



16742 - Resolving the 3D Orientation of Galactic Disks: New Constraints on Circumgalactic Gas Flow

Cycle: 29, 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	(1) J035127-142857	WFC3/UVIS	2	28-Jul-2021 10:01:05.0	yes
02	(2) J101622+470643	WFC3/UVIS	2	28-Jul-2021 10:01:06.0	yes
03	(3) J104117+061018	WFC3/UVIS	2	28-Jul-2021 10:01:06.0	yes
04	(4) J111238+353920	WFC3/UVIS	2	28-Jul-2021 10:01:07.0	yes
05	(5) J124153+572101	WFC3/UVIS	1	28-Jul-2021 10:01:08.0	yes
06	(6) J132222+464546	WFC3/UVIS	1	28-Jul-2021 10:01:08.0	yes
07	(7) J142738-120332	WFC3/UVIS	2	28-Jul-2021 10:01:09.0	yes
08	(8) J151427+362001	WFC3/UVIS	2	28-Jul-2021 10:01:09.0	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>
09	(9) J155505+362848	WFC3/UVIS	1	28-Jul-2021 10:01:10.0	yes
10	(10) J162438+234521	WFC3/UVIS	2	28-Jul-2021 10:01:10.0	yes

17 Total Orbits Used

ABSTRACT

The observed growth in both the size and mass of galactic disks since redshift two requires an even larger increase in the specific angular momentum of the gas accreted from the circumgalactic medium, which is the only reservoir of gas that can sustain disk star formation for 10 billion years. The rotation of inflowing circumgalactic gas is therefore central to the development of the angular momentum of stellar disks. Observing gas accretion is complicated by the galactic outflows that feedback from massive stars drive out of the galactic plane. While the position angle and axis ratio describe the projected shape of the galactic disk, this leaves an ambiguity of which side of the galaxy minor axis tips toward the observer. This ambiguity produces degenerate solutions in modeling gas flows and identifying the origin of the observed gas, because observers do not know where the gas lies along line-of-sight. We propose new WFC3/UVIS imaging observation to map the spiral structures of 11 $z=0.25$ galaxies with circumgalactic Mg II absorption detected in the quasar sightlines. We will determine the 3D disk orientation using rotation curves and the wrapping direction of galaxy spiral arms. The imaging sample will be combined with 3 Mg II absorbing galaxies with spiral arms detected in archival images, bringing our sample to 14 galaxies. We collected high-resolution spectra of the quasars paired with the galaxies; these spectra resolved multiple Mg II components. The 3D orientation will constrain parameters of physical models (disks, radial inflow, and conical outflow) in individual sightlines. The measured gas flow properties will provide new constraints for models of disk growth.

OBSERVING DESCRIPTION

We aim to resolve spiral structure of eleven galactic disks at intermediate redshifts. We image all eleven galaxies (in ten fields) with the F390W bandpass, which isolates the ultraviolet flux shortward of 4000 Angstrom of the rest frame of the target galaxies and will trace the light from stars younger than roughly 100 Myr. Imaging the galaxies in two filters provides a long wavelength baseline and optimizes the contrast between the underlying stellar disk (old stellar population) and the spiral density waves (young stellar population). So, for four galaxies (in three fields) without any existing high-resolution, HST optical images, we also image the galaxies with the F814W bandpass. The F814W images will trace the older stellar population (>1 Gyr).

We place each target galaxy at the lower left of quadrant C to minimize the charge trails due to CTE losses. We also apply post-flash, such that the

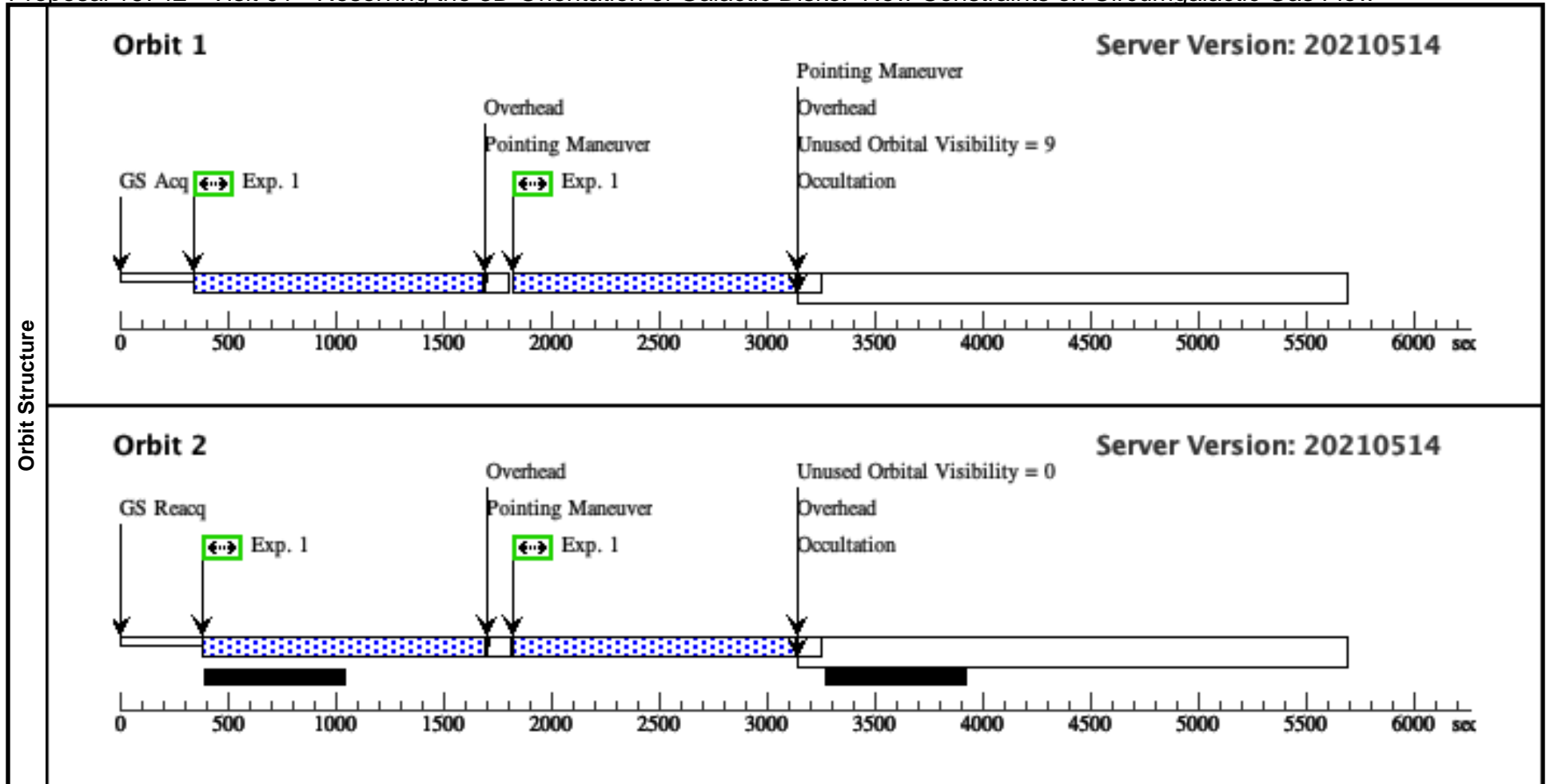
Proposal 16742 (STScI Edit Number: 0, Created: Wednesday, July 28, 2021 at 9:01:11 AM Eastern Standard Time) - Overview

