



12812 - Hubble Heritage

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>
01	(1) ARP-142	WFC3/UVIS	4	05-Oct-2012 21:01:21.0	yes
04	(4) NGC-5189	WFC3/UVIS	6	05-Oct-2012 21:01:42.0	yes
50	(8) HORSEHEAD-COPY ANY	ACS/WFC WFC3/IR	1	05-Oct-2012 21:01:56.0	yes
51	(8) HORSEHEAD-COPY ANY	ACS/WFC WFC3/IR	1	05-Oct-2012 21:02:03.0	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>
52	(8) HORSEHEAD-COPY ANY	ACS/WFC WFC3/IR	1	05-Oct-2012 21:02:10.0	yes
53	(8) HORSEHEAD-COPY ANY	ACS/WFC WFC3/IR	1	05-Oct-2012 21:02:17.0	yes
54	(8) HORSEHEAD-COPY ANY	ACS/WFC WFC3/IR	1	05-Oct-2012 21:02:23.0	yes
55	(8) HORSEHEAD-COPY ANY	ACS/WFC WFC3/IR	1	05-Oct-2012 21:02:30.0	yes
56	(8) HORSEHEAD-COPY ANY	ACS/WFC WFC3/IR	1	05-Oct-2012 21:02:36.0	yes
57	(8) HORSEHEAD-COPY ANY	ACS/WFC WFC3/IR	1	05-Oct-2012 21:02:43.0	yes
58	(8) HORSEHEAD-COPY ANY	ACS/WFC WFC3/IR	1	05-Oct-2012 21:02:49.0	yes

19 Total Orbits Used

ABSTRACT

We are proposing new observations for the Hubble Heritage project in cycle 19 and 20. We have identified new targets that will be used to produce high-quality, high-impact images that ensure continued public support for the Hubble mission. This proposal is submitted to the cycle 19 DD program to provide new images that will be obtained and released over the coming year. Our continuing ability to do science with HST and our hopes for JWST depend crucially on public support generated by our continuing commitment to sharing new images with the public.

OBSERVING DESCRIPTION

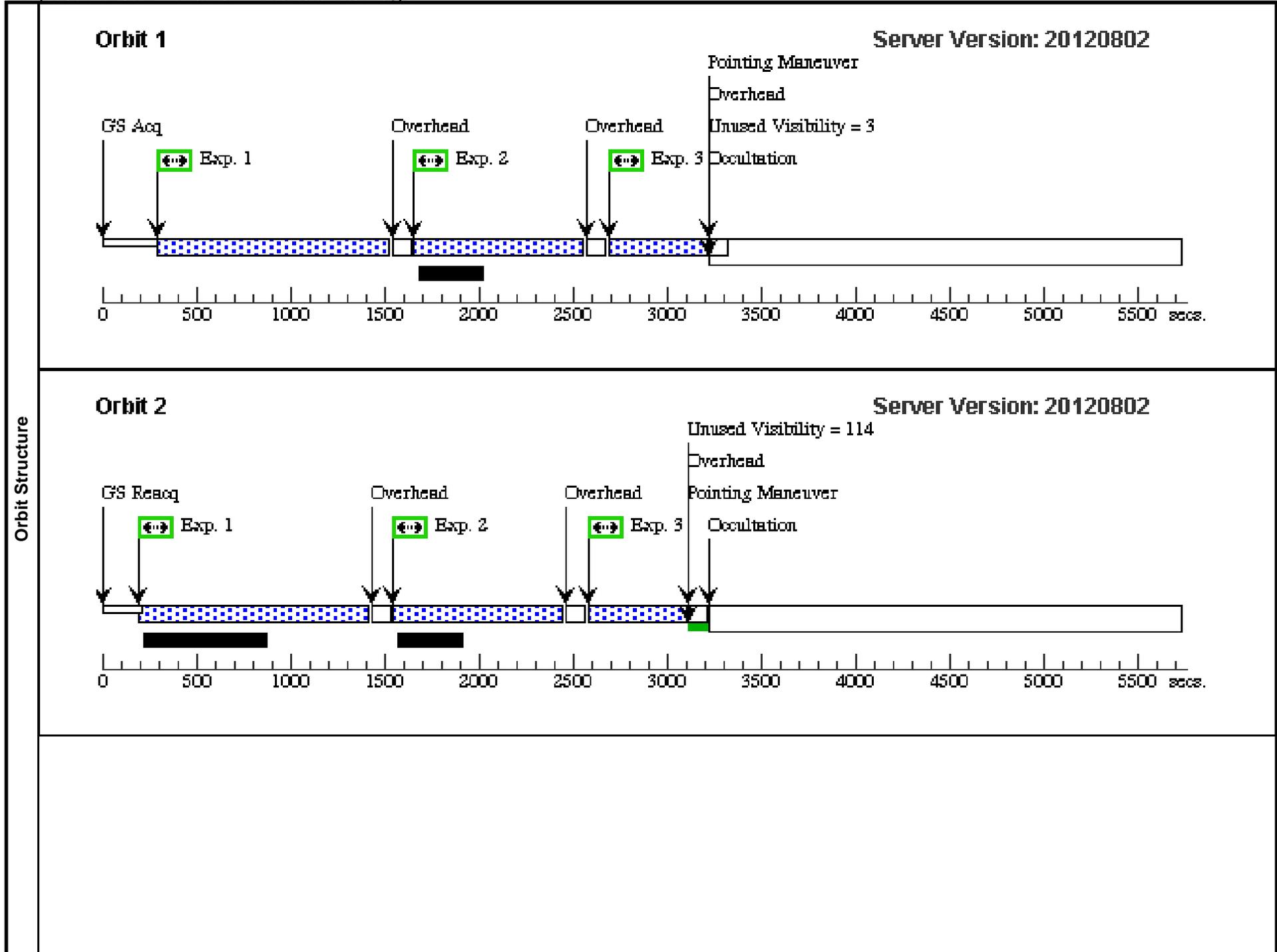
Arp 142 (NGC 2936) is an interacting galaxy system nicknamed the Porpoise Galaxy, apparently consisting of a nearly undisturbed elliptical, and a distorted, star-forming spiral at $z \sim 0.023$. Another very blue, likely more distant galaxy, UGC 5130 appears nearby, superimposed with a foreground star, providing dynamic color and visual contrast in an outstanding composition. A single pointing with WFC3/UVIS contains the most interesting areas within the field. B, V, I, and H! filters will enable clearly rendering the major morphology of the galaxies, in which we expect to see numerous star-forming regions highlighted within.

The Horsehead Nebula, a popular target among amateurs, is an intriguing dark nebula full of dense clouds of dust and gas. Existing IR data, including ground-based and a single HST WFC3/IR observation, indicate morphology significantly different in the near IR from visible-light WFPC2 imaging (see Figure 3). This image will complement the Hubble Heritage visible light narrow-band image released in 2001. Broad-band WFC3 UVIS and IR imaging will allow producing a new visualization, dissolving between the familiar visible-light view and a distinctly different view in the IR. A WFC3 mosaic of 2x2 UVIS pointings neatly covers the recognizable horse's head, the smaller WFC3/IR field of view requires a 3x3 mosaic. One broad band UVIS (B) and two broad band IR (J and H) filters will enable producing a color composite, but one differing dramatically from previous images. The emphasis on infrared imaging here will help demonstrate JWST's potential.

NGC 5189 is a planetary nebula with an unusual spiral structure reminiscent of barred spiral galaxies. Excellent ground-based images show evidence of detailed structure that will be further resolved by HST. The high S/N images we will obtain will be amenable to 3-D image rendering. The dense star field helps in this effort and we will capture many fainter stars in color by using the same narrow/broad filter sequence that we successfully used for the Necklace Nebula. Six orbits of observation will include narrow-band filters that isolate [O III], H α , and [S II]. Broad-band B, V, and I filters dramatically improve the color rendering of stars and detection of fainter stars that add depth to the overall image.

