10410 - Anisotropy and obscuration in the near-nuclear regions of powerful radio galaxies

Cycle: 13, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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Dr. Chris Packham (CoI)	University of Florida	
Dr. Andrew Robinson (CoI)	Rochester Institute of Technology	

VISITS

Visit	*Targets*	*Configurations*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
10	(1) 3C33 ANY	NIC1 NIC2	3	19-Aug-2005 21:08:49.0	yes
15	(2) 3C98 ANY	NIC1 NIC2	3	19-Aug-2005 21:09:23.0	yes
20	ANY (3) 3C192	NIC1 NIC2	3	19-Aug-2005 21:09:54.0	yes
25	(4) 4C73.08 ANY	NIC1 NIC2	3	19-Aug-2005 21:10:24.0	yes

Visit	*Targets*	*Configurations*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
30	(5) 3C236 ANY	NIC1 NIC2	3	19-Aug-2005 21:10:59.0	yes
35	ANY (6) 3C277.3	NIC1 NIC2	3	19-Aug-2005 21:11:31.0	yes
40	ANY (7) 3C285	NIC1 NIC2	3	19-Aug-2005 21:12:02.0	yes
45	(8) 3C321 ANY	NIC1 NIC2	3	19-Aug-2005 21:12:31.0	yes
50	(9) 3C433 ANY	NIC1 NIC2	3	19-Aug-2005 21:13:40.0	yes
55	(10) 3C452 ANY	NIC1 NIC2	3	19-Aug-2005 21:14:25.0	yes

30 Total Orbits Used

ABSTRACT

Despite the success of the orientation-based unified schemes for powerful radio sources, we are still far from understanding the distribution of obscuring material in the near-nuclear regions of such sources, and how this distribution evolves with radio power. Following on from our highly successful Cycle 7 pilot observations of Cygnus A, we propose a near-IR polarimetric survey of a complete sample of powerful radio galaxies in order map the near-nuclear illumination cones, and investigate the distribution of obscuring material on a 0.1 to 1kpc scale. In particular, the observations will allow us to test the "receding torus model" which predicts that the opening angles of the illumination cones are smaller in low redshift/low power radio galaxies than in

their high redshift/high power counterparts.We will also investigate whether AGN- and jet-driven outflows have a substantial effect on distribution of obscuring material by "hollowing out" the quasar illumination cones in the more powerful sources. Finally, by using our polarization maps to search for signs of intrinsic anisotropy in the near-IR continuum within the cones, we will investigate the geometry of the near-IR continuum emitting regions close to the quasar nuclei. These observations are not only crucial for our understanding of radio source unification, but also provide key information about the effects of AGN-induced outflows on the ISM of the host galaxies.

OBSERVING DESCRIPTION

Our primary observations will be taken with the three long wavelength polarizers (POL0L, POL120L, POL240L), which are intermediate-band filters centred on a wavelength of 2.0 microns. These long wavelength polarizers are preferred to the short wavelength NIC1 polarizers because they sample a wavelength range that is less sensitive to the effects by the kpc-scale dust lanes. The filters have the added advantage that they admit the Paschen alpha emission line--- from both the photoionized gas and scattered quasar light --- for the redshift range covered by our sample, but are narrow enough to reduce the light of the old stellar populations, therefore allowing a greater contrast of the polarized continuum and Paschen alpha structures compared with broad K-band imaging observations.

The typical K-band surface brightness of the extended light in the central few arcseconds of our target objects is 16 mag. sq.arcsec.^-1. For this surface brightness we calculate that we will achieve an accuracy in the polarization of +/-1.7% for the extended emission in a 0.4 sq.arcsec.^-1 extraction aperture. We will require 1000s (~0.5 orbit) for each polarizer on source, and a similar time off source to ensure accurate background and pedestal removal (crucial for

accurate polarimetry). Thus, for on- and off-source observations through all three polarizers we will require 3 orbits per object. For each POL filter observation we will execute a dither pattern to reduce the impact of cosmetic defects.
To achieve the sky chops and dithers we will use the X-STRIP-DITHER-CHOP with a total of 8 positions (4 sky, 4 object) per source, a chop throw of 31.5 arsceconds (in Y-direction), and a spacing between the dither positions of 0.9 arcseconds (in X-direction).
For the way we have set up the dithers, when NIC2 is on the sky, the target object is in the NIC aperture. Therefore we have scheduled coordinated parallel observations with shorter wavelength F170, F145M and/or F110W filters with NIC1 (these were the subject of a successful program change request). The additional shorter wavelength observations will be used to make colour maps, which will allow us to further investigate the obscuration and anisotropy in the nuclear regions. Where time is left over at the end of each orbit we have also scheduled exposures with NIC2 and F110W.
The observing strategy is the same for all targets except 3C433 (visit 50).
In the case of 3C433 there is a relatively bright nuclear point source. In order to avoid saturation and residual image effects for that object we adopt a observational strategy with shorter exposures and more dither positions (see comments section for visit 50).

Visit

Proposal 10410, Visit 10 Sat Aug 20 01:14:35 GMT 2005

Diagnostic Status: Warning

Scientific Instruments: NIC2, NIC1

Special Requirements: NUMBER OF GYROS 3

Comments: Polarimetry of the radio galaxy 3C33 at 2.0 microns using the three long wavelength polarizers in NIC2, plus exposures at the end of each orbit using F110W in NIC2, plus coordinated parallel exposures in NIC1 with the F145M and F170M filters.

Diagnostics

(Visit 10) Warning: Number of Gyros overrides default value.

(Visit 10) Warning: PATTERN POSITION OUTSIDE APERTURE

(Visit 10) Warning: PATTERN POSITION OUTSIDE APERTURE

(Visit 10) Warning: PATTERN POSITION OUTSIDE APERTURE

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(3)	Pattern Type=NIC-XSTRIP-DITH-CHOP Purpose=DITHER Number Of Points=4 Point Spacing=0.9 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=180 Angle Between Sides= Center Pattern=true	Pattern Type=NIC-XSTRIP-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=35.5 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=270 Angle Between Sides= Center Pattern=false	(1-2), (4-5), (7-8)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	3C33	RA: 01 08 52.8710 (17.2202958d) Dec: +13 20 14.77 (13.33744d) Equinox: J2000 Plate Id: 00GR		V=15.22	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	(1) 3C33	NIC2, MULTIACCUM, NIC2	POL0L	SAMP-SEQ=SPARS64; NSAMP=6	GS ACQ SCENARIO BASE13GO	Pattern 1-2 (3) Prime + Parallel Group 1-2	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[1]***