image total background reaches the recommended $20e^-/\text{pix}$ to minimize the CTE losses. We use standard dither patterns; the sub-pixel dithers optimizes the sampling of the UVIS point spread function. We set constraints on the ORIENT angle if we require the imaging of a secondary galaxy in the field.

Proposal 16742 - Visit 01 - Resolving the 3D Orientation of Galactic Disks: New Constraints on Circumgalactic Gas Flow

Wed Jul 28 14:01:11 GMT 2021

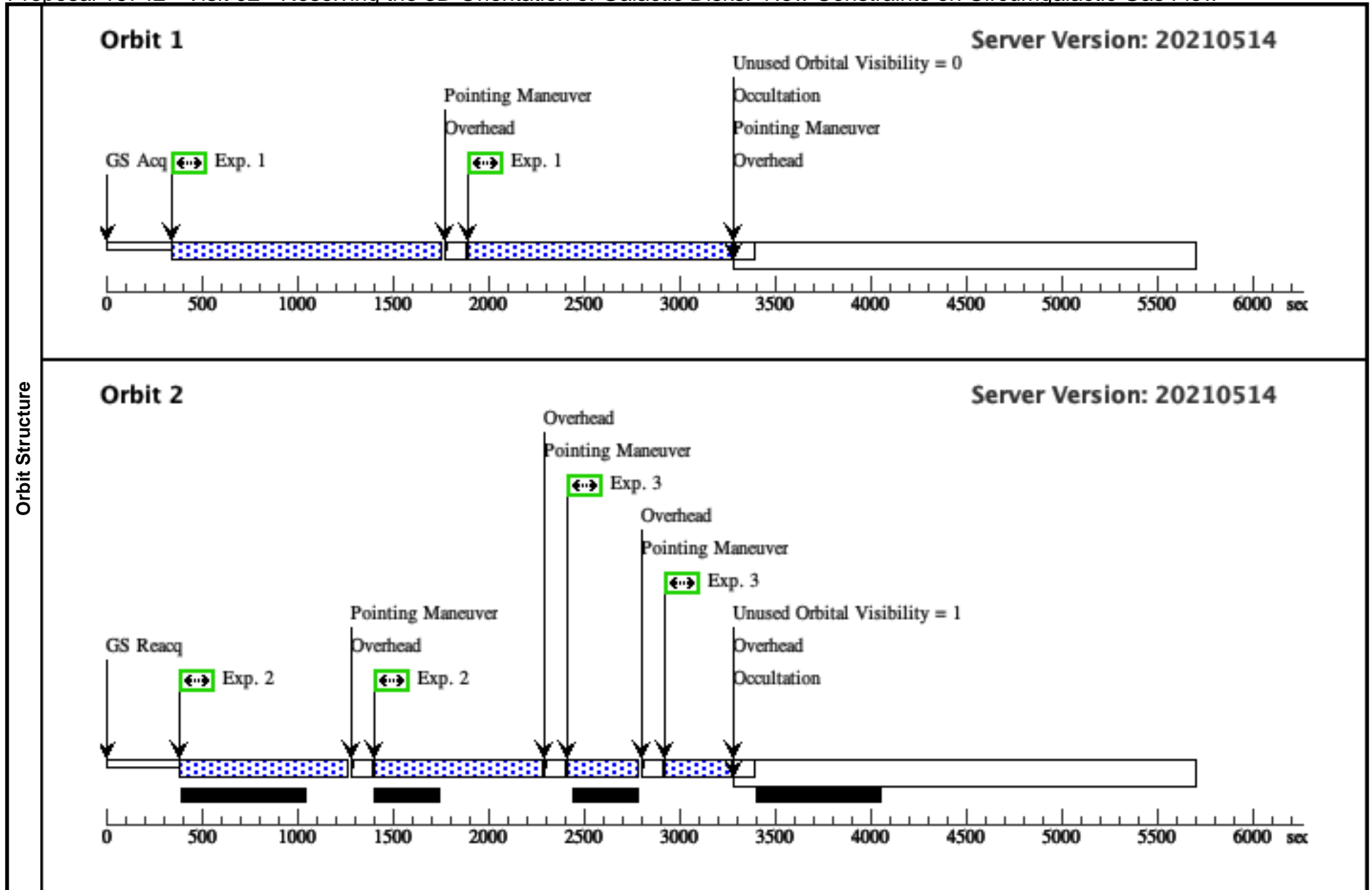
Visit	Proposal 16742, Visit 01 Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: (none)										
	(Exposure 1 (Pattern 1, Exps 1-1 in Visit 01)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser										
Diagnosics											
Patterns	#	Primary Pattern				Secondary Pattern				Exposures	
	(1)	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		
	(1)	J035127-142857	RA: 03 51 27.8920 (57.8662167d) Dec: -14 28 57.88 (-14.48274d) Equinox: J2000				V=(?) AB mag [F702W] = 20.7		Reference Frame: ICRS		
<i>Comments:</i> Category=GALAXY Description=[SPIRAL] Extended=YES											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(WFC3UVI S.im.152529 3)	(1) J035127-142857	WFC3/UVIS, ACCUM, UVIS2-C512C-CTE	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 01 (1)	1308 Secs (5232 Secs)		
										[=>(Pattern 1)]	[1]
										[=>(Pattern 2)]	
									[=>(Pattern 3)]		
									[=>(Pattern 4)]	[2]	