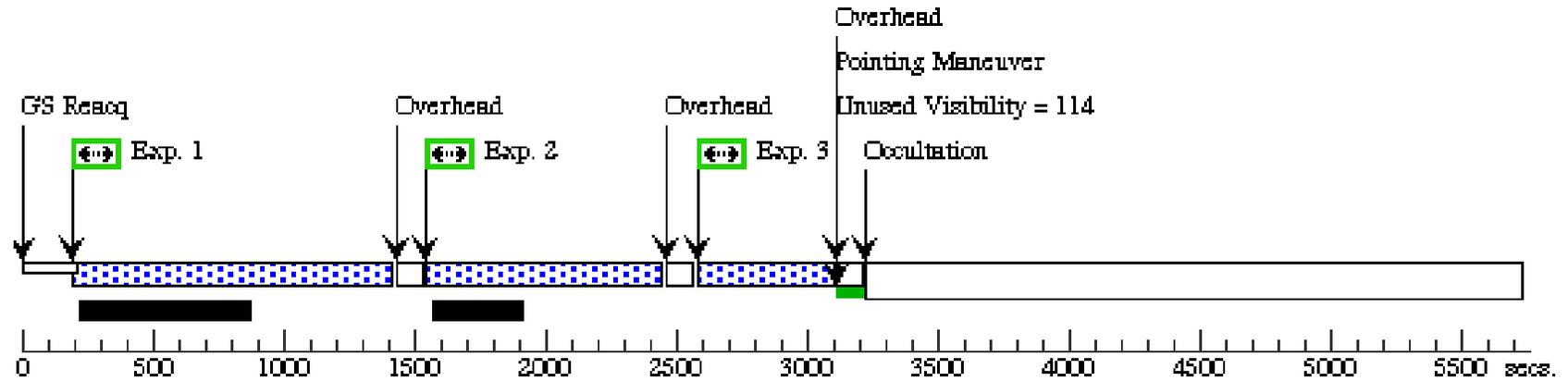
Proposal 12812 - Visit 01 - Hubble Heritage

Visit	Proposal 12812, Visit 01, completed Sat Oct 06 01:02:57 GMT 2012 Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: ORIENT 120D TO 130 D									
	Diagnosics (Visit 01) Warning (Orbit Planner): VISIBILITY OVERRUN									
Patterns	#	Primary Pattern	Secondary Pattern		Exposures					
	(1)	Pattern Type=WFC3-UVIS-DITHER- LINE Purpose=DITHER Number Of Points=3 Point Spacing=2.0 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85 Angle Between Sides= Center Pattern=false		(1-3), (4)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	ARP-142	RA: 09 37 43.1654 (144.4298558d) Dec: +02 45 50.05 (2.76390d) Equinox: J2000		V=16+/-2	Reference Frame: ICRS				
<i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(1) ARP-142	(1) ARP-142	WFC3/UVIS, ACCUM, UVIS-CENTER	F657N			Pattern 1, Exps 1-3 i n Visit 01 (1)	1200 Secs	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[2]
									[==>(Pattern 3)]	[3]
	2	(1) ARP-142	(1) ARP-142	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W			Pattern 1, Exps 1-3 i n Visit 01 (1)	880 Secs	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[2]
									[==>(Pattern 3)]	[3]
	3	(1) ARP-142	(1) ARP-142	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Pattern 1, Exps 1-3 i n Visit 01 (1)	500 Secs	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[2]
									[==>(Pattern 3)]	[3]
4	(1) ARP-142	(1) ARP-142	WFC3/UVIS, ACCUM, UVIS-CENTER	F475W			Pattern 1, Exps 4-4 i n Visit 01 (1)	915 Secs		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[4]	
								[==>(Pattern 3)]		



