



17847 - Identifying a New Source of r-Process Nucleosynthesis with HST

Cycle: 32, Proposal Category: GO

(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	(2) 250108A	WFC3/UVIS	1	05-Sep-2025 13:00:45.0	yes
02	(2) 250108A	WFC3/IR	1	05-Sep-2025 13:00:45.0	yes
X2	(2) 250108A	WFC3/IR WFC3/UVIS	2	05-Sep-2025 13:00:46.0	yes
X3	(2) 250108A	WFC3/IR WFC3/UVIS	2	05-Sep-2025 13:00:47.0	yes
X4	(2) 250108A	WFC3/IR WFC3/UVIS	2	05-Sep-2025 13:00:47.0	yes
X5	(2) 250108A	WFC3/IR	2	05-Sep-2025 13:00:48.0	yes
X6	(2) 250108A	WFC3/UVIS	2	05-Sep-2025 13:00:49.0	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>
O1	(2) 250108A	WFC3/UVIS	1	05-Sep-2025 13:00:49.0	yes
O2	(2) 250108A	WFC3/UVIS	1	05-Sep-2025 13:00:49.0	yes
O3	(2) 250108A	WFC3/UVIS	1	05-Sep-2025 13:00:50.0	yes
O4	(2) 250108A	WFC3/UVIS	1	05-Sep-2025 13:00:50.0	yes
O6	(2) 250108A	WFC3/IR	1	05-Sep-2025 13:00:51.0	yes
O7	(2) 250108A	WFC3/IR	1	05-Sep-2025 13:00:51.0	yes
O9	(2) 250108A	WFC3/IR	1	05-Sep-2025 13:00:52.0	yes
03	(2) 250108A	WFC3/UVIS	1	05-Sep-2025 13:00:52.0	yes
04	(2) 250108A	WFC3/IR	1	05-Sep-2025 13:00:52.0	yes

21 Total Orbits Used

ABSTRACT

The origin of the Universe's heavy r-process elements is a fundamental issue which affects chemical enrichment across cosmic time and the development of complex life. It is now confirmed that neutron star mergers are responsible for at least some of the r-process budget, but there is gaining observational and theoretical support for an additional and faster production channel: the core-collapse of rapidly-rotating, massive stars. In particular, energetic supernovae with associated long-duration gamma-ray bursts (GRB-SNe) are the strongest candidates for a fast channel. Here, their massive neutronized accretion disks mix with the outer, Ni-dominated ejecta producing dramatic reddening at late times (~50-200 days). Even for the most nearby events, HST is necessary to detect the SN at these epochs when the color of an r-process enriched SN will be distinguishable from an event with no r-process, especially against the background light of a star-forming host galaxy. Yet, as these GRB-SNe r-process models gain traction, no tailored observations with the relevant sensitivity or wavelength coverage exist. We propose a first-of-its-kind study to monitor the late-time evolution of one nearby ($z < 0.3$) GRB-SN as a crucial test of current models. We will obtain 12 HST orbits over 5 epochs in F606W and F160W. The detection of r-process nucleosynthesis in a GRB-SN would be transformative for our understanding of when and where heavy elements enter galaxies like our Milky Way. Given both the long time baseline and rarity of nearby LGRBs, we request long-term and carry-over status.

OBSERVING DESCRIPTION

This is a non-disruptive target-of-opportunity proposal with long-term and carry-over status. This proposal is for 12 orbits (8 orbits awarded in Cycle 31, 4 in Cycle 32) of HST imaging of a nearby GRB supernova (SN), a promising but untested site to observe the formation of elements via rapid

Proposal 17847 (STScI Edit Number: 5, Created: Friday, September 5, 2025, 12:00:53PM Eastern Standard Time) - Overview

neutron capture (r-process) nucleosynthesis. These observations will observe the SN's color evolution by observing contemporaneously in one optical (F606W) filter and one near-IR (F160W) filter over ~50 - 600 days following the GRB, when ground-based telescopes are no longer sensitive to the SN's expected brightness. Observations will be obtained across 5 visits, with the first 4 visits consisting of one orbit each of WFC3/UVIS F606W and WFC3/IR F160W imaging. The final visit will be 2 orbits in each filter in order to provide a deep template for image subtraction with earlier epochs, intended to remove host galaxy light contamination.

Proposal 17847 - F606W visit 01 (01) - Identifying a New Source of r-Process Nucleosynthesis with HST

Fri Sep 05 17:00:53 GMT 2025

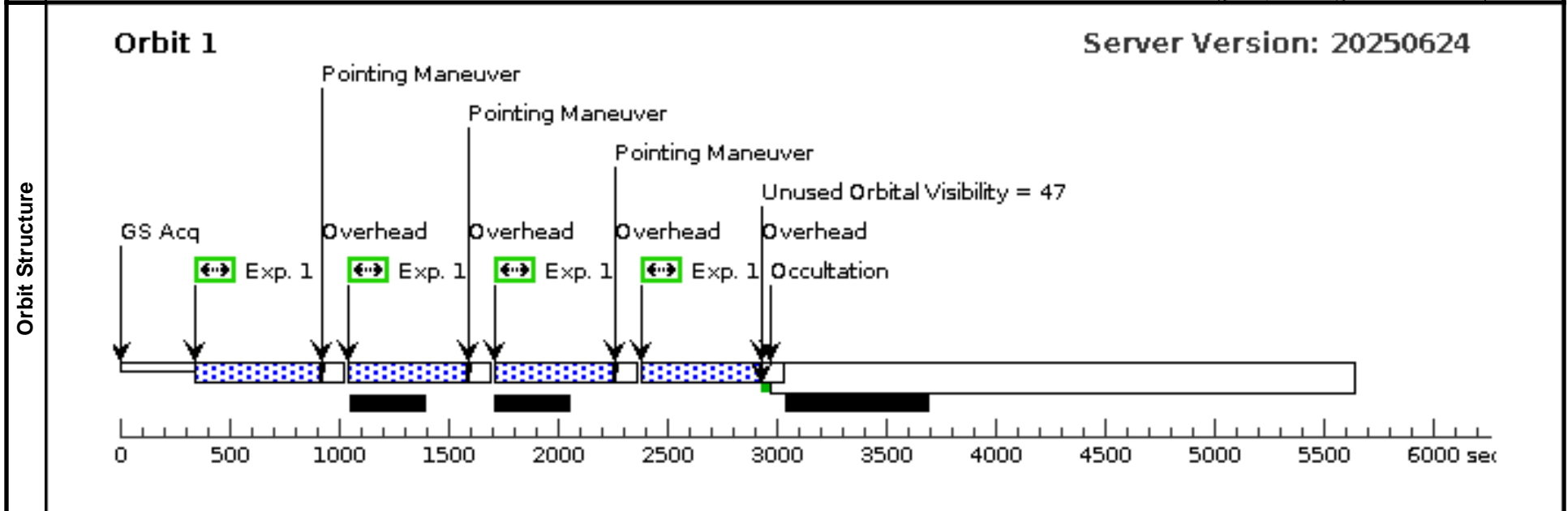
Visit	Proposal 17847, F606W visit 01 (01), completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: TOO RESPONSE TIME 21.0D		
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Patterns	#	Primary Pattern	Secondary Pattern	Exposures
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false	

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(2)	250108A	RA: 03 42 28.3900 (55.6182917d) Dec: -22 30 21.20 (-22.50589d) Equinox: J2000		V=25+/-0.5	Reference Frame: ICRS

Comments: Expected magnitude based on supernova modeling. We have not been able to get ground-based imaging since March due to Sun constraint.
 Category=STAR
 Description=[GAMMA RAY BURSTER, SUPERNOVA]
 Extended=NO