Proposal 16742 - Visit 02 - Resolving the 3D Orientation of Galactic Disks: New Constraints on Circumgalactic Gas Flow

Wed Jul 28 14:01:11 GMT 2021

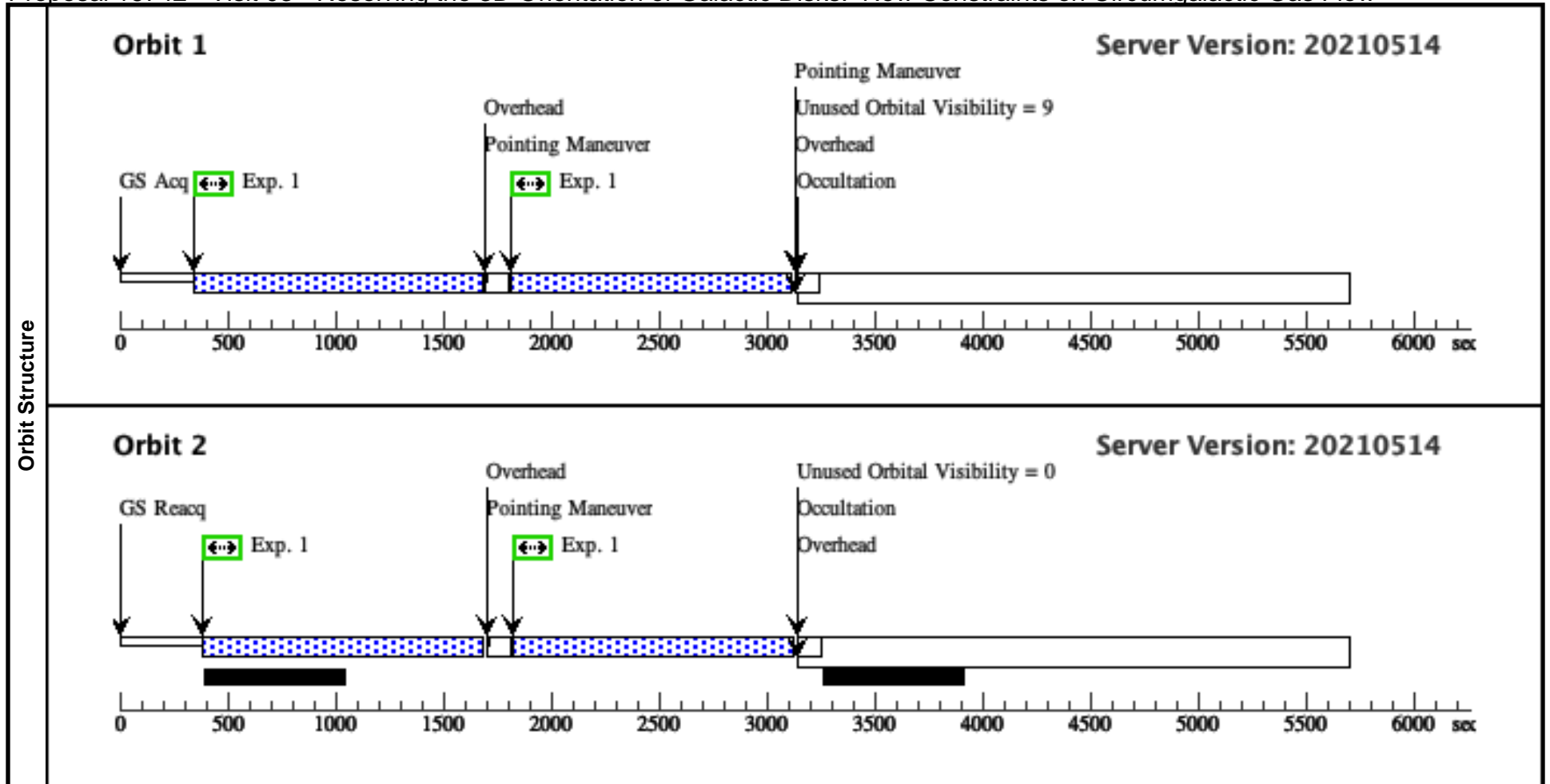
Visit	Proposal 16742, Visit 02 Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: ORIENT 153D TO 247 D										
	(Exposure 1 (Pattern 3, Exps 1-1 in Visit 02)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser (Exposure 2 (Pattern 3, Exps 2-2 in Visit 02)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser (Exposure 3 (Pattern 3, Exps 3-3 in Visit 02)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser										
Diagnosics											
Patterns	#	Primary Pattern				Secondary Pattern			Exposures		
	(3)	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)		
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(2)	J101622+470643	RA: 10 16 22.0200 (154.0917500d) Dec: +47 06 43.70 (47.11214d) Equinox: J2000				V=(?) u=22.47, r=20.62, i=20.32		Reference Frame: ICRS		
Comments: Category=GALAXY Description=[SPIRAL] Extended=YES											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(WFC3UVI S.im.152530 2)	(2) J101622+470643	WFC3/UVIS, ACCUM, UVIS2-C512C-CTE	F390W	FLASH=4		Pattern 3, Exps 1-1 in Visit 02 (3)	1381 Secs (2762 Secs)		
										[=>(Pattern 1)]	[1]
										[=>(Pattern 2)]	
2	(WFC3UVI S.im.152530 5)	(2) J101622+470643	WFC3/UVIS, ACCUM, UVIS2-C512C-CTE	F390W	FLASH=10	POS TARG 0.173,0.112		Pattern 3, Exps 2-2 in Visit 02 (3)	880 Secs (1760 Secs)		
									[=>(Pattern 1)]	[2]	
									[=>(Pattern 2)]		
3	(WFC3UVI S.im.152531 2)	(2) J101622+470643	WFC3/UVIS, ACCUM, UVIS2-C512C-CTE	F814W	FLASH=9			Pattern 3, Exps 3-3 in Visit 02 (3)	350 Secs (700 Secs)		
									[=>(Pattern 1)]	[2]	
									[=>(Pattern 2)]		