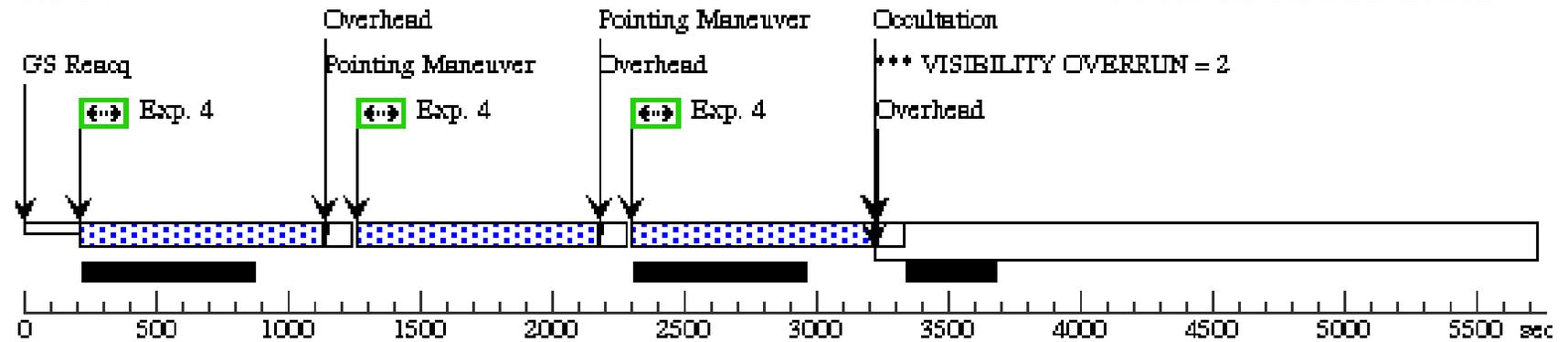
Orbit 3

Server Version: 20120802



Orbit 4

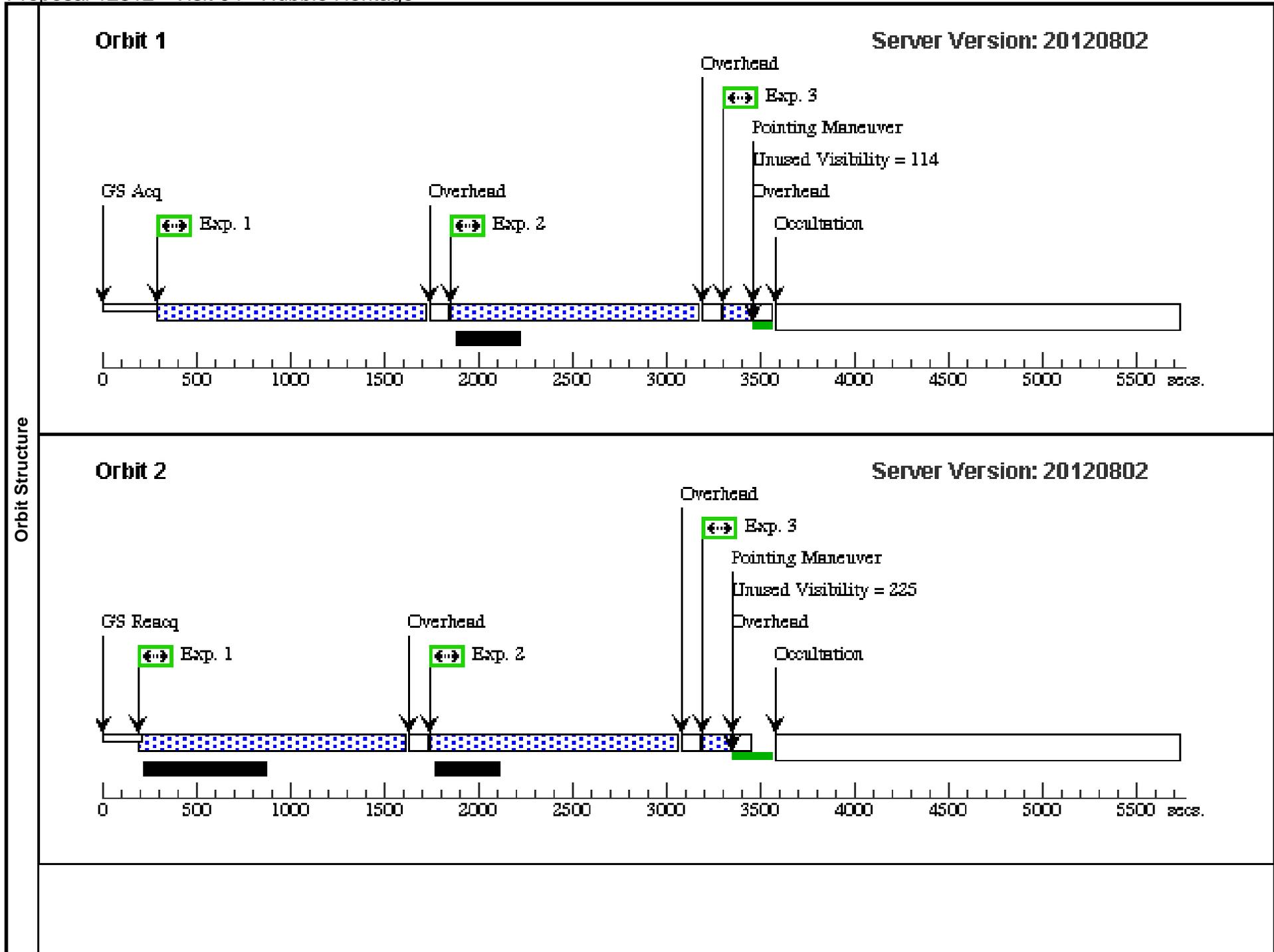
Server Version: 20120802



Proposal 12812 - Visit 04 - Hubble Heritage

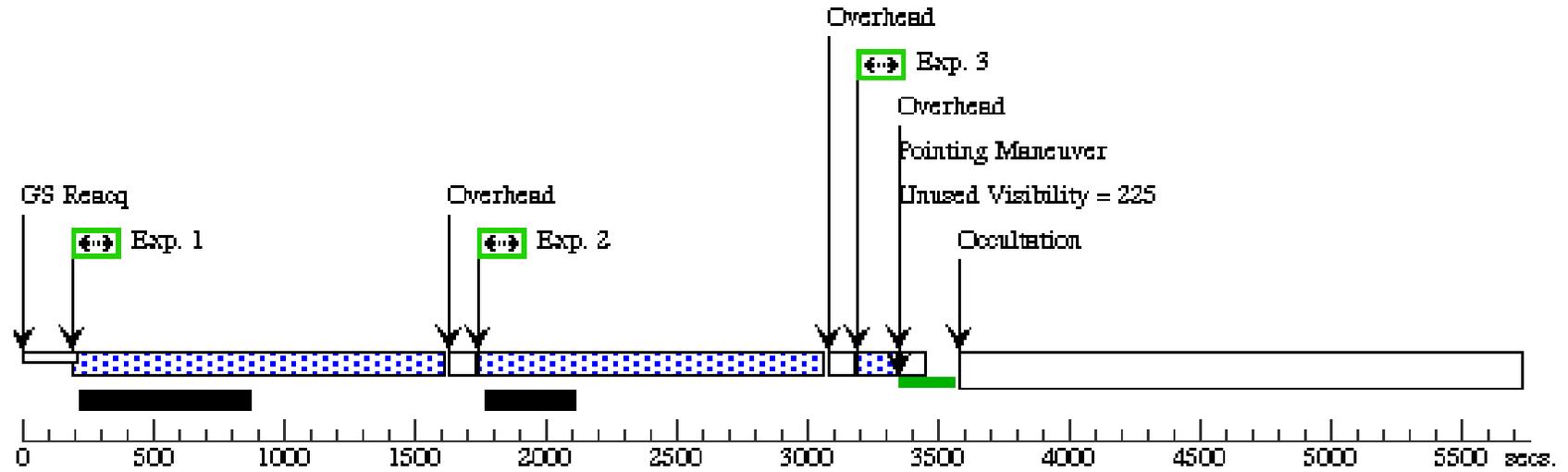
Sat Oct 06 01:03:01 GMT 2012

Visit	Proposal 12812, Visit 04, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: ORIENT 86D TO 89 D									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=3 Point Spacing=2.0 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85 Angle Between Sides= Center Pattern=false		(1-3), (4-5)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(4)	NGC-5189	RA: 13 33 32.5319 (203.3855496d) Dec: -65 58 26.25 (-65.97396d) Equinox: J2000		V=16+/-2	Reference Frame: ICRS				
<i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(4) NGC-5189	WFC3/UVIS, ACCUM, UVIS-CENTER	F673N			Pattern 1, Exps 1-3 in Visit 04 (1)	1400 Secs	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[2]
									[==>(Pattern 3)]	[3]
	2		(4) NGC-5189	WFC3/UVIS, ACCUM, UVIS-CENTER	F657N			Pattern 1, Exps 1-3 in Visit 04 (1)	1300 Secs	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[2]
									[==>(Pattern 3)]	[3]
	3		(4) NGC-5189	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W			Pattern 1, Exps 1-3 in Visit 04 (1)	120 Secs	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[2]
									[==>(Pattern 3)]	[3]
4		(4) NGC-5189	WFC3/UVIS, ACCUM, UVIS-CENTER	F502N			Pattern 1, Exps 4-5 in Visit 04 (1)	1400 Secs X 2		
								[==>(Pattern 1, Copy 1)]	[4]	
								[==>(Pattern 1, Copy 2)]	[5]	
								[==>(Pattern 2, Copy 1)]	[6]	
								[==>(Pattern 2, Copy 2)]	[7]	
								[==>(Pattern 3, Copy 1)]	[8]	
								[==>(Pattern 3, Copy 2)]	[9]	
5		(4) NGC-5189	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Pattern 1, Exps 4-5 in Visit 04 (1)	100 Secs		
								[==>(Pattern 1)]	[4]	
								[==>(Pattern 2)]	[5]	
								[==>(Pattern 3)]	[6]	



