16192 - Re-activation of binary main-belt comet 288P

Cycle: 28, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

Name	*Institution*	*E-Mail*
Dr. Jessica Agarwal (PI) (ESA Member) (Contact)	**Technische Universitaet Braunschweig**	**agarwal@mps.mpg.de**
Dr. Yoonyoung Kim (CoI) (ESA Member)	Technische Universitaet Braunschweig	yoonyoung.kim@tu-braunschweig.de
Dr. David Jewitt (CoI) (AdminUSPI)	University of California - Los Angeles	jewitt@ucla.edu
Max Mutchler (CoI) (Contact)	Space Telescope Science Institute	mutchler@stsci.edu
Dr. Harold A. Weaver (CoI)	The Johns Hopkins University Applied Physics Laboratory	hal.weaver@jhuapl.edu
Dr. Stephen M. Larson (CoI)	University of Arizona	slarson@lpl.arizona.edu

VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) 288P	WFC3/UVIS	1	05-Nov-2021 10:00:14.0	yes
02	(2) 288P2	WFC3/UVIS	1	05-Nov-2021 10:00:15.0	yes
52	(3) 288P3	WFC3/UVIS	1	05-Nov-2021 10:00:16.0	yes
03	(2) 288P2	WFC3/UVIS	1	05-Nov-2021 10:00:16.0	yes
04	(2) 288P2	WFC3/UVIS	1	05-Nov-2021 10:00:17.0	yes

5 Total Orbits Used

ABSTRACT

We propose to closely follow the expected re-activation of the unusual binary main-belt comet 288P (300163) in the fall of 2021, to identify the active component(s). This is a crucial parameter to understand the formation and evolution of this system which is unique among the known binary asteroids both because of its comet-like activity and because of its wide, eccentric and asynchronous mutual orbit in combination with similarly sized components. We request a total of 8 orbits. Seven orbits, distributed across one month, will serve to measure the brightness increase due to dust as the system re-approaches perihelion in 2021. In addition, we request 1 orbit in 2021 June to probe for a potential orbit instability. It is currently unclear why no other systems with similar orbital properties as 288P are known. There is a strong detection bias against such systems, and the binary nature of 288P was only identified because of its activity. One the other hand, if activity is needed to form such systems, they may indeed be rare. Our proposed observations will shed light on the frequency of similar systems and on the processes behind binary asteroid formation and evolution. Since the re-activation is expected for the 2021 September-October time frame, we request 4 orbits in Cycle 28 and 4 orbits in Cycle 29.

OBSERVING DESCRIPTION

The purpose of the proposed observations is to monitor the re-activitation of the binary main-belt comet 288P that is expected to take place in September/October 2021. We will use 1 orbit of WFC3 imaging in 2021 June to establish the orbital state of the system and verify its predicted binary orbit and rotation state. This will be followed by 3 orbits of WFC3 imaging in 2021 September, and 4 additional orbits in October, that have been allocated for Cycle 29. The current phase 2 proposal covers only the 4 orbits in Cycle 28. The three September visits should be carried out on Sep-20, 25, and 30, with +/- 1 day flexibility. This timing is crucial to

-) catch the expected time interval of re-activation (2021 mid-September to mid-October)

-) follow the growth of the dust coma, which is expected to take place on timescales of several days

-) catch the system at maximum separation (2021 September)

The orbital visibility for a solar system target near the ecliptic plane is 54 min (Section 6.3 of the HST Primer document). In each orbit, we will take 8 exposures of 280s using the C512C subarray of WFC3 and perform a 2-point dither pattern to mitigate hot pixels and cosmic ray hits, obtaining 4 exposures at each dither point. This provides a total exposure time of 2240 s = 37 min. The ephemeris is known with uncertainty <1arcsec, such that there is no risk of missing the target even using the C512C sub-array.

We will use the wide bandpass filter F606W for an optimum trade-off between sensitivity and highest resolution, and maximum compatibility with data from earlier epochs. We expect a target brightness of V=22-23 mag, depending on time.

Should the program have to be carried out in 1gyro mode we can shorten the exposure time to adapt to the increased time for guide star acquisition. The target will be at solar elongations >100deg, hence the enlarged solar exclusion zone will not pose a problem.

Visit

Proposal 16192, V1 (01), completed Fri Nov 05 14:00:17 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: WFC3/UVIS

Special Requirements: BETWEEN 07-JUN-2021:00:00:00 AND 07-JUN-2021:02:10:00; BETWEEN 07-JUN-2021:03:40:00 AND 07-JUN-2021:13:10:00; BETWEEN 07-JUN-2021:15:00:00 AND 11-JUN-2021:23:30:00; BETWEEN 12-JUN-2021:01:20:00 AND 13-JUN-2021:12:30:00; BETWEEN 13-JUN-2021:15:30:00 AND 14-JUN-2021:06:00; BETWEEN 14-JUN-2021:08:50:00 AND 14-JUN-2021:22:10:00; BETWEEN 15-JUN-2021:01:40:00 AND 16-JUN-2021:20:30:00; BETWEEN 17-JUN-2021:00:10:00 AND 17-JUN-2021:11:10:00; BETWEEN 17-JUN-2021:13:10:00 AND 17-JUN-2021:23:20:00; BETWEEN 18-JUN-2021:00:50:00 AND 19-JUN-2021:02:00:00; BETWEEN 19-JUN-2021:03:30:00 AND 19-JUN-2021:10:00:00; BETWEEN 19-JUN-2021:12:00:00 AND 20-JUN-2021:04:00:00; BETWEEN 20-JUN-2021:05:30:00 AND 20-JUN-2021:12:10:00; BETWEEN 20-JUN-2021:14:10:00 AND 20-JUN-2021:22:50:00

Comments: BETWEENs are used to avoid times when 288P should not be observed due to the proximity of bright background stars.

