



## 13307 - Taking the measure of quasar winds

Cycle: 21, Proposal Category: GO

(Availability Mode: SUPPORTED)

### INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
<b>Dr. Nadia L Zakamska (PI) (Contact)</b>	<b>The Johns Hopkins University</b>	<b>zakamska@pha.jhu.edu</b>

### 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) SDSSJ0149-0048	ACS/WFC	2	16-Oct-2013 21:03:09.0	yes
02	(2) SDSSJ0210-1001	ACS/WFC	2	16-Oct-2013 21:03:22.0	yes
03	(3) SDSSJ0319-0019	ACS/WFC	2	16-Oct-2013 21:03:32.0	yes
04	(4) SDSSJ0319-0058	ACS/WFC	2	16-Oct-2013 21:03:42.0	yes
05	(5) SDSSJ0321+0016	ACS/WFC	2	16-Oct-2013 21:03:52.0	yes
06	(6) SDSSJ0759+1339	ACS/WFC	2	16-Oct-2013 21:04:02.0	yes
07	(7) SDSSJ0841+2042	ACS/WFC	2	16-Oct-2013 21:04:12.0	yes
08	(8) SDSSJ0842+3625	ACS/WFC	2	16-Oct-2013 21:04:22.0	yes
09	(9) SDSSJ0858+4417	ACS/WFC	2	16-Oct-2013 21:04:35.0	yes
10	(10) SDSSJ1039+4512	ACS/WFC	2	16-Oct-2013 21:04:44.0	yes
11	(11) SDSSJ1040+4745	ACS/WFC	2	16-Oct-2013 21:04:56.0	yes
12	(9) SDSSJ0858+4417	WFC3/UVIS	4	16-Oct-2013 21:05:04.0	yes

26 Total Orbits Used

## **ABSTRACT**

Black hole feedback -- the strong interaction between the energy output of supermassive black holes and their surrounding environments -- is routinely invoked to explain the absence of overly luminous galaxies and the black hole / bulge correlations. Yet direct probes of this process in action are scarce and limited to small subsamples of active nuclei. We recently obtained Gemini Integral Field Unit spectroscopy of the distribution of ionized gas around luminous, obscured, radio-quiet quasars on scales 20-30 kpc. These observations provide direct evidence of strong coupling between black hole energy output and gas motions on galaxy-wide scales. We propose to image these 11 objects with the HST to obtain accurate characterization of the physical conditions in the outflowing gas, with a total request of 26 orbits. Using U-band images sensitive to the scattered light from the nucleus, we will obtain a measurement of gas density and determine the geometry of quasar illumination and obscuration. Using yellow-band images we will determine the origin of the gas and characterize host galaxy morphologies at very high quasar luminosities. We will observe one object with a narrow-band filter centered on the [OIII]5007 line to determine the geometry of ionization on small scales and to constrain the clumping of the warm dense component of quasar winds. In combination with our ground-based kinematic maps, these observations will enable us to understand the 3D structure, the energetics and the physical conditions in quasar outflows. These ground-breaking measurements will provide a clear physical picture of the black hole feedback in action.

## **OBSERVING DESCRIPTION**

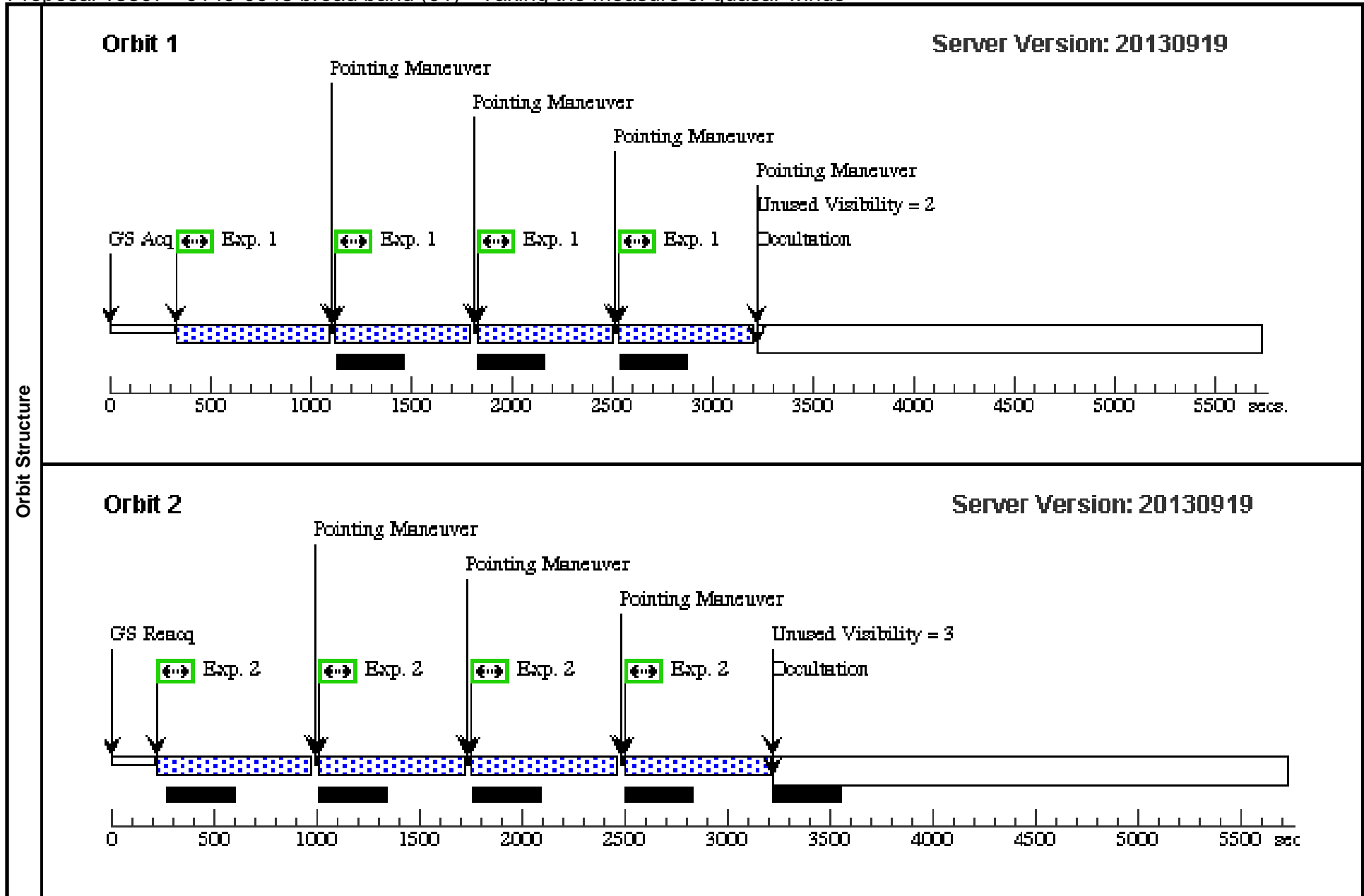
Each target is observed in a 'blue' and a 'red' broad filter, one orbit each, selected to avoid strong emission lines in the spectra. At  $z > 0.5$ , ACS 475W is used as the 'blue' filter, and for  $z < 0.5$ , ACS 435W is used to avoid the [OII]3727 emission line. For the 'red' filter, we use ACS FR914M suitably placed between [OIII] 5007 and H $\alpha$  depending on the redshift.

In addition to the broad-band observations, one target (J0858) is also observed for 4 orbits in a narrow-band filter WFC3 FQ727N which happens to be centered nicely on the [OIII]5007 emission line.