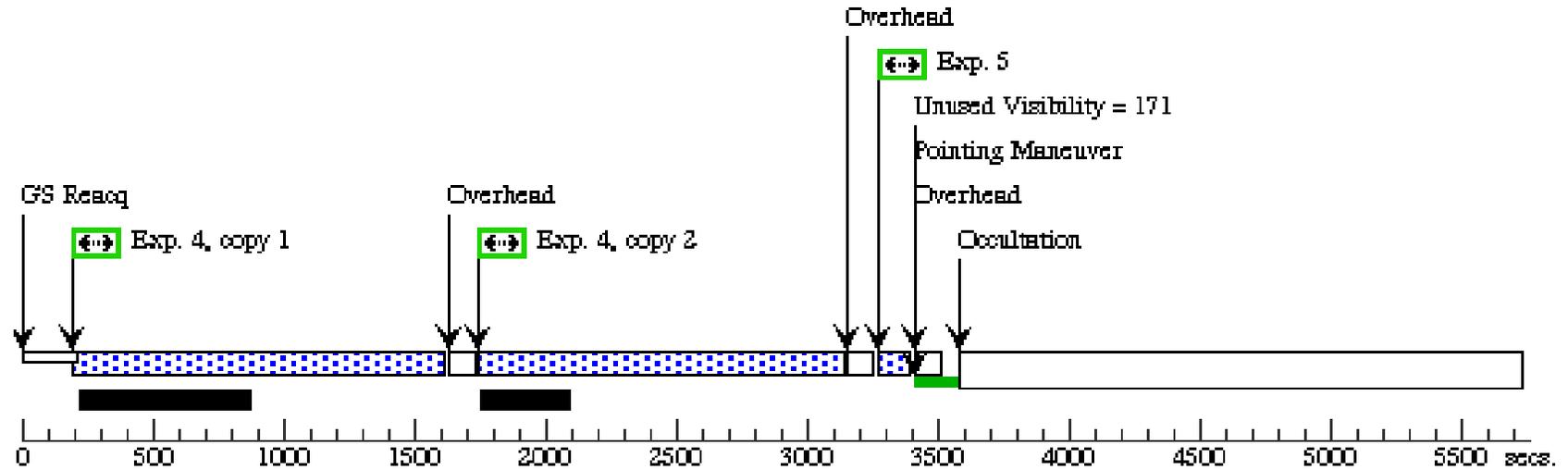
Orbit 3

Server Version: 20120802



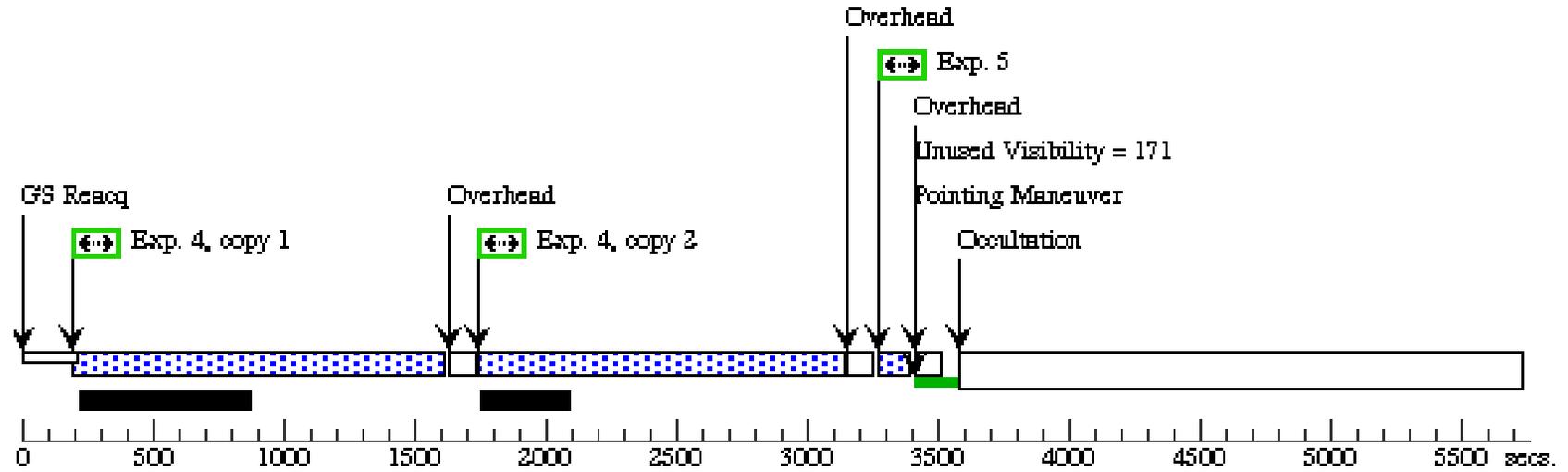
Orbit 4

Server Version: 20120802



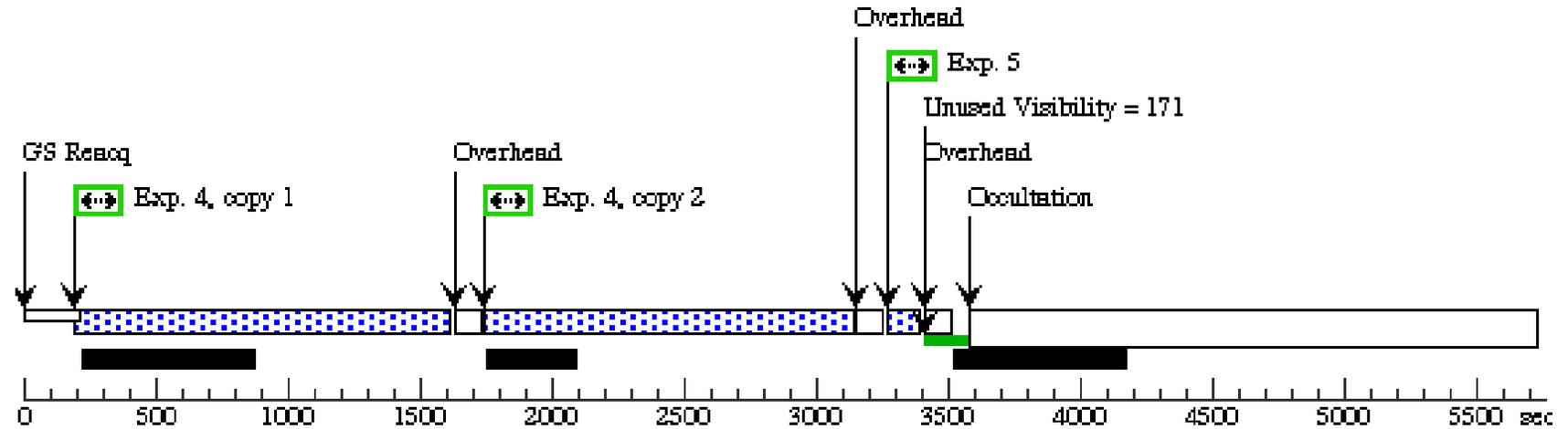
Orbit 5

Server Version: 20120802



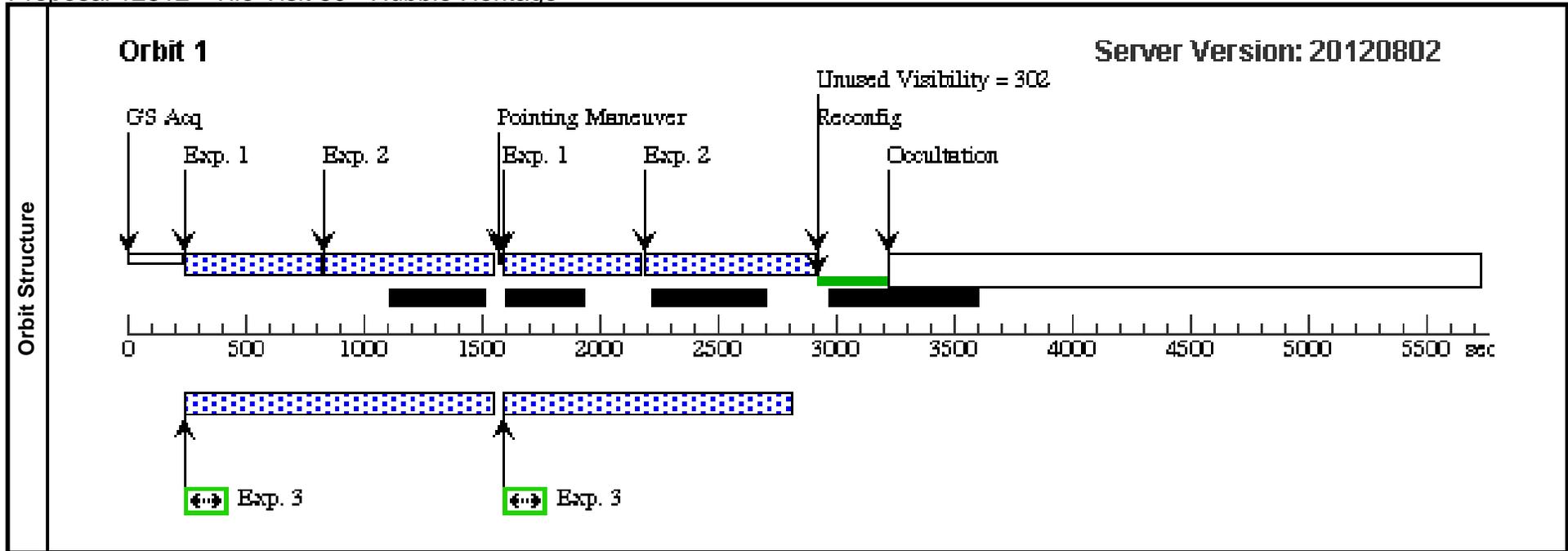
Orbit 6

Server Version: 20120802



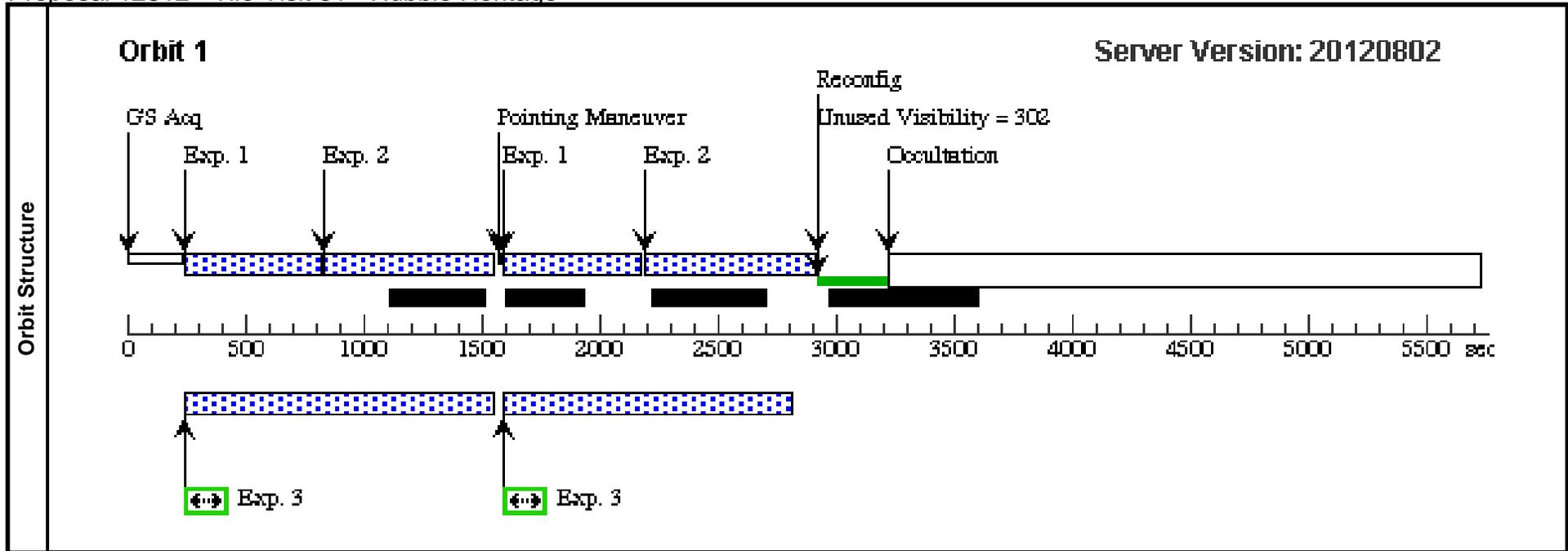
Proposal 12812 - Tile Visit 50 - Hubble Heritage

Visit	Proposal 12812, Tile Visit 50, implementation Sat Oct 06 01:03:07 GMT 2012 Diagnostic Status: Warning Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: ORIENT 306D TO 306 D									
	Diagnosics (Tile Visit 50) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE (Primary Exposure 1 (Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 50) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes (Primary Exposure 2 (Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 50) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes									
Patterns	#	Primary Pattern		Secondary Pattern		Exposures				
	(3)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=7.2 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90 Angle Between Sides= Center Pattern=true			(1-3)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(8)	HORSEHEAD-COPY	RA: 05 41 1.0696 (85.2544567d) Dec: -02 27 10.79 (-2.45300d) Equinox: J2000		V=16+/-2	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(8) HORSEHEAD-COPY	(8) HORSEHEAD-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=12; SAMP-SEQ=SPAR S50	POS TARG -123.74 239600000001,-109.51209700000001; GS ACQ SCENARIO SINGLE	Pattern 3, Exps 1-3 in Tile Visit 50 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 50	[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	(8) HORSEHEAD-COPY	(8) HORSEHEAD-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=15; SAMP-SEQ=SPAR S50	POS TARG -123.74 239600000001,-109.51209700000001	Pattern 3, Exps 1-3 in Tile Visit 50 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 50	[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	ANY	ANY	ACS/WFC, ACCUM, WFC-FIX	F658N			Pattern 3, Exps 1-3 in Tile Visit 50 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 50	1100 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]