Diagnostics

(V1 (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Exposure 1 (Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in V1 (01))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)

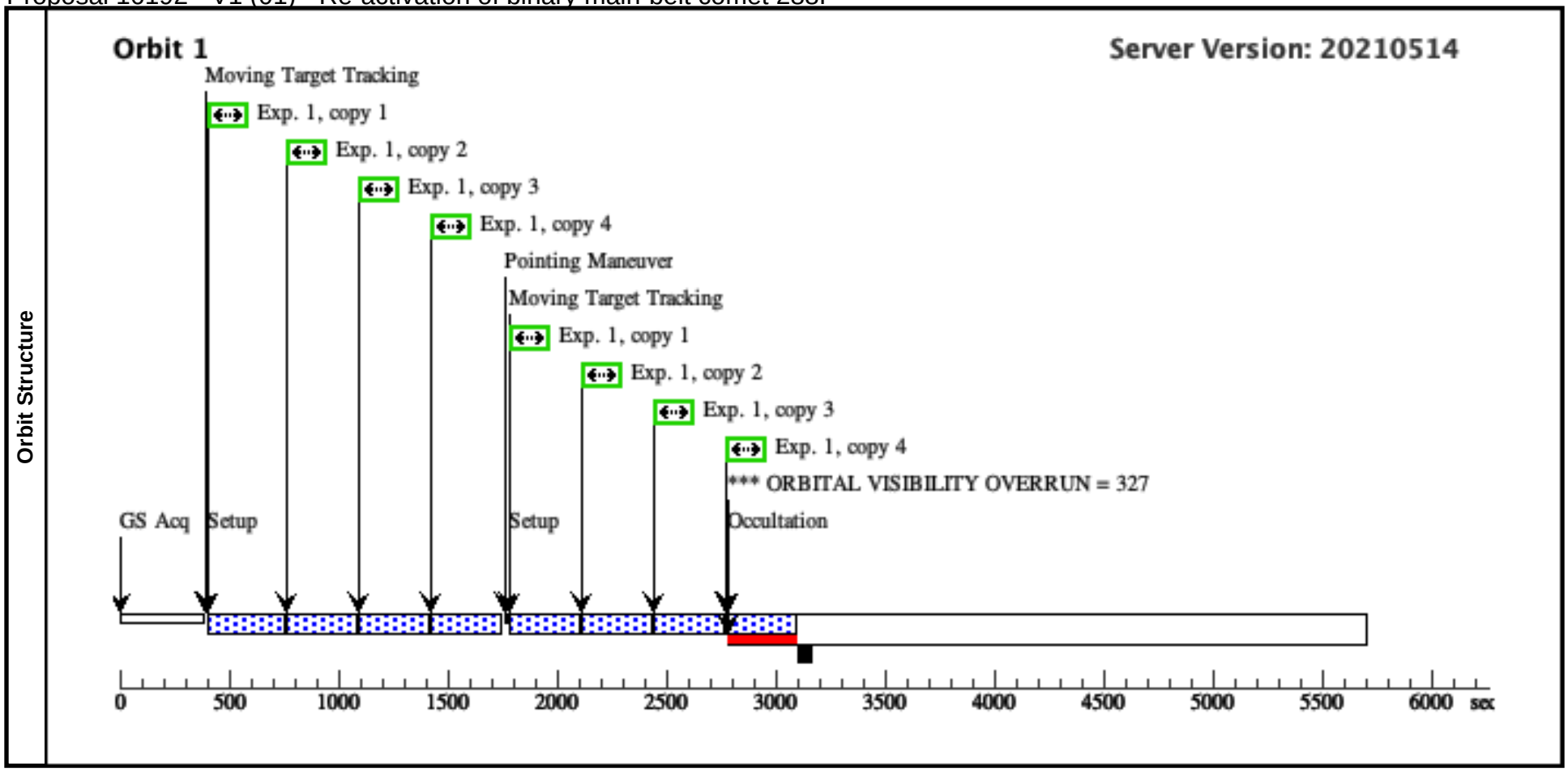
Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(1)	288P	TYPE=ASTEROID,A=3.04839345346 7953,E=0.2010255843911559,I=3.240 298141902801 ,O=83.19481820313729,W=281.12892 29646505,M=287.3130186959124,EQ UINOX=J2000,EPOCH=13-OCT-2015:00:00:00,EpochTimeScale=TDB				EARTH

