



# 17914 - The UV-Optical-IR Spectral Energy Distribution of Quasi-Periodic Eruptions

Cycle: 32, Proposal Category: GO  
(Availability Mode: SUPPORTED)

## INVESTIGATORS

<i>Name</i>	<i>Institution</i>
<b>Dr. Kishore C. Patra (PI) (Contact)</b>	<b>University of California - Santa Cruz</b>
Prof. Ryan Foley (CoI) (AdminUSPI)	University of California - Santa Cruz
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Prof. Alex V. Filippenko (CoI)	University of California - Berkeley
Riccardo Arcodia (CoI)	Massachusetts Institute of Technology
Dr. K. Decker French (CoI)	University of Illinois at Urbana - Champaign
Mr. Nils Hoyer (CoI) (ESA Member)	Max Planck Institute for Astronomy
Prof. Stefano Bianchi (CoI) (ESA Member)	Universita di Roma Tre
Margherita Giustini (CoI) (ESA Member)	Centro de Astrobiologia - CAB
Dr. Thomas Wevers (CoI)	Space Telescope Science Institute
Dr. Giovanni Miniutti (CoI) (ESA Member)	Centro de Astrobiologia - CAB

## 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) GSN069	ACS/SBC	1	26-Nov-2025 15:00:16.0	yes
1A	(1) GSN069	WFC3/IR WFC3/UVIS	2	26-Nov-2025 15:00:17.0	yes
02	(2) RXJ1301.9+2747	ACS/SBC	1	26-Nov-2025 15:00:17.0	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>
2A	(2) RXJ1301.9+2747	WFC3/IR WFC3/UVIS	2	26-Nov-2025 15:00:18.0	yes
03	(3) ERO-QPE2	ACS/SBC	2	26-Nov-2025 15:00:19.0	yes
3A	(3) ERO-QPE2	WFC3/IR WFC3/UVIS	2	26-Nov-2025 15:00:20.0	yes
3B	(3) ERO-QPE2	ACS/SBC	2	26-Nov-2025 15:00:20.0	yes
3C	(3) ERO-QPE2	WFC3/IR WFC3/UVIS	2	26-Nov-2025 15:00:21.0	yes

14 Total Orbits Used

## **ABSTRACT**

Quasi-Periodic Eruptions (QPEs) are a new class of soft X-ray sources that exhibit high-amplitude flares with recurrence times ranging from a few hours to days. They are associated with low-mass massive black holes (MBHs) at galactic centers, but their nature and origin remain mysterious and strongly debated. Many theoretical frameworks invoke a compact accretion disk around the MBH to explain the origins of QPEs. We propose to obtain high-resolution images of 3 QPE host galaxies to create a comprehensive UV-optical-IR spectral energy distribution (SED) of their nuclear regions on the scale of 0.1 arcsec. Our scientific goals for constructing the SED are to test the compactness of the accretion disk, and study the nuclear star clusters (NSCs) in these QPE sources. These observations have the potential for redefining the burgeoning QPE field by testing the various models for the origins of QPEs and the broader context of MBH accretion disks and their evolution. Beyond our immediate science goals, the broad-band images of QPE hosts proposed here will have long-term value in studying their star-formation history, central stellar concentration, and morphology, providing a comprehensive understanding of the environments that facilitate QPE occurrences. Only HST can provide sufficiently high-resolution imaging across a wide range of wavelengths to resolve out the majority of the stellar light in the QPE hosts. QPEs are quickly becoming an exciting probe of low-mass SMBHs, making this proposal timely in the pursuit of understanding these puzzling phenomena.

## **OBSERVING DESCRIPTION**

The observations involve multiband imaging of three galactic nuclei that host quasi-periodic X-ray sources, using ACS/SBC, WFC3/UVIS, and WFC3/IR.

The three targets are: GSN 069, RX J1301, and ERO-QPE2.

Each target will be imaged in the following filters:

ACS/SBC: F125LP, F150LP

WFC3/UVIS: F225W, F336W, F438W, F625W, F775W

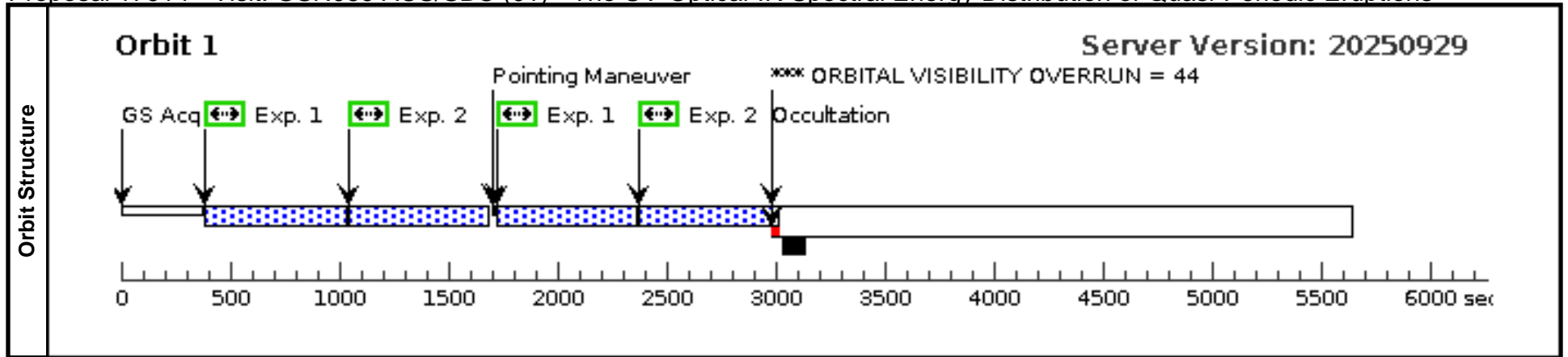
WFC3/IR: F105W, F160W

Each target will have 2 visits (one for ACS/SBC and the other for WFC3/UVIS and IR). Both visits for a given target are grouped with the requirement to be observed quasi-simultaneously within 2 days of each other.

Proposal 17914 - Visit: GSN069 ACS/SBC (01) - The UV-Optical-IR Spectral Energy Distribution of Quasi-Periodic Eruptions

Wed Nov 26 20:00:22 GMT 2025

<b>Visit</b>	<b>Proposal 17914, Visit: GSN069 ACS/SBC (01), completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/SBC Special Requirements: GROUP 01,1A WITHIN 2D <i>Comments: This visit consists of 1 orbit with the following observations</i> <i>Orbit 1: ACS/SBC F125LP &amp; F150LP</i>									
	<b>Diagnosics</b> (Visit: GSN069 ACS/SBC (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Patterns</b>	#	<b>Primary Pattern</b>		<b>Secondary Pattern</b>		<b>Exposures</b>				
	(1)	Pattern Type=ACS-SBC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.472 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=44.4 Angle Between Sides= Center Pattern=false			(1-2)				
<b>Fixed Targets</b>	#	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(1)	GSN069	RA: 01 19 8.6600 (19.7860833d) Dec: -34 11 30.52 (-34.19181d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.018	V=17.5 Estimated FUV 20 mag	Reference Frame: ICRS				
<i>Comments:</i> Category=GALAXY Description=[ACCRETION DISK, NUCLEUS]										
<b>Exposures</b>	#	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(ACS.im.19 48687)	(1) GSN069	ACS/SBC, ACCUM, SBC	F125LP			Pattern 1, Exps 1-2 in Visit: GSN069 ACS/SBC (01) (1)	587 Secs (1174 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	(ACS.im.19 48688)	(1) GSN069	ACS/SBC, ACCUM, SBC	F150LP			Pattern 1, Exps 1-2 in Visit: GSN069 ACS/SBC (01) (1)	587 Secs (1174 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]



