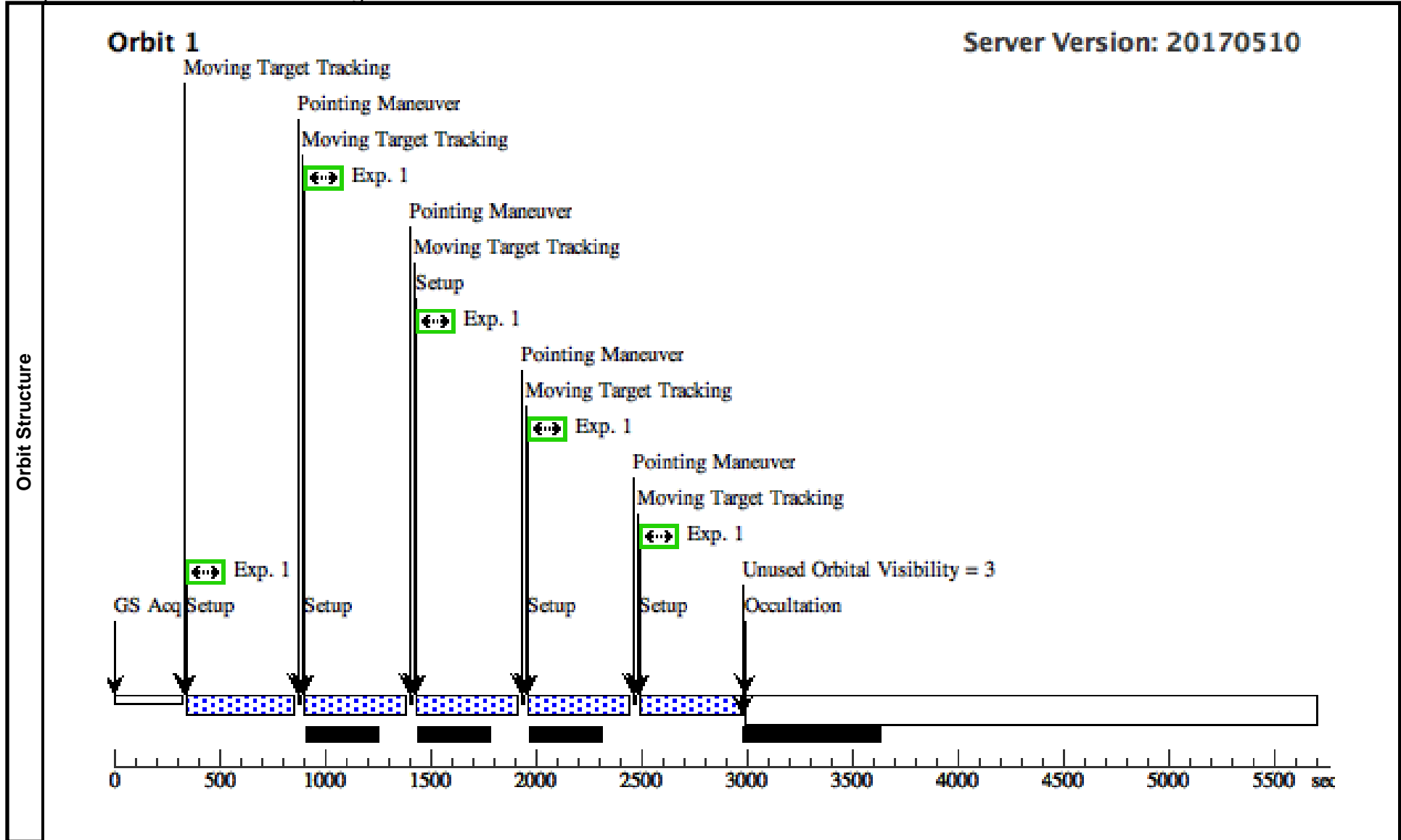
Visit	Proposal 14627, Visit 02, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern		Secondary Pattern		Exposures			
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true			(1)			
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 02 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 02 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 03 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:19 GMT 2017

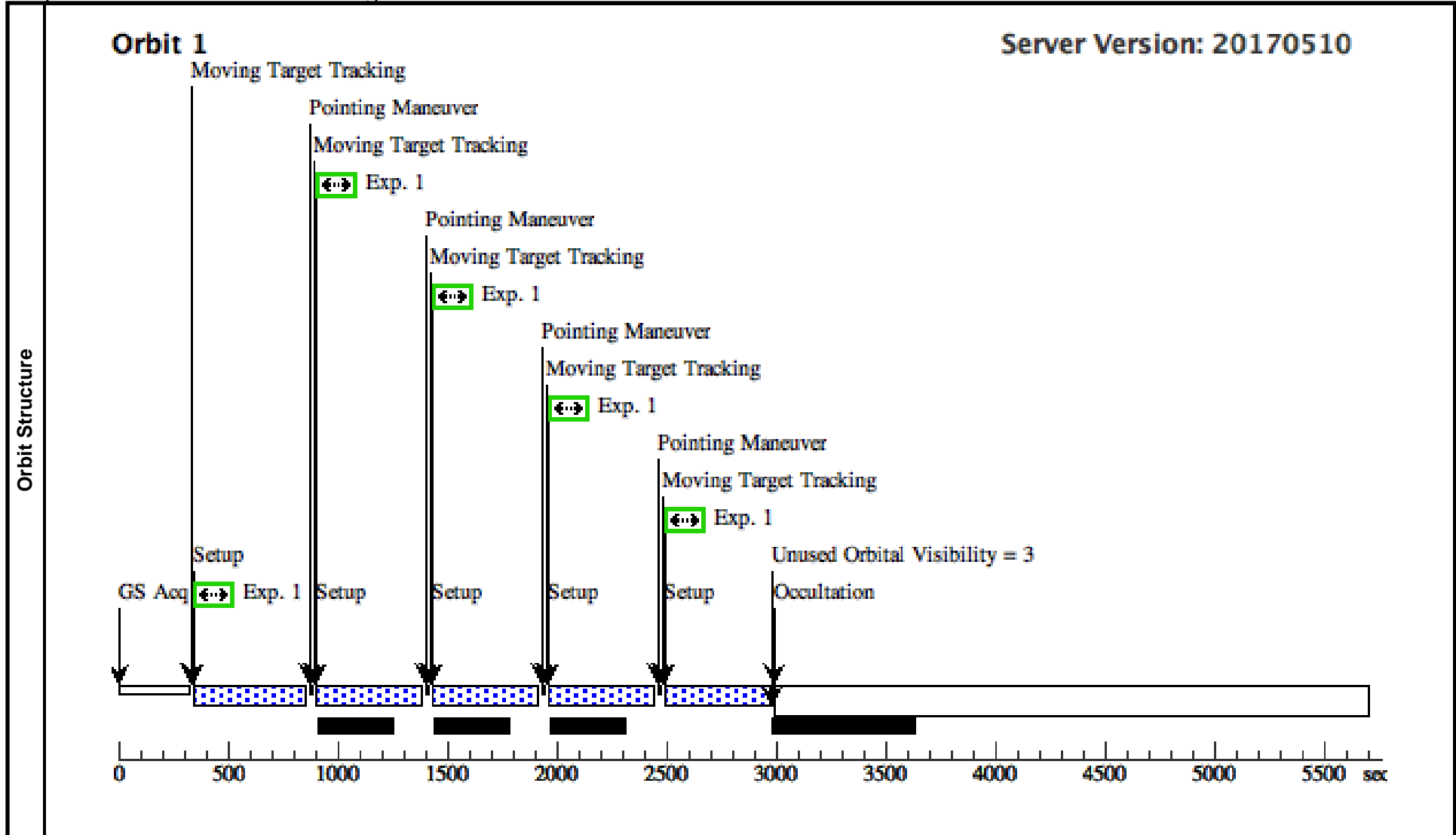
Visit	Proposal 14627, Visit 03, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true		(1)				
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 03 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 03 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 04 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:19 GMT 2017

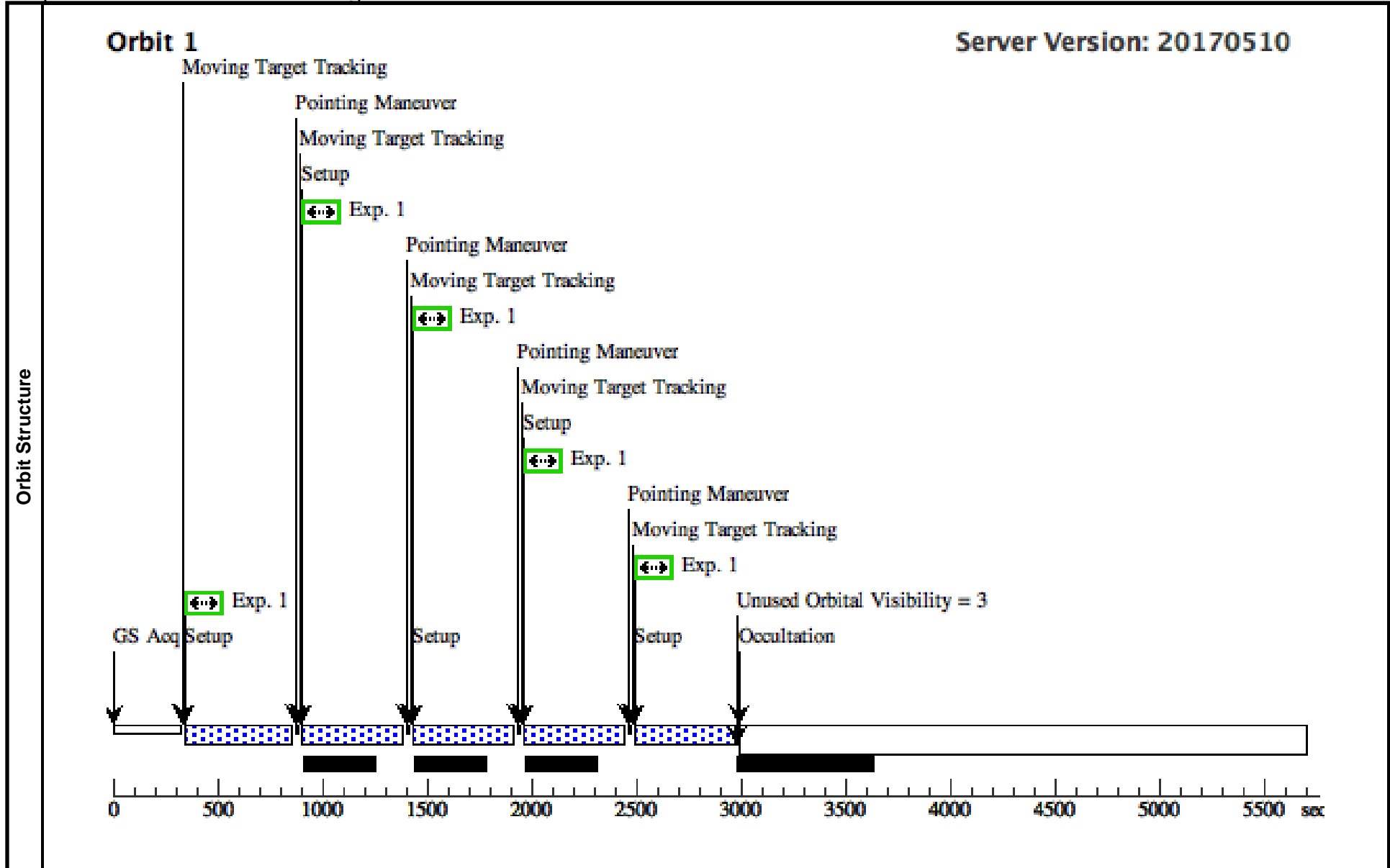
Visit	Proposal 14627, Visit 04, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true		(1)				
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 04 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 04 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 05 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:19 GMT 2017

