



# 10421 - Searching for Ancient Mergers in Early Type Host Galaxies of Classical QSOs

Cycle: 13, Proposal Category: GO  
(Availability Mode: SUPPORTED)

## INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
<b>Dr. Gabriela Canalizo (PI)</b>	<b>University of California - Riverside</b>	<b>gabriela.canalizo@ucr.edu</b>
Dr. Alan N. Stockton (CoI)	University of Hawaii	stockton@ifa.hawaii.edu
Dr. Mark Lacy (CoI)	California Institute of Technology	mlacy@ipac.caltech.edu
Dr. Francois Schweizer (CoI)	Carnegie Institution of Washington	schweizer@ociw.edu

## VISITS

<i>Visit</i>	<i>Targets</i>	<i>Configurations</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	(1) PHL909	ACS/WFC	3	03-May-2006 21:01:03.0	yes
02	(1) PHL909	ACS/WFC	2	03-May-2006 21:01:12.0	yes
03	(2) PKS0736+01	ACS/WFC	3	03-May-2006 21:01:23.0	yes
04	(2) PKS0736+01	ACS/WFC	2	03-May-2006 21:01:30.0	yes
05	(3) PG0923+201	ACS/WFC	3	03-May-2006 21:01:41.0	yes
06	(3) PG0923+201	ACS/WFC	2	03-May-2006 21:01:47.0	yes
07	(4) MC2-1635+119	ACS/WFC	3	03-May-2006 21:01:55.0	yes
08	(4) MC2-1635+119	ACS/WFC	2	03-May-2006 21:02:02.0	yes

## Proposal 10421 - Overview

<i>Visit</i>	<i>Targets</i>	<i>Configurations</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
09	(5) OX169 (6) USNO1050-19851541	ACS/WFC	3	03-May-2006 21:02:14.0	yes
10	(5) OX169	ACS/WFC	2	03-May-2006 21:02:20.0	yes
11	(1) PHL909	ACS/WFC	3	03-May-2006 21:02:28.0	yes
52	(1) PHL909	ACS/WFC	2	03-May-2006 21:02:34.0	yes

30 Total Orbits Used

### **ABSTRACT**

Recent HST imaging of QSO host galaxies indicates that at least a large fraction of QSOs reside in seemingly undisturbed elliptical hosts. However, our deep Keck spectroscopy of a sample of these host galaxies indicates that many of these objects were involved in a major starburst episode between 0.6 and 1.6 Gyr ago. We propose to obtain very deep ACS WFC observations of the five hosts in this sample that have the most reliable age determinations to search for fine structure indicative of a past merger event and to test the hypothesis that the elliptical hosts are the products of relatively recent merger events rather than old galaxies which formed at high redshifts. By establishing a firm connection between ancient mergers and the aging starbursts in these classical QSOs, we will be able to estimate the fraction of the total QSO population that results directly from mergers accompanied by massive starbursts and to place constraints on the duty cycle for QSO activity.

### **OBSERVING DESCRIPTION**

We will obtain deep imaging observations of five QSO host galaxies using ACS WFC with the F606W filter. Our Keck spectra show that the surface brightness of the five host galaxies ( $\sim 2.5$  arcsec away from the nucleus) is, on average,  $5 \times 10^{-18}$  ergs/s/cm<sup>2</sup>/Å per square arcsec at 6000 Å (observed frame). The surface brightness of potential fine-structure features is at least a factor of 5 fainter. Taking nearby merger remnants as a guide to estimate flux ratios (Fort et al. 1986; Prieur 1988; Wilkinson et al. 2000), we expect to find more fine structure features at levels of  $3\text{-}5 \times 10^{-19}$  ergs/s/cm<sup>2</sup>/Å per square arcsec. According to the on-line ACS time calculator (ETC), we can achieve a S/N ratio of 5 or higher per resolution element for these features in 11,000 seconds.

## Proposal 10421 - Overview

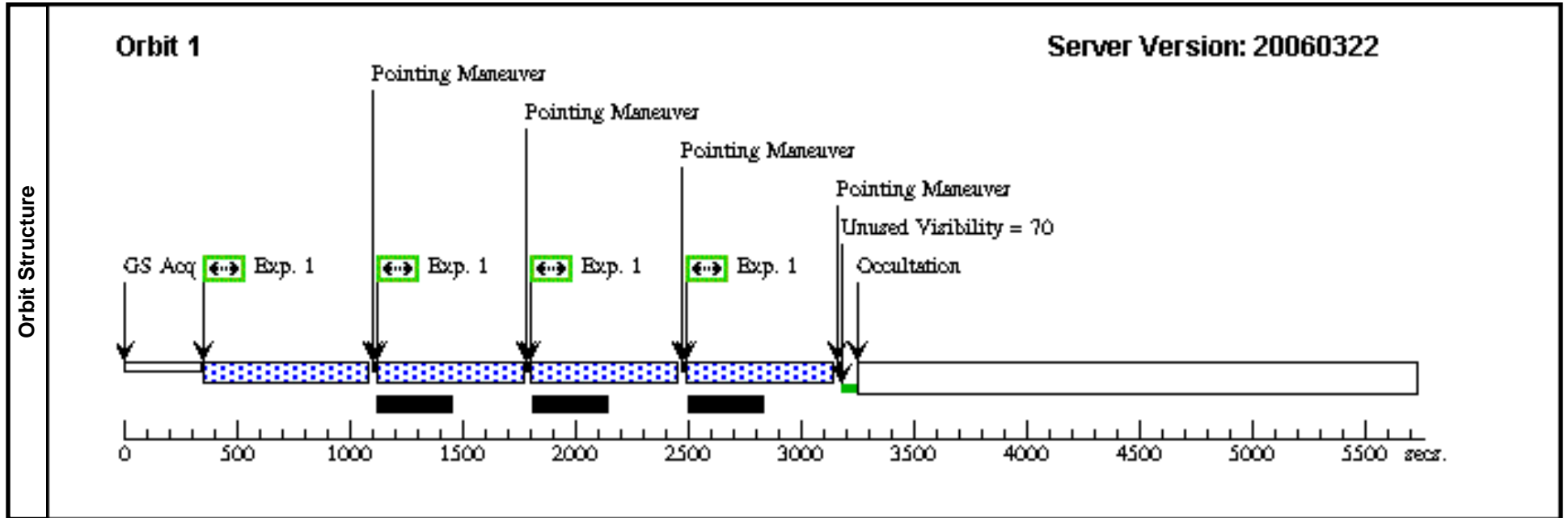
Given their declinations, all five targets are visible for about 52 minutes per orbit. The central pixels of the QSOs will inevitably be saturated with long exposures. However, to avoid saturating the inner regions of the host galaxies under the wings of the PSF, we will take 4 exposures per orbit.

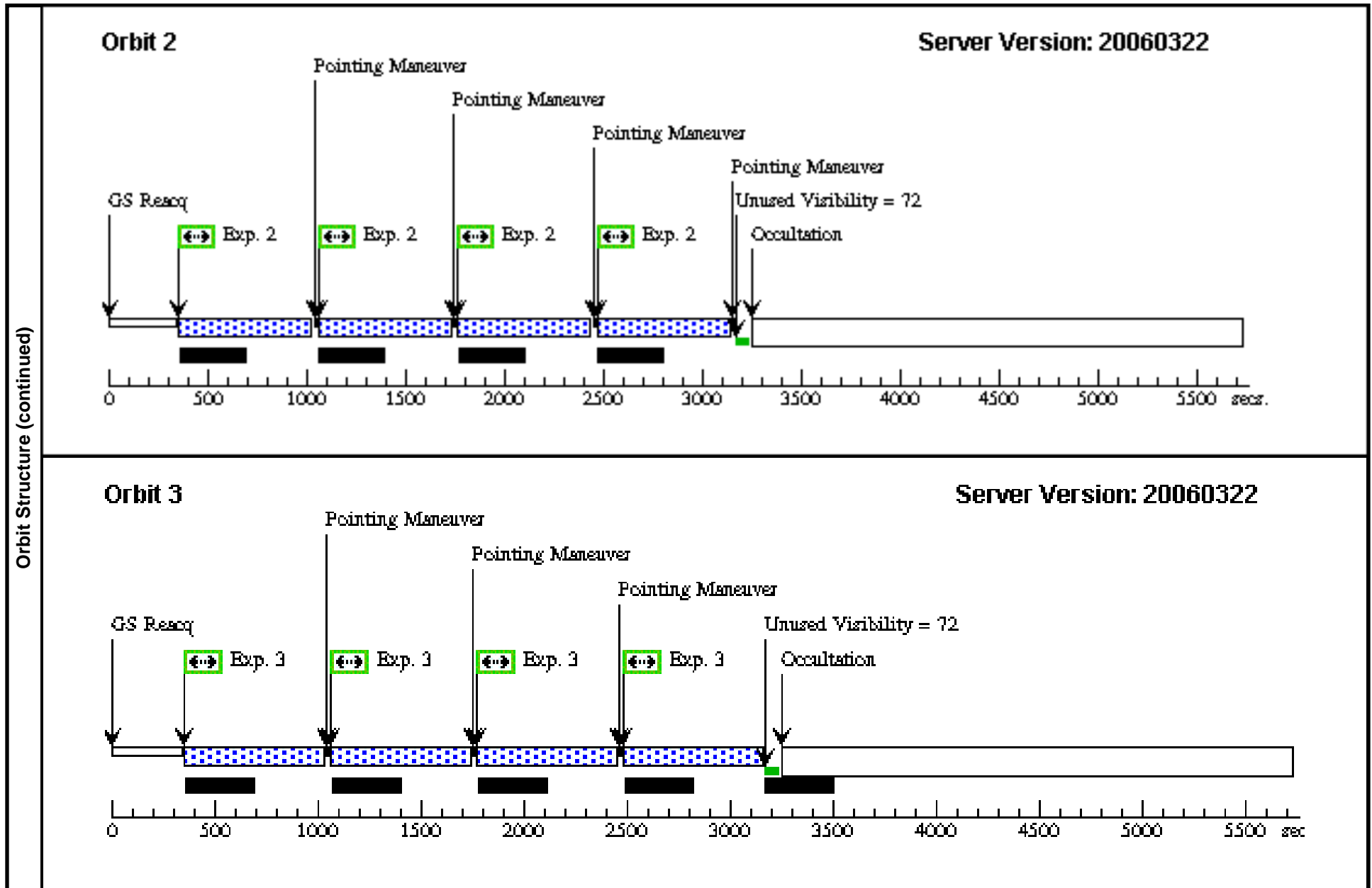
We typically can get 4 550 s exposures in the first orbit and 4586 s in subsequent orbits in a visit. In order to increase scheduability, we limit visits to 3 orbits. Therefore, in two visits totalling 5 orbits per target, we can obtain total exposures of about 11,400 s.

