



## 11341 - Lower Luminosity AGNs at Cosmologically Interesting Redshifts: SEDs and Accretion Rates of $z \sim 0.36$ Seyferts

Cycle: 16, 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-J010715.97-083429.3	NIC2	1	18-Jan-2008 07:56:09.0	yes
02	(2) SDSS-J161156.29+451611.0	NIC2	1	18-Jan-2008 07:56:13.0	yes
03	(3) SDSS-J215841.92-011500.3	NIC2	1	18-Jan-2008 07:56:16.0	yes
04	(4) SDSS-J101527.25+625911.5	NIC2	1	18-Jan-2008 07:56:18.0	yes
05	(5) SDSS-J080427.99+522306.2	NIC2	1	18-Jan-2008 07:56:20.0	yes
06	(6) SDSS-J093455.60+051409.1	NIC2	1	18-Jan-2008 07:56:23.0	yes
07	(7) MS-1558.3+4138	NIC2	1	18-Jan-2008 07:56:25.0	yes

7 Total Orbits Used

## **ABSTRACT**

We propose a multiwavelength campaign to constrain the SEDs of Seyferts at  $z \sim 0.36$ . This epoch, corresponding to a look back time of 4 Gyrs, is cosmologically interesting for studies of the coeval development of black holes and their host galaxy bulges. Our sample, comprising 24 Seyferts, has unprecedented high quality Keck spectroscopy and HST imaging already invested to extract host galaxy bulge properties, estimate black hole masses, and separate nuclear and host optical luminosities. To supplement and extend this successful program, we request 93 ks of Chandra time (to measure the shape and power of the AGN-only X-ray continuum), 11 hrs each of Spitzer and Gemini (to constrain the dust temperature), and 7 orbits of HST (to determine the nuclear luminosity for the final 7 objects).

## **OBSERVING DESCRIPTION**

This program is part of a multiwavelength campaign involving Chandra, Spitzer and Hubble to study the nuclear spectral energy distribution of a sample of low luminosity AGNs at redshift  $z \sim 0.36$ .

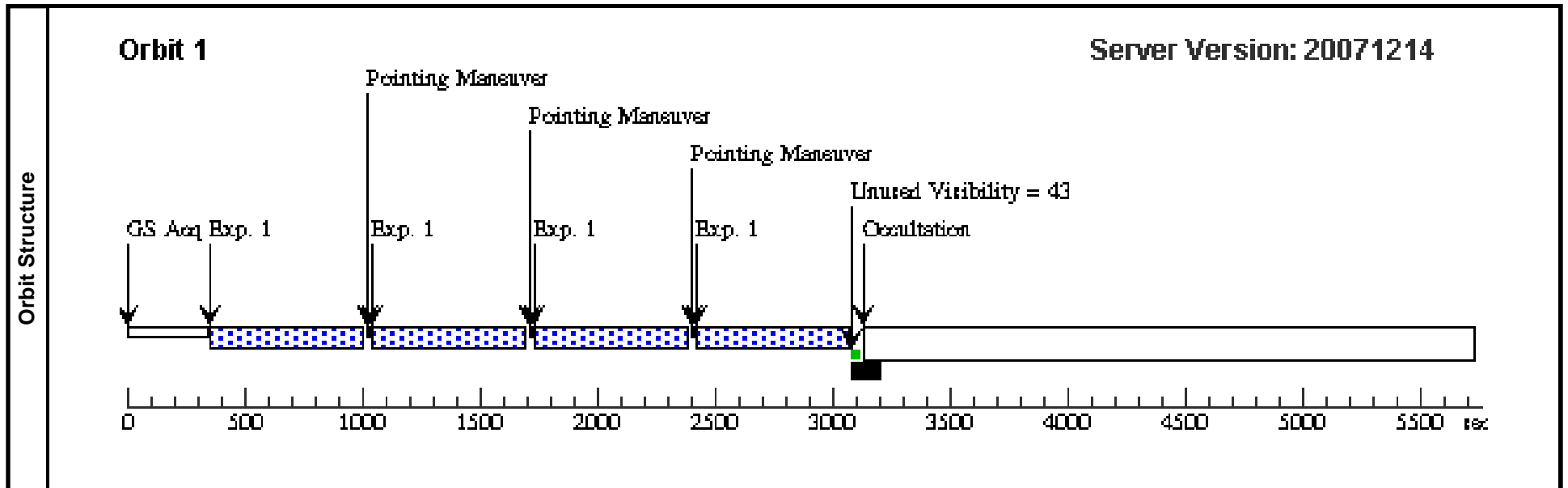
Hubble images are essential to disentangle nuclear and star light and measure the nuclear to total power in the rest-frame optical. ACS-HST F775W images are already available for a fraction of the sample. This program aims to use NICMOS to complete HST coverage of the sample. Three of the objects have already been imaged with ACS-HST and exhibit prominent dust lanes that prevent a precise measurement of the point source and bulge luminosity. NICMOS J-band imaging will be combined with the existing HST images to correct for the obscuring dust and accurately measure the fraction of nuclear light.