Comments: Description=binary main-belt comet
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) 288P	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F606W			Sequence 1-1 Non-Int in V1 (01)	280 Secs X 4 (2240 Secs)	
							Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in V1 (01) (1)	*[==>(Pattern 1, Copy 1)]* *[==>(Pattern 1, Copy 2)]* *[==>(Pattern 1, Copy 3)]* *[==>(Pattern 1, Copy 4)]* *[==>(Pattern 2, Copy 1)]* *[==>(Pattern 2, Copy 2)]* *[==>(Pattern 2, Copy 3)]* *[==>(Pattern 2, Copy 4)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20210514
Moving Target Tracking
Exp. 1, copy 1
Exp. 1, copy 2
Exp. 1, copy 3
Exp. 1, copy 4
Pointing Maneuver
Moving Target Tracking
Exp. 1, copy 1
Exp. 1, copy 2
Exp. 1, copy 3
Exp. 1, copy 4
*** ORBITAL VISIBILITY OVERRUN = 327
GS Acq
Setup
Setup
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16192, V2 (02), failed Fri Nov 05 14:00:18 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: WFC3/UVIS

Special Requirements: BETWEEN 18-SEP-2021:15:00:00 AND 20-SEP-2021:12:40:00; BETWEEN 20-SEP-2021:14:40:00 AND 21-SEP-2021:00:00:00

Diagnostics

(Exposure 1 (Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in V2 (02))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)

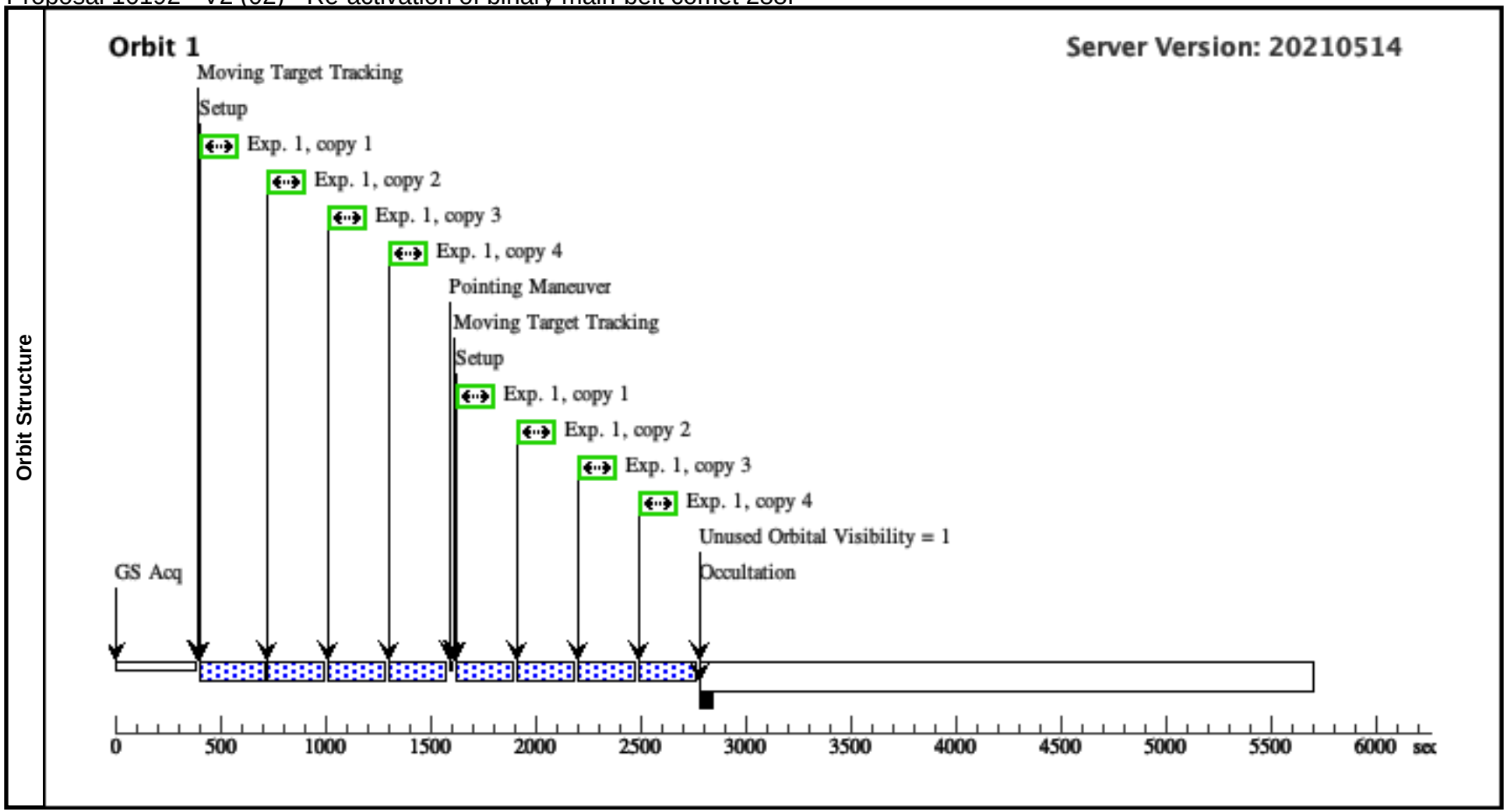
Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(2)	288P2	TYPE=ASTEROID,A=3.04906887163 0956,E=0.2010668788752906,I=3.240 047909880679 ,O=83.19202143297311,W=281.07192 11810388,M=333.0984342006854,EQ UINOX=J2000,EPOCH=16-JUN- 2016:00:00:00,EpochTimeScale=TDB				EARTH