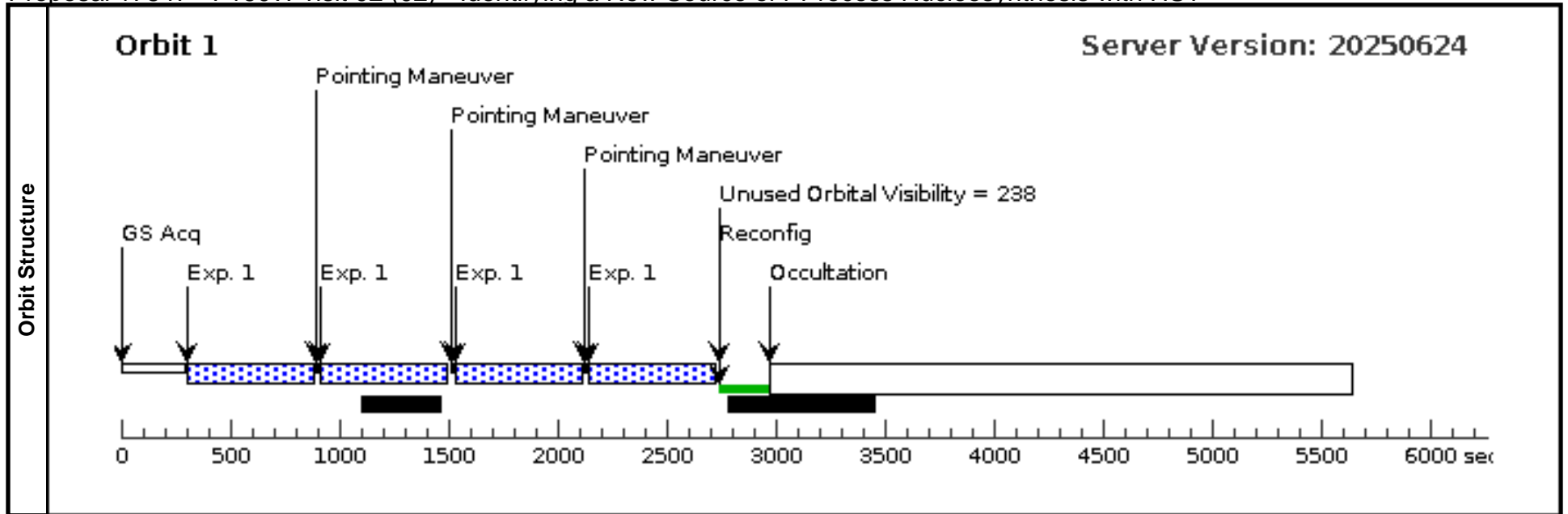
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(2) 250108A	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W	POS TARG -65,65; GS ACQ SCENARI O BASE103	Pattern 2, Exps 1-1 in F606W visit 01 (01) (2)	540 Secs (2160 Secs)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]	



Proposal 17847 - F160W visit 02 (02) - Identifying a New Source of r-Process Nucleosynthesis with HST

Fri Sep 05 17:00:53 GMT 2025

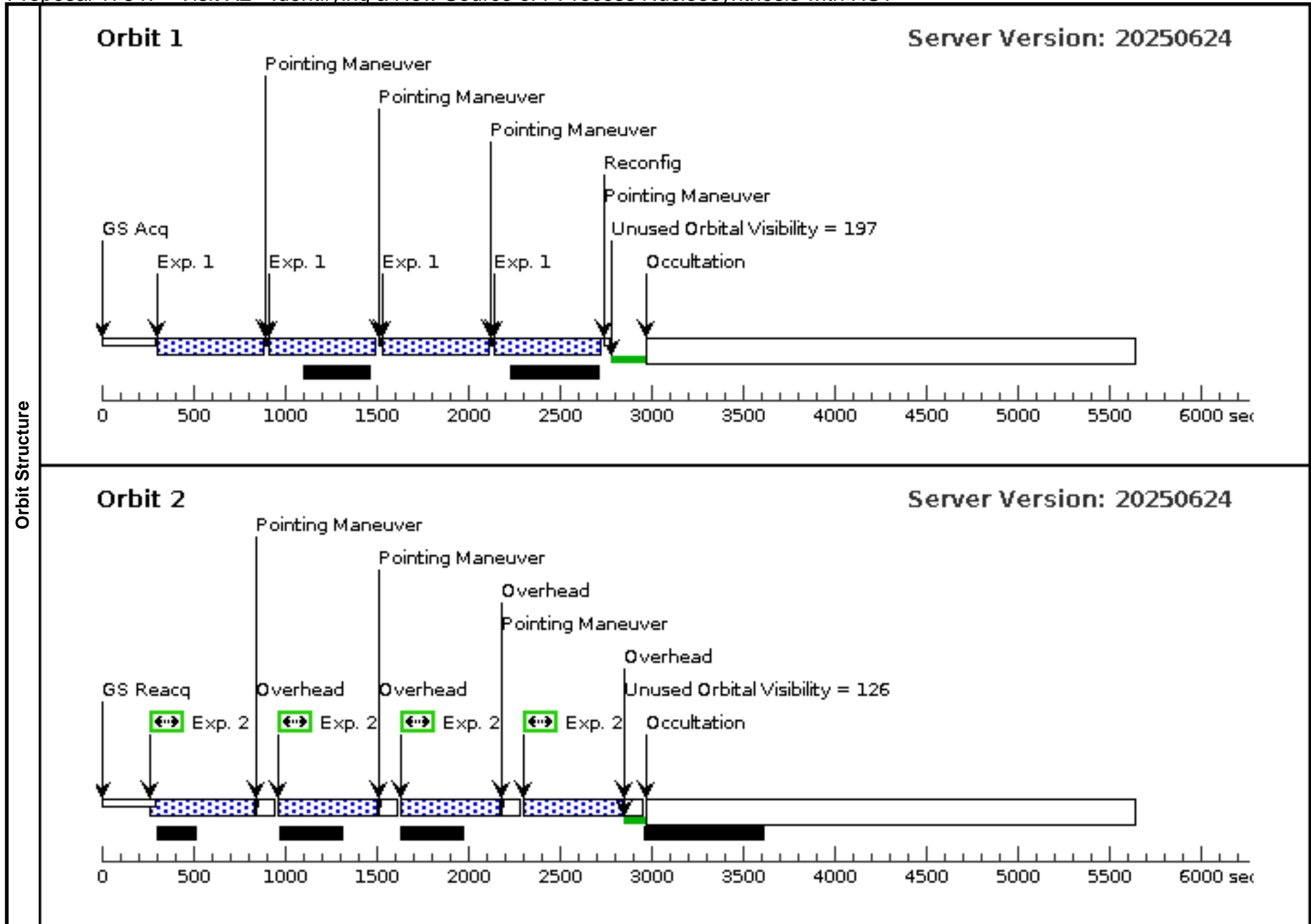
Visit	Proposal 17847, F160W visit 02 (02), completed Diagnostic Status: Informational Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 01; AFTER 01 BY 0 D TO 3 D <i>Comments: Linked to visit 01 - science aim is for color measurement.</i>									
	(F160W visit 02 (02)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.									
Diagnosics										
Patterns	#	Primary Pattern		Secondary Pattern		Exposures				
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false			(1)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	250108A	RA: 03 42 28.3900 (55.6182917d) Dec: -22 30 21.20 (-22.50589d) Equinox: J2000		V=25+/-0.5	Reference Frame: ICRS				
<i>Comments: Expected magnitude based on supernova modeling. We have not been able to get ground-based imaging since March due to Sun constraint.</i> Category=STAR Description=[GAMMA RAY BURSTER, SUPERNOVA] Extended=NO										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(2) 250108A		WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=12; SAMP-SEQ=SPAR S50	POS TARG 40,35; GS ACQ SCENARI O ONEB103	Pattern 1, Exps 1-1 in F160W visit 02 (02) (1)	552.937252 Secs (2211.749 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 17847 - Visit X2 - Identifying a New Source of r-Process Nucleosynthesis with HST

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Visit	Proposal 17847, Visit X2, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: ON HOLD ; TOO RESPONSE TIME 21.0D <i>On Hold Comments: Trigger following detection of a GRB SN at approximately $z < 0.3$.</i>									
	#	Primary Pattern	Secondary Pattern	Exposures						
Patterns	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365 Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1)						
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112 Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(2)						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	250108A	RA: 03 42 28.3900 (55.6182917d) Dec: -22 30 21.20 (-22.50589d) Equinox: J2000		V=25+/-0.5	Reference Frame: ICRS				
<i>Comments: Expected magnitude based on supernova modeling. We have not been able to get ground-based imaging since March due to Sun constraint.</i> Category=STAR Description=[GAMMA RAY BURSTER, SUPERNOVA] Extended=NO										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(2) 250108A	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=SPAR S50	GS ACQ SCENARI O ONEB103	Pattern 1, Exps 1-1 in Visit X2 (1)	552.937252 Secs (2211.749 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]
2		(2) 250108A	WFC3/UVIS, ACCUM, UVIS1	F606W		POS TARG -20,-20	Pattern 2, Exps 2-2 in Visit X2 (2)	540 Secs (2160 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[2]	