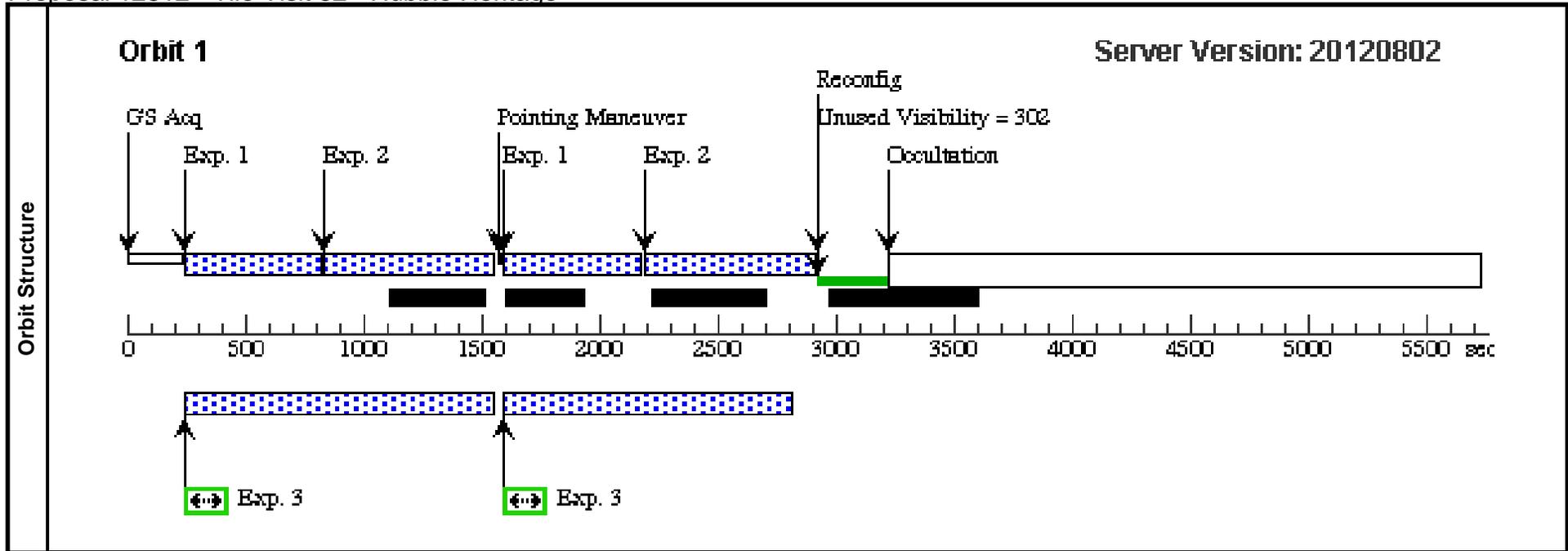
Proposal 12812 - Tile Visit 51 - Hubble Heritage

Visit	Proposal 12812, Tile Visit 51, implementation Sat Oct 06 01:03:08 GMT 2012									
	Diagnostic Status: Warning Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: ORIENT 302D TO 302 D									
Diagnostics	(Tile Visit 51) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE (Primary Exposure 1 (Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 51) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes (Primary Exposure 2 (Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 51) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes									
Patterns	#	Primary Pattern		Secondary Pattern		Exposures				
	(3)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=7.2 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90 Angle Between Sides= Center Pattern=true			(1-3)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(8)	HORSEHEAD-COPY	RA: 05 41 1.0696 (85.2544567d) Dec: -02 27 10.79 (-2.45300d) Equinox: J2000		V=16+/-2	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(8) HORSEHEAD-COPY	(8) HORSEHEAD-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=12; SAMP-SEQ=SPAR S50	POS TARG 0.0,-109 .51209700000001; GS ACQ SCENARI O SINGLE	Pattern 3, Exps 1-3 in Tile Visit 51 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 51	[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	(8) HORSEHEAD-COPY	(8) HORSEHEAD-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=15; SAMP-SEQ=SPAR S50	POS TARG 0.0,-109 .51209700000001	Pattern 3, Exps 1-3 in Tile Visit 51 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 51	[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	ANY	ANY	ACS/WFC, ACCUM, WFC-FIX	F658N			Pattern 3, Exps 1-3 in Tile Visit 51 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 51	1100 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]