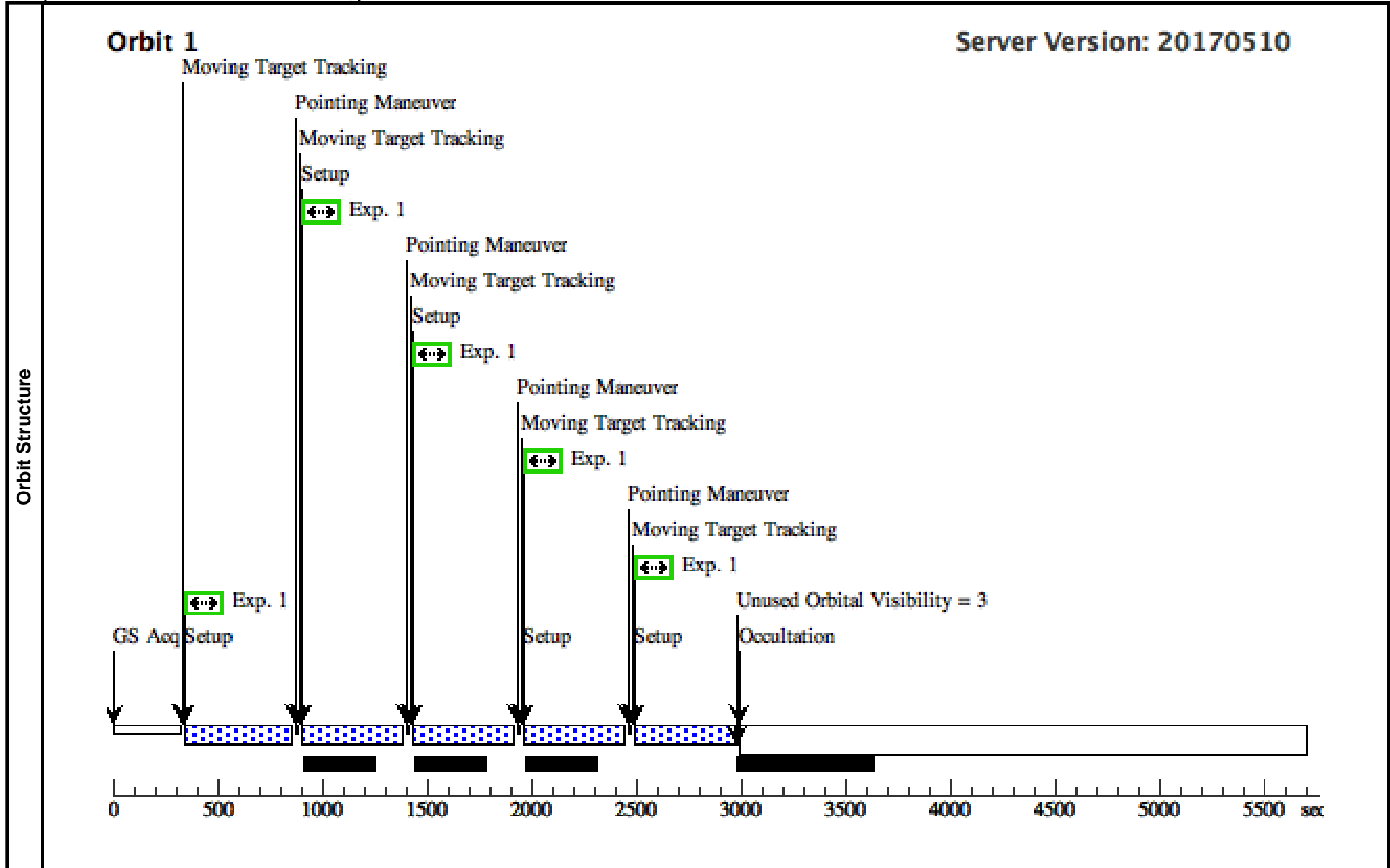
Visit	Proposal 14627, Visit 05, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true		(1)				
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 05 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 05 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 06 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:19 GMT 2017

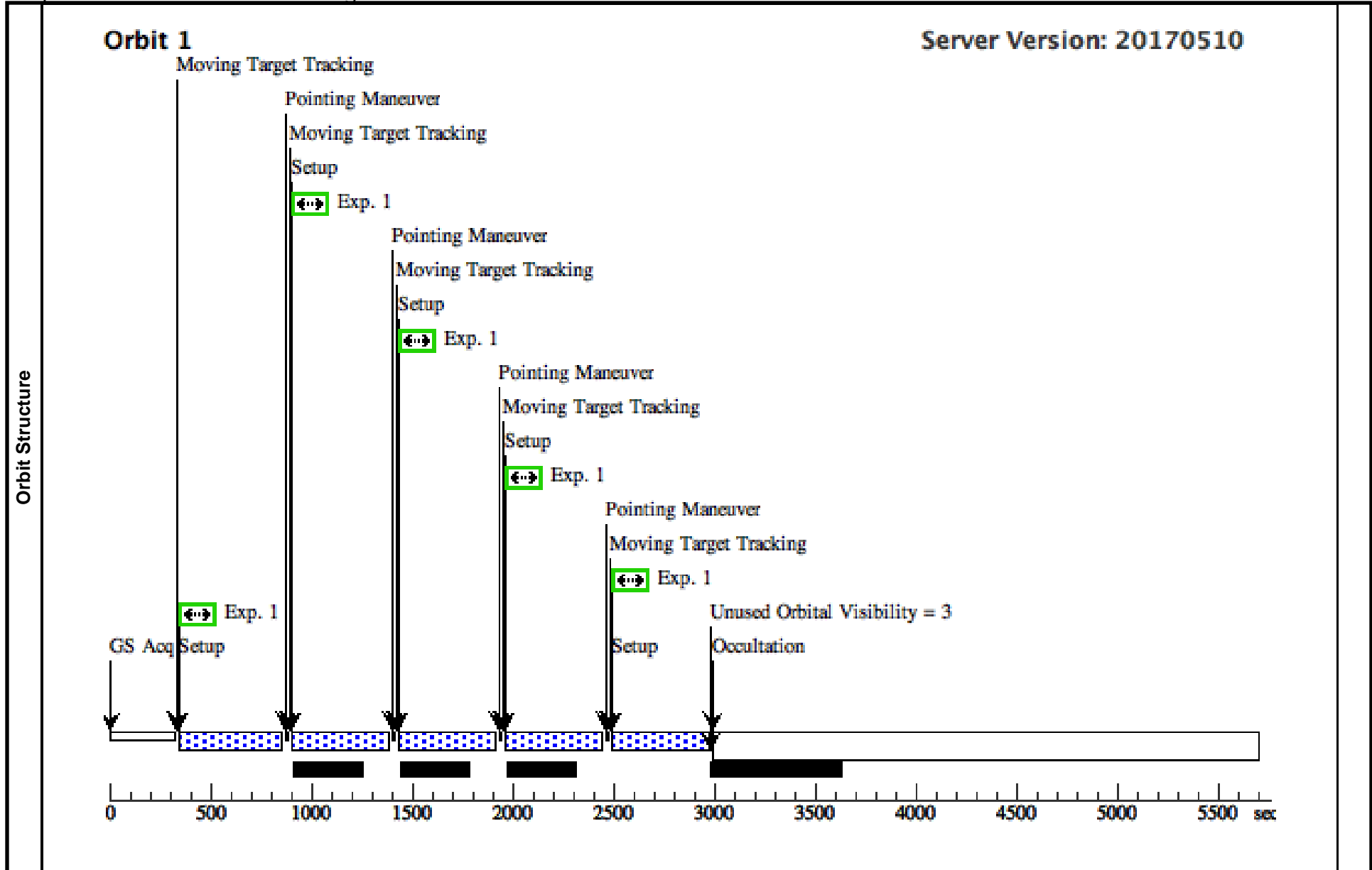
Visit	Proposal 14627, Visit 06, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern		Secondary Pattern		Exposures			
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true			(1)			
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 06 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 06 (1)	367.0 Secs (1835 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] [==>(Pattern 5)]	[1]



Proposal 14627 - Visit 07 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:19 GMT 2017