Comments: Description=Active Asteroid
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) 288P2	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F606W			Sequence 1-1 Non-In t in V2 (02) Pattern 1, Exps 1-1 i n Sequence 1-1 Non- Int in V2 (02) (1)	239 Secs X 4 (1912 Secs) *[==>(Pattern 1, Copy 1)]* *[==>(Pattern 1, Copy 2)]* *[==>(Pattern 1, Copy 3)]* *[==>(Pattern 1, Copy 4)]* *[==>(Pattern 2, Copy 1)]* *[==>(Pattern 2, Copy 2)]* *[==>(Pattern 2, Copy 3)]* *[==>(Pattern 2, Copy 4)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20210514
Moving Target Tracking
Setup
Exp. 1, copy 1
Exp. 1, copy 2
Exp. 1, copy 3
Exp. 1, copy 4
Pointing Maneuver
Moving Target Tracking
Setup
Exp. 1, copy 1
Exp. 1, copy 2
Exp. 1, copy 3
Exp. 1, copy 4
Unused Orbital Visibility = 1
Occultation
GS Acq
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16192, V2_repeat (52), implementation Fri Nov 05 14:00:18 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: WFC3/UVIS

Special Requirements: BETWEEN 01-NOV-2021:04:40:00 AND 01-NOV-2021:15:00:00; BETWEEN 01-NOV-2021:16:30:00 AND 02-NOV-2021:06:10:00; BETWEEN 02-NOV-2021:07:10:00 AND 03-NOV-2021:11:30:00; BETWEEN 03-NOV-2021:12:30:00 AND 04-NOV-2021:04:00:00; BETWEEN 04-NOV-2021:05:10:00 AND 04-NOV-2021:09:40:00; BETWEEN 04-NOV-2021:10:50:00 AND 05-NOV-2021:06:10:00; BETWEEN 05-NOV-2021:07:20:00 AND 05-NOV-2021:14:10:00; BETWEEN 05-NOV-2021:15:20:00 AND 07-NOV-2021:04:20:00; BETWEEN 07-NOV-2021:05:40:00 AND 08-NOV-2021:23:20:00; BETWEEN 09-NOV-2021:00:20:00 AND 10-NOV-2021:20:50:00; BETWEEN 10-NOV-2021:22:00:00 AND 12-NOV-2021:00:00:00; BETWEEN 12-NOV-2021:01:10:00 AND 13-NOV-2021:01:20:00; BETWEEN 13-NOV-2021:02:40:00 AND 14-NOV-2021:04:10:00; BETWEEN 14-NOV-2021:05:20:00 AND 14-NOV-2021:09:10:00; BETWEEN 14-NOV-2021:10:10:00 AND 14-NOV-2021:20:00:00; BETWEEN 14-NOV-2021:21:10:00 AND 15-NOV-2021:13:50:00; BETWEEN 15-NOV-2021:14:50:00 AND 15-NOV-2021:16:00:00; BETWEEN 15-NOV-2021:17:00:00 AND 17-NOV-2021:05:40:00; BETWEEN 17-NOV-2021:06:50:00 AND 17-NOV-2021:14:10:00; BETWEEN 17-NOV-2021:15:20:00 AND 17-NOV-2021:16:50:00; BETWEEN 17-NOV-2021:18:00:00 AND 17-NOV-2021:19:40:00; BETWEEN 17-NOV-2021:20:40:00 AND 17-NOV-2021:23:20:00; BETWEEN 18-NOV-2021:00:30:00 AND 18-NOV-2021:10:50:00; BETWEEN 18-NOV-2021:12:00:00 AND 18-NOV-2021:14:50:00; BETWEEN 18-NOV-2021:15:50:00 AND 18-NOV-2021:20:20:00; BETWEEN 18-NOV-2021:21:30:00 AND 19-NOV-2021:15:30:00; BETWEEN 19-NOV-2021:16:30:00 AND 19-NOV-2021:16:50:00; BETWEEN 19-NOV-2021:18:00:00 AND 19-NOV-2021:18:50:00; BETWEEN 