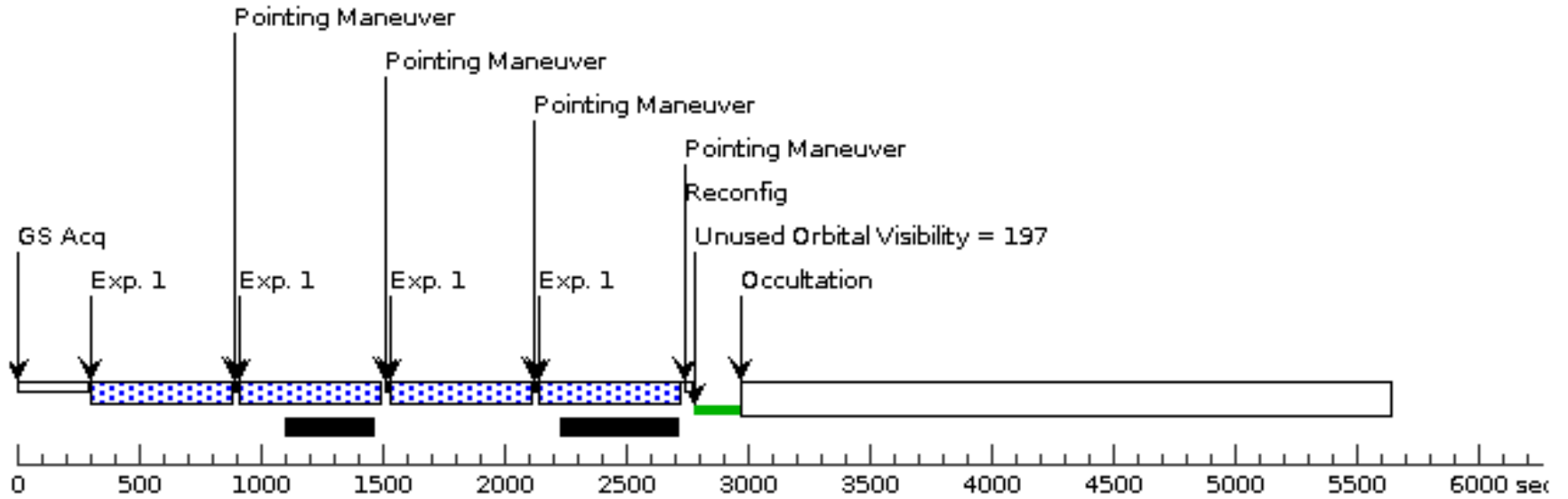


Proposal 17847 - Visit X3 - Identifying a New Source of r-Process Nucleosynthesis with HST

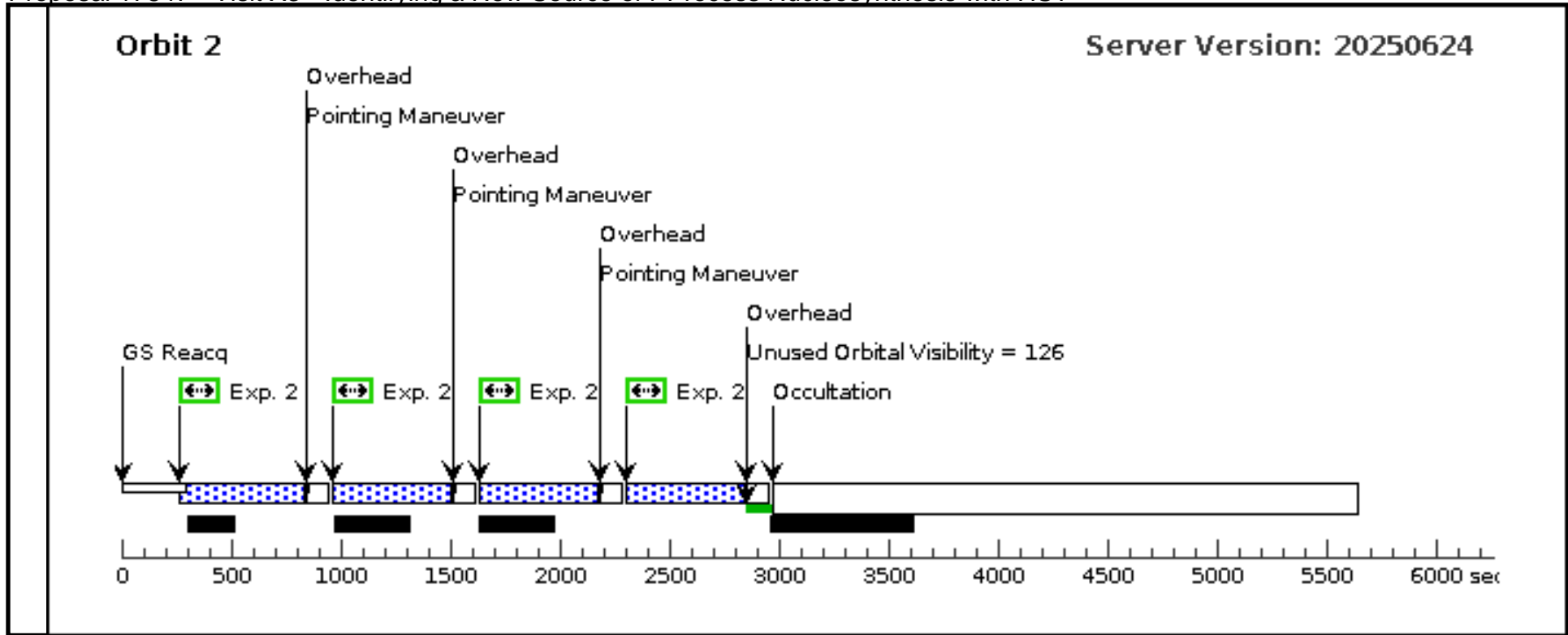
Fri Sep 05 17:00:53 GMT 2025

Visit	Proposal 17847, Visit X3, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: AFTER X2 BY 50 D TO 150 D; ON HOLD ; TOO RESPONSE TIME 21.0D <i>On Hold Comments: Trigger following detection of a GRB SN at approximately $z < 0.3$.</i>									
	#	Primary Pattern	Secondary Pattern	Exposures						
Patterns	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365 Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1)						
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112 Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(2)						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	250108A	RA: 03 42 28.3900 (55.6182917d) Dec: -22 30 21.20 (-22.50589d) Equinox: J2000		V=25+/-0.5	Reference Frame: ICRS				
<i>Comments: Expected magnitude based on supernova modeling. We have not been able to get ground-based imaging since March due to Sun constraint.</i> Category=STAR Description=[GAMMA RAY BURSTER, SUPERNOVA] Extended=NO										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(2) 250108A	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=SPAR S50	GS ACQ SCENARI O ONEB103	Pattern 1, Exps 1-1 in Visit X3 (1)	552.937252 Secs (2211.749 Secs)	[1]
2		(2) 250108A	WFC3/UVIS, ACCUM, UVIS1	F606W		POS TARG -20,-20	Pattern 2, Exps 2-2 in Visit X3 (2)	540 Secs (2160 Secs)	[2]	