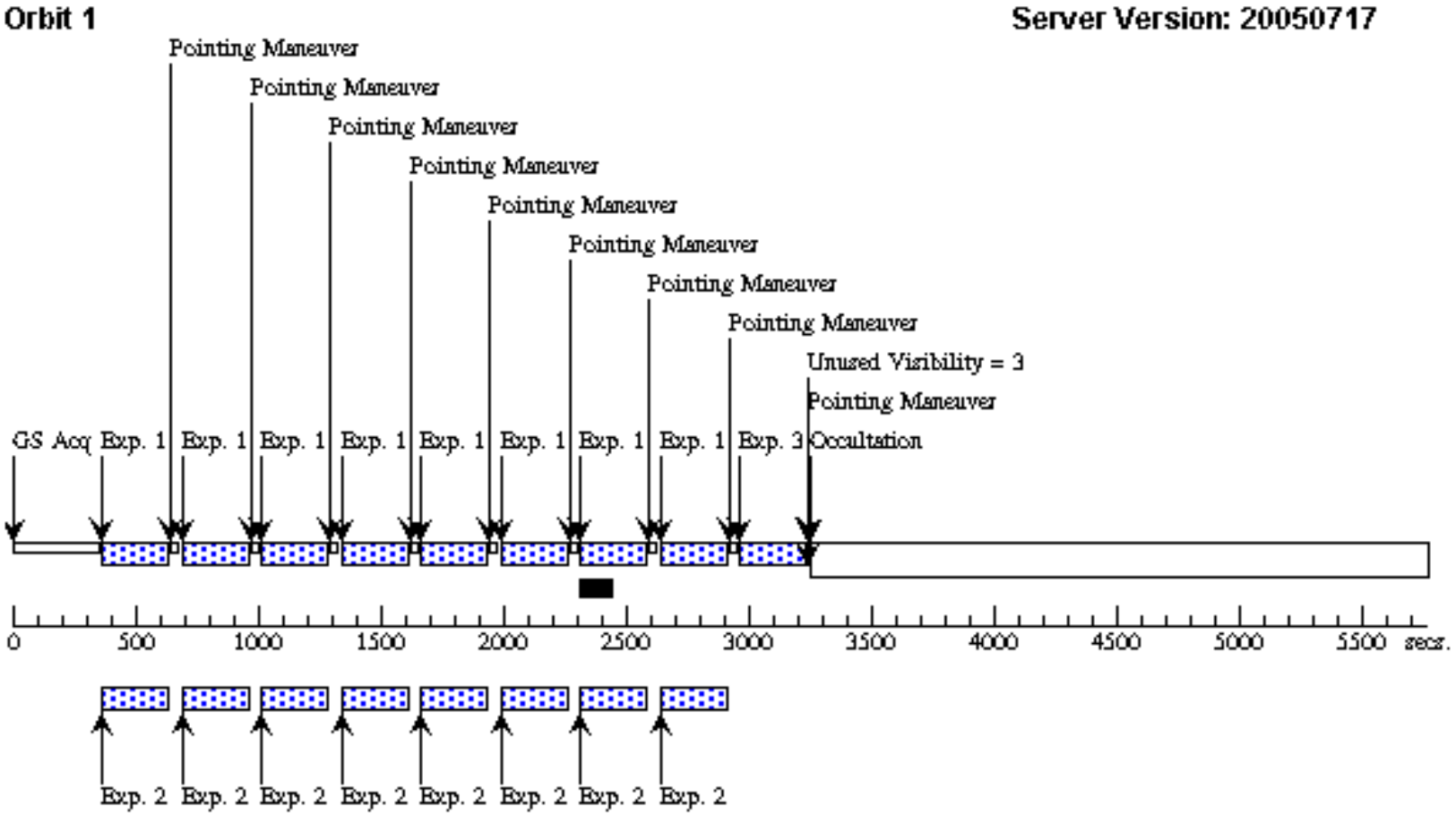
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
2	2	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 1-2 (3) Prime + Parallel Group 1-2	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[1]***
3	3	(1) 3C33	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6			*[==>]*	***[1]***
4	4	(1) 3C33	NIC2, MULTIACCUM, NIC2	POL120L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 4-5 (3) Prime + Parallel Group 4-5	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[2]***
5	5	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 4-5 (3) Prime + Parallel Group 4-5	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[2]***
6	6	(1) 3C33	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6	POS TARG -0.9,0		*[==>]*	***[2]***

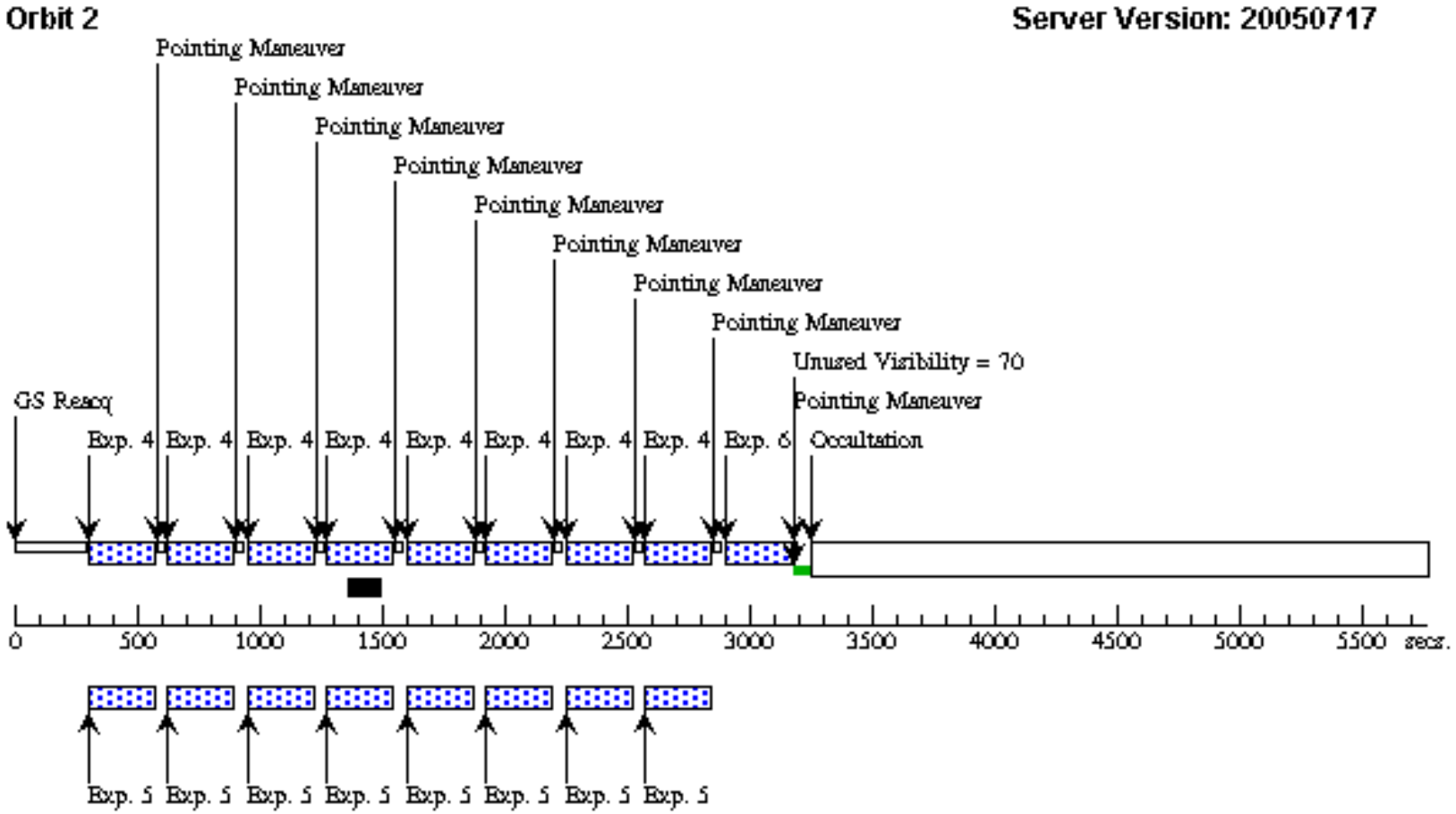
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
7	7	(1) 3C33	NIC2, MULTIACCUM, NIC2	POL240L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 7-8 (3) Prime + Parallel Group 7-8	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[3]***
8	8	ANY	NIC1, MULTIACCUM, NIC1	F170M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 7-8 (3) Prime + Parallel Group 7-8	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[3]***
9	9	(1) 3C33	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6	POS TARG -1.8,0		*[==>]*	***[3]***