19-NOV-2021:20:00:00 AND 19-NOV-2021:21:00:00; BETWEEN 19-NOV-2021:22:10:00 AND 20-NOV-2021:12:40:00; BETWEEN 20-NOV-2021:13:50:00 AND 21-NOV-2021:02:30:00; BETWEEN 21-NOV-2021:03:30:00 AND 21-NOV-2021:04:20:00; BETWEEN 21-NOV-2021:05:20:00 AND 22-NOV-2021:03:00:00; BETWEEN 28-NOV-2021:00:30:00 AND 28-NOV-2021:03:10:00; BETWEEN 28-NOV-2021:04:10:00 AND 29-NOV-2021:09:10:00; BETWEEN 29-NOV-2021:10:10:00 AND 30-NOV-2021:21:00:00; BETWEEN 30-NOV-2021:22:00:00 AND 01-DEC-2021:04:20:00; BETWEEN 01-DEC-2021:05:30:00 AND 01-DEC-2021:23:30:00; BETWEEN 02-DEC-2021:00:30:00 AND 03-DEC-2021:07:50:00; BETWEEN 03-DEC-2021:09:00:00 AND 04-DEC-2021:20:00:00; BETWEEN 04-DEC-2021:21:10:00 AND 05-DEC-2021:04:40:00; BETWEEN 05-DEC-2021:05:40:00 AND 05-DEC-2021:06:20:00; BETWEEN 05-DEC-2021:07:30:00 AND 05-DEC-2021:15:00:00; BETWEEN 05-DEC-2021:16:30:00 AND 05-DEC-2021:21:30:00; BETWEEN 05-DEC-2021:22:40:00 AND 06-DEC-2021:18:40:00; BETWEEN 06-DEC-2021:19:40:00 AND 07-DEC-2021:00:50:00; BETWEEN 07-DEC-2021:02:00:00 AND 07-DEC-2021:10:00:00; BETWEEN 07-DEC-2021:11:10:00 AND 07-DEC-2021:19:20:00; BETWEEN 07-DEC-2021:20:50:00 AND 08-DEC-2021:04:20:00; BETWEEN 08-DEC-2021:05:30:00 AND 10-DEC-2021:11:00:00; BETWEEN 10-DEC-2021:12:00:00 AND 11-DEC-2021:01:10:00; BETWEEN 11-DEC-2021:02:20:00 AND 11-DEC-2021:04:40:00; BETWEEN 11-DEC-2021:05:50:00 AND 11-DEC-2021:15:20:00; BETWEEN 11-DEC-2021:16:30:00 AND 13-DEC-2021:05:30:00; BETWEEN 13-DEC-2021:06:40:00 AND 14-DEC-2021:19:40:00; BETWEEN 14-DEC-2021:20:40:00 AND 15-DEC-2021:00:20:00; BETWEEN 15-DEC-2021:02:00:00 AND 15-DEC-2021:13:00:00; BETWEEN 15-DEC-2021:15:00:00 AND 16-DEC-2021:11:30:00; BETWEEN 16-DEC-2021:12:40:00 AND 17-DEC-2021:12:20:00; BETWEEN 17-DEC-2021:14:00:00 AND 17-DEC-2021:20:30:00; BETWEEN 17-DEC-2021:21:40:00 AND 18-DEC-2021:03:30:00; BETWEEN 18-DEC-2021:04:40:00 AND 18-DEC-2021:06:30:00; BETWEEN 18-DEC-2021:07:40:00 AND 18-DEC-2021:20:10:00; BETWEEN 18-DEC-2021:21:20:00 AND 18-DEC-2021:23:40:00; BETWEEN 19-DEC-2021:00:50:00 AND 19-DEC-2021:09:30:00; BETWEEN 19-DEC-2021:10:40:00 AND 19-DEC-2021:19:20:00; BETWEEN 19-DEC-2021:20:30:00 AND 20-DEC-2021:03:20:00; BETWEEN 20-DEC-2021:04:30:00 AND 20-DEC-2021:15:00:00; BETWEEN 20-DEC-2021:16:10:00 AND 20-DEC-2021:19:00:00; BETWEEN 20-DEC-2021:21:00:00 AND 21-DEC-2021:07:50:00; BETWEEN 21-DEC-2021:08:50:00 AND 21-DEC-2021:14:10:00

Comments: HOPR repeat of visit 52.

Diagnostics

(Exposure 1 (Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in V2_repeat (52))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)