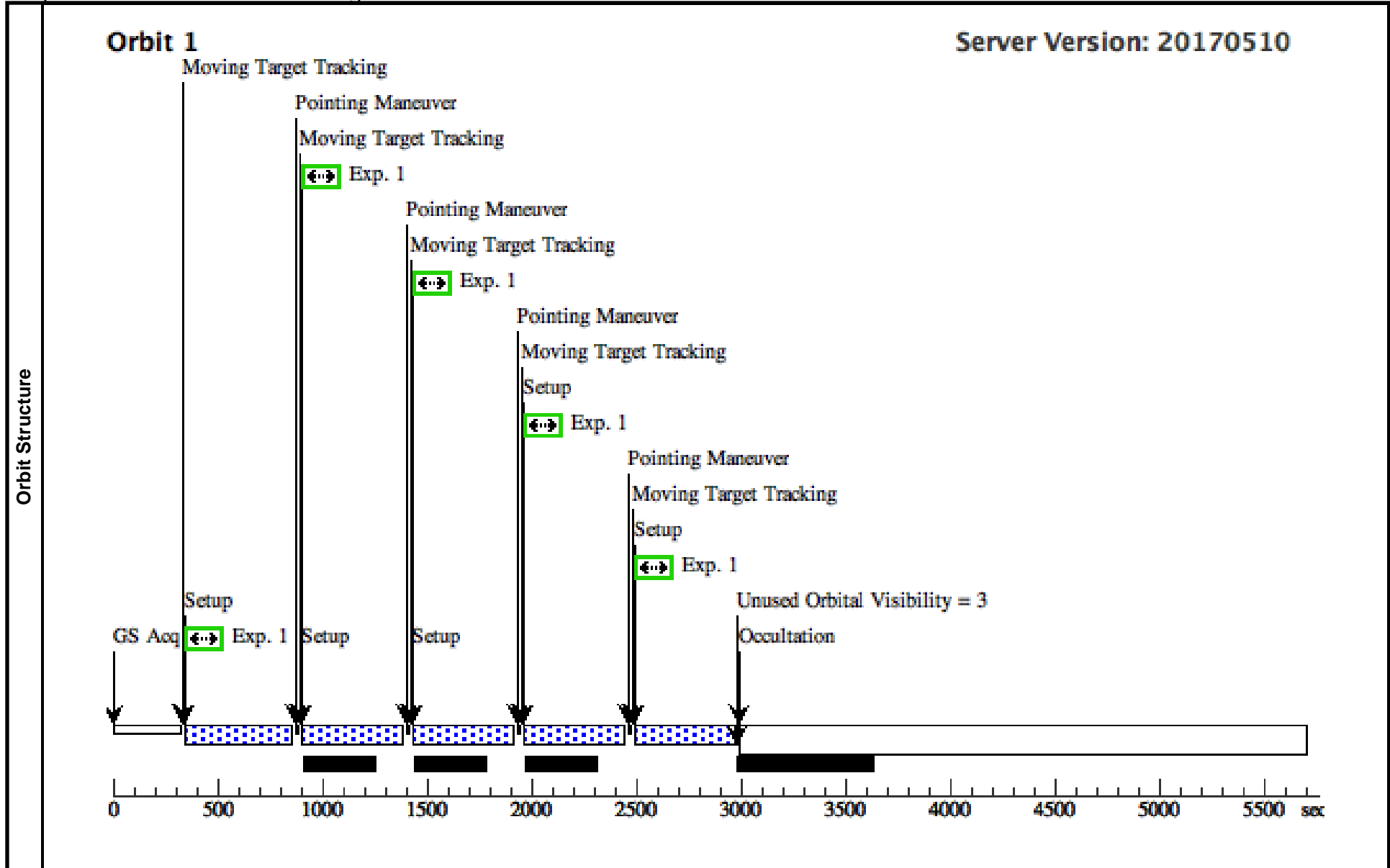
Visit	Proposal 14627, Visit 07, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%; BETWEEN 26-JUN-2017:06:45:00 AND 26-JUN-2017:07:45:00; SEQ 07,08,09,10,11,12 WITHIN 7.1 Orbits <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true		(1)				
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 07 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 07 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 08 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:19 GMT 2017

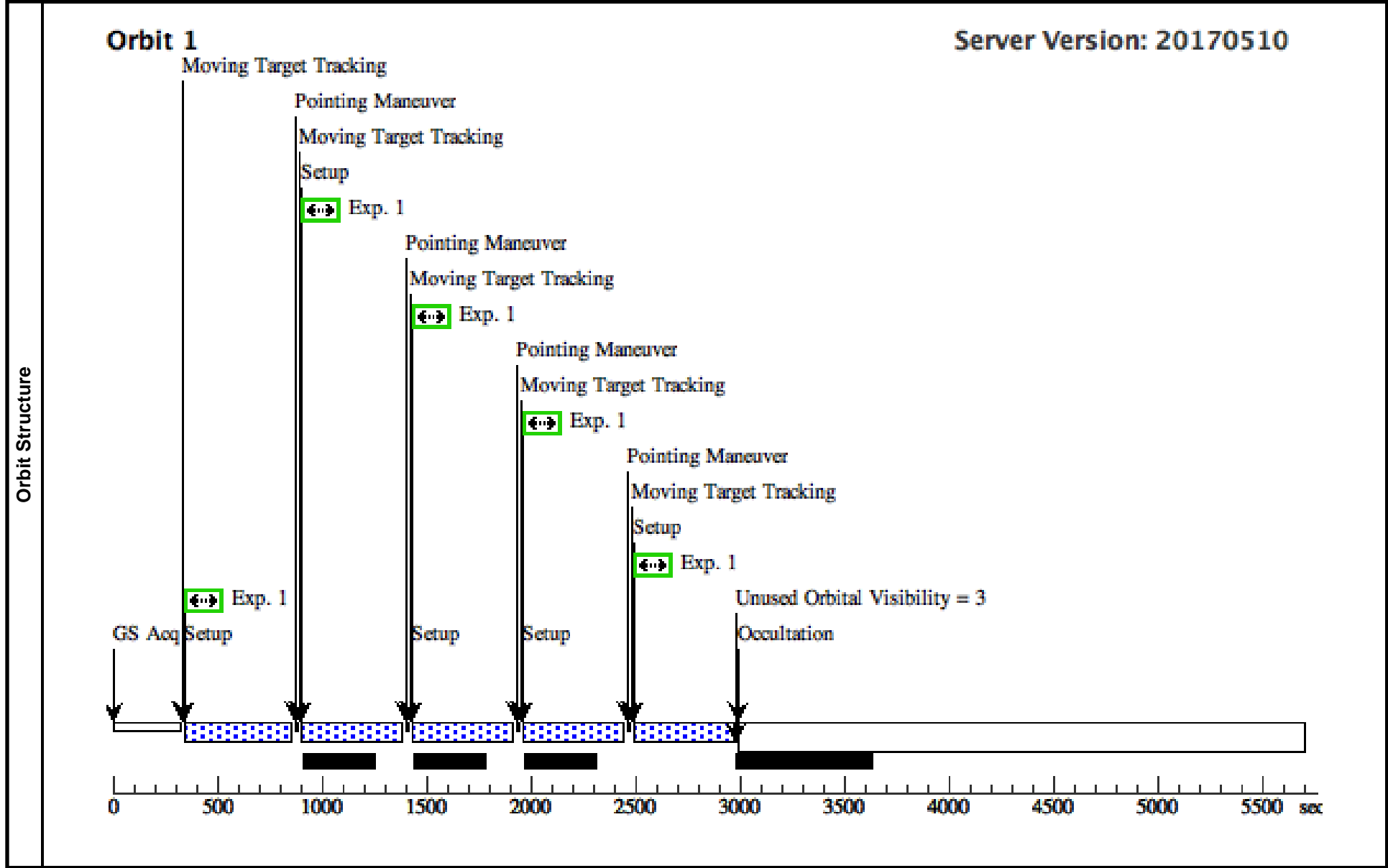
Visit	Proposal 14627, Visit 08, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true		(1)				
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 08 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 08 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 09 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:20 GMT 2017

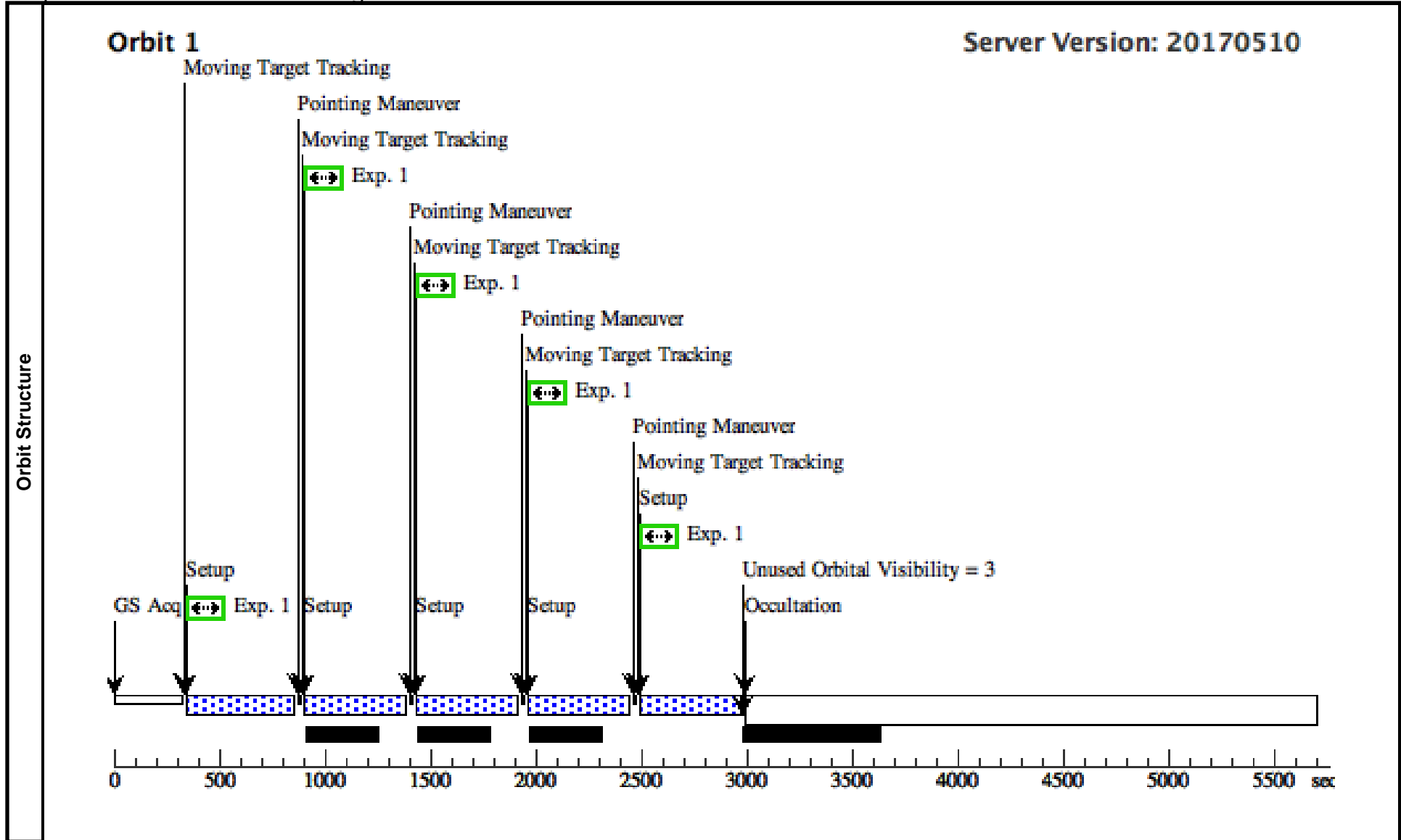
Visit	Proposal 14627, Visit 09, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern		Secondary Pattern		Exposures			
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true			(1)			
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 09 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 09 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 10 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:20 GMT 2017