Proposal 10421 - Visit 01 - Searching for Ancient Mergers in Early Type Host Galaxies of Classical QSOs

Thu May 04 01:02:38 GMT 2006

Visit	<b>Proposal 10421, Visit 01</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: ACS/WFC Special Requirements: ORIENT 221.0D TO 226.0 D; ORIENT 355.0D TO 100.0 D									
	Patterns	#	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=20.7 Angle Between Sides=69.1 Center Pattern=true					(1), (2), (3)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(1)	PHL909	RA: 00 57 9.9720 (14.2915500d) Dec: +14 46 10.16 (14.76949d) Equinox: J2000 Plate Id: 028Y			V=16.7	Coordinate Source: GSC_SURVEY_PLATE			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) PHL909	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 1-1 (1)	530.0 Secs	
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2		(1) PHL909	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (1)	550.0 Secs	
								[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2]	
3		(1) PHL909	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 3-3 (1)	555.0 Secs		
								[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[3]	

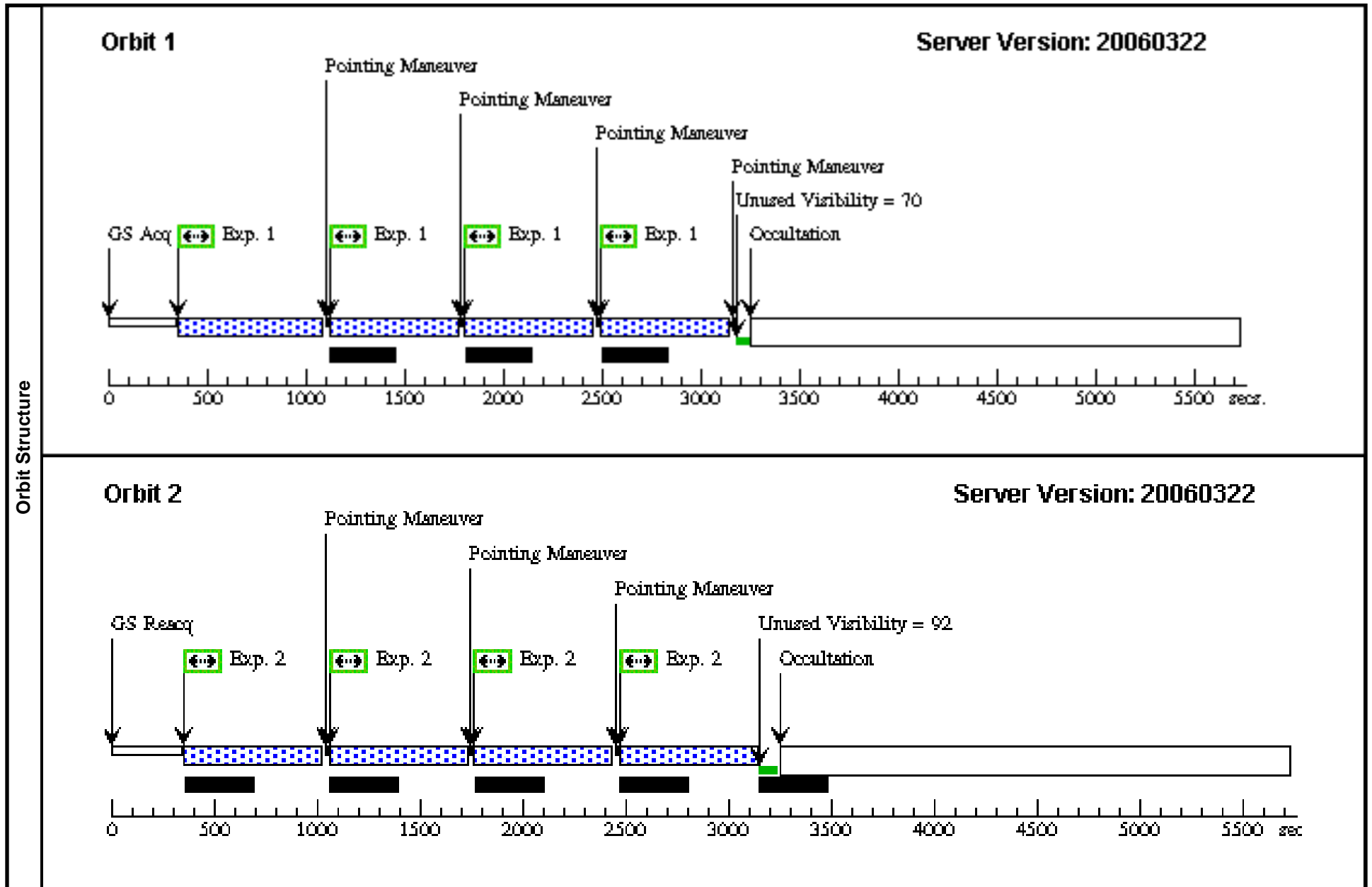




Proposal 10421 - Visit 02 - Searching for Ancient Mergers in Early Type Host Galaxies of Classical QSOs

Thu May 04 01:02:39 GMT 2006

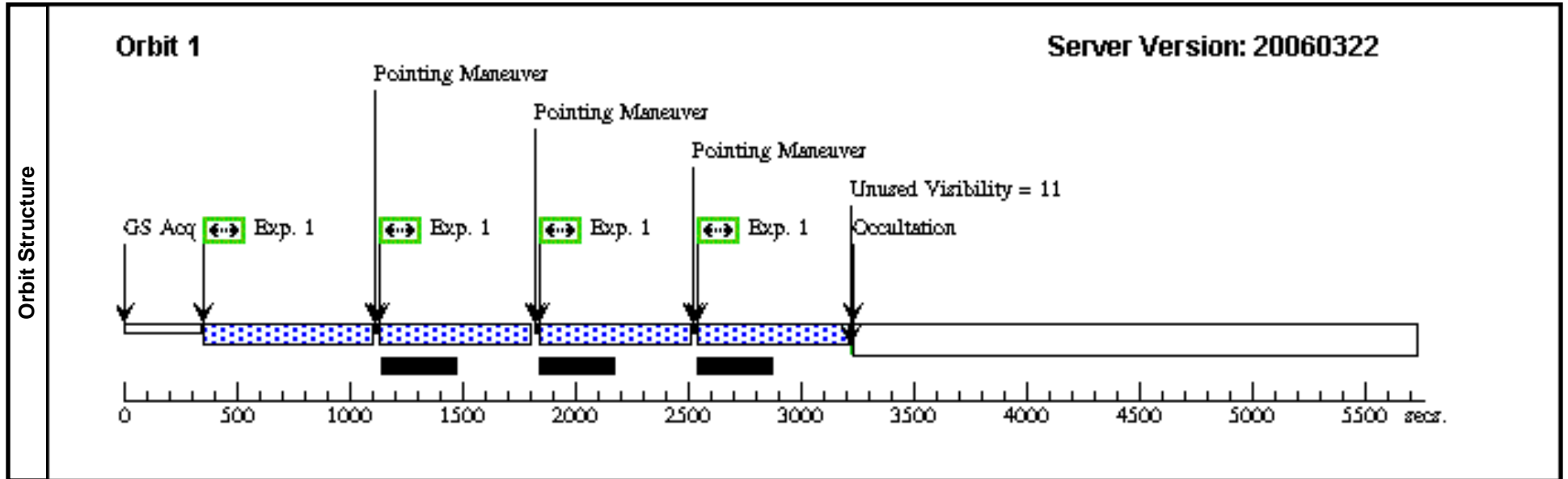
Visit	<b>Proposal 10421, Visit 02</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: ACS/WFC Special Requirements: SAME ORIENT AS 01									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187	Coordinate Frame=POS-TARG Pattern Orientation=20.7 Angle Between Sides=69.1 Center Pattern=true					(1), (2)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(1)	PHL909	RA: 00 57 9.9720 (14.2915500d) Dec: +14 46 10.16 (14.76949d) Equinox: J2000 Plate Id: 028Y			V=16.7	Coordinate Source: GSC_SURVEY_PLATE			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) PHL909	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 1-1 (1)	530.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
2		(1) PHL909	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (1)	550.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2]	