Solar System Targets

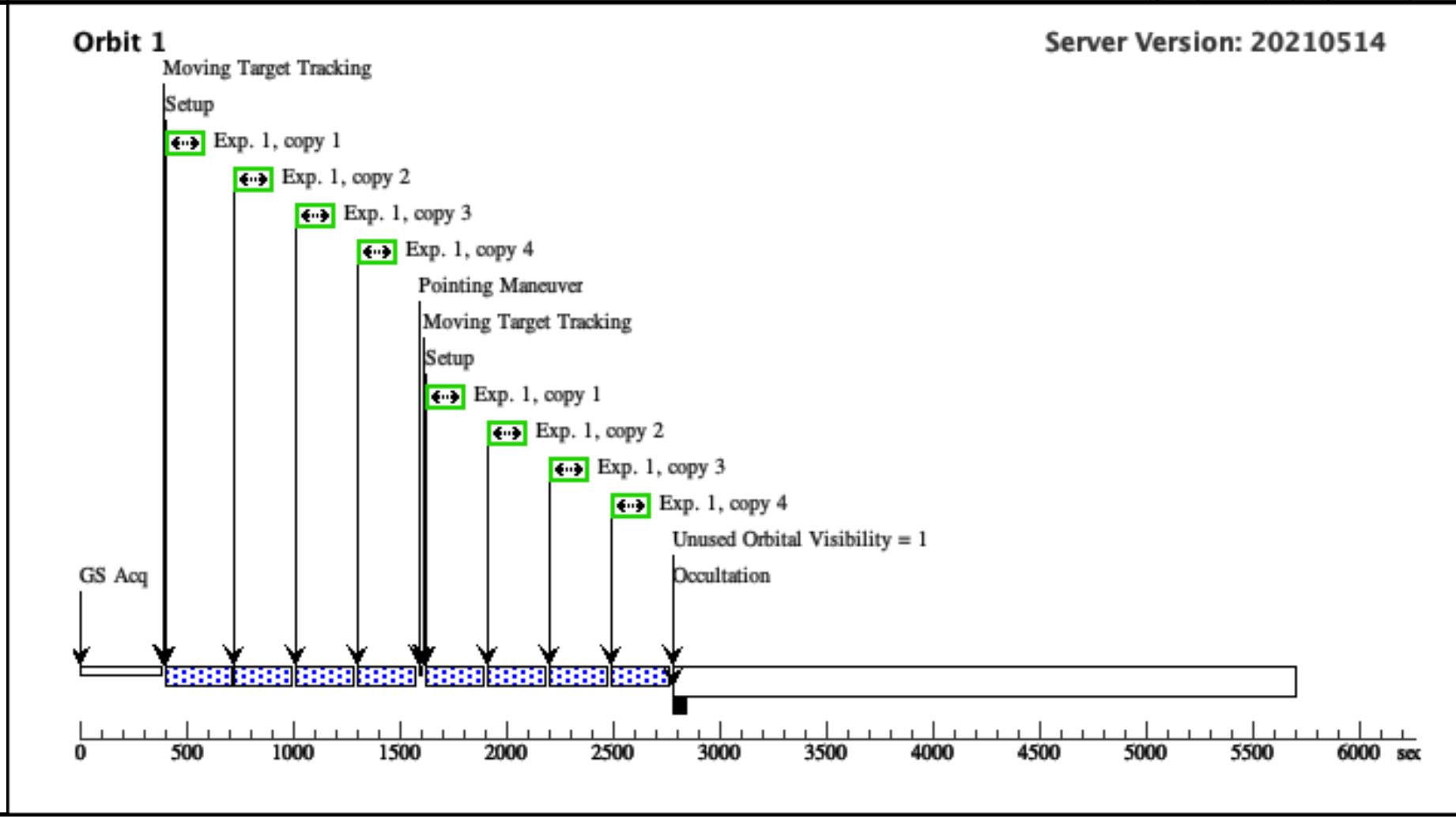
#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(3)	288P3	TYPE=ASTEROID,A=3.048983417833043,E=0.2010721219292816,I=3.240155687537047 ,O=83.18714325056506,W=281.0196226634146,M=37.74383008099473,EQUINOX=J2000,EPOCH=31-MAY-2017:00:00:00,EpochTimeScale=TDB				EARTH

Comments: Description=Active Asteroid
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(3) 288P3	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F606W			Sequence 1-1 Non-Int in V2_repeat (52) Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in V2_repeat (52) (1)	239 Secs X 4 (1912 Secs) *[==>(Pattern 1, Copy 1)]* *[==>(Pattern 1, Copy 2)]* *[==>(Pattern 1, Copy 3)]* *[==>(Pattern 1, Copy 4)]* *[==>(Pattern 2, Copy 1)]* *[==>(Pattern 2, Copy 2)]* *[==>(Pattern 2, Copy 3)]* *[==>(Pattern 2, Copy 4)]*	***[1]***

Orbit Structure



Visit

Proposal 16192, V3 (03), completed Fri Nov 05 14:00:18 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: WFC3/UVIS

Special Requirements: BETWEEN 23-SEP-2021:14:40:00 AND 25-SEP-2021:18:00:00

Diagnostics

(Exposure 1 (Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in V3 (03))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)