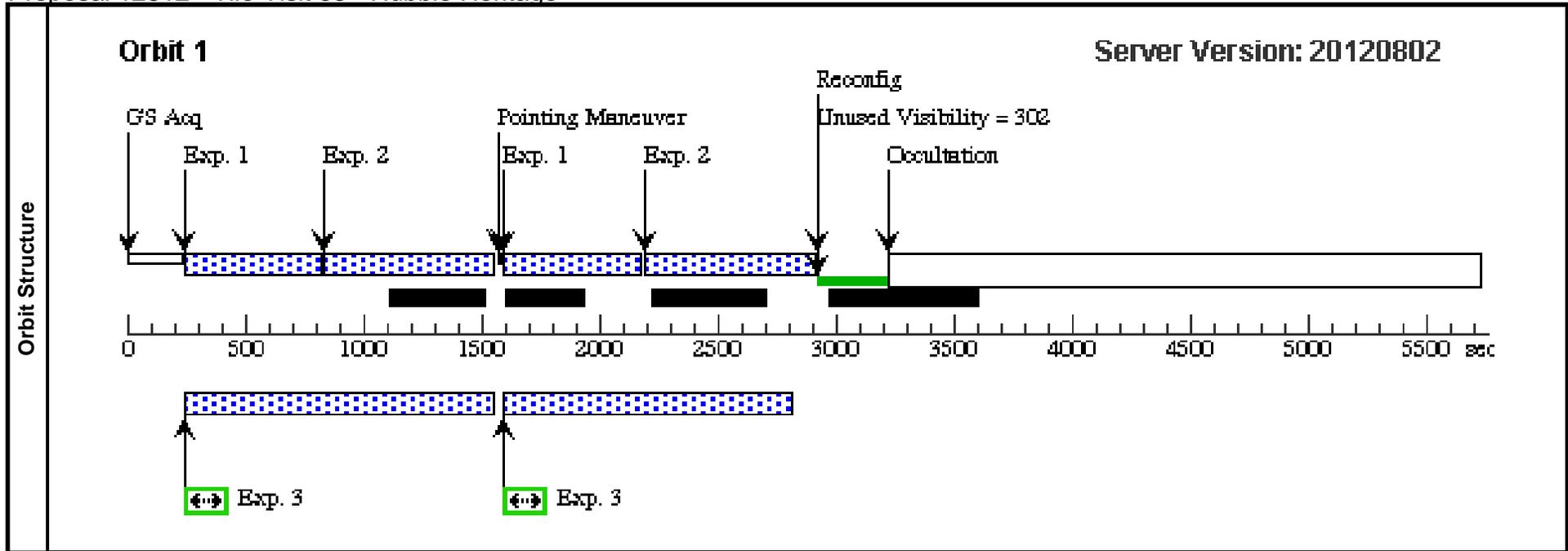
Proposal 12812 - Tile Visit 52 - Hubble Heritage

Visit	Proposal 12812, Tile Visit 52, implementation Sat Oct 06 01:03:09 GMT 2012 Diagnostic Status: Warning Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: ORIENT 302D TO 302 D									
	Diagnosics (Tile Visit 52) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE (Primary Exposure 1 (Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 52) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes (Primary Exposure 2 (Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 52) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes									
Patterns	#	Primary Pattern		Secondary Pattern		Exposures				
	(3)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=7.2 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90 Angle Between Sides= Center Pattern=true			(1-3)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(8)	HORSEHEAD-COPY	RA: 05 41 1.0696 (85.2544567d) Dec: -02 27 10.79 (-2.45300d) Equinox: J2000		V=16+/-2	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(8) HORSEHEAD-COPY	(8) HORSEHEAD-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=12; SAMP-SEQ=SPAR S50	POS TARG 123.742 39600000001,-109.5 12097000000001; GS ACQ SCENARIO SINGLE	Pattern 3, Exps 1-3 in Tile Visit 52 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 52	[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	(8) HORSEHEAD-COPY	(8) HORSEHEAD-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=15; SAMP-SEQ=SPAR S50	POS TARG 123.742 39600000001,-109.5 12097000000001	Pattern 3, Exps 1-3 in Tile Visit 52 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 52	[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	ANY	ANY	ACS/WFC, ACCUM, WFC-FIX	F658N			Pattern 3, Exps 1-3 in Tile Visit 52 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 52	1100 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]



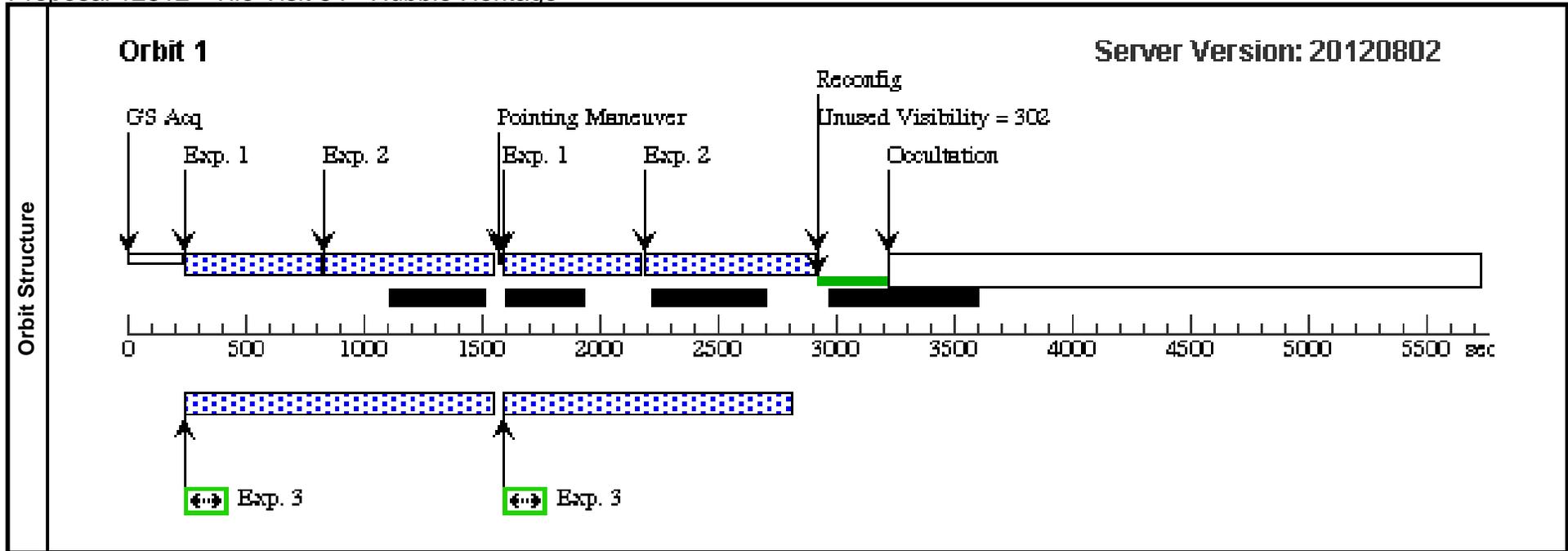
Proposal 12812 - Tile Visit 53 - Hubble Heritage

Visit	Proposal 12812, Tile Visit 53, implementation Sat Oct 06 01:03:10 GMT 2012 Diagnostic Status: Warning Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: ORIENT 301D TO 301 D									
	Diagnosics (Tile Visit 53) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE (Primary Exposure 1 (Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 53) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes (Primary Exposure 2 (Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 53) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes									
Patterns	#	Primary Pattern		Secondary Pattern		Exposures				
	(3)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=7.2 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90 Angle Between Sides= Center Pattern=true			(1-3)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(8)	HORSEHEAD-COPY	RA: 05 41 1.0696 (85.2544567d) Dec: -02 27 10.79 (-2.45300d) Equinox: J2000		V=16+/-2	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(8) HORSEHEAD-COPY	(8) HORSEHEAD-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=12; SAMP-SEQ=SPAR S50	POS TARG -123.74 239600000001,0.0; GS ACQ SCENARI O SINGLE	Pattern 3, Exps 1-3 in Tile Visit 53 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 53	[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	(8) HORSEHEAD-COPY	(8) HORSEHEAD-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=15; SAMP-SEQ=SPAR S50	POS TARG -123.74 239600000001,0.0	Pattern 3, Exps 1-3 in Tile Visit 53 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 53	[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	ANY	ANY	ACS/WFC, ACCUM, WFC-FIX	F658N			Pattern 3, Exps 1-3 in Tile Visit 53 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 53	1100 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]