Each target will be observed for a single orbit, split into four dithered sub-exposures to allow defect removal and subpixel sampling of the point spread function.

Proposal 11341 - Visit 01 - Lower Luminosity AGNs at Cosmologically Interesting Redshifts: SEDs and Accretion Rates o...

Fri Jan 18 12:56:29 GMT 2008

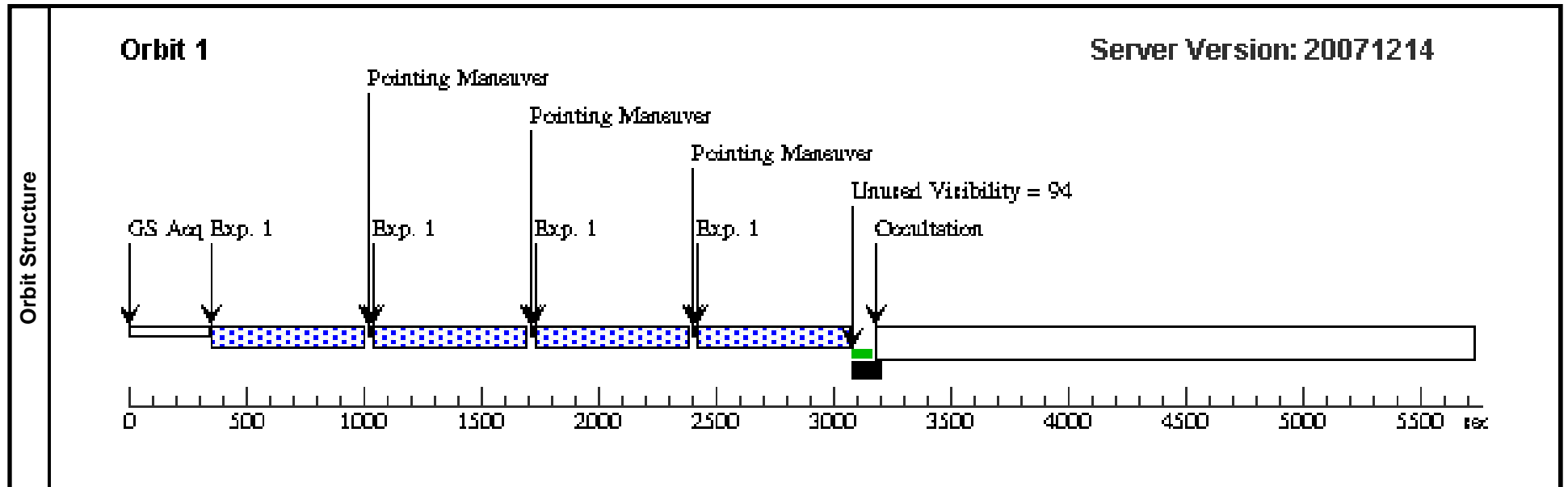
Visit	<b>Proposal 11341, Visit 01, implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: (none)									
	Patterns	#	Primary Pattern				Secondary Pattern			Exposures
		(1)	Pattern Type=NIC-SPIRAL-DITH Purpose=DITHER Number Of Points=4 Point Spacing=2.9625 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false				(1)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(1)	SDSS-J010715.97-083429.3	RA: 01 07 16.0000 (16.8166667d) Dec: -08 34 29.00 (-8.57472d) Equinox: J2000			V=18+/-0.5	Reference Frame: ICRS			
<i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) SDSS-J010715.97-083429.3	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=STEP64; NSAMP=18	GS ACQ SCENARI O BASE1TNS	Pattern 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 11341 - Visit 02 - Lower Luminosity AGNs at Cosmologically Interesting Redshifts: SEDs and Accretion Rates o...