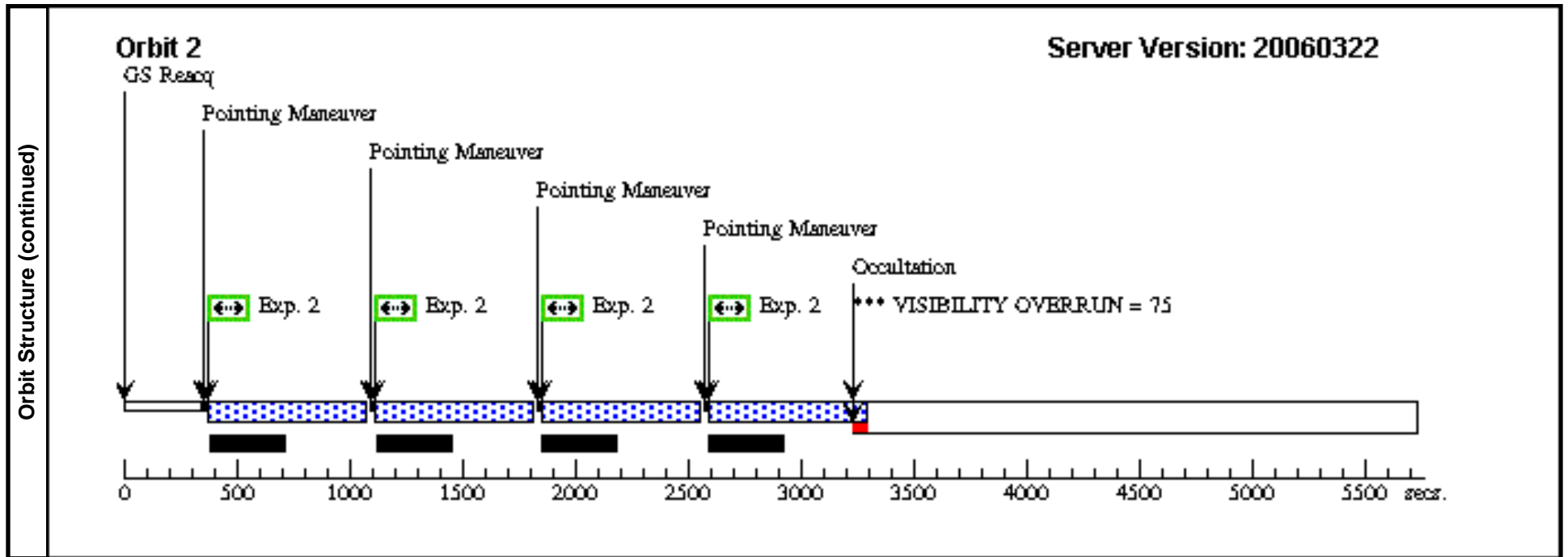


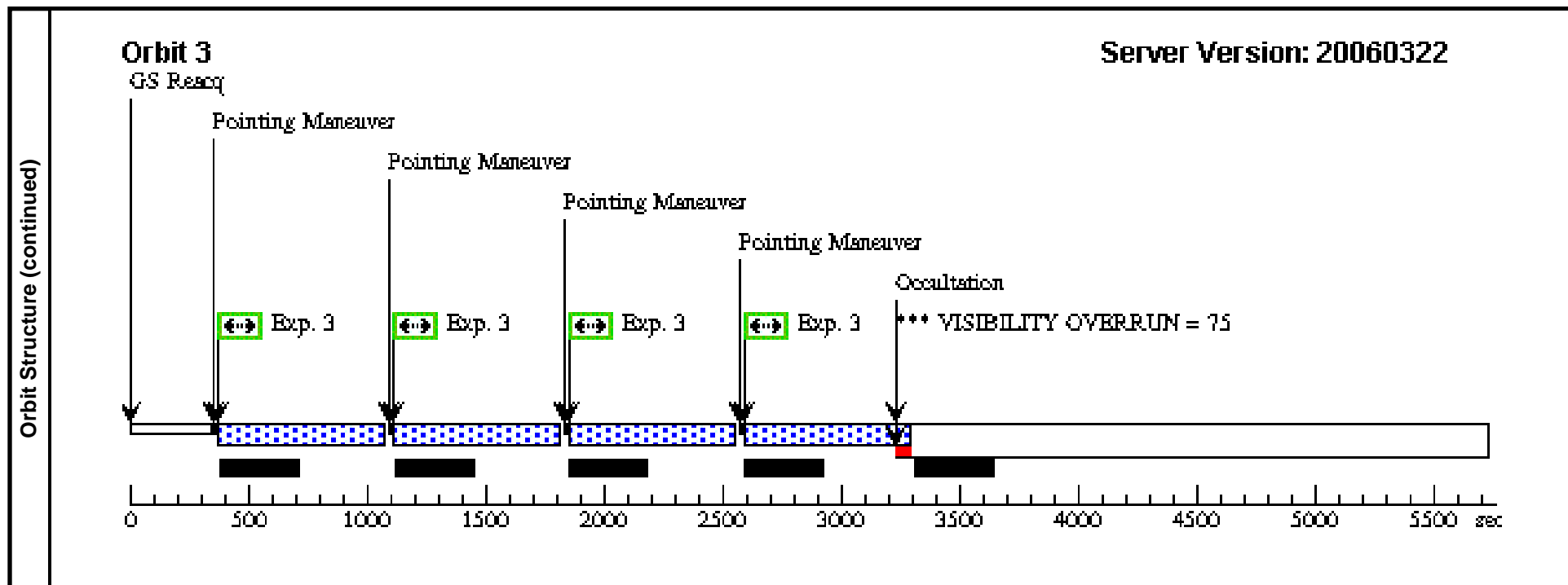
Proposal 10421 - Visit 03 - Searching for Ancient Mergers in Early Type Host Galaxies of Classical QSOs

Thu May 04 01:02:40 GMT 2006

<b>Visit</b>	<b>Proposal 10421, Visit 03</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/WFC Special Requirements: (none)										
	(Visit 03) Warning: VISIBILITY OVERRUN (Visit 03) Warning: VISIBILITY OVERRUN										
<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=20.7 Angle Between Sides=69.1 Center Pattern=true					(1), (2), (3)		
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>		<b>Targ. Coord. Corrections</b>		<b>Fluxes</b>	<b>Miscellaneous</b>			
	(2)	PKS0736+01	RA: 07 39 18.0080 (114.8250333d) Dec: +01 37 4.60 (1.61794d) Equinox: J2000 Plate Id: 02MG				V=16.5	Coordinate Source: GSC_SURVEY_PLATE			
<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/[Actual Dur.]</b>		<b>Orbit</b>
	1		(2) PKS0736+01	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 1-1 (1)	550.0 Secs		
									[==>546.0 Secs (Pattern 1)] [==>546.0 Secs (Pattern 2)] [==>546.0 Secs (Pattern 3)] [==>546.0 Secs (Pattern 4)]		[1]
	2		(2) PKS0736+01	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (1)	550.0 Secs		
								[==>583.0 Secs (Pattern 1)] [==>583.0 Secs (Pattern 2)] [==>583.0 Secs (Pattern 3)] [==>583.0 Secs (Pattern 4)]		[2]	
3		(2) PKS0736+01	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 3-3 (1)	550.0 Secs			
								[==>583.0 Secs (Pattern 1)] [==>583.0 Secs (Pattern 2)] [==>583.0 Secs (Pattern 3)] [==>583.0 Secs (Pattern 4)]		[3]	



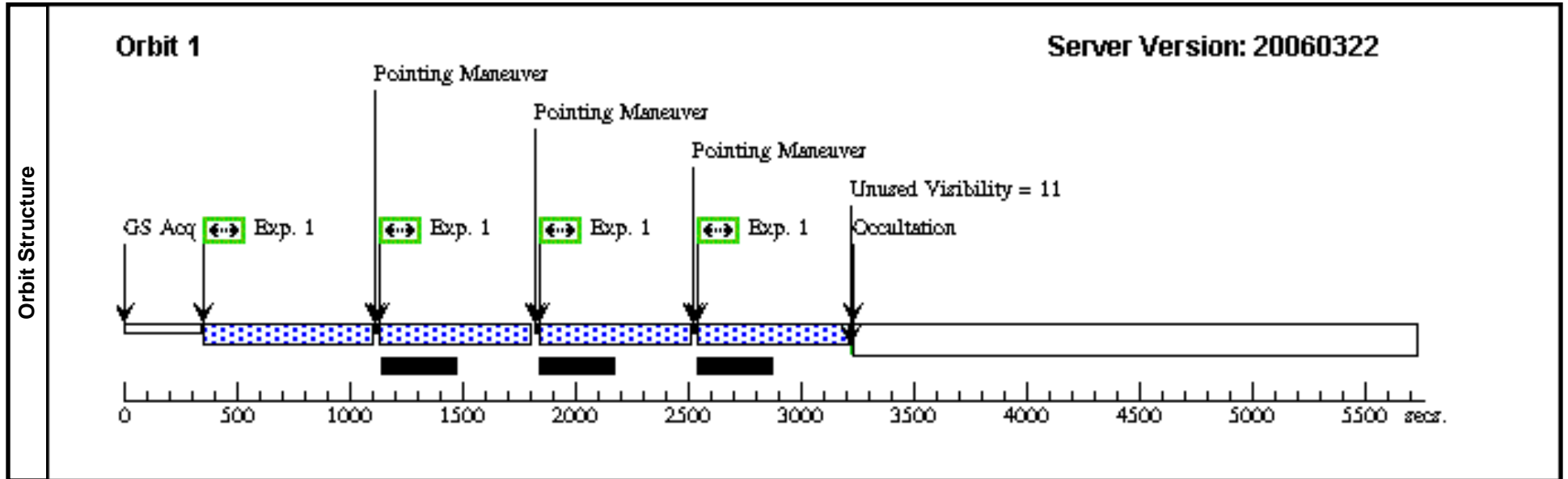


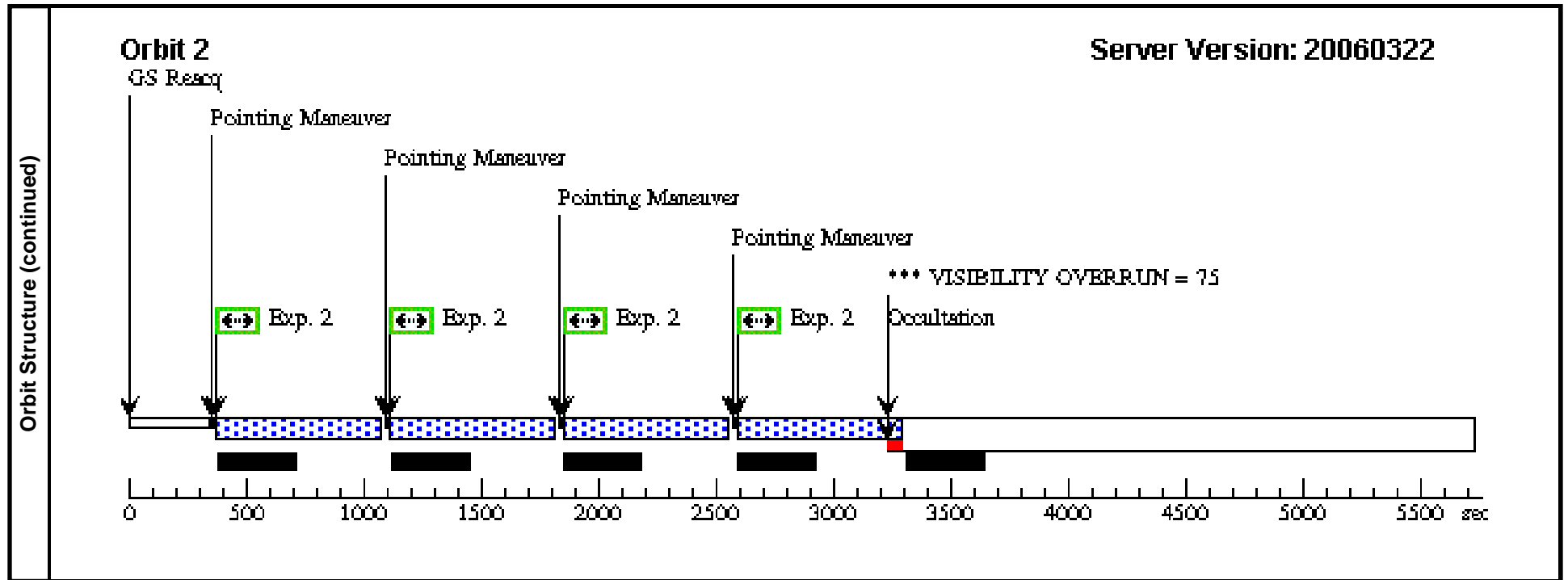


Proposal 10421 - Visit 04 - Searching for Ancient Mergers in Early Type Host Galaxies of Classical QSOs

Thu May 04 01:02:41 GMT 2006

<b>Visit</b>	<b>Proposal 10421, Visit 04</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/WFC Special Requirements: SAME ORIENT AS 03										
	(Visit 04) Warning: VISIBILITY OVERRUN										
<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=20.7 Angle Between Sides=69.1 Center Pattern=true					(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>			
	(2)	PKS0736+01	RA: 07 39 18.0080 (114.8250333d) Dec: +01 37 4.60 (1.61794d) Equinox: J2000 Plate Id: 02MG				V=16.5	Coordinate Source: GSC_SURVEY_PLATE			
<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/[Actual Dur.]</b>		<b>Orbit</b>
	1		(2) PKS0736+01	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 1-1 (1)	550.0 Secs		
									[==>546.0 Secs (Pattern 1)] [==>546.0 Secs (Pattern 2)] [==>546.0 Secs (Pattern 3)] [==>546.0 Secs (Pattern 4)]		[1]
	2		(2) PKS0736+01	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (1)	550.0 Secs		
								[==>583.0 Secs (Pattern 1)] [==>583.0 Secs (Pattern 2)] [==>583.0 Secs (Pattern 3)] [==>583.0 Secs (Pattern 4)]		[2]	