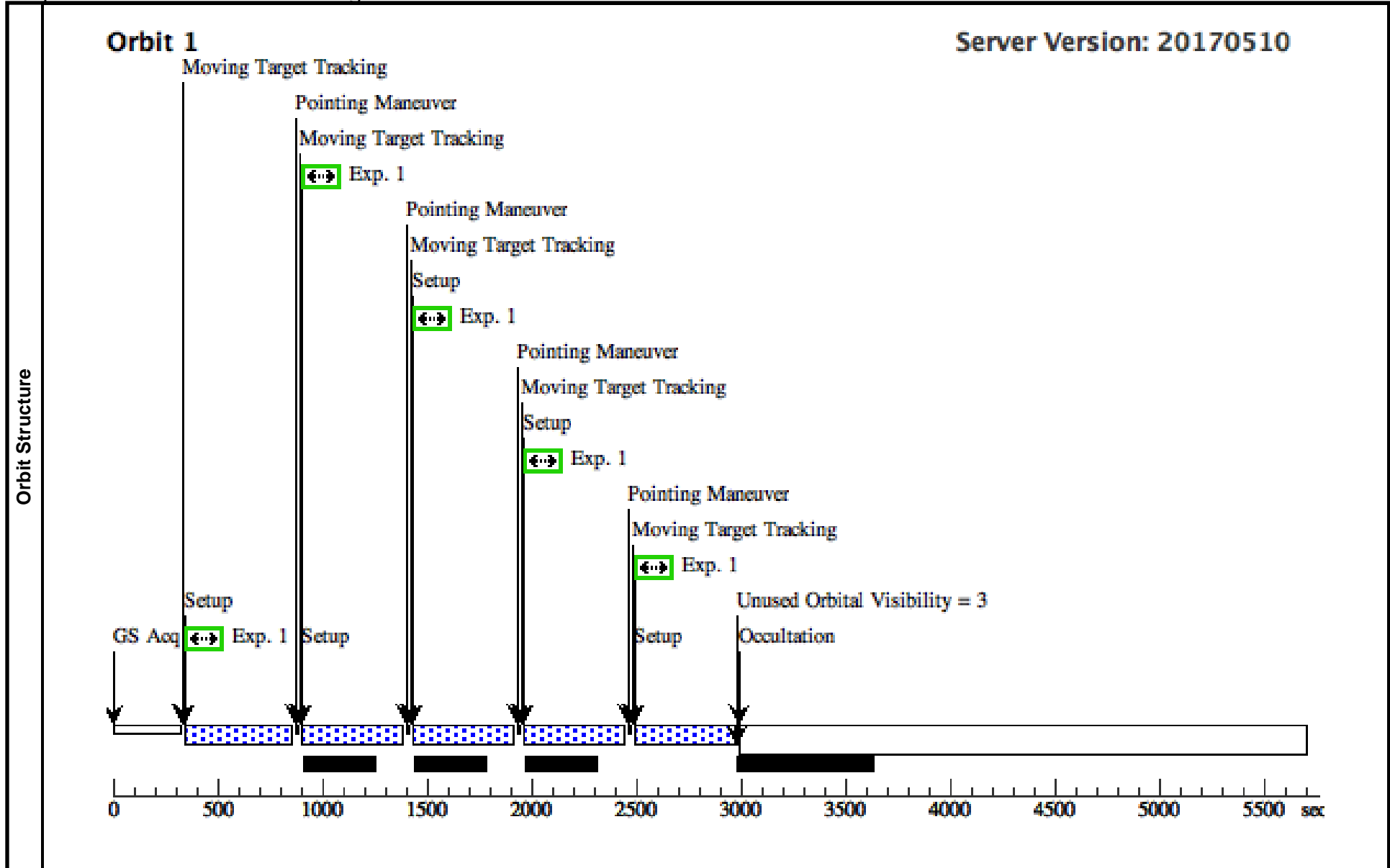
Visit	Proposal 14627, Visit 10, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true		(1)				
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 10 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 10 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 11 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:20 GMT 2017

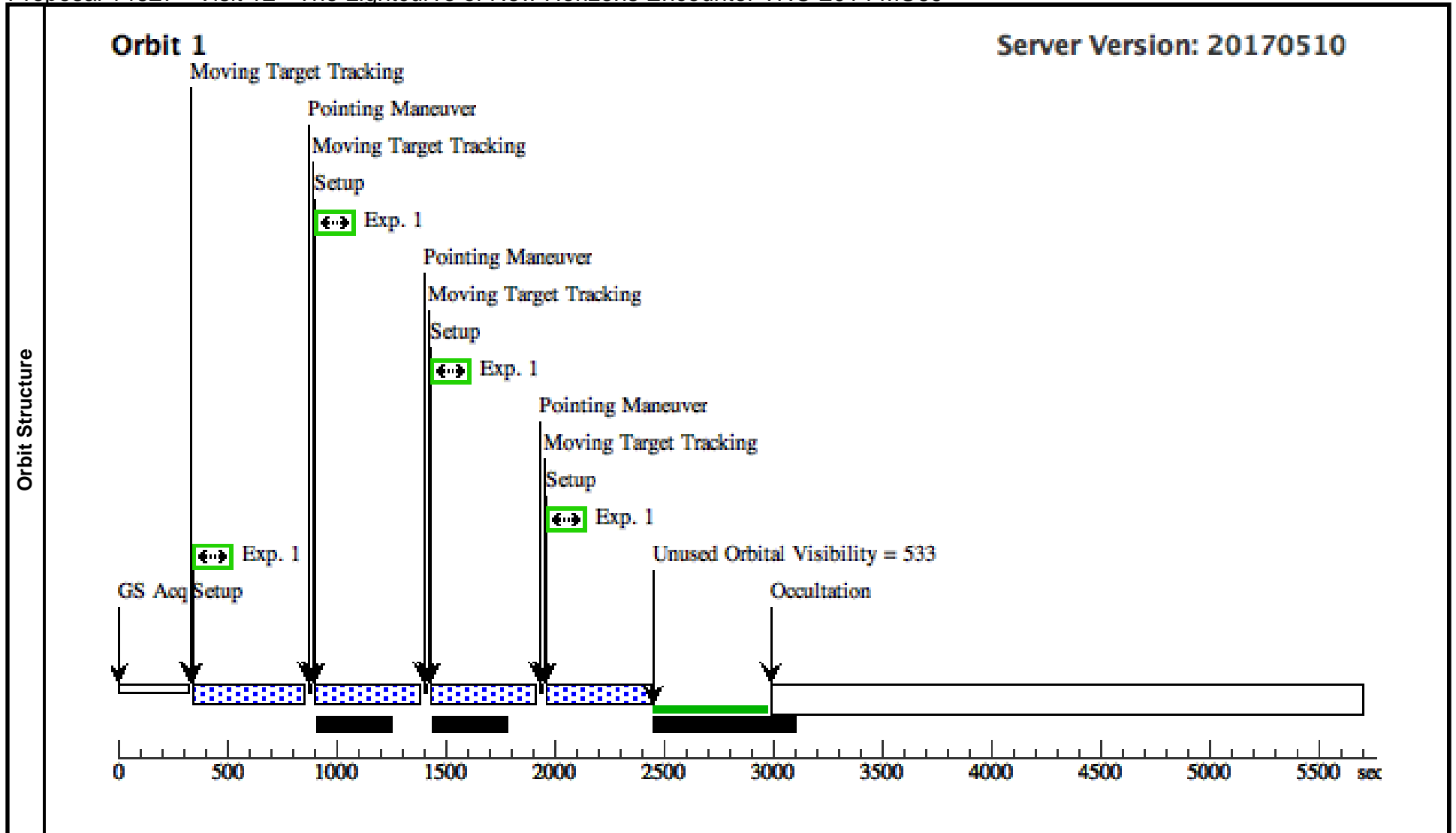
Visit	Proposal 14627, Visit 11, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true		(1)				
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 11 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 11 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 12 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:20 GMT 2017

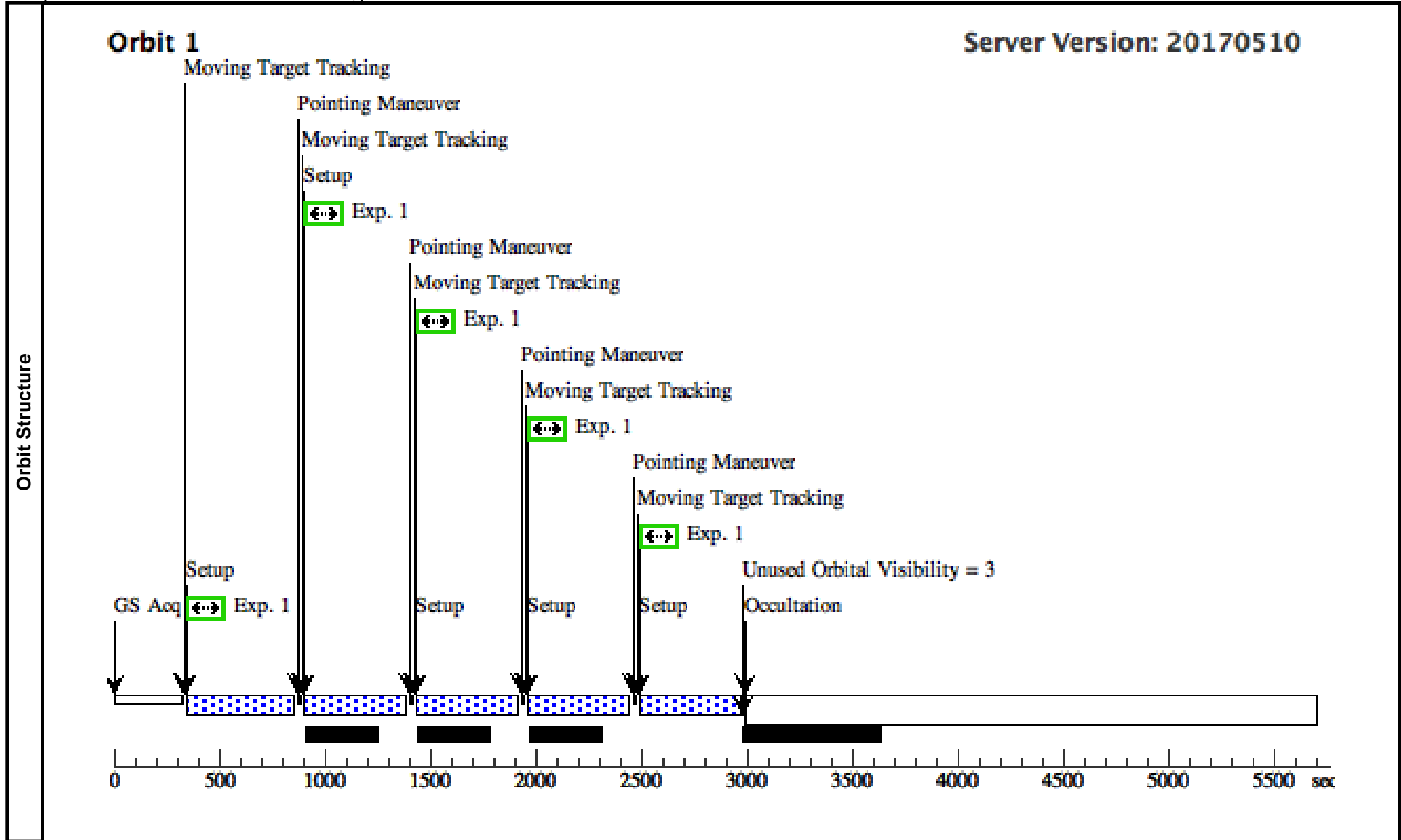
Visit	Proposal 14627, Visit 12, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern		Secondary Pattern		Exposures			
	(2)	Pattern Type=LINE Purpose=OTHER Number Of Points=4 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true			(1)				
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP				Sequence 1-1 Non-Int in Visit 12 Pattern 2, Exps 1-1 in Sequence 1-1 Non-Int in Visit 12 (2)	367.0 Secs (1468 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 14627 - Visit 13 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:20 GMT 2017