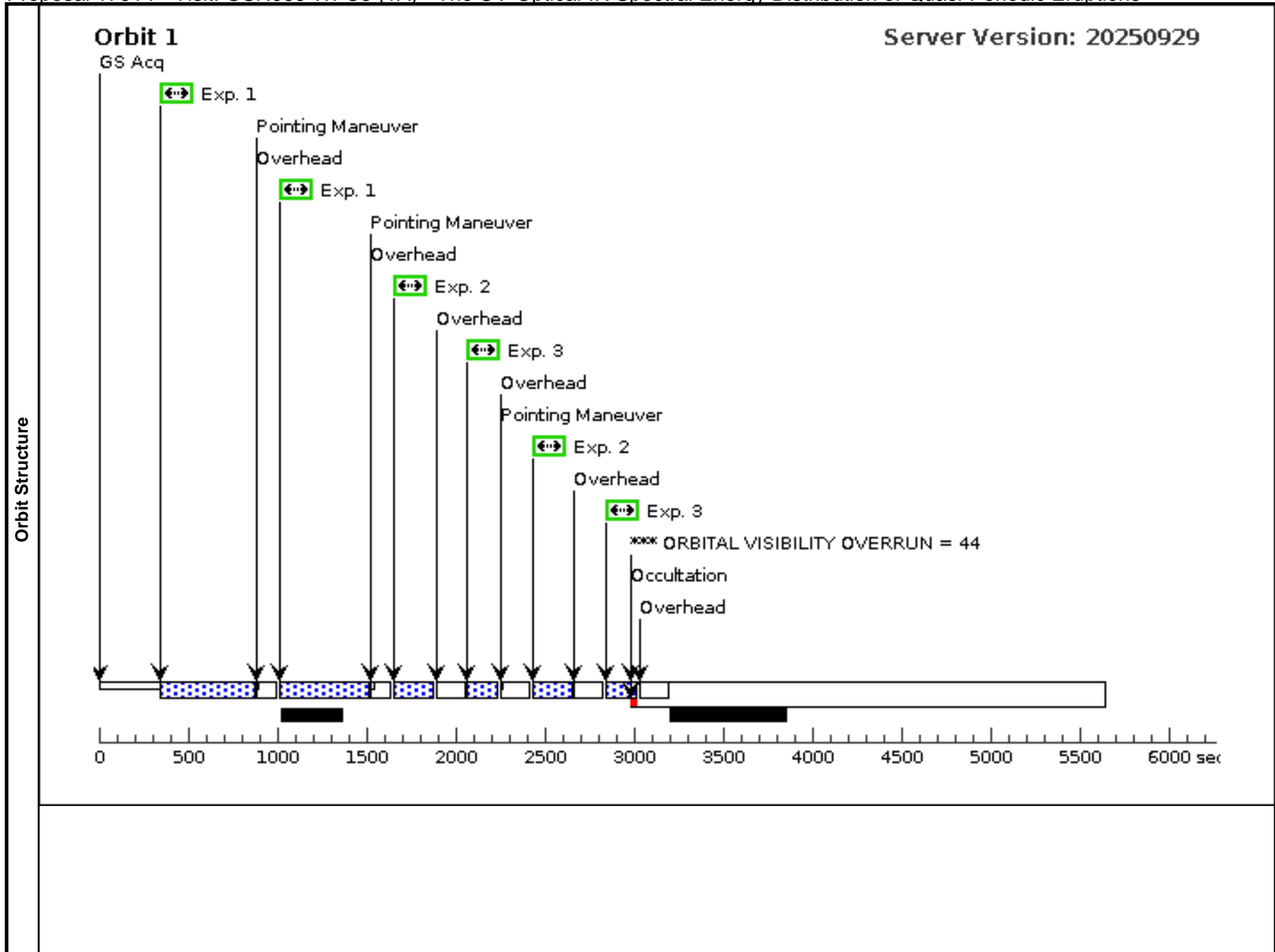
Proposal 17914 - Visit: GSN069 WFC3 (1A) - The UV-Optical-IR Spectral Energy Distribution of Quasi-Periodic Eruptions

