



16912 - A trail of dark matter-free galaxies in the NGC1052 group

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>
08	(8) DF9 ANY	ACS/WFC WFC3/UVIS	2	07-Apr-2022 09:00:29.0	yes
07	(7) LEDA4014647 ANY	ACS/WFC WFC3/UVIS	1	07-Apr-2022 09:00:31.0	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>
01	(1) RCP32 ANY	ACS/WFC WFC3/UVIS	2	07-Apr-2022 09:00:32.0	yes
02	(2) RCP28 ANY	ACS/WFC WFC3/UVIS	2	07-Apr-2022 09:00:34.0	yes
03	(3) RCP26 ANY	ACS/WFC WFC3/UVIS	2	07-Apr-2022 09:00:36.0	yes
04	(4) RCP21 ANY	ACS/WFC WFC3/UVIS	2	07-Apr-2022 09:00:38.0	yes
05	(5) RCP17 ANY	ACS/WFC WFC3/UVIS	2	07-Apr-2022 09:00:40.0	yes
06	(6) TA21-12000 ANY	ACS/WFC WFC3/UVIS	2	07-Apr-2022 09:00:42.0	yes

15 Total Orbits Used

ABSTRACT

The ultra diffuse galaxies DF2 and DF4 in the NGC1052 group share several unusual properties: they both have large sizes, rich populations of overluminous and large globular clusters, and very low velocity dispersions indicating little or no dark matter. Recently it was found that DF2 and DF4 are very far apart along the line-of-sight, have a high relative velocity, and are part of a linear structure of 8-12 large, unusual galaxies in the group. It has been proposed that DF2, DF4, and the other galaxies along the trail originated in the aftermath of a "bullet dwarf" event, a high speed collision between two galaxies ~9 Gyr ago that separated gas from dark matter. Four of the galaxies in the trail have been imaged previously with ACS. Here we propose to image the other 8 galaxies in the trail. The immediate goals are to measure the globular cluster populations, morphologies, colors, and surface brightness fluctuation distances of all the galaxies in this remarkable linear structure. These observations are critical for preparing follow-up spectroscopic and ultra deep HST imaging observations, and lay the foundation for a constraint on the self-interaction cross section of dark matter on kpc scales.

OBSERVING DESCRIPTION

Proposal 16912 (STScI Edit Number: 1, Created: Thursday, April 7, 2022 at 8:00:43 AM Eastern Standard Time) - Overview

The goal is to observe 7 of the 8 galaxies for 2 orbits (1 F606W, 1 F814W) and 1 galaxy for 1 orbit (0.5 F606W, 0.5 F814W).

Exposures:

For the 7 galaxies each visit is 2 orbits. Within each orbit, 4 primary ACS exposures and 4 parallel UVIS exposures are obtained.

It was difficult to fit these within 1 orbit; the model was an example visit on the STScI pages. The buffer dumps require a structure of the form short-long-long-short for the 4 exposures.

The dither pattern does 2 exposures with a small offset, then the third with a big offset over the chip gap, and a fourth again with a small offset.

For the galaxy with 1 orbit (LEDA4014647) only 2 exposures are obtained in each filter, and a different dither pattern is used that only has the chip gap jump.

Location / apertures:

The galaxies are observed in the lower half of chip 1. As they are 10"-20" in size the WFC position is too close to the chip gap, but if WFC1 were used then the galaxies would not be centered and we could miss associated globular clusters. We therefore use WFC but with a +20" offset in Y (by having a Special Requirement).

Flash:

Flash is used for all UVIS F814W exposures and for the UVIS F606W exposures in the 1-orbit visit.

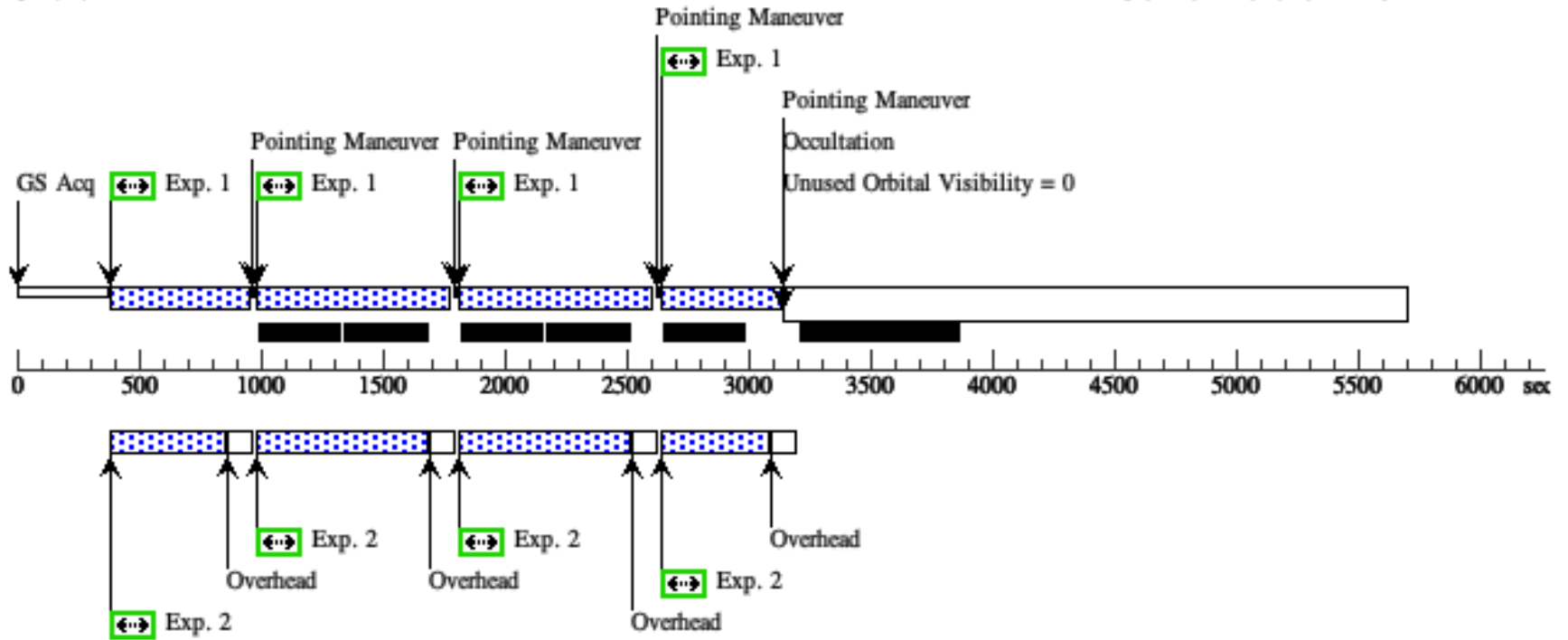
FLASH=8 e is a compromise, as it is slightly too low for the short subexposures (see Exposures above) and slightly too high for the long subexposures. If it is possible to adjust the FLASH for each subexposure then that would be better.

Proposal 16912 - DF9 (08) - A trail of dark matter-free galaxies in the NGC1052 group

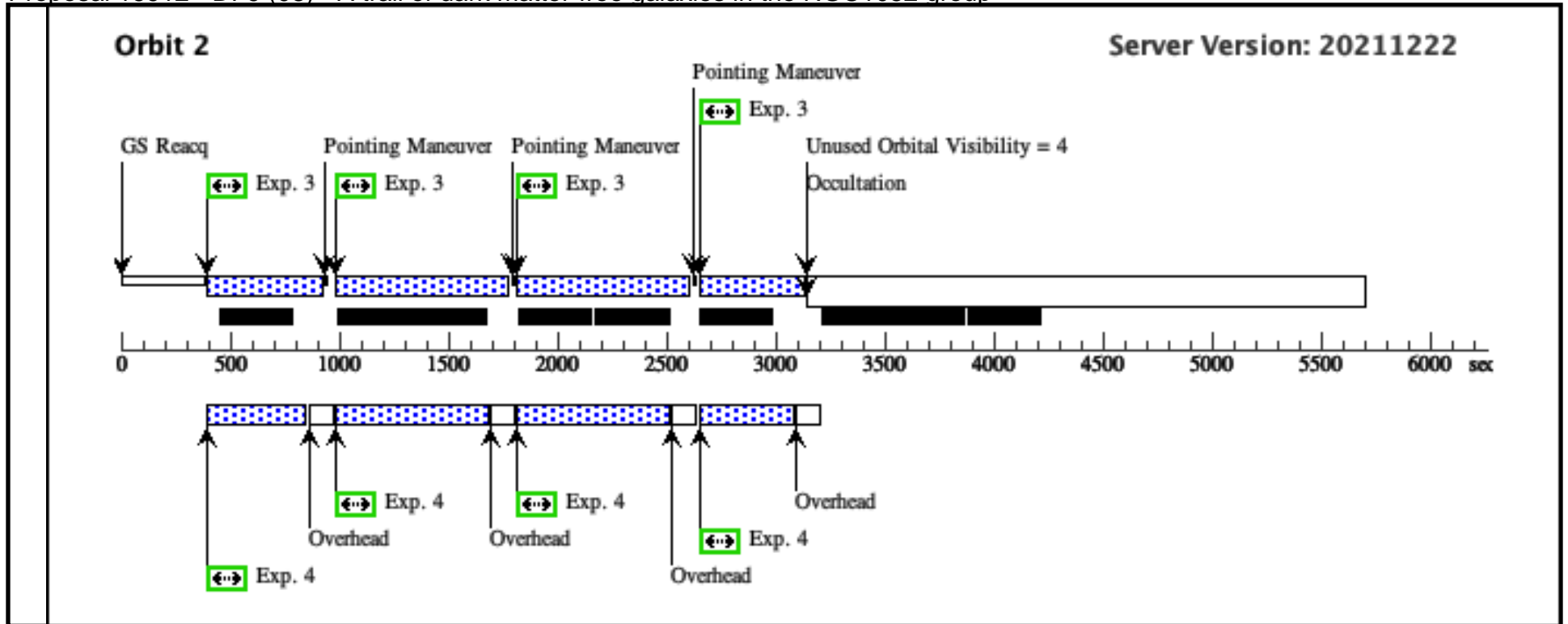
Thu Apr 07 13:00:43 GMT 2022

Visit	Proposal 16912, DF9 (08), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: (none)									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.034 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.29 Angle Between Sides= Center Pattern=false	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=47.23 Angle Between Sides= Center Pattern=false	(1-2), (3-4)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(8)	DF9	RA: 02 40 7.0080 (40.0292000d) Dec: -08 13 44.40 (-8.22900d) Equinox: J2000 <i>Comments:</i> Category=GALAXY Description=[DWARF SPHEROIDAL] Extended=YES		V=25	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(8) DF9	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0,20	Pattern 1, Exps 1-2 in DF9 (08) (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in DF9 (08)	690 Secs (2064 Secs) [==>362.0 Secs (Pattern 1,1)] [==>670.0 Secs (Pattern 1,2)] [==>670.0 Secs (Pattern 2,1)] [==>362.0 Secs (Pattern 2,2)]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Pattern 1, Exps 1-2 in DF9 (08) (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in DF9 (08)	690 Secs (2284 Secs) [==>442.0 Secs (Pattern 1,1)] [==>700.0 Secs (Pattern 1,2)] [==>700.0 Secs (Pattern 2,1)] [==>442.0 Secs (Pattern 2,2)]	[1]
	3		(8) DF9	ACS/WFC, ACCUM, WFC	F814W		POS TARG 0,20	Pattern 1, Exps 3-4 in DF9 (08) (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in DF9 (08)	690 Secs (2046 Secs) [==>353.0 Secs (Pattern 1,1)] [==>670.0 Secs (Pattern 1,2)] [==>670.0 Secs (Pattern 2,1)] [==>353.0 Secs (Pattern 2,2)]	[2]
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F814W	FLASH=8		Pattern 1, Exps 3-4 in DF9 (08) (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in DF9 (08)	690 Secs (2266 Secs) [==>433.0 Secs (Pattern 1,1)] [==>700.0 Secs (Pattern 1,2)] [==>700.0 Secs (Pattern 2,1)] [==>433.0 Secs (Pattern 2,2)]	[2]

Orbit 1



Orbit Structure



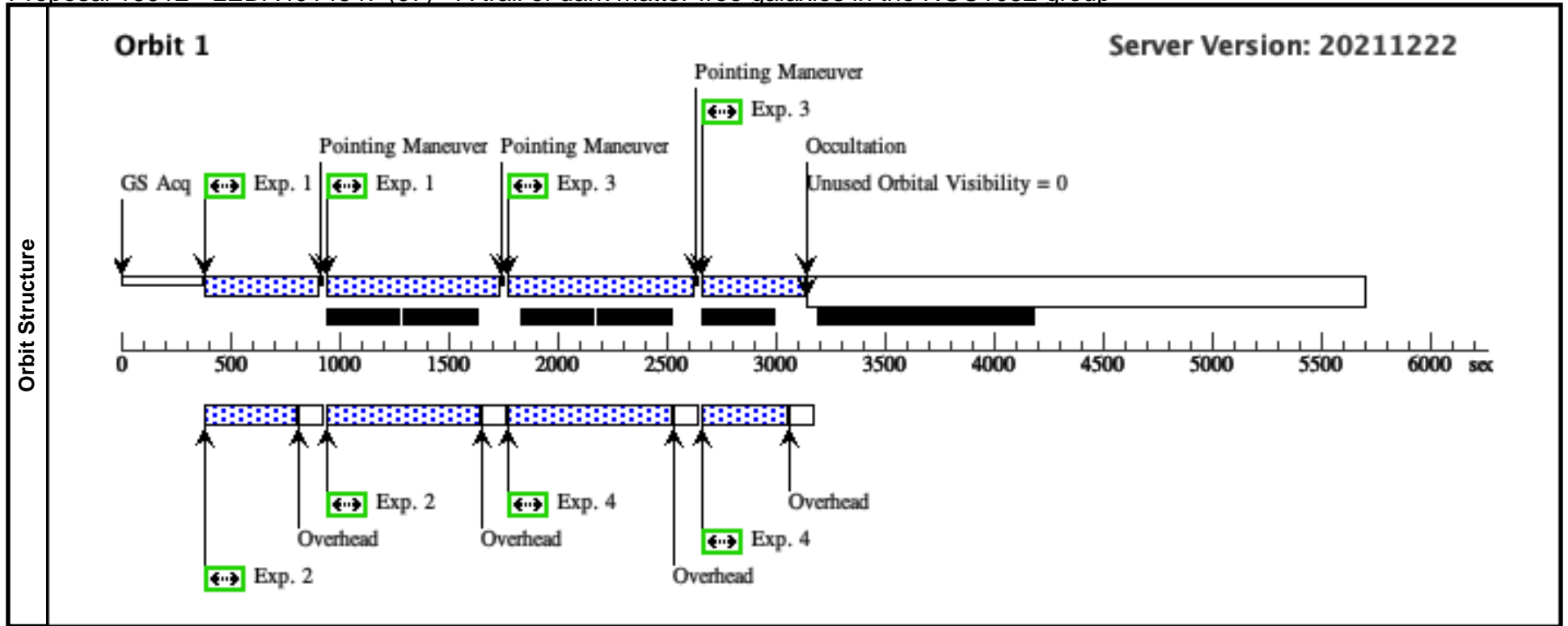
Proposal 16912 - LEDA4014647 (07) - A trail of dark matter-free galaxies in the NGC1052 group

Thu Apr 07 13:00:43 GMT 2022

Visit	Proposal 16912, LEDA4014647 (07), implementation Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: (none)					
	(Parallel Exposure 2 (Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in LEDA4014647 (07))) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser (Parallel Exposure 4 (Prime + Parallel Group 3-4 in Pattern 2, Exps 3-4 in LEDA4014647 (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		
	(2)	Pattern Type=ACS-WFC-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.034 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=85.29 Angle Between Sides= Center Pattern=false		(1-2), (3-4)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(7)	LEDA4014647	RA: 02 38 48.5040 (39.7021000d) Dec: -08 02 57.70 (-8.04936d) Equinox: J2000		V=25	Reference Frame: ICRS
	<i>Comments:</i> Category=GALAXY Description=[DWARF SPHEROIDAL] Extended=YES					

Proposal 16912 - LEDA4014647 (07) - A trail of dark matter-free galaxies in the NGC1052 group

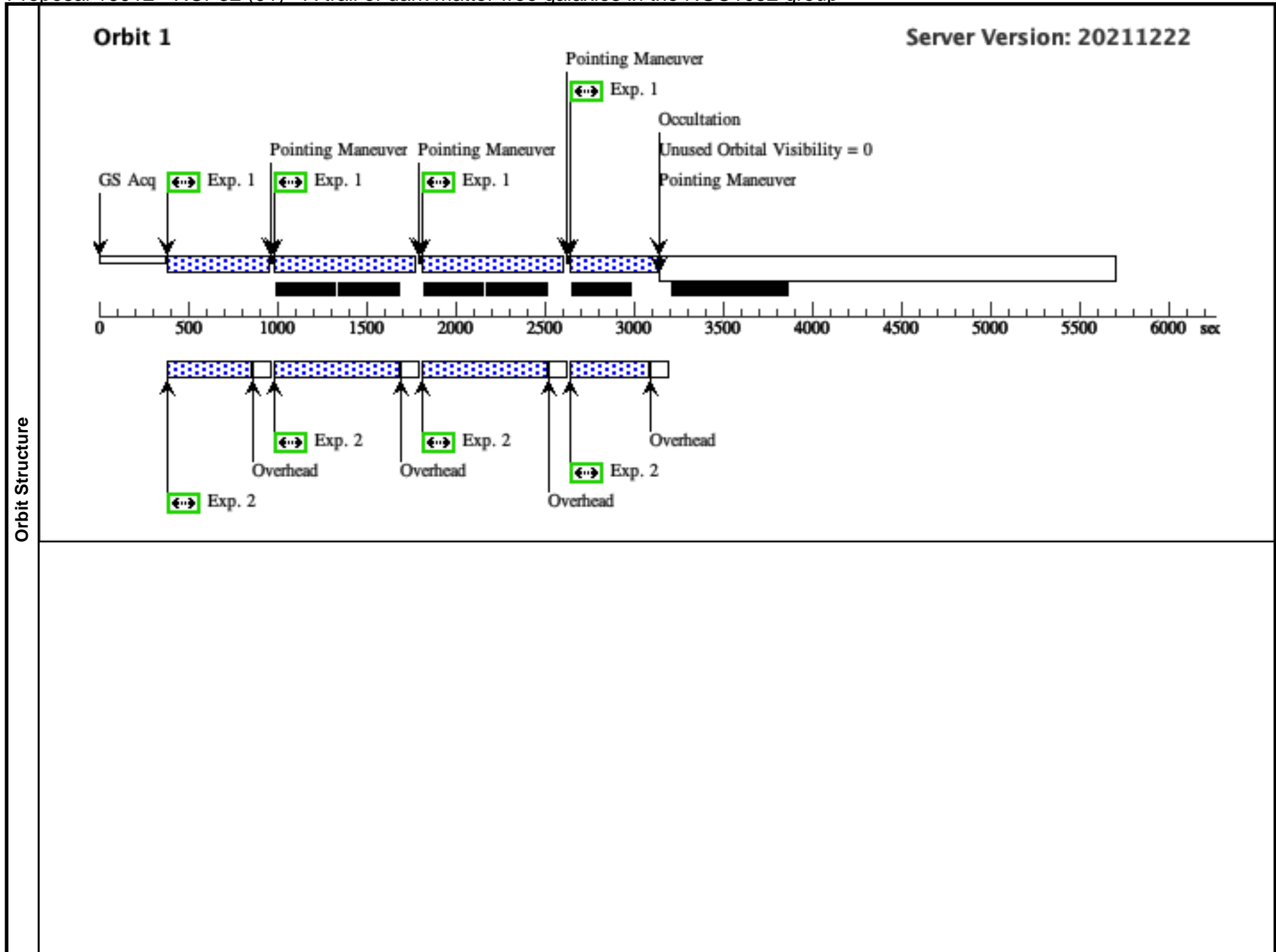
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(7) LEDA4014647	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0,20	Pattern 2, Exps 1-2 in LEDA4014647 (07) (2) Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in LEDA4014647 (07)	690 Secs (981 Secs) [==>311.0 Secs (Pattern 1)] [==>670.0 Secs (Pattern 2)]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=8		Pattern 2, Exps 1-2 in LEDA4014647 (07) (2) Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in LEDA4014647 (07)	690 Secs (1091 Secs) [==>391.0 Secs (Pattern 1)] [==>700.0 Secs (Pattern 2)]	[1]
	3		(7) LEDA4014647	ACS/WFC, ACCUM, WFC	F814W		POS TARG 0,20	Pattern 2, Exps 3-4 in LEDA4014647 (07) (2) Prime + Parallel Group 3-4 in Pattern 2, Exps 3-4 in LEDA4014647 (07)	690 Secs (1016 Secs) [==>670.0 Secs (Pattern 1)] [==>346.0 Secs (Pattern 2)]	[1]
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F814W	FLASH=8		Pattern 2, Exps 3-4 in LEDA4014647 (07) (2) Prime + Parallel Group 3-4 in Pattern 2, Exps 3-4 in LEDA4014647 (07)	690 Secs (1126 Secs) [==>730.0 Secs (Pattern 1)] [==>396.0 Secs (Pattern 2)]	[1]

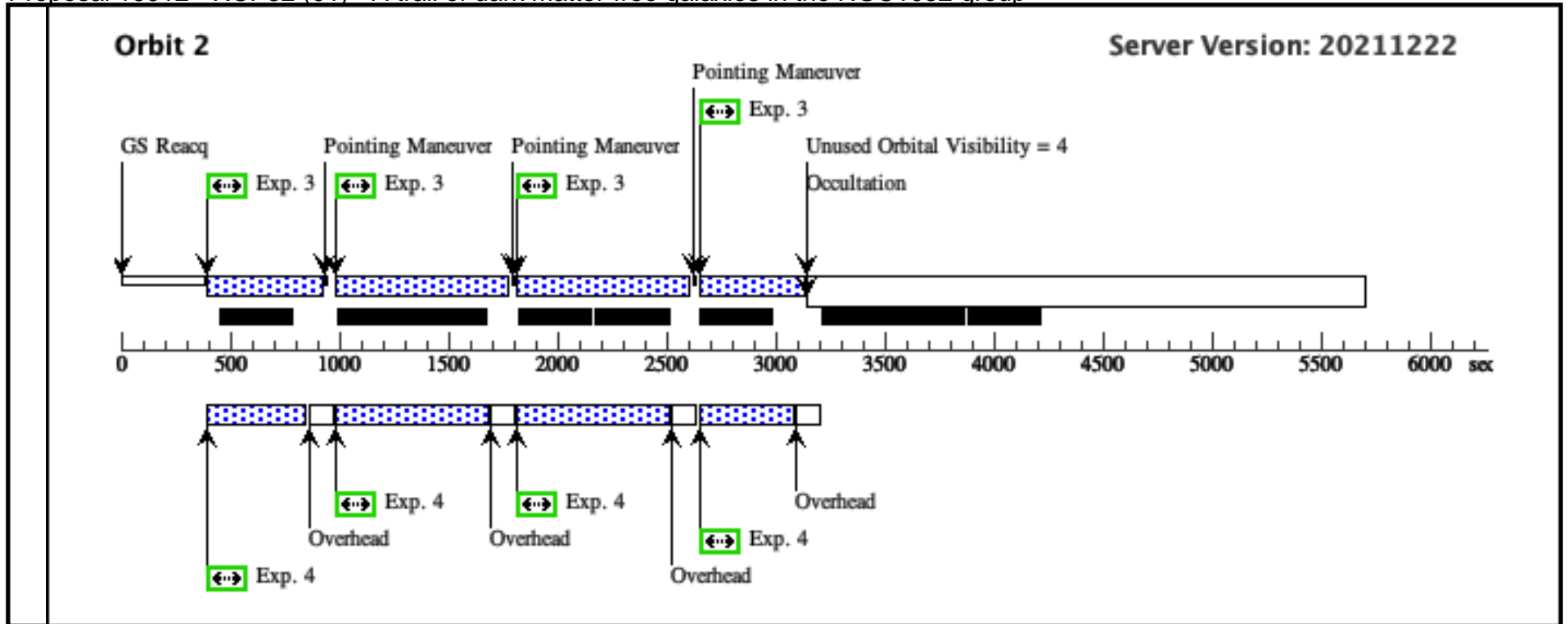


Proposal 16912 - RCP32 (01) - A trail of dark matter-free galaxies in the NGC1052 group

Thu Apr 07 13:00:43 GMT 2022

Visit	Proposal 16912, RCP32 (01), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: (none)									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.034 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.29 Angle Between Sides= Center Pattern=false	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=47.23 Angle Between Sides= Center Pattern=false	(1-2), (3-4)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	RCP32	RA: 02 42 28.8480 (40.6202000d) Dec: -08 22 36.48 (-8.37680d) Equinox: J2000		V=25	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[DWARF SPHEROIDAL] Extended=YES									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) RCP32	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0,20	Pattern 1, Exps 1-2 in RCP32 (01) (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in RCP32 (01)	690 Secs (2064 Secs) [==>362.0 Secs (Pattern 1,1)] [==>670.0 Secs (Pattern 1,2)] [==>670.0 Secs (Pattern 2,1)] [==>362.0 Secs (Pattern 2,2)]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Pattern 1, Exps 1-2 in RCP32 (01) (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in RCP32 (01)	690 Secs (2284 Secs) [==>442.0 Secs (Pattern 1,1)] [==>700.0 Secs (Pattern 1,2)] [==>700.0 Secs (Pattern 2,1)] [==>442.0 Secs (Pattern 2,2)]	[1]
	3		(1) RCP32	ACS/WFC, ACCUM, WFC	F814W		POS TARG 0,20	Pattern 1, Exps 3-4 in RCP32 (01) (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in RCP32 (01)	690 Secs (2046 Secs) [==>353.0 Secs (Pattern 1,1)] [==>670.0 Secs (Pattern 1,2)] [==>670.0 Secs (Pattern 2,1)] [==>353.0 Secs (Pattern 2,2)]	[2]
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F814W	FLASH=8		Pattern 1, Exps 3-4 in RCP32 (01) (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in RCP32 (01)	690 Secs (2266 Secs) [==>433.0 Secs (Pattern 1,1)] [==>700.0 Secs (Pattern 1,2)] [==>700.0 Secs (Pattern 2,1)] [==>433.0 Secs (Pattern 2,2)]	[2]

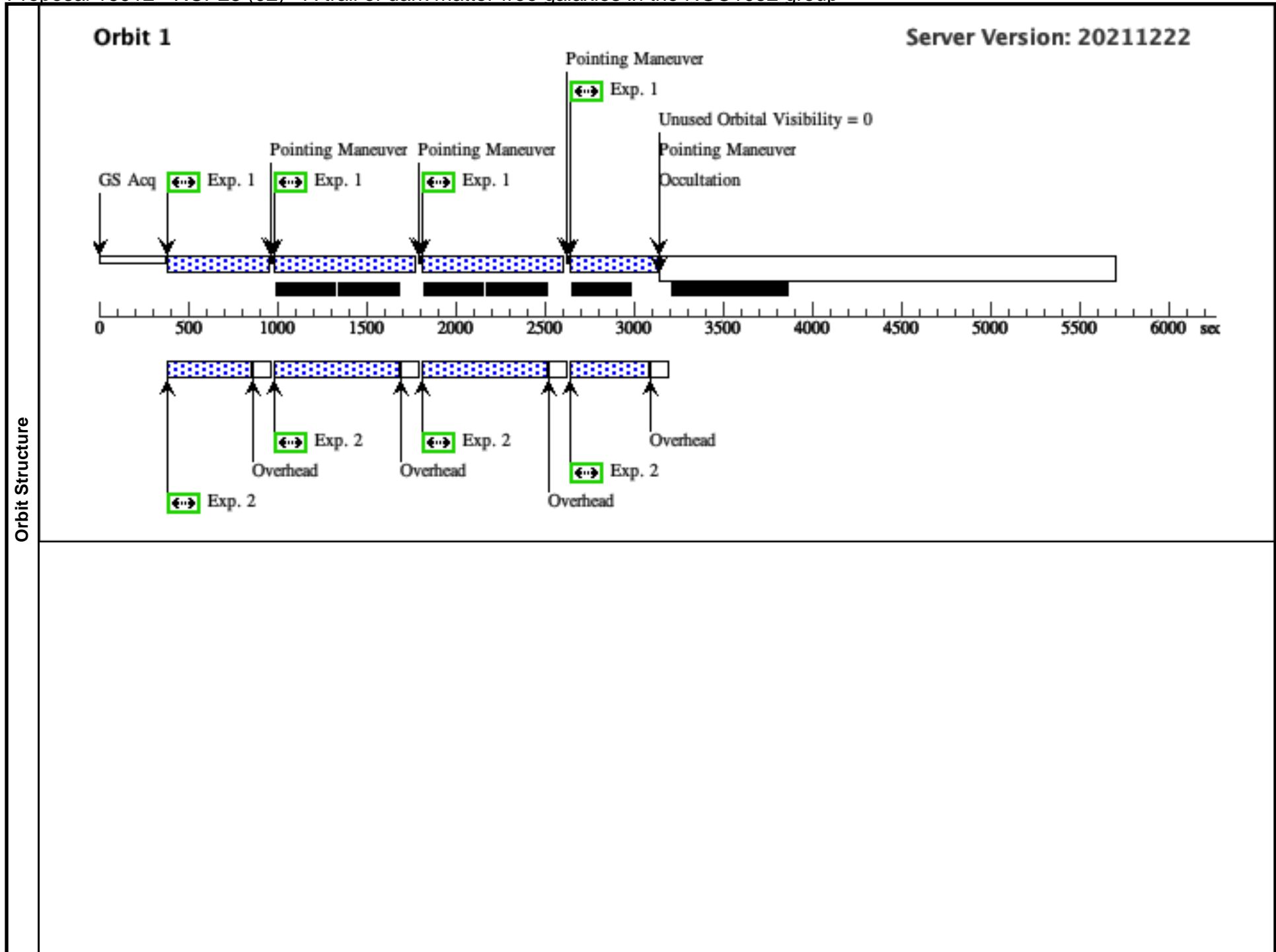


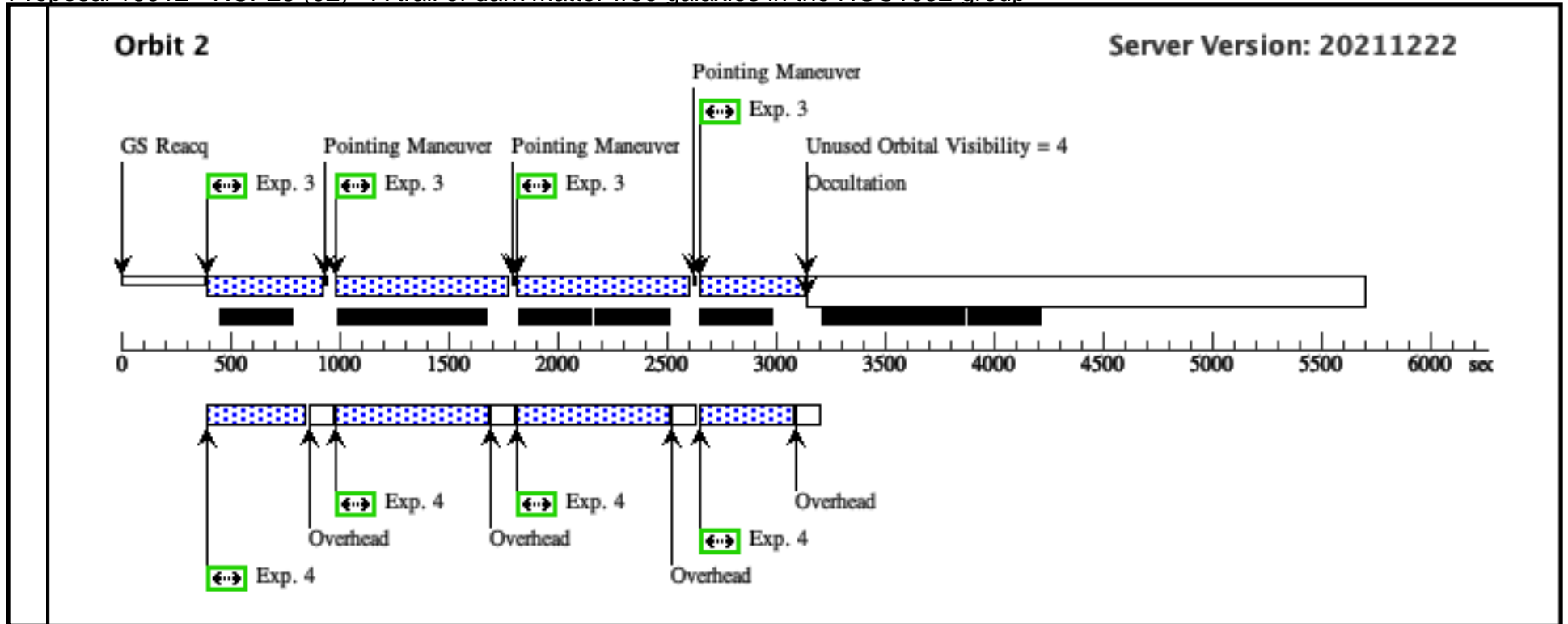


Proposal 16912 - RCP28 (02) - A trail of dark matter-free galaxies in the NGC1052 group

Thu Apr 07 13:00:43 GMT 2022

Visit	Proposal 16912, RCP28 (02), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: (none)									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.034 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.29 Angle Between Sides= Center Pattern=false	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=47.23 Angle Between Sides= Center Pattern=false	(1-2), (3-4)			
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	RCP28	RA: 02 41 41.1600 (40.4215000d) Dec: -08 20 51.00 (-8.34750d) Equinox: J2000		V=25	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[DWARF SPHEROIDAL] Extended=YES									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(2) RCP28	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0,20	Pattern 1, Exps 1-2 in RCP28 (02) (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in RCP28 (02)	690 Secs (2064 Secs) [==>362.0 Secs (Pattern 1,1)] [==>670.0 Secs (Pattern 1,2)] [==>670.0 Secs (Pattern 2,1)] [==>362.0 Secs (Pattern 2,2)]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Pattern 1, Exps 1-2 in RCP28 (02) (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in RCP28 (02)	690 Secs (2284 Secs) [==>442.0 Secs (Pattern 1,1)] [==>700.0 Secs (Pattern 1,2)] [==>700.0 Secs (Pattern 2,1)] [==>442.0 Secs (Pattern 2,2)]	[1]
	3		(2) RCP28	ACS/WFC, ACCUM, WFC	F814W		POS TARG 0,20	Pattern 1, Exps 3-4 in RCP28 (02) (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in RCP28 (02)	690 Secs (2046 Secs) [==>353.0 Secs (Pattern 1,1)] [==>670.0 Secs (Pattern 1,2)] [==>670.0 Secs (Pattern 2,1)] [==>353.0 Secs (Pattern 2,2)]	[2]
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F814W	FLASH=8		Pattern 1, Exps 3-4 in RCP28 (02) (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in RCP28 (02)	690 Secs (2266 Secs) [==>433.0 Secs (Pattern 1,1)] [==>700.0 Secs (Pattern 1,2)] [==>700.0 Secs (Pattern 2,1)] [==>433.0 Secs (Pattern 2,2)]	[2]

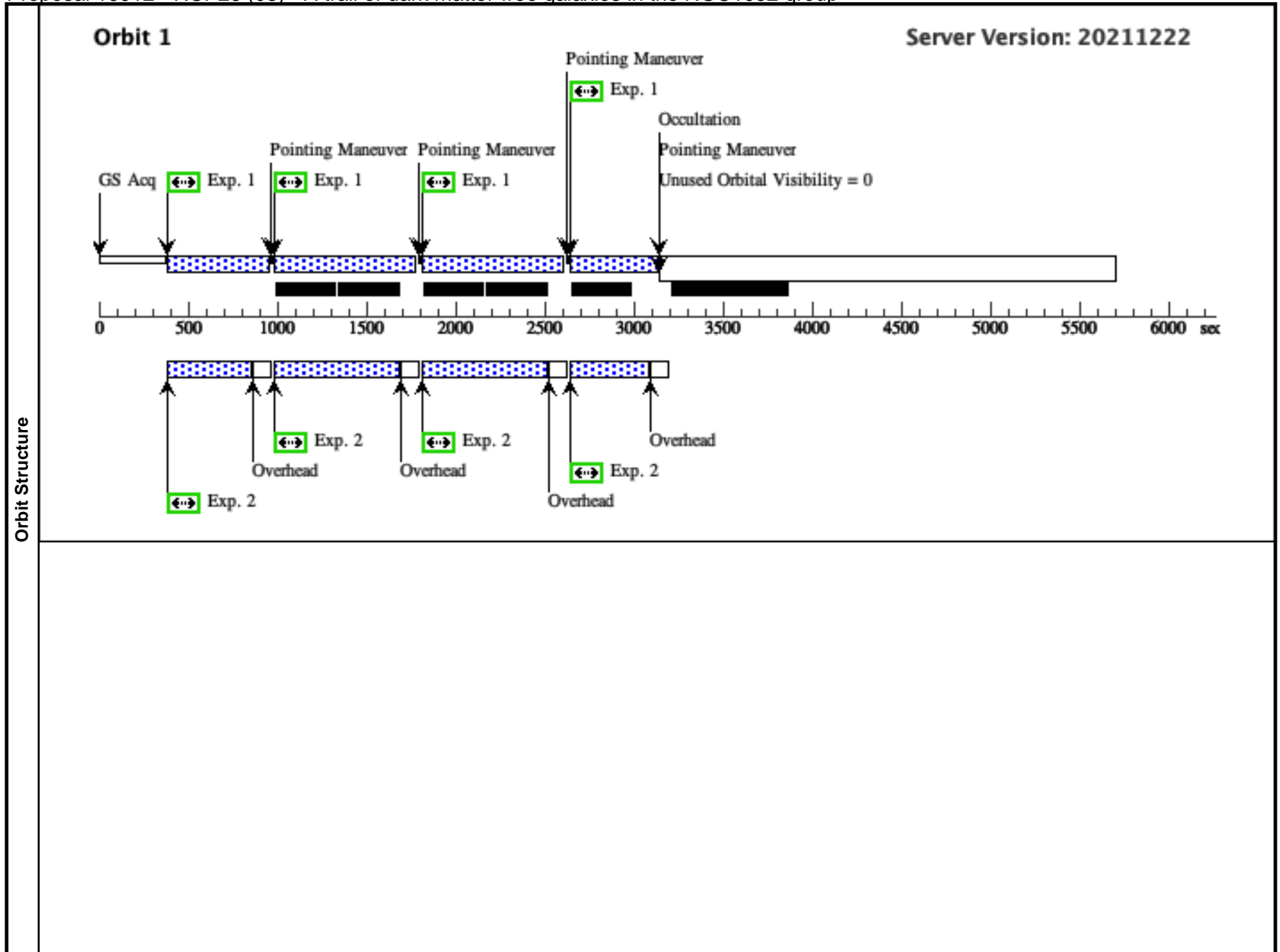


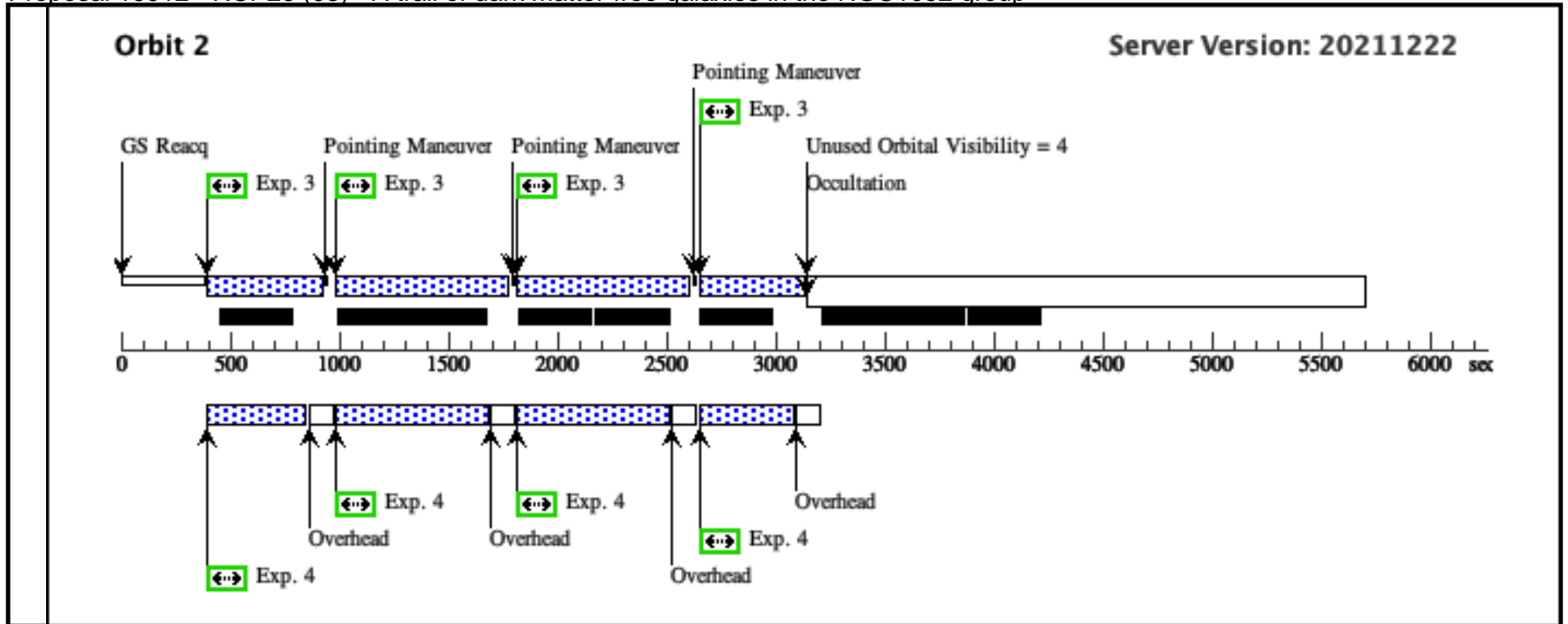


Proposal 16912 - RCP26 (03) - A trail of dark matter-free galaxies in the NGC1052 group

Thu Apr 07 13:00:43 GMT 2022

Visit	Proposal 16912, RCP26 (03), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: (none)									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.034 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.29 Angle Between Sides= Center Pattern=false	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=47.23 Angle Between Sides= Center Pattern=false	(1-2), (3-4)			
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(3)	RCP26	RA: 02 41 9.5280 (40.2897000d) Dec: -08 17 48.48 (-8.29680d) Equinox: J2000		V=25	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[DWARF SPHEROIDAL] Extended=YES									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(3) RCP26	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0,20	Pattern 1, Exps 1-2 in RCP26 (03) (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in RCP26 (03)	690 Secs (2064 Secs) [==>362.0 Secs (Pattern 1,1)] [==>670.0 Secs (Pattern 1,2)] [==>670.0 Secs (Pattern 2,1)] [==>362.0 Secs (Pattern 2,2)]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Pattern 1, Exps 1-2 in RCP26 (03) (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in RCP26 (03)	690 Secs (2284 Secs) [==>442.0 Secs (Pattern 1,1)] [==>700.0 Secs (Pattern 1,2)] [==>700.0 Secs (Pattern 2,1)] [==>442.0 Secs (Pattern 2,2)]	[1]
	3		(3) RCP26	ACS/WFC, ACCUM, WFC	F814W		POS TARG 0,20	Pattern 1, Exps 3-4 in RCP26 (03) (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in RCP26 (03)	690 Secs (2046 Secs) [==>353.0 Secs (Pattern 1,1)] [==>670.0 Secs (Pattern 1,2)] [==>670.0 Secs (Pattern 2,1)] [==>353.0 Secs (Pattern 2,2)]	[2]
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F814W	FLASH=8		Pattern 1, Exps 3-4 in RCP26 (03) (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in RCP26 (03)	690 Secs (2266 Secs) [==>433.0 Secs (Pattern 1,1)] [==>700.0 Secs (Pattern 1,2)] [==>700.0 Secs (Pattern 2,1)] [==>433.0 Secs (Pattern 2,2)]	[2]

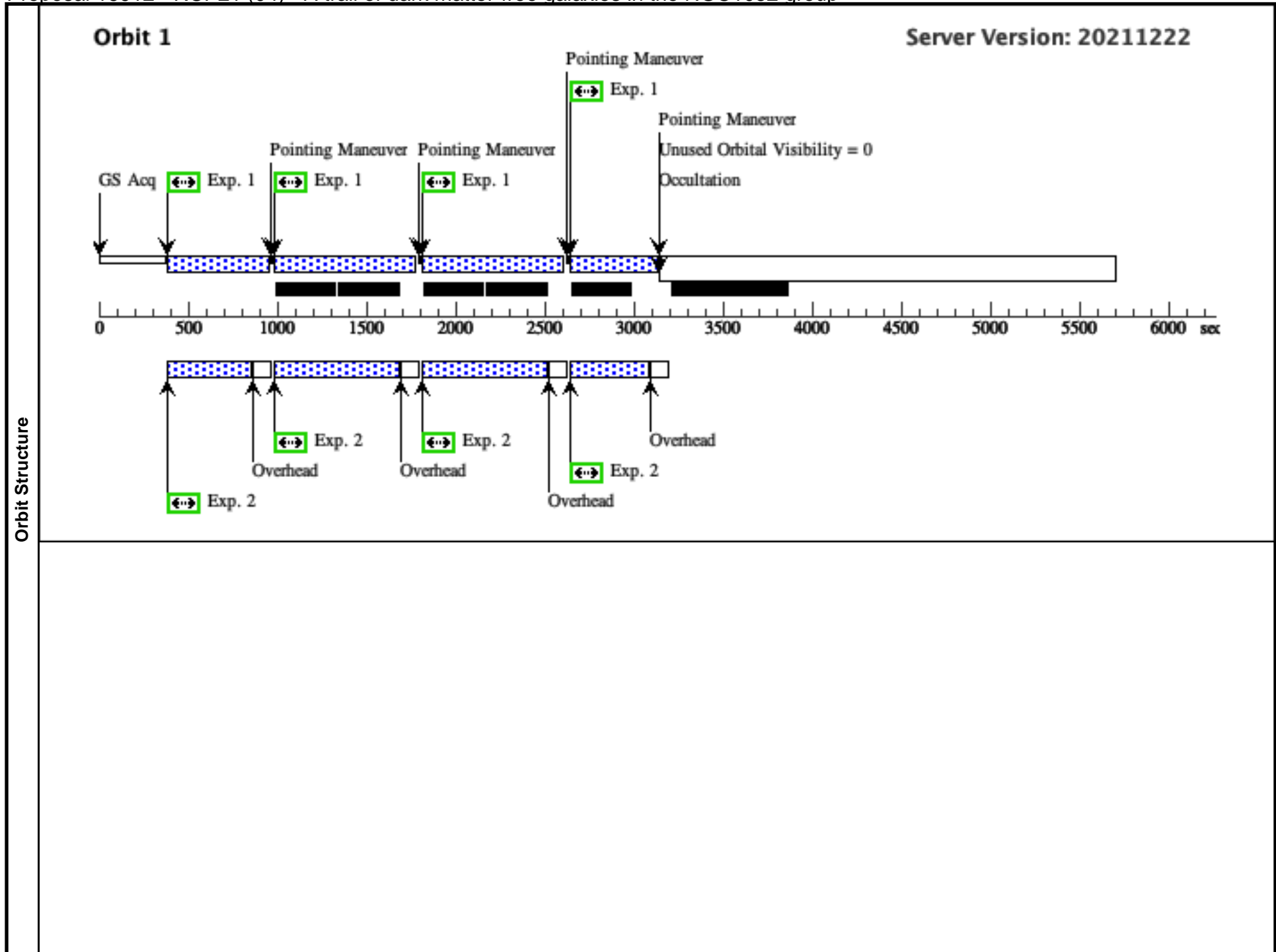


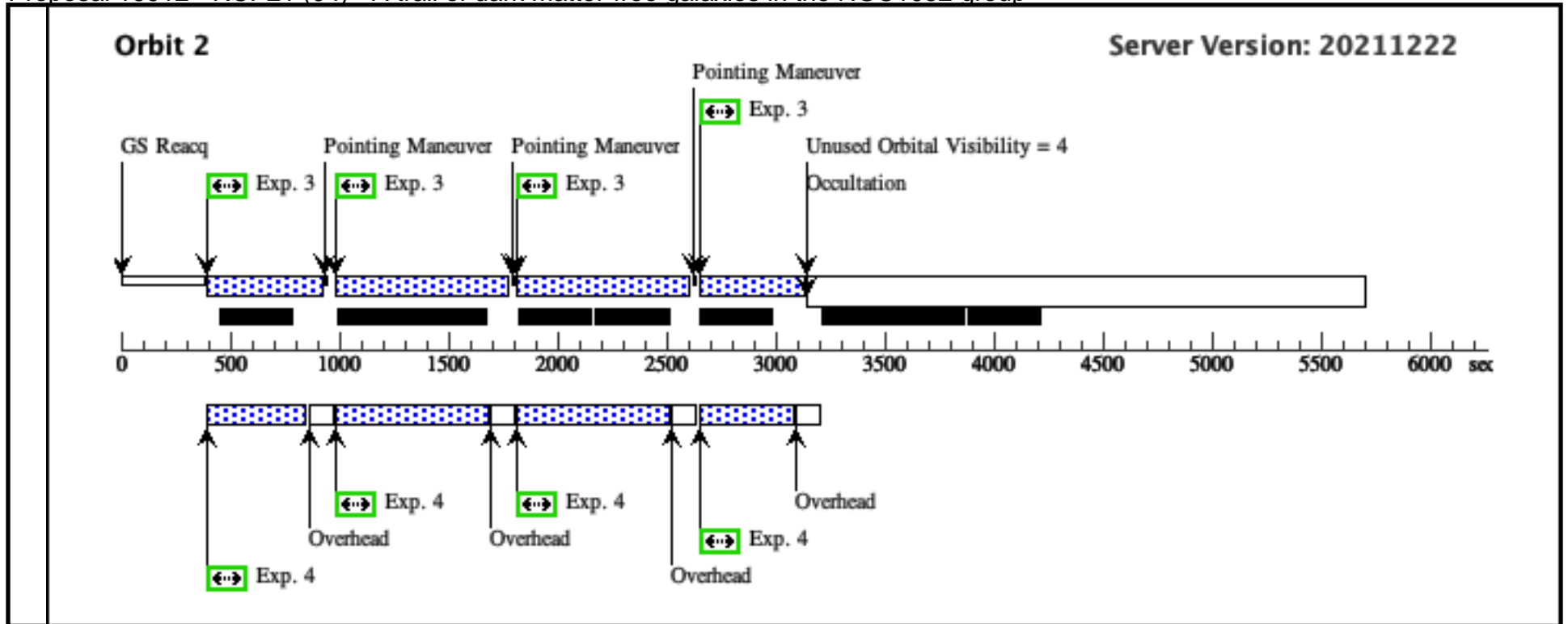


Proposal 16912 - RCP21 (04) - A trail of dark matter-free galaxies in the NGC1052 group

Thu Apr 07 13:00:43 GMT 2022

Visit	Proposal 16912, RCP21 (04), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: (none)									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.034 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.29 Angle Between Sides= Center Pattern=false	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=47.23 Angle Between Sides= Center Pattern=false	(1-2), (3-4)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(4)	RCP21	RA: 02 40 28.8000 (40.1200000d) Dec: -08 14 36.24 (-8.24340d) Equinox: J2000		V=25	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[DWARF SPHEROIDAL] Extended=YES									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(4) RCP21	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0,20	Pattern 1, Exps 1-2 in RCP21 (04) (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in RCP21 (04)	690 Secs (2064 Secs) [==>362.0 Secs (Pattern 1,1)] [==>670.0 Secs (Pattern 1,2)] [==>670.0 Secs (Pattern 2,1)] [==>362.0 Secs (Pattern 2,2)]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Pattern 1, Exps 1-2 in RCP21 (04) (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in RCP21 (04)	690 Secs (2284 Secs) [==>442.0 Secs (Pattern 1,1)] [==>700.0 Secs (Pattern 1,2)] [==>700.0 Secs (Pattern 2,1)] [==>442.0 Secs (Pattern 2,2)]	[1]
	3		(4) RCP21	ACS/WFC, ACCUM, WFC	F814W		POS TARG 0,20	Pattern 1, Exps 3-4 in RCP21 (04) (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in RCP21 (04)	690 Secs (2046 Secs) [==>353.0 Secs (Pattern 1,1)] [==>670.0 Secs (Pattern 1,2)] [==>670.0 Secs (Pattern 2,1)] [==>353.0 Secs (Pattern 2,2)]	[2]
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F814W	FLASH=8		Pattern 1, Exps 3-4 in RCP21 (04) (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in RCP21 (04)	690 Secs (2266 Secs) [==>433.0 Secs (Pattern 1,1)] [==>700.0 Secs (Pattern 1,2)] [==>700.0 Secs (Pattern 2,1)] [==>433.0 Secs (Pattern 2,2)]	[2]

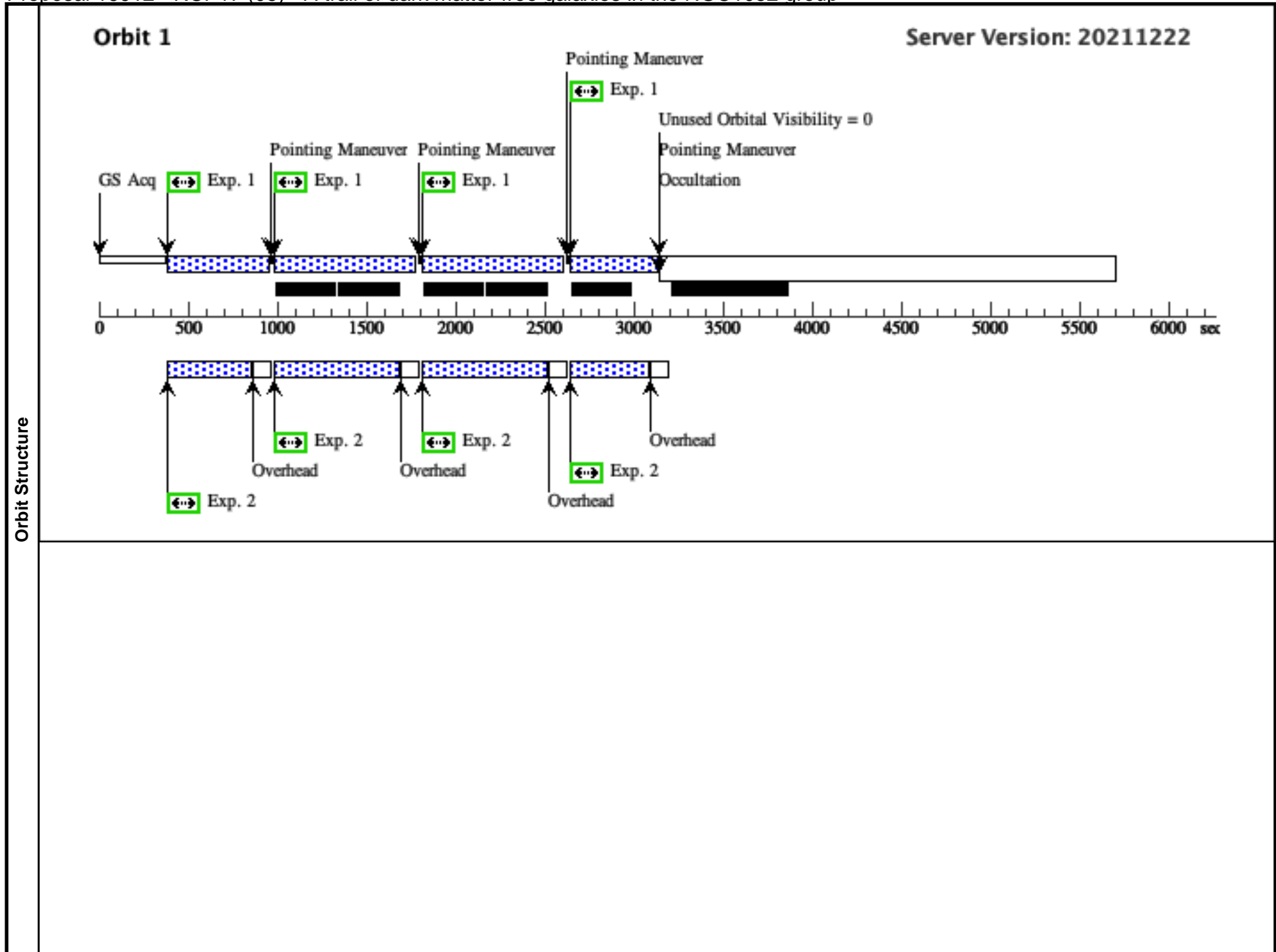


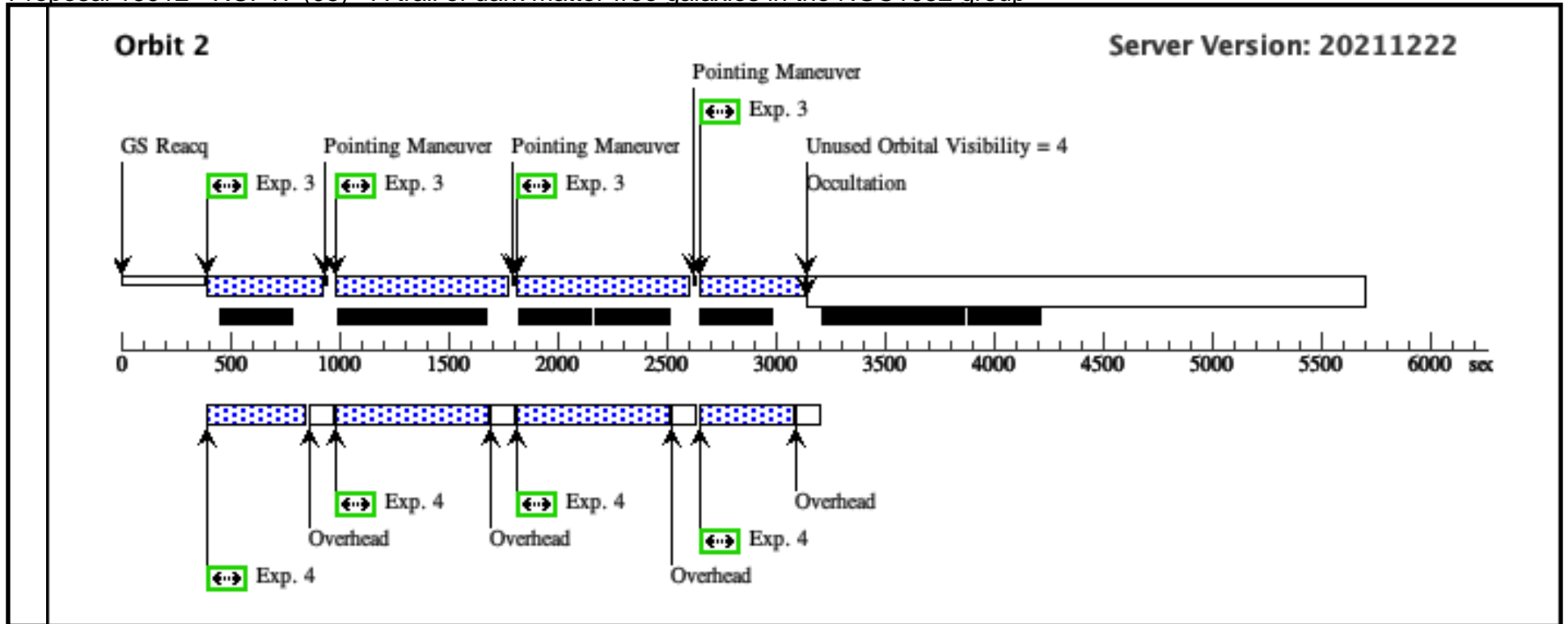


Proposal 16912 - RCP17 (05) - A trail of dark matter-free galaxies in the NGC1052 group

Thu Apr 07 13:00:43 GMT 2022

Visit	Proposal 16912, RCP17 (05), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: (none)									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.034 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.29 Angle Between Sides= Center Pattern=false	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=47.23 Angle Between Sides= Center Pattern=false	(1-2), (3-4)			
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(5)	RCP17	RA: 02 39 52.7040 (39.9696000d) Dec: -08 12 43.56 (-8.21210d) Equinox: J2000		V=25	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[DWARF SPHEROIDAL] Extended=YES									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(5) RCP17	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0,20	Pattern 1, Exps 1-2 in RCP17 (05) (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in RCP17 (05)	690 Secs (2064 Secs) [==>362.0 Secs (Pattern 1,1)] [==>670.0 Secs (Pattern 1,2)] [==>670.0 Secs (Pattern 2,1)] [==>362.0 Secs (Pattern 2,2)]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Pattern 1, Exps 1-2 in RCP17 (05) (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in RCP17 (05)	690 Secs (2284 Secs) [==>442.0 Secs (Pattern 1,1)] [==>700.0 Secs (Pattern 1,2)] [==>700.0 Secs (Pattern 2,1)] [==>442.0 Secs (Pattern 2,2)]	[1]
	3		(5) RCP17	ACS/WFC, ACCUM, WFC	F814W		POS TARG 0,20	Pattern 1, Exps 3-4 in RCP17 (05) (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in RCP17 (05)	690 Secs (2046 Secs) [==>353.0 Secs (Pattern 1,1)] [==>670.0 Secs (Pattern 1,2)] [==>670.0 Secs (Pattern 2,1)] [==>353.0 Secs (Pattern 2,2)]	[2]
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F814W	FLASH=8		Pattern 1, Exps 3-4 in RCP17 (05) (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in RCP17 (05)	690 Secs (2266 Secs) [==>433.0 Secs (Pattern 1,1)] [==>700.0 Secs (Pattern 1,2)] [==>700.0 Secs (Pattern 2,1)] [==>433.0 Secs (Pattern 2,2)]	[2]





Proposal 16912 - TA21-12000 (06) - A trail of dark matter-free galaxies in the NGC1052 group

Thu Apr 07 13:00:43 GMT 2022

Visit	Proposal 16912, TA21-12000 (06), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: (none)									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.034 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.29 Angle Between Sides= Center Pattern=false	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=47.23 Angle Between Sides= Center Pattern=false	(1-2), (3-4)			
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(6)	TA21-12000	RA: 02 39 39.3360 (39.9139000d) Dec: -08 13 42.60 (-8.22850d) Equinox: J2000		V=25	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[DWARF SPHEROIDAL] Extended=YES									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) TA21-12000	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0,20	Pattern 1, Exps 1-2 in TA21-12000 (06) (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in TA21-12000 (06)	690 Secs (2064 Secs) [==>362.0 Secs (Pattern 1,1)] [==>670.0 Secs (Pattern 1,2)] [==>670.0 Secs (Pattern 2,1)] [==>362.0 Secs (Pattern 2,2)]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Pattern 1, Exps 1-2 in TA21-12000 (06) (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in TA21-12000 (06)	690 Secs (2284 Secs) [==>442.0 Secs (Pattern 1,1)] [==>700.0 Secs (Pattern 1,2)] [==>700.0 Secs (Pattern 2,1)] [==>442.0 Secs (Pattern 2,2)]	[1]
	3		(6) TA21-12000	ACS/WFC, ACCUM, WFC	F814W		POS TARG 0,20	Pattern 1, Exps 3-4 in TA21-12000 (06) (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in TA21-12000 (06)	690 Secs (2046 Secs) [==>353.0 Secs (Pattern 1,1)] [==>670.0 Secs (Pattern 1,2)] [==>670.0 Secs (Pattern 2,1)] [==>353.0 Secs (Pattern 2,2)]	[2]
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F814W	FLASH=8		Pattern 1, Exps 3-4 in TA21-12000 (06) (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in TA21-12000 (06)	690 Secs (2266 Secs) [==>433.0 Secs (Pattern 1,1)] [==>700.0 Secs (Pattern 1,2)] [==>700.0 Secs (Pattern 2,1)] [==>433.0 Secs (Pattern 2,2)]	[2]