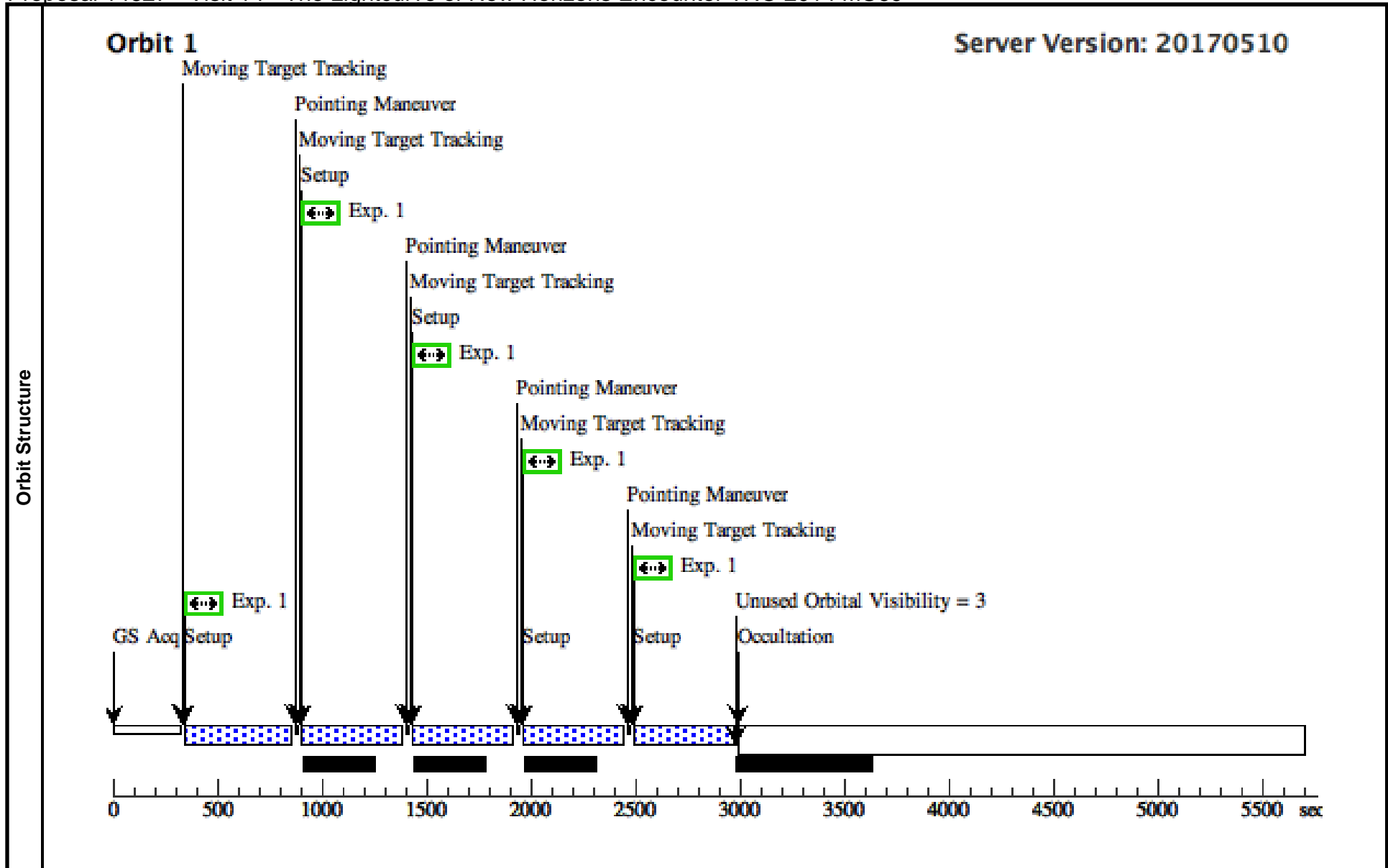
Visit	Proposal 14627, Visit 13, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%; BETWEEN 28-JUN-2017:04:50:00 AND 28-JUN-2017:05:50:00; SEQ 13,14,15,16,17,18 WITHIN 7.1 Orbits <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true		(1)				
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 13 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 13 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 14 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:20 GMT 2017

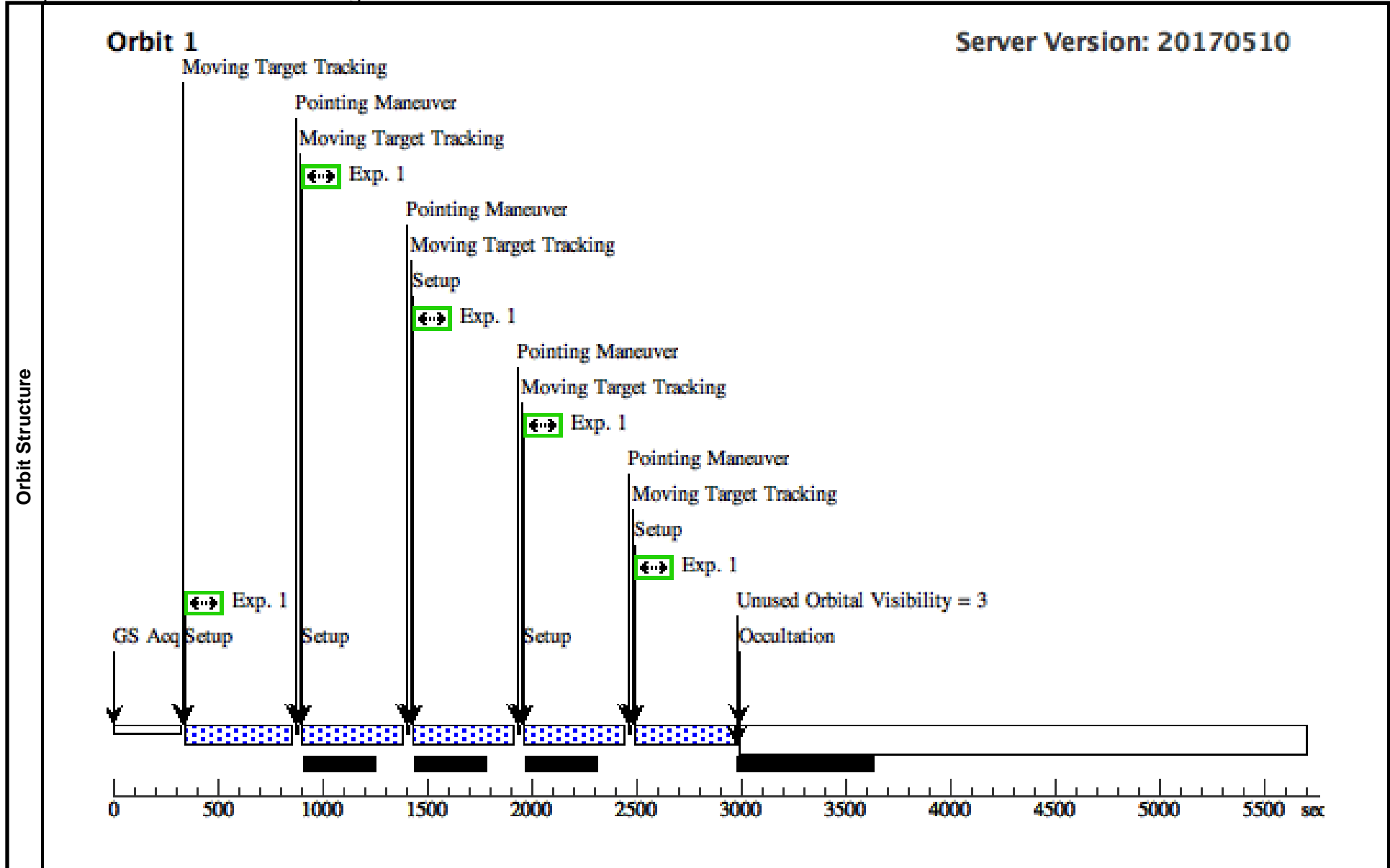
Visit	Proposal 14627, Visit 14, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true		(1)				
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 14 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 14 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 15 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:20 GMT 2017