Orbit 1



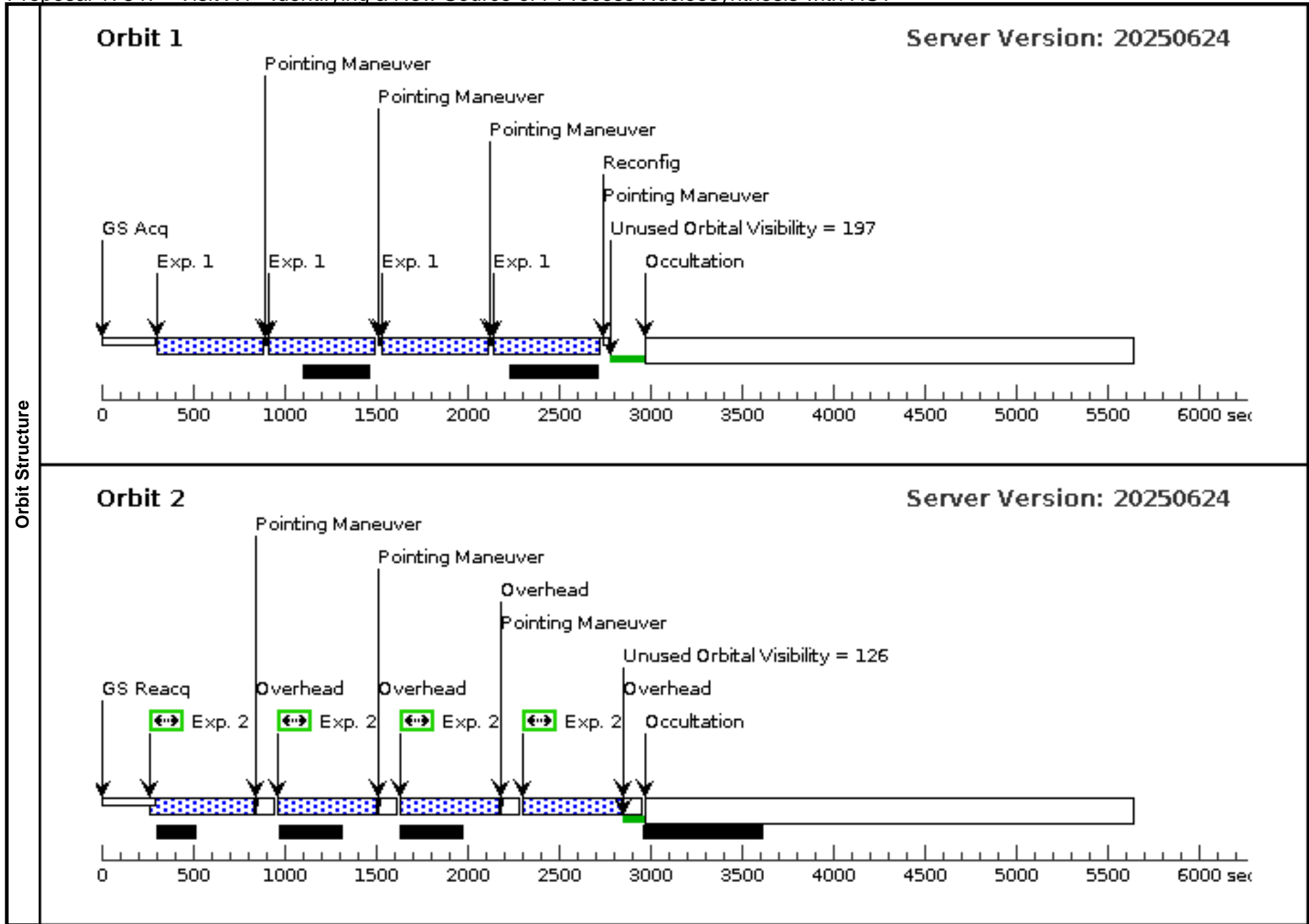
Orbit Structure



Proposal 17847 - Visit X4 - Identifying a New Source of r-Process Nucleosynthesis with HST

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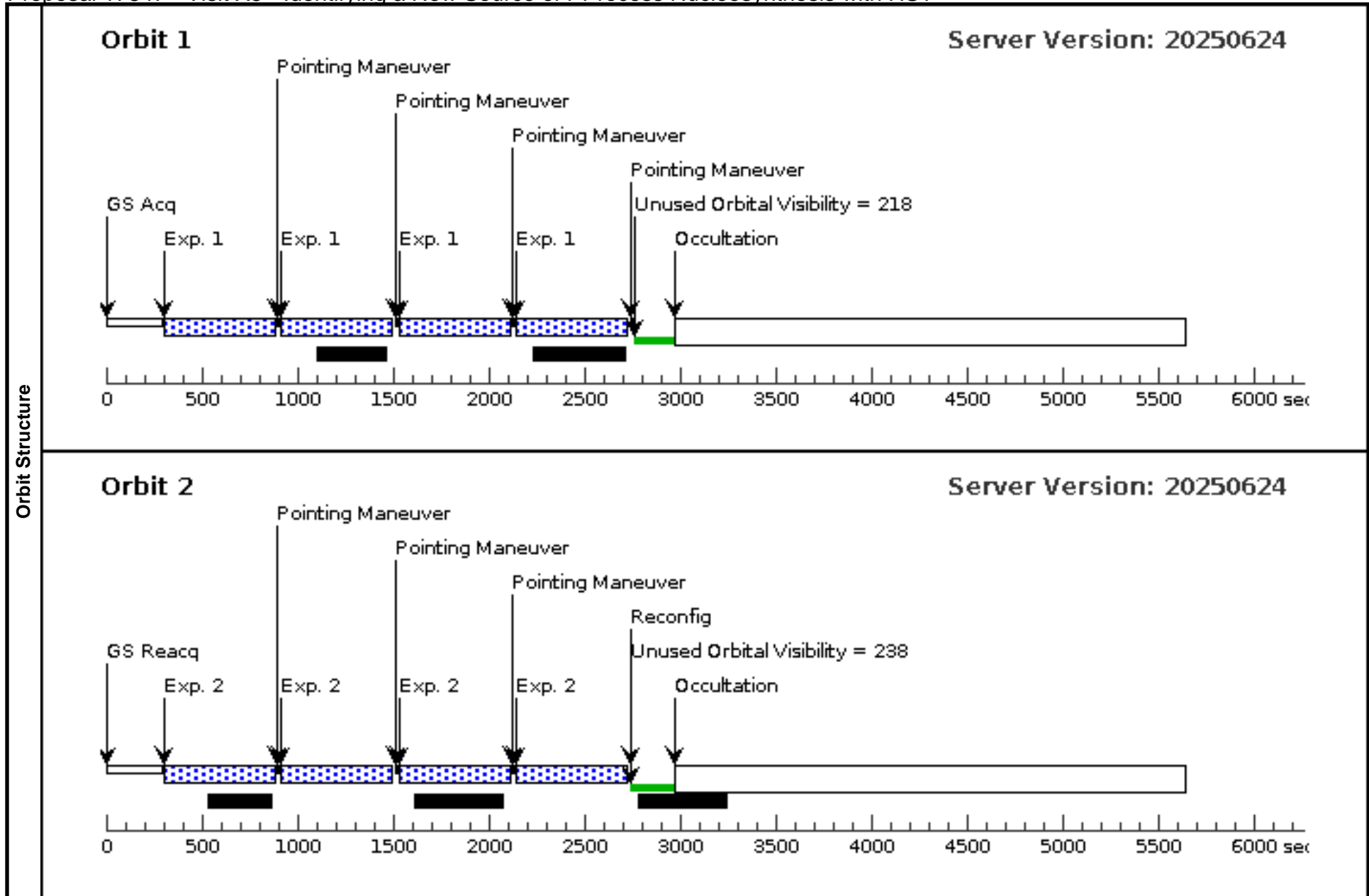
Visit	Proposal 17847, Visit X4, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: AFTER X3 BY 50 D TO 200 D; ON HOLD ; TOO RESPONSE TIME 21.0D <i>On Hold Comments: Trigger following detection of a GRB SN at approximately $z < 0.3$.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1)					
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	250108A	RA: 03 42 28.3900 (55.6182917d) Dec: -22 30 21.20 (-22.50589d) Equinox: J2000		V=25+/-0.5	Reference Frame: ICRS				
	<i>Comments: Expected magnitude based on supernova modeling. We have not been able to get ground-based imaging since March due to Sun constraint.</i> Category=STAR Description=[GAMMA RAY BURSTER, SUPERNOVA] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(2) 250108A	(2) 250108A	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=SPAR S50	GS ACQ SCENARI O ONEB103	Pattern 1, Exps 1-1 in Visit X4 (1)	552.937252 Secs (2211.749 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]
2	(2) 250108A	(2) 250108A	WFC3/UVIS, ACCUM, UVIS1	F606W		POS TARG -20,-20	Pattern 2, Exps 2-2 in Visit X4 (2)	540 Secs (2160 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[2]	



Proposal 17847 - Visit X5 - Identifying a New Source of r-Process Nucleosynthesis with HST