Proposal 16742 - Visit 03 - Resolving the 3D Orientation of Galactic Disks: New Constraints on Circumgalactic Gas Flow

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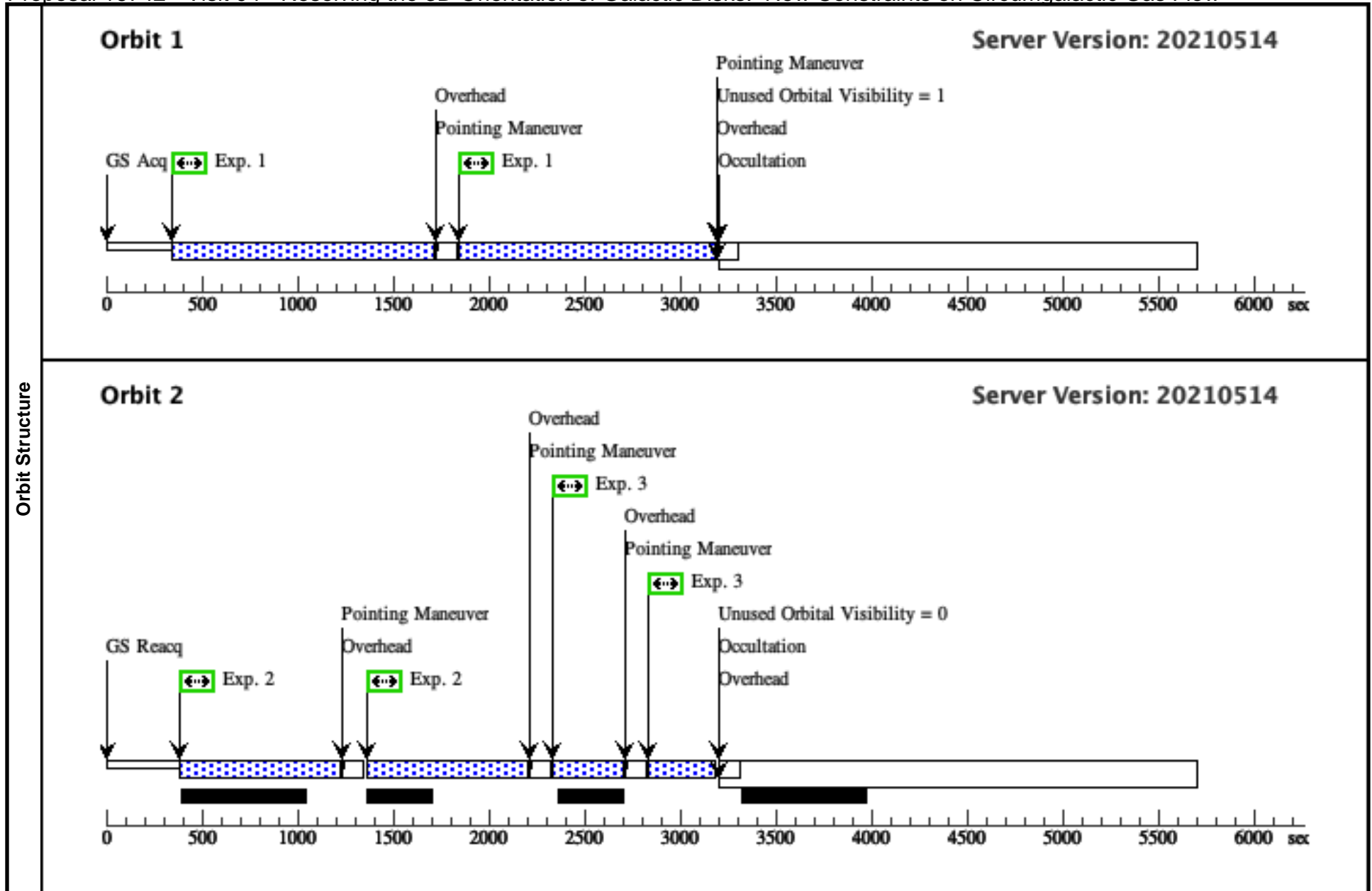
Visit	Proposal 16742, Visit 03 Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: (none)										
	(Exposure 1 (Pattern 1, Exps 1-1 in Visit 03)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser										
Diagnosics											
Patterns	#	Primary Pattern				Secondary Pattern				Exposures	
	(1)	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		
	(3)	J104117+061018	RA: 10 41 17.8010 (160.3241708d) Dec: +06 10 18.97 (6.17194d) Equinox: J2000				V=(?) u=25.11, r=21.01, i=20.32		Reference Frame: ICRS		
Comments: Category=GALAXY Description=[SPIRAL] Extended=YES											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(WFC3UVI S.im.152531 6)	(3) J104117+061018	WFC3/UVIS, ACCUM, UVIS2-C512C-CTE	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 03 (1)	1306 Secs (5224 Secs)		
										[=>(Pattern 1)]	[1]
										[=>(Pattern 2)]	
									[=>(Pattern 3)]		
									[=>(Pattern 4)]	[2]	



Proposal 16742 - Visit 04 - Resolving the 3D Orientation of Galactic Disks: New Constraints on Circumgalactic Gas Flow

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Visit	Proposal 16742, Visit 04 Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: (none)										
	(Exposure 2 (Pattern 3, Exps 2-2 in Visit 04)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser (Exposure 3 (Pattern 3, Exps 3-3 in Visit 04)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser										
Diagnos											
Patterns	#	Primary Pattern				Secondary Pattern			Exposures		
	(3)	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)		
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(4)	J111238+353920	RA: 11 12 38.1600 (168.1590000d) Dec: +35 39 20.40 (35.65567d) Equinox: J2000				V=(?) u=21.43, r=19.46, i=19.11		Reference Frame: ICRS		
<i>Comments:</i> Category=GALAXY Description=[SPIRAL] Extended=YES											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(WFC3UVI S.im.152532 2)	(4) J111238+353920	WFC3/UVIS, ACCUM, UVIS2-C512C-CTE	F390W	FLASH=4		Pattern 3, Exps 1-1 in Visit 04 (3)	1338 Secs (2676 Secs)		
										[=>(Pattern 1)]	[1]
										[=>(Pattern 2)]	
2	(WFC3UVI S.im.152532 5)	(4) J111238+353920	WFC3/UVIS, ACCUM, UVIS2-C512C-CTE	F390W	FLASH=10	POS TARG 0.173,0.112		Pattern 3, Exps 2-2 in Visit 04 (3)	838 Secs (1676 Secs)		
									[=>(Pattern 1)]	[2]	
									[=>(Pattern 2)]		
3	(WFC3UVI S.im.152532 6)	(4) J111238+353920	WFC3/UVIS, ACCUM, UVIS2-C512C-CTE	F814W	FLASH=9			Pattern 3, Exps 3-3 in Visit 04 (3)	350 Secs (700 Secs)		
									[=>(Pattern 1)]	[2]	
									[=>(Pattern 2)]		



Proposal 16742 - Visit 05 - Resolving the 3D Orientation of Galactic Disks: New Constraints on Circumgalactic Gas Flow

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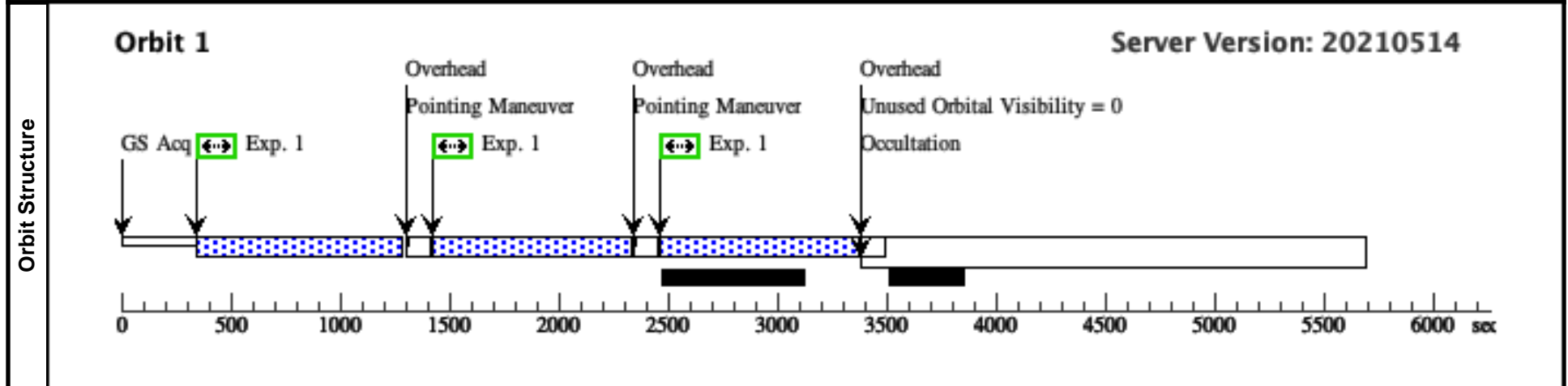
Visit	Proposal 16742, Visit 05 Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: ORIENT 0D TO 77 D; ORIENT 343D TO 359.9 D
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Diagnostics	(Exposure 1 (Pattern 2, Exps 1-1 in Visit 05)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser
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Patterns	#	Primary Pattern	Secondary Pattern	Exposures
	(2)	Pattern Type=WFC3-UVIS-DITHER- LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(5)	J124153+572101	RA: 12 41 53.7600 (190.4740000d) Dec: +57 21 1.40 (57.35039d) Equinox: J2000		V=(?) u=22.10, r=20.16, i=19.76	Reference Frame: ICRS
Comments: Category=GALAXY Description=[SPIRAL] Extended=YES						

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(WFC3UVI S.im.152533 2)	(5) J124153+572101	WFC3/UVIS, ACCUM, UVIS2-C512C-CTE	F390W	FLASH=9		Pattern 2, Exps 1-1 in Visit 05 (2)	910 Secs (2730 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]



Proposal 16742 - Visit 06 - Resolving the 3D Orientation of Galactic Disks: New Constraints on Circumgalactic Gas Flow

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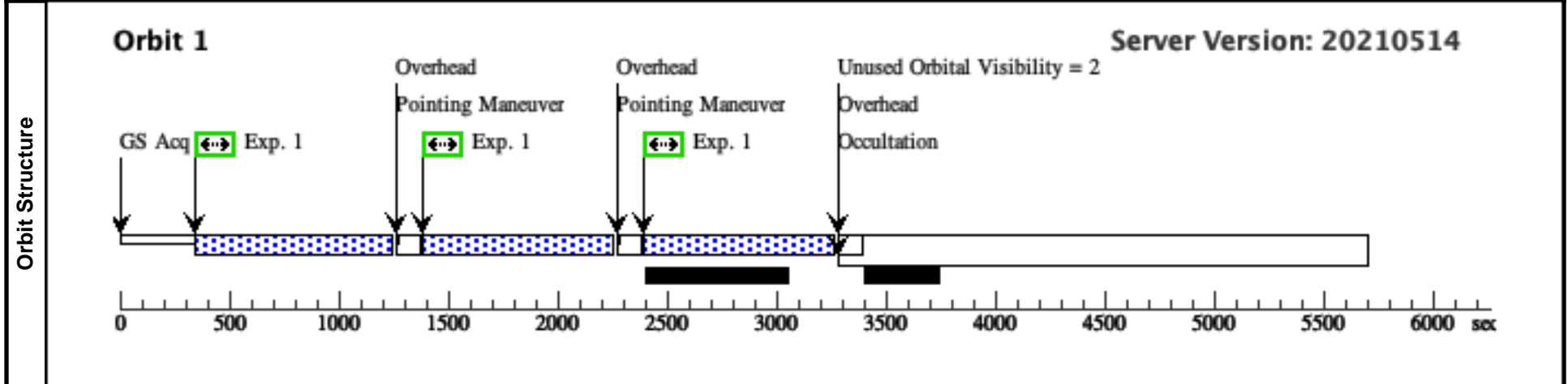
Visit	Proposal 16742, Visit 06		
	Diagnostic Status: Warning		
	Scientific Instruments: WFC3/UVIS		
	Special Requirements: (none)		

Diagnostics	(Exposure 1 (Pattern 2, Exps 1-1 in Visit 06)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser		
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Patterns	#	Primary Pattern	Secondary Pattern	Exposures
	(2)	Pattern Type=WFC3-UVIS-DITHER- LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(6)	J132222+464546	RA: 13 22 22.4600 (200.5935833d) Dec: +46 45 46.10 (46.76281d) Equinox: J2000		V=(?) u=21.66, r=19.09, i=18.62	Reference Frame: ICRS
<i>Comments:</i>						
Category=GALAXY						
Description=[SPIRAL]						
Extended=YES						

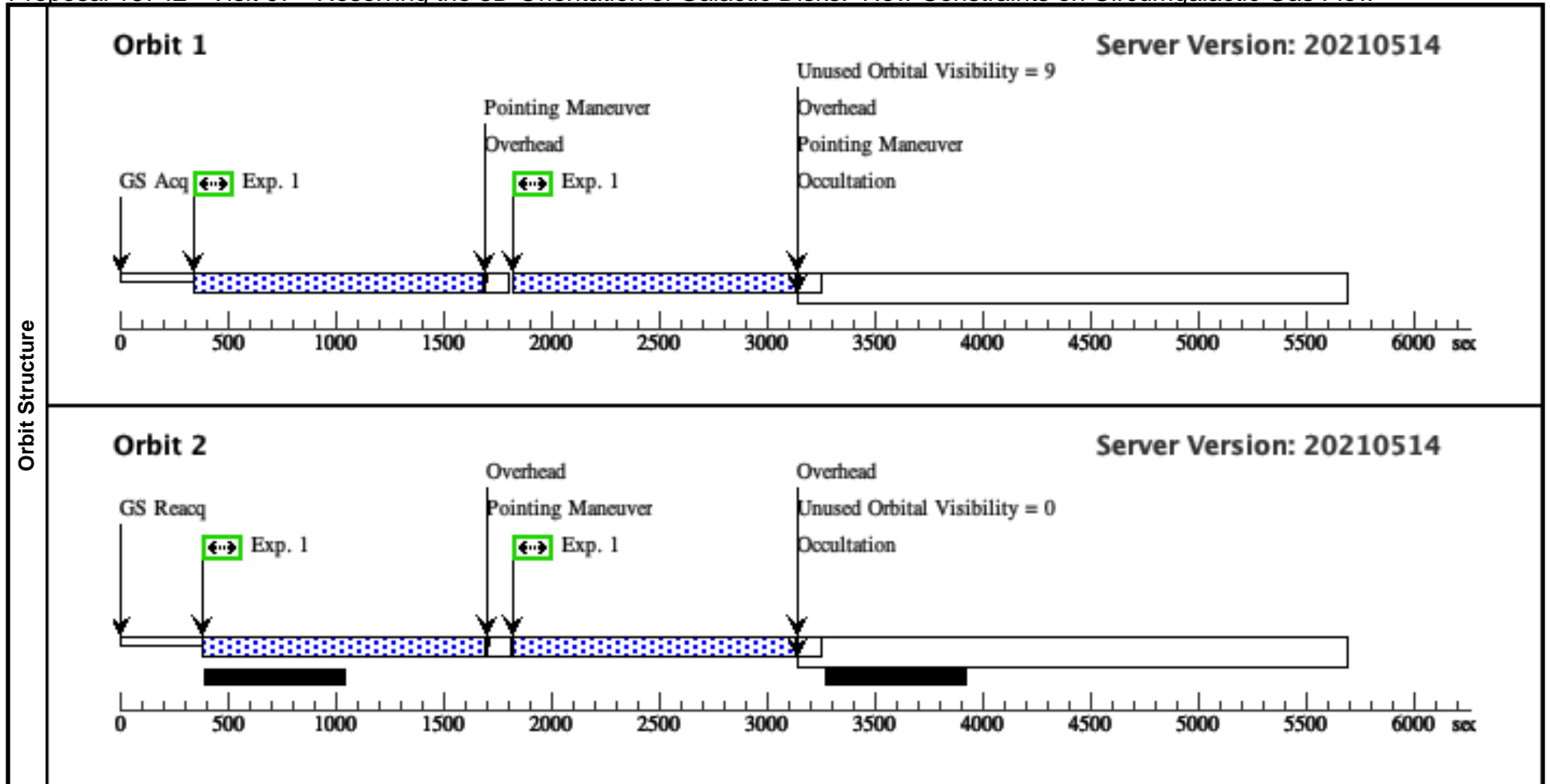
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(WFC3UVI S.im.152533 4)	(6) J132222+464546	WFC3/UVIS, ACCUM, UVIS2-C512C-CTE	F390W	FLASH=10		Pattern 2, Exps 1-1 in Visit 06 (2)	874 Secs (2622 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]



Proposal 16742 - Visit 07 - Resolving the 3D Orientation of Galactic Disks: New Constraints on Circumgalactic Gas Flow

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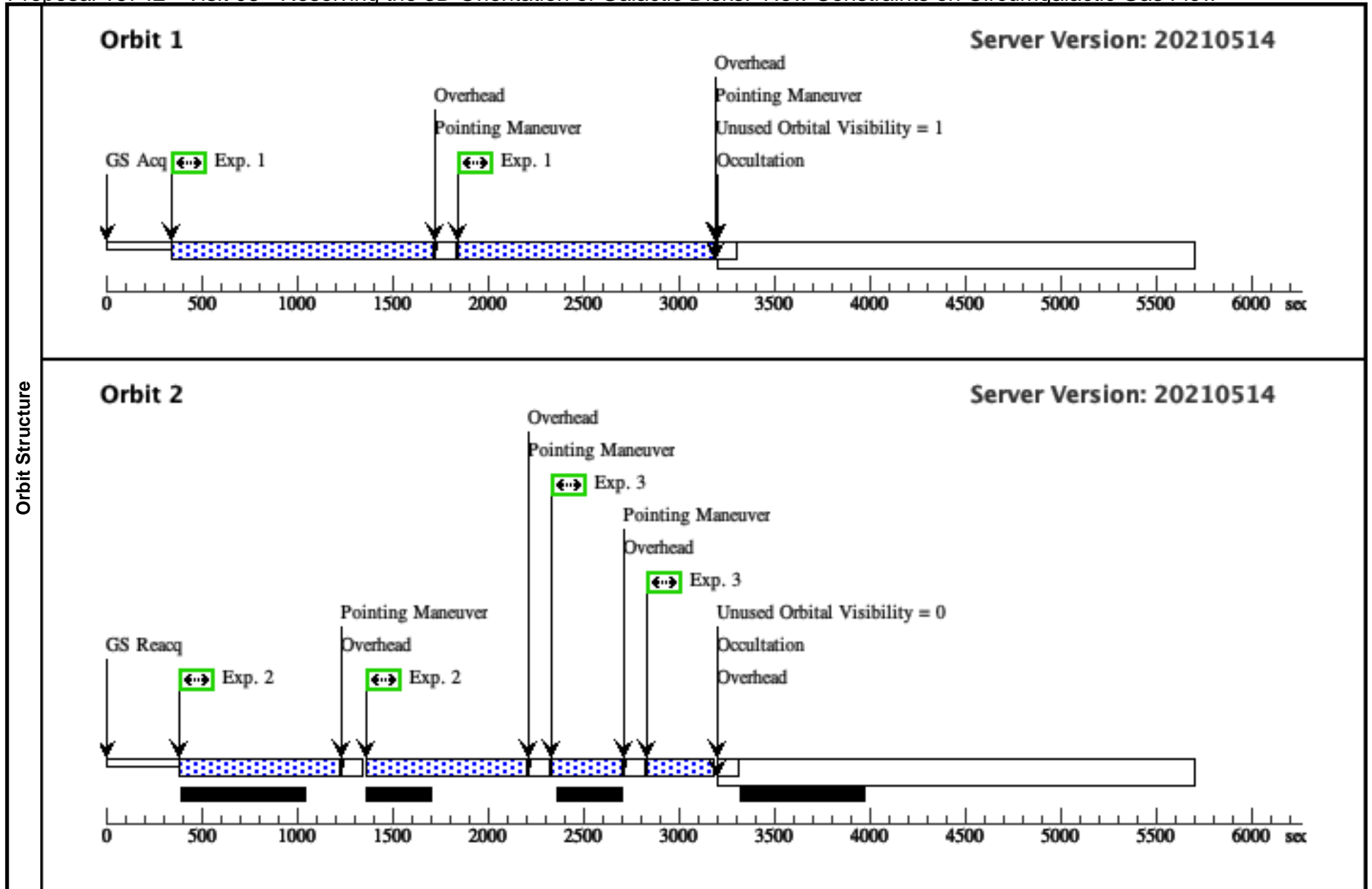
Visit	Proposal 16742, Visit 07 Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: (none)										
	(Exposure 1 (Pattern 1, Exps 1-1 in Visit 07)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser										
Diagnosics											
Patterns	#	Primary Pattern				Secondary Pattern				Exposures	
	(1)	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		
	(7)	J142738-120332	RA: 14 27 38.1800 (216.9090833d) Dec: -12 03 32.90 (-12.05914d) Equinox: J2000				V=(?) AB mag [F702W] = 20.18		Reference Frame: ICRS		
Comments: Category=GALAXY Description=[SPIRAL] Extended=YES											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(WFC3UVI S.im.152533 7)	(7) J142738-120332	WFC3/UVIS, ACCUM, UVIS2-C512C-CTE	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 07 (1)	1308 Secs (5232 Secs)		
										[=>(Pattern 1)]	[1]
										[=>(Pattern 2)]	
									[=>(Pattern 3)]		
									[=>(Pattern 4)]	[2]	



Proposal 16742 - Visit 08 - Resolving the 3D Orientation of Galactic Disks: New Constraints on Circumgalactic Gas Flow

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Visit	Proposal 16742, Visit 08 Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: (none)										
	(Exposure 2 (Pattern 3, Exps 2-2 in Visit 08)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser (Exposure 3 (Pattern 3, Exps 3-3 in Visit 08)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser										
Diagnosics											
Patterns	#	Primary Pattern				Secondary Pattern			Exposures		
	(3)	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)		
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(8)	J151427+362001	RA: 15 14 27.5600 (228.6148333d) Dec: +36 20 2.00 (36.33389d) Equinox: J2000				V=(?) u=24.30, r=20.26, i=19.99		Reference Frame: ICRS		
Comments: Category=GALAXY Description=[SPIRAL] Extended=YES											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(WFC3UVI S.im.152534 2)	(8) J151427+362001	WFC3/UVIS, ACCUM, UVIS2-C512C-CTE	F390W	FLASH=4		Pattern 3, Exps 1-1 in Visit 08 (3)	1338 Secs (2676 Secs)		
										[=>(Pattern 1)]	[1]
										[=>(Pattern 2)]	
2	(WFC3UVI S.im.152534 9)	(8) J151427+362001	WFC3/UVIS, ACCUM, UVIS2-C512C-CTE	F390W	FLASH=10	POS TARG 0.173,0.112		Pattern 3, Exps 2-2 in Visit 08 (3)	838 Secs (1676 Secs)		
									[=>(Pattern 1)]	[2]	
									[=>(Pattern 2)]		
3	(WFC3UVI S.im.152534 7)	(8) J151427+362001	WFC3/UVIS, ACCUM, UVIS2-C512C-CTE	F814W	FLASH=9			Pattern 3, Exps 3-3 in Visit 08 (3)	350 Secs (700 Secs)		
									[=>(Pattern 1)]	[2]	
									[=>(Pattern 2)]		



Orbit Structure

Proposal 16742 - Visit 09 - Resolving the 3D Orientation of Galactic Disks: New Constraints on Circumgalactic Gas Flow

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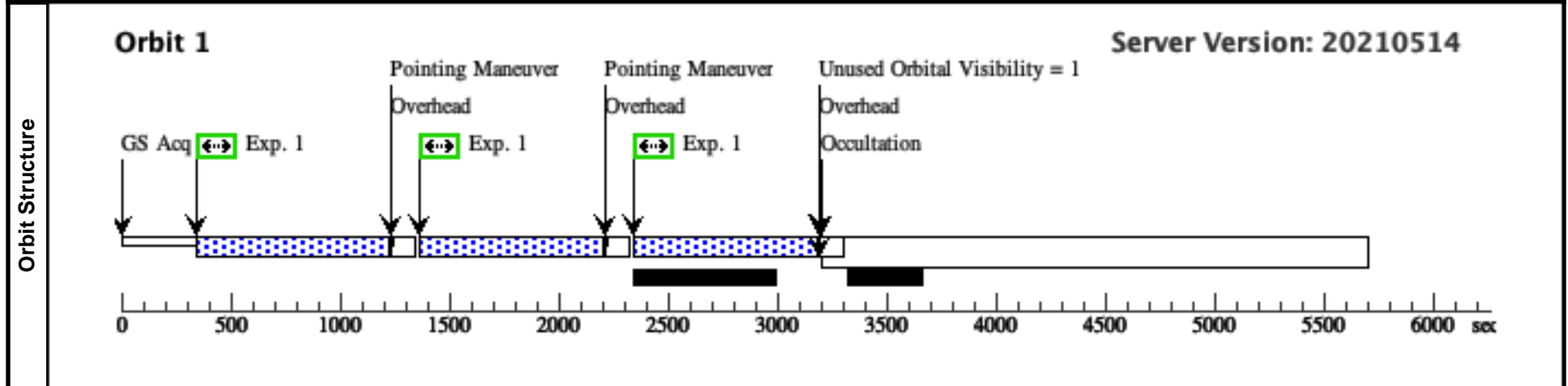
Visit	Proposal 16742, Visit 09	
	Diagnostic Status: Warning	
	Scientific Instruments: WFC3/UVIS	
	Special Requirements: (none)	

Diagnostics	(Exposure 1 (Pattern 2, Exps 1-1 in Visit 09)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser
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Patterns	#	Primary Pattern	Secondary Pattern	Exposures
	(2)	Pattern Type=WFC3-UVIS-DITHER- LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(9)	J155505+362848	RA: 15 55 5.2600 (238.7719167d) Dec: +36 28 48.40 (36.48011d) Equinox: J2000		V=(?) u=20.33, r=18.79, i=18.45	Reference Frame: ICRS
<i>Comments:</i>						
Category=GALAXY						
Description=[SPIRAL]						
Extended=YES						

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(WFC3UVI S.im.152535 2)	(9) J155505+362848	WFC3/UVIS, ACCUM, UVIS2-C512C-CTE	F390W	FLASH=10		Pattern 2, Exps 1-1 in Visit 09 (2)	846 Secs (2538 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]



Proposal 16742 - Visit 10 - Resolving the 3D Orientation of Galactic Disks: New Constraints on Circumgalactic Gas Flow

Wed Jul 28 14:01:12 GMT 2021

Visit	Proposal 16742, Visit 10 Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: (none)										
	(Exposure 1 (Pattern 1, Exps 1-1 in Visit 10)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser										
Diagnosics											
Patterns	#	Primary Pattern				Secondary Pattern				Exposures	
	(1)	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		
	(10)	J162438+234521	RA: 16 24 38.5900 (246.1607917d) Dec: +23 45 21.82 (23.75606d) Equinox: J2000				V=(?) u=23.64, r=20.40, i=19.84		Reference Frame: ICRS		
Comments: Category=GALAXY Description=[SPIRAL]											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(WFC3UVIS.im.15253515)	(10) J162438+234521	WFC3/UVIS, ACCUM, UVIS2-C512C-CTE	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 10 (1)	1312 Secs (5248 Secs)		
										[=>(Pattern 1)]	[1]
										[=>(Pattern 2)]	
										[=>(Pattern 3)]	
									[=>(Pattern 4)]	[2]	