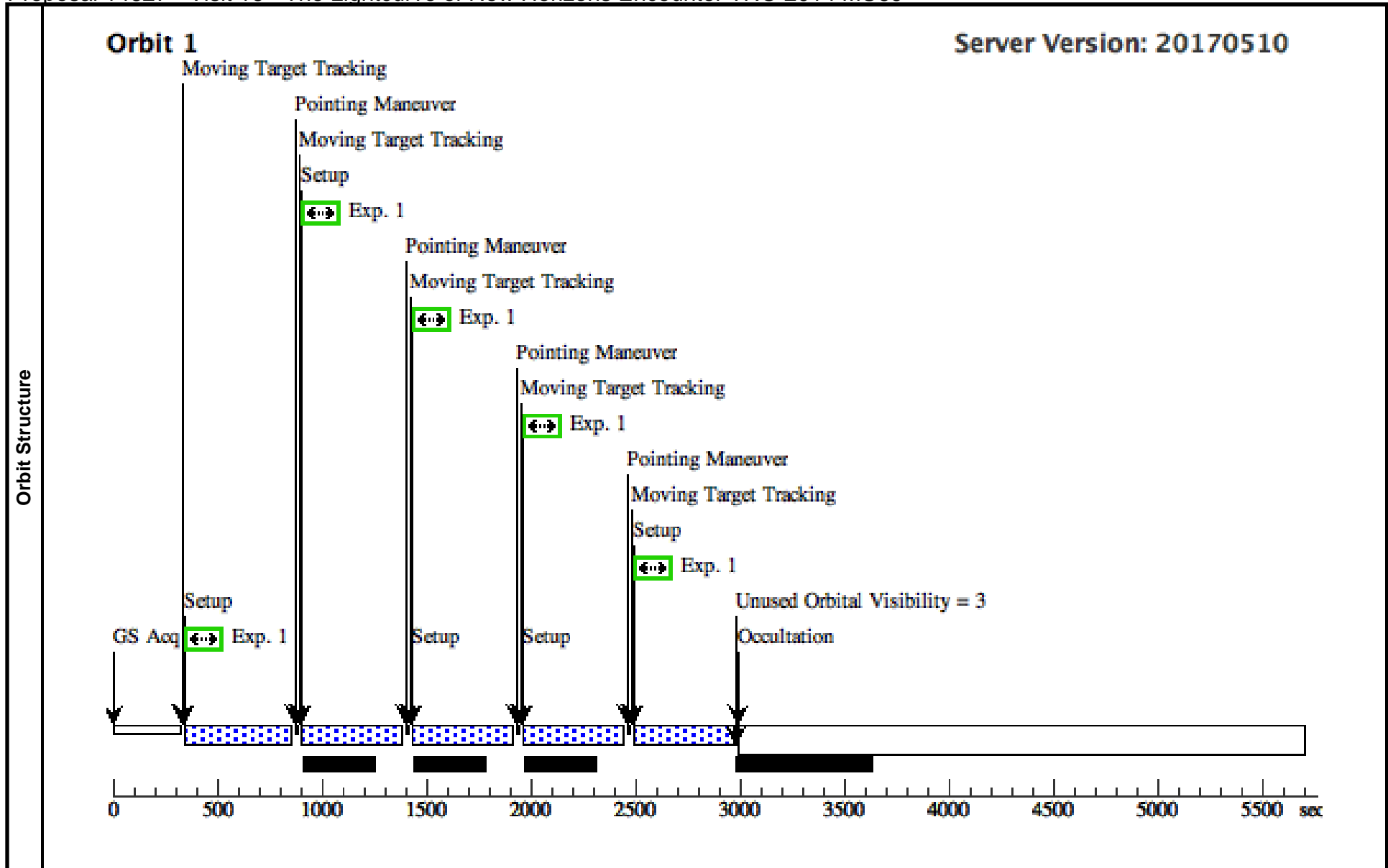
Visit	Proposal 14627, Visit 15, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true		(1)				
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 15 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 15 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 16 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:20 GMT 2017

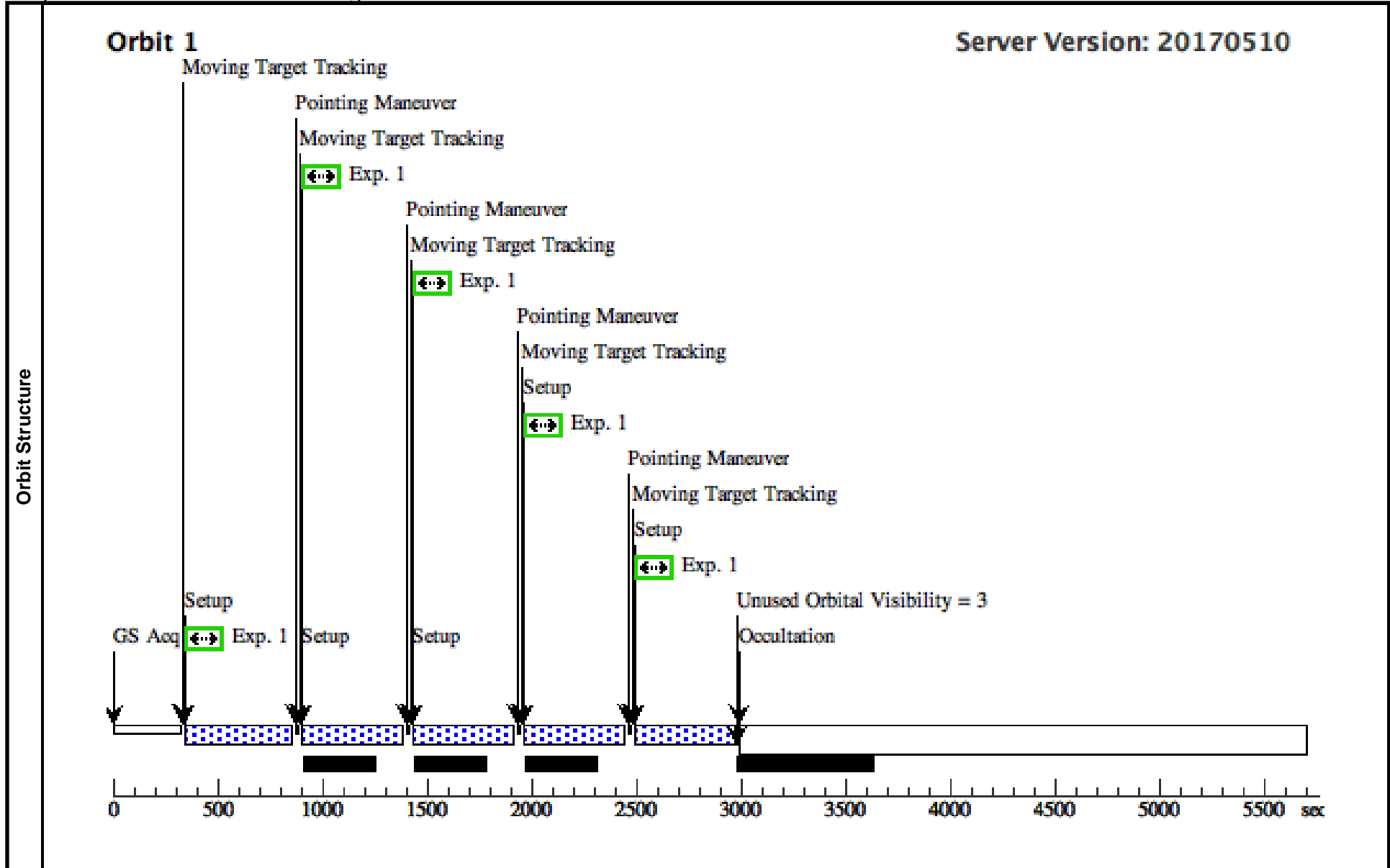
Visit	Proposal 14627, Visit 16, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern		Secondary Pattern		Exposures			
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true			(1)			
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 16 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 16 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 17 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:20 GMT 2017

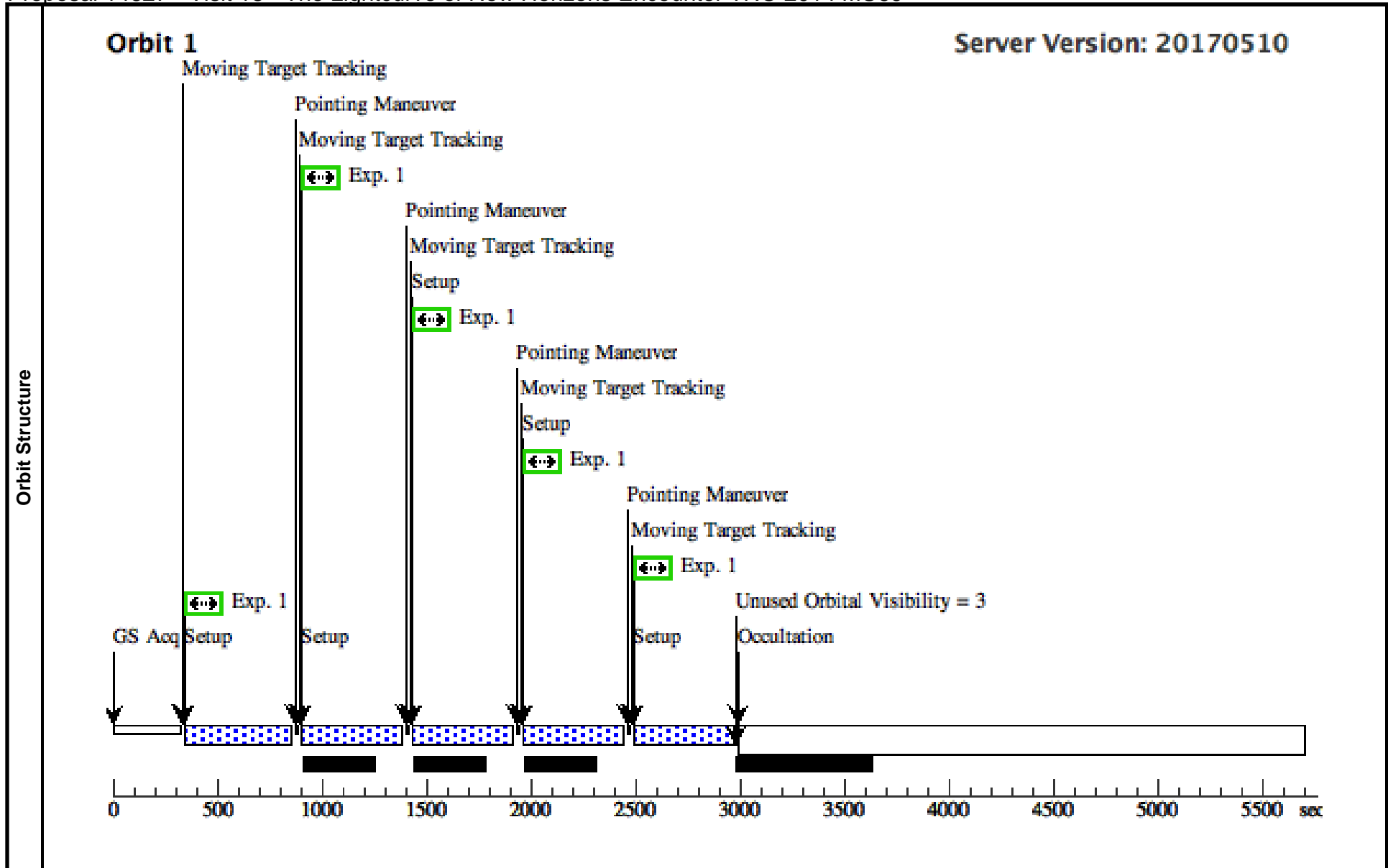
Visit	Proposal 14627, Visit 17, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true		(1)				
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 17 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 17 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 18 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:20 GMT 2017