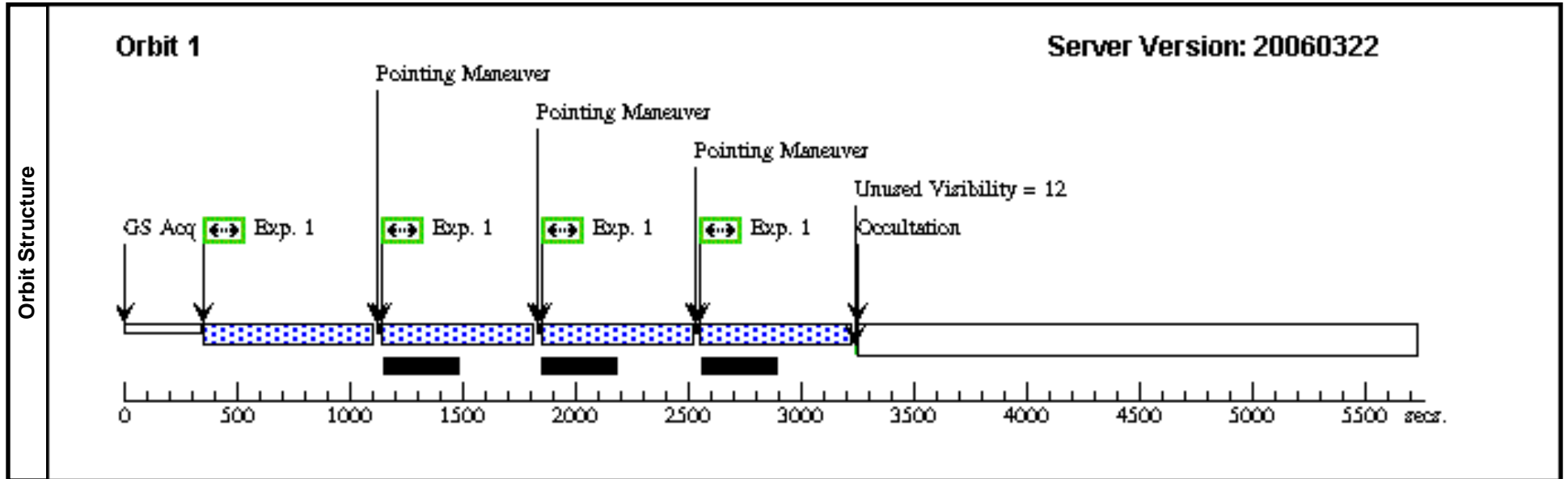


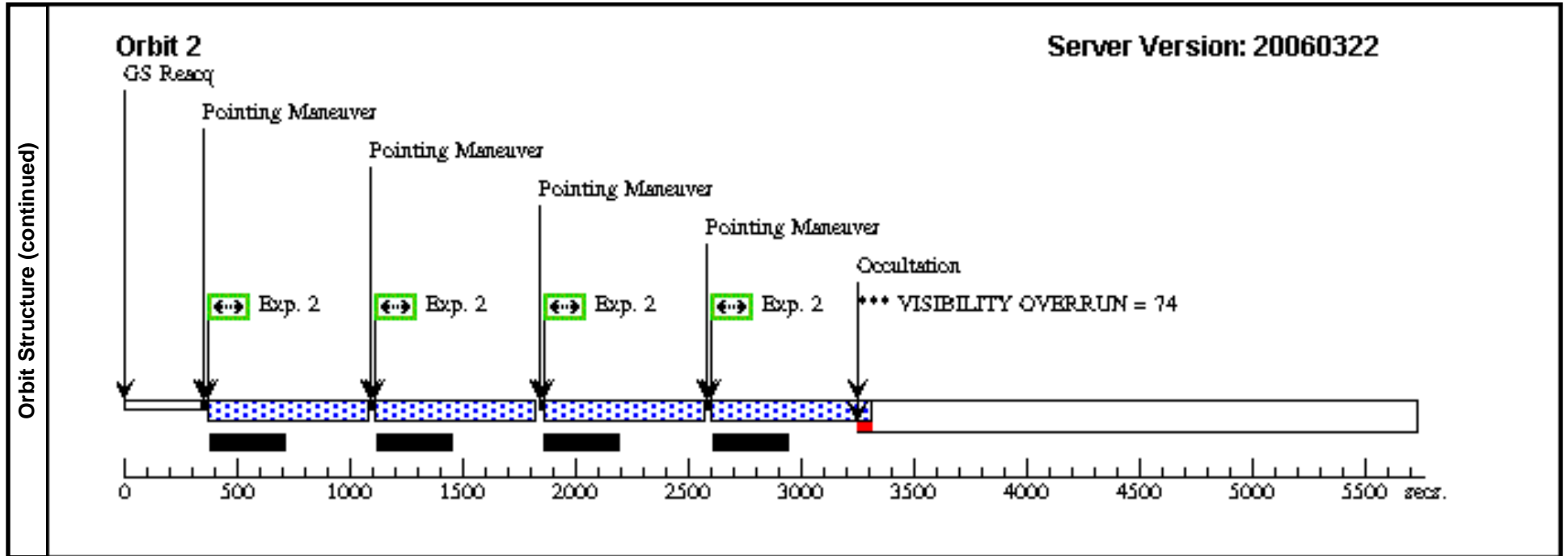


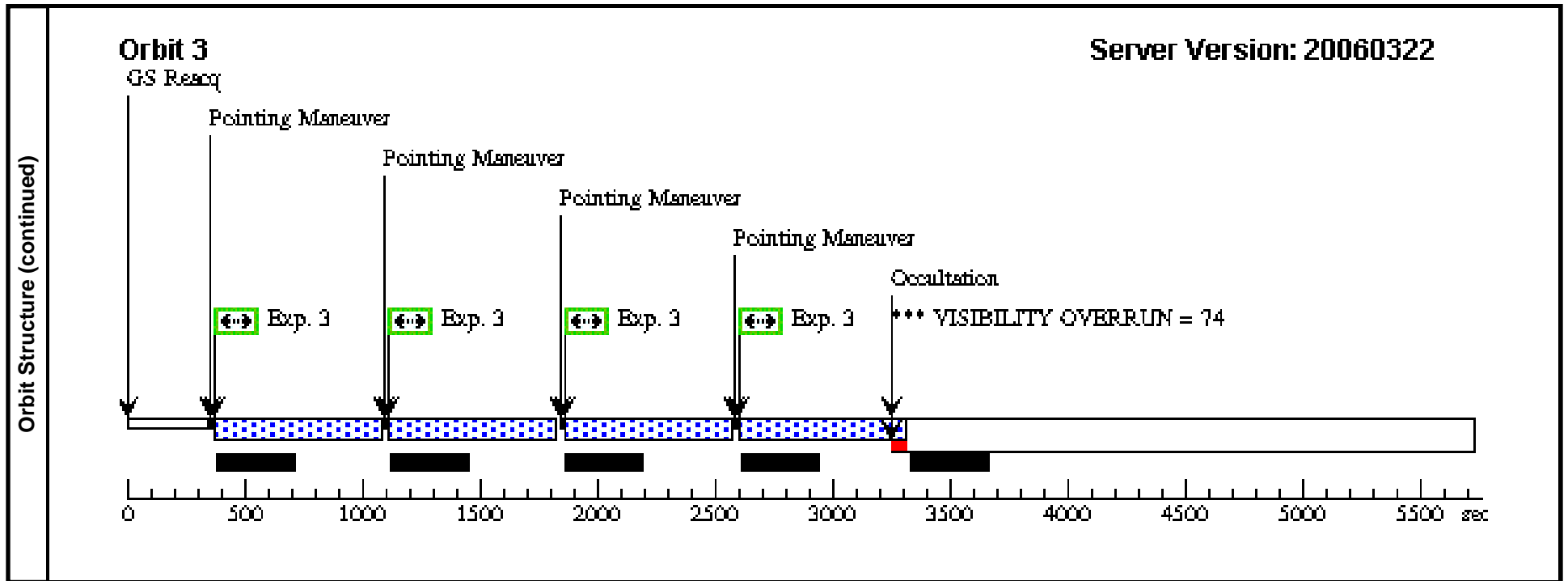
Proposal 10421 - Visit 05 - Searching for Ancient Mergers in Early Type Host Galaxies of Classical QSOs

Thu May 04 01:02:41 GMT 2006

<b>Visit</b>	<b>Proposal 10421, Visit 05</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/WFC Special Requirements: (none)									
	(Visit 05) Warning: VISIBILITY OVERRUN (Visit 05) Warning: VISIBILITY OVERRUN									
<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=20.7 Angle Between Sides=69.1 Center Pattern=true			(1), (2), (3)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>		<b>Targ. Coord. Corrections</b>		<b>Fluxes</b>	<b>Miscellaneous</b>		
	(3)	PG0923+201	RA: 09 25 54.7140 (141.4779750d) Dec: +19 54 5.00 (19.90139d) Equinox: J2000 Plate Id: 01G6				V=16.0	Coordinate Source: GSC_SURVEY_PLATE		
<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/[Actual Dur.]</b>	<b>Orbit</b>
	1		(3) PG0923+201	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 1-1 (1)	551.0 Secs	
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2		(3) PG0923+201	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (1)	550.0 Secs	
								[==>588.0 Secs (Pattern 1)] [==>588.0 Secs (Pattern 2)] [==>588.0 Secs (Pattern 3)] [==>588.0 Secs (Pattern 4)]	[2]	
3		(3) PG0923+201	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 3-3 (1)	550.0 Secs		
								[==>588.0 Secs (Pattern 1)] [==>588.0 Secs (Pattern 2)] [==>588.0 Secs (Pattern 3)] [==>588.0 Secs (Pattern 4)]	[3]	