Fri Jan 18 12:56:30 GMT 2008

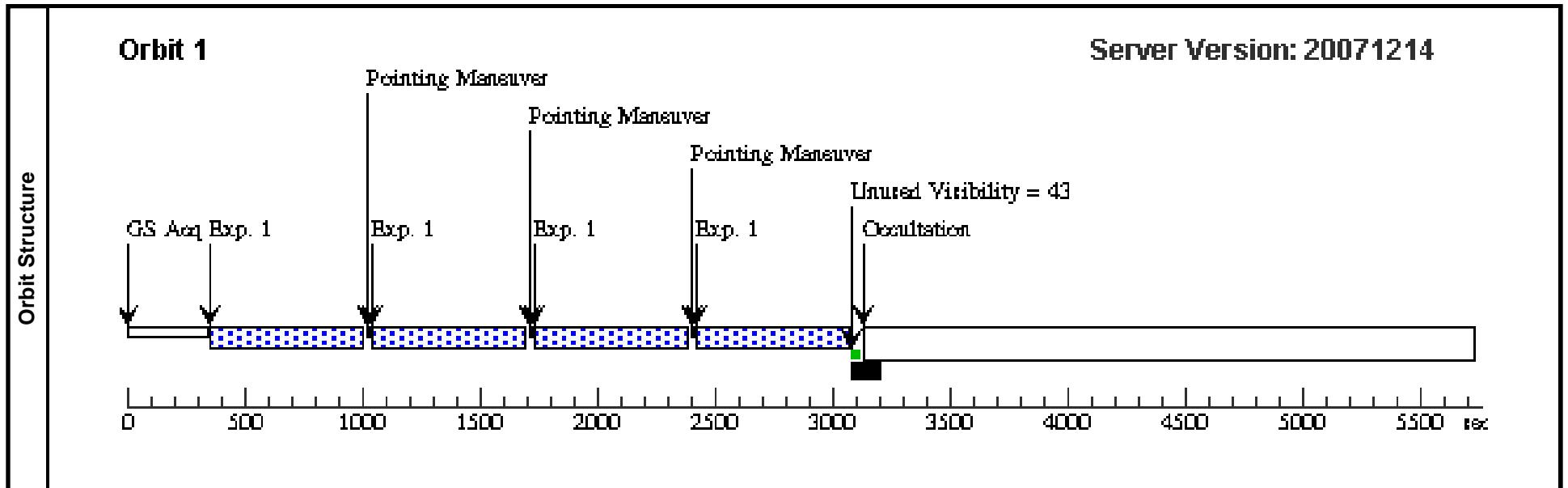
Visit	<b>Proposal 11341, Visit 02, implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: (none)										
	Patterns	#	Primary Pattern				Secondary Pattern			Exposures	
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		Purpose=DITHER	Pattern Orientation=0.0								
		Number Of Points=4	Angle Between Sides=								
		Point Spacing=2.9625	Center Pattern=false								
		Line Spacing=									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous				
	(2)	SDSS-J161156.29+451611.0	RA: 16 11 56.3000 (242.9845833d) Dec: +45 16 11.00 (45.26972d) Equinox: J2000			V=18+/-0.5	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
	1		(2) SDSS-J161156.29+451611.0	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=STEP6 4; NSAMP=18	GS ACQ SCENARI O BASE1TNS	Pattern 1-1 (1)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]		[1]



Proposal 11341 - Visit 03 - Lower Luminosity AGNs at Cosmologically Interesting Redshifts: SEDs and Accretion Rates o...