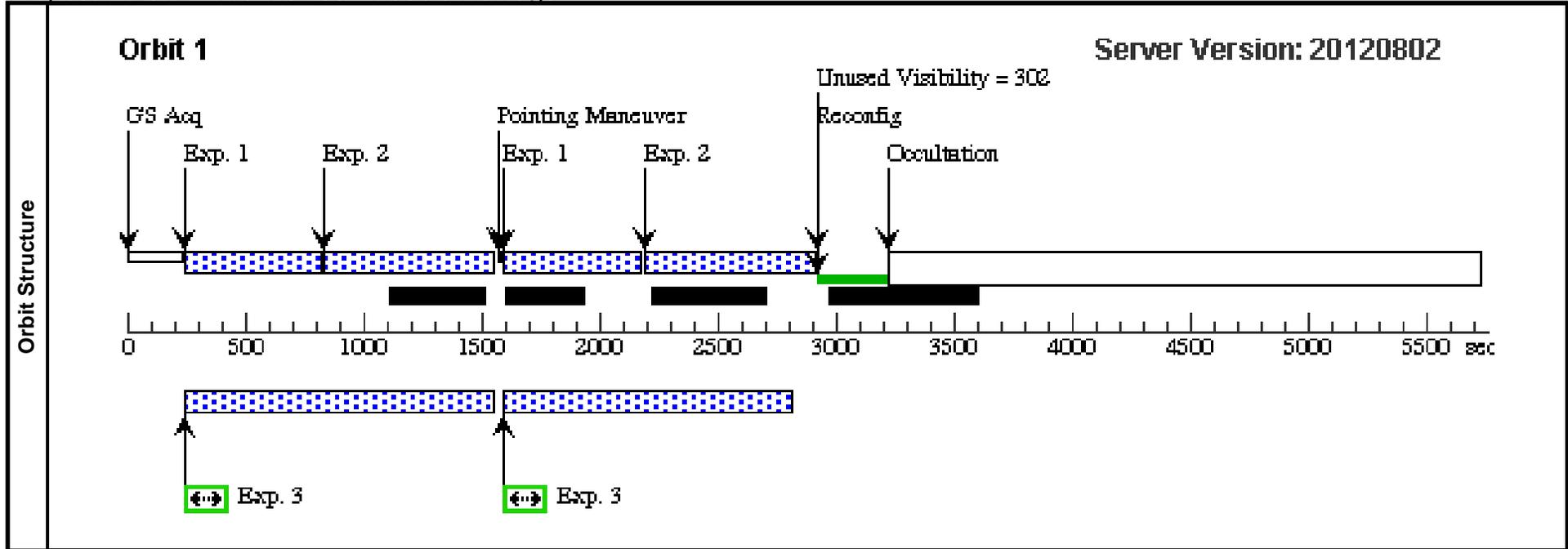
Proposal 12812 - Tile Visit 54 - Hubble Heritage

Visit	Proposal 12812, Tile Visit 54, implementation Sat Oct 06 01:03:11 GMT 2012									
	Diagnostic Status: Warning Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: ORIENT 302D TO 302 D									
Diagnostics	(Primary Exposure 1 (Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 54) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes (Primary Exposure 2 (Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 54) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes									
Patterns	#	Primary Pattern		Secondary Pattern		Exposures				
	(3)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=7.2 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90 Angle Between Sides= Center Pattern=true			(1-3)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(8)	HORSEHEAD-COPY	RA: 05 41 1.0696 (85.2544567d) Dec: -02 27 10.79 (-2.45300d) Equinox: J2000		V=16+/-2	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(8) HORSEHEAD-COPY	(8) HORSEHEAD-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=12;	POS TARG 0.0,0.0;	Pattern 3, Exps 1-3 in Tile Visit 54 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 54	[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	(8) HORSEHEAD-COPY	(8) HORSEHEAD-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=15;	POS TARG 0.0,0.0	Pattern 3, Exps 1-3 in Tile Visit 54 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 54	[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	ANY	ANY	ACS/WFC, ACCUM, WFC-FIX	F658N			Pattern 3, Exps 1-3 in Tile Visit 54 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 54	1100 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]



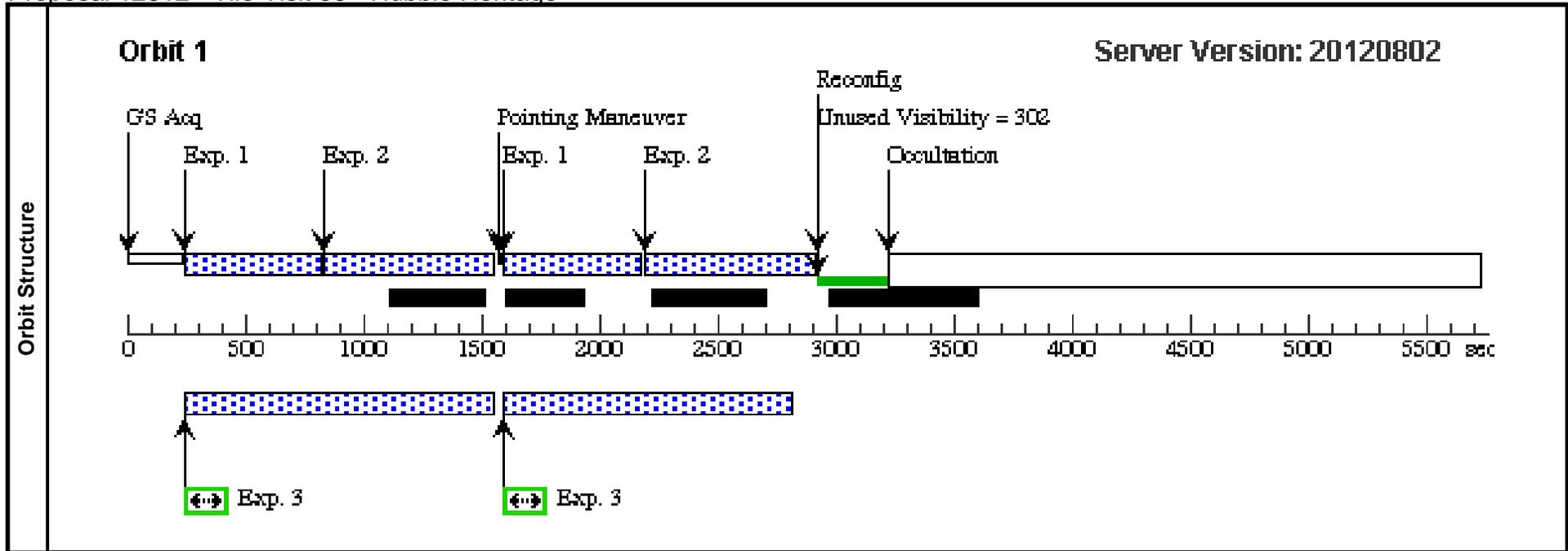
Proposal 12812 - Tile Visit 55 - Hubble Heritage