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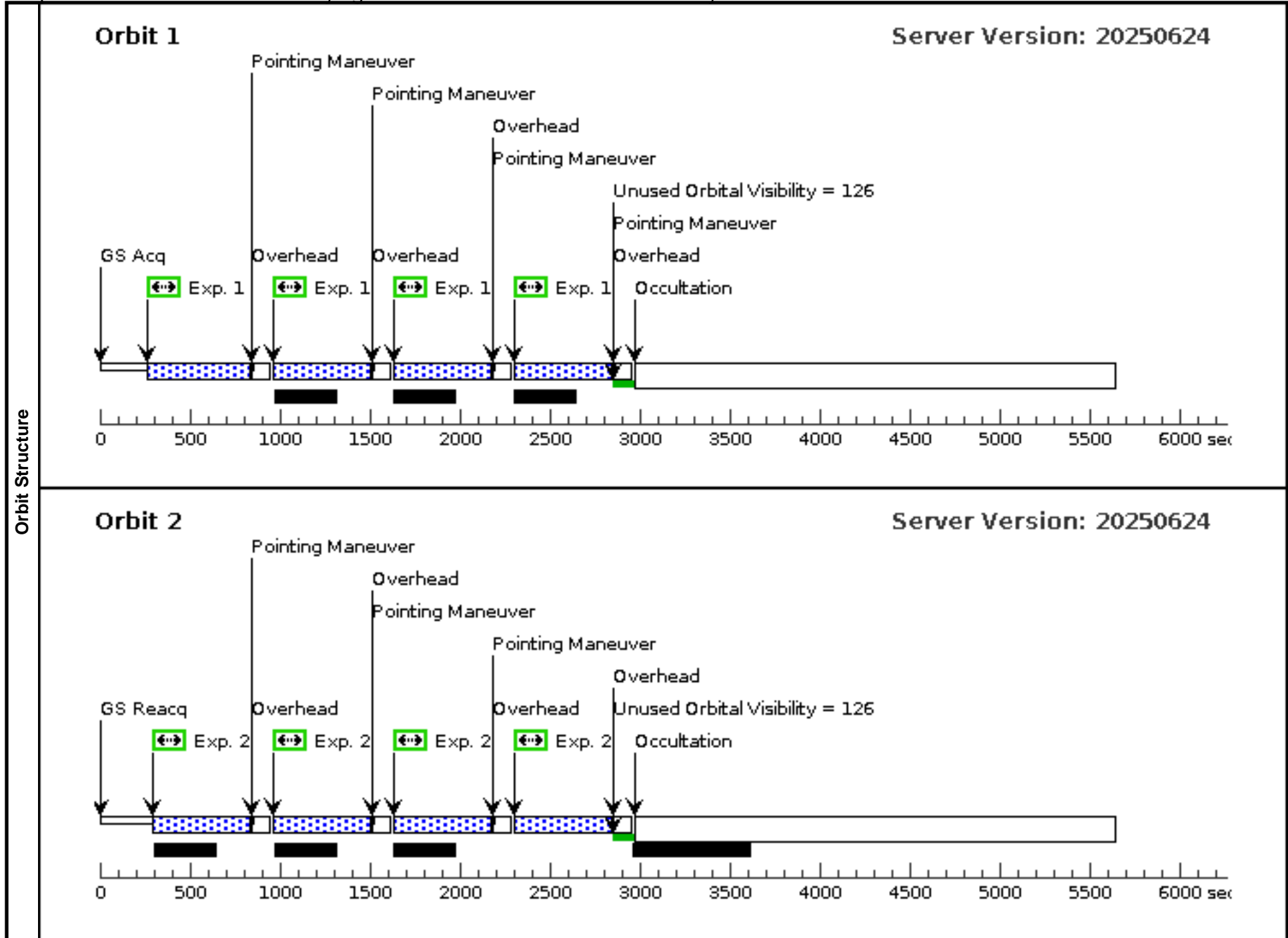
Visit	Proposal 17847, Visit X5, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: AFTER X4 BY 50 D TO 200 D; ON HOLD ; TOO RESPONSE TIME 21.0D Comments: For 2-orbit template image in F160W On Hold Comments: Trigger following detection of a GRB SN at approximately $z < 0.3$.										
	Patterns	#	Primary Pattern				Secondary Pattern			Exposures	
(1)		Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false						(1), (2)		
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(2)	250108A	RA: 03 42 28.3900 (55.6182917d) Dec: -22 30 21.20 (-22.50589d) Equinox: J2000				V=25+/-0.5	Reference Frame: ICRS			
	Comments: Expected magnitude based on supernova modeling. We have not been able to get ground-based imaging since March due to Sun constraint. Category=STAR Description=[GAMMA RAY BURSTER, SUPERNOVA] Extended=NO										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(2) 250108A	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=SPAR S50	GS ACQ SCENARI O ONEB103	Pattern 1, Exps 1-1 in Visit X5 (1)	552.937252 Secs (2211.749 Secs)			
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]	
2	(2) 250108A	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=SPAR S50		Pattern 1, Exps 2-2 in Visit X5 (1)	552.937252 Secs (2211.749 Secs)				
								[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2]		



Proposal 17847 - Visit X6 - Identifying a New Source of r-Process Nucleosynthesis with HST

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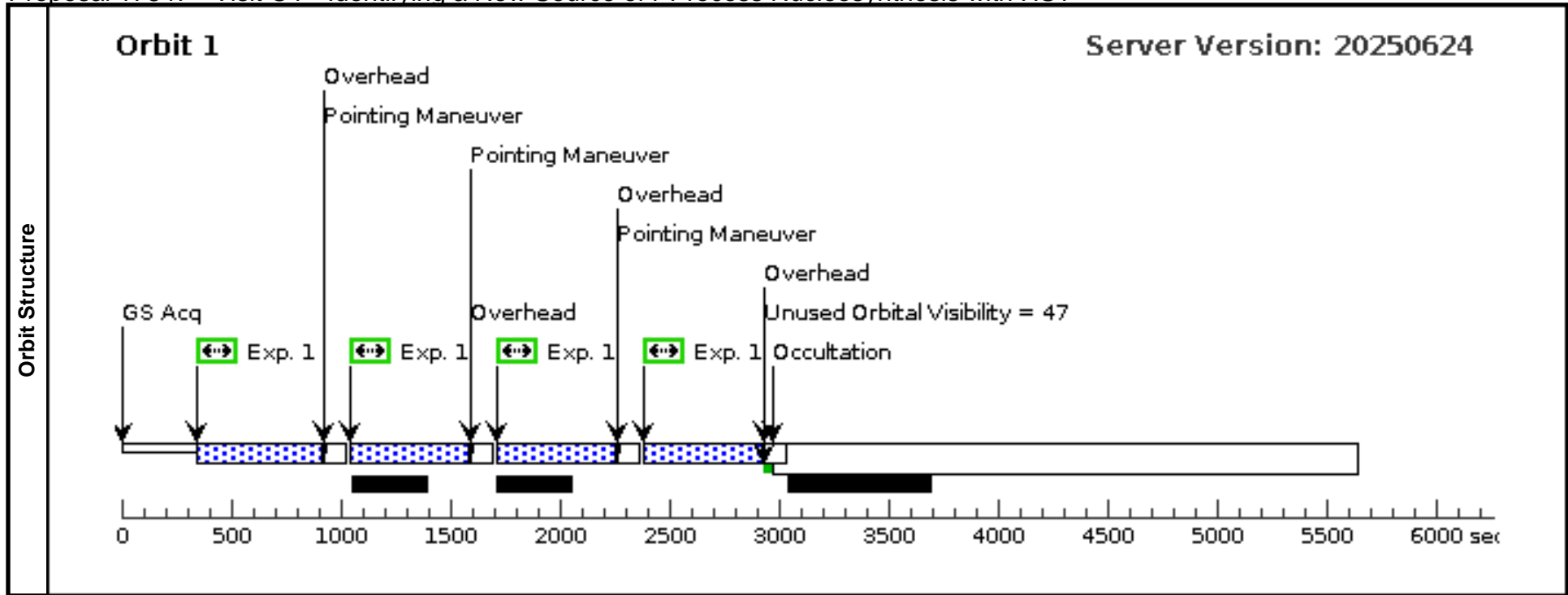
Visit	Proposal 17847, Visit X6, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: AFTER X3 BY 50 D TO 200 D; ON HOLD ; TOO RESPONSE TIME 21.0D Comments: For 2-orbit template image in F606W On Hold Comments: Trigger following detection of a GRB SN at approximately $z < 0.3$.									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(1), (2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	250108A	RA: 03 42 28.3900 (55.6182917d) Dec: -22 30 21.20 (-22.50589d) Equinox: J2000		V=25+/-0.5	Reference Frame: ICRS				
	Comments: Expected magnitude based on supernova modeling. We have not been able to get ground-based imaging since March due to Sun constraint. Category=STAR Description=[GAMMA RAY BURSTER, SUPERNOVA] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(2) 250108A	WFC3/UVIS, ACCUM, UVIS1	F606W			POS TARG -20,-20; GS ACQ SCENARI O ONEB103	Pattern 2, Exps 1-1 i n Visit X6 (2)	540 Secs (2160 Secs)	
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
2	(2) 250108A	WFC3/UVIS, ACCUM, UVIS1	F606W			POS TARG -20,-20	Pattern 2, Exps 2-2 i n Visit X6 (2)	540 Secs (2160 Secs)		
								[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2]	



Proposal 17847 - Visit O1 - Identifying a New Source of r-Process Nucleosynthesis with HST

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Visit	Proposal 17847, Visit O1, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(1)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	250108A	RA: 03 42 28.3900 (55.6182917d) Dec: -22 30 21.20 (-22.50589d) Equinox: J2000		V=25+/-0.5	Reference Frame: ICRS				
	Comments: Expected magnitude based on supernova modeling. We have not been able to get ground-based imaging since March due to Sun constraint. Category=STAR Description=[GAMMA RAY BURSTER, SUPERNOVA] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(2) 250108A	WFC3/UVIS, ACCUM, UVIS-CENTER		F606W		POS TARG -65,-65	Pattern 2, Exps 1-1 in Visit O1 (2)	540 Secs (2160 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 17847 - Visit O2 - Identifying a New Source of r-Process Nucleosynthesis with HST