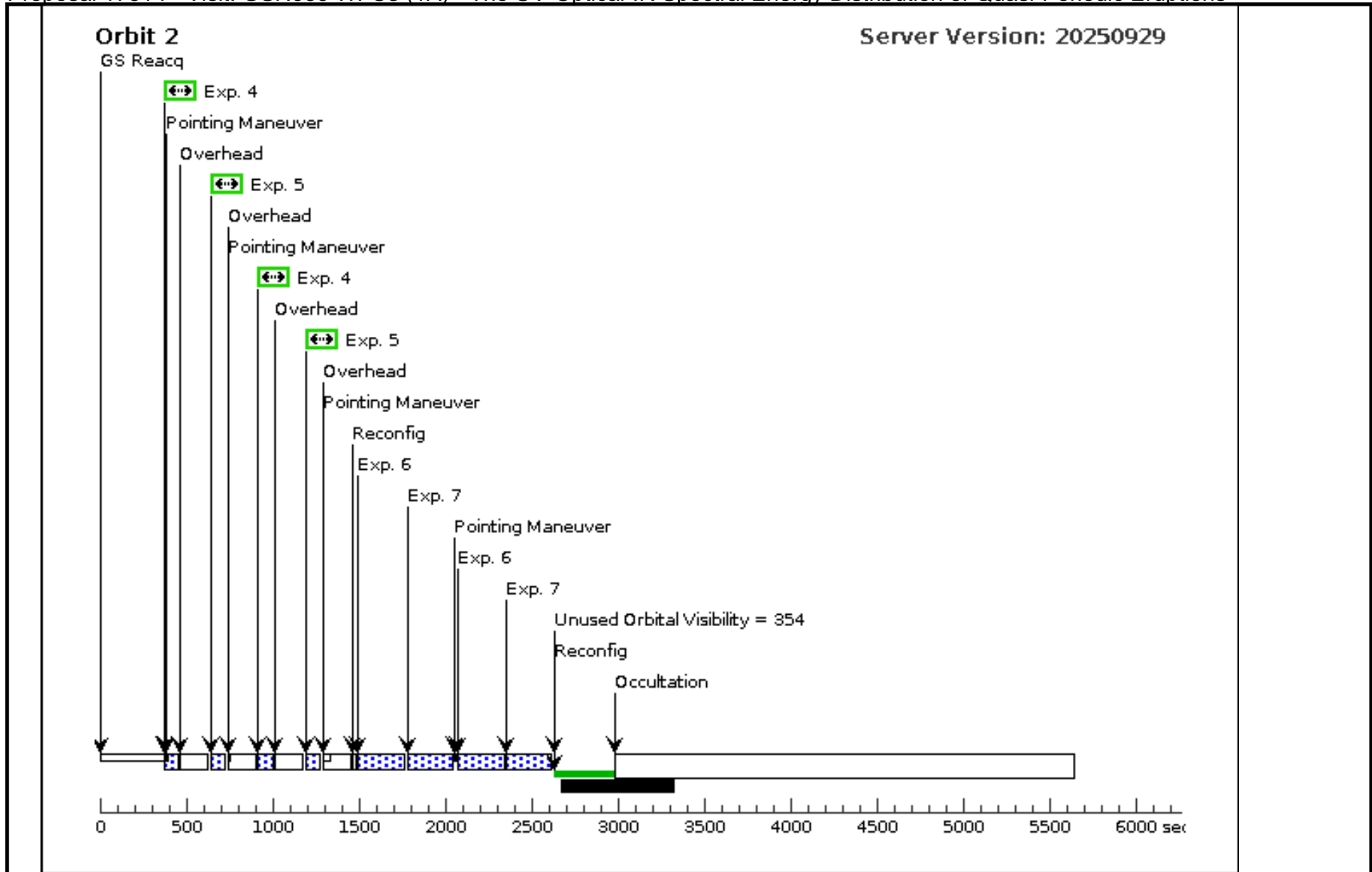
Wed Nov 26 20:00:22 GMT 2025

<b>Visit</b>	<b>Proposal 17914, Visit: GSN069 WFC3 (1A), completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: GROUP 1A,01 WITHIN 2D <i>Comments: This visit consists of 2 orbits with the following division</i> Orbit 1: WFC3/UVIS F225W & F336W & F438W Orbit 2: WFC3/UVIS F625W & F775W --> switch to WFC3/IR F105W & F160W					
	<b>Diagnosics</b> (Visit: GSN069 WFC3 (1A)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>		
	(2)	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), (2-3), (4-5)		
(3)	Pattern Type=WFC3-IR-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(6-7)			
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(1)	GSN069	RA: 01 19 8.6600 (19.7860833d) Dec: -34 11 30.52 (-34.19181d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.018	V=17.5 Estimated FUV 20 mag	Reference Frame: ICRS
<i>Comments:</i> Category=GALAXY Description=[ACCRETION DISK, NUCLEUS]						

Proposal 17914 - Visit: GSN069 WFC3 (1A) - The UV-Optical-IR Spectral Energy Distribution of Quasi-Periodic Eruptions

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1) GSN069	(1) GSN069	WFC3/UVIS, ACCUM, UVIS2-C1K1C-CTE	F225W	FLASH=20		Pattern 2, Exps 1-1 i n Visit: GSN069 WF C3 (1A) (2)	500 Secs (1000 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	(1) GSN069	(1) GSN069	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F336W	FLASH=20		Pattern 2, Exps 2-3 i n Visit: GSN069 WF C3 (1A) (2)	200 Secs (400 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	(1) GSN069	(1) GSN069	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F438W	FLASH=20		Pattern 2, Exps 2-3 i n Visit: GSN069 WF C3 (1A) (2)	150 Secs (300 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4	(1) GSN069	(1) GSN069	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F625W	FLASH=20		Pattern 2, Exps 4-5 i n Visit: GSN069 WF C3 (1A) (2)	60 Secs (120 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	5	(1) GSN069	(1) GSN069	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F775W	FLASH=20		Pattern 2, Exps 4-5 i n Visit: GSN069 WF C3 (1A) (2)	60 Secs (120 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	6	(1) GSN069	(1) GSN069	WFC3/IR, MULTIACCUM, IRSUB512	F105W	NSAMP=15; SAMP-SEQ=STEP2 5		Pattern 3, Exps 6-7 i n Visit: GSN069 WF C3 (1A) (3)	243.045901 Secs (486.092 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	7	(1) GSN069	(1) GSN069	WFC3/IR, MULTIACCUM, IRSUB512	F160W	NSAMP=15; SAMP-SEQ=STEP2 5		Pattern 3, Exps 6-7 i n Visit: GSN069 WF C3 (1A) (3)	243.045901 Secs (486.092 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]

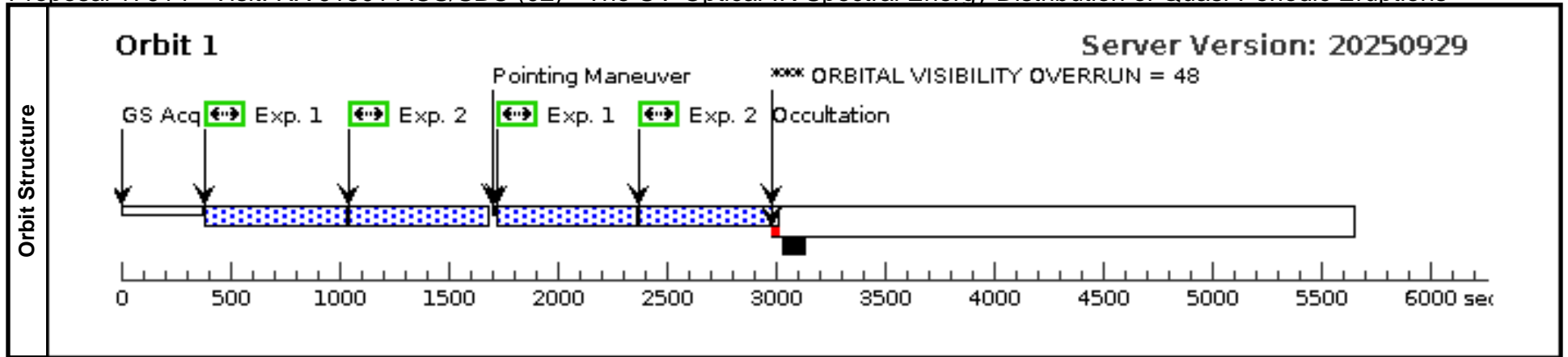




Proposal 17914 - Visit: RX J1301 ACS/SBC (02) - The UV-Optical-IR Spectral Energy Distribution of Quasi-Periodic Eruptions

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<b>Visit</b>	<b>Proposal 17914, Visit: RX J1301 ACS/SBC (02), completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/SBC Special Requirements: GROUP 02,2A WITHIN 2D <i>Comments: This visit consists of 1 orbit with the following observations</i> <i>Orbit 1: ACS/SBC F125LP &amp; F150LP</i>				
	<b>Diagnosics</b> (Visit: RX J1301 ACS/SBC (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN				
<b>Patterns</b>	# <b>Primary Pattern</b> <b>Secondary Pattern</b> <b>Exposures</b>				
	(1)      Pattern Type=ACS-SBC-DITHER-      Coordinate Frame=POS-TARG LINE      Pattern Orientation=44.4 Purpose=DITHER      Angle Between Sides= Number Of Points=2      Center Pattern=false Point Spacing=0.472 Line Spacing=				
<b>Fixed Targets</b>	# <b>Name</b> <b>Target Coordinates</b> <b>Targ. Coord. Corrections</b> <b>Fluxes</b> <b>Miscellaneous</b>				
	(2)      RXJ1301.9+2747      RA: 13 02 0.1400 (195.5005833d)      Epoch of Position: 2000      V=17      Reference Frame: ICRS Dec: +27 46 57.90 (27.78275d)      Redshift: 0.0237      Estimated FUV 20 mag Equinox: J2000 <i>Comments:</i> <i>Category=GALAXY</i> <i>Description=[ACCRETION DISK, NUCLEUS]</i>				
<b>Exposures</b>	# <b>Label (ETC Run)</b> <b>Target</b> <b>Config,Mode,Aperture</b> <b>Spectral Els.</b> <b>Opt. Params.</b> <b>Special Reqs.</b> <b>Groups</b> <b>Exp. Time (Total)/[Actual Dur.]</b> <b>Orbit</b>				
	1      (ACS.im.19 48687)      (2) RXJ1301.9+2747      ACS/SBC, ACCUM, SBC      F125LP                     Pattern 1, Exps 1-2 i n Visit: RX J1301 ACS/SBC (02) (1)      587 Secs (1174 Secs) [=>(Pattern 1)] [=>(Pattern 2)]				
	2      (ACS.im.19 48688)      (2) RXJ1301.9+2747      ACS/SBC, ACCUM, SBC      F150LP                     Pattern 1, Exps 1-2 i n Visit: RX J1301 ACS/SBC (02) (1)      587 Secs (1174 Secs) [=>(Pattern 1)] [=>(Pattern 2)]				