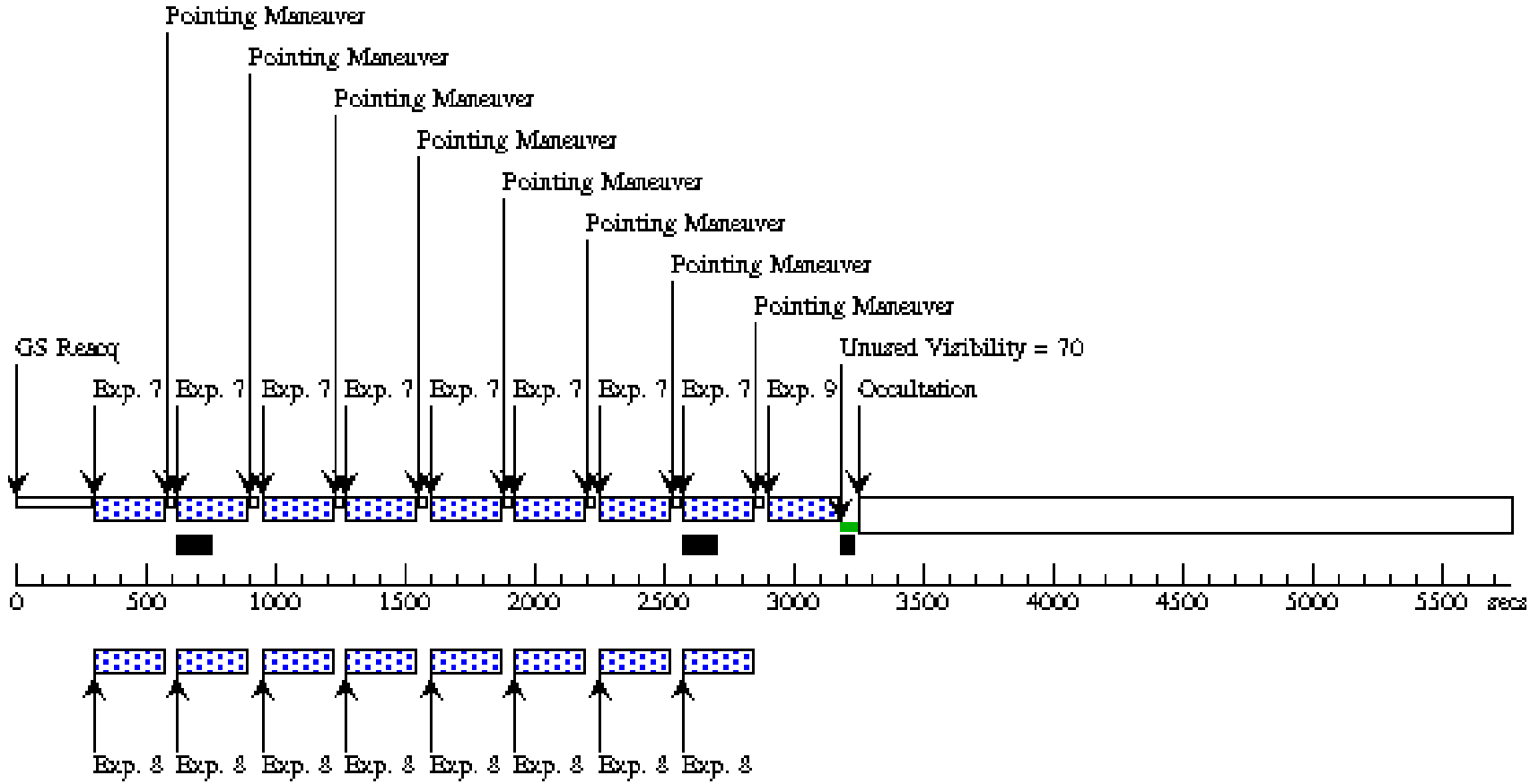
Orbit Structure



Orbit Structure (continued)



Orbit Structure (continued)



Visit

Proposal 10410, Visit 15 Sat Aug 20 01:14:37 GMT 2005

Diagnostic Status: Warning

Scientific Instruments: NIC2, NIC1

Special Requirements: NUMBER OF GYROS 3

Comments: Polarimetry of the radio galaxy 3C98 at 2.0 microns using the three long wavelength polarizers in NIC2, plus exposures at the end of each orbit using F110W in NIC2, plus coordinated parallel exposures in NIC1 with the F145M and F170M filters.

Diagnostics

(Visit 15) Warning: PATTERN POSITION OUTSIDE APERTURE

(Visit 15) Warning: Number of Gyros overrides default value.