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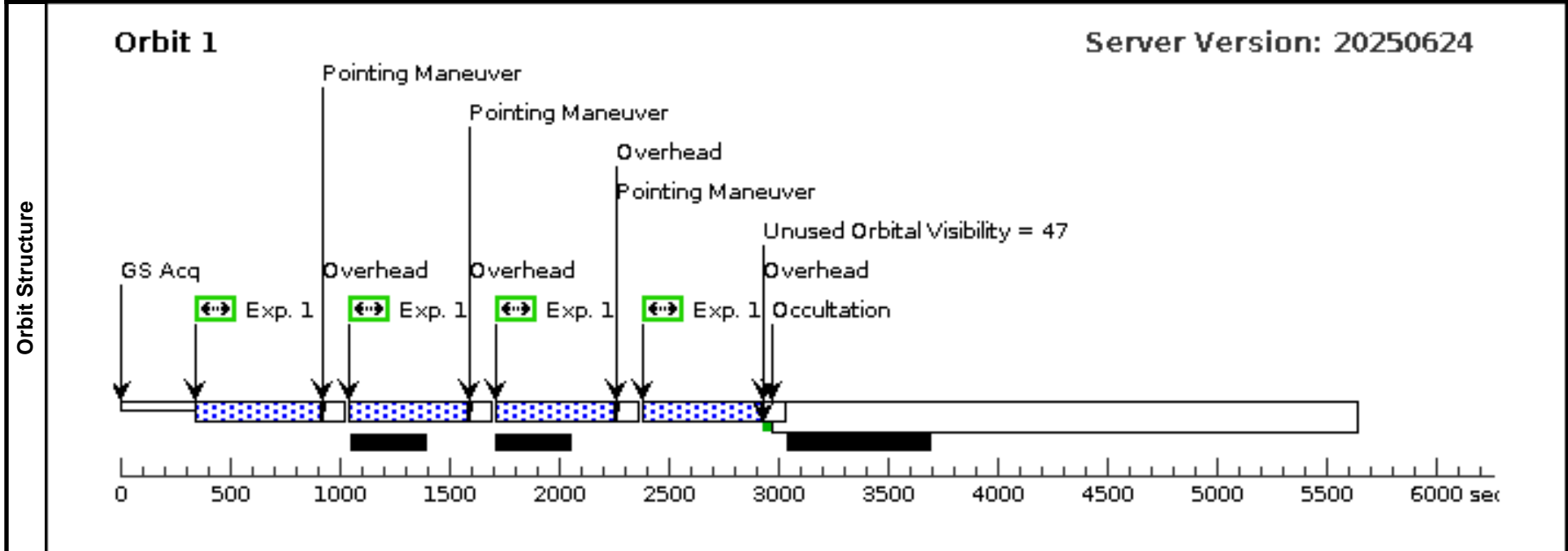
Visit	Proposal 17847, Visit O2, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: WFC3/UVIS		
	Special Requirements: (none)		

Patterns	#	Primary Pattern	Secondary Pattern	Exposures
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false	

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(2)	250108A	RA: 03 42 28.3900 (55.6182917d) Dec: -22 30 21.20 (-22.50589d) Equinox: J2000		V=25+/-0.5	Reference Frame: ICRS

Comments: Expected magnitude based on supernova modeling. We have not been able to get ground-based imaging since March due to Sun constraint.
 Category=STAR
 Description=[GAMMA RAY BURSTER, SUPERNOVA]
 Extended=NO

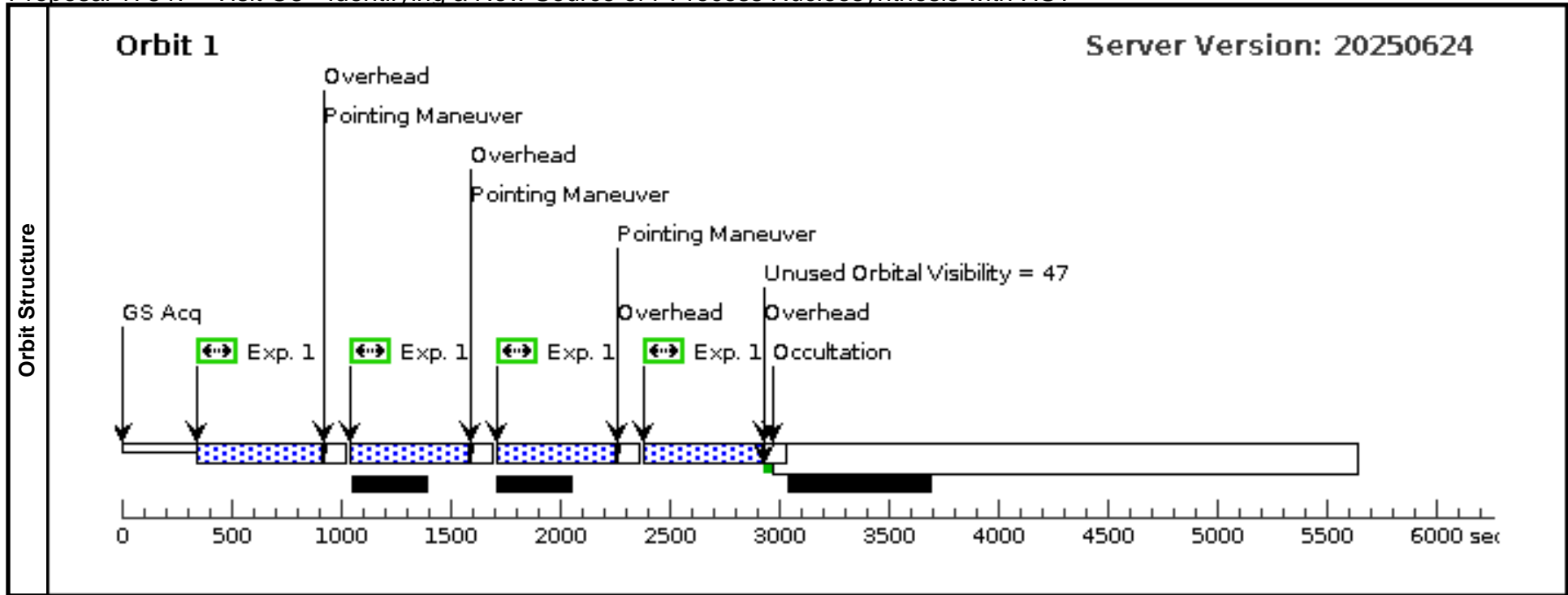
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(2) 250108A	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W		POS TARG 65,-65	Pattern 2, Exps 1-1 in Visit O2 (2)	540 Secs (2160 Secs)		[1]



Proposal 17847 - Visit O3 - Identifying a New Source of r-Process Nucleosynthesis with HST

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Visit	Proposal 17847, Visit O3, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: (none)										
	Patterns	#	Primary Pattern				Secondary Pattern			Exposures	
(2)		Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112				Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false			(1)		
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(2)	250108A	RA: 03 42 28.3900 (55.6182917d) Dec: -22 30 21.20 (-22.50589d) Equinox: J2000				V=25+/-0.5	Reference Frame: ICRS			
Comments: Expected magnitude based on supernova modeling. We have not been able to get ground-based imaging since March due to Sun constraint. Category=STAR Description=[GAMMA RAY BURSTER, SUPERNOVA] Extended=NO											
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(2) 250108A		WFC3/UVIS, ACCUM, UVIS-CENTER	F606W		POS TARG -65,65	Pattern 2, Exps 1-1 in Visit O3 (2)	540 Secs (2160 Secs)		
									[=>(Pattern 1)]		
									[=>(Pattern 2)]		
									[=>(Pattern 3)]		
									[=>(Pattern 4)]	[1]	



Proposal 17847 - Visit O4 - Identifying a New Source of r-Process Nucleosynthesis with HST

Fri Sep 05 17:00:53 GMT 2025

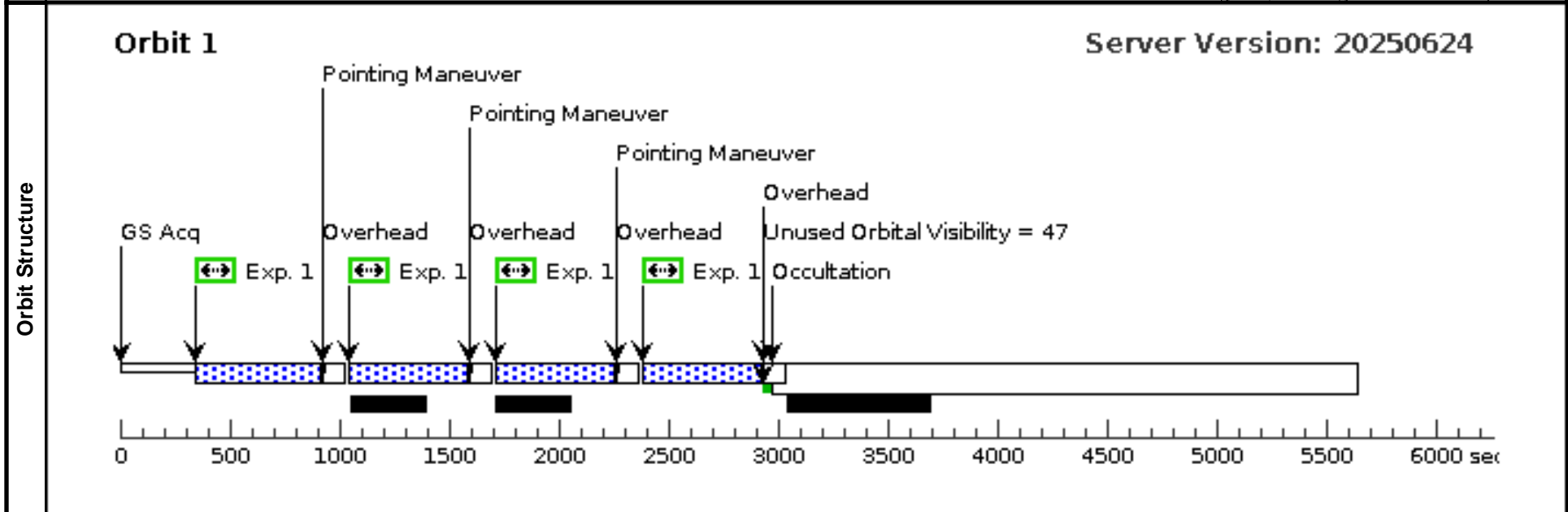
Visit	Proposal 17847, Visit O4, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: WFC3/UVIS		
	Special Requirements: (none)		