Fri Jan 18 12:56:30 GMT 2008

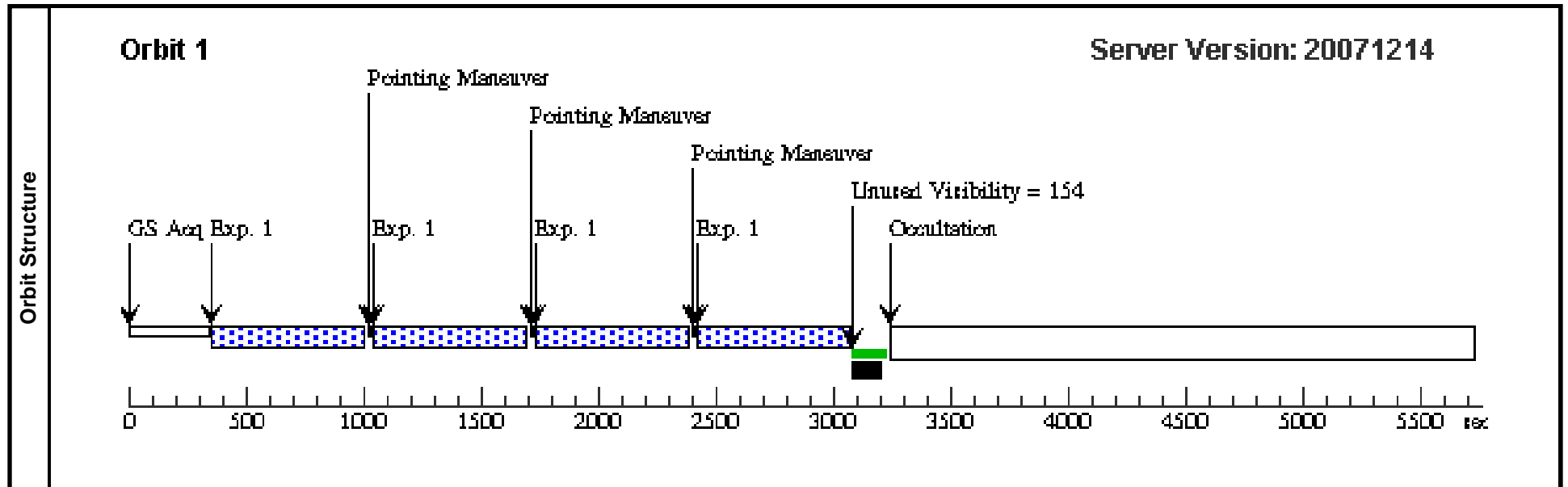
<b>Visit</b>	<b>Proposal 11341, Visit 03, implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: (none)										
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			<b>Exposures</b>	
(1)		Pattern Type=NIC-SPIRAL-DITH Purpose=DITHER Number Of Points=4 Point Spacing=2.9625 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= 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>					
	(3)	SDSS-J215841.92-011500.3	RA: 21 58 41.9000 (329.6745833d) Dec: -01 15 0.00 (-1.25000d) Equinox: J2000		V=18+/-0.5	Reference Frame: ICRS					
<i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i>											
<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) SDSS-J215841.92-011500.3	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=STEP64; NSAMP=18	GS ACQ SCENARI O BASE1TNS	Pattern 1-1 (1)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]		[1]



Proposal 11341 - Visit 04 - Lower Luminosity AGNs at Cosmologically Interesting Redshifts: SEDs and Accretion Rates o...