(Visit 15) Warning: PATTERN POSITION OUTSIDE APERTURE

(Visit 15) Warning: PATTERN POSITION OUTSIDE APERTURE

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(3)	Pattern Type=NIC-XSTRIP-DITH-CHOP Purpose=DITHER Number Of Points=4 Point Spacing=0.9 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=180 Angle Between Sides= Center Pattern=true	Pattern Type=NIC-XSTRIP-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=35.5 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=270 Angle Between Sides= Center Pattern=false	(1-2), (4-5), (7-8)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	3C98	RA: 03 58 54.5000 (59.7270833d) Dec: +10 26 2.80 (10.43411d) Equinox: J2000 Plate Id: 01X0		V=14.41	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	(2) 3C98	NIC2, MULTIACCUM, NIC2	POL0L	SAMP-SEQ=SPARS64; NSAMP=6	GS ACQ SCENARIO BASE13GO	Pattern 1-2 (3) Prime + Parallel Group 1-2	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[1]***

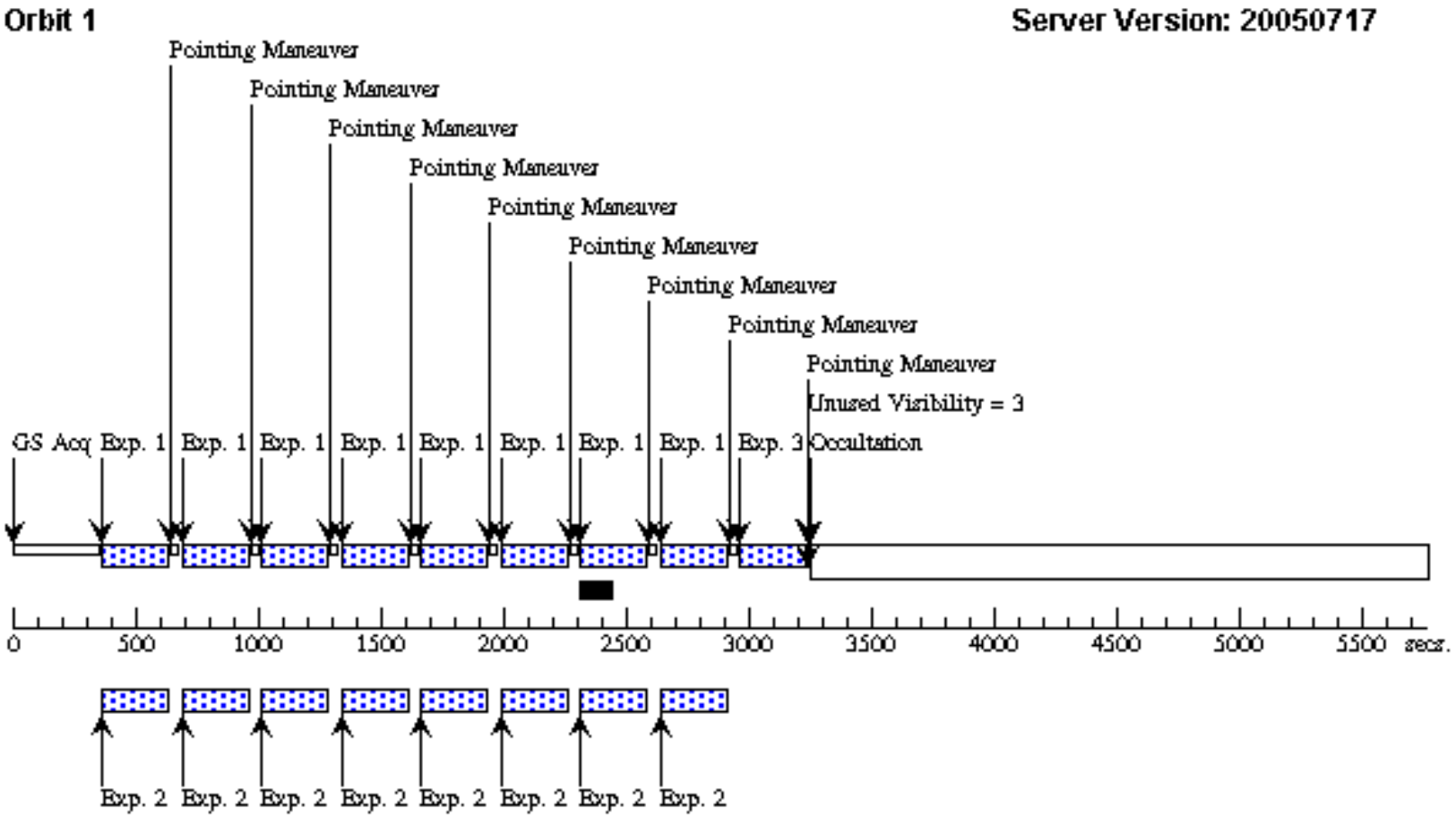
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
2	2	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 1-2 (3) Prime + Parallel Group 1-2	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[1]***
3	3	(2) 3C98	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6			*[==>]*	***[1]***
4	4	(2) 3C98	NIC2, MULTIACCUM, NIC2	POL120L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 4-5 (3) Prime + Parallel Group 4-5	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[2]***
5	5	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 4-5 (3) Prime + Parallel Group 4-5	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[2]***
6	6	(2) 3C98	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6	POS TARG -0.9,0		*[==>]*	***[2]***