Patterns	#	Primary Pattern	Secondary Pattern	Exposures
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false	

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(2)	250108A	RA: 03 42 28.3900 (55.6182917d) Dec: -22 30 21.20 (-22.50589d) Equinox: J2000		V=25+/-0.5	Reference Frame: ICRS

Comments: Expected magnitude based on supernova modeling. We have not been able to get ground-based imaging since March due to Sun constraint.
 Category=STAR
 Description=[GAMMA RAY BURSTER, SUPERNOVA]
 Extended=NO

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(2) 250108A	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W		POS TARG 65,65	Pattern 2, Exps 1-1 in Visit O4 (2)	540 Secs (2160 Secs)		[1]



Proposal 17847 - Visit O6 - Identifying a New Source of r-Process Nucleosynthesis with HST

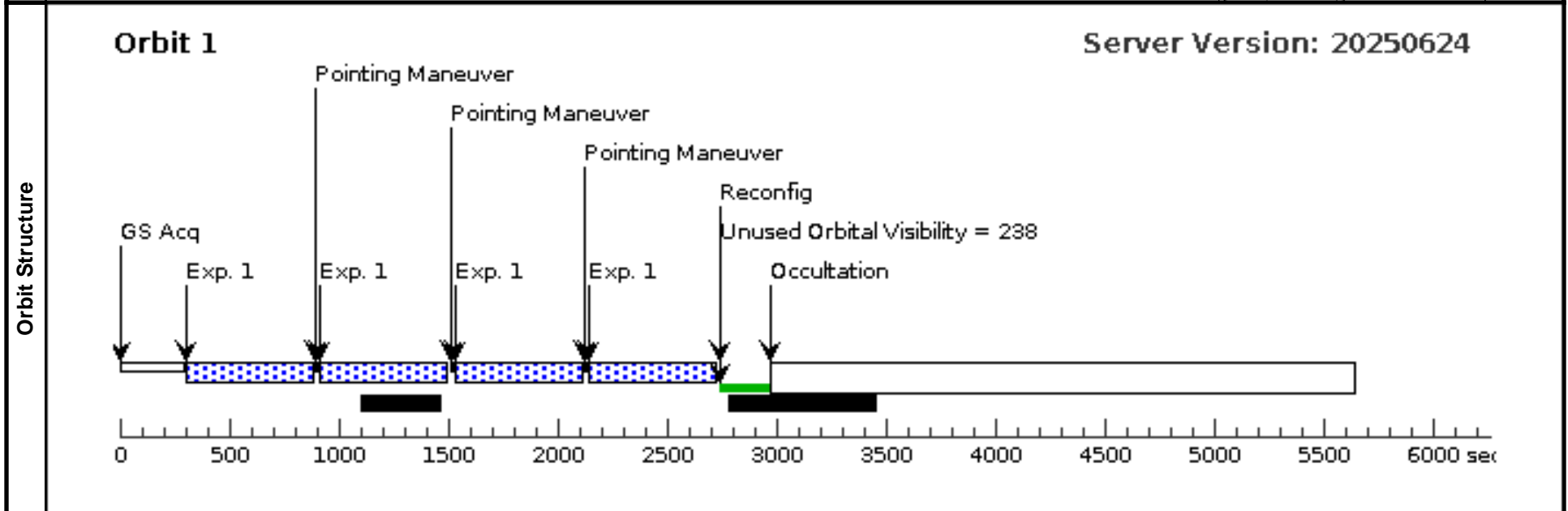
Fri Sep 05 17:00:53 GMT 2025

Visit	Proposal 17847, Visit O6, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: WFC3/IR		
	Special Requirements: AFTER O1 BY 0 D TO 3 D		

Patterns	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false	(1)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(2)	250108A	RA: 03 42 28.3900 (55.6182917d) Dec: -22 30 21.20 (-22.50589d) Equinox: J2000		V=25+/-0.5	Reference Frame: ICRS
	<i>Comments: Expected magnitude based on supernova modeling. We have not been able to get ground-based imaging since March due to Sun constraint.</i> Category=STAR Description=[GAMMA RAY BURSTER, SUPERNOVA] Extended=NO					

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(2) 250108A	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=12; SAMP-SEQ=SPAR S50	POS TARG 40,-35; GS ACQ SCENARI O ONEB103	Pattern 1, Exps 1-1 i n Visit O6 (1)	552.937252 Secs (2211.749 Secs)	
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 17847 - Visit O7 - Identifying a New Source of r-Process Nucleosynthesis with HST

Fri Sep 05 17:00:53 GMT 2025

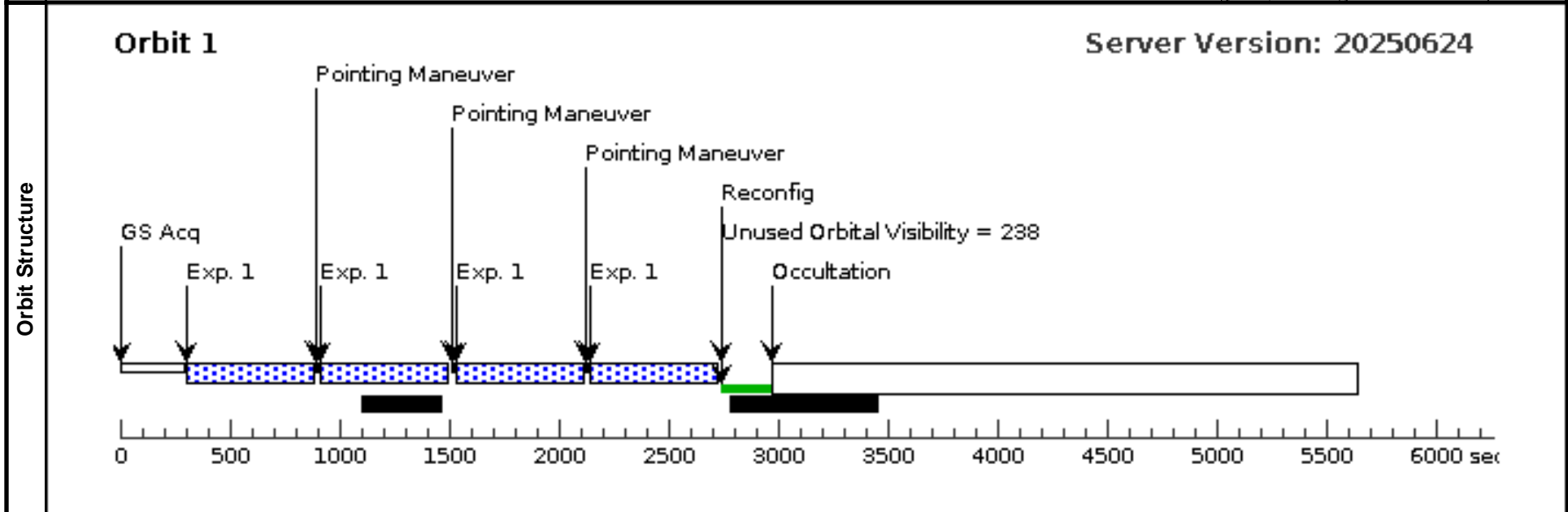
Visit	Proposal 17847, Visit O7, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: WFC3/IR		
	Special Requirements: AFTER O2 BY 0 D TO 3 D		

Patterns	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false	

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(2)	250108A	RA: 03 42 28.3900 (55.6182917d) Dec: -22 30 21.20 (-22.50589d) Equinox: J2000		V=25+/-0.5	Reference Frame: ICRS

Comments: Expected magnitude based on supernova modeling. We have not been able to get ground-based imaging since March due to Sun constraint.
 Category=STAR
 Description=[GAMMA RAY BURSTER, SUPERNOVA]
 Extended=NO