Fri Jan 18 12:56:30 GMT 2008

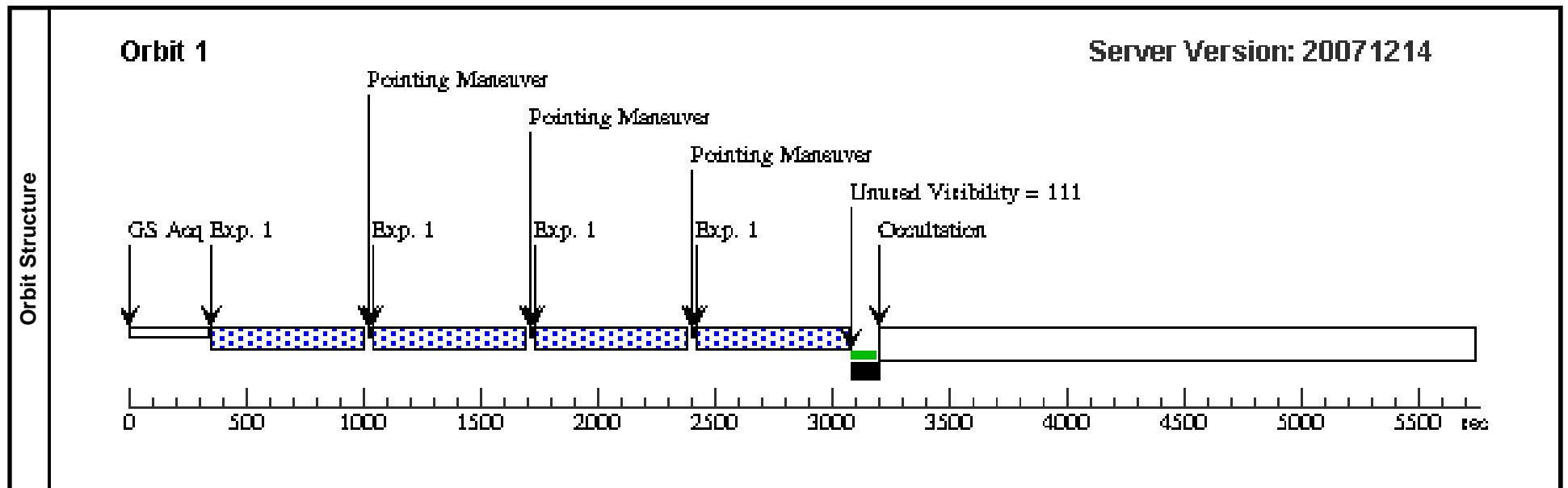
Visit	<b>Proposal 11341, Visit 04, implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: (none)										
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		Purpose=DITHER	Pattern Orientation=0.0								
		Number Of Points=4	Angle Between Sides=								
		Point Spacing=2.9625	Center Pattern=false								
		Line Spacing=									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes		Miscellaneous			
	(4)	SDSS-J101527.25+625911.5	RA: 10 15 27.2000 (153.8633333d) Dec: +62 59 12.00 (62.98667d) Equinox: J2000			V=18+/-0.5		Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
	1		(4) SDSS-J101527.2 5+625911.5	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=STEP6 4; NSAMP=18	GS ACQ SCENARI O BASE1TNS	Pattern 1-1 (1)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]		[1]



Proposal 11341 - Visit 05 - Lower Luminosity AGNs at Cosmologically Interesting Redshifts: SEDs and Accretion Rates o...