Proposal 17914 - Visit: RX J1301 WFC3 (2A) - The UV-Optical-IR Spectral Energy Distribution of Quasi-Periodic Eruptions

Wed Nov 26 20:00:22 GMT 2025

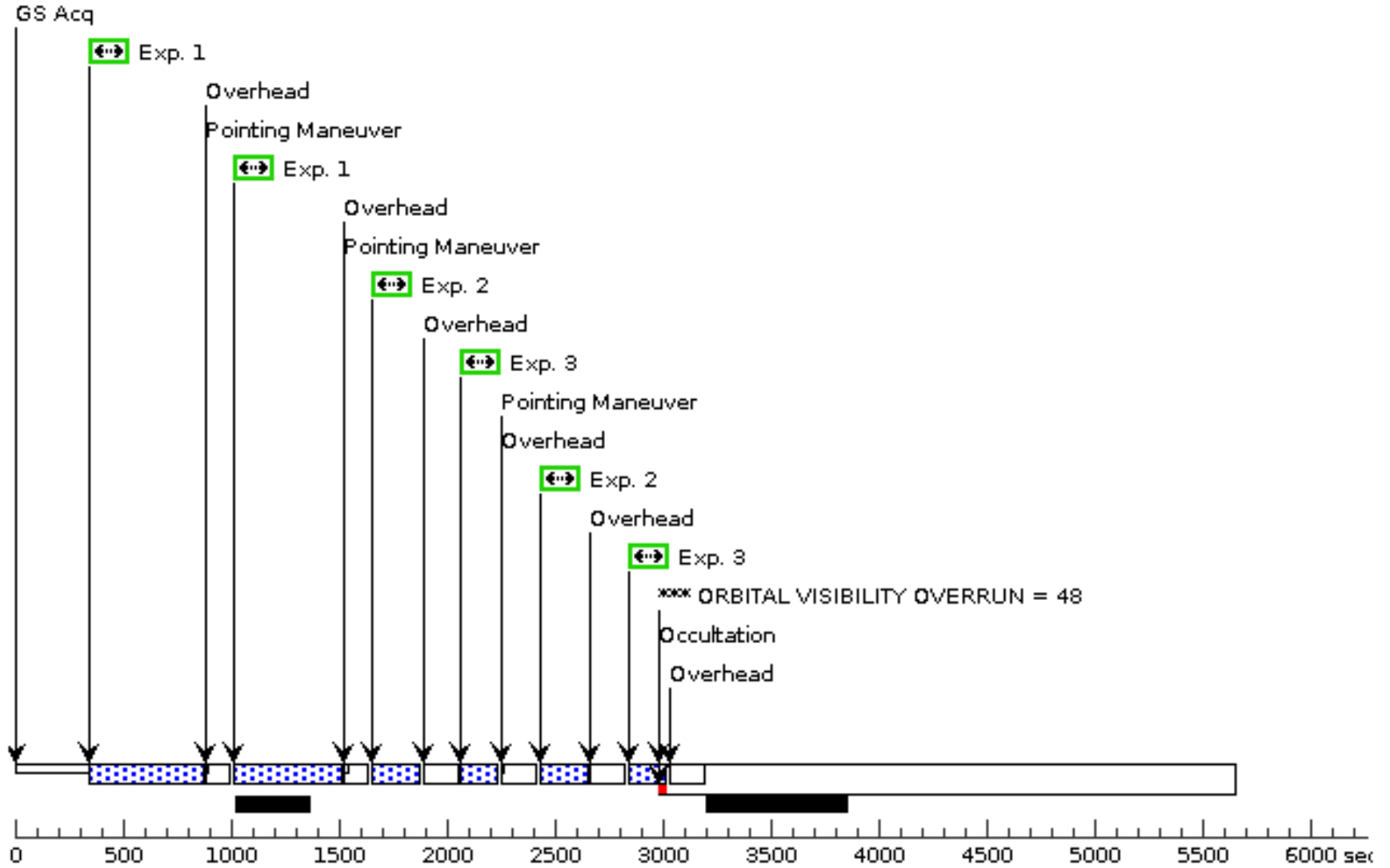
<b>Visit</b>	<p><b>Proposal 17914, Visit: RX J1301 WFC3 (2A), completed</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Scientific Instruments: WFC3/IR, WFC3/UVIS</p> <p>Special Requirements: GROUP 2A,02 WITHIN 2D</p> <p><i>Comments: This visit consists of 2 orbits with the following division</i></p> <p><i>Orbit 1: WFC3/UVIS F225W &amp; F336W &amp; F438W</i></p> <p><i>Orbit 2: WFC3/UVIS F625W &amp; F775W --&gt; switch to WFC3/IR F105W &amp; F160W</i></p>				
	<p>(Visit: RX J1301 WFC3 (2A)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN</p>				
<b>Diagnostics</b>					
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
	(2)	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), (2-3), (4-5)	
<b>Fixed Targets</b>	(3)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(6-7)	
	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>
(2)	RXJ1301.9+2747	RA: 13 02 0.1400 (195.5005833d) Dec: +27 46 57.90 (27.78275d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.0237	V=17 Estimated FUV 20 mag	Reference Frame: ICRS
<p><i>Comments:</i></p> <p><i>Category=GALAXY</i></p> <p><i>Description=[ACCRETION DISK, NUCLEUS]</i></p>					