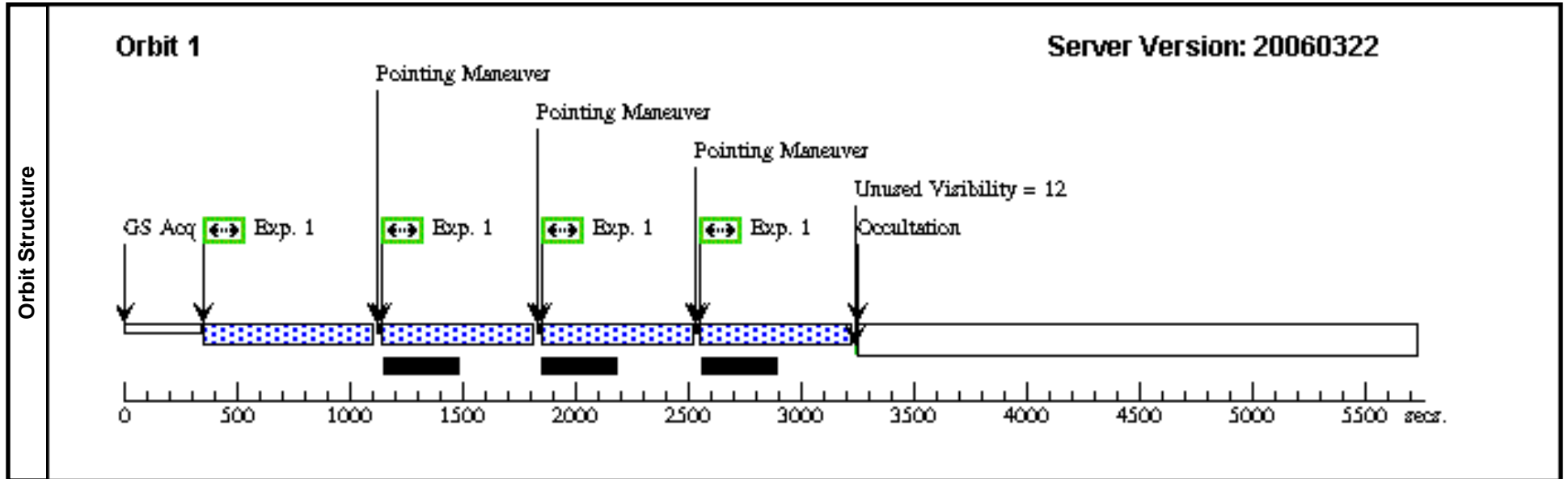


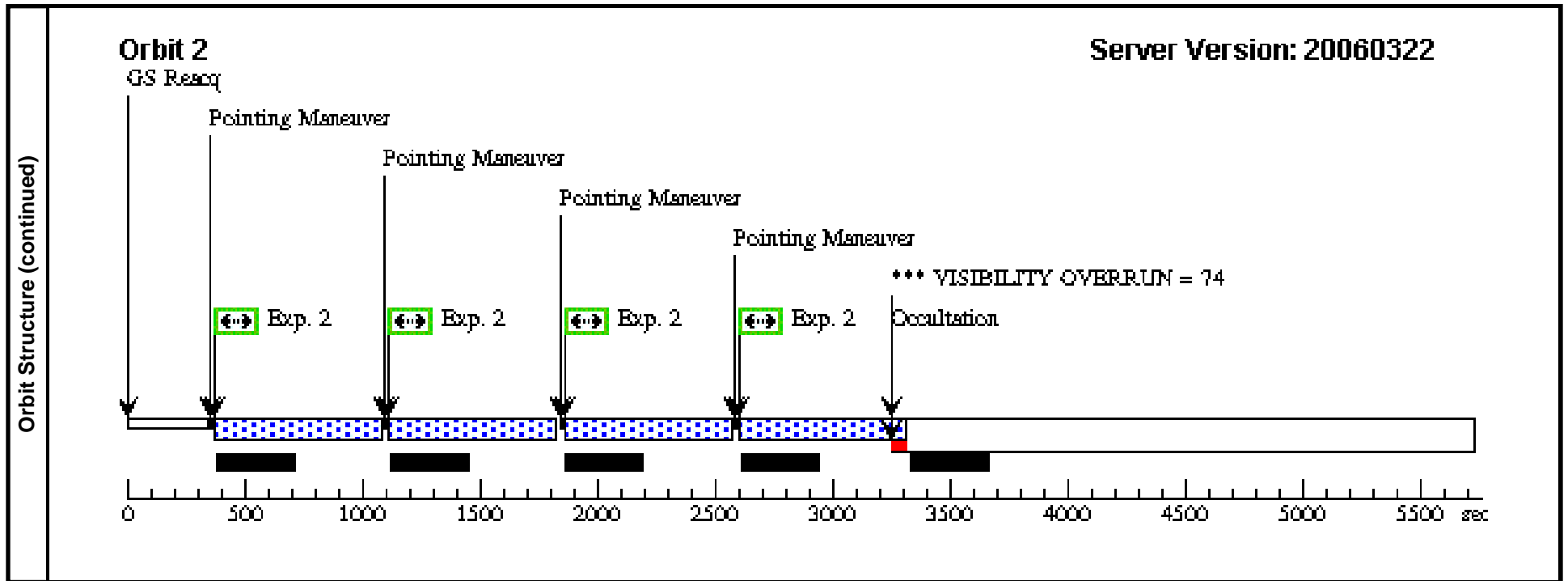


Proposal 10421 - Visit 06 - Searching for Ancient Mergers in Early Type Host Galaxies of Classical QSOs

Thu May 04 01:02:42 GMT 2006

<b>Visit</b>	<b>Proposal 10421, Visit 06</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/WFC Special Requirements: SAME ORIENT AS 05										
	(Visit 06) Warning: VISIBILITY OVERRUN										
<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=20.7 Angle Between Sides=69.1 Center Pattern=true					(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>			
	(3)	PG0923+201	RA: 09 25 54.7140 (141.4779750d) Dec: +19 54 5.00 (19.90139d) Equinox: J2000 Plate Id: 01G6				V=16.0	Coordinate Source: GSC_SURVEY_PLATE			
<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/[Actual Dur.]</b>		<b>Orbit</b>
	1		(3) PG0923+201	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 1-1 (1)	551.0 Secs		
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]		[1]
	2		(3) PG0923+201	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (1)	550.0 Secs		
								[==>588.0 Secs (Pattern 1)] [==>588.0 Secs (Pattern 2)] [==>588.0 Secs (Pattern 3)] [==>588.0 Secs (Pattern 4)]		[2]	