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(2) 250108A	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=12; SAMP-SEQ=SPAR S50	POS TARG -40,-35; GS ACQ SCENARI ONEB103	Pattern 1, Exps 1-1 i n Visit O7 (1)	552.937252 Secs (2211.749 Secs)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 17847 - Visit O9 - Identifying a New Source of r-Process Nucleosynthesis with HST

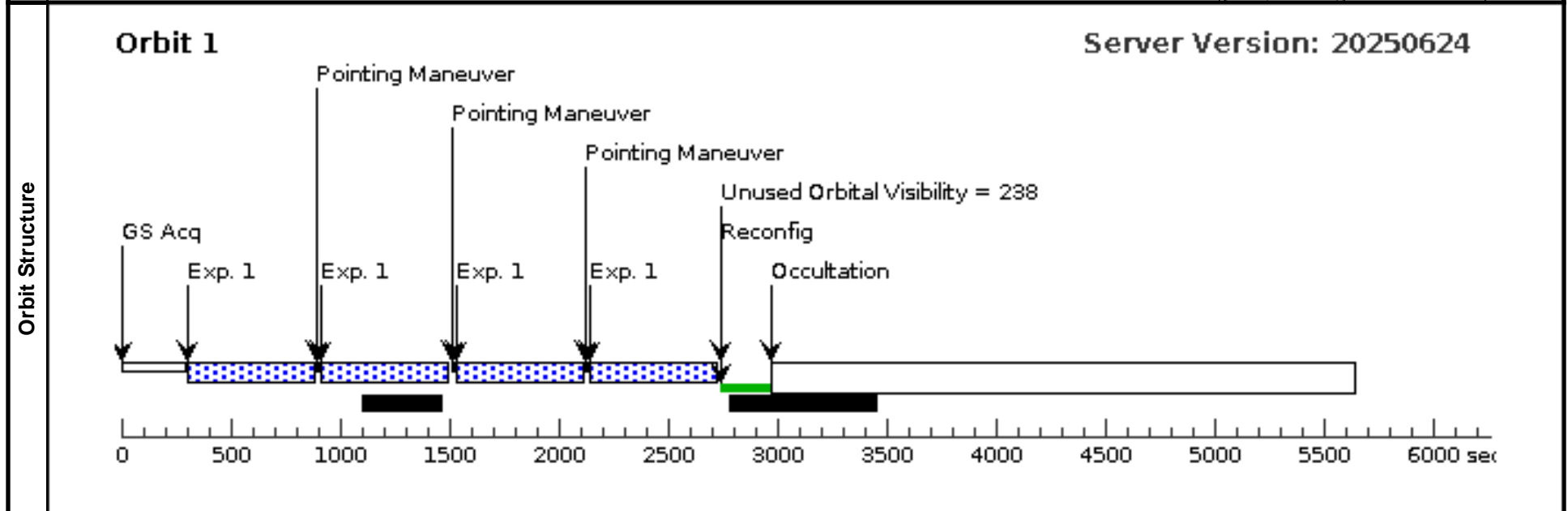
Fri Sep 05 17:00:53 GMT 2025

Visit	Proposal 17847, Visit O9, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: WFC3/IR		
	Special Requirements: AFTER O4 BY 0 D TO 3 D		

Patterns	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false	(1)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(2)	250108A	RA: 03 42 28.3900 (55.6182917d) Dec: -22 30 21.20 (-22.50589d) Equinox: J2000		V=25+/-0.5	Reference Frame: ICRS
	<i>Comments: Expected magnitude based on supernova modeling. We have not been able to get ground-based imaging since March due to Sun constraint.</i> Category=STAR Description=[GAMMA RAY BURSTER, SUPERNOVA] Extended=NO					

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(2) 250108A	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=12; SAMP-SEQ=SPAR S50	POS TARG -40,35; GS ACQ SCENARI O ONEB103	Pattern 1, Exps 1-1 i n Visit O9 (1)	552.937252 Secs (2211.749 Secs)	
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 17847 - F606W visit 03 (03) - Identifying a New Source of r-Process Nucleosynthesis with HST

Fri Sep 05 17:00:53 GMT 2025

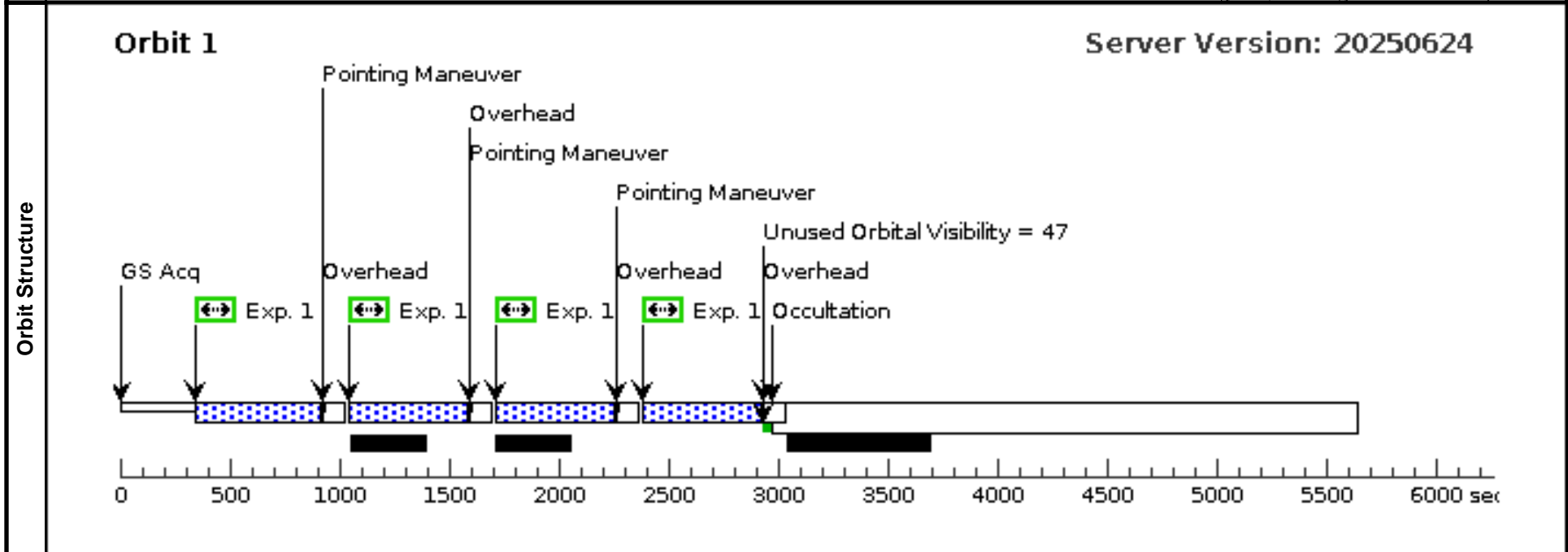
Visit	Proposal 17847, F606W visit 03 (03) Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: BEFORE 03-OCT-2025:00:00:00; TOO RESPONSE TIME 21.0D		
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Patterns	#	Primary Pattern	Secondary Pattern	Exposures
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false	(1)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(2)	250108A	RA: 03 42 28.3900 (55.6182917d) Dec: -22 30 21.20 (-22.50589d) Equinox: J2000		V=25+/-0.5	Reference Frame: ICRS

Comments: Expected magnitude based on supernova modeling. We have not been able to get ground-based imaging since March due to Sun constraint.
 Category=STAR
 Description=[GAMMA RAY BURSTER, SUPERNOVA]
 Extended=NO

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(2) 250108A	250108A	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W		POS TARG -65,-65	Pattern 2, Exps 1-1 in F606W visit 03 (03) (2)	540 Secs (2160 Secs)	[1]



Proposal 17847 - F160W visit 04 (04) - Identifying a New Source of r-Process Nucleosynthesis with HST

Fri Sep 05 17:00:53 GMT 2025

Visit	Proposal 17847, F160W visit 04 (04) Diagnostic Status: Informational Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 03; AFTER 03 BY 0 D TO 3 D <i>Comments: Linked to visit 31 - science aim is for color measurement.</i>									
	Diagnosics (F160W visit 04 (04)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.									
Patterns	#	Primary Pattern				Secondary Pattern			Exposures	
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1)			
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(2)	250108A	RA: 03 42 28.3900 (55.6182917d) Dec: -22 30 21.20 (-22.50589d) Equinox: J2000			V=25+/-0.5	Reference Frame: ICRS			
<i>Comments: Expected magnitude based on supernova modeling. We have not been able to get ground-based imaging since March due to Sun constraint.</i> Category=STAR Description=[GAMMA RAY BURSTER, SUPERNOVA] Extended=NO										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(2) 250108A		WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=12; SAMP-SEQ=SPAR S50	POS TARG 40,35; GS ACQ SCENARI O ONEB103	Pattern 1, Exps 1-1 in F160W visit 04 (04) (1)	552.937252 Secs (2211.749 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]

