



17512 - Probing SMBH/Galaxy Co-Evolution with Dual and Binary AGN

Cycle: 31, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

<i>Name</i>	<i>Institution</i>
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Dr. Julia Comerford (CoI)	University of Colorado at Boulder
Dr. Ezequiel Treister (CoI)	Pontificia Universidad Catolica de Chile
Dr. George Privon (CoI)	Associated Universities, Inc.
Mason Ruby (CoI)	University of Memphis

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) MRK-463	ACS/WFC	1	14-Jun-2024 10:00:41.0	yes
02	(2) 2MASX-J22063506+0003235	ACS/WFC	2	14-Jun-2024 10:00:42.0	yes
03	(3) NGC-3758	ACS/WFC	1	14-Jun-2024 10:00:43.0	yes
04	(4) NGC-326	ACS/WFC	1	14-Jun-2024 10:00:43.0	yes
05	(5) IRAS-01197+0044	ACS/WFC	2	14-Jun-2024 10:00:44.0	yes
06	(6) NGC-5256	ACS/WFC	1	14-Jun-2024 10:00:45.0	yes
07	(7) RX-J0602.1+2828	ACS/WFC	1	14-Jun-2024 10:00:45.0	yes
08	(8) MCG+11-14-003B	ACS/WFC	2	14-Jun-2024 10:00:46.0	yes
09	(9) ESO-509-66	ACS/WFC	1	14-Jun-2024 10:00:46.0	yes
10	(10) 3C-75	ACS/WFC	1	14-Jun-2024 10:00:47.0	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>
11	(11) 4C-+37.11	ACS/WFC	1	14-Jun-2024 10:00:48.0	yes
12	(12) UGC-04211	ACS/WFC	1	14-Jun-2024 10:00:48.0	yes

15 Total Orbits Used

ABSTRACT

A fundamental role is attributed to major mergers and supermassive black holes in the evolution of galaxies. But theoretical models trying to explain the role of galaxy mergers in the fueling and evolution of active galactic nuclei (AGN) have to make broad assumptions about the physical processes involved, and the prescriptions used are poorly constrained. Dual AGN, which are kpc-scale separation AGN pairs in galaxy mergers, offer the unique opportunity to investigate complex processes that are rarely detected simultaneously: vigorous star formation, two AGN, outflowing winds of ionized gas and tidal distortions. To provide the much needed guidance on these relevant processes, we propose [O III] and H α imaging of the complete sample of confirmed dual AGN at $z < 0.05$ and the only confirmed binary AGN, 4C+37.11, using ACS narrow-band filters. HST imaging is the only way to achieve the angular resolution and sensitivity required to study the detailed morphologies of faint tidal tails, narrow-line regions (NLRs), gas clouds between the two nuclei and compact star-forming regions. With a minimal investment of 15 orbits for such astrophysically important objects, we will be able to answer the following key questions: (i) how does merger dynamics contribute to the onset of star formation and AGN? (ii) how do the NLRs from the two AGN combine during the merger process? and (iii) what are the relative timescales and energetics of AGN- and star formation-driven outflows during different phases of the merger sequence? HST has observed only one dual AGN with narrow-band filters. This program will deliver a legacy of morphological data of dual AGN for studies of galaxy evolution.

OBSERVING DESCRIPTION

We aim to obtain HST narrow band [O III] and H α images for all the galaxies in our program using ACS narrow and medium filters. The ACS ramp filters provide the spectral coverage we require for our observations. The high sensitivity of ACS ensures that we will get very high signal to noise ratio (SNR) images (> 100) of the central regions of each system and reach even their outskirts and low surface brightness regions at $\text{SNR} > 5$ in a $\sim 3' \times 3'$ FOV. We need both [O III] and H α in order to separate gas ionized by the AGN from star forming material. For [O III] we will use FR505 and for H α FR656 or FR716N depending on the redshift of the galaxy. Precise continuum subtraction is also vital. For this, medium band filters are ideal, as they are close in wavelength, and can be chosen to be free of strong lines, but still produce plenty of SNR. For [O III] we will use F550M, and for H α we will use FR647M.

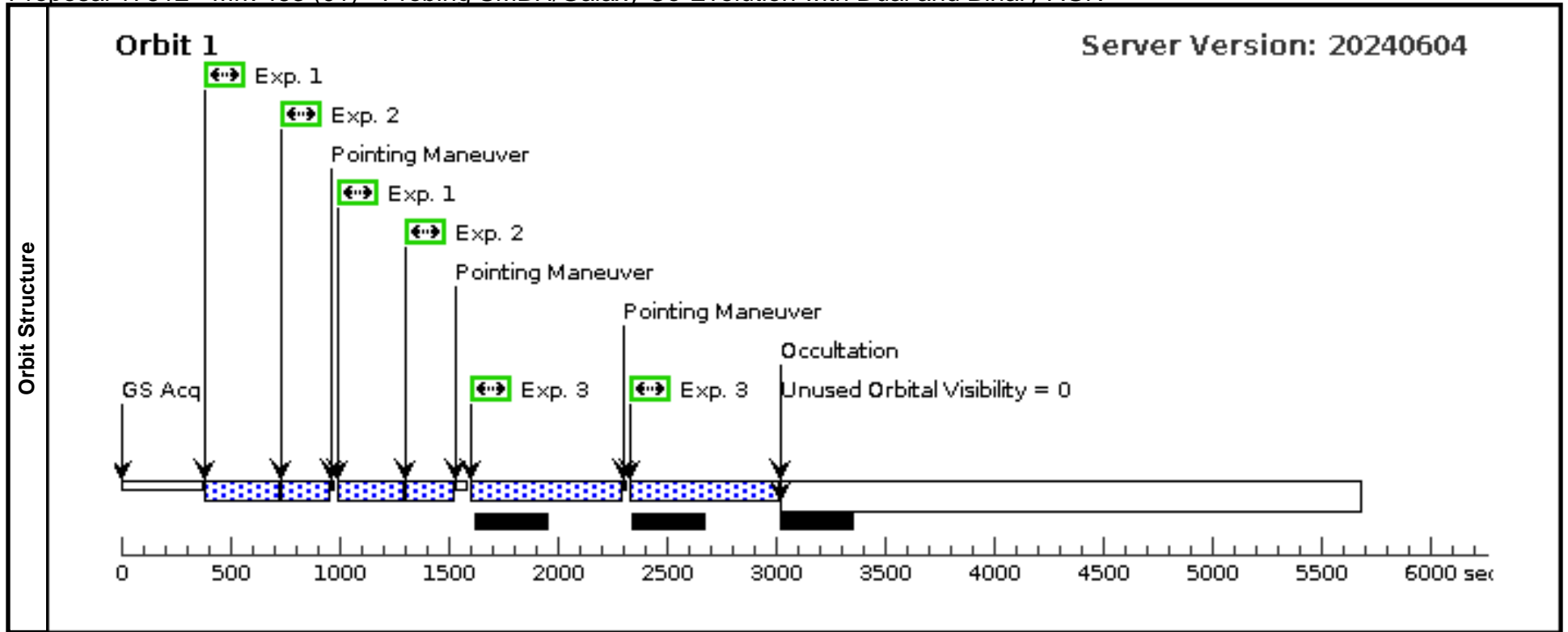
A one-orbit visit will devote 1200 s of exposure to [O III] and 300 s to H α , giving the same or somewhat higher SNR expected in the latter. The remaining 300 s of exposure time will be apportioned between the continuum filters F550M and FR647M, with a 4 to 1 ratio (240 s for the blue filters and 60 s for the red filters). For each target, there will be 21 min of overheads (7 min for guide-star acquisition and 14 min for filter change and readout). The total time spent on science exposures and overheads is ~51 min.

We checked the V-magnitude of our targets and we are now using two orbits for ESO 509-66, 4C+37.11 and IRAS 01197+0044. For the rest of the galaxies one orbit is sufficient.

Proposal 17512 - Mrk 463 (01) - Probing SMBH/Galaxy Co-Evolution with Dual and Binary AGN

Fri Jun 14 14:00:49 GMT 2024

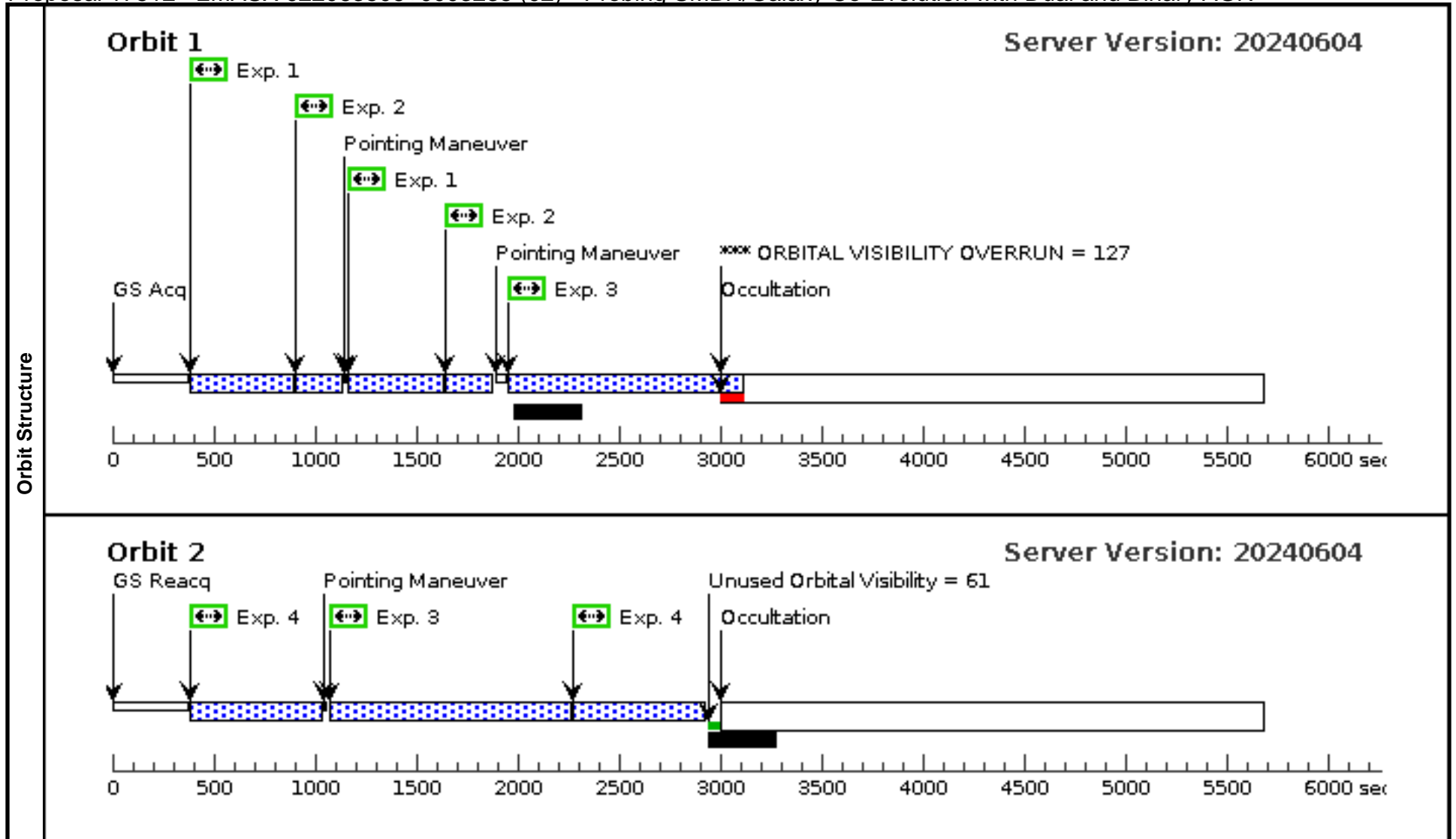
Visit	Proposal 17512, Mrk 463 (01), implementation Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)									
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Diagnosics										
Patterns	#	Primary Pattern	Secondary Pattern	Exposures						
	(1)	Pattern Type=ACS-WFC-DITHER-LINE 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	(1-2), (3)						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	MRK-463	RA: 13 56 2.9000 (209.0120833d) Dec: +18 22 18.00 (18.37167d) Equinox: J2000	Epoch of Position: 2015.5	V=14.22	Reference Frame: SIMBAD				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[INTERACTING GALAXY, MULTIPLE NUCLEI, NLR, TIDAL TAIL, WIND]										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1) MRK-463	(1) MRK-463	ACS/WFC, ACCUM, WFC1-IRAMPQ	FR716N 6896 A			Pattern 1, Exps 1-2 in Mrk 463 (01) (1)	150 Secs (264 Secs) [=>132.0 Secs (Pattern 1)] [=>132.0 Secs (Pattern 2)]	[1]
2	(1) MRK-463	(1) MRK-463	ACS/WFC, ACCUM, WFC1-IRAMPQ	FR647M 6200 A			Pattern 1, Exps 1-2 in Mrk 463 (01) (1)	65 Secs (94 Secs) [=>47.0 Secs (Pattern 1)] [=>47.0 Secs (Pattern 2)]	[1]	
3	(1) MRK-463	(1) MRK-463	ACS/WFC, ACCUM, WFC1-MRAMP	FR505N 5257 A			Pattern 1, Exps 3-3 in Mrk 463 (01) (1)	570 Secs (1104 Secs) [=>552.0 Secs (Pattern 1)] [=>552.0 Secs (Pattern 2)]	[1]	



Proposal 17512 - 2MASX-J22063506+0003235 (02) - Probing SMBH/Galaxy Co-Evolution with Dual and Binary AGN

Fri Jun 14 14:00:49 GMT 2024

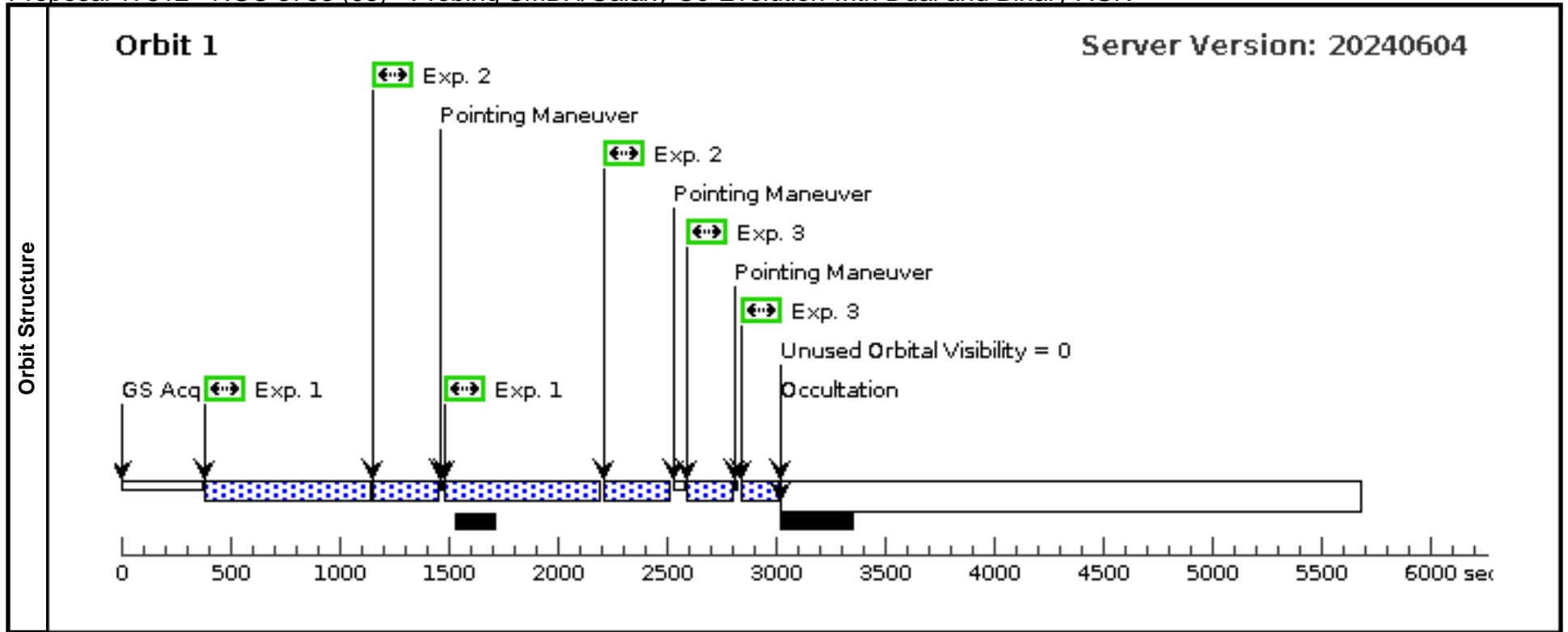
Visit	Proposal 17512, 2MASX-J22063506+0003235 (02), scheduling Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)									
	Diagnosics (2MASX-J22063506+0003235 (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN (Exposure 1 (Pattern 1, Exps 1-2 in 2MASX-J22063506+0003235 (02))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 2 (Pattern 1, Exps 1-2 in 2MASX-J22063506+0003235 (02))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 3 (Pattern 1, Exps 3-4 in 2MASX-J22063506+0003235 (02))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures.									
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		(1-2), (3-4)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	2MASX-J22063506+0003235	RA: 22 06 35.0610 (331.6460875d) Dec: +00 03 23.54 (.05654d) Equinox: J2000	Epoch of Position: 2015.5	V=15.0	Reference Frame: SIMBAD				
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Category=GALAXY Description=[INTERACTING GALAXY, MULTIPLE NUCLEI, NLR, TIDAL TAIL, WIND]										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(2) 2MASX-J22063506+0003235	ACS/WFC, ACCUM, WFC1-IRAMPQ	FR716N 6866 A			Pattern 1, Exps 1-2 in 2MASX-J22063506+0003235 (02) (1)	300 Secs (600 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2		(2) 2MASX-J22063506+0003235	ACS/WFC, ACCUM, WFC1-IRAMPQ	FR647M 7300 A			Pattern 1, Exps 1-2 in 2MASX-J22063506+0003235 (02) (1)	60 Secs (120 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3		(2) 2MASX-J22063506+0003235	ACS/WFC, ACCUM, WFC1-MRAMPQ	FR505N 5236 A			Pattern 1, Exps 3-4 in 2MASX-J22063506+0003235 (02) (1)	1020 Secs (2040 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1] [2]
	4		(2) 2MASX-J22063506+0003235	ACS/WFC, ACCUM, WFC1-MRAMPQ	F550M			Pattern 1, Exps 3-4 in 2MASX-J22063506+0003235 (02) (1)	480 Secs (960 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]



Proposal 17512 - NGC 3758 (03) - Probing SMBH/Galaxy Co-Evolution with Dual and Binary AGN

Fri Jun 14 14:00:49 GMT 2024

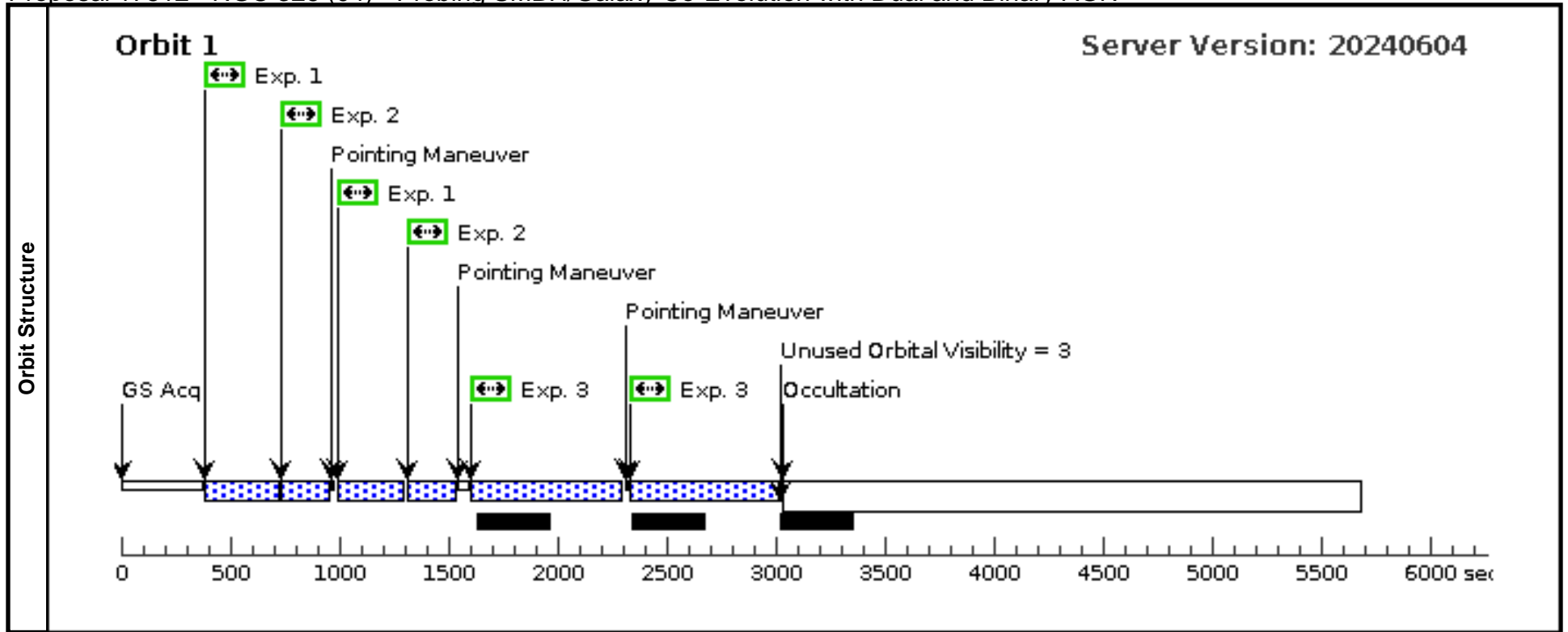
Visit	Proposal 17512, NGC 3758 (03), implementation Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)									
	(Exposure 1 (Pattern 1, Exps 1-2 in NGC 3758 (03))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 2 (Pattern 1, Exps 1-2 in NGC 3758 (03))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 3 (Pattern 1, Exps 3-3 in NGC 3758 (03))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures.									
Diagnosics										
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		(1-2), (3)						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(3)	NGC-3758	RA: 11 36 29.3300 (174.1222083d) Dec: +21 35 45.44 (21.59596d) Equinox: J2000	Epoch of Position: 2015.5	V=13.5	Reference Frame: SIMBAD				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[INTERACTING GALAXY, MULTIPLE NUCLEI, NLR, TIDAL TAIL, WIND]										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(3) NGC-3758	(3) NGC-3758	ACS/WFC, ACCUM, WFC1-MRAMPQ	FR505N 5155 A			Pattern 1, Exps 1-2 in NGC 3758 (03) (1)	570 Secs (1104 Secs) [=>552.0 Secs (Pattern 1)] [=>552.0 Secs (Pattern 2)]	[1]
	2	(3) NGC-3758	(3) NGC-3758	ACS/WFC, ACCUM, WFC1-MRAMPQ	FR656N 6758 A			Pattern 1, Exps 1-2 in NGC 3758 (03) (1)	150 Secs (264 Secs) [=>132.0 Secs (Pattern 1)] [=>132.0 Secs (Pattern 2)]	[1]
	3	(3) NGC-3758	(3) NGC-3758	ACS/WFC, ACCUM, WFC1-IRAMPQ	FR647M 6200 A			Pattern 1, Exps 3-3 in NGC 3758 (03) (1)	60 Secs (84 Secs) [=>42.0 Secs (Pattern 1)] [=>42.0 Secs (Pattern 2)]	[1]



Proposal 17512 - NGC 326 (04) - Probing SMBH/Galaxy Co-Evolution with Dual and Binary AGN

Fri Jun 14 14:00:49 GMT 2024

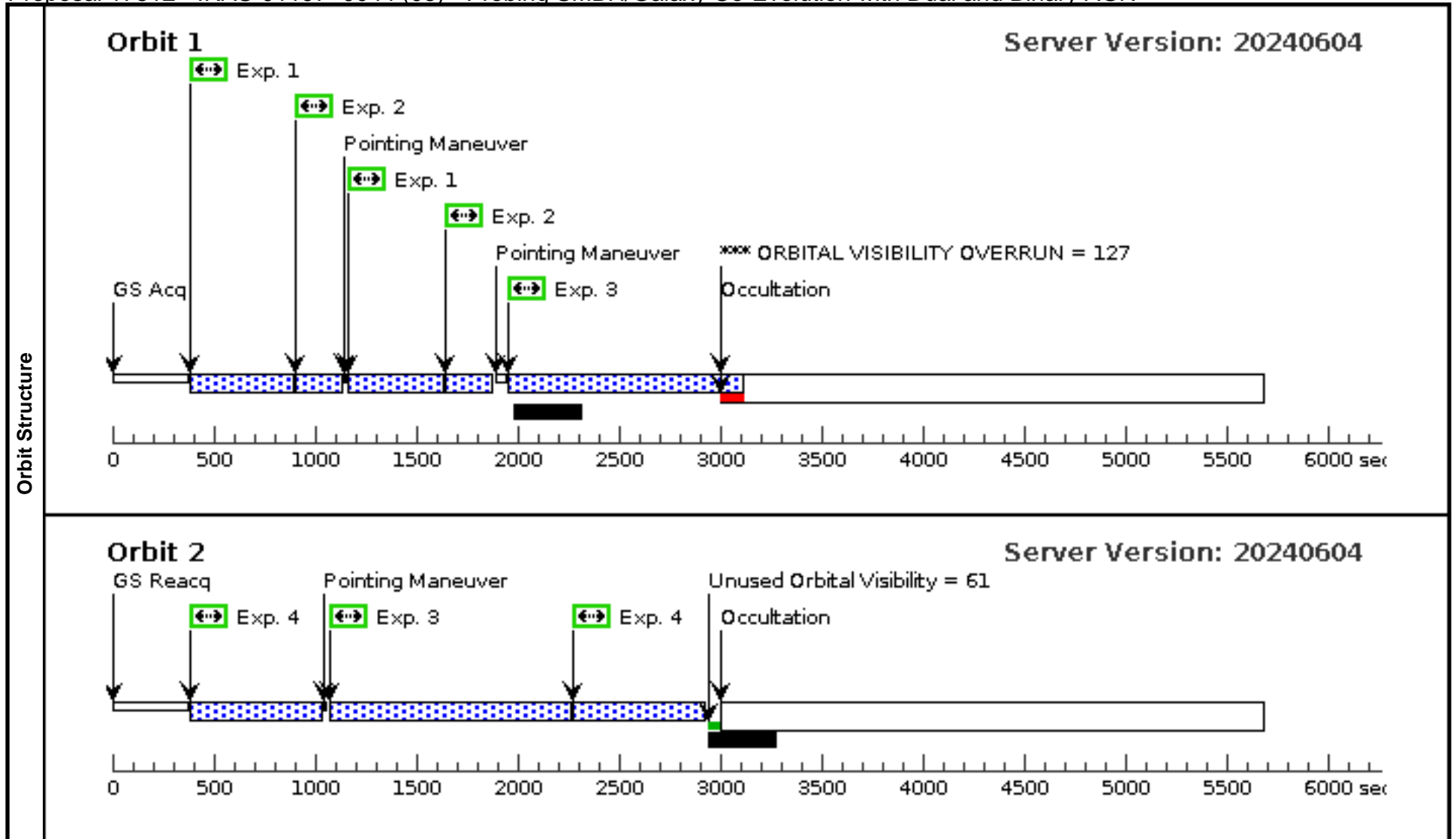
Visit	Proposal 17512, NGC 326 (04), implementation Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)									
Diagnostics	(Exposure 1 (Pattern 1, Exps 1-2 in NGC 326 (04))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 2 (Pattern 1, Exps 1-2 in NGC 326 (04))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 3 (Pattern 1, Exps 3-3 in NGC 326 (04))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures.									
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			(1-2), (3)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(4)	NGC-326	RA: 00 58 22.6370 (14.5943208d) Dec: +26 51 58.61 (26.86628d) Equinox: J2000	Epoch of Position: 2015.5	V=13.0	Reference Frame: SIMBAD				
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Category=GALAXY Description=[INTERACTING GALAXY, MULTIPLE NUCLEI, NLR, TIDAL TAIL, WIND]									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(4) NGC-326	ACS/WFC, ACCUM, WFC1-IRAMPQ	FR716N 6874 A			Pattern 1, Exps 1-2 in NGC 326 (04) (1)	150 Secs (266 Secs) [=>133.0 Secs (Pattern 1)] [=>133.0 Secs (Pattern 2)]	[1]
	2		(4) NGC-326	ACS/WFC, ACCUM, WFC1-IRAMPQ	FR647M 6200 A			Pattern 1, Exps 1-2 in NGC 326 (04) (1)	65 Secs (96 Secs) [=>48.0 Secs (Pattern 1)] [=>48.0 Secs (Pattern 2)]	[1]
	3		(4) NGC-326	ACS/WFC, ACCUM, WFC1-MRAMP	FR505N 5243 A			Pattern 1, Exps 3-3 in NGC 326 (04) (1)	570 Secs (1106 Secs) [=>553.0 Secs (Pattern 1)] [=>553.0 Secs (Pattern 2)]	[1]



Proposal 17512 - IRAS-01197+0044 (05) - Probing SMBH/Galaxy Co-Evolution with Dual and Binary AGN

Fri Jun 14 14:00:49 GMT 2024

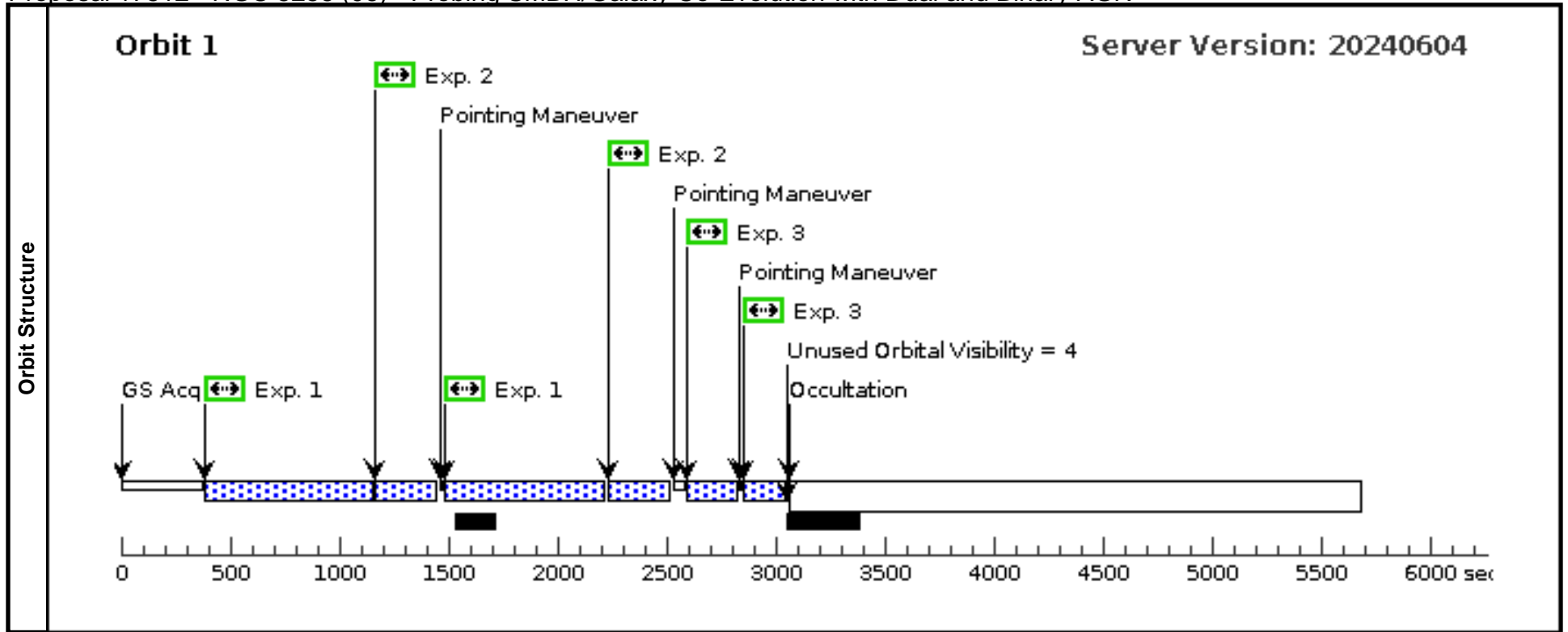
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Patterns	#	Primary Pattern	Secondary Pattern	Exposures						
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Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(5)	IRAS-01197+0044	RA: 01 22 17.8700 (20.5744583d) Dec: +01 00 28.70 (1.00797d) Equinox: J2000	Epoch of Position: 2015.5	V=16.5	Reference Frame: SIMBAD				
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Category=GALAXY Description=[INTERACTING GALAXY, MULTIPLE NUCLEI, NLR, TIDAL TAIL, WIND]										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(5) IRAS-01197+0044	(5) IRAS-01197+0044	ACS/WFC, ACCUM, WFC1-IRAMPQ	FR716N 6924 A			Pattern 1, Exps 1-2 in IRAS-01197+0044 (05) (1)	300 Secs (600 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	2	(5) IRAS-01197+0044	(5) IRAS-01197+0044	ACS/WFC, ACCUM, WFC1-IRAMPQ	FR647M 7300 A			Pattern 1, Exps 1-2 in IRAS-01197+0044 (05) (1)	60 Secs (120 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	(5) IRAS-01197+0044	(5) IRAS-01197+0044	ACS/WFC, ACCUM, WFC1-MRAMPQ	FR505N 5262 A			Pattern 1, Exps 3-4 in IRAS-01197+0044 (05) (1)	1020 Secs (2040 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1] [2]
	4	(5) IRAS-01197+0044	(5) IRAS-01197+0044	ACS/WFC, ACCUM, WFC1-MRAMPQ	F550M			Pattern 1, Exps 3-4 in IRAS-01197+0044 (05) (1)	480 Secs (960 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[2]



Proposal 17512 - NGC 5256 (06) - Probing SMBH/Galaxy Co-Evolution with Dual and Binary AGN

Fri Jun 14 14:00:49 GMT 2024

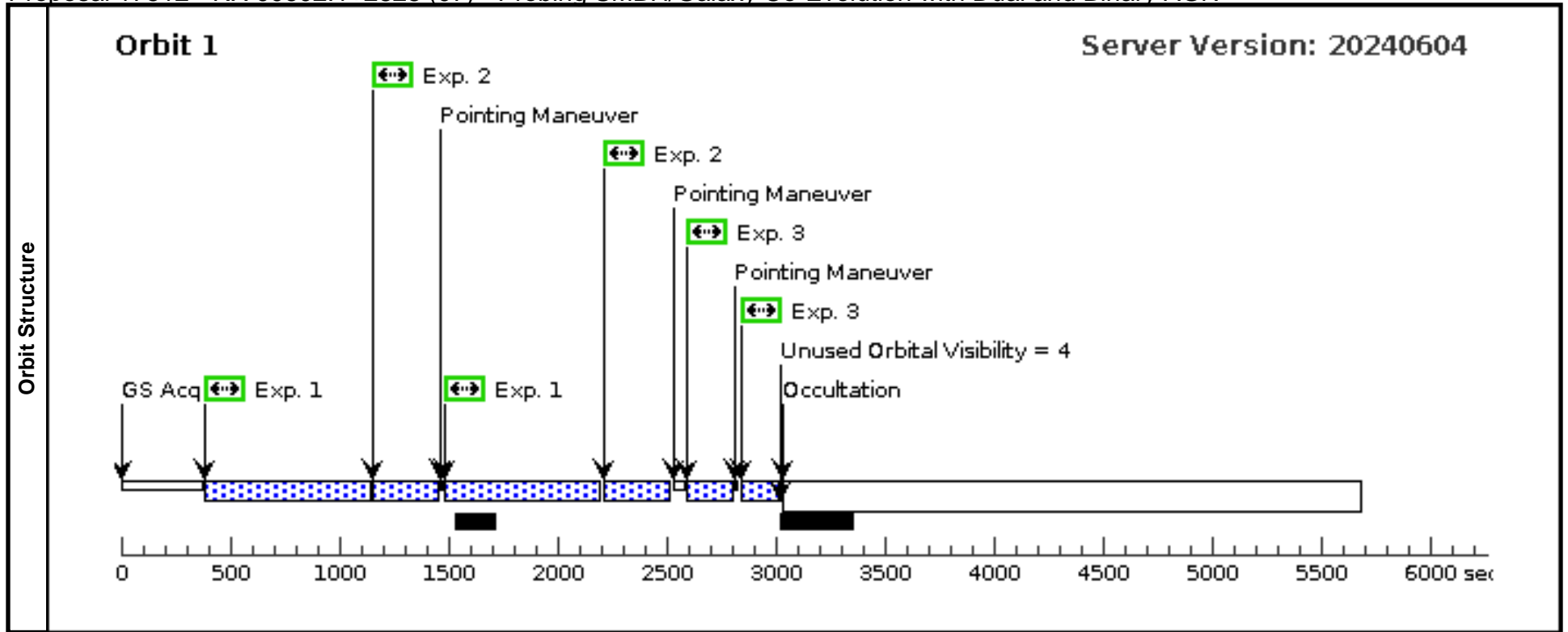
Visit	Proposal 17512, NGC 5256 (06), implementation Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)									
Diagnostics	(Exposure 1 (Pattern 1, Exps 1-2 in NGC 5256 (06))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures.									
	(Exposure 2 (Pattern 1, Exps 1-2 in NGC 5256 (06))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures.									
	(Exposure 3 (Pattern 1, Exps 3-3 in NGC 5256 (06))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures.									
Patterns	#	Primary Pattern		Secondary Pattern		Exposures				
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Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(6)	NGC-5256	RA: 13 38 17.5000 (204.5729167d) Dec: +48 16 36.00 (48.27667d) Equinox: J2000	Epoch of Position: 2015.5	V=13.42	Reference Frame: SIMBAD				
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Category=GALAXY Description=[INTERACTING GALAXY, MULTIPLE NUCLEI, NLR, TIDAL TAIL, WIND]										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) NGC-5256	ACS/WFC, ACCUM, WFC1-MRAMPQ	FR505N 5147 A			Pattern 1, Exps 1-2 in NGC 5256 (06) (1) 600 Secs (1134 Secs) [==>567.0 Secs (Pattern 1)] [==>567.0 Secs (Pattern 2)]	[1]	
	2		(6) NGC-5256	ACS/WFC, ACCUM, WFC1-MRAMPQ	FR656N 6745 A			Pattern 1, Exps 1-2 in NGC 5256 (06) (1) 150 Secs (234 Secs) [==>117.0 Secs (Pattern 1)] [==>117.0 Secs (Pattern 2)]	[1]	
	3		(6) NGC-5256	ACS/WFC, ACCUM, WFC1-IRAMPQ	FR647M 6200 A			Pattern 1, Exps 3-3 in NGC 5256 (06) (1) 90 Secs (114 Secs) [==>57.0 Secs (Pattern 1)] [==>57.0 Secs (Pattern 2)]	[1]	



Proposal 17512 - RX-J0602.1+2828 (07) - Probing SMBH/Galaxy Co-Evolution with Dual and Binary AGN

Fri Jun 14 14:00:49 GMT 2024

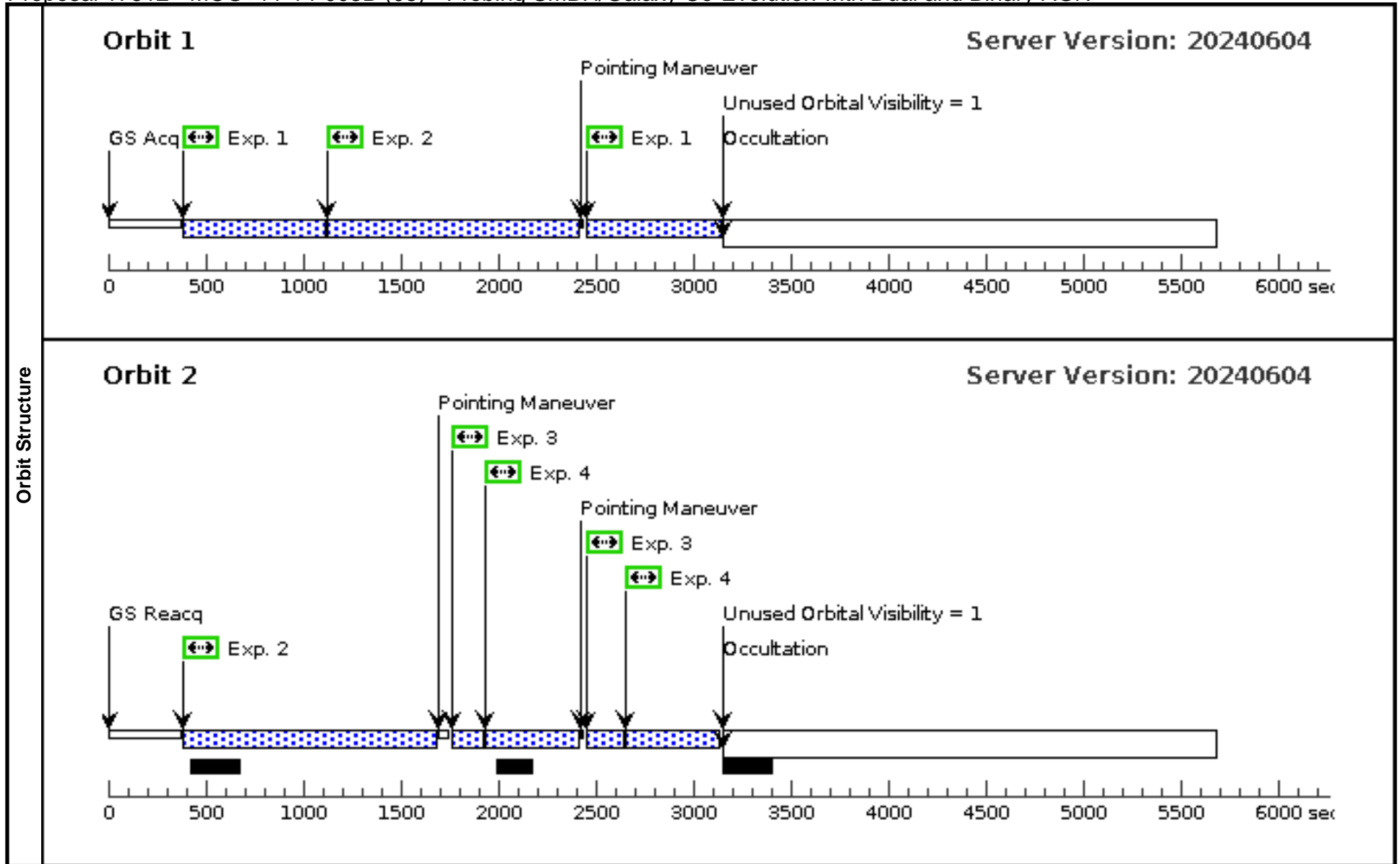
Visit	Proposal 17512, RX-J0602.1+2828 (07), implementation Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)									
	(Exposure 1 (Pattern 1, Exps 1-2 in RX-J0602.1+2828 (07))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 2 (Pattern 1, Exps 1-2 in RX-J0602.1+2828 (07))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 3 (Pattern 1, Exps 3-3 in RX-J0602.1+2828 (07))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures.									
Diagnosics										
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		(1-2), (3)						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(7)	RX-J0602.1+2828	RA: 06 02 10.8200 (90.5450833d) Dec: +28 28 30.70 (28.47519d) Equinox: J2000	Proper Motion RA: 1.516789454251648E-6 sec of time/yr Proper Motion Dec: -1.61999238755554E-4 arcsec/yr Epoch of Position: 2015.5	V=13.8	Reference Frame: SIMBAD				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[INTERACTING GALAXY, MULTIPLE NUCLEI, NLR, TIDAL TAIL, WIND]										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(7) RX-J0602.1+2828 8	ACS/WFC, ACCUM, WFC1-MRAMPQ	FR505N 5172 A				Pattern 1, Exps 1-2 in RX-J0602.1+2828 (07) (1)	570 Secs (1104 Secs) [==>552.0 Secs (Pattern 1)] [==>552.0 Secs (Pattern 2)]	[1]
	2	(7) RX-J0602.1+2828 8	ACS/WFC, ACCUM, WFC1-MRAMPQ	FR656N 6780 A				Pattern 1, Exps 1-2 in RX-J0602.1+2828 (07) (1)	150 Secs (264 Secs) [==>132.0 Secs (Pattern 1)] [==>132.0 Secs (Pattern 2)]	[1]
	3	(7) RX-J0602.1+2828 8	ACS/WFC, ACCUM, WFC1-IRAMPQ	FR647M 6200 A				Pattern 1, Exps 3-3 in RX-J0602.1+2828 (07) (1)	60 Secs (84 Secs) [==>42.0 Secs (Pattern 1)] [==>42.0 Secs (Pattern 2)]	[1]



Proposal 17512 - MCG+11-14-003B (08) - Probing SMBH/Galaxy Co-Evolution with Dual and Binary AGN

Fri Jun 14 14:00:49 GMT 2024

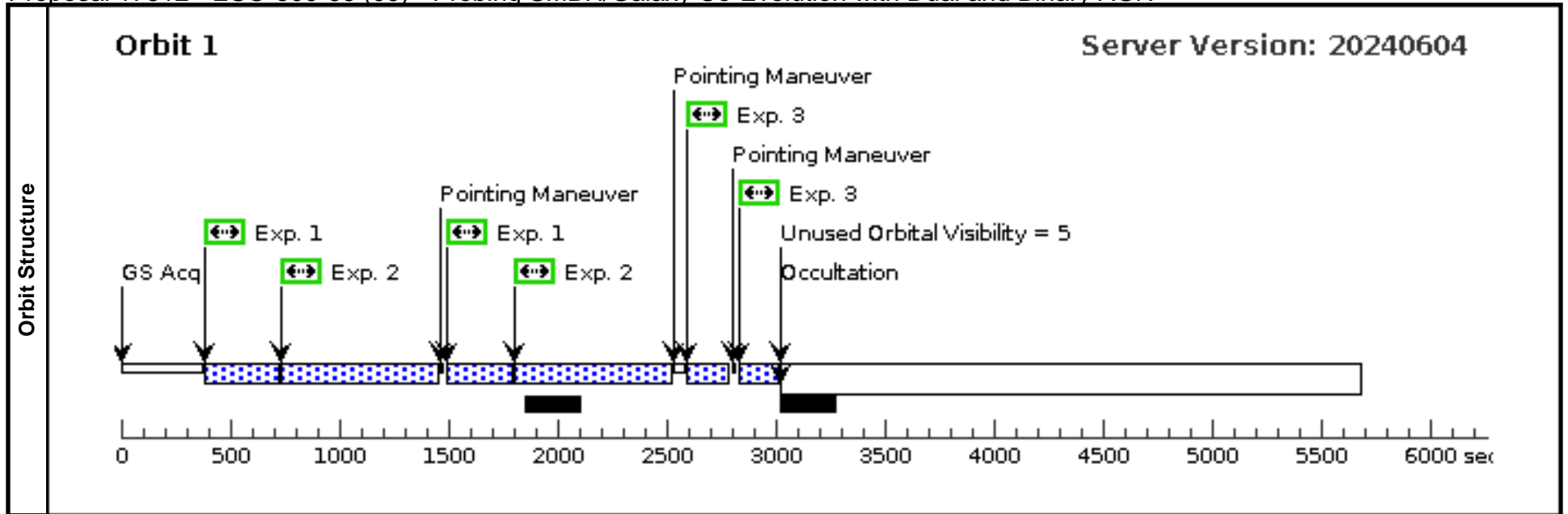
Visit	Proposal 17512, MCG+11-14-003B (08), implementation Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)									
	(Exposure 1 (Pattern 1, Exps 1-2 in MCG+11-14-003B (08))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 2 (Pattern 1, Exps 1-2 in MCG+11-14-003B (08))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 3 (Pattern 1, Exps 3-4 in MCG+11-14-003B (08))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures.									
Diagnosics										
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			(1-2), (3-4)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(8)	MCG+11-14-003B	RA: 11 07 13.3600 (166.8056667d) Dec: +65 06 0.10 (65.10003d) Equinox: J2000	Epoch of Position: 2015.5	V=14.0	Reference Frame: SIMBAD				
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Category=GALAXY Description=[INTERACTING GALAXY, MULTIPLE NUCLEI, NLR, TIDAL TAIL, WIND]										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(8) MCG+11-14-003B	ACS/WFC, ACCUM, WFC1-MRAMPQ	FR656N 6777 A			Pattern 1, Exps 1-2 in MCG+11-14-003B (08) (1)	600 Secs (1048 Secs) [=>524.0 Secs (Pattern 1)] [=>524.0 Secs (Pattern 2)]	[1]
	2		(8) MCG+11-14-003B	ACS/WFC, ACCUM, WFC1-MRAMPQ	FR505N 5172 A			Pattern 1, Exps 1-2 in MCG+11-14-003B (08) (1)	1200 Secs (2266 Secs) [=>1124.0 Secs (Pattern 1)] [=>1142.0 Secs (Pattern 2)]	[1] [2]
	3		(8) MCG+11-14-003B	ACS/WFC, ACCUM, WFC1-IRAMPQ	FR647M 6200 A			Pattern 1, Exps 3-4 in MCG+11-14-003B (08) (1)	70 Secs (24 Secs) [=>12.0 Secs (Pattern 1)] [=>12.0 Secs (Pattern 2)]	[2]
	4		(8) MCG+11-14-003B	ACS/WFC, ACCUM, WFC1-IRAMPQ	F550M			Pattern 1, Exps 3-4 in MCG+11-14-003B (08) (1)	360 Secs (604 Secs) [=>302.0 Secs (Pattern 1)] [=>302.0 Secs (Pattern 2)]	[2]



Proposal 17512 - ESO-509-66 (09) - Probing SMBH/Galaxy Co-Evolution with Dual and Binary AGN

Fri Jun 14 14:00:49 GMT 2024

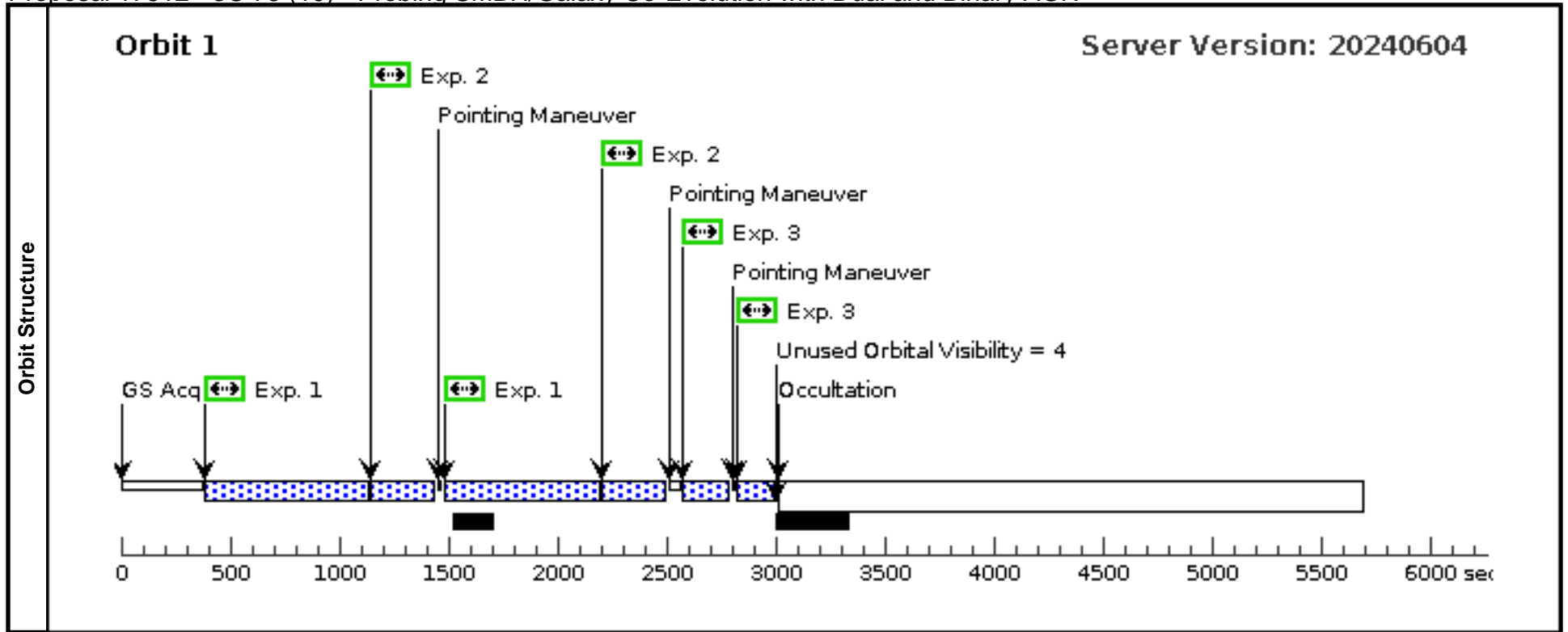
Visit	Proposal 17512, ESO-509-66 (09), implementation Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)									
	(Exposure 1 (Pattern 1, Exps 1-2 in ESO-509-66 (09))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 2 (Pattern 1, Exps 1-2 in ESO-509-66 (09))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 3 (Pattern 1, Exps 3-3 in ESO-509-66 (09))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures.									
Diagnosics										
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			(1-2), (3)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(9)	ESO-509-66	RA: 13 34 39.8200 (203.6659167d) Dec: -23 26 47.10 (-23.44642d) Equinox: J2000	Proper Motion RA: 2.8194655216028303E-5 sec of time/yr Proper Motion Dec: -2.799999720082269E-4 arcsec/yr Epoch of Position: 2015.5	V=16.6	Reference Frame: SIMBAD				
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Category=GALAXY Description=[INTERACTING GALAXY, MULTIPLE NUCLEI, NLR, TIDAL TAIL, WIND]										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(9) ESO-509-66		ACS/WFC, ACCUM, WFC1-MRAMPQ	FR656N 6788 A			Pattern 1, Exps 1-2 in ESO-509-66 (09) (1)	150 Secs (266 Secs) [==>133.0 Secs (Pattern 1)] [==>133.0 Secs (Pattern 2)]	[1]
	2	(9) ESO-509-66		ACS/WFC, ACCUM, WFC1-MRAMPQ	FR505N 5178 A			Pattern 1, Exps 1-2 in ESO-509-66 (09) (1)	570 Secs (1106 Secs) [==>553.0 Secs (Pattern 1)] [==>553.0 Secs (Pattern 2)]	[1]
	3	(9) ESO-509-66		ACS/WFC, ACCUM, WFC1-IRAMPQ	FR647M 6200 A			Pattern 1, Exps 3-3 in ESO-509-66 (09) (1)	65 Secs (96 Secs) [==>48.0 Secs (Pattern 1)] [==>48.0 Secs (Pattern 2)]	[1]



Proposal 17512 - 3C 75 (10) - Probing SMBH/Galaxy Co-Evolution with Dual and Binary AGN

Fri Jun 14 14:00:49 GMT 2024

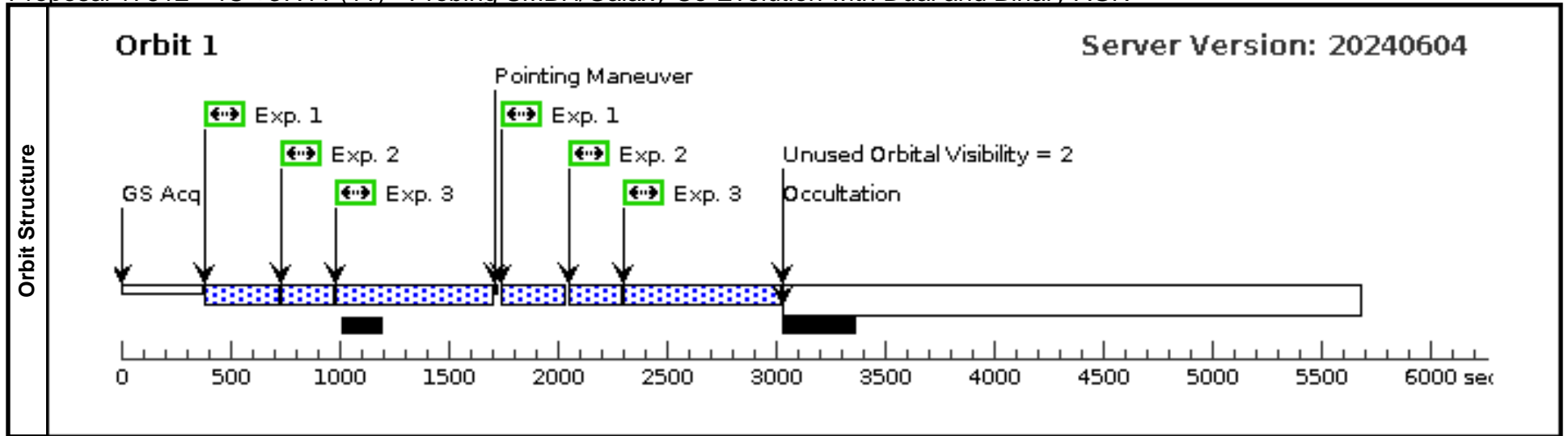
Visit	Proposal 17512, 3C 75 (10), implementation Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)									
	(Exposure 1 (Pattern 1, Exps 1-2 in 3C 75 (10))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 2 (Pattern 1, Exps 1-2 in 3C 75 (10))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 3 (Pattern 1, Exps 3-3 in 3C 75 (10))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures.									
Diagnosics										
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			(1-2), (3)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(10)	3C-75	RA: 02 57 41.6400 (44.4235000d) Dec: +06 01 28.00 (6.02444d) Equinox: J2000 <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[INTERACTING GALAXY, MULTIPLE NUCLEI, NLR, TIDAL TAIL, WIND]	Epoch of Position: 2015.5	V=12.4	Reference Frame: SIMBAD				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(10) 3C-75	(10) 3C-75	ACS/WFC, ACCUM, WFC1-MRAMPQ	FR505N 5122 A			Pattern 1, Exps 1-2 in 3C 75 (10) (1)	568 Secs (1094 Secs) [==>547.0 Secs (Pattern 1)] [==>547.0 Secs (Pattern 2)]	[1]
2	(10) 3C-75	(10) 3C-75	ACS/WFC, ACCUM, WFC1-MRAMPQ	FR656N 6715 A			Pattern 1, Exps 1-2 in 3C 75 (10) (1)	150 Secs (258 Secs) [==>129.0 Secs (Pattern 1)] [==>129.0 Secs (Pattern 2)]	[1]	
3	(10) 3C-75	(10) 3C-75	ACS/WFC, ACCUM, WFC1-IRAMPQ	FR647M 6200 A			Pattern 1, Exps 3-3 in 3C 75 (10) (1)	60 Secs (78 Secs) [==>39.0 Secs (Pattern 1)] [==>39.0 Secs (Pattern 2)]	[1]	



Proposal 17512 - 4C +37.11 (11) - Probing SMBH/Galaxy Co-Evolution with Dual and Binary AGN

Fri Jun 14 14:00:49 GMT 2024

Visit	Proposal 17512, 4C +37.11 (11), implementation Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)									
	(Exposure 1 (Pattern 1, Exps 1-3 in 4C +37.11 (11))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 2 (Pattern 1, Exps 1-3 in 4C +37.11 (11))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 3 (Pattern 1, Exps 1-3 in 4C +37.11 (11))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures.									
Diagnosics										
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	(1-3)						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(11)	4C+37.11	RA: 04 05 49.2624 (61.4552600d) Dec: +38 03 32.22 (38.05895d) Equinox: J2000 <i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i> Category=GALAXY Description=[INTERACTING GALAXY, MULTIPLE NUCLEI, NLR, TIDAL TAIL, WIND]		V=16.5	Reference Frame: NED				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(11) 4C+37.11		ACS/WFC, ACCUM, WFC1-IRAMPQ	FR716N 6924 A			Pattern 1, Exps 1-3 in 4C +37.11 (11) (1)	150 Secs (256 Secs) [==>128.0 Secs (Pattern 1)] [==>128.0 Secs (Pattern 2)]	[1]
2	(11) 4C+37.11		ACS/WFC, ACCUM, WFC1-IRAMPQ	FR647M 6200 A			Pattern 1, Exps 1-3 in 4C +37.11 (11) (1)	90 Secs (136 Secs) [==>68.0 Secs (Pattern 1)] [==>68.0 Secs (Pattern 2)]	[1]	
3	(11) 4C+37.11		ACS/WFC, ACCUM, WFC1-IRAMPQ	FR551N 5283 A			Pattern 1, Exps 1-3 in 4C +37.11 (11) (1)	600 Secs (1156 Secs) [==>578.0 Secs (Pattern 1)] [==>578.0 Secs (Pattern 2)]	[1]	



Proposal 17512 - UGC 04211 (12) - Probing SMBH/Galaxy Co-Evolution with Dual and Binary AGN

Fri Jun 14 14:00:49 GMT 2024

Visit	Proposal 17512, UGC 04211 (12), completed Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)									
	Diagnosics (UGC 04211 (12)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN (Exposure 1 (Pattern 1, Exps 1-2 in UGC 04211 (12))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 2 (Pattern 1, Exps 1-2 in UGC 04211 (12))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 3 (Pattern 1, Exps 3-3 in UGC 04211 (12))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures.									
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	(1-2), (3)						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(12)	UGC-04211	RA: 08 04 46.3800 (121.1932500d) Dec: +10 46 36.19 (10.77672d) Equinox: J2000		V=13.6	Reference Frame: NED				
<i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i> Category=GALAXY Description=[INTERACTING GALAXY, MULTIPLE NUCLEI, NLR, TIDAL TAIL, WIND]										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(12) UGC-04211	ACS/WFC, ACCUM, WFC1-MRAMPQ	FR505N 5180 A			Pattern 1, Exps 1-2 in UGC 04211 (12) (1)	568 Secs (1136 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	2		(12) UGC-04211	ACS/WFC, ACCUM, WFC1-MRAMPQ	FR656N 6785 A			Pattern 1, Exps 1-2 in UGC 04211 (12) (1)	150 Secs (300 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3		(12) UGC-04211	ACS/WFC, ACCUM, WFC1-IRAMPQ	FR647M 6200 A			Pattern 1, Exps 3-3 in UGC 04211 (12) (1)	60 Secs (120 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]