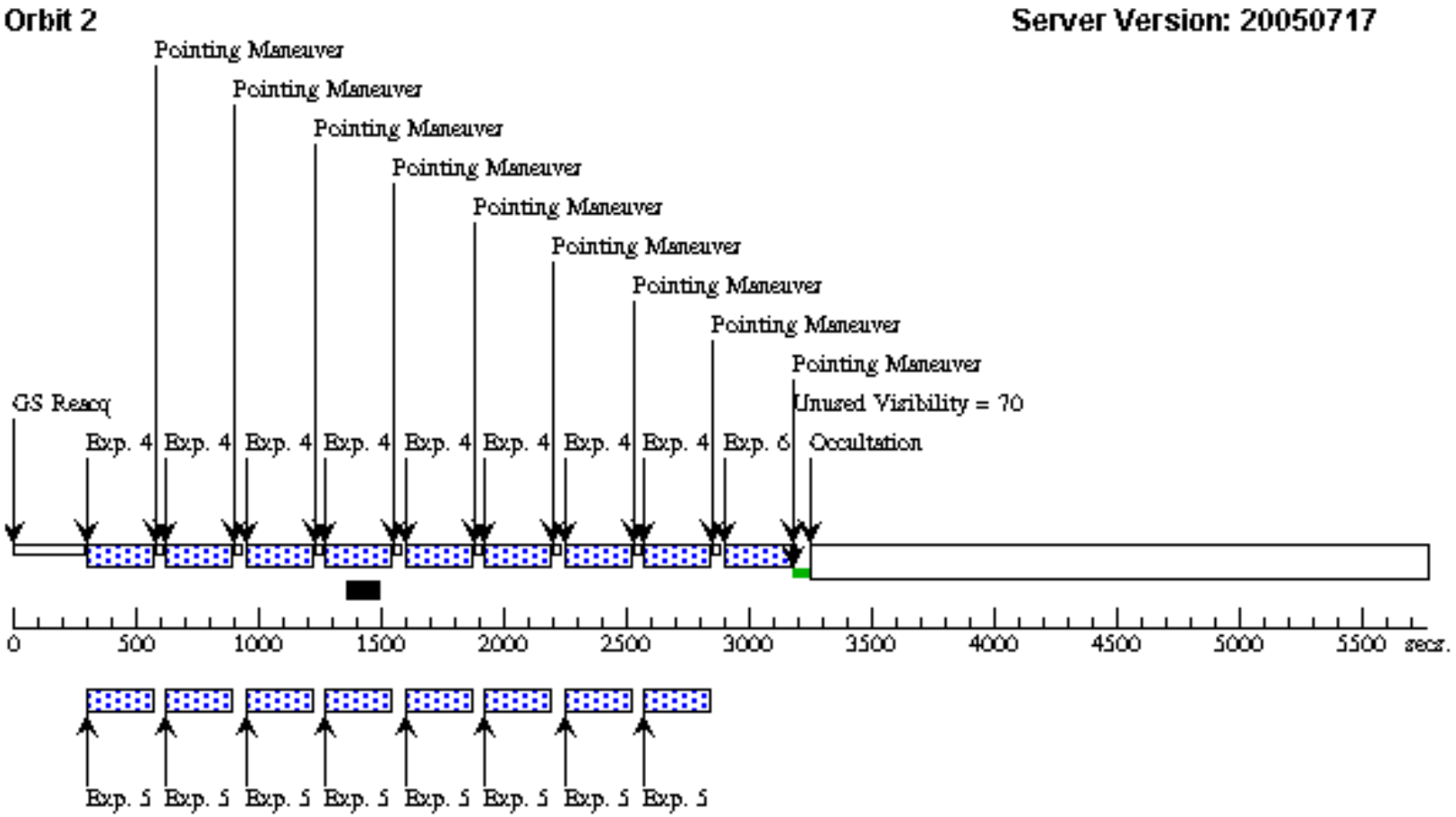
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
7	7	(2) 3C98	NIC2, MULTIACCUM, NIC2	POL240L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 7-8 (3) Prime + Parallel Group 7-8	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[3]***
8	8	ANY	NIC1, MULTIACCUM, NIC1	F170M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 7-8 (3) Prime + Parallel Group 7-8	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[3]***
9	9	(2) 3C98	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6	POS TARG -1.8,0		*[==>]*	***[3]***

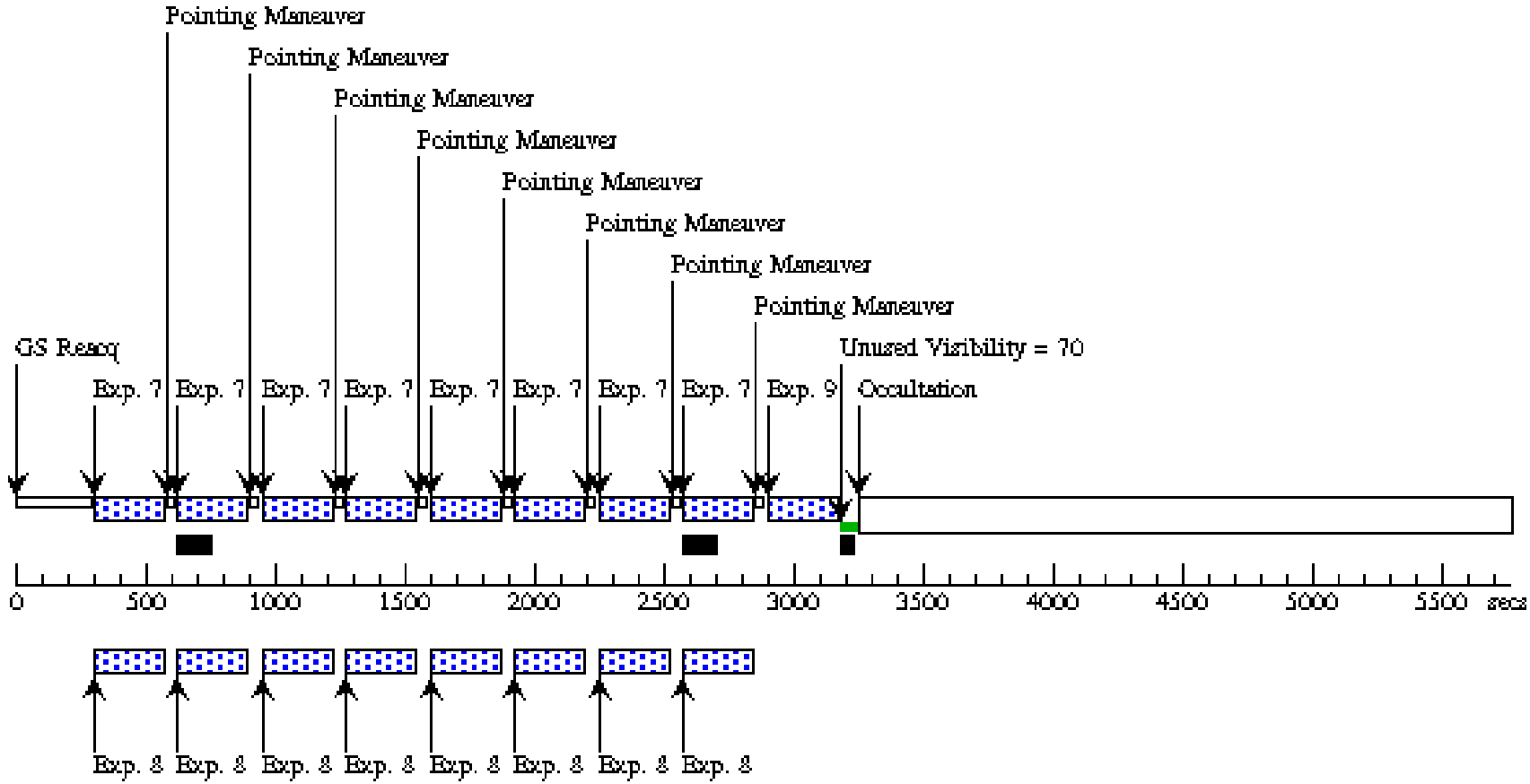
Orbit Structure



Orbit Structure (continued)



Orbit Structure (continued)



Visit

Proposal 10410, Visit 20 Sat Aug 20 01:14:38 GMT 2005

Diagnostic Status: Warning

Scientific Instruments: NIC2, NIC1

Special Requirements: (none)

Comments: Polarimetry of the radio galaxy 3C192 at 2.0 microns using the three long wavelength polarizers in NIC2, plus exposures at the end of each orbit using F110W in NIC2, plus coordinated parallel exposures in NIC1 with the F145M and F170M filters.