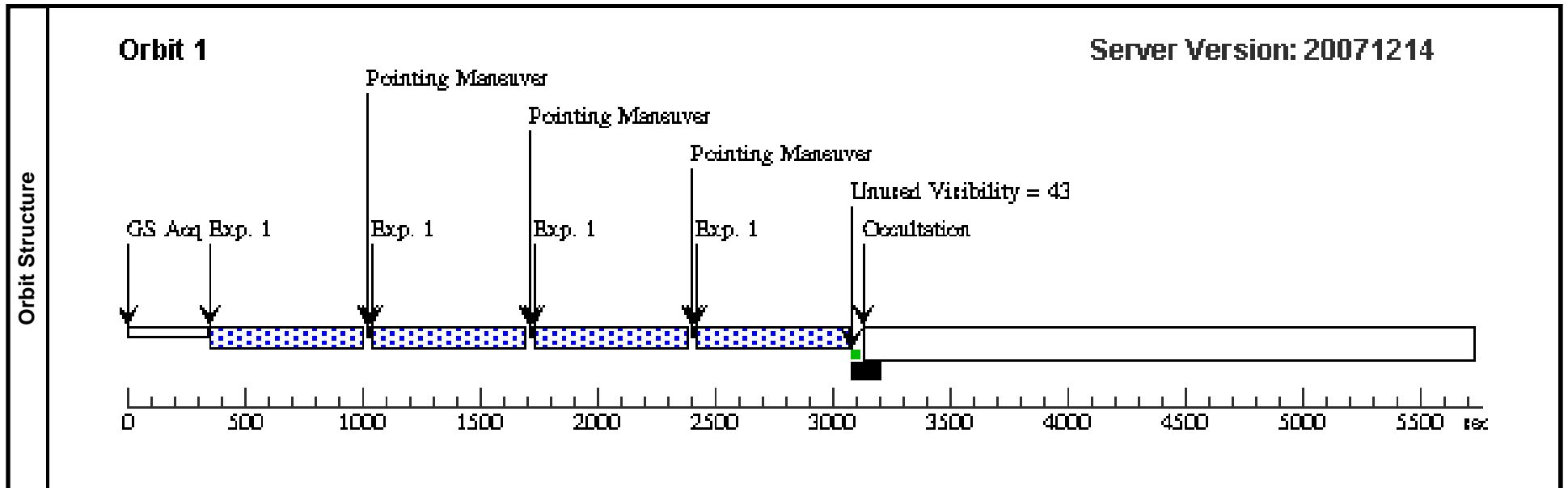
Fri Jan 18 12:56:31 GMT 2008

Visit	<b>Proposal 11341, Visit 05, implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: (none)										
	Patterns	#	Primary Pattern				Secondary Pattern			Exposures	
		(1)	Pattern Type=NIC-SPIRAL-DITH	Coordinate Frame=POS-TARG							(1)
		Purpose=DITHER	Pattern Orientation=0.0								
		Number Of Points=4	Angle Between Sides=								
		Point Spacing=2.9625	Center Pattern=false								
		Line Spacing=									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes		Miscellaneous			
	(5)	SDSS-J080427.99+522306.2	RA: 08 04 28.0000 (121.1166667d) Dec: +52 23 6.00 (52.38500d) Equinox: J2000			V=18+/-0.5		Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
	1		(5) SDSS-J080427.9 9+522306.2	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=STEP6 4; NSAMP=18	GS ACQ SCENARI O BASE1TNS	Pattern 1-1 (1)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]		[1]



Proposal 11341 - Visit 06 - Lower Luminosity AGNs at Cosmologically Interesting Redshifts: SEDs and Accretion Rates o...

Visit		Proposal 11341, Visit 06, implementation						Fri Jan 18 12:56:31 GMT 2008					
<b>Patterns</b>		<b>#</b>		<b>Primary Pattern</b>		<b>Secondary Pattern</b>		<b>Exposures</b>					
		(1)	Pattern Type=NIC-SPIRAL-DITH Purpose=DITHER Number Of Points=4 Point Spacing=2.9625 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= 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>	
		(6)	SDSS- J093455.60+051409.1	RA: 09 34 55.6000 (143.7316667d) Dec: +05 14 9.00 (5.23583d) Equinox: J2000			V=18+/-0.5	Reference Frame: ICRS					
		<i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i>											
<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		(6) SDSS-J093455.6 0+051409.1	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=STEP6 4; NSAMP=18	GS ACQ SCENARI O BASE1TNS	Pattern 1-1 (1)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]			



Proposal 11341 - Visit 07 - Lower Luminosity AGNs at Cosmologically Interesting Redshifts: SEDs and Accretion Rates o...

Fri Jan 18 12:56:32 GMT 2008

<b>Visit</b>	<b>Proposal 11341, Visit 07, implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: (none)										
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(1)		Pattern Type=NIC-SPIRAL-DITH	Coordinate Frame=POS-TARG						(1)		
		Purpose=DITHER	Pattern Orientation=0.0								
		Number Of Points=4	Angle Between Sides=								
		Point Spacing=2.9625	Center Pattern=false								
		Line Spacing=									
<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)	MS-1558.3+4138	RA: 16 00 2.8000 (240.0116667d)	Dec: +41 30 27.00 (41.50750d)		V=18+/-0.5	Reference Frame: ICRS				
			Equinox: J2000								
	<i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i>										
<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		(7) MS-1558.3+4138	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=STEP6 4; NSAMP=18	GS ACQ SCENARI O BASE1TNS	Pattern 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]		[1]