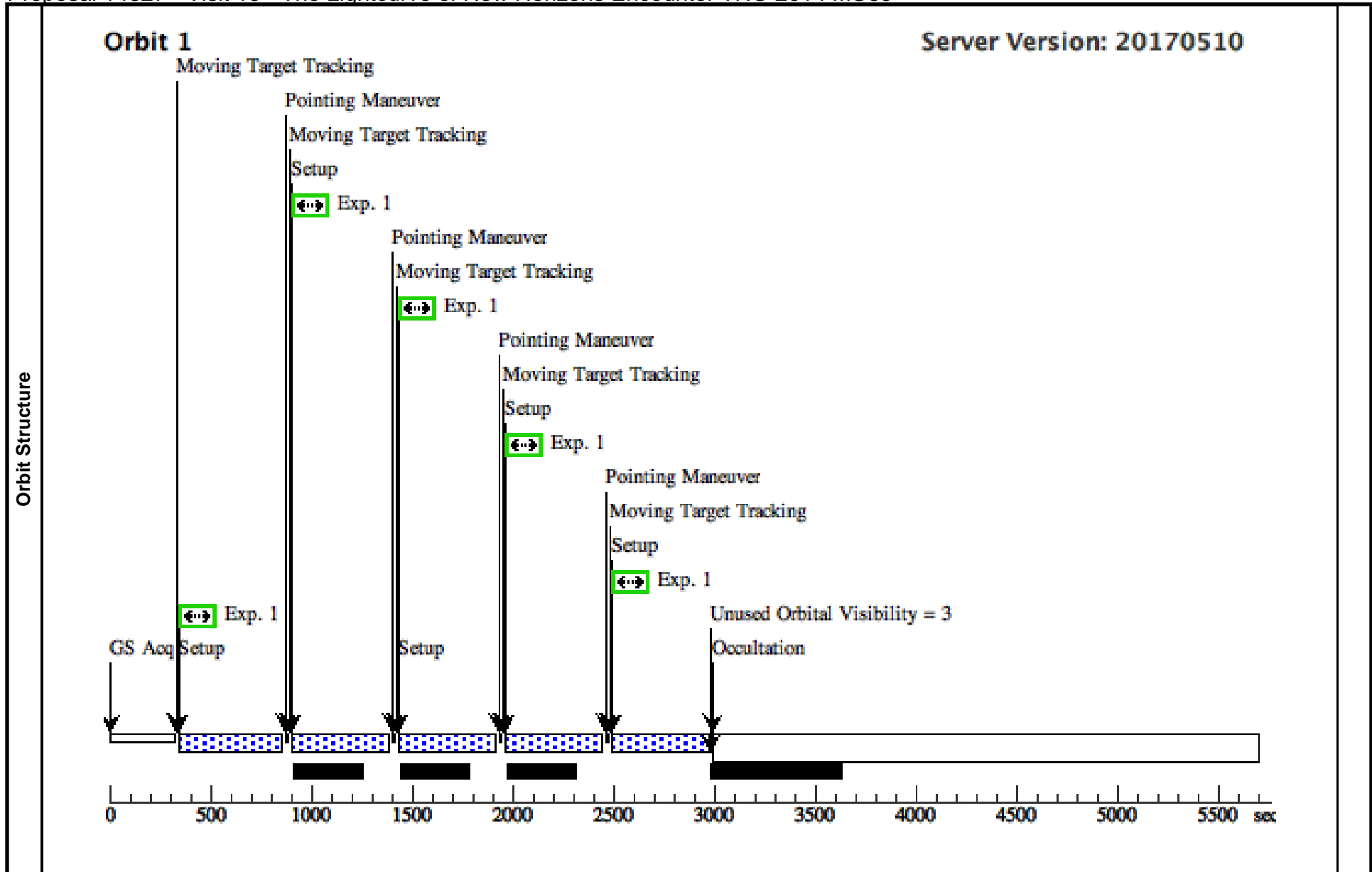
Visit	Proposal 14627, Visit 18, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern		Secondary Pattern		Exposures			
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true			(1)			
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 18 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 18 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 19 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:20 GMT 2017

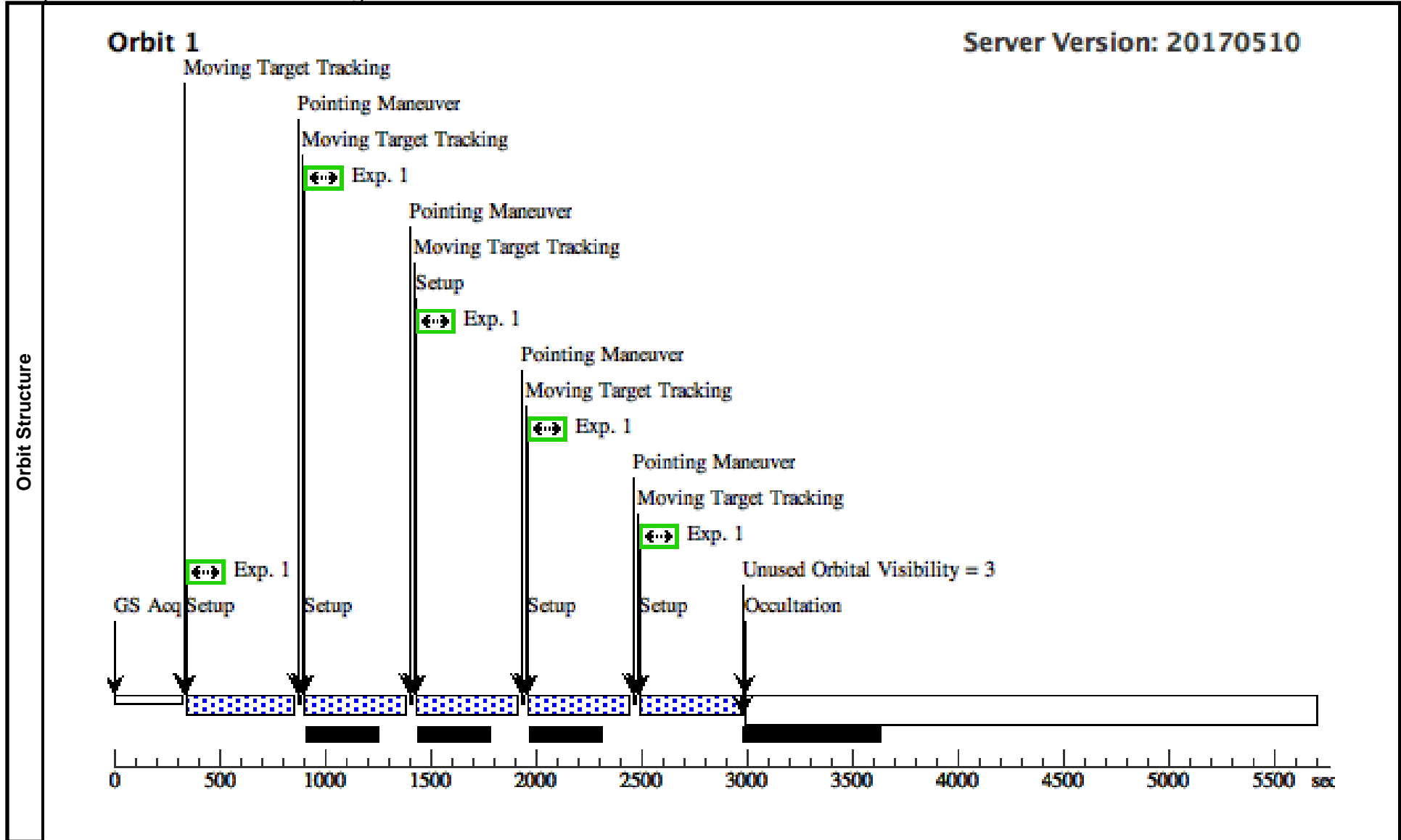
Visit	Proposal 14627, Visit 19, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%; BETWEEN 04-JUL-2017:03:45:00 AND 04-JUL-2017:05:00:00; SEQ 19,20,21,22,23,24 WITHIN 7.1 Orbits <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true		(1)				
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 19 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 19 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 20 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:20 GMT 2017

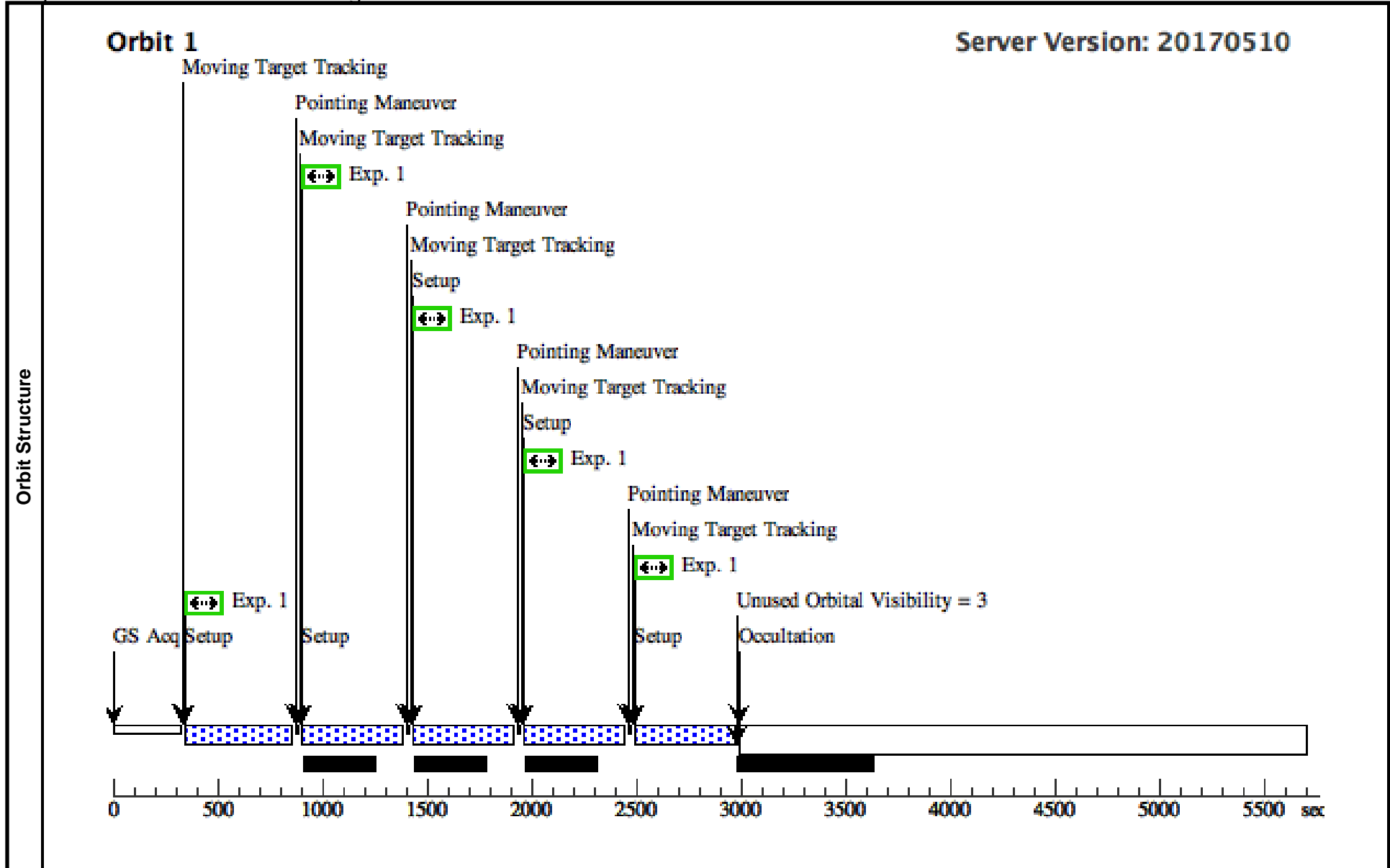
Visit	Proposal 14627, Visit 20, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true		(1)				
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 20 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 20 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 21 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:20 GMT 2017