Proposal 13307 - 0149-0048 broad band (01) - Taking the measure of quasar winds

Thu Oct 17 01:05:13 GMT 2013

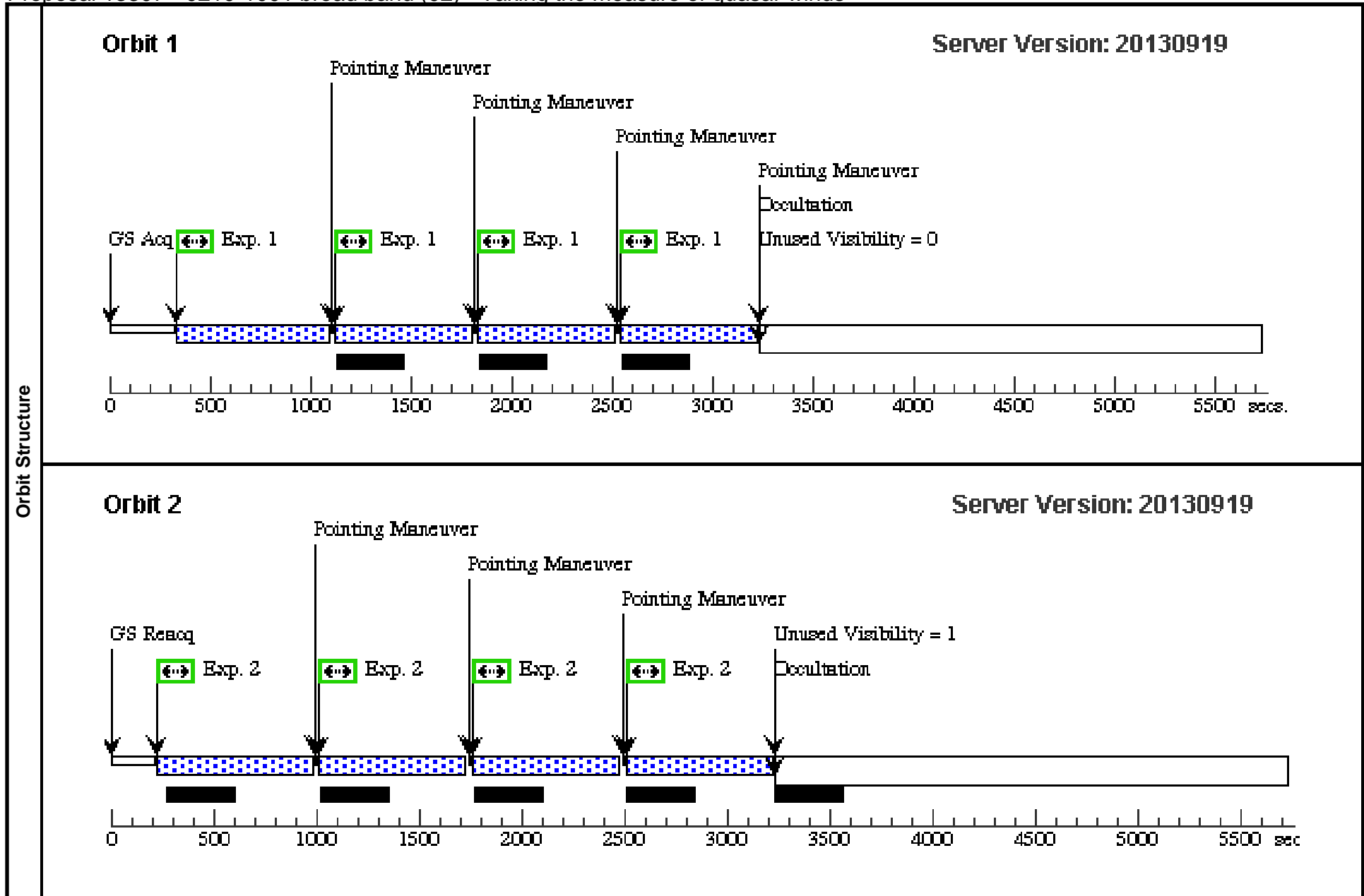
<b>Visit</b>	Proposal 13307, 0149-0048 broad band (01), scheduling Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)									
	(0149m0048red (01.002)) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp or WFC3 quad filters as central wavelengths & transmission efficiencies vary within the apertures.									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>						
	(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(1), (2)					
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(1)	SDSSJ0149-0048	RA: 01 49 32.5296 (27.3855400d) Dec: -00 48 3.60 (-.80100d) Equinox: J2000		V=21.5	Reference Frame: ICRS				
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	0149m0048 blue	(1) SDSSJ0149-0048	ACS/WFC, ACCUM, WFC1	F475W			Pattern 1, Exps 1-1 in 0149-0048 broad b and (01) (1)	550 Secs (2200 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
2	0149m0048r ed	(1) SDSSJ0149-0048	ACS/WFC, ACCUM, WFC1-MRAMP	FR914M 8340 A				Pattern 1, Exps 2-2 in 0149-0048 broad b and (01) (1)	587 Secs (2348 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2]



Proposal 13307 - 0210-1001 broad band (02) - Taking the measure of quasar winds

Thu Oct 17 01:05:16 GMT 2013

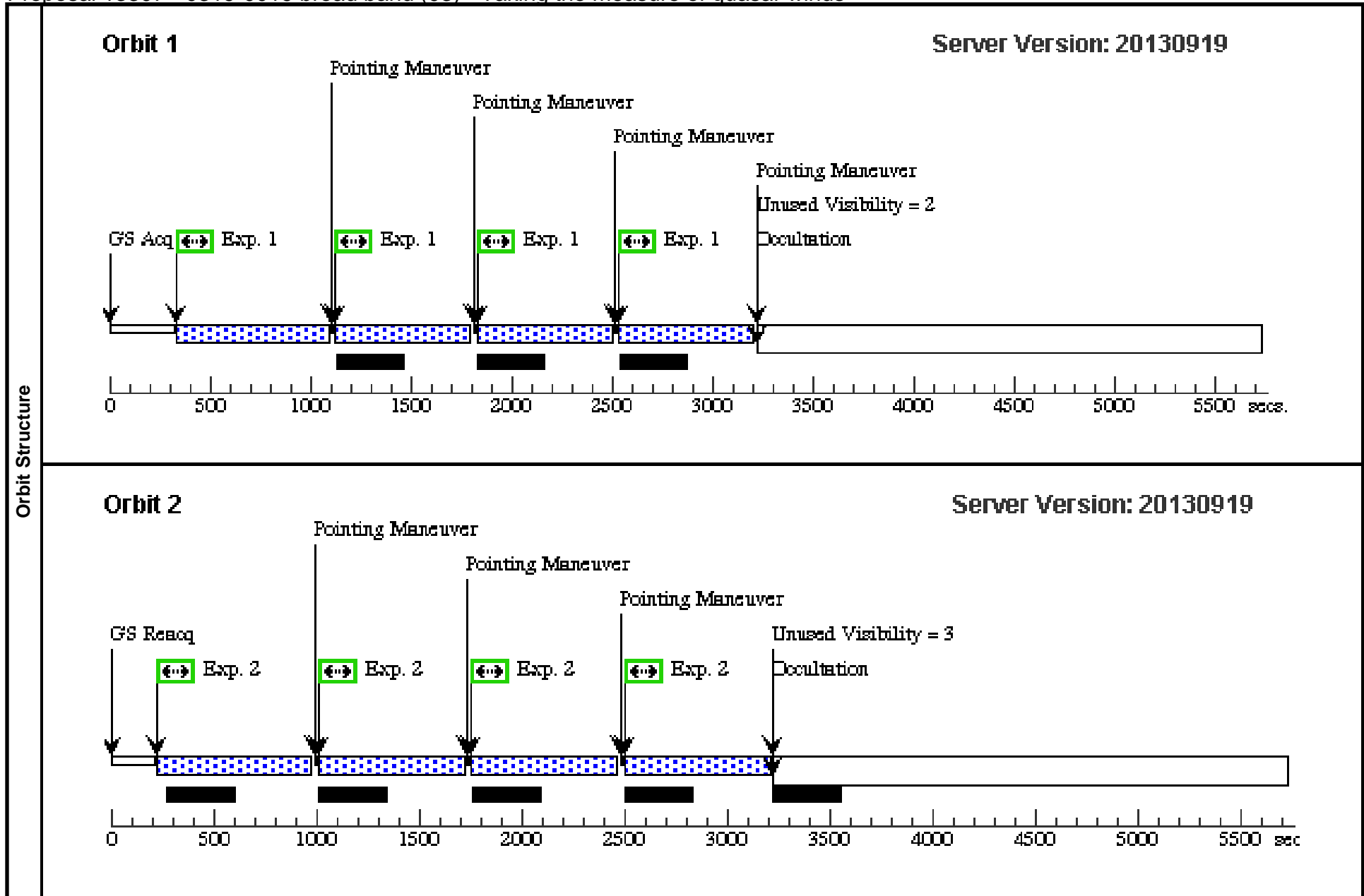
<b>Visit</b>	Proposal 13307, 0210-1001 broad band (02), scheduling Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)									
	(0210m1001red (02.002)) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp or WFC3 quad filters as central wavelengths & transmission efficiencies vary within the apertures.									
<b>Diagnosics</b>										
<b>Patterns</b>	#	Primary Pattern		Secondary Pattern	Exposures					
	(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(1), (2)					
<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	SDSSJ0210-1001	RA: 02 10 47.0105 (32.6958771d) Dec: -10 01 52.80 (-10.03133d) Equinox: J2000		V=20.8	Reference Frame: ICRS				
<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	0210m1001 blue	(2) SDSSJ0210-1001	ACS/WFC, ACCUM, WFC1	F475W				Pattern 1, Exps 1-1 in 0210-1001 broad band and (02) (1) 550 Secs (2212 Secs) [==>553.0 Secs (Pattern 1)] [==>553.0 Secs (Pattern 2)] [==>553.0 Secs (Pattern 3)] [==>553.0 Secs (Pattern 4)]	[1]
2	0210m1001red	(2) SDSSJ0210-1001	ACS/WFC, ACCUM, WFC1-MRAMP	FR914M 8200 A				Pattern 1, Exps 2-2 in 0210-1001 broad band and (02) (1) 587 Secs (2360 Secs) [==>590.0 Secs (Pattern 1)] [==>590.0 Secs (Pattern 2)] [==>590.0 Secs (Pattern 3)] [==>590.0 Secs (Pattern 4)]	[2]	



Proposal 13307 - 0319-0019 broad band (03) - Taking the measure of quasar winds

Thu Oct 17 01:05:17 GMT 2013

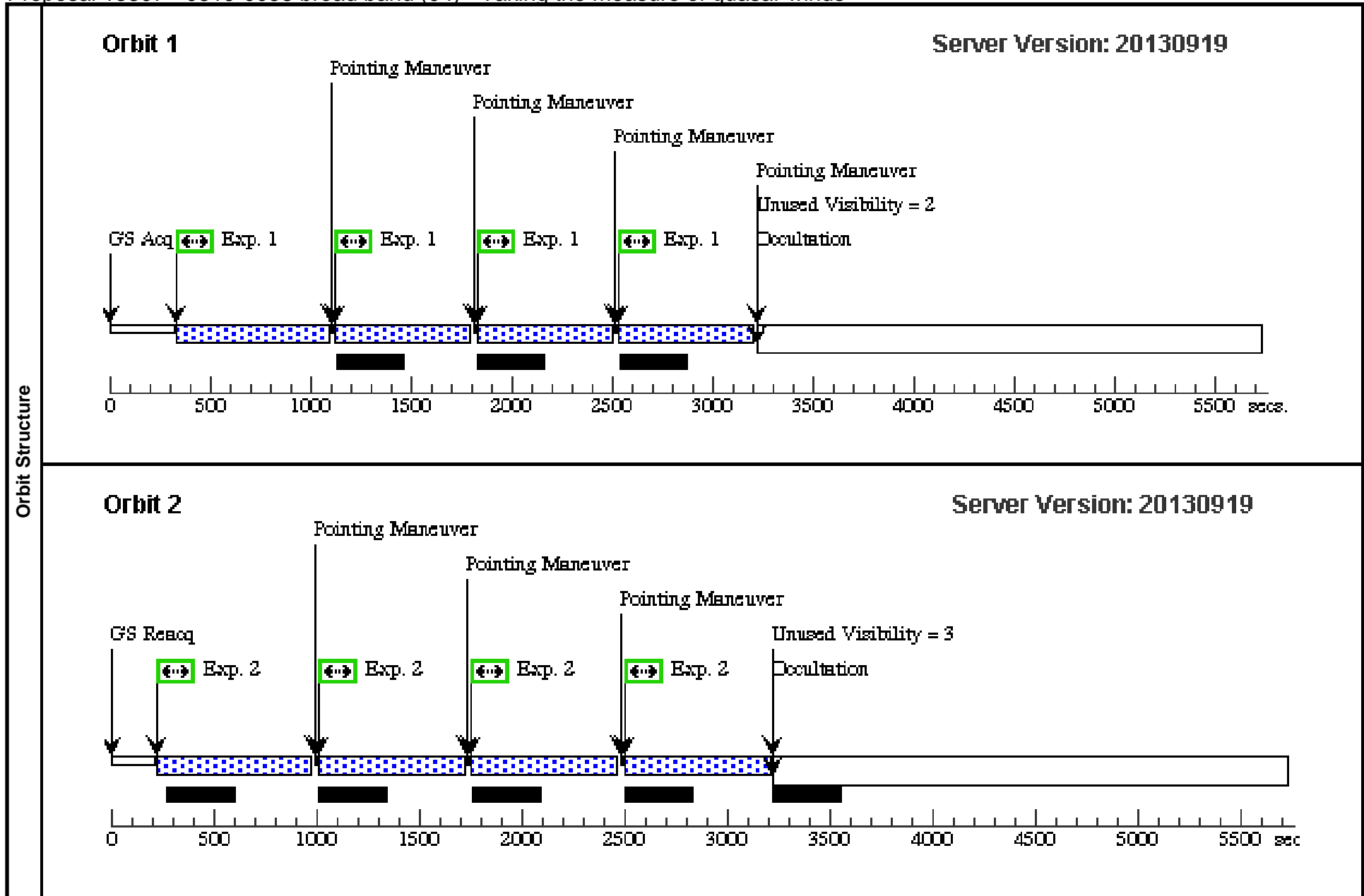
<b>Visit</b>	Proposal 13307, 0319-0019 broad band (03), scheduling <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/WFC Special Requirements: (none)									
	(0319m0019red (03.002)) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp or WFC3 quad filters as central wavelengths & transmission efficiencies vary within the apertures.									
<b>Diagnosics</b>										
<b>Patterns</b>	#	<b>Primary Pattern</b>	<b>Secondary Pattern</b>		<b>Exposures</b>					
	(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(1), (2)					
<b>Fixed Targets</b>	#	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(3)	SDSSJ0319-0019	RA: 03 19 9.6094 (49.7900392d) Dec: -00 19 16.60 (-.32128d) Equinox: J2000		V=20.7	Reference Frame: ICRS				
<b>Exposures</b>	#	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	0319m0019 blue	(3) SDSSJ0319-0019	ACS/WFC, ACCUM, WFC1	F475W			Pattern 1, Exps 1-1 in 0319-0019 broad band and (03) (1)	550 Secs (2200 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
2	0319m0019r ed	(3) SDSSJ0319-0019	ACS/WFC, ACCUM, WFC1-MRAMP	FR914M 8710 A				Pattern 1, Exps 2-2 in 0319-0019 broad band and (03) (1)	587 Secs (2348 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2]



Proposal 13307 - 0319-0058 broad band (04) - Taking the measure of quasar winds

Thu Oct 17 01:05:18 GMT 2013

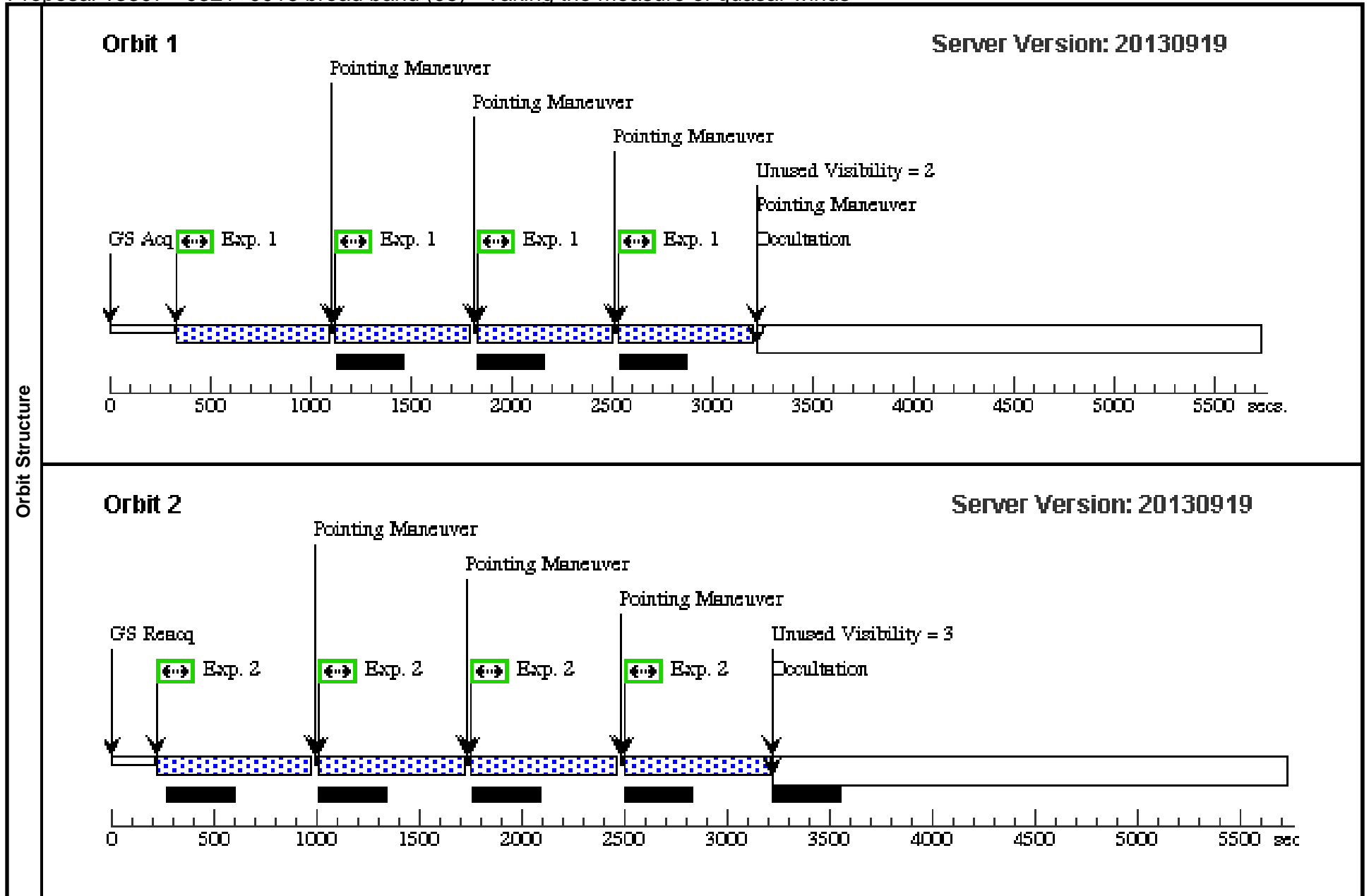
<b>Visit</b>	Proposal 13307, 0319-0058 broad band (04), scheduling <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/WFC Special Requirements: (none)									
	(0319m0058red (04.002)) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp or WFC3 quad filters as central wavelengths & transmission efficiencies vary within the apertures.									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>						
	(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(1), (2)					
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(4)	SDSSJ0319-0058	RA: 03 19 50.5298 (49.9605408d) Dec: -00 58 50.40 (-.98067d) Equinox: J2000		V=22.0	Reference Frame: ICRS				
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	0319m0058 blue	(4) SDSSJ0319-0058	ACS/WFC, ACCUM, WFC1	F475W			Pattern 1, Exps 1-1 in 0319-0058 broad b and (04) (1)	550 Secs (2200 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
2	0319m0058red	(4) SDSSJ0319-0058	ACS/WFC, ACCUM, WFC1-MRAMP	FR914M 8660 A				Pattern 1, Exps 2-2 in 0319-0058 broad b and (04) (1)	587 Secs (2348 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2]



Proposal 13307 - 0321+0016 broad band (05) - Taking the measure of quasar winds

Thu Oct 17 01:05:19 GMT 2013

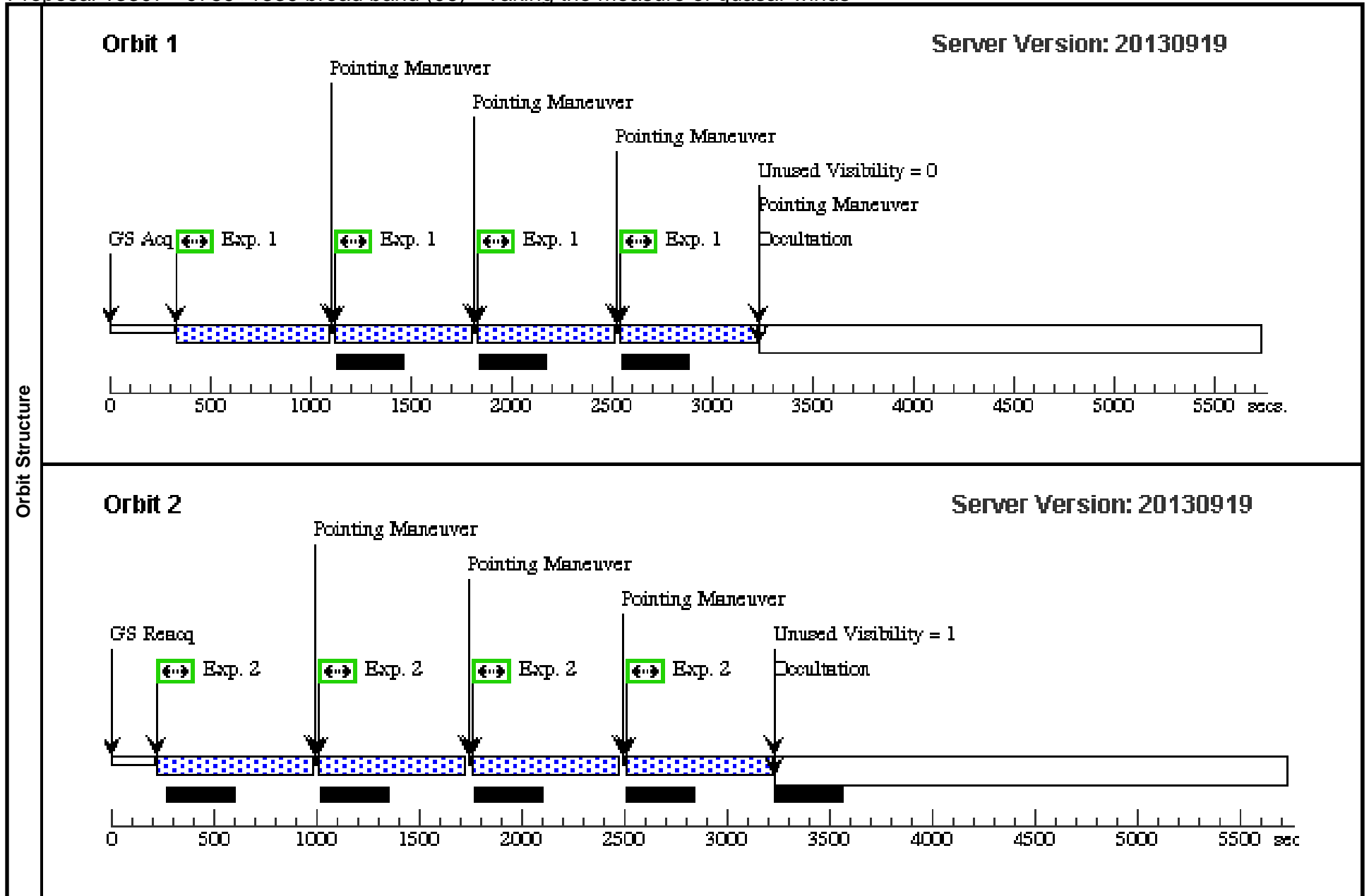
<b>Visit</b>	Proposal 13307, 0321+0016 broad band (05), scheduling Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)									
	(0321p0016red (05.002)) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp or WFC3 quad filters as central wavelengths & transmission efficiencies vary within the apertures.									
<b>Diagnosics</b>										
<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures						
	(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(1), (2)					
<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(5)	SDSSJ0321+0016	RA: 03 21 44.1101 (50.4337921d) Dec: +00 16 38.20 (.27728d) Equinox: J2000		V=21.6	Reference Frame: ICRS				
<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	0321p0016blue	(5) SDSSJ0321+0016	ACS/WFC, ACCUM, WFC1	F475W			Pattern 1, Exps 1-1 in 0321+0016 broad band and (05) (1)	550 Secs (2200 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
2	0321p0016red	(5) SDSSJ0321+0016	ACS/WFC, ACCUM, WFC1-MRAMP	FR914M 8750 A				Pattern 1, Exps 2-2 in 0321+0016 broad band and (05) (1) 587 Secs (2348 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2]	



Proposal 13307 - 0759+1339 broad band (06) - Taking the measure of quasar winds

Thu Oct 17 01:05:21 GMT 2013

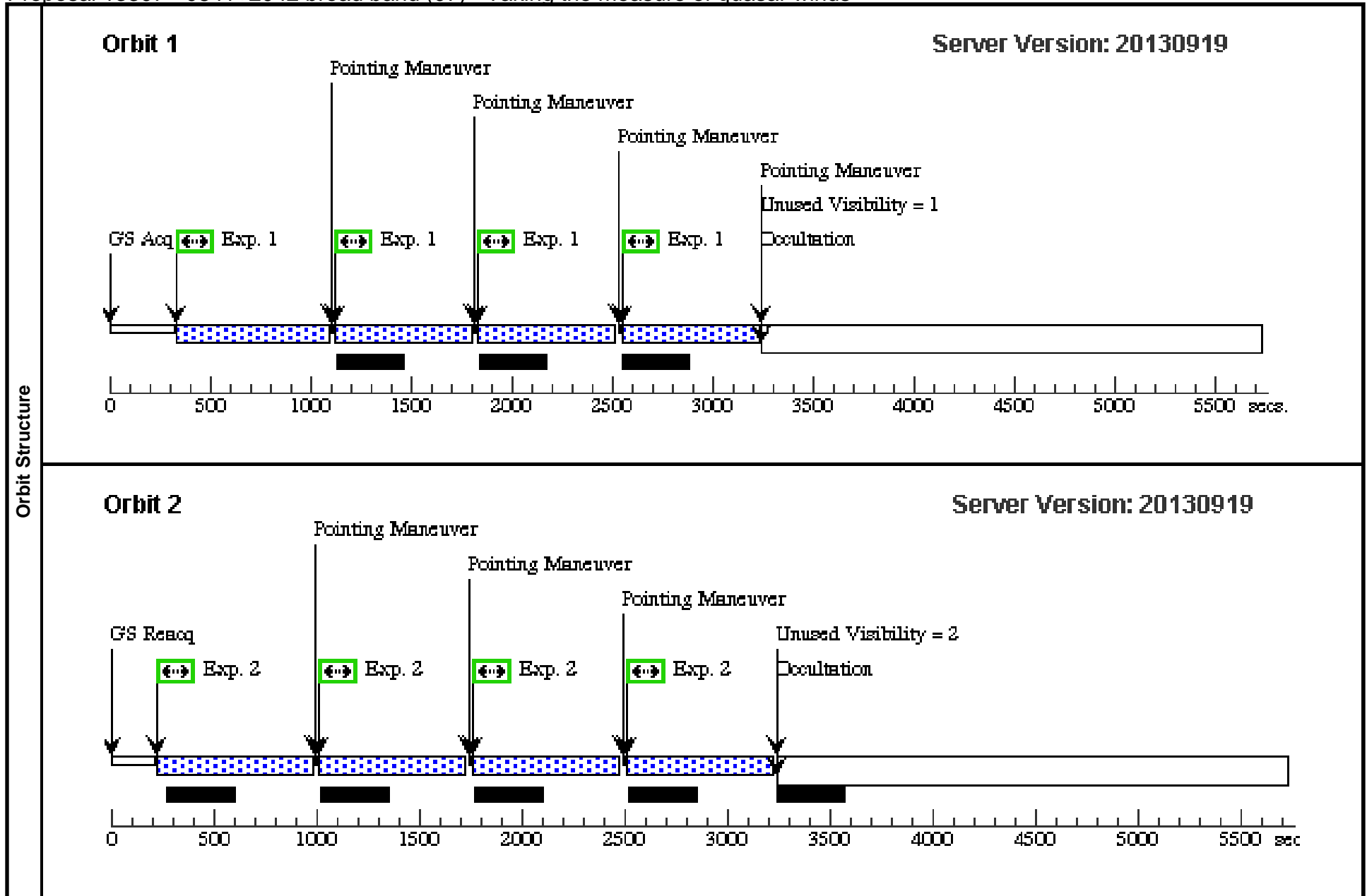
<b>Visit</b>	<b>Proposal 13307, 0759+1339 broad band (06), scheduling</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/WFC Special Requirements: ORIENT 315D TO 56 D <i>Comments: Orient requirement to avoid a bright star</i>									
	(0759p1339red (06.002)) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp or WFC3 quad filters as central wavelengths & transmission efficiencies vary within the apertures.									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>		<b>Exposures</b>					
	(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(1), (2)					
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(6)	SDSSJ0759+1339	RA: 07 59 44.6411 (119.9360046d) Dec: +13 39 45.80 (13.66272d) Equinox: J2000		V=21.7	Reference Frame: ICRS				
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	0759p1339blue	(6) SDSSJ0759+1339	ACS/WFC, ACCUM, WFC1	F475W			Pattern 1, Exps 1-1 in 0759+1339 broad band and (06) (1)	550 Secs (2212 Secs) [==>553.0 Secs (Pattern 1)] [==>553.0 Secs (Pattern 2)] [==>553.0 Secs (Pattern 3)] [==>553.0 Secs (Pattern 4)]	[1]
2	0759p1339red	(6) SDSSJ0759+1339	ACS/WFC, ACCUM, WFC1-MRAMP	FR914M 8780 A				Pattern 1, Exps 2-2 in 0759+1339 broad band and (06) (1) 587 Secs (2360 Secs) [==>590.0 Secs (Pattern 1)] [==>590.0 Secs (Pattern 2)] [==>590.0 Secs (Pattern 3)] [==>590.0 Secs (Pattern 4)]	[2]	



Proposal 13307 - 0841+2042 broad band (07) - Taking the measure of quasar winds

Thu Oct 17 01:05:22 GMT 2013

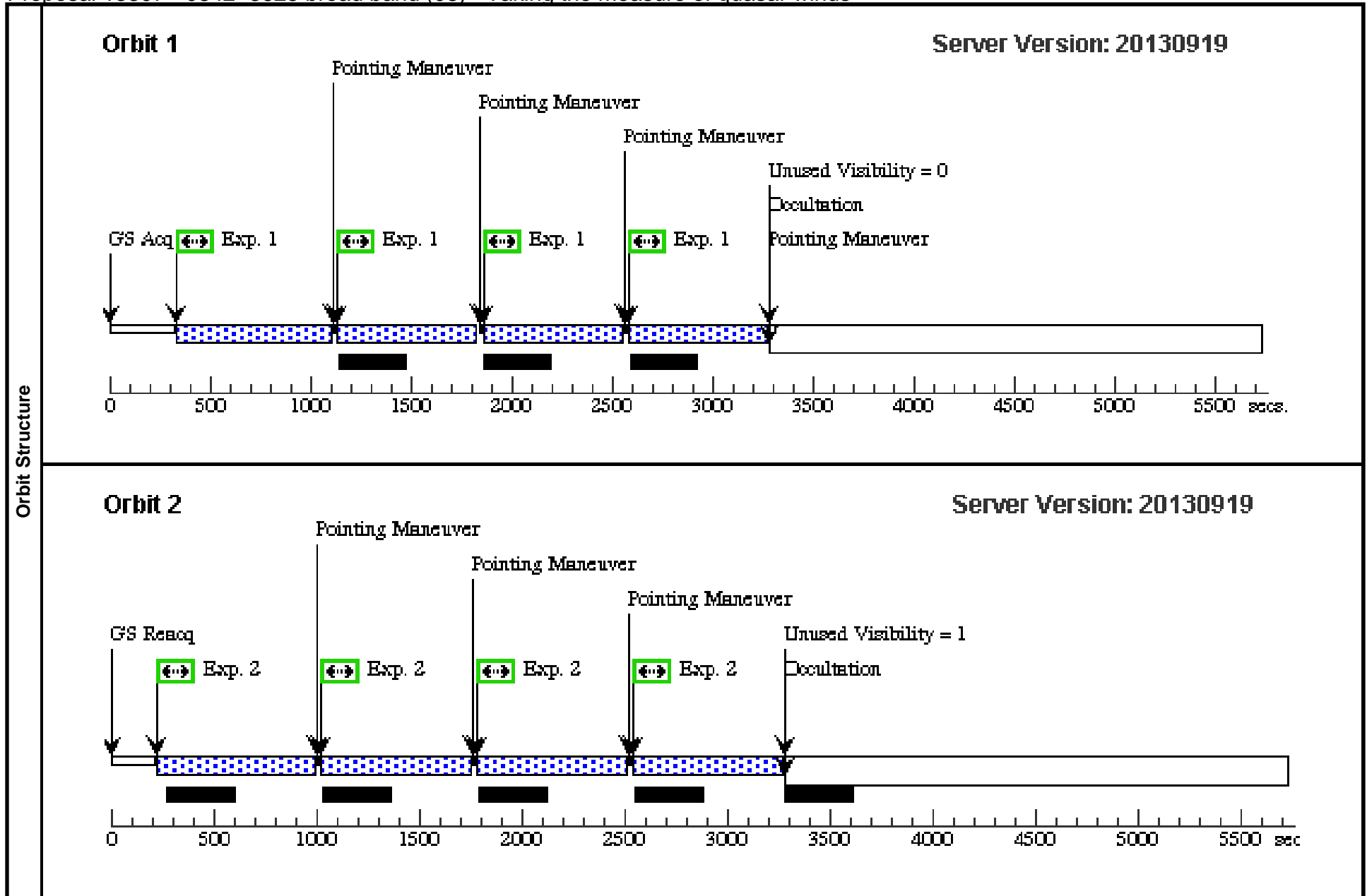
<b>Visit</b>	<b>Proposal 13307, 0841+2042 broad band (07), scheduling</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/WFC Special Requirements: ORIENT 96D TO 207 D <i>Comments: Orient requirement to avoid a bright star</i>									
	(0841p2042red (07.002)) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp or WFC3 quad filters as central wavelengths & transmission efficiencies vary within the apertures.									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>			<b>Exposures</b>				
	(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false				(1), (2)			
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(7)	SDSSJ0841+2042	RA: 08 41 30.7800 (130.3782500d) Dec: +20 42 20.51 (20.70570d) Equinox: J2000		V=21.6	Reference Frame: ICRS				
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	0841p2042blue	(7) SDSSJ0841+2042	ACS/WFC, ACCUM, WFC1	F475W			Pattern 1, Exps 1-1 in 0841+2042 broad band (07) (1)	550 Secs (2216 Secs)	
			2						[==>554.0 Secs (Pattern 1)]	[1]
									[==>554.0 Secs (Pattern 2)]	
								[==>554.0 Secs (Pattern 3)]		
								[==>554.0 Secs (Pattern 4)]		
2	0841p2042red	(7) SDSSJ0841+2042	ACS/WFC, ACCUM, WFC1-MRAMP	FR914M	8740 A			Pattern 1, Exps 2-2 in 0841+2042 broad band (07) (1)	587 Secs (2364 Secs)	
		2							[==>591.0 Secs (Pattern 1)]	[2]
									[==>591.0 Secs (Pattern 2)]	
									[==>591.0 Secs (Pattern 3)]	
									[==>591.0 Secs (Pattern 4)]	



Proposal 13307 - 0842+3625 broad band (08) - Taking the measure of quasar winds

Thu Oct 17 01:05:23 GMT 2013

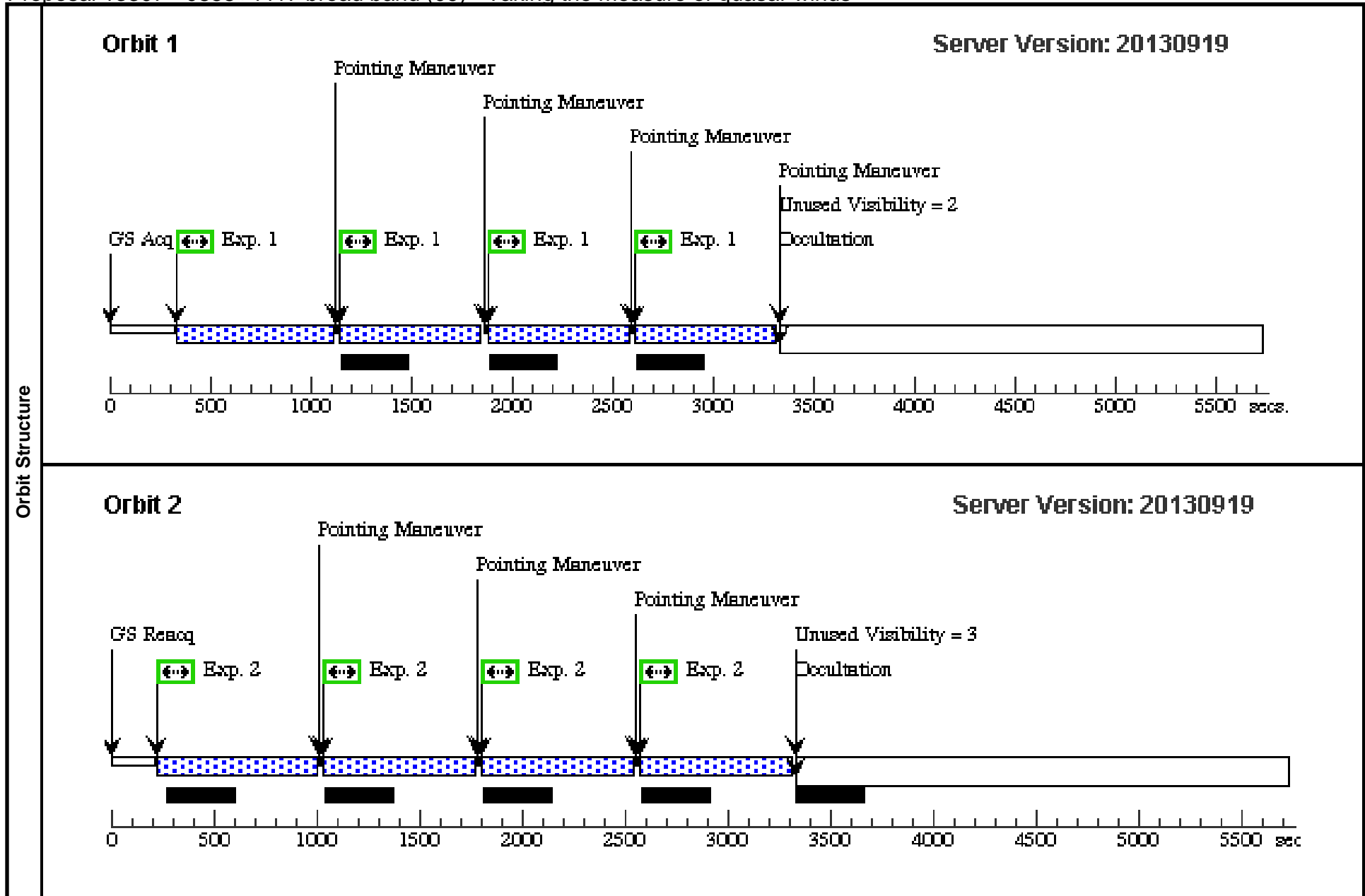
<b>Visit</b>	Proposal 13307, 0842+3625 broad band (08), completed Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)									
	(0842p3625red (08.002)) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp or WFC3 quad filters as central wavelengths & transmission efficiencies vary within the apertures.									
<b>Diagnosics</b>										
<b>Patterns</b>	#	<b>Primary Pattern</b>	<b>Secondary Pattern</b>		<b>Exposures</b>					
	(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(1), (2)					
<b>Fixed Targets</b>	#	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(8)	SDSSJ0842+3625	RA: 08 42 34.9402 (130.6455842d) Dec: +36 25 3.20 (36.41756d) Equinox: J2000		V=20.5	Reference Frame: ICRS				
<b>Exposures</b>	#	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	0842p3625blue	(8) SDSSJ0842+3625	ACS/WFC, ACCUM, WFC1	F475W			Pattern 1, Exps 1-1 in 0842+3625 broad band and (08) (1)	550 Secs (2260 Secs) [==>565.0 Secs (Pattern 1)] [==>565.0 Secs (Pattern 2)] [==>565.0 Secs (Pattern 3)] [==>565.0 Secs (Pattern 4)]	[1]
2	0842p3625red	(8) SDSSJ0842+3625	ACS/WFC, ACCUM, WFC1-MRAMP	FR914M 8311 A				Pattern 1, Exps 2-2 in 0842+3625 broad band and (08) (1)	587 Secs (2408 Secs) [==>602.0 Secs (Pattern 1)] [==>602.0 Secs (Pattern 2)] [==>602.0 Secs (Pattern 3)] [==>602.0 Secs (Pattern 4)]	[2]



Proposal 13307 - 0858+4417 broad band (09) - Taking the measure of quasar winds

Thu Oct 17 01:05:23 GMT 2013

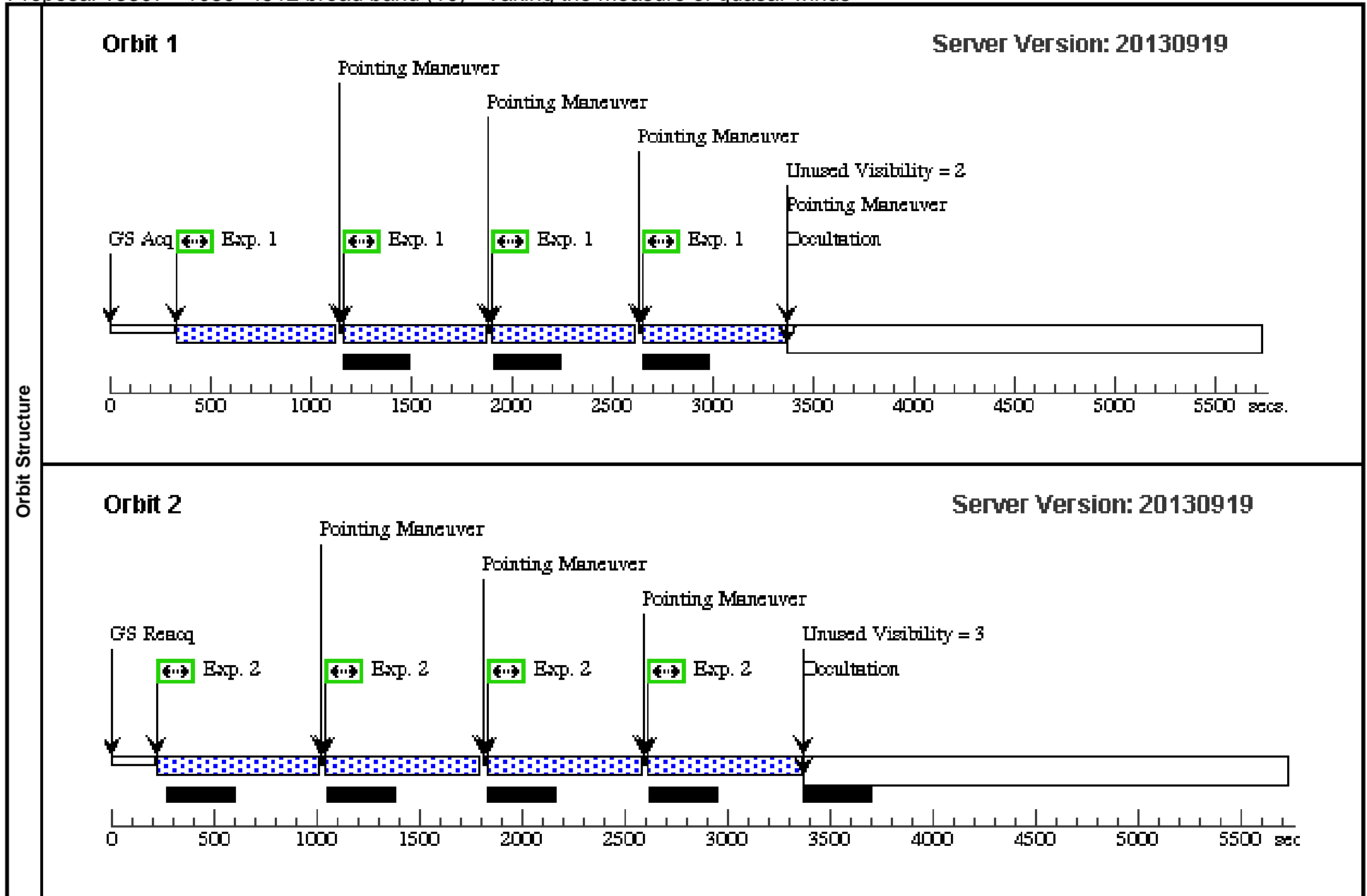
<b>Visit</b>	Proposal 13307, 0858+4417 broad band (09), completed Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)									
	(0858p4417red (09.002)) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp or WFC3 quad filters as central wavelengths & transmission efficiencies vary within the apertures.									
<b>Diagnosics</b>										
<b>Patterns</b>	#	Primary Pattern		Secondary Pattern	Exposures					
	(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(1), (2)					
<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(9)	SDSSJ0858+4417	RA: 08 58 29.5898 (134.6232908d) Dec: +44 17 34.70 (44.29297d) Equinox: J2000		V=19.5	Reference Frame: ICRS				
<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	0858p4417blue	(9) SDSSJ0858+4417	ACS/WFC, ACCUM, WFC1	F435W			Pattern 1, Exps 1-1 in 0858+4417 broad band and (09) (1)	550 Secs (2304 Secs) [==>576.0 Secs (Pattern 1)] [==>576.0 Secs (Pattern 2)] [==>576.0 Secs (Pattern 3)] [==>576.0 Secs (Pattern 4)]	[1]
2	0858p4417red	(9) SDSSJ0858+4417	ACS/WFC, ACCUM, WFC1-MRAMP	FR914M 7750 A				Pattern 1, Exps 2-2 in 0858+4417 broad band and (09) (1) 587 Secs (2456 Secs) [==>614.0 Secs (Pattern 1)] [==>614.0 Secs (Pattern 2)] [==>614.0 Secs (Pattern 3)] [==>614.0 Secs (Pattern 4)]	[2]	



Proposal 13307 - 1039+4512 broad band (10) - Taking the measure of quasar winds

Thu Oct 17 01:05:24 GMT 2013

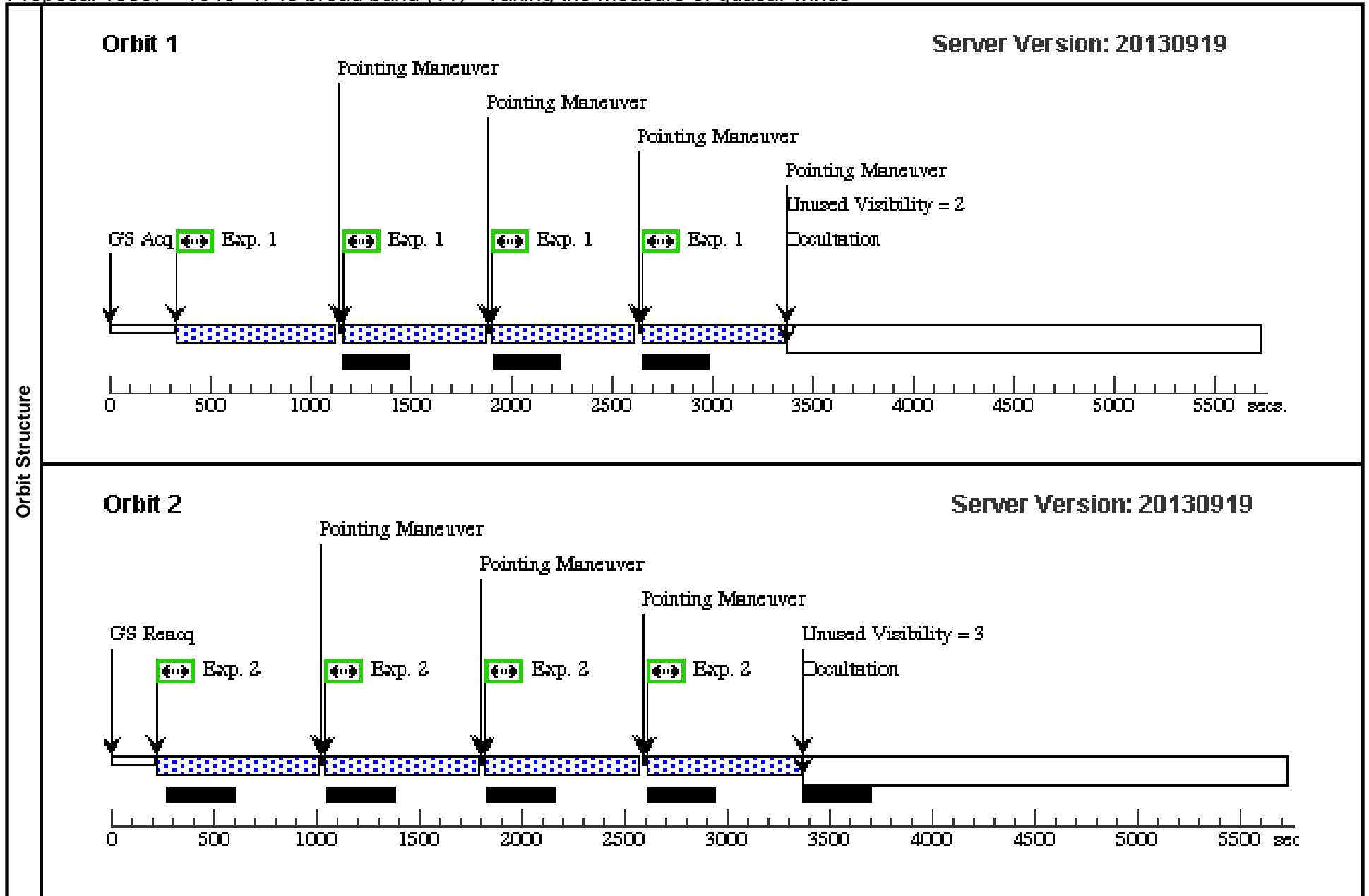
<b>Visit</b>	<b>Proposal 13307, 1039+4512 broad band (10), scheduling</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/WFC Special Requirements: (none)									
	(1039p4512red (10.002)) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp or WFC3 quad filters as central wavelengths & transmission efficiencies vary within the apertures.									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>						
	(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(1), (2)					
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(10)	SDSSJ1039+4512	RA: 10 39 27.1912 (159.8632967d) Dec: +45 12 15.40 (45.20428d) Equinox: J2000		V=21.4	Reference Frame: ICRS				
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	1039p4512blue	(10) SDSSJ1039+4512	ACS/WFC, ACCUM, WFC1	F475W			Pattern 1, Exps 1-1 in 1039+4512 broad band and (10) (1)	550 Secs (2348 Secs) [==>587.0 Secs (Pattern 1)] [==>587.0 Secs (Pattern 2)] [==>587.0 Secs (Pattern 3)] [==>587.0 Secs (Pattern 4)]	[1]
2	1039p4512red	(10) SDSSJ1039+4512	ACS/WFC, ACCUM, WFC1-MRAMP	FR914M 8410 A				Pattern 1, Exps 2-2 in 1039+4512 broad band and (10) (1) 587 Secs (2496 Secs) [==>624.0 Secs (Pattern 1)] [==>624.0 Secs (Pattern 2)] [==>624.0 Secs (Pattern 3)] [==>624.0 Secs (Pattern 4)]	[2]	



Proposal 13307 - 1040+4745 broad band (11) - Taking the measure of quasar winds

Thu Oct 17 01:05:25 GMT 2013

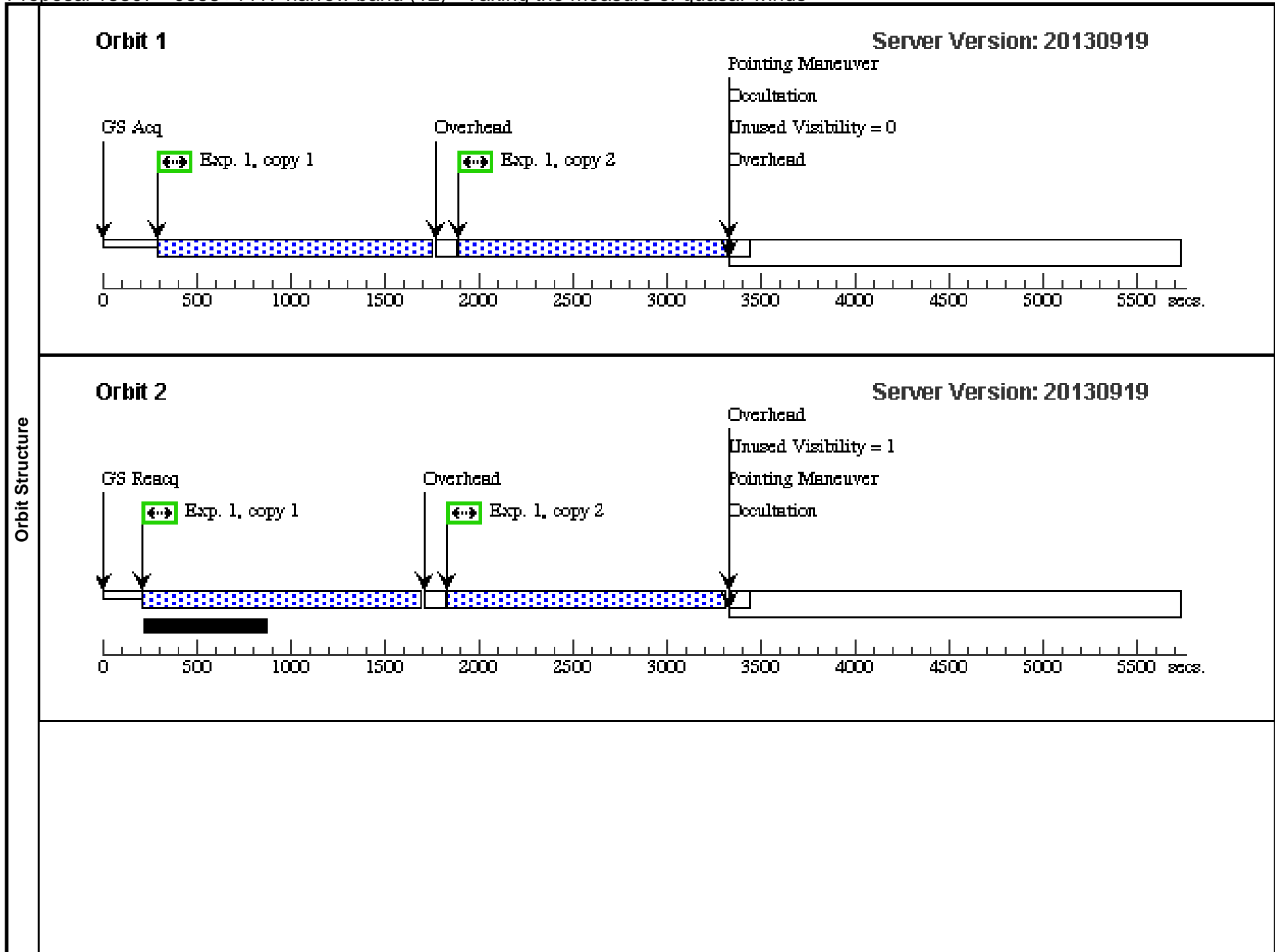
<b>Visit</b>	Proposal 13307, 1040+4745 broad band (11), scheduling Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)									
	(1040p4745red (11.002)) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp or WFC3 quad filters as central wavelengths & transmission efficiencies vary within the apertures.									
<b>Diagnosics</b>										
<b>Patterns</b>	#	Primary Pattern		Secondary Pattern	Exposures					
	(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187		Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false	(1), (2)					
<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(11)	SDSSJ1040+4745	RA: 10 40 14.4324 (160.0601350d) Dec: +47 45 54.79 (47.76522d) Equinox: J2000		V=19.2	Reference Frame: ICRS				
<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	1040p4745blue	(11) SDSSJ1040+4745	ACS/WFC, ACCUM, WFC1	F435W			Pattern 1, Exps 1-1 in 1040+4745 broad band and (11) (1)	550 Secs (2348 Secs) [==>587.0 Secs (Pattern 1)] [==>587.0 Secs (Pattern 2)] [==>587.0 Secs (Pattern 3)] [==>587.0 Secs (Pattern 4)]	[1]
2	1040p4745red	(11) SDSSJ1040+4745	ACS/WFC, ACCUM, WFC1-MRAMP	FR914M 7915 A				Pattern 1, Exps 2-2 in 1040+4745 broad band and (11) (1) 587 Secs (2500 Secs) [==>625.0 Secs (Pattern 1)] [==>625.0 Secs (Pattern 2)] [==>625.0 Secs (Pattern 3)] [==>625.0 Secs (Pattern 4)]	[2]	



Proposal 13307 - 0858+4417 narrow band (12) - Taking the measure of quasar winds

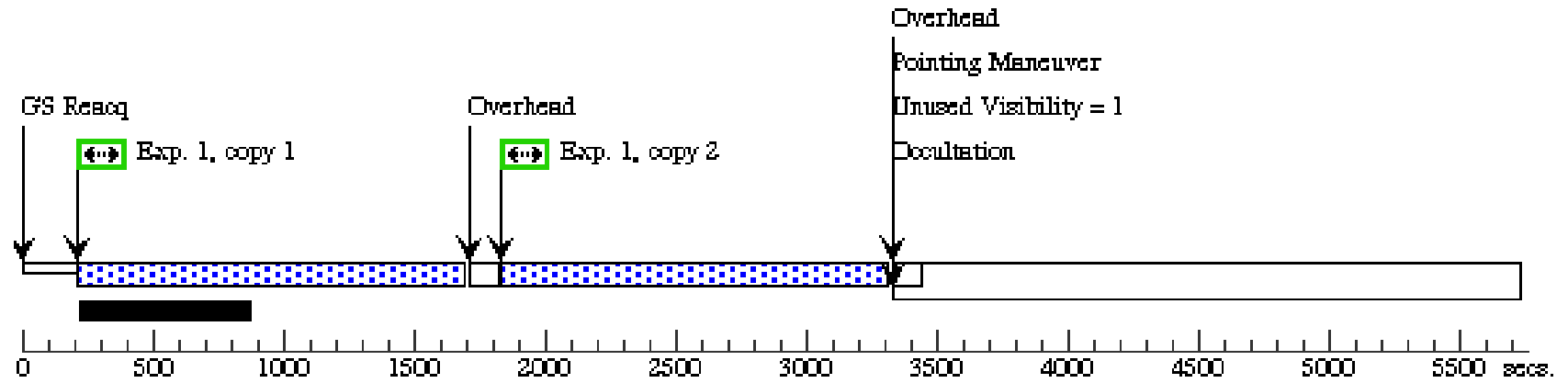
Thu Oct 17 01:05:26 GMT 2013

<b>Visit</b>	Proposal 13307, 0858+4417 narrow band (12), scheduling <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)										
	(0858p4417narr (12.001)) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp or WFC3 quad filters as central wavelengths & transmission efficiencies vary within the apertures.										
<b>Diagnosics</b>											
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>				<b>Exposures</b>	
	(2)	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)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>		<b>Targ. Coord. Corrections</b>		<b>Fluxes</b>		<b>Miscellaneous</b>		
	(9)	SDSSJ0858+4417	RA: 08 58 29.5898 (134.6232908d) Dec: +44 17 34.70 (44.29297d) Equinox: J2000				V=19.5		Reference Frame: ICRS		
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>		<b>Orbit</b>
	1	0858p4417narr	(9) SDSSJ0858+4417	WFC3/UVIS, ACCUM, UVIS-QUAD	FQ727N	FLASH=8.0		Pattern 2, Exps 1-1 in 0858+4417 narrow band (12) (2)	1000 Secs X 2 (11762 Secs)		
			7						[=>1429.0 Secs (Pattern 1, Copy 1)]		[1]
									[=>1429.0 Secs (Pattern 1, Copy 2)]		
									[=>1484.0 Secs (Pattern 2, Copy 1)]		[2]
									[=>1484.0 Secs (Pattern 2, Copy 2)]		
									[=>1484.0 Secs (Pattern 3, Copy 1)]		[3]
									[=>1484.0 Secs (Pattern 3, Copy 2)]		
								[=>1484.0 Secs (Pattern 4, Copy 1)]		[4]	
								[=>1484.0 Secs (Pattern 4, Copy 2)]			



**Orbit 3**

Server Version: 20130919



**Orbit 4**

Server Version: 20130919