Diagnostics

(Visit 20) Warning: PATTERN POSITION OUTSIDE APERTURE

(Visit 20) Warning: PATTERN POSITION OUTSIDE APERTURE

(Visit 20) Warning: PATTERN POSITION OUTSIDE APERTURE

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(1)	Pattern Type=NIC-XSTRIP-DITH-CHOP Purpose=DITHER Number Of Points=4 Point Spacing=0.9 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=180 Angle Between Sides= Center Pattern=true	Pattern Type=NIC-XSTRIP-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=31.5 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=270 Angle Between Sides= Center Pattern=false	(1-2), (4-5), (7-8)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	3C192	RA: 08 05 35.0410 (121.3960042d) Dec: +24 09 49.68 (24.16380d) Equinox: J2000 Plate Id: 02UF		V=15.45	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	(3) 3C192	NIC2, MULTIACCUM, NIC2	POL0L	SAMP-SEQ=SPARS64; NSAMP=6		Pattern 1-2 (1) Prime + Parallel Group 1-2	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[1]***

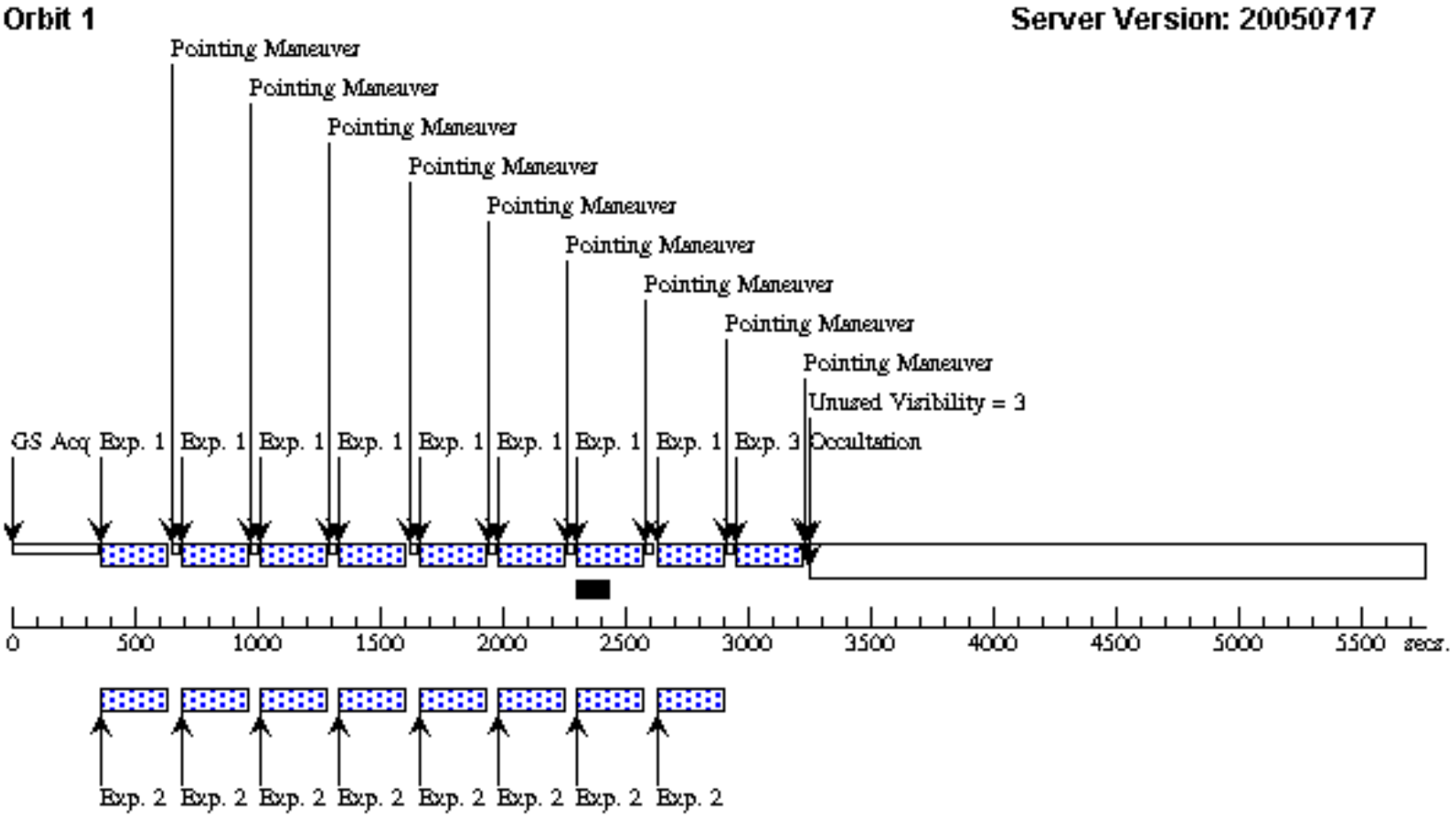
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
2	2	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 1-2 (1) Prime + Parallel Group 1-2	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[1]***
3	3	(3) 3C192	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6			*[==>]*	***[1]***
4	4	(3) 3C192	NIC2, MULTIACCUM, NIC2	POL120L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 4-5 (1) Prime + Parallel Group 4-5	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[2]***
5	5	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 4-5 (1) Prime + Parallel Group 4-5	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[2]***
6	6	(3) 3C192	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6	POS TARG -0.9,0		*[==>]*	***[2]***