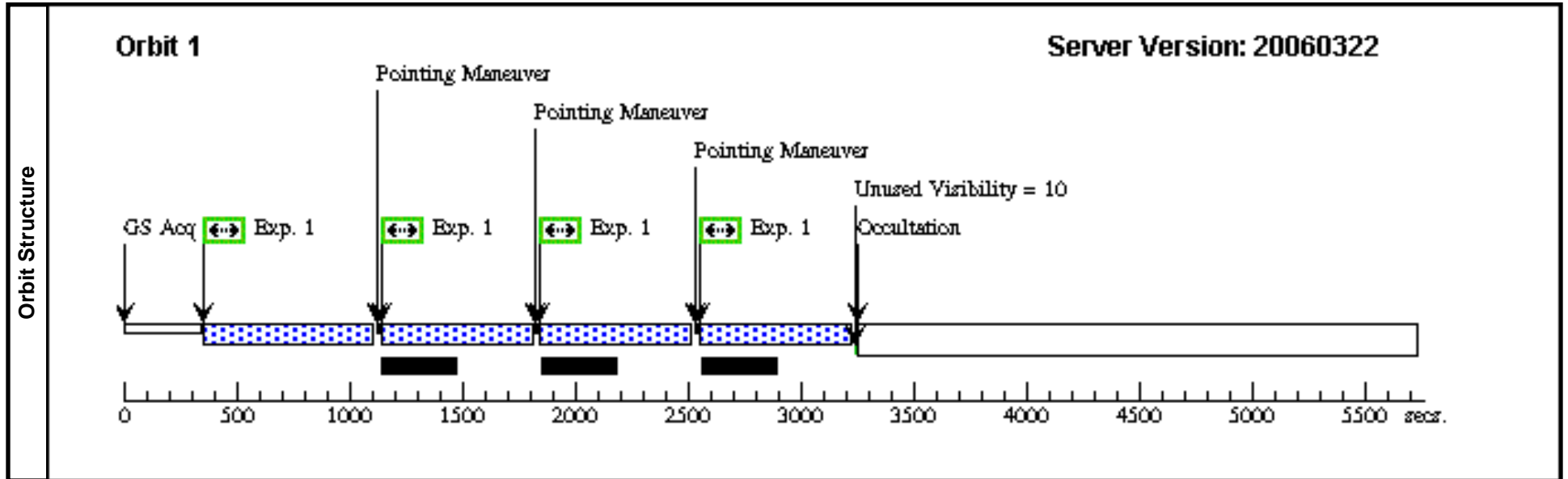


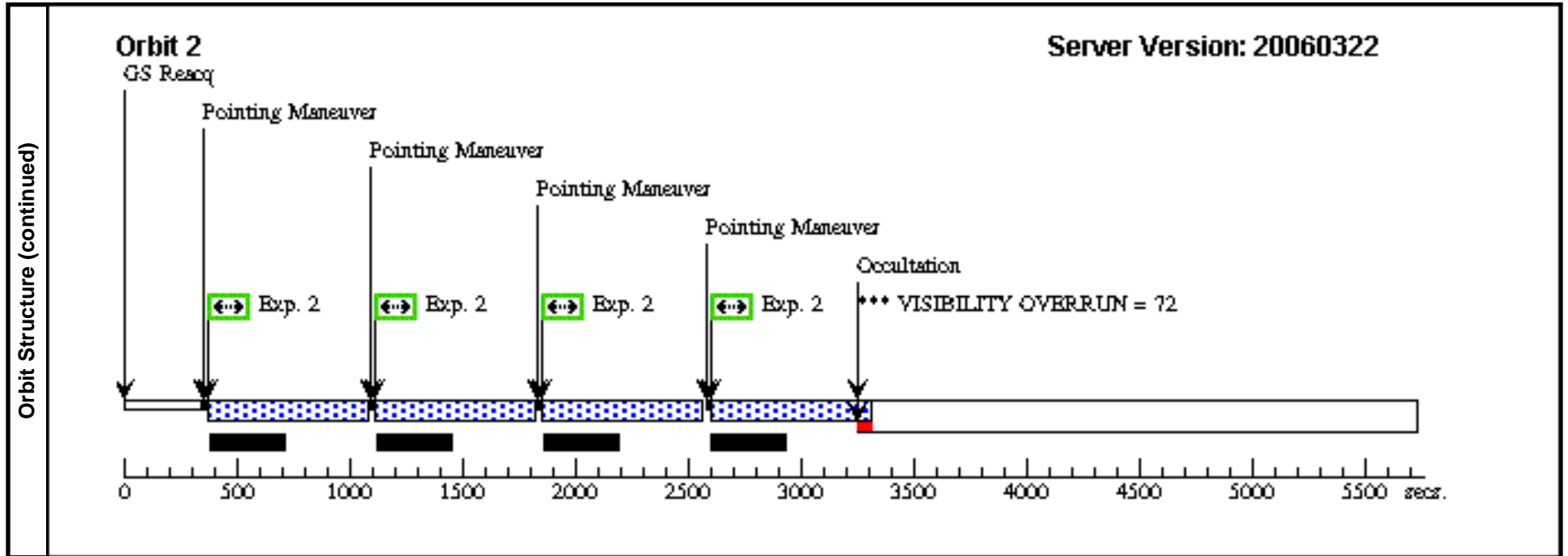


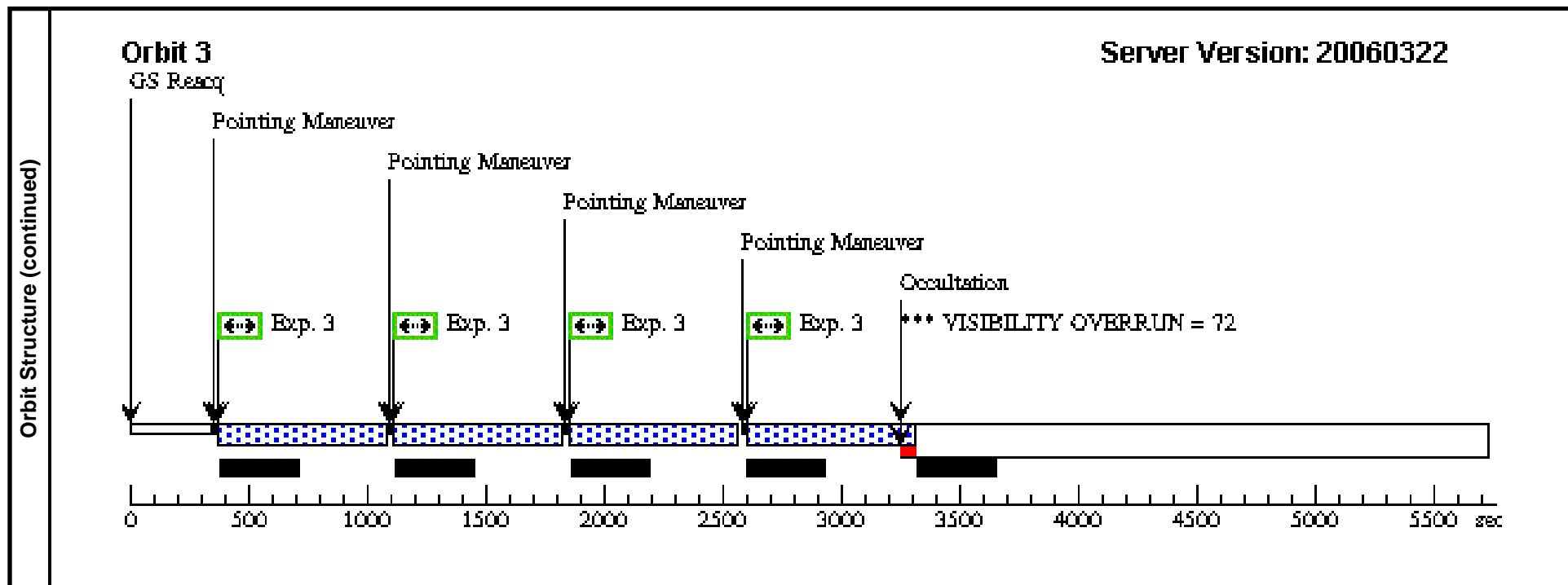
Proposal 10421 - Visit 07 - Searching for Ancient Mergers in Early Type Host Galaxies of Classical QSOs

Thu May 04 01:02:43 GMT 2006

<b>Visit</b>	<b>Proposal 10421, Visit 07</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/WFC Special Requirements: (none)									
	(Visit 07) Warning: VISIBILITY OVERRUN (Visit 07) Warning: VISIBILITY OVERRUN									
<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=20.7 Angle Between Sides=69.1 Center Pattern=true			(1), (2), (3)	
<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)	MC2-1635+119	RA: 16 37 46.4991 (249.4437462d) Dec: +11 49 49.19 (11.83033d) Equinox: J2000 Plate Id: 006K				V=16.5	Coordinate Source: GSC_SURVEY_PLATE		
<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/[Actual Dur.]</b>	<b>Orbit</b>
	1		(4) MC2-1635+119	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 1-1 (1)	550.0 Secs	
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2		(4) MC2-1635+119	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (1)	550.0 Secs	
								[==>586.0 Secs (Pattern 1)] [==>586.0 Secs (Pattern 2)] [==>586.0 Secs (Pattern 3)] [==>586.0 Secs (Pattern 4)]	[2]	
3		(4) MC2-1635+119	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 3-3 (1)	550.0 Secs		
								[==>586.0 Secs (Pattern 1)] [==>586.0 Secs (Pattern 2)] [==>586.0 Secs (Pattern 3)] [==>586.0 Secs (Pattern 4)]	[3]	



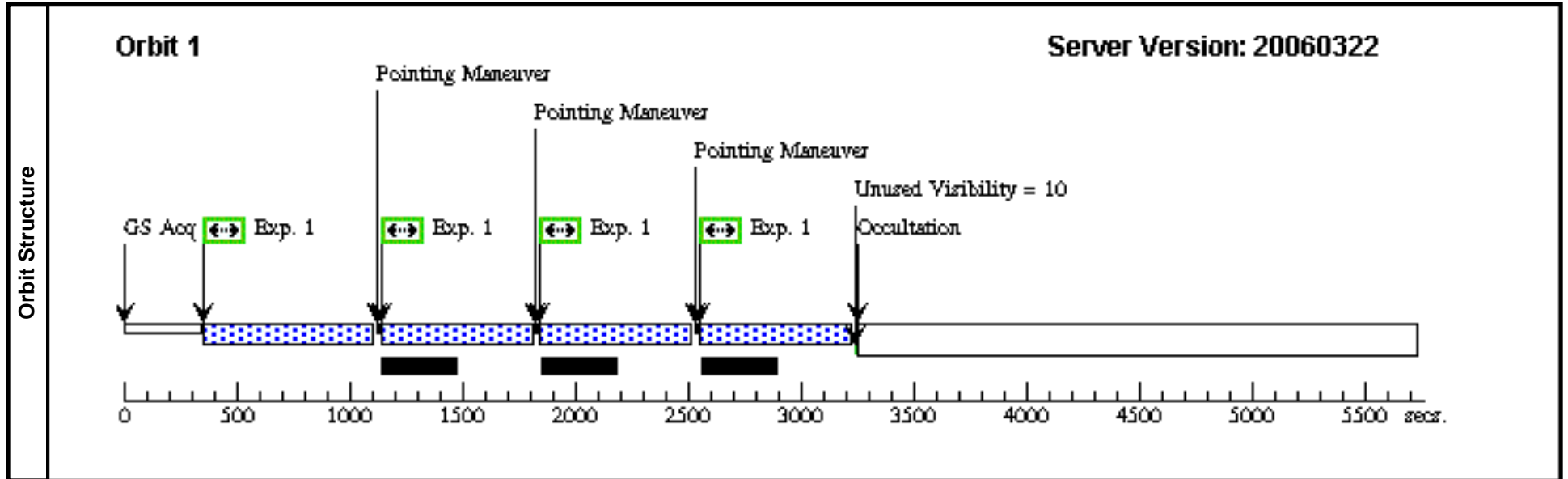


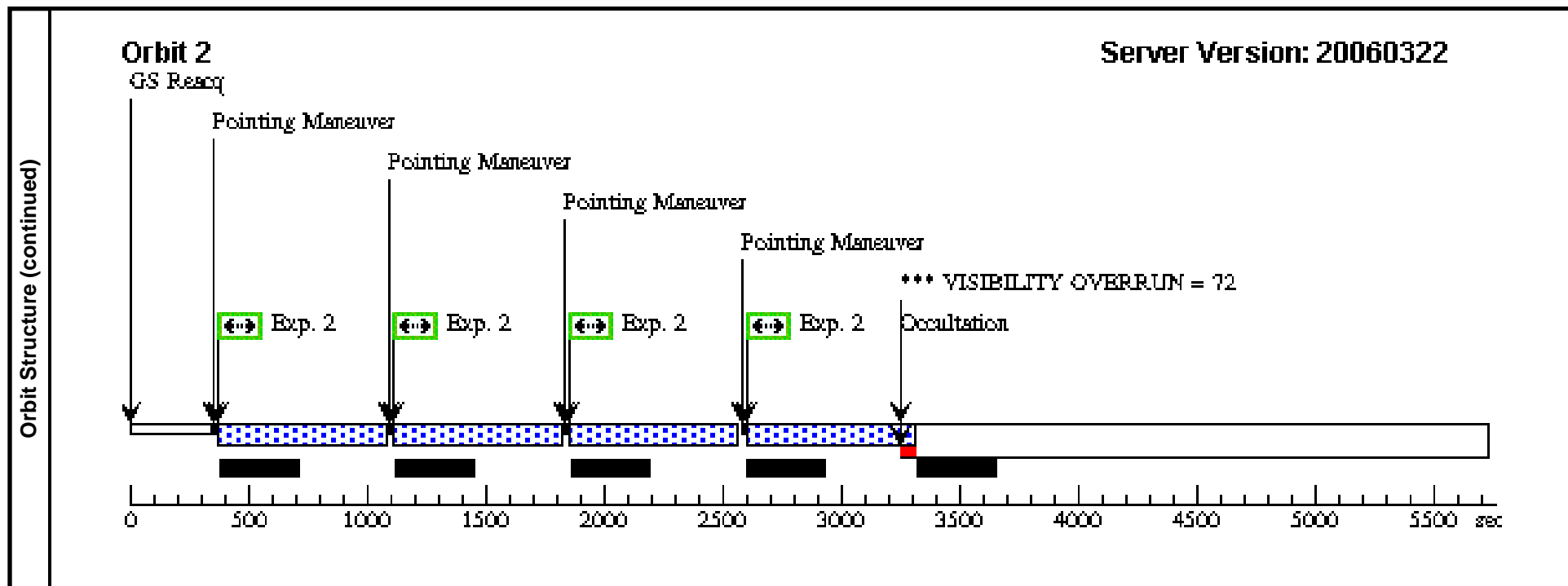


Proposal 10421 - Visit 08 - Searching for Ancient Mergers in Early Type Host Galaxies of Classical QSOs