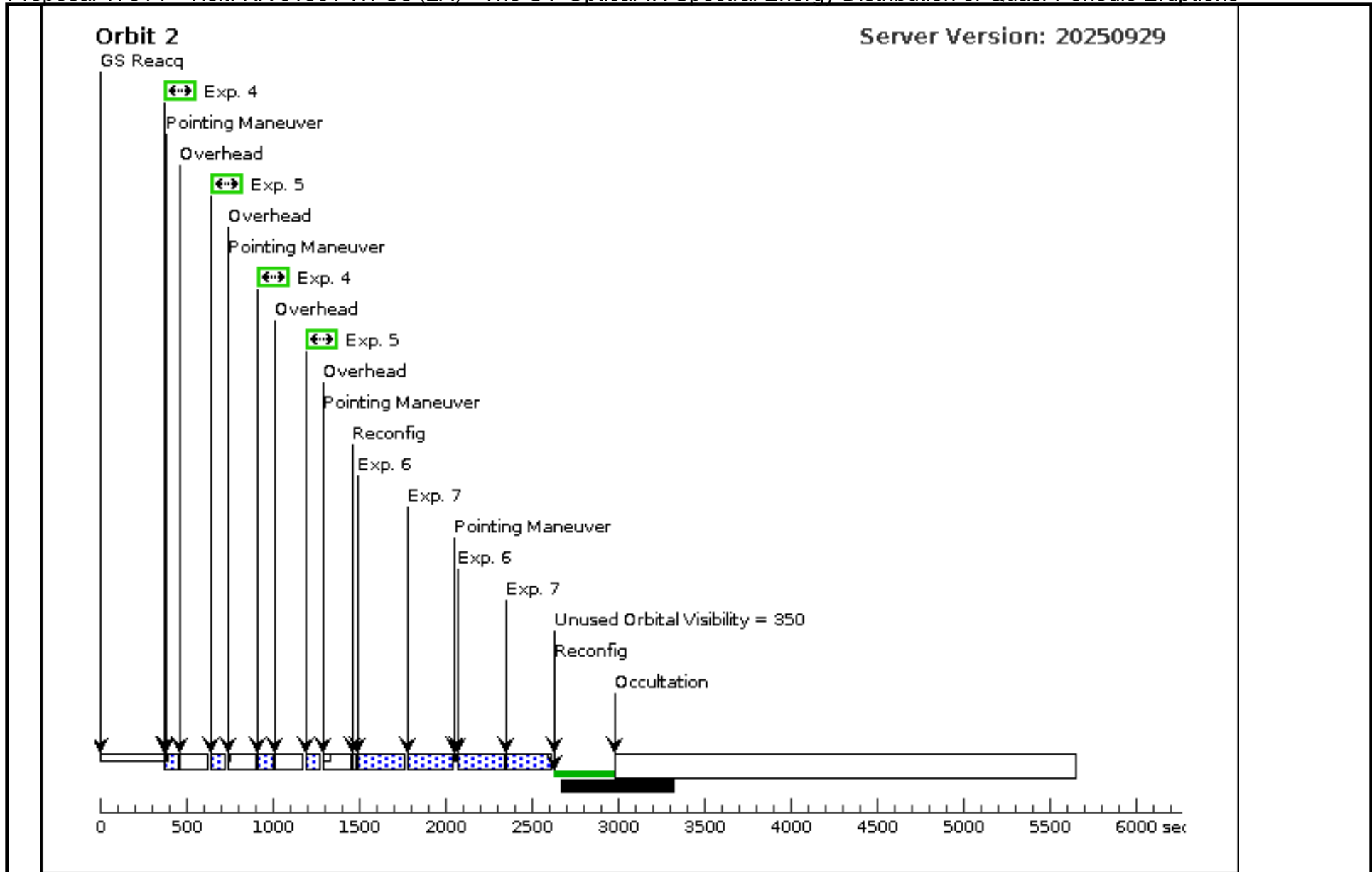
Proposal 17914 - Visit: RX J1301 WFC3 (2A) - The UV-Optical-IR Spectral Energy Distribution of Quasi-Periodic Eruptions

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(2) RXJ1301.9+2747	WFC3/UVIS, ACCUM, UVIS2-C1K1C-CTE	F225W	FLASH=20			Pattern 2, Exps 1-1 i n Visit: RX J1301 W FC3 (2A) (2)	500 Secs (1000 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	(2) RXJ1301.9+2747	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F336W	FLASH=20			Pattern 2, Exps 2-3 i n Visit: RX J1301 W FC3 (2A) (2)	200 Secs (400 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	(2) RXJ1301.9+2747	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F438W	FLASH=20			Pattern 2, Exps 2-3 i n Visit: RX J1301 W FC3 (2A) (2)	150 Secs (300 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4	(2) RXJ1301.9+2747	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F625W	FLASH=20			Pattern 2, Exps 4-5 i n Visit: RX J1301 W FC3 (2A) (2)	60 Secs (120 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	5	(2) RXJ1301.9+2747	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F775W	FLASH=20			Pattern 2, Exps 4-5 i n Visit: RX J1301 W FC3 (2A) (2)	60 Secs (120 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	6	(2) RXJ1301.9+2747	WFC3/IR, MULTIACCUM, IRSUB512	F105W	NSAMP=15; SAMP-SEQ=STEP2 5			Pattern 3, Exps 6-7 i n Visit: RX J1301 W FC3 (2A) (3)	243.045901 Secs (486.092 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	7	(2) RXJ1301.9+2747	WFC3/IR, MULTIACCUM, IRSUB512	F160W	NSAMP=15; SAMP-SEQ=STEP2 5			Pattern 3, Exps 6-7 i n Visit: RX J1301 W FC3 (2A) (3)	243.045901 Secs (486.092 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]

Orbit Structure

**Orbit 1**

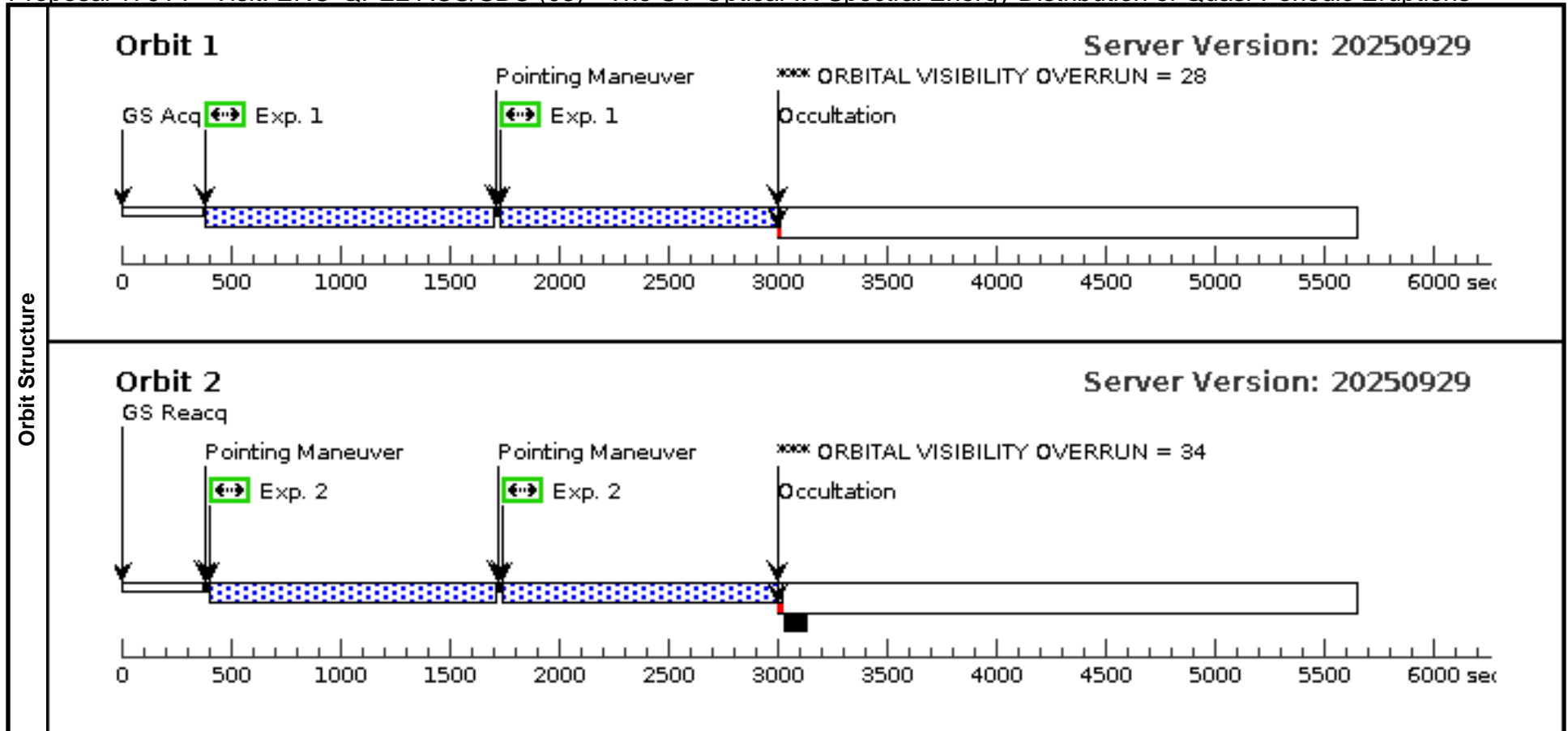




Proposal 17914 - Visit: ERO-QPE2 ACS/SBC (03) - The UV-Optical-IR Spectral Energy Distribution of Quasi-Periodic Eruptions