Visit	Proposal 12812, Tile Visit 55, implementation Sat Oct 06 01:03:11 GMT 2012									
	Diagnostic Status: Warning Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: ORIENT 302D TO 302 D									
Diagnostics	(Tile Visit 55) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE (Primary Exposure 1 (Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 55) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes (Primary Exposure 2 (Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 55) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes									
Patterns	#	Primary Pattern		Secondary Pattern		Exposures				
	(3)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=7.2 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90 Angle Between Sides= Center Pattern=true			(1-3)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(8)	HORSEHEAD-COPY	RA: 05 41 1.0696 (85.2544567d) Dec: -02 27 10.79 (-2.45300d) Equinox: J2000		V=16+/-2	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(8) HORSEHEAD-COPY	(8) HORSEHEAD-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=12; SAMP-SEQ=SPARS50	POS TARG 123.74239600000001,0.0; GS ACQ SCENARIO SINGLE	Pattern 3, Exps 1-3 in Tile Visit 55 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 55	[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	(8) HORSEHEAD-COPY	(8) HORSEHEAD-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=15; SAMP-SEQ=SPARS50	POS TARG 123.74239600000001,0.0	Pattern 3, Exps 1-3 in Tile Visit 55 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 55	[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	ANY	ANY	ACS/WFC, ACCUM, WFC-FIX	F658N			Pattern 3, Exps 1-3 in Tile Visit 55 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 55	1100 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]



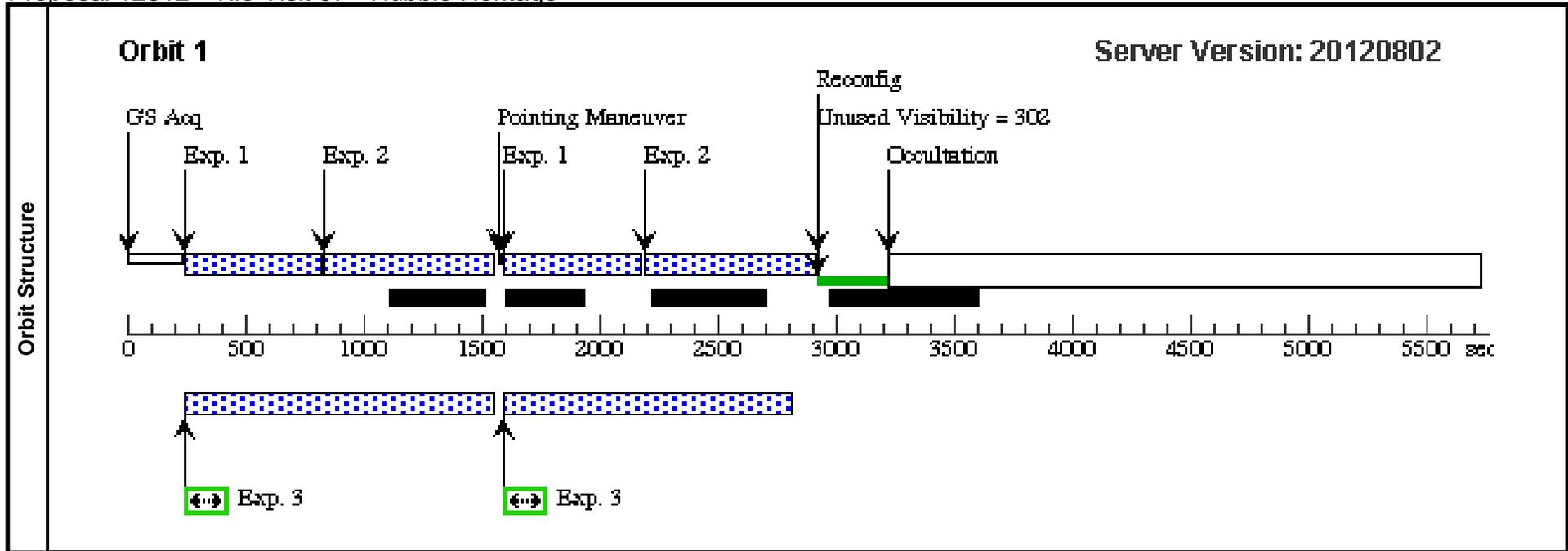
Proposal 12812 - Tile Visit 56 - Hubble Heritage

Visit	Proposal 12812, Tile Visit 56, implementation Sat Oct 06 01:03:12 GMT 2012									
	Diagnostic Status: Warning Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: ORIENT 298D TO 298 D									
Diagnostics	(Tile Visit 56) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE (Primary Exposure 1 (Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 56) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes (Primary Exposure 2 (Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 56) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes									
Patterns	#	Primary Pattern		Secondary Pattern		Exposures				
	(3)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=7.2 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90 Angle Between Sides= Center Pattern=true			(1-3)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(8)	HORSEHEAD-COPY	RA: 05 41 1.0696 (85.2544567d) Dec: -02 27 10.79 (-2.45300d) Equinox: J2000		V=16+/-2	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(8) HORSEHEAD-COPY	(8) HORSEHEAD-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=12; SAMP-SEQ=SPAR S50	POS TARG -123.74 239600000001,109.5 12097000000001; GS ACQ SCENARI O SINGLE	Pattern 3, Exps 1-3 in Tile Visit 56 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 56	[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	(8) HORSEHEAD-COPY	(8) HORSEHEAD-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=15; SAMP-SEQ=SPAR S50	POS TARG -123.74 2396000000001,109.5 12097000000001	Pattern 3, Exps 1-3 in Tile Visit 56 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 56	[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	ANY	ANY	ACS/WFC, ACCUM, WFC-FIX	F658N			Pattern 3, Exps 1-3 in Tile Visit 56 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 56	1100 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]



Proposal 12812 - Tile Visit 57 - Hubble Heritage

Visit	Proposal 12812, Tile Visit 57, implementation Sat Oct 06 01:03:13 GMT 2012									
	Diagnostic Status: Warning Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: ORIENT 302D TO 302 D									
Diagnostics	(Tile Visit 57) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE (Primary Exposure 1 (Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 57) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes (Primary Exposure 2 (Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 57) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes									
Patterns	#	Primary Pattern		Secondary Pattern		Exposures				
	(3)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=7.2 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90 Angle Between Sides= Center Pattern=true			(1-3)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(8)	HORSEHEAD-COPY	RA: 05 41 1.0696 (85.2544567d) Dec: -02 27 10.79 (-2.45300d) Equinox: J2000		V=16+/-2	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(8) HORSEHEAD-COPY	(8) HORSEHEAD-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=12; SAMP-SEQ=SPAR S50	POS TARG 0.0,109.51209700000001; GS ACQ SCENARIO SINGLE	Pattern 3, Exps 1-3 in Tile Visit 57 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 57	[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	(8) HORSEHEAD-COPY	(8) HORSEHEAD-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=15; SAMP-SEQ=SPAR S50	POS TARG 0.0,109.51209700000001	Pattern 3, Exps 1-3 in Tile Visit 57 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 57	[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	ANY	ANY	ACS/WFC, ACCUM, WFC-FIX	F658N			Pattern 3, Exps 1-3 in Tile Visit 57 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 57	1100 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]



Proposal 12812 - Tile Visit 58 - Hubble Heritage

Visit	Proposal 12812, Tile Visit 58, implementation Sat Oct 06 01:03:14 GMT 2012 Diagnostic Status: Warning Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: ORIENT 302D TO 302 D									
	Diagnosics (Tile Visit 58) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE (Primary Exposure 1 (Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 58) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes (Primary Exposure 2 (Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 58) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes									
Patterns	#	Primary Pattern		Secondary Pattern		Exposures				
	(3)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=7.2 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90 Angle Between Sides= Center Pattern=true			(1-3)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(8)	HORSEHEAD-COPY	RA: 05 41 1.0696 (85.2544567d) Dec: -02 27 10.79 (-2.45300d) Equinox: J2000		V=16+/-2	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(8) HORSEHEAD-COPY	(8) HORSEHEAD-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=12; SAMP-SEQ=SPAR S50	POS TARG 123.742 39600000001,109.51 2097000000001; GS ACQ SCENARIO SINGLE	Pattern 3, Exps 1-3 in Tile Visit 58 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 58	[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	(8) HORSEHEAD-COPY	(8) HORSEHEAD-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=15; SAMP-SEQ=SPAR S50	POS TARG 123.742 39600000001,109.51 2097000000001	Pattern 3, Exps 1-3 in Tile Visit 58 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 58	[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	ANY	ANY	ACS/WFC, ACCUM, WFC-FIX	F658N			Pattern 3, Exps 1-3 in Tile Visit 58 (3) Prime + Parallel Group 1-3 in Pattern 3, Exps 1-3 in Tile Visit 58	1100 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]