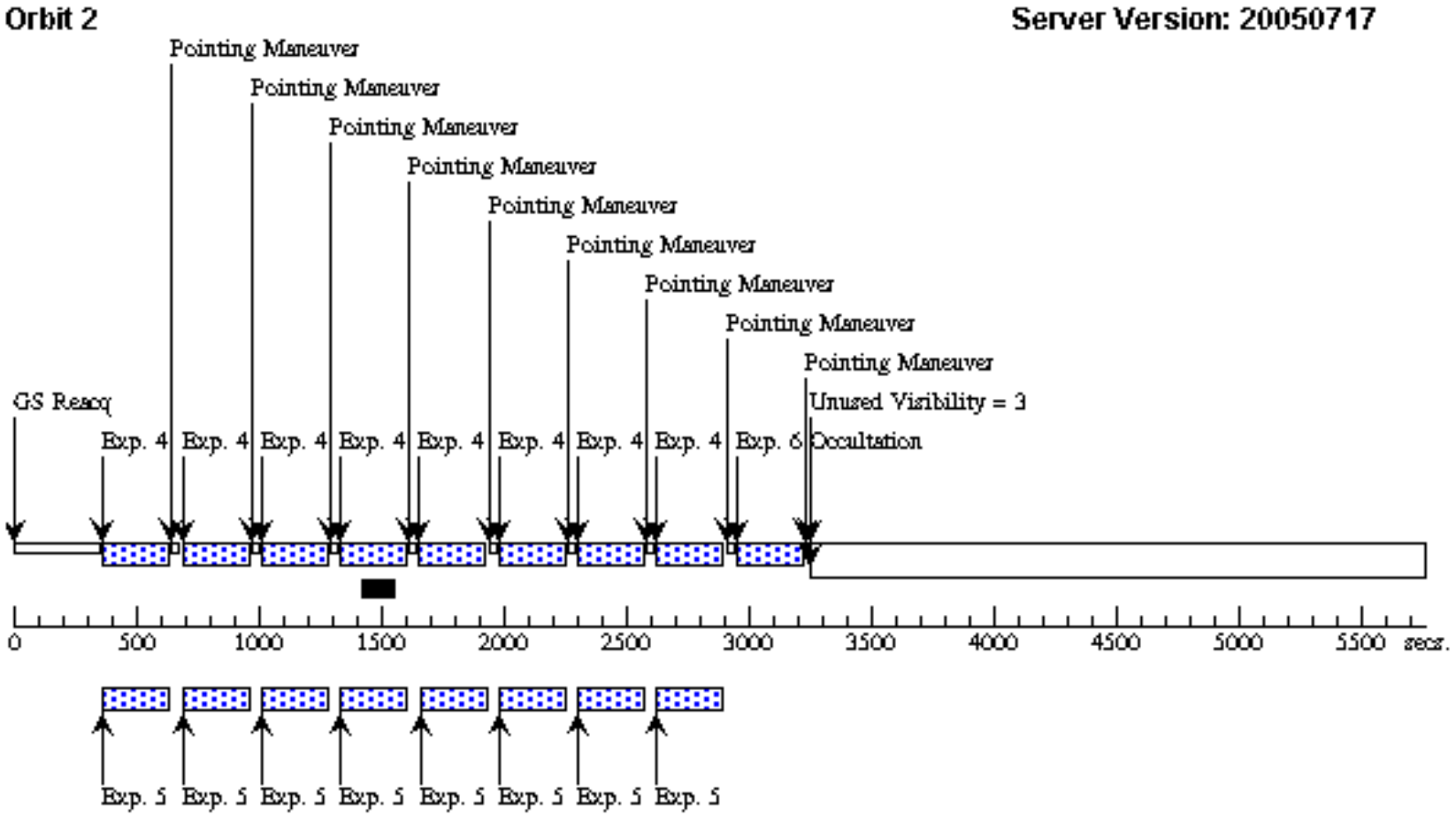
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
7	7	(3) 3C192	NIC2, MULTIACCUM, NIC2	POL240L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 7-8 (1) Prime + Parallel Group 7-8	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[3]***
8	8	ANY	NIC1, MULTIACCUM, NIC1	F170M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 7-8 (1) Prime + Parallel Group 7-8	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[3]***
9	9	(3) 3C192	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6	POS TARG -1.8,0		*[==>]*	***[3]***

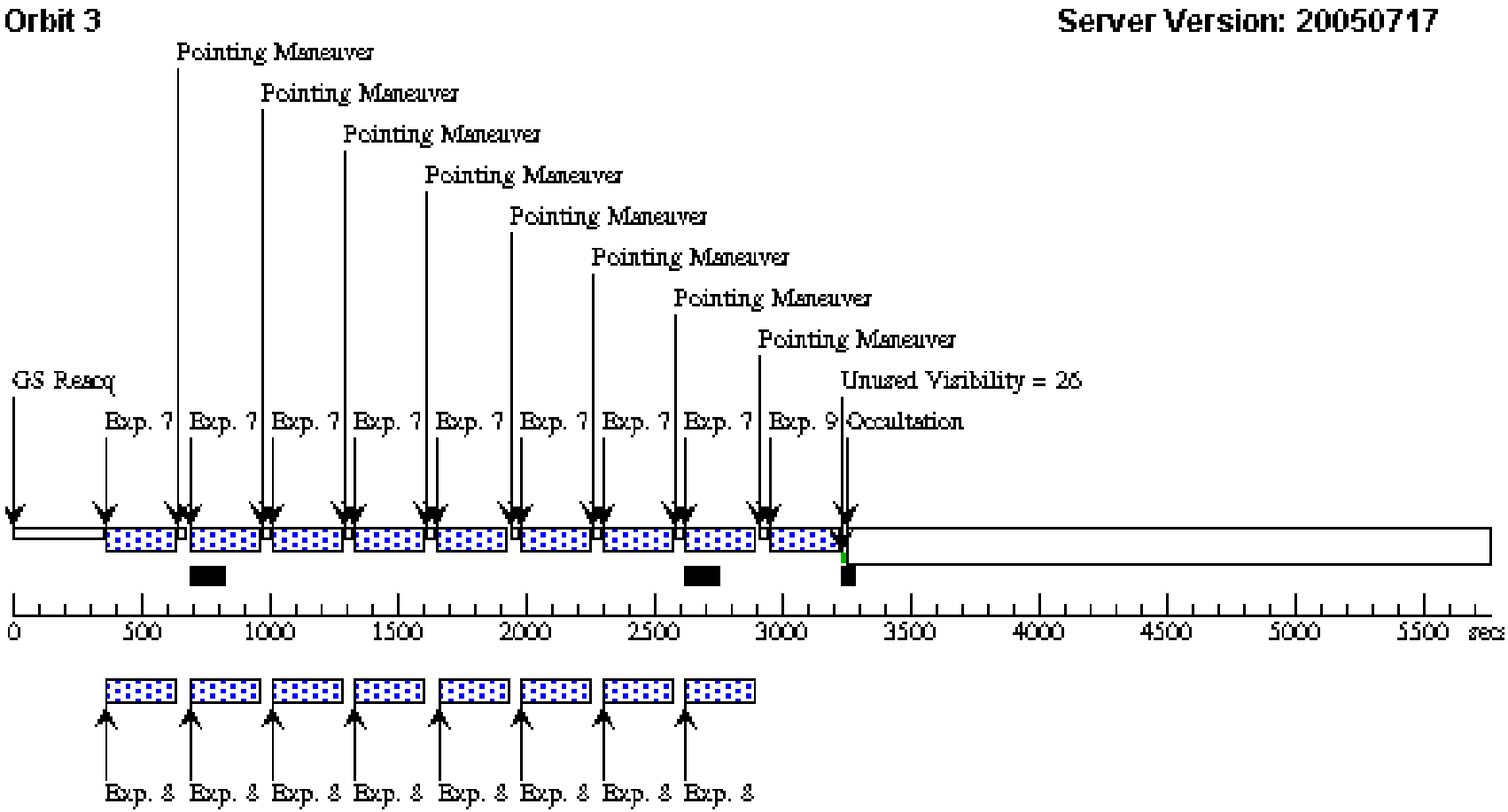
Orbit Structure



Orbit Structure (continued)