Wed Nov 26 20:00:22 GMT 2025

<b>Visit</b>	<b>Proposal 17914, Visit: ERO-QPE2 ACS/SBC (03), failed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/SBC Special Requirements: GROUP 03,3A WITHIN 2D <i>Comments: This visit consists of 2 orbits with the following division</i> Orbit 1: ACS/SBC F125LP Orbit 2: ACS/SBC F150LP									
	<b>Diagnosics</b> (Visit: ERO-QPE2 ACS/SBC (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN (Visit: ERO-QPE2 ACS/SBC (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			<b>Exposures</b>	
	(1)	Pattern Type=ACS-SBC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.472 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=44.4 Angle Between Sides= Center Pattern=false					(1), (2)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>		<b>Fluxes</b>	<b>Miscellaneous</b>			
	(3)	ERO-QPE2	RA: 02 34 48.7050 (38.7029375d) Dec: -44 19 32.79 (-44.32578d) Equinox: J2000	Epoch of Position: 2000		V=18 Estimated FUV 22 mag	Reference Frame: ICRS			
<i>Comments:</i> Category=GALAXY Description=[ACCRETION DISK, NUCLEUS]										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(ACS.im.19 48687)	(3) ERO-QPE2	ACS/SBC, ACCUM, SBC	F125LP			Pattern 1, Exps 1-1 in Visit: ERO-QPE2 ACS/SBC (03) (1)	1254 Secs (2508 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	2	(ACS.im.19 48688)	(3) ERO-QPE2	ACS/SBC, ACCUM, SBC	F150LP			Pattern 1, Exps 2-2 in Visit: ERO-QPE2 ACS/SBC (03) (1)	1254 Secs (2508 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[2]



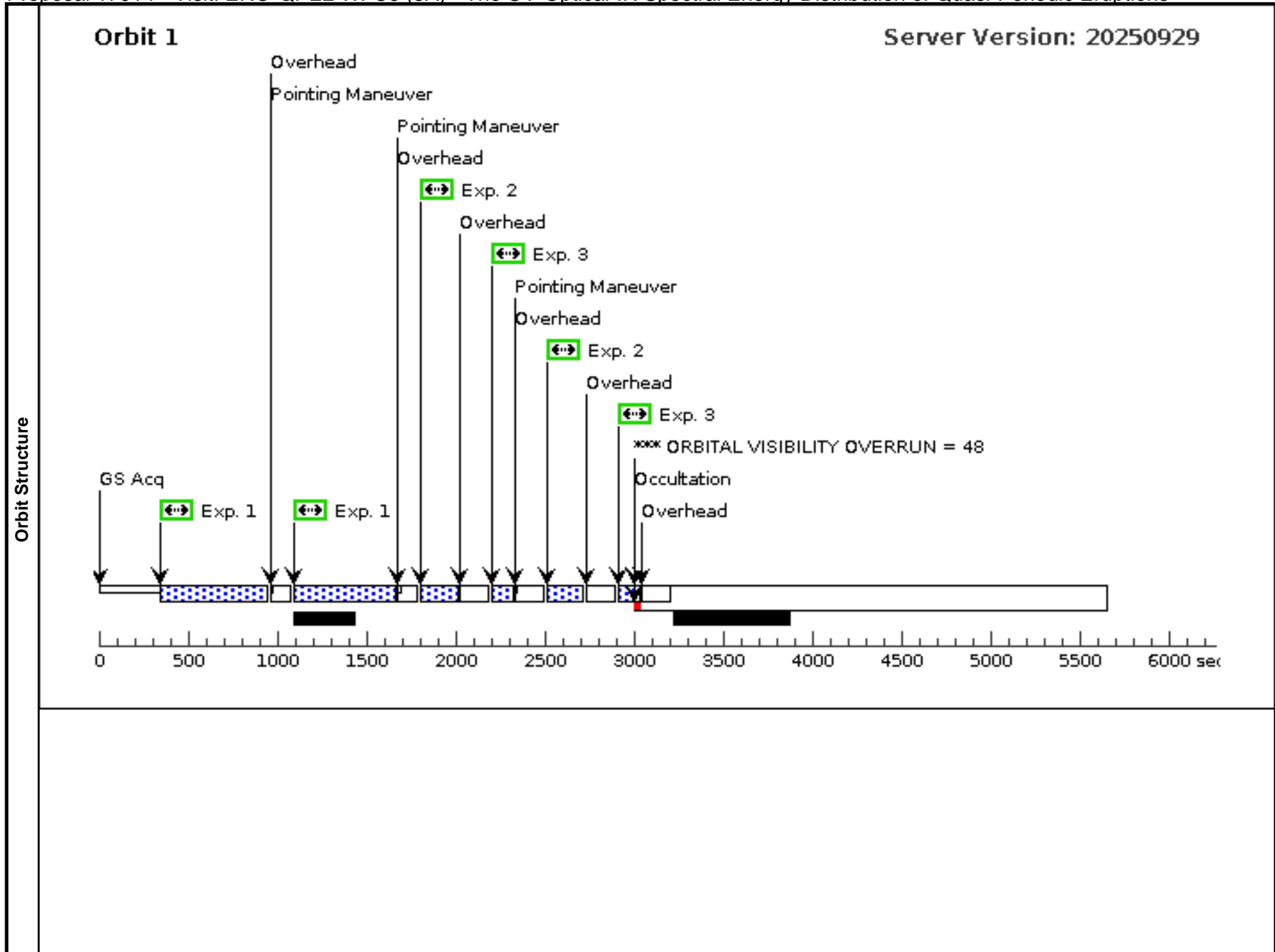
Proposal 17914 - Visit: ERO-QPE2 WFC3 (3A) - The UV-Optical-IR Spectral Energy Distribution of Quasi-Periodic Eruptions