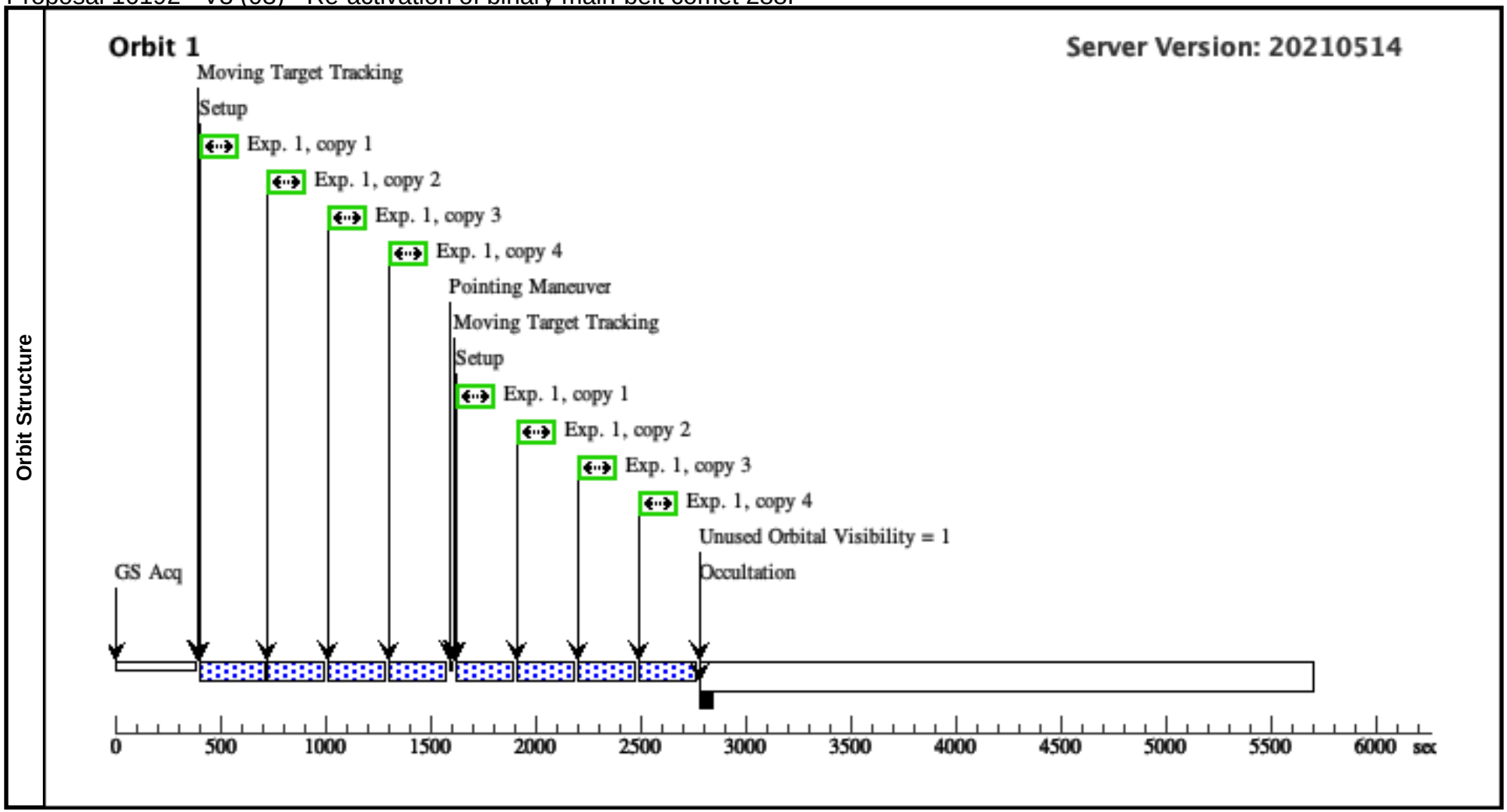
Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(2)	288P2	TYPE=ASTEROID,A=3.04906887163 0956,E=0.2010668788752906,I=3.240 047909880679 ,O=83.19202143297311,W=281.07192 11810388,M=333.0984342006854,EQ UINOX=J2000,EPOCH=16-JUN- 2016:00:00:00,EpochTimeScale=TDB				EARTH

Comments: Description=Active Asteroid
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) 288P2	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F606W			Sequence 1-1 Non-Int in V3 (03) Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in V3 (03) (1)	239 Secs X 4 (1912 Secs) *[==>(Pattern 1, Copy 1)]* *[==>(Pattern 1, Copy 2)]* *[==>(Pattern 1, Copy 3)]* *[==>(Pattern 1, Copy 4)]* *[==>(Pattern 2, Copy 1)]* *[==>(Pattern 2, Copy 2)]* *[==>(Pattern 2, Copy 3)]* *[==>(Pattern 2, Copy 4)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20210514
Moving Target Tracking
Setup
Exp. 1, copy 1
Exp. 1, copy 2
Exp. 1, copy 3
Exp. 1, copy 4
Pointing Maneuver
Moving Target Tracking
Setup
Exp. 1, copy 1
Exp. 1, copy 2
Exp. 1, copy 3
Exp. 1, copy 4
Unused Orbital Visibility = 1
Occultation
GS Acq
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16192, V4 (04), completed Fri Nov 05 14:00:18 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: WFC3/UVIS

Special Requirements: BETWEEN 29-SEP-2021:00:00:00 AND 30-SEP-2021:07:30:00; BETWEEN 30-SEP-2021:08:40:00 AND 01-OCT-2021:11:10:00

Diagnostics

(Exposure 1 (Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in V4 (04))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)

