



# 12754 - Identifying Analogs of NGC 6240: Galaxies with Dual Supermassive Black Holes

Cycle: 19, 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) SDSS-J084135.09+010156.3	WFC3/IR WFC3/UVIS	1	13-Oct-2011 21:21:11.0	yes
02	(2) SDSS-J135646.11+102609.1	WFC3/IR WFC3/UVIS	1	13-Oct-2011 21:21:23.0	yes
03	(3) SDSS-J095207.62+255257.2	WFC3/IR WFC3/UVIS	1	13-Oct-2011 21:21:35.0	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>
04	(4) SDSS-J123915.40+531414.6	WFC3/IR WFC3/UVIS	1	13-Oct-2011 21:21:48.0	yes
05	(5) SDSS-J144804.17+182537.9	WFC3/IR WFC3/UVIS	1	13-Oct-2011 21:21:57.0	yes
06	(6) SDSS-J112659.54+294442.8	WFC3/IR WFC3/UVIS	1	13-Oct-2011 21:22:06.0	yes
07	(7) SDSS-J085416.76+502632.0	WFC3/IR WFC3/UVIS	1	13-Oct-2011 21:22:17.0	yes
08	(8) SDSS-J100654.2+464717.2	WFC3/IR WFC3/UVIS	1	13-Oct-2011 21:22:27.0	yes
09	(9) SDSS-J132231.86+263159.1	WFC3/IR WFC3/UVIS	1	13-Oct-2011 21:22:35.0	yes
10	(10) SDSS-J014209.01-005050.0	WFC3/IR WFC3/UVIS	1	13-Oct-2011 21:22:48.0	yes

10 Total Orbits Used

### **ABSTRACT**

We request a combination of ACIS-S (200 ks total) and HST/WFC3 (10 orbits total) observations of 10 galaxies that ground-based observations indicate likely host two kpc-scale separation AGN, known as "dual AGN". Each target has double-peaked, spatially offset AGN emission lines suggestive of dual AGN, but ACIS-S detections of two X-ray point sources would be definitive proof of dual AGN. Complementary WFC3 imaging of the host galaxies would reveal details of the galaxy mergers that produce dual AGN. Combined, the ACIS-S and WFC3 observations would establish a powerful new technique for identifying large numbers of dual AGN with ground-based observations, and have important implications for understanding galaxy evolution, black hole growth, and the parent population of LISA sources.

### **OBSERVING DESCRIPTION**

We observe 10 galaxies that are dual AGN candidates. Joint Chandra observations will confirm which galaxies are bona fide dual AGN, and the WFC3 B, I, and H observations will reveal 1) stellar nuclei coincident with the AGN, where the relative brightnesses of the stellar nuclei will

constrain the mass ratio of the galaxy merger that produced the dual AGN; 2) low surface-brightness features such as tidal tails that are signatures of recent merging activity; and 3) host galaxy stellar populations, which may reveal recent star formation triggered by a merger.

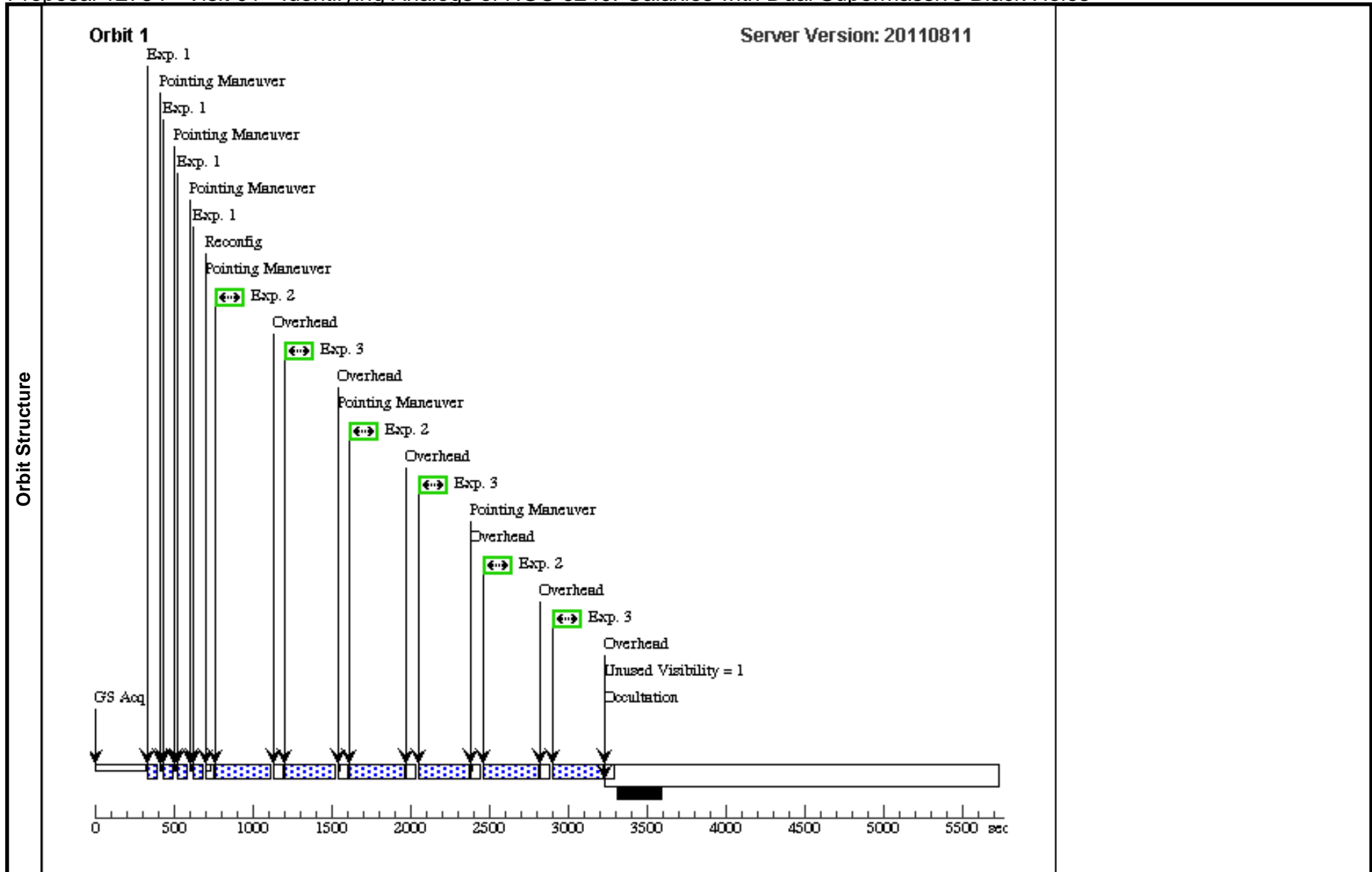
We require multiple filters in order to disentangle, both spectrally and spatially, variations in stellar populations. In the blue we choose F438W (B) to avoid contamination from H $\beta$  emission, while in the red we choose F814W (broad I) because of its high throughput and to avoid contamination from emission lines such as [O III] 5007. In the near-infrared, we choose F160W (broad H). WFC3 is the camera of choice, as it will enable us to cover the entire wavelength range with the highest sensitivity and finest pixel scale.

We will observe one orbit per target, which will provide the exposure times needed to reveal merger-remnant signatures of the host galaxies. Using the WFC3 IR and UVIS Exposure Time Calculators, we estimated our science exposure times for the stellar nuclei accompanying the AGN by 1) the assumption that the brighter stellar nucleus is two magnitudes fainter than the total host galaxy; 2) the assumption that the mass ratio, which is unknown, could be as small as 10:1; and 3) the requirement that each stellar nucleus be detected at a signal-to-noise ratio  $>20$ . These exposure times also ensure signal-to-noise ratios  $>10$  in a 5 x 5 pixel box for the host galaxy tidal features at  $I=22$  and fainter in our redshift regime (corresponding to at least 4 magnitudes fainter than each target's total I-band magnitude). They will also enable robust measurements of the host galaxy stellar populations.

Proposal 12754 - Visit 01 - Identifying Analogs of NGC 6240: Galaxies with Dual Supermassive Black Holes

Fri Oct 14 01:22:56 GMT 2011

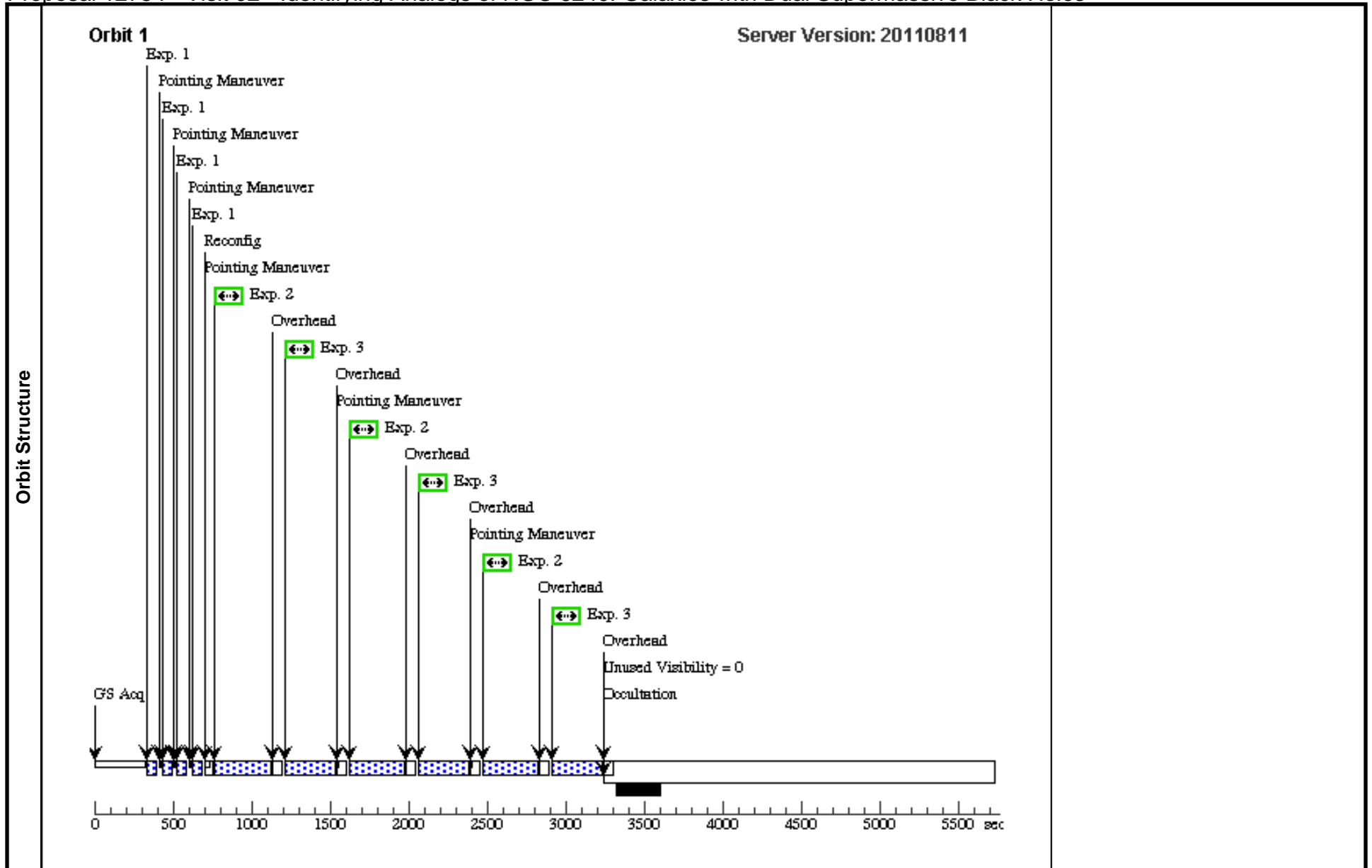
Visit	<b>Proposal 12754, Visit 01, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: (none)									
	#	Primary Pattern	Secondary Pattern	Exposures						
Patterns	(1)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2-3)						
	(2)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365 Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1)						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	SDSS-J084135.09+010156.3	RA: 08 41 35.1000 (130.3962500d) Dec: +01 01 56.30 (1.03231d) Equinox: J2000		V=17.5	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	F160W	(1) SDSS-J084135.09+010156.3	WFC3/IR, MULTIACCUM, IRSUB512	F160W	NSAMP=6; SAMP-SEQ=STEP2 5		Pattern 2, Exps 1-1 in Visit 01 (2)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	F438W	(1) SDSS-J084135.09+010156.3	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F438W			Pattern 1, Exps 2-3 in Visit 01 (1)	322 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	[1]
	3	F814W	(1) SDSS-J084135.09+010156.3	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F814W			Pattern 1, Exps 2-3 in Visit 01 (1)	300 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	[1]



Proposal 12754 - Visit 02 - Identifying Analogs of NGC 6240: Galaxies with Dual Supermassive Black Holes

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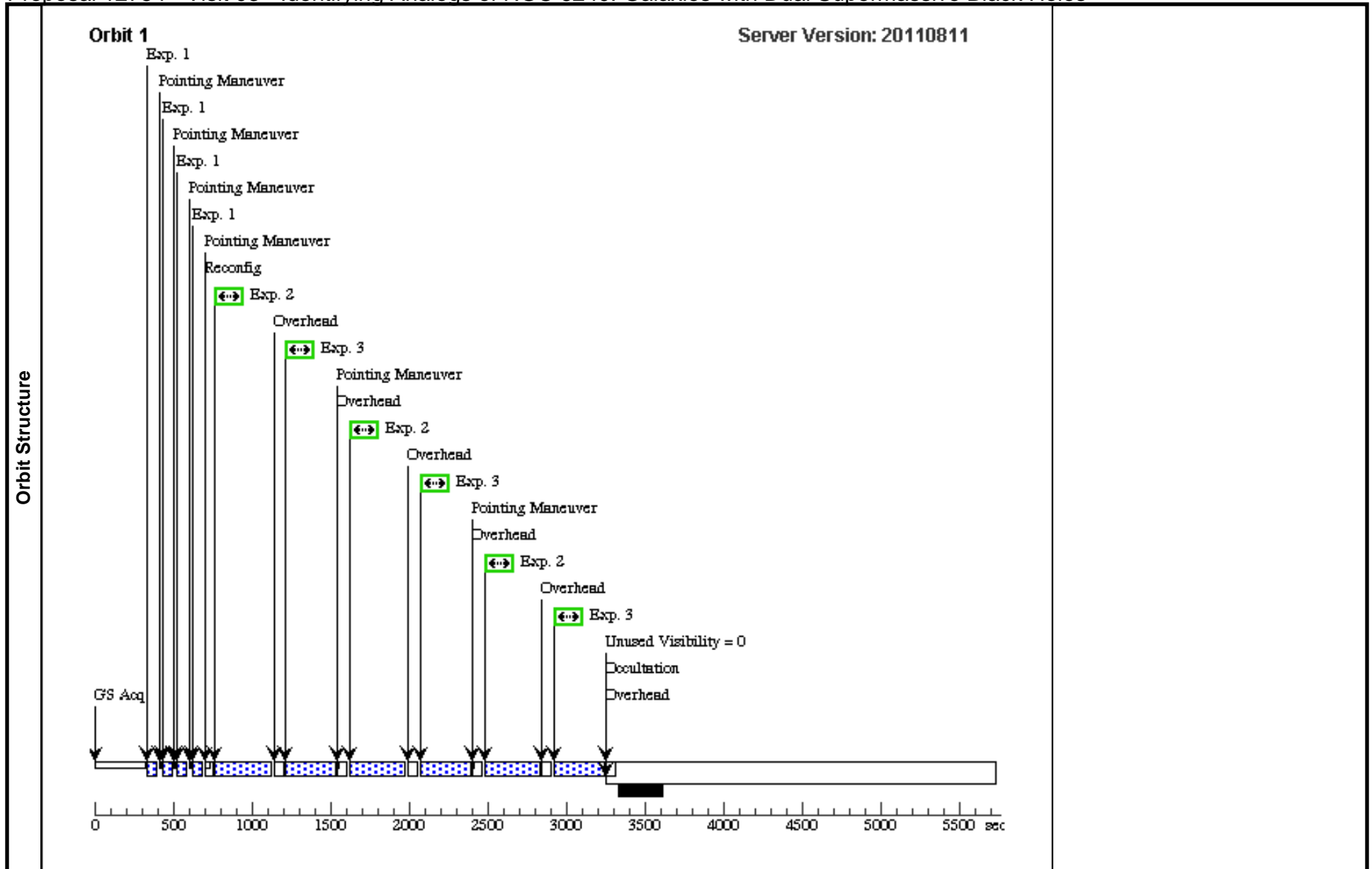
Visit	<b>Proposal 12754, Visit 02, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: (none)										
	#	Primary Pattern				Secondary Pattern				Exposures	
Patterns	(1)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=				Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false				(2-3)	
	(2)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1)	
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(2)	SDSS-J135646.11+102609.1	RA: 13 56 46.1000 (209.1920833d) Dec: +10 26 9.10 (10.43586d) Equinox: J2000				V=16.2	Reference Frame: ICRS			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit	
	1	F160W	(2) SDSS-J135646.1+102609.1	WFC3/IR, MULTIACCUM, IRSUB512	F160W	NSAMP=6; SAMP-SEQ=STEP2 5		Pattern 2, Exps 1-1 in Visit 02 (2)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]	
	2	F438W	(2) SDSS-J135646.1+102609.1	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F438W			Pattern 1, Exps 2-3 in Visit 02 (1)	326 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]	
	3	F814W	(2) SDSS-J135646.1+102609.1	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F814W			Pattern 1, Exps 2-3 in Visit 02 (1)	300 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]	



Proposal 12754 - Visit 03 - Identifying Analogs of NGC 6240: Galaxies with Dual Supermassive Black Holes

Fri Oct 14 01:22:59 GMT 2011

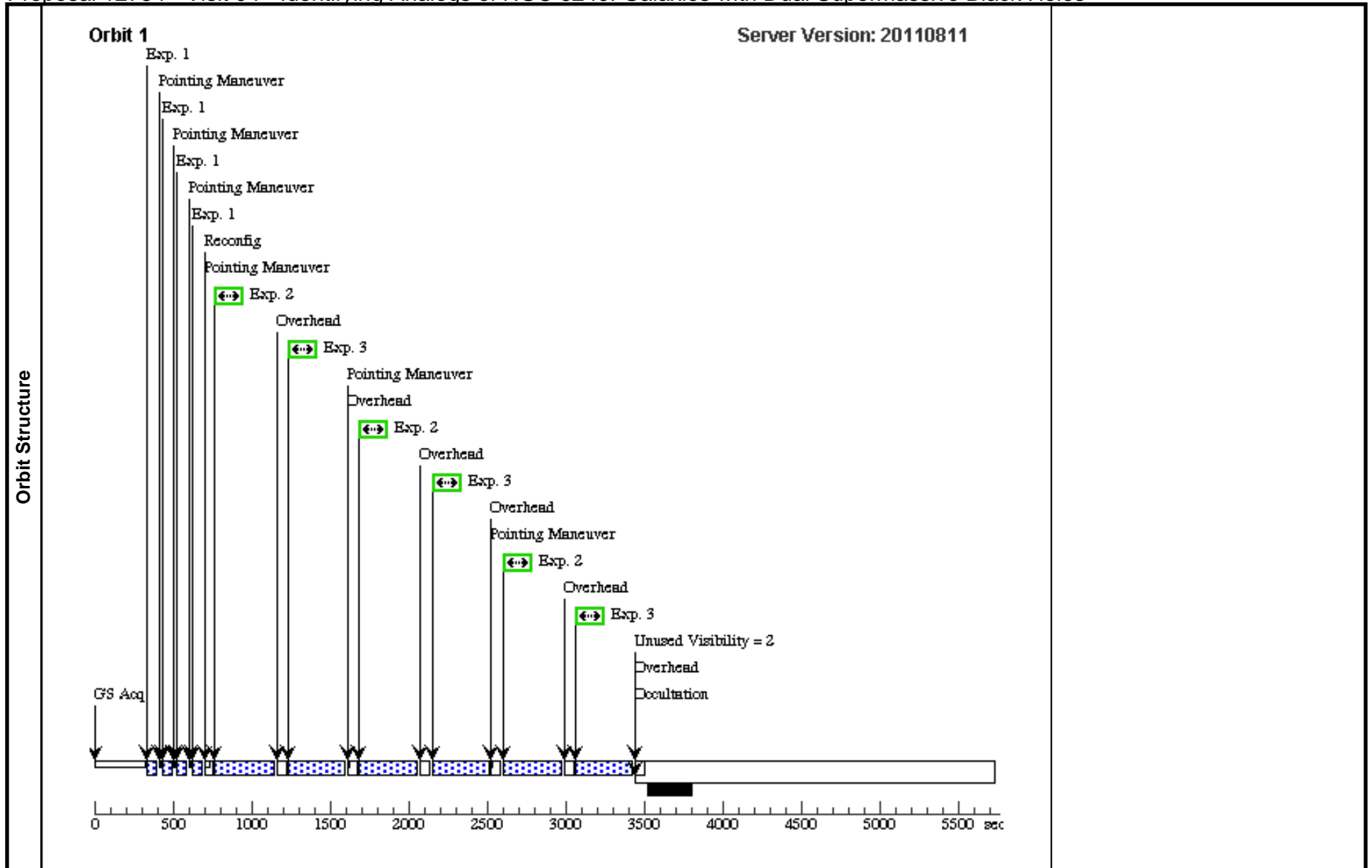
Visit	<b>Proposal 12754, Visit 03, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: (none)										
	#	Primary Pattern				Secondary Pattern				Exposures	
Patterns	(1)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=				Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false				(2-3)	
	(2)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1)	
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(3)	SDSS-J095207.62+255257.2	RA: 09 52 7.6000 (148.0316667d) Dec: +25 52 57.20 (25.88256d) Equinox: J2000				V=18.4	Reference Frame: ICRS			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
	1	F160W	(3) SDSS-J095207.62+255257.2	WFC3/IR, MULTIACCUM, IRSUB512	F160W	NSAMP=6; SAMP-SEQ=STEP2 5		Pattern 2, Exps 1-1 in Visit 03 (2)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]		[1]
	2	F438W	(3) SDSS-J095207.62+255257.2	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F438W			Pattern 1, Exps 2-3 in Visit 03 (1)	330 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]		[1]
	3	F814W	(3) SDSS-J095207.62+255257.2	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F814W			Pattern 1, Exps 2-3 in Visit 03 (1)	300 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]		[1]



Proposal 12754 - Visit 04 - Identifying Analogs of NGC 6240: Galaxies with Dual Supermassive Black Holes

Fri Oct 14 01:23:01 GMT 2011

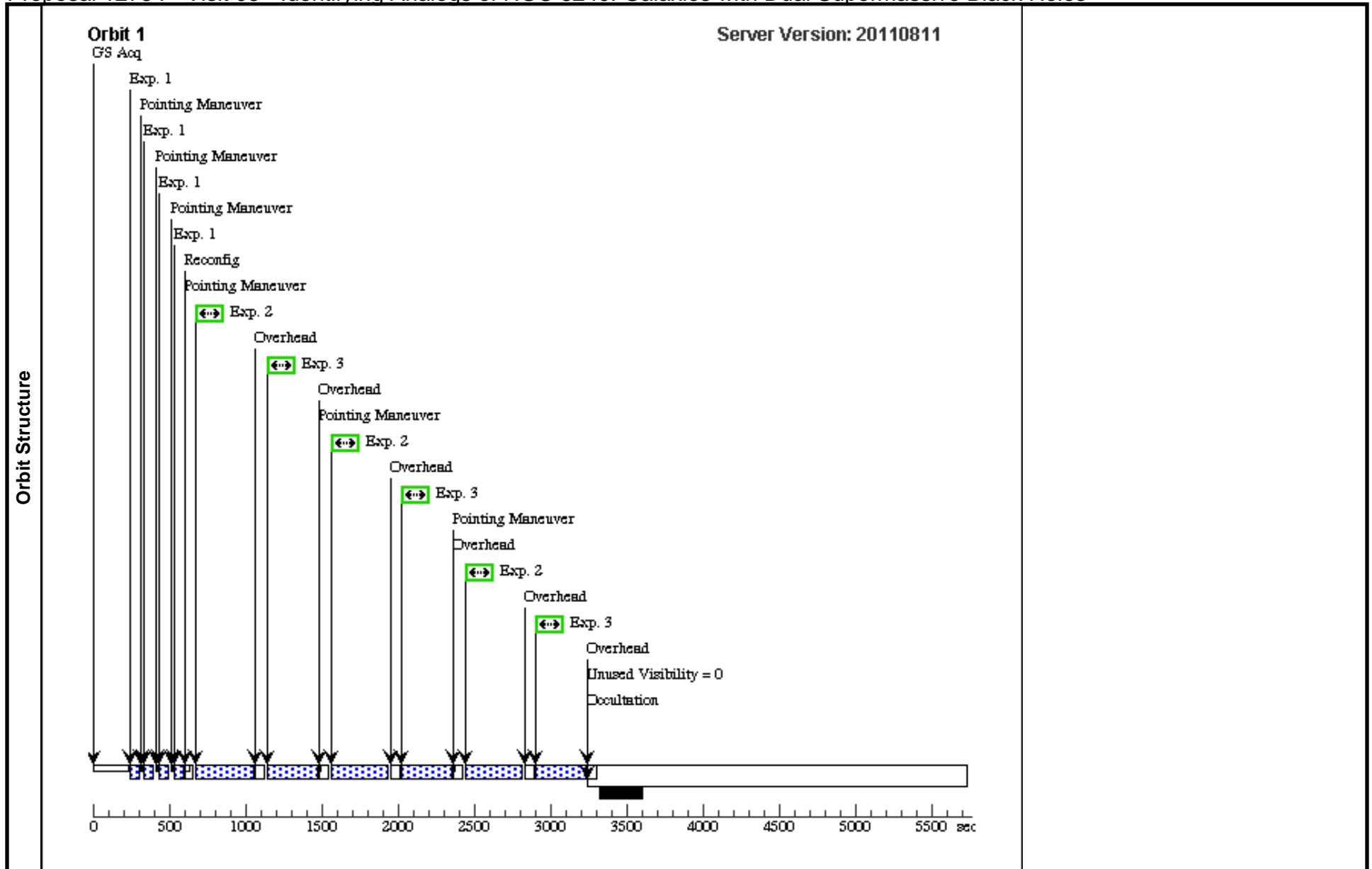
Visit	<b>Proposal 12754, Visit 04, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: (none)										
	#	Primary Pattern				Secondary Pattern				Exposures	
Patterns	(1)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=				Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false				(2-3)	
	(2)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous				
	(4)	SDSS-J123915.40+531414.6	RA: 12 39 15.4000 (189.8141667d) Dec: +53 14 14.60 (53.23739d) Equinox: J2000			V=17.0	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit	
	1	F160W	(4) SDSS-J123915.40+531414.6	WFC3/IR, MULTIACCUM, IRSUB512	F160W	NSAMP=6; SAMP-SEQ=STEP2 5		Pattern 2, Exps 1-1 in Visit 04 (2)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]	
	2	F438W	(4) SDSS-J123915.40+531414.6	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F438W			Pattern 1, Exps 2-3 in Visit 04 (1)	350 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]	
	3	F814W	(4) SDSS-J123915.40+531414.6	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F814W			Pattern 1, Exps 2-3 in Visit 04 (1)	342 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]	



Proposal 12754 - Visit 05 - Identifying Analogs of NGC 6240: Galaxies with Dual Supermassive Black Holes

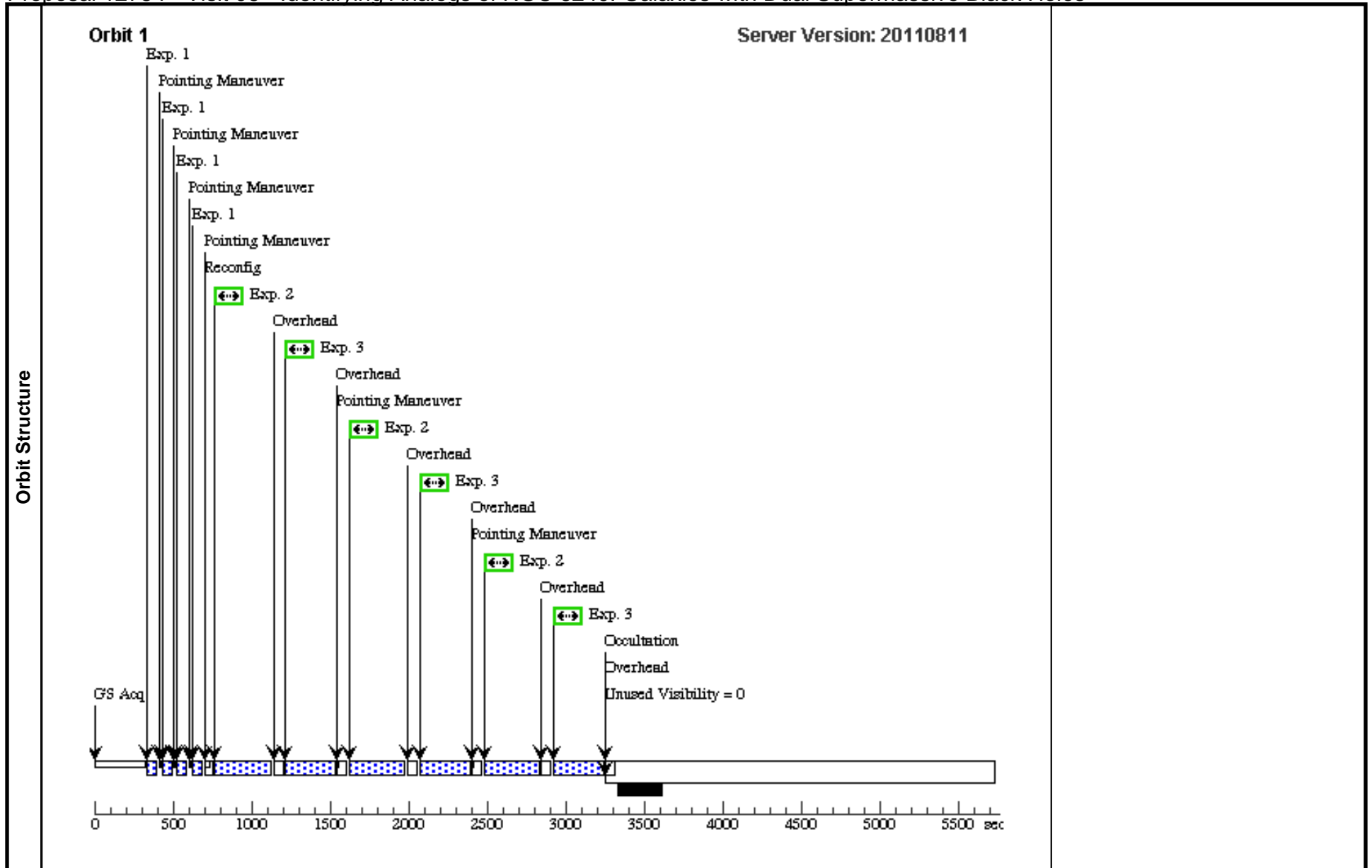
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Visit	<b>Proposal 12754, Visit 05, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: (none)										
	#	Primary Pattern				Secondary Pattern				Exposures	
Patterns	(1)	Pattern 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				(2-3)	
	(2)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous				
	(5)	SDSS-J144804.17+182537.9	RA: 14 48 4.2000 (222.0175000d) Dec: +18 25 37.90 (18.42719d) Equinox: J2000			V=15.5	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
	1	F160W	(5) SDSS-J144804.17+182537.9	WFC3/IR, MULTIACCUM, IRSUB512	F160W	NSAMP=6; SAMP-SEQ=STEP2 5	GS ACQ SCENARI O SINGLE	Pattern 2, Exps 1-1 i n Visit 05 (2)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]	
	2	F438W	(5) SDSS-J144804.17+182537.9	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F438W			Pattern 1, Exps 2-3 i n Visit 05 (1)	350 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]	
	3	F814W	(5) SDSS-J144804.17+182537.9	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F814W			Pattern 1, Exps 2-3 i n Visit 05 (1)	308 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]	



Proposal 12754 - Visit 06 - Identifying Analogs of NGC 6240: Galaxies with Dual Supermassive Black Holes

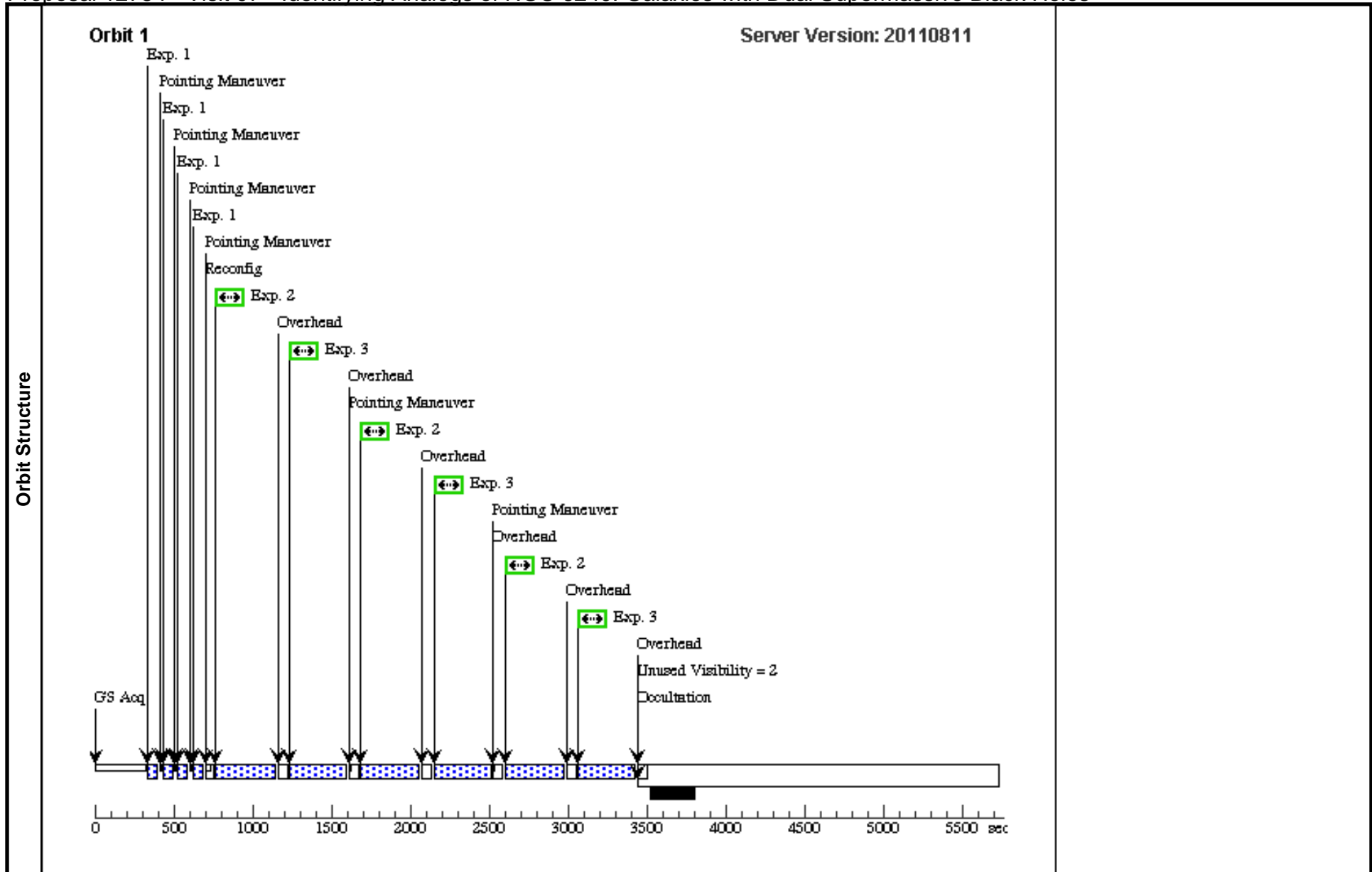
Visit		Proposal 12754, Visit 06, scheduling										Fri Oct 14 01:23:03 GMT 2011	
Patterns		#	Primary Pattern				Secondary Pattern				Exposures		
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		(2)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1)		
Fixed Targets		#	Name		Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
		(6)	SDSS-J112659.54+294442.8		RA: 11 26 59.5000 (171.7479167d) Dec: +29 44 42.80 (29.74522d) Equinox: J2000				V=17.2		Reference Frame: ICRS		
Exposures		#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit	
		1	F160W	(6) SDSS-J112659.54+294442.8	WFC3/IR, MULTIACCUM, IRSUB512	F160W	NSAMP=6; SAMP-SEQ=STEP2 5		Pattern 2, Exps 1-1 in Visit 06 (2)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]		
		2	F438W	(6) SDSS-J112659.54+294442.8	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F438W			Pattern 1, Exps 2-3 in Visit 06 (1)	330 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]		
		3	F814W	(6) SDSS-J112659.54+294442.8	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F814W			Pattern 1, Exps 2-3 in Visit 06 (1)	300 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]		



Proposal 12754 - Visit 07 - Identifying Analogs of NGC 6240: Galaxies with Dual Supermassive Black Holes

Fri Oct 14 01:23:04 GMT 2011

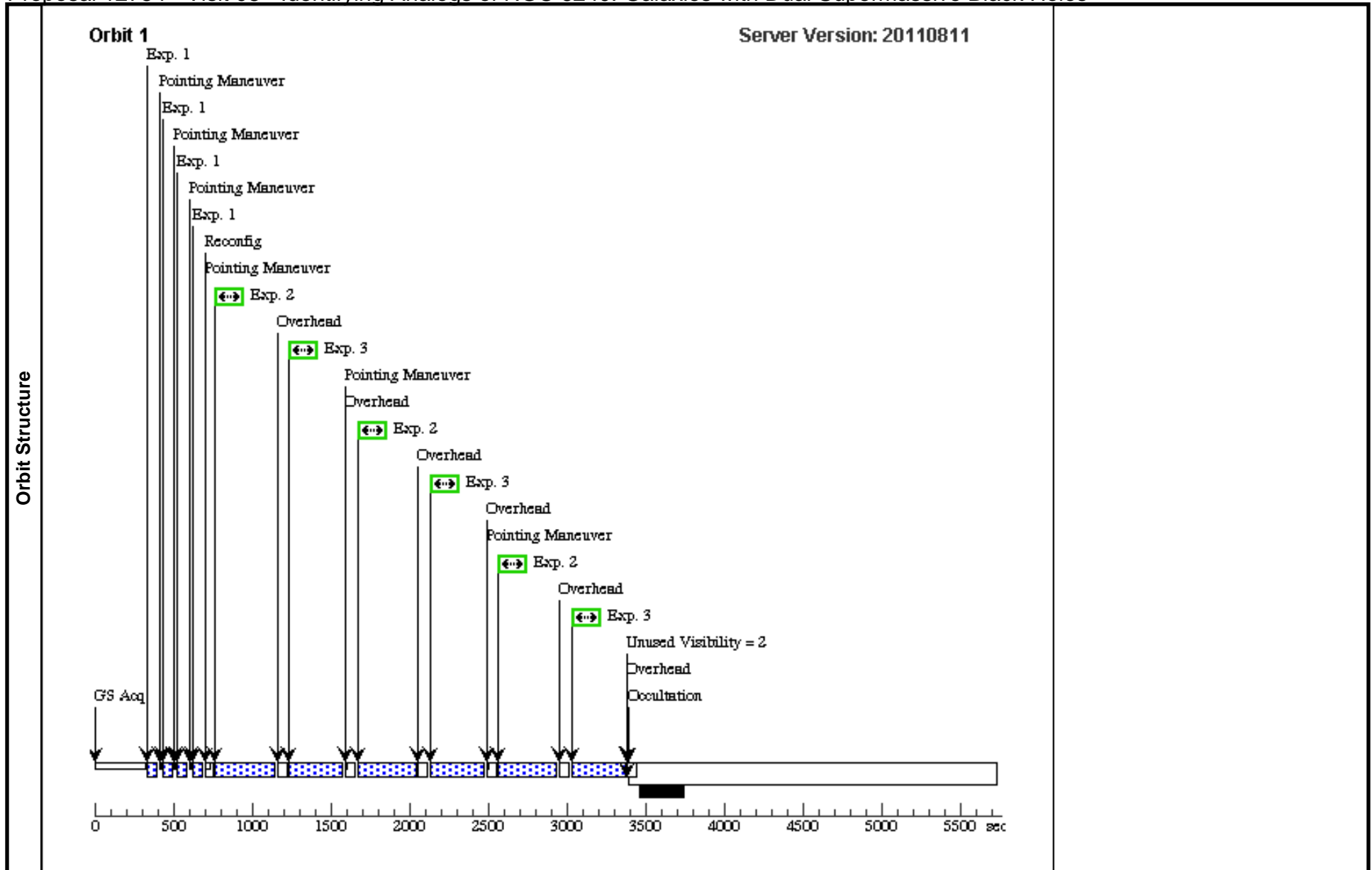
Visit	<b>Proposal 12754, Visit 07, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: (none)										
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Patterns	(1)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=				Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false				(2-3)	
	(2)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous				
	(7)	SDSS-J085416.76+502632.0	RA: 08 54 16.8000 (133.5700000d) Dec: +50 26 32.00 (50.44222d) Equinox: J2000			V=17.4	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
	1	F160W	(7) SDSS-J085416.76+502632.0	WFC3/IR, MULTIACCUM, IRSUB512	F160W	NSAMP=6; SAMP-SEQ=STEP2 5		Pattern 2, Exps 1-1 in Visit 07 (2)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]		[1]
	2	F438W	(7) SDSS-J085416.76+502632.0	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F438W			Pattern 1, Exps 2-3 in Visit 07 (1)	350 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]		[1]
	3	F814W	(7) SDSS-J085416.76+502632.0	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F814W			Pattern 1, Exps 2-3 in Visit 07 (1)	342 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]		[1]



Proposal 12754 - Visit 08 - Identifying Analogs of NGC 6240: Galaxies with Dual Supermassive Black Holes

Fri Oct 14 01:23:04 GMT 2011

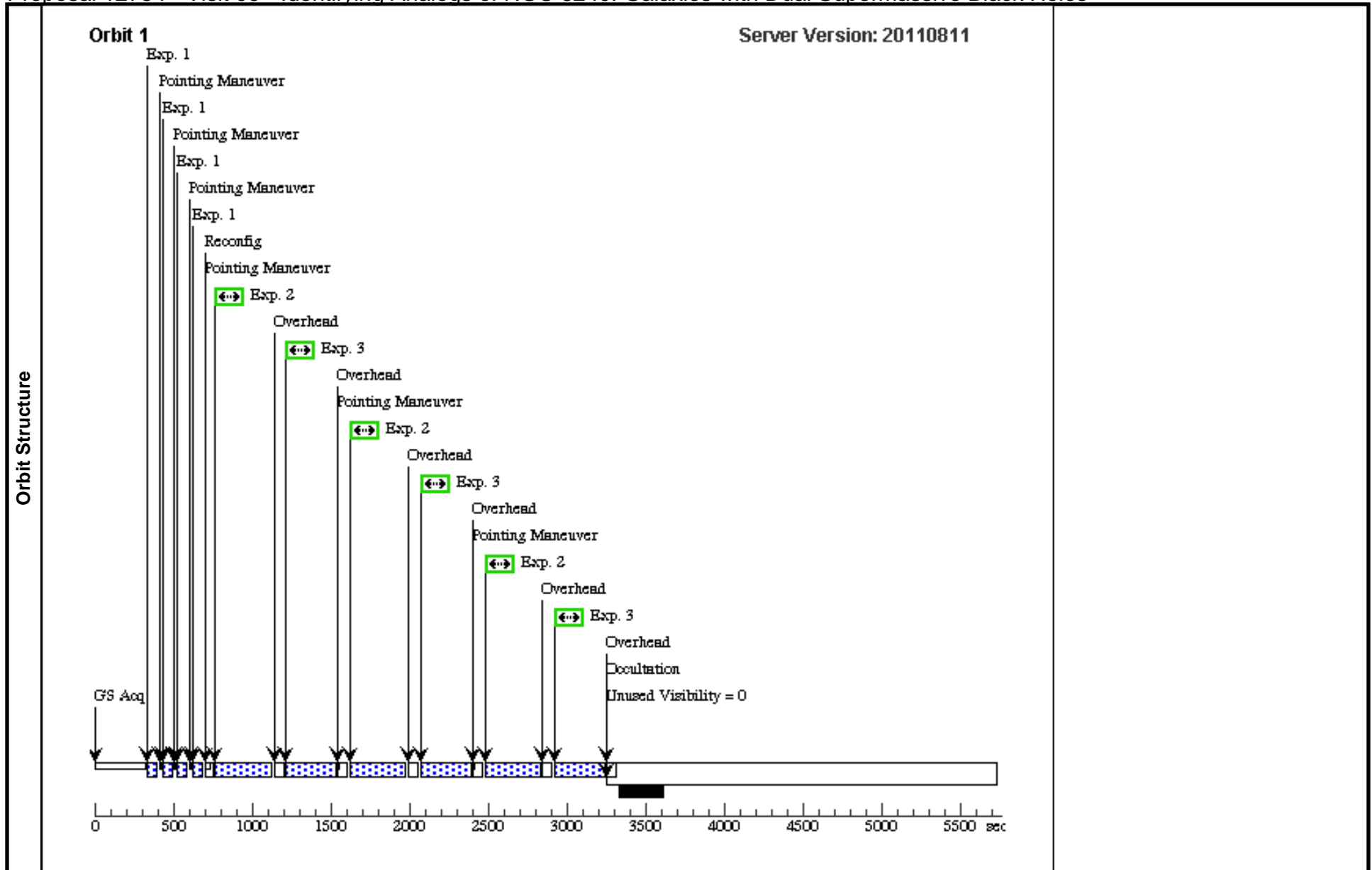
Visit	<b>Proposal 12754, Visit 08, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: (none)									
	#	Primary Pattern		Secondary Pattern		Exposures				
Patterns	(1)	Pattern Type=WFC3-UVIS-DITHER- LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false			(2-3)				
	(2)	Pattern Type=WFC3-IR-DITHER- BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false			(1)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(8)	SDSS- J100654.2+464717.2	RA: 10 06 54.2000 (151.7258333d) Dec: +46 47 17.20 (46.78811d) Equinox: J2000		V=17.2	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	F160W	(8) SDSS-J100654.2 +464717.2	WFC3/IR, MULTIACCUM, IRSUB512	F160W	NSAMP=6; SAMP-SEQ=STEP2 5		Pattern 2, Exps 1-1 i n Visit 08 (2)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]
	2	F438W	(8) SDSS-J100654.2 +464717.2	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F438W			Pattern 1, Exps 2-3 i n Visit 08 (1)	350 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]
3	F814W	(8) SDSS-J100654.2 +464717.2	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F814W			Pattern 1, Exps 2-3 i n Visit 08 (1)	324 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]	



Proposal 12754 - Visit 09 - Identifying Analogs of NGC 6240: Galaxies with Dual Supermassive Black Holes

Fri Oct 14 01:23:05 GMT 2011

Visit	<b>Proposal 12754, Visit 09, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: (none)										
	#	Primary Pattern				Secondary Pattern				Exposures	
Patterns	(1)	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				(2-3)	
	(2)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1)	
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(9)	SDSS-J132231.86+263159.1	RA: 13 22 31.9000 (200.6329167d) Dec: +26 31 59.10 (26.53308d) Equinox: J2000				V=17.9	Reference Frame: ICRS			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit	
	1	F160W	(9) SDSS-J132231.86+263159.1	WFC3/IR, MULTIACCUM, IRSUB512	F160W	NSAMP=6; SAMP-SEQ=STEP2 5		Pattern 2, Exps 1-1 in Visit 09 (2)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]	
	2	F438W	(9) SDSS-J132231.86+263159.1	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F438W			Pattern 1, Exps 2-3 in Visit 09 (1)	330 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	[1]	
	3	F814W	(9) SDSS-J132231.86+263159.1	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F814W			Pattern 1, Exps 2-3 in Visit 09 (1)	300 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	[1]	



Proposal 12754 - Visit 10 - Identifying Analogs of NGC 6240: Galaxies with Dual Supermassive Black Holes

Fri Oct 14 01:23:06 GMT 2011

Visit	<b>Proposal 12754, Visit 10, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: (none)										
	#	Primary Pattern				Secondary Pattern				Exposures	
Patterns	(1)	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				(2-3)	
	(2)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1)	
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(10)	SDSS-J014209.01-005050.0	RA: 01 42 9.0000 (25.5375000d) Dec: -00 50 50.00 (-.84722d) Equinox: J2000				V=17.2		Reference Frame: ICRS		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
	1	F160W	(10) SDSS-J014209.01-005050.0	WFC3/IR, MULTIACCUM, IRSUB512	F160W	NSAMP=6; SAMP-SEQ=STEP2 5	GS ACQ SCENARI O SINGLE	Pattern 2, Exps 1-1 i n Visit 10 (2)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]		[1]
	2	F438W	(10) SDSS-J014209.01-005050.0	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F438W			Pattern 1, Exps 2-3 i n Visit 10 (1)	350 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]		[1]
	3	F814W	(10) SDSS-J014209.01-005050.0	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F814W			Pattern 1, Exps 2-3 i n Visit 10 (1)	303 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]		[1]