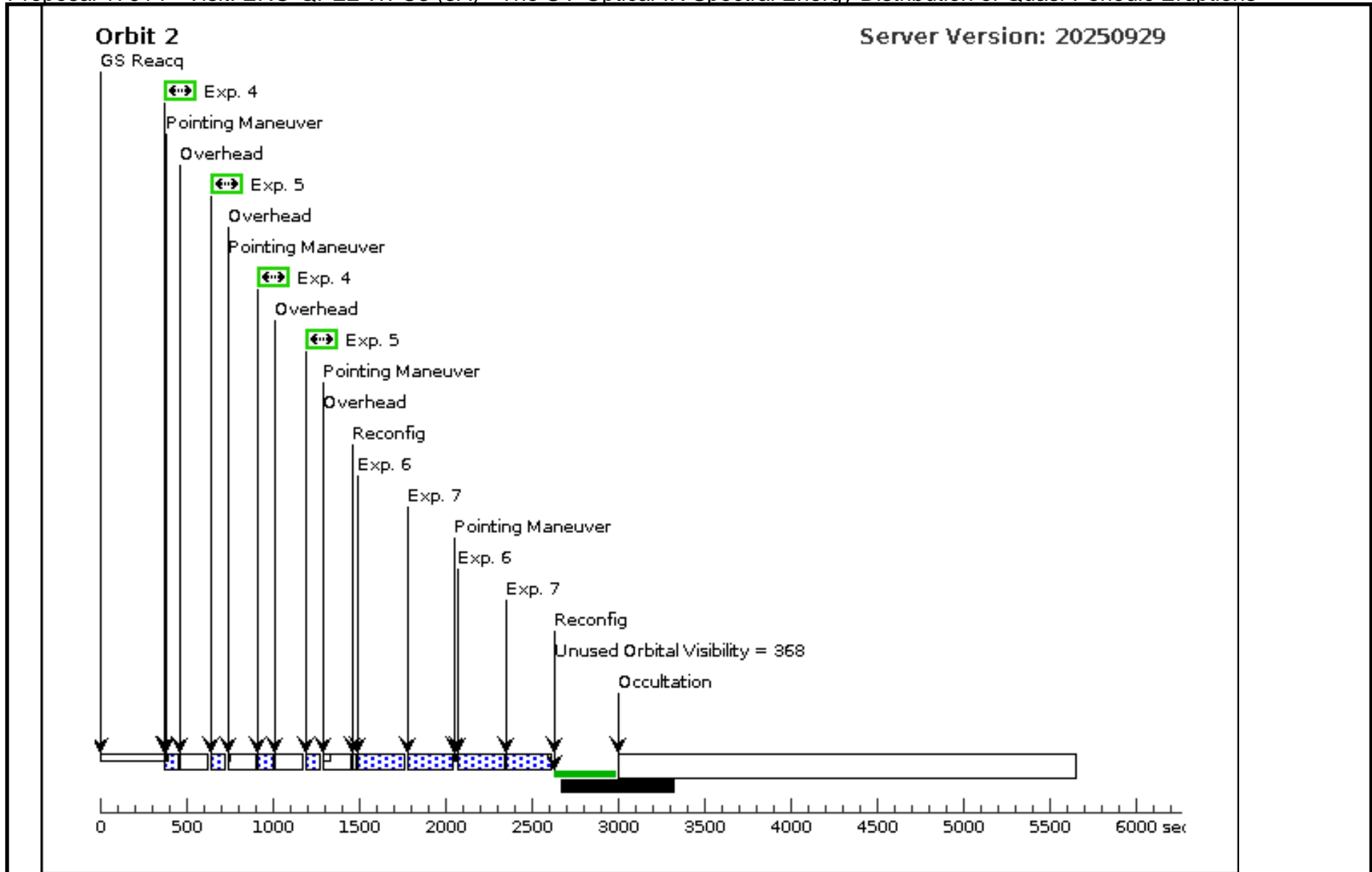
Wed Nov 26 20:00:22 GMT 2025

<b>Visit</b>	<b>Proposal 17914, Visit: ERO-QPE2 WFC3 (3A), failed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: GROUP 3A,03 WITHIN 2D <i>Comments: This visit consists of 2 orbits with the following division</i> Orbit 1: WFC3/UVIS F225W & F336W & F438W Orbit 2: WFC3/UVIS F625W & F775W --> switch to WFC3/IR F105W & F160W					
	<b>Diagnosics</b> (Visit: ERO-QPE2 WFC3 (3A)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>		
	(2)	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), (2-3), (4-5)		
(3)	Pattern Type=WFC3-IR-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(6-7)			
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(3)	ERO-QPE2	RA: 02 34 48.7050 (38.7029375d) Dec: -44 19 32.79 (-44.32578d) Equinox: J2000	Epoch of Position: 2000	V=18 Estimated FUV 22 mag	Reference Frame: ICRS
<i>Comments:</i> Category=GALAXY Description=[ACCRETION DISK, NUCLEUS]						

Proposal 17914 - Visit: ERO-QPE2 WFC3 (3A) - The UV-Optical-IR Spectral Energy Distribution of Quasi-Periodic Eruptions

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(3) ERO-QPE2	(3) ERO-QPE2	WFC3/UVIS, ACCUM, UVIS2-C1K1C-CTE	F225W	FLASH=20		Pattern 2, Exps 1-1 i n Visit: ERO-QPE2 WFC3 (3A) (2)	575 Secs (1150 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	(3) ERO-QPE2	(3) ERO-QPE2	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F336W	FLASH=20		Pattern 2, Exps 2-3 i n Visit: ERO-QPE2 WFC3 (3A) (2)	180 Secs (360 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	(3) ERO-QPE2	(3) ERO-QPE2	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F438W	FLASH=20		Pattern 2, Exps 2-3 i n Visit: ERO-QPE2 WFC3 (3A) (2)	100 Secs (200 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4	(3) ERO-QPE2	(3) ERO-QPE2	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F625W	FLASH=20		Pattern 2, Exps 4-5 i n Visit: ERO-QPE2 WFC3 (3A) (2)	60 Secs (120 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	5	(3) ERO-QPE2	(3) ERO-QPE2	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F775W	FLASH=20		Pattern 2, Exps 4-5 i n Visit: ERO-QPE2 WFC3 (3A) (2)	60 Secs (120 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	6	(3) ERO-QPE2	(3) ERO-QPE2	WFC3/IR, MULTIACCUM, IRSUB512	F105W	NSAMP=15; SAMP-SEQ=STEP2 5		Pattern 3, Exps 6-7 i n Visit: ERO-QPE2 WFC3 (3A) (3)	243.045901 Secs (486.092 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	7	(3) ERO-QPE2	(3) ERO-QPE2	WFC3/IR, MULTIACCUM, IRSUB512	F160W	NSAMP=15; SAMP-SEQ=STEP2 5		Pattern 3, Exps 6-7 i n Visit: ERO-QPE2 WFC3 (3A) (3)	243.045901 Secs (486.092 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]