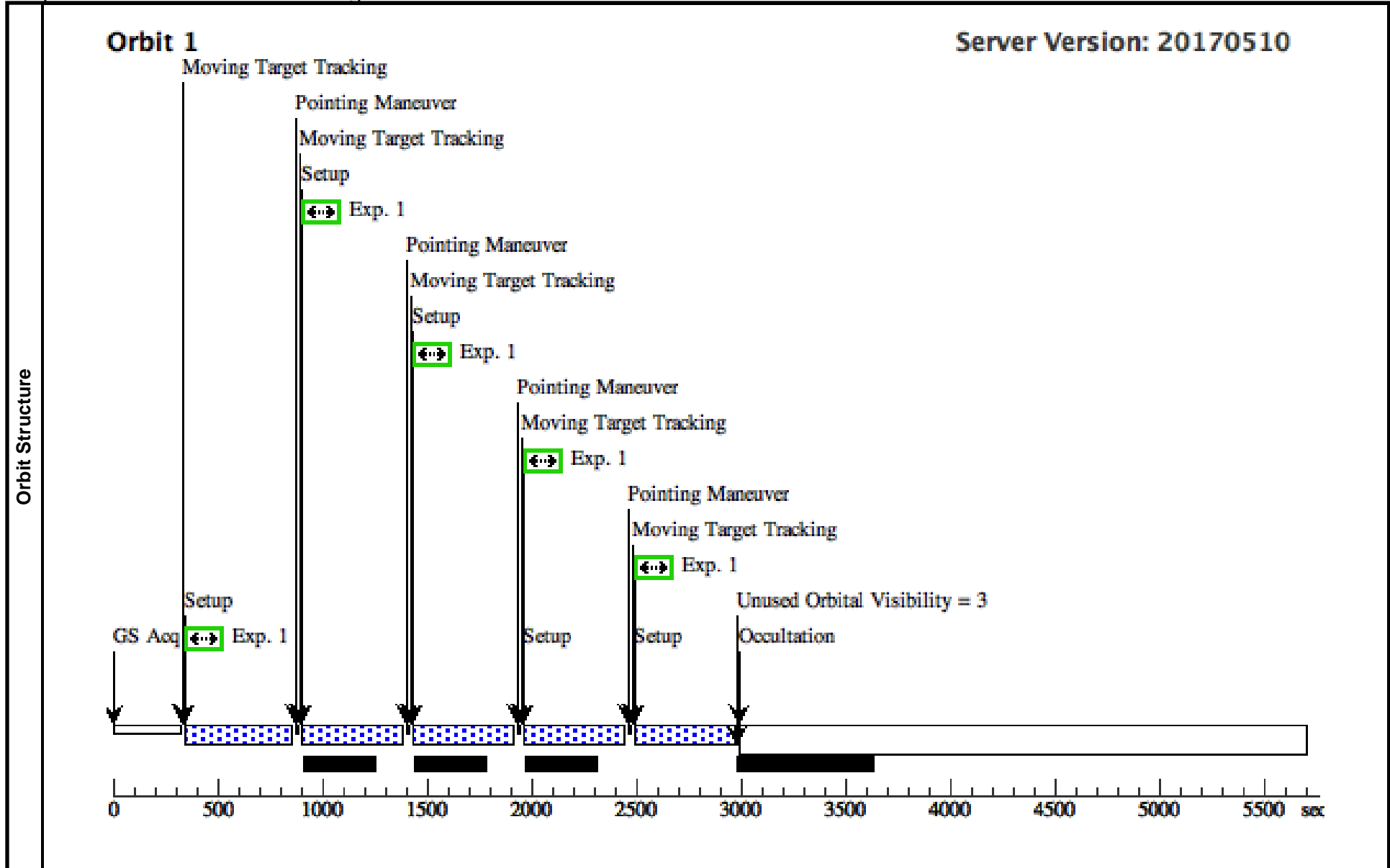
Visit	Proposal 14627, Visit 21, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true		(1)				
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 21 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 21 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 22 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:20 GMT 2017

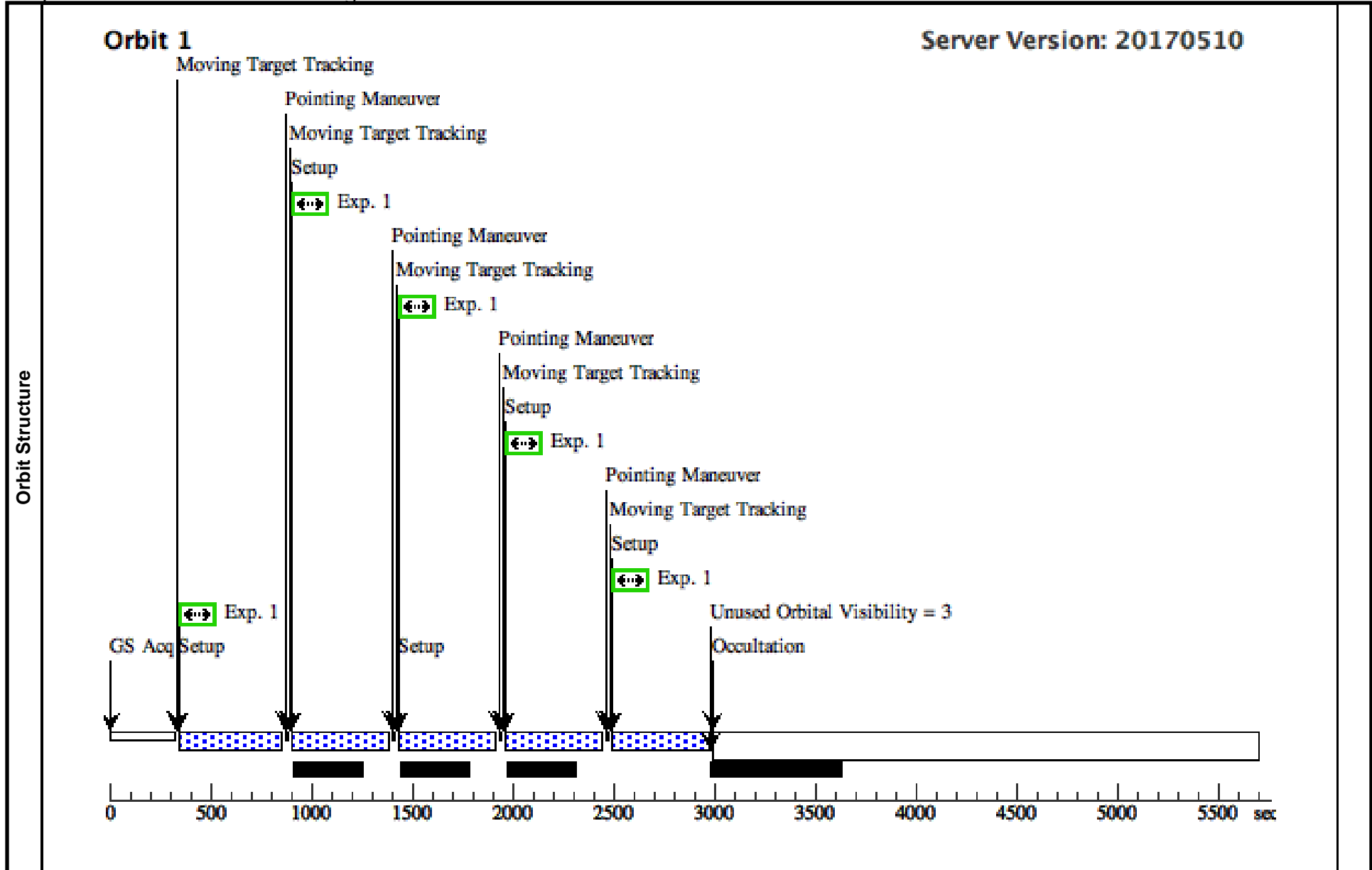
Visit	Proposal 14627, Visit 22, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern		Secondary Pattern		Exposures			
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true			(1)			
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 22 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 22 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 23 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:20 GMT 2017

Visit	Proposal 14627, Visit 23, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true		(1)				
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 23 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 23 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]



Proposal 14627 - Visit 24 - The Lightcurve of New Horizons Encounter TNO 2014 MU69

Tue Jun 20 01:02:20 GMT 2017

Visit	Proposal 14627, Visit 24, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100% <i>Comments: We need to check the background field once scheduling windows for HST are chosen to ensure that there are no background stars which would compromise the observation.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=LINE Purpose=OTHER Number Of Points=5 Point Spacing=.030 Line Spacing=	Coordinate Frame=CELESTIAL Pattern Orientation=0 Angle Between Sides= Center Pattern=true		(1)				
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	2014MU69	TYPE=ASTEROID,A=44.3930219845 12,E=0.037829258490,I=2.453204044 172,O=158.933218291765,W=177.301 435896413,M=311.343123199475,EQ UINOX=J2000,EPOCH=01-JUL- 2017:00:00:00,EpochTimeScale=UTC				EARTH			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) 2014MU69	WFC3/UVIS, ACCUM, UVIS2	F350LP			Sequence 1-1 Non-Int in Visit 24 Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in Visit 24 (1)	367.0 Secs (1835 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] [=>(Pattern 5)]	[1]