Thu May 04 01:02:44 GMT 2006

<b>Visit</b>	<b>Proposal 10421, Visit 08</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/WFC Special Requirements: SAME ORIENT AS 07										
	(Visit 08) Warning: VISIBILITY OVERRUN										
<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=20.7 Angle Between Sides=69.1 Center Pattern=true			(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)	MC2-1635+119	RA: 16 37 46.4991 (249.4437462d) Dec: +11 49 49.19 (11.83033d) Equinox: J2000 Plate Id: 006K				V=16.5	Coordinate Source: GSC_SURVEY_PLATE			
<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/[Actual Dur.]</b>		<b>Orbit</b>
	1		(4) MC2-1635+119	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 1-1 (1)	550.0 Secs		
									[==>(Pattern 1)]		[1]
									[==>(Pattern 2)]		
								[==>(Pattern 3)]			
								[==>(Pattern 4)]			
2		(4) MC2-1635+119	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2			Pattern 2-2 (1)	550.0 Secs		
									[==>586.0 Secs (Pattern 1)]		[2]
									[==>586.0 Secs (Pattern 2)]		
									[==>586.0 Secs (Pattern 3)]		
									[==>586.0 Secs (Pattern 4)]		

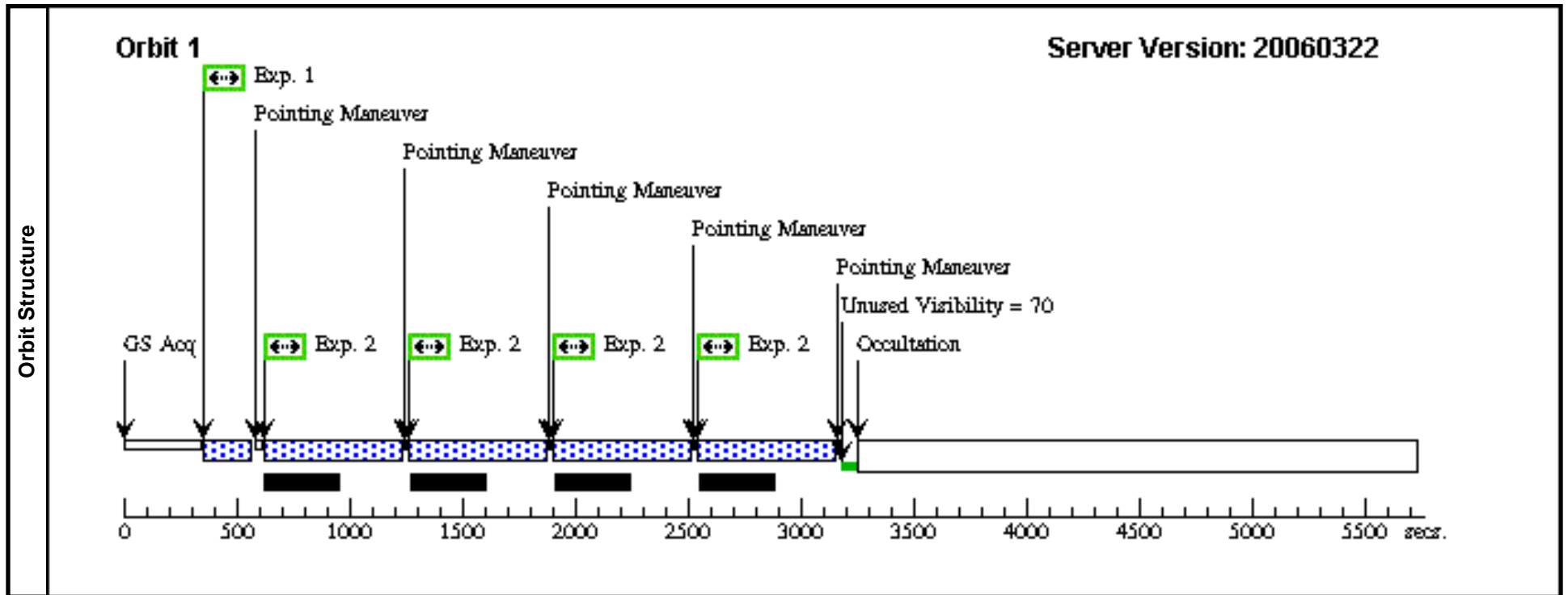


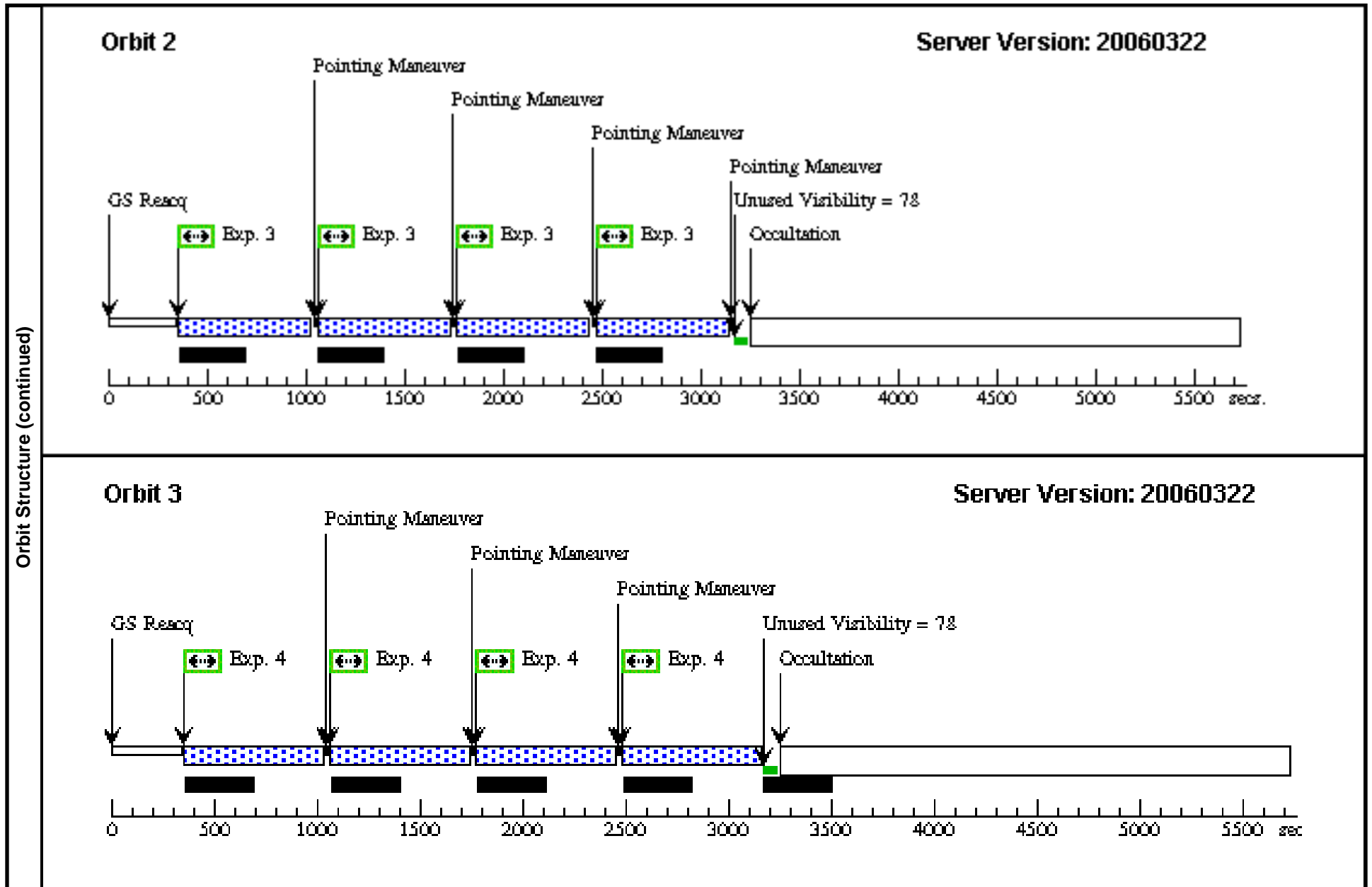


Proposal 10421 - Visit 09 - Searching for Ancient Mergers in Early Type Host Galaxies of Classical QSOs

Thu May 04 01:02:45 GMT 2006

Visit	<b>Proposal 10421, Visit 09</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: ACS/WFC Special Requirements: ORIENT 205.0D TO 205.0 D									
	Patterns	#	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=20.7 Angle Between Sides=69.1 Center Pattern=true				(2), (3), (4)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(5)	OX169	RA: 21 43 35.5650 (325.8981875d) Dec: +17 43 49.01 (17.73028d) Equinox: J2000 Plate Id: 02US		V=15.5	Coordinate Source: GSC_SURVEY_PLATE				
	(6)	USNO1050-19851541	RA: 21 43 38.0300 (325.9084583d) Dec: +17 44 1.30 (17.73369d) Equinox: J2000		V=16.3	Coordinate Source: USNO				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(6) USNO1050-19851541	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Sequence 1-2 Non-Int	3.0 Secs [==>]	[1]
	2		(5) OX169	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Sequence 1-2 Non-Int Pattern 2-2 (1)	485.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	3		(5) OX169	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 3-3 (1)	550.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2]
	4		(5) OX169	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 4-4 (1)	555.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[3]