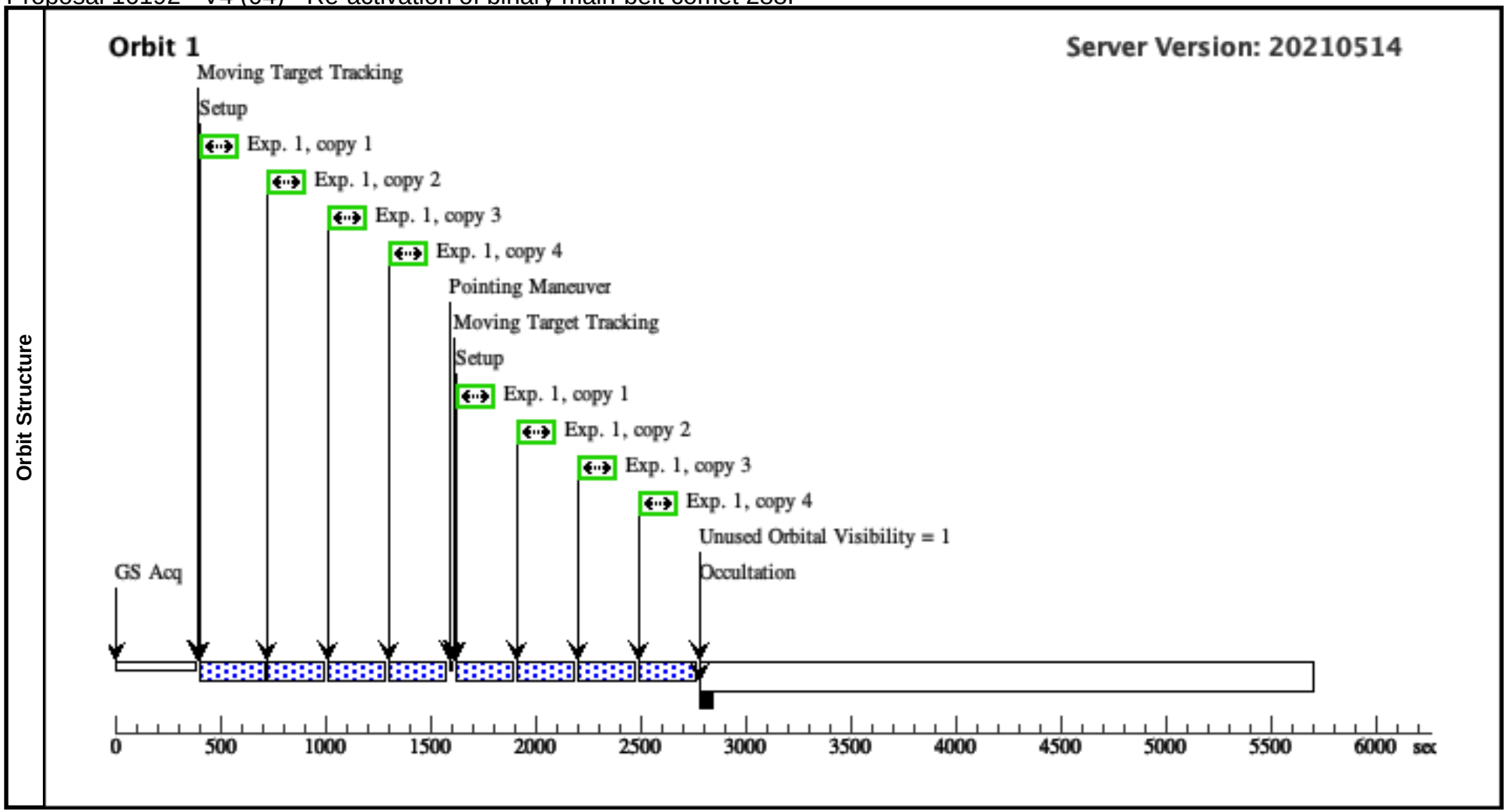
Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(2)	288P2	TYPE=ASTEROID,A=3.049068871630956,E=0.2010668788752906,I=3.240047909880679,O=83.19202143297311,W=281.0719211810388,M=333.0984342006854,EQUINOX=J2000,EPOCH=16-JUN-2016:00:00:00,EpochTimeScale=TDB				EARTH

Comments: Description=Active Asteroid
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) 288P2	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F606W			Sequence 1-1 Non-Int in V4 (04) Pattern 1, Exps 1-1 in Sequence 1-1 Non-Int in V4 (04) (1)	239 Secs X 4 (1912 Secs) *[==>(Pattern 1, Copy 1)]* *[==>(Pattern 1, Copy 2)]* *[==>(Pattern 1, Copy 3)]* *[==>(Pattern 1, Copy 4)]* *[==>(Pattern 2, Copy 1)]* *[==>(Pattern 2, Copy 2)]* *[==>(Pattern 2, Copy 3)]* *[==>(Pattern 2, Copy 4)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20210514
Moving Target Tracking
Setup
Exp. 1, copy 1
Exp. 1, copy 2
Exp. 1, copy 3
Exp. 1, copy 4
Pointing Maneuver
Moving Target Tracking
Setup
Exp. 1, copy 1
Exp. 1, copy 2
Exp. 1, copy 3
Exp. 1, copy 4
Unused Orbital Visibility = 1
Occultation
GS Acq
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec