



13229 - Hubble Heritage imaging of Comet ISON

Cycle: 20, 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>
10	(1) ISON-TRACK	WFC3/UVIS	1	05-Dec-2013 21:19:51.0	yes
11	(2) ISON-FIXED	WFC3/UVIS	1	05-Dec-2013 21:20:01.0	yes
20	(3) ISON-TRACK2	WFC3/UVIS	1	05-Dec-2013 21:20:07.0	yes
21	(3) ISON-TRACK2	WFC3/UVIS	1	05-Dec-2013 21:20:14.0	yes
30	(6) ISON-DEC2013	WFC3/UVIS	1	05-Dec-2013 21:20:20.0	yes
31	(7) ISON-DEC2013-OFFSET	WFC3/UVIS	1	05-Dec-2013 21:20:26.0	yes

6 Total Orbits Used

ABSTRACT

We propose a program to image Comet C/2012 S1 (ISON) in three phases with similar observations: early epoch, pre-perihelion, and post-perihelion. These observations are intended to complement other observing proposals to produce still imaging and small movies to maximize public engagement with this expected spectacular sky phenomenon.

OBSERVING DESCRIPTION

This program includes 3 epochs with 2 orbits each. The epochs are ~May 2013, ~Oct 2013, and ~January 2014. Each epoch includes one moving target subarray pointing, and one full-frame fixed target pointing (where the comet is intentionally trailed). In both types of visit, we offset the location of the comet nucleus for optimal placement of the tail.

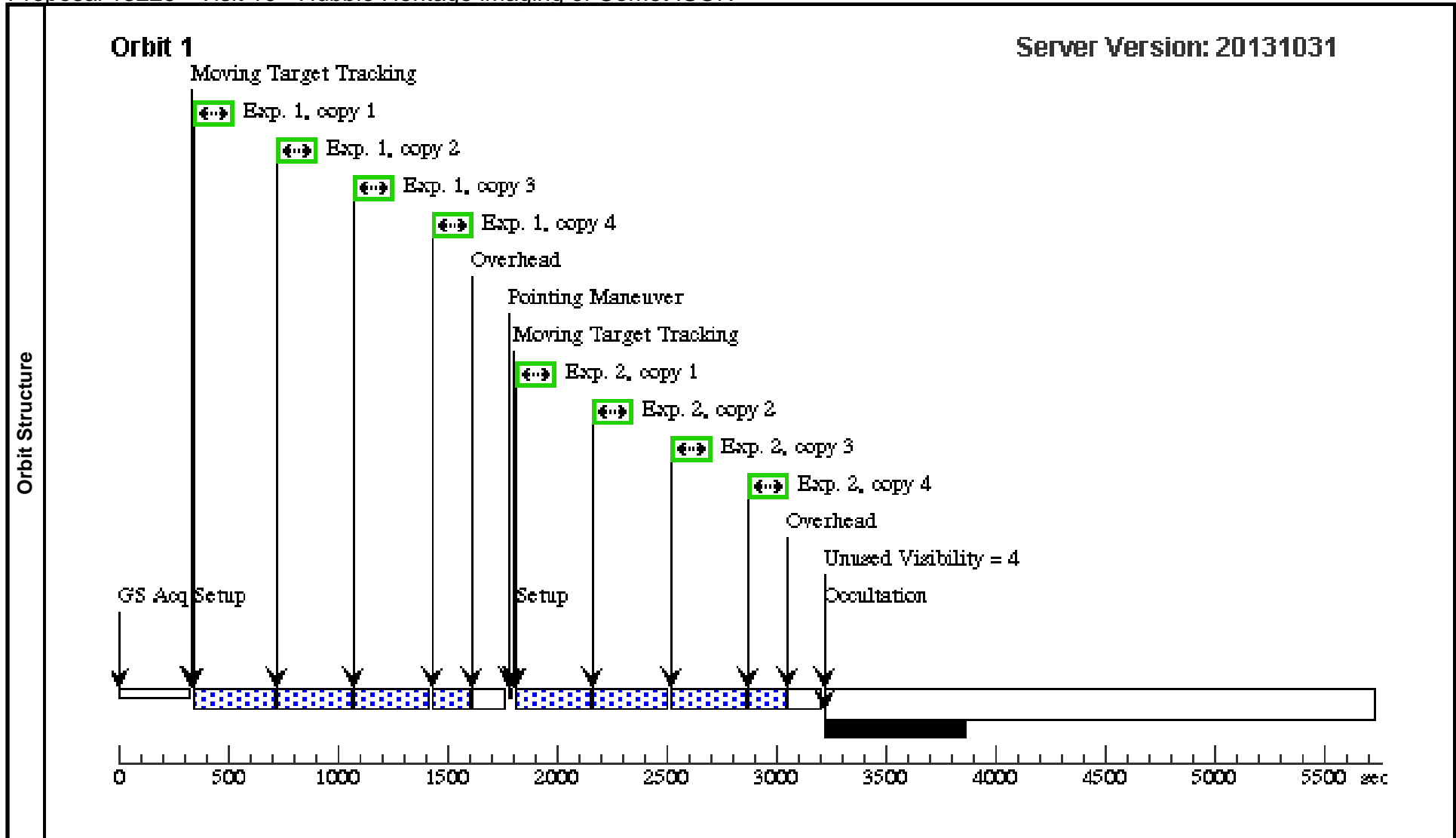
ADDITIONAL COMMENTS

The latter orbits are ON HOLD and will be optimized later in light of further GO and DD proposals approved, and the evolution of the comet.

Proposal 13229 - Visit 10 - Hubble Heritage imaging of Comet ISON

Fri Dec 06 02:20:35 GMT 2013

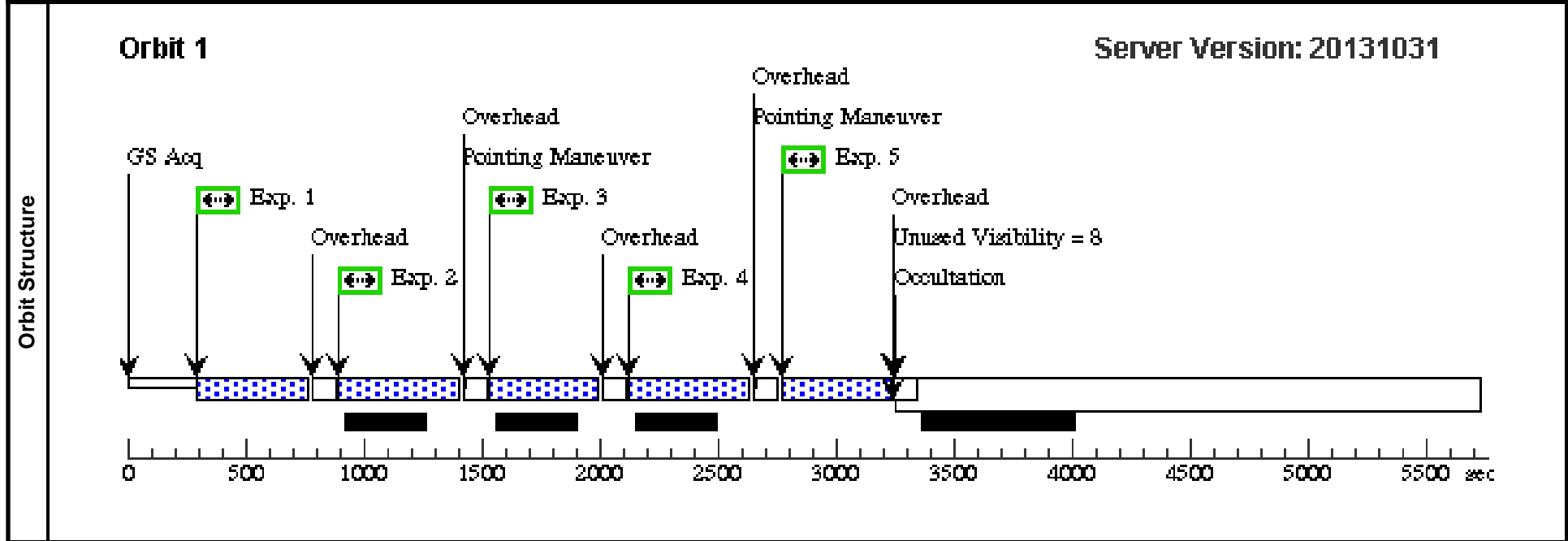
Visit	Proposal 13229, Visit 10, completed Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: ORIENT 84D TO 86 D; BETWEEN 08-MAY-2013:10:50:00 AND 08-MAY-2013:12:15:00									
	(Visit 10) Warning (Orbit Planner): INVALID GS ACQ SCENARIO SPECIAL REQUIREMENT									
Diagnostics										
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	ISON-TRACK	TYPE=COMET,Q=.01250174700471 997,E=1.000004032249662,I=61.8660 1236062585,O=295.7363323650027, W=345.5099113133351,T=28-NOV- 2013:18:44:24,TimeScale=TDB,EQ UINOX=J2000,EPOCH=13-JAN- 2013:00:00:00,EpochTimeScale=TDB					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1) ISON-TRACK		WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F350LP	CR-SPLIT=NO	POS TARG 25,25; GS ACQ SCENARI O BASE1B3		171 Secs X 4 (684 Secs) [=>(Copy 1)] [=>(Copy 2)] [=>(Copy 3)] [=>(Copy 4)]	[1]
	2	(1) ISON-TRACK		WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F350LP	CR-SPLIT=NO	POS TARG 25.4,25. 4; GS ACQ SCENARI O BASE1B3		171 Secs X 4 (684 Secs) [=>(Copy 1)] [=>(Copy 2)] [=>(Copy 3)] [=>(Copy 4)]	[1]



Visit	Proposal 13229, Visit 11, completed			
	Diagnostic Status: No Diagnostics			
	Scientific Instruments: WFC3/UVIS			
	Special Requirements: ORIENT 94D TO 96 D; BETWEEN 29-APR-2013:00:00:00 AND 01-MAY-2013:00:00:00			

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(2)	ISON-FIXED	RA: 06 41 20.7600 (100.3365000d) Dec: +29 29 16.30 (29.48786d) Equinox: J2000		V=15+/-1	Reference Frame: ICRS

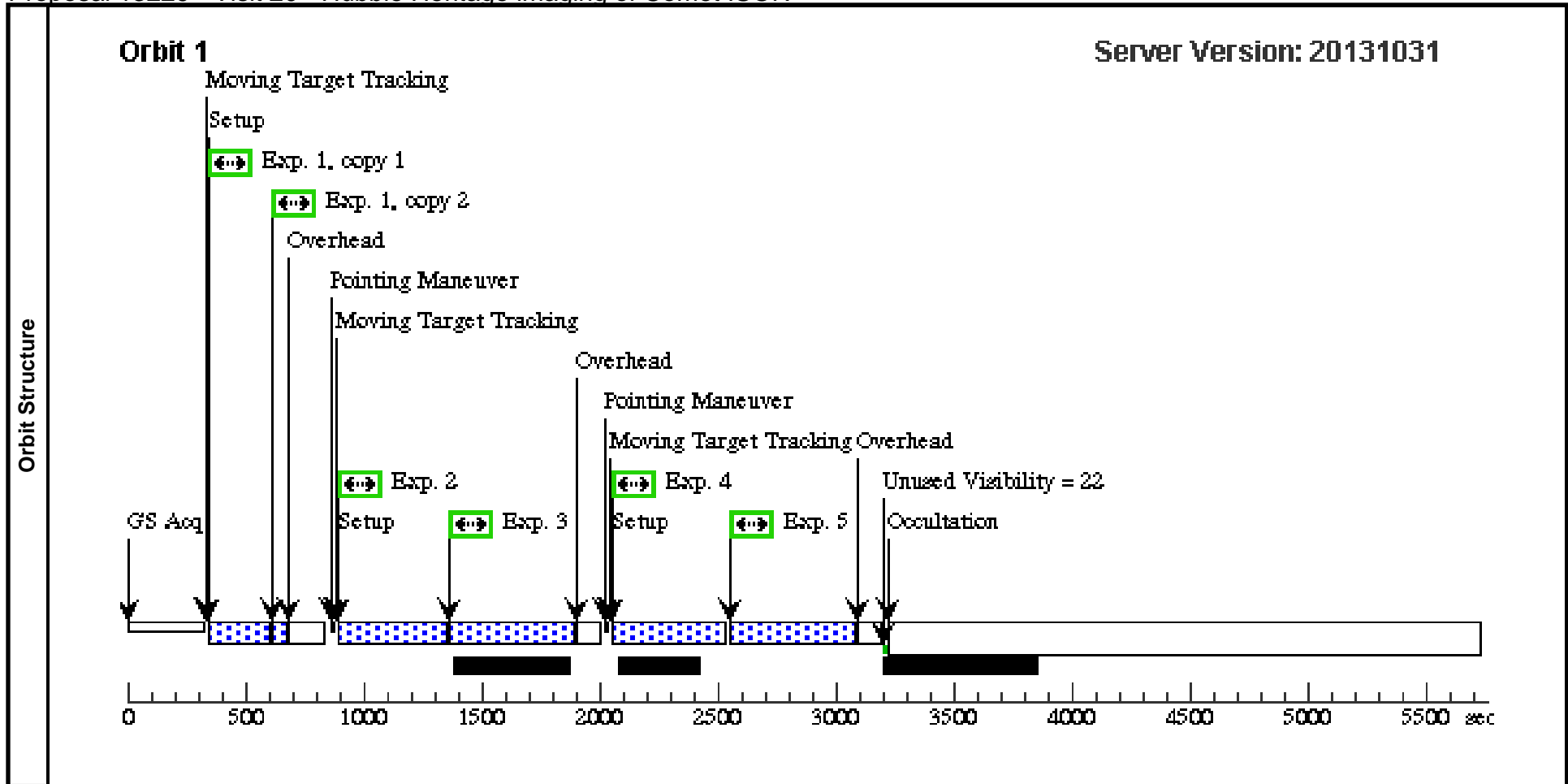
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(2) ISON-FIXED	WFC3/UVIS, ACCUM, UVIS1-FIX	F606W	CR-SPLIT=NO	POS TARG 25,-10		440 Secs (440 Secs) [==>]	[1]
	2		(2) ISON-FIXED	WFC3/UVIS, ACCUM, UVIS1-FIX	F814W	CR-SPLIT=NO	POS TARG 25,-10		490 Secs (490 Secs) [==>]	[1]
	3		(2) ISON-FIXED	WFC3/UVIS, ACCUM, UVIS1-FIX	F606W	CR-SPLIT=NO	POS TARG 25,-11.8		440 Secs (440 Secs) [==>]	[1]
	4		(2) ISON-FIXED	WFC3/UVIS, ACCUM, UVIS1-FIX	F814W	CR-SPLIT=NO	POS TARG 25,-11.8		490 Secs (490 Secs) [==>]	[1]
	5		(2) ISON-FIXED	WFC3/UVIS, ACCUM, UVIS1-FIX	F606W	CR-SPLIT=NO	POS TARG 25,-13.6		440 Secs (440 Secs) [==>]	[1]



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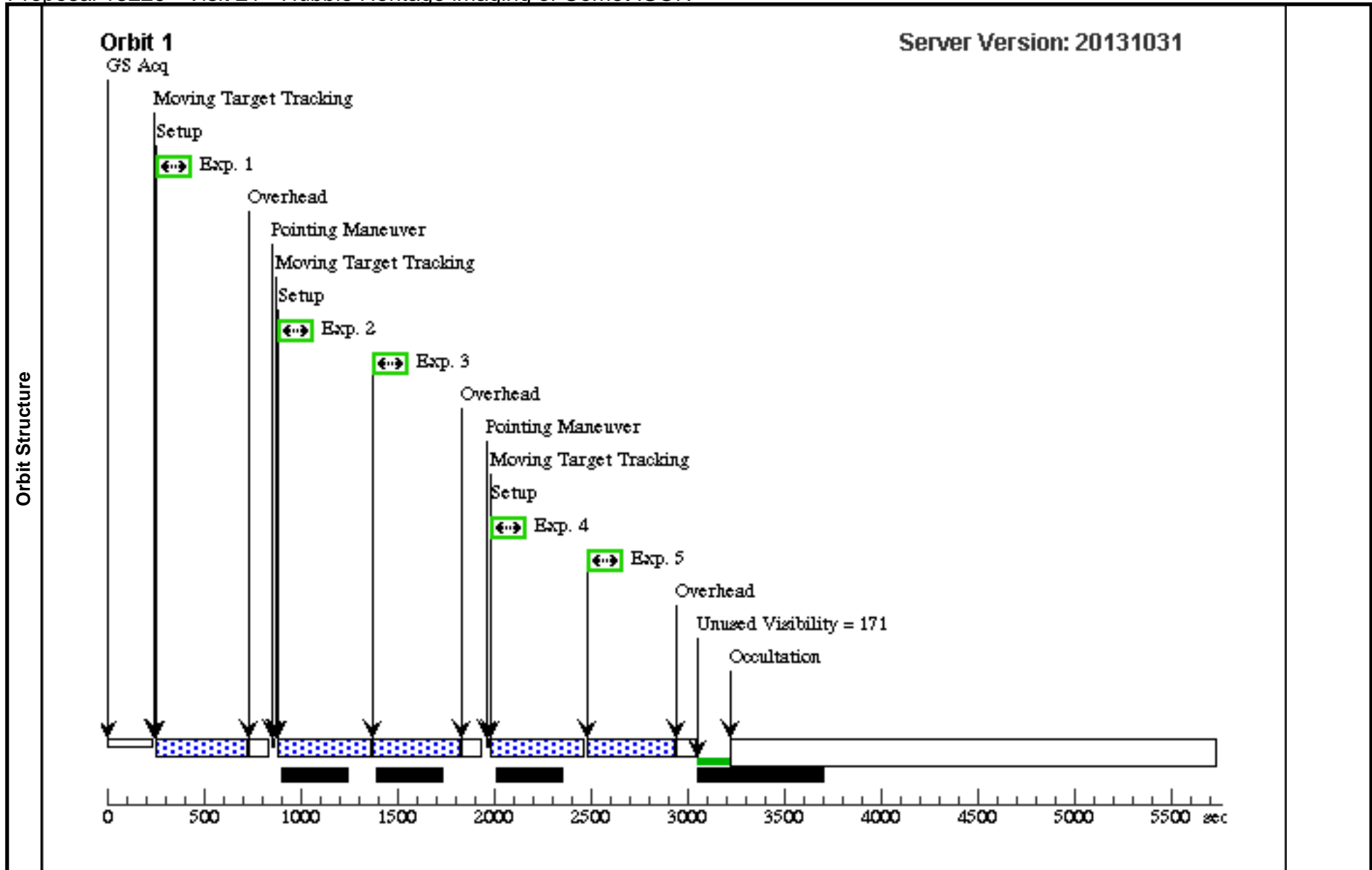
Visit	Proposal 13229, Visit 20, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: ORIENT 286D TO 288 D; BETWEEN 07-OCT-2013:00:00:00 AND 10-OCT-2013:00:00:00									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
	(3)	ISON-TRACK2	TYPE=COMET,Q=.01249404771654 181,E=1.000004233506488,I=61.9338 8290633883 ,O=295.7244706878095 ,W=345.5171498295019 ,T=28-NOV- 2013:18:41:26,TimeScale=TDB,EQ UINOX=J2000,EPOCH=10-FEB- 2013:00:00:00,EpochTimeScale=TDB					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(3) ISON-TRACK2	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F775W	CR-SPLIT=NO	POS TARG 15,15; GS ACQ SCENARI O BASE1B3		60 Secs X 2 (120 Secs) [==>(Copy 1)] [==>(Copy 2)]	[1]
	2		(3) ISON-TRACK2	WFC3/UVIS, ACCUM, UVIS1-FIX	F775W	CR-SPLIT=NO	POS TARG 30,1.6		348 Secs (348 Secs) [==>]	[1]
	3		(3) ISON-TRACK2	WFC3/UVIS, ACCUM, UVIS1-FIX	F438W	CR-SPLIT=NO	POS TARG 30,1.6		520 Secs (520 Secs) [==>]	[1]
	4		(3) ISON-TRACK2	WFC3/UVIS, ACCUM, UVIS1-FIX	F775W	CR-SPLIT=NO	POS TARG 30,0		348 Secs (348 Secs) [==>]	[1]
	5		(3) ISON-TRACK2	WFC3/UVIS, ACCUM, UVIS1-FIX	F438W	CR-SPLIT=NO	POS TARG 30,0		520 Secs (520 Secs) [==>]	[1]



Proposal 13229 - Visit 21 - Hubble Heritage imaging of Comet ISON

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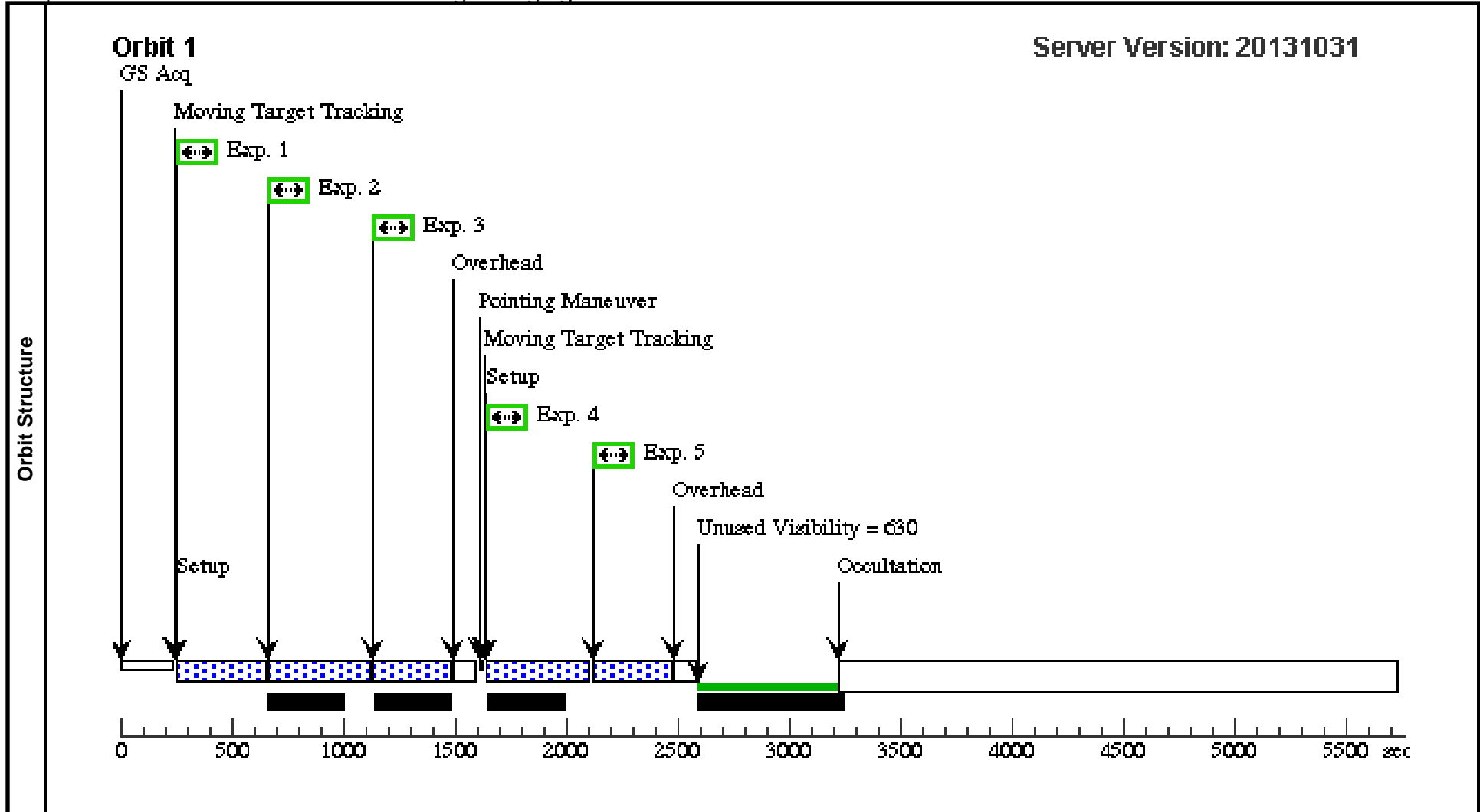
Visit	Proposal 13229, Visit 21, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: BETWEEN 28-OCT-2013:00:00:00 AND 04-NOV-2013:00:00:00									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
	(3)	ISON-TRACK2	TYPE=COMET,Q=.01249404771654 181,E=1.000004233506488,I=61.9338 8290633883 ,O=295.7244706878095 ,W=345.5171498295019 ,T=28-NOV- 2013:18:41:26,TimeScale=TDB,EQ UINOX=J2000,EPOCH=10-FEB- 2013:00:00:00,EpochTimeScale=TDB					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(3) ISON-TRACK2	WFC3/UVIS, ACCUM, UVIS1-FIX	F438W	CR-SPLIT=NO	POS TARG 30,3.2; GS ACQ SCENARI O SINGLE		440 Secs (440 Secs) [==>]	[1]
	2		(3) ISON-TRACK2	WFC3/UVIS, ACCUM, UVIS1-FIX	F775W	CR-SPLIT=NO	POS TARG 30,1.6		348 Secs (348 Secs) [==>]	[1]
	3		(3) ISON-TRACK2	WFC3/UVIS, ACCUM, UVIS1-FIX	F438W	CR-SPLIT=NO	POS TARG 30,1.6		440 Secs (440 Secs) [==>]	[1]
	4		(3) ISON-TRACK2	WFC3/UVIS, ACCUM, UVIS1-FIX	F775W	CR-SPLIT=NO	POS TARG 30,0		348 Secs (348 Secs) [==>]	[1]
	5		(3) ISON-TRACK2	WFC3/UVIS, ACCUM, UVIS1-FIX	F438W	CR-SPLIT=NO	POS TARG 30,0		440 Secs (440 Secs) [==>]	[1]



Proposal 13229 - Visit 30 - Hubble Heritage imaging of Comet ISON

Fri Dec 06 02:20:40 GMT 2013

Visit	Proposal 13229, Visit 30, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: DROP TO GYRO IF NECESSARY NO REACQ									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
	(6)	ISON-DEC2013	TYPE=COMET,Q=0.0124541426917 9776,E=1.000216336540128,I=62.404 55845625732,O=295.6516241203238, W=345.5355346822537,T=28-NOV- 2013:18:42:38,TimeScale=TDB,EQ UINOX=J2000,EPOCH=18-DEC- 2013:00:00:00,EpochTimeScale=TDB <i>Comments: Osculating elements using JPL #54 solution.</i>					EARTH		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) ISON-DEC2013	WFC3/UVIS, ACCUM, UVIS2	F350LP	CR-SPLIT=NO	GS ACQ SCENARI O SINGLE		250 Secs (250 Secs) [==>]	[1]
	2		(6) ISON-DEC2013	WFC3/UVIS, ACCUM, UVIS2	F350LP	CR-SPLIT=NO	SAME POS AS 1		348 Secs (348 Secs) [==>]	[1]
	3		(6) ISON-DEC2013	WFC3/UVIS, ACCUM, UVIS2	F350LP	CR-SPLIT=NO	SAME POS AS 1		348 Secs (348 Secs) [==>]	[1]
	4		(6) ISON-DEC2013	WFC3/UVIS, ACCUM, UVIS2	F350LP	CR-SPLIT=NO	POS TARG 0.2,2.41		348 Secs (348 Secs) [==>]	[1]
	5		(6) ISON-DEC2013	WFC3/UVIS, ACCUM, UVIS2	F350LP	CR-SPLIT=NO	SAME POS AS 4		348 Secs (348 Secs) [==>]	[1]



Proposal 13229 - Visit 31 - Hubble Heritage imaging of Comet ISON

Fri Dec 06 02:20:41 GMT 2013

Visit	Proposal 13229, Visit 31, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: DROP TO GYRO IF NECESSARY NO REACQ; AFTER 30 BY 0.8 Orbits TO 1.2 Orbits; ON HOLD <i>On Hold Comments: We will finalize this visit in Aug-Sep 2013 light of further GO and DD proposals approved, and the evolution of the comet.</i>									
	Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center		
	(7)	ISON-DEC2013-OFFSET	TYPE=COMET,Q=0.0124541426917 9776,E=1.000216336540128,I=62.404 55845625732,O=295.6516241203238, W=345.5355346822537,T=28-NOV- 2013:18:42:38,TimeScale=TDB,EQ UINOX=J2000,EPOCH=18-DEC- 2013:00:00:00,EpochTimeScale=TDB	TYPE=POS_ANGLE,RAD=156,ANG =182,REF=NORTH				EARTH		
	<i>Comments: Osculating elements using JPL #54 solution.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(7) ISON-DEC2013-OFFSET	WFC3/UVIS, ACCUM, UVIS2	F350LP	CR-SPLIT=NO	GS ACQ SCENARI O SINGLE		348 Secs (348 Secs) [==>]	[1]
	2		(7) ISON-DEC2013-OFFSET	WFC3/UVIS, ACCUM, UVIS2	F350LP	CR-SPLIT=NO	SAME POS AS 1		348 Secs (348 Secs) [==>]	[1]
	3		(7) ISON-DEC2013-OFFSET	WFC3/UVIS, ACCUM, UVIS2	F350LP	CR-SPLIT=NO	SAME POS AS 1		348 Secs (348 Secs) [==>]	[1]
	4		(7) ISON-DEC2013-OFFSET	WFC3/UVIS, ACCUM, UVIS2	F350LP	CR-SPLIT=NO	POS TARG 0.2,2.41		348 Secs (348 Secs) [==>]	[1]
	5		(7) ISON-DEC2013-OFFSET	WFC3/UVIS, ACCUM, UVIS2	F350LP	CR-SPLIT=NO	SAME POS AS 4		348 Secs (348 Secs) [==>]	[1]