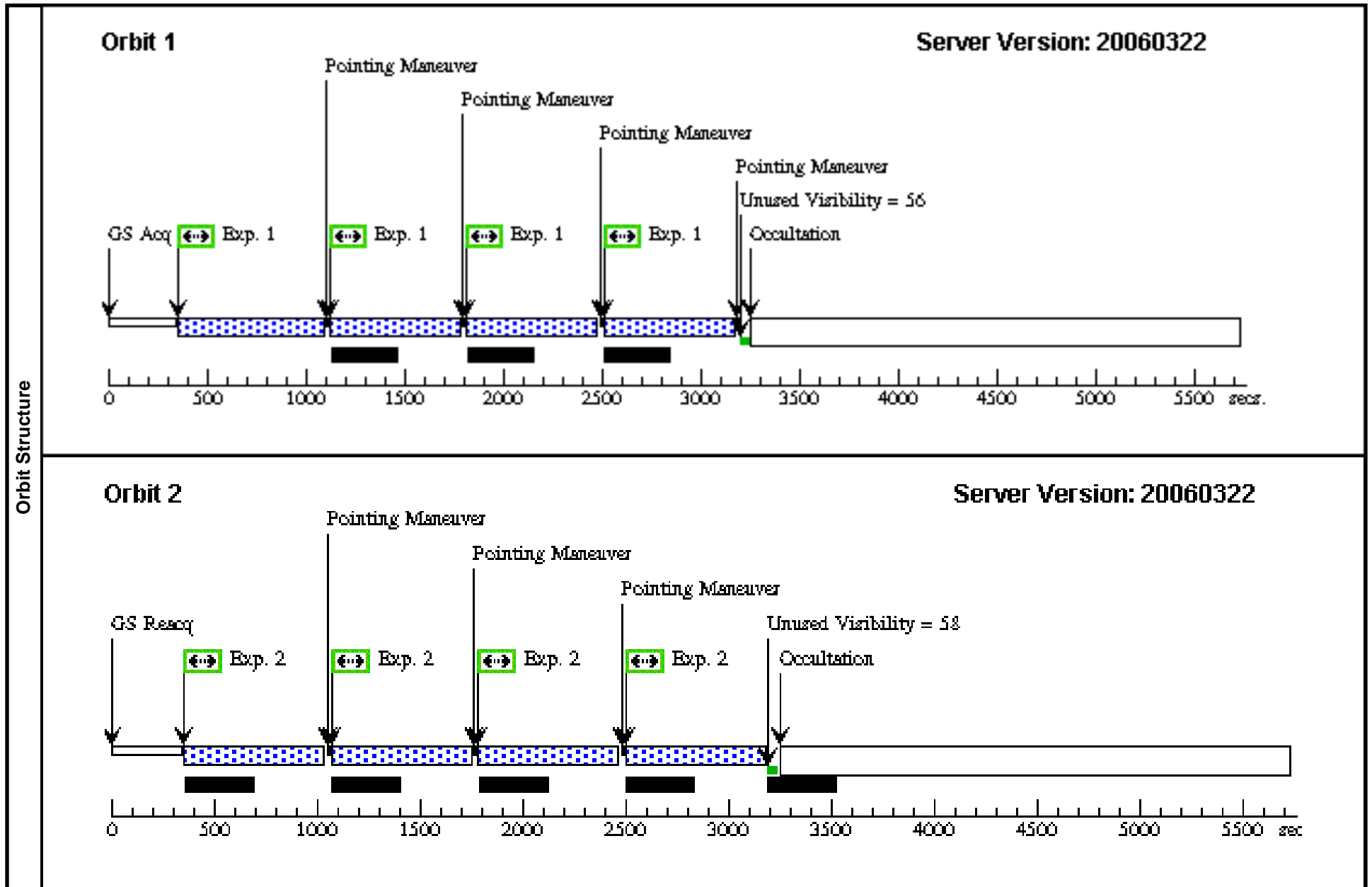




Proposal 10421 - Visit 10 - Searching for Ancient Mergers in Early Type Host Galaxies of Classical QSOs

Thu May 04 01:02:45 GMT 2006

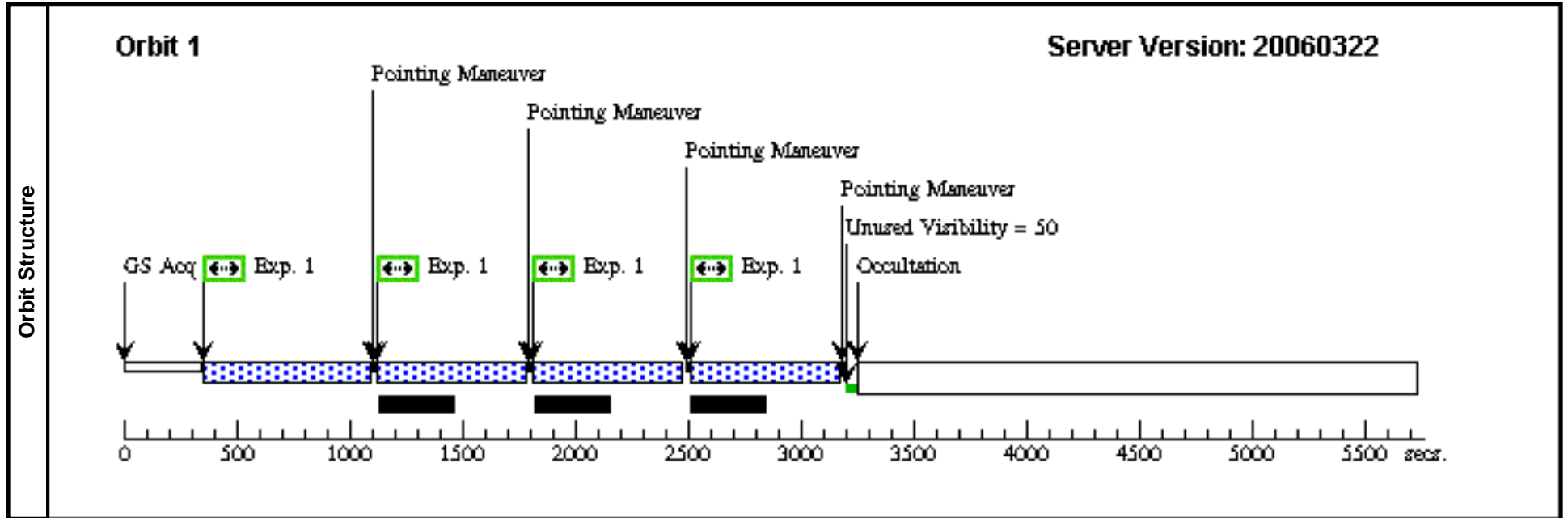
Visit	<b>Proposal 10421, Visit 10</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: ACS/WFC Special Requirements: SAME ORIENT AS 09									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187	Coordinate Frame=POS-TARG Pattern Orientation=20.7 Angle Between Sides=69.1 Center Pattern=true					(1), (2)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(5)	OX169	RA: 21 43 35.5650 (325.8981875d) Dec: +17 43 49.01 (17.73028d) Equinox: J2000 Plate Id: 02US			V=15.5	Coordinate Source: GSC_SURVEY_PLATE			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(5) OX169	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 1-1 (1)	535.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2		(5) OX169	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (1)	560.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2]

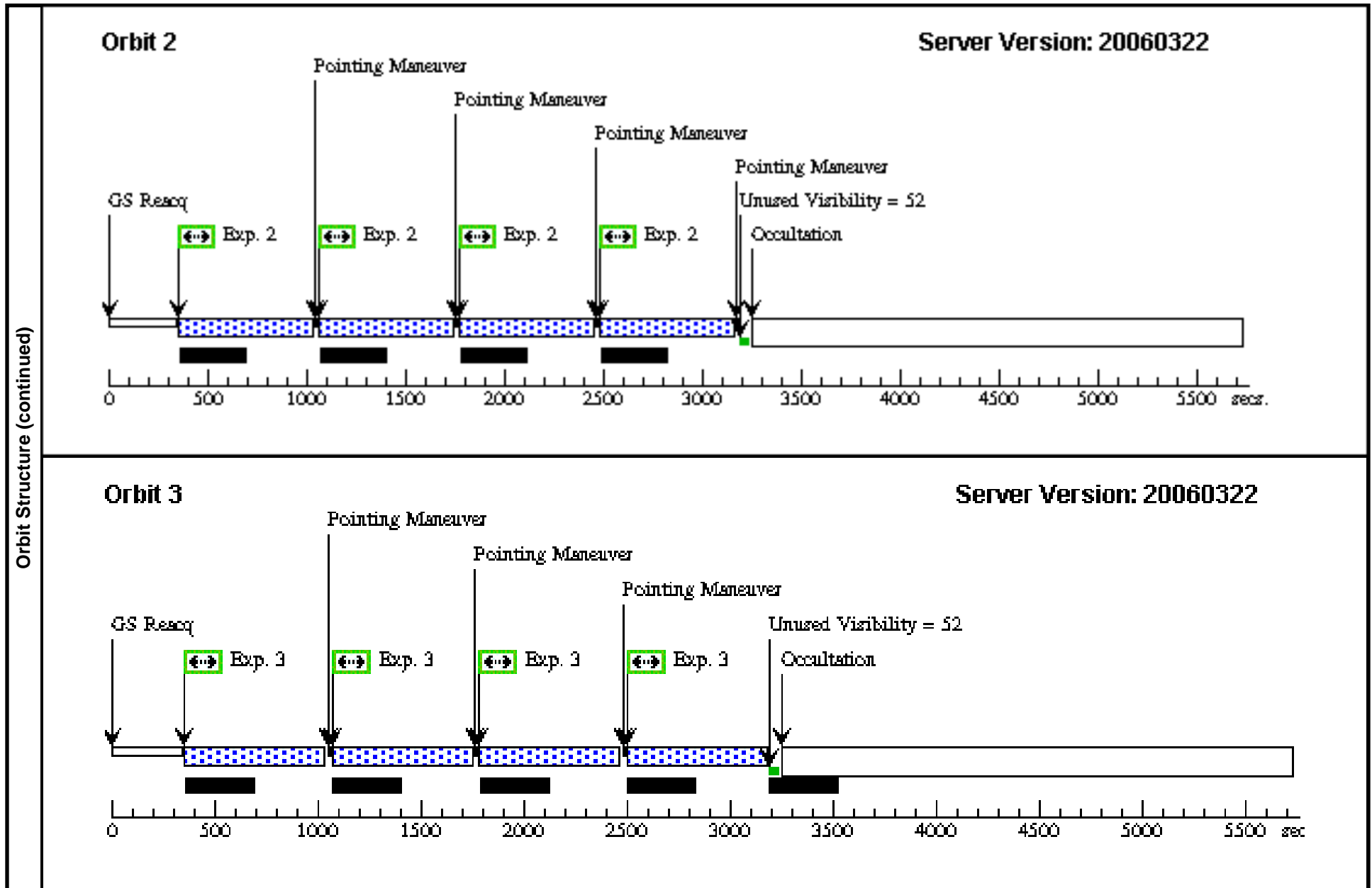


Proposal 10421 - Visit 11 - Searching for Ancient Mergers in Early Type Host Galaxies of Classical QSOs

Thu May 04 01:02:46 GMT 2006

Visit	<b>Proposal 10421, Visit 11</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: ACS/WFC Special Requirements: ORIENT 221.0D TO 226.0 D; ORIENT 355.0D TO 100.0 D									
	Patterns	#	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=20.7 Angle Between Sides=69.1 Center Pattern=true					(1), (2), (3)	
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes	Miscellaneous		
	(1)	PHL909	RA: 00 57 9.9720 (14.2915500d) Dec: +14 46 10.16 (14.76949d) Equinox: J2000 Plate Id: 028Y			V=16.7	Coordinate Source: GSC_SURVEY_PLATE			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) PHL909	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 1-1 (1)	535.0 Secs	
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2		(1) PHL909	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (1)	555.0 Secs	
								[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2]	
3		(1) PHL909	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 3-3 (1)	560.0 Secs		
								[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[3]	





Proposal 10421 - Visit 52 - Searching for Ancient Mergers in Early Type Host Galaxies of Classical QSOs

Thu May 04 01:02:46 GMT 2006

Visit	<b>Proposal 10421, Visit 52</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: ACS/WFC Special Requirements: SAME ORIENT AS 11									
	Patterns	#	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=20.7 Angle Between Sides=69.1 Center Pattern=true					(1), (2)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(1)	PHL909	RA: 00 57 9.9720 (14.2915500d) Dec: +14 46 10.16 (14.76949d) Equinox: J2000 Plate Id: 028Y			V=16.7	Coordinate Source: GSC_SURVEY_PLATE			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) PHL909	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 1-1 (1)	530.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2		(1) PHL909	ACS/WFC, ACCUM, WFC1	F606W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (1)	550.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2]