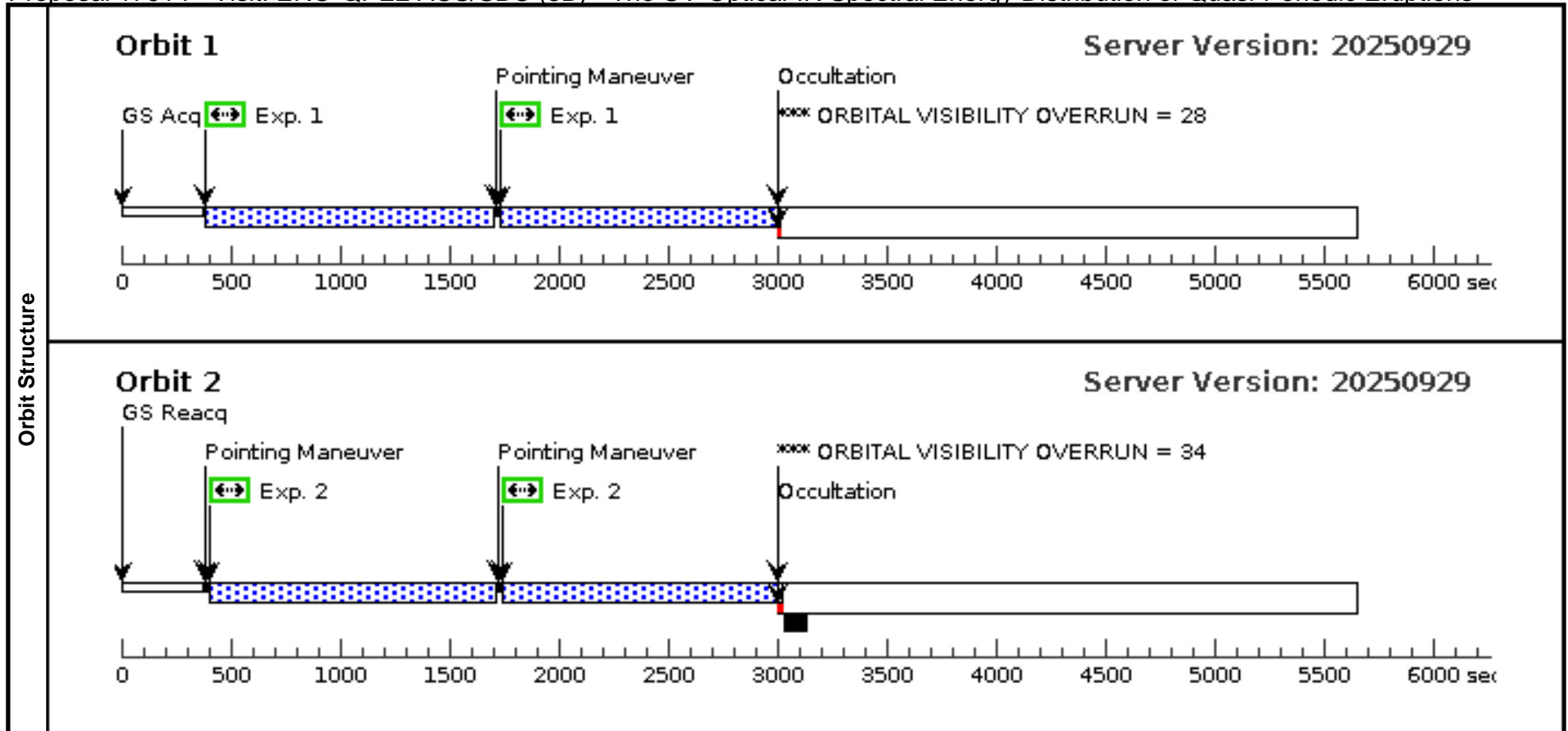




Proposal 17914 - Visit: ERO-QPE2 ACS/SBC (3B) - The UV-Optical-IR Spectral Energy Distribution of Quasi-Periodic Eruptions

Wed Nov 26 20:00:22 GMT 2025

<b>Visit</b>	<b>Proposal 17914, Visit: ERO-QPE2 ACS/SBC (3B), implementation</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/SBC Special Requirements: GROUP 3B,3C WITHIN 2D <i>Comments: This visit consists of 2 orbits with the following division</i> Orbit 1: ACS/SBC F125LP Orbit 2: ACS/SBC F150LP										
	<b>Diagnosics</b> (Visit: ERO-QPE2 ACS/SBC (3B)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN (Visit: ERO-QPE2 ACS/SBC (3B)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			<b>Exposures</b>		
	(1)	Pattern Type=ACS-SBC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.472 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=44.4 Angle Between Sides= Center Pattern=false					(1), (2)		
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>		<b>Fluxes</b>	<b>Miscellaneous</b>				
	(3)	ERO-QPE2	RA: 02 34 48.7050 (38.7029375d) Dec: -44 19 32.79 (-44.32578d) Equinox: J2000	Epoch of Position: 2000		V=18 Estimated FUV 22 mag	Reference Frame: ICRS				
<i>Comments:</i> Category=GALAXY Description=[ACCRETION DISK, NUCLEUS]											
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>		<b>Orbit</b>
	1	(ACS.im.19 48687)	(3) ERO-QPE2	ACS/SBC, ACCUM, SBC	F125LP			Pattern 1, Exps 1-1 in Visit: ERO-QPE2 ACS/SBC (3B) (1)	1254 Secs (2508 Secs)		
									[=>(Pattern 1)] [=>(Pattern 2)]		[1]
2	(ACS.im.19 48688)	(3) ERO-QPE2	ACS/SBC, ACCUM, SBC	F150LP				Pattern 1, Exps 2-2 in Visit: ERO-QPE2 ACS/SBC (3B) (1)	1254 Secs (2508 Secs)		
									[=>(Pattern 1)] [=>(Pattern 2)]		[2]



Proposal 17914 - Visit: ERO-QPE2 WFC3 (3C) - The UV-Optical-IR Spectral Energy Distribution of Quasi-Periodic Eruptions

Wed Nov 26 20:00:22 GMT 2025

<b>Visit</b>	<b>Proposal 17914, Visit: ERO-QPE2 WFC3 (3C), implementation</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: GROUP 3C,3B WITHIN 2D <i>Comments: This visit consists of 2 orbits with the following division</i> <i>Orbit 1: WFC3/UVIS F225W &amp; F336W &amp; F438W</i> <i>Orbit 2: WFC3/UVIS F625W &amp; F775W --&gt; switch to WFC3/IR F105W &amp; F160W</i>					
	<b>Diagnosics</b> (Visit: ERO-QPE2 WFC3 (3C)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>		
	(2)	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), (2-3), (4-5)		
(3)	Pattern Type=WFC3-IR-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(6-7)			
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(3)	ERO-QPE2	RA: 02 34 48.7050 (38.7029375d) Dec: -44 19 32.79 (-44.32578d) Equinox: J2000	Epoch of Position: 2000	V=18 Estimated FUV 22 mag	Reference Frame: ICRS
<i>Comments:</i> Category=GALAXY Description=[ACCRETION DISK, NUCLEUS]						

Proposal 17914 - Visit: ERO-QPE2 WFC3 (3C) - The UV-Optical-IR Spectral Energy Distribution of Quasi-Periodic Eruptions

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(3) ERO-QPE2	(3) ERO-QPE2	WFC3/UVIS, ACCUM, UVIS2-C1K1C-CTE	F225W	FLASH=20		Pattern 2, Exps 1-1 i n Visit: ERO-QPE2 WFC3 (3C) (2)	575 Secs (1150 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	(3) ERO-QPE2	(3) ERO-QPE2	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F336W	FLASH=20		Pattern 2, Exps 2-3 i n Visit: ERO-QPE2 WFC3 (3C) (2)	180 Secs (360 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	(3) ERO-QPE2	(3) ERO-QPE2	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F438W	FLASH=20		Pattern 2, Exps 2-3 i n Visit: ERO-QPE2 WFC3 (3C) (2)	100 Secs (200 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4	(3) ERO-QPE2	(3) ERO-QPE2	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F625W	FLASH=20		Pattern 2, Exps 4-5 i n Visit: ERO-QPE2 WFC3 (3C) (2)	60 Secs (120 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	5	(3) ERO-QPE2	(3) ERO-QPE2	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F775W	FLASH=20		Pattern 2, Exps 4-5 i n Visit: ERO-QPE2 WFC3 (3C) (2)	60 Secs (120 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	6	(3) ERO-QPE2	(3) ERO-QPE2	WFC3/IR, MULTIACCUM, IRSUB512	F105W	NSAMP=15; SAMP-SEQ=STEP2 5		Pattern 3, Exps 6-7 i n Visit: ERO-QPE2 WFC3 (3C) (3)	243.045901 Secs (486.092 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	7	(3) ERO-QPE2	(3) ERO-QPE2	WFC3/IR, MULTIACCUM, IRSUB512	F160W	NSAMP=15; SAMP-SEQ=STEP2 5		Pattern 3, Exps 6-7 i n Visit: ERO-QPE2 WFC3 (3C) (3)	243.045901 Secs (486.092 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]