Orbit Structure (continued)



Visit

Proposal 10410, Visit 25 Sat Aug 20 01:14:39 GMT 2005

Diagnostic Status: Warning

Scientific Instruments: NIC2, NIC1

Special Requirements: (none)

Comments: Polarimetry of the radio galaxy 4C73.08 at 2.0 microns using the three long wavelength polarizers in NIC2, plus coordinated parallel exposures in NIC1 with the F110W and 170M.

Diagnostics

(Visit 25) Warning: PATTERN POSITION OUTSIDE APERTURE
(Visit 25) Warning: PATTERN POSITION OUTSIDE APERTURE
(Visit 25) Warning: PATTERN POSITION OUTSIDE APERTURE

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(1)	Pattern Type=NIC-XSTRIP-DITH-CHOP Purpose=DITHER Number Of Points=4 Point Spacing=0.9 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=180 Angle Between Sides= Center Pattern=true	Pattern Type=NIC-XSTRIP-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=31.5 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=270 Angle Between Sides= Center Pattern=false	(1-2), (4-5), (7-8)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	4C73.08	RA: 09 49 45.9500 (147.4414583d) Dec: +73 14 23.00 (73.23972d) Equinox: J2000 Plate Id: 01L2		V=14.7	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	(4) 4C73.08	NIC2, MULTIACCUM, NIC2	POL0L	SAMP-SEQ=SPARS64; NSAMP=6		Pattern 1-2 (1) Prime + Parallel Group 1-2	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[1]***

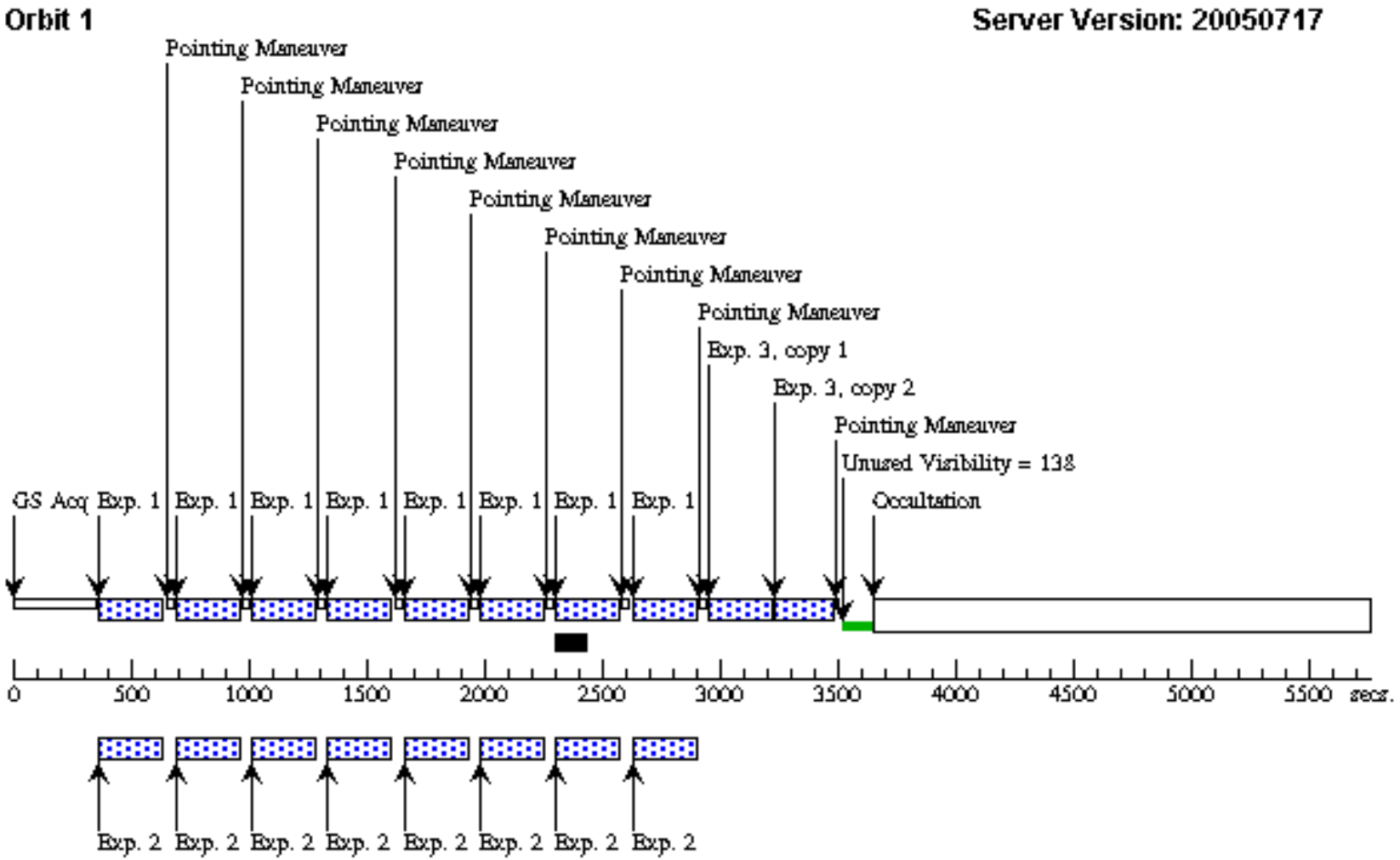
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
2	2	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 1-2 (1) Prime + Parallel Group 1-2	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[1]***
3	3	(4) 4C73.08	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6			*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
4	4	(4) 4C73.08	NIC2, MULTIACCUM, NIC2	POL120L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 4-5 (1) Prime + Parallel Group 4-5	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[2]***
5	5	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 4-5 (1) Prime + Parallel Group 4-5	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[2]***
6	6	(4) 4C73.08	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6	POS TARG -0.9,0		*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***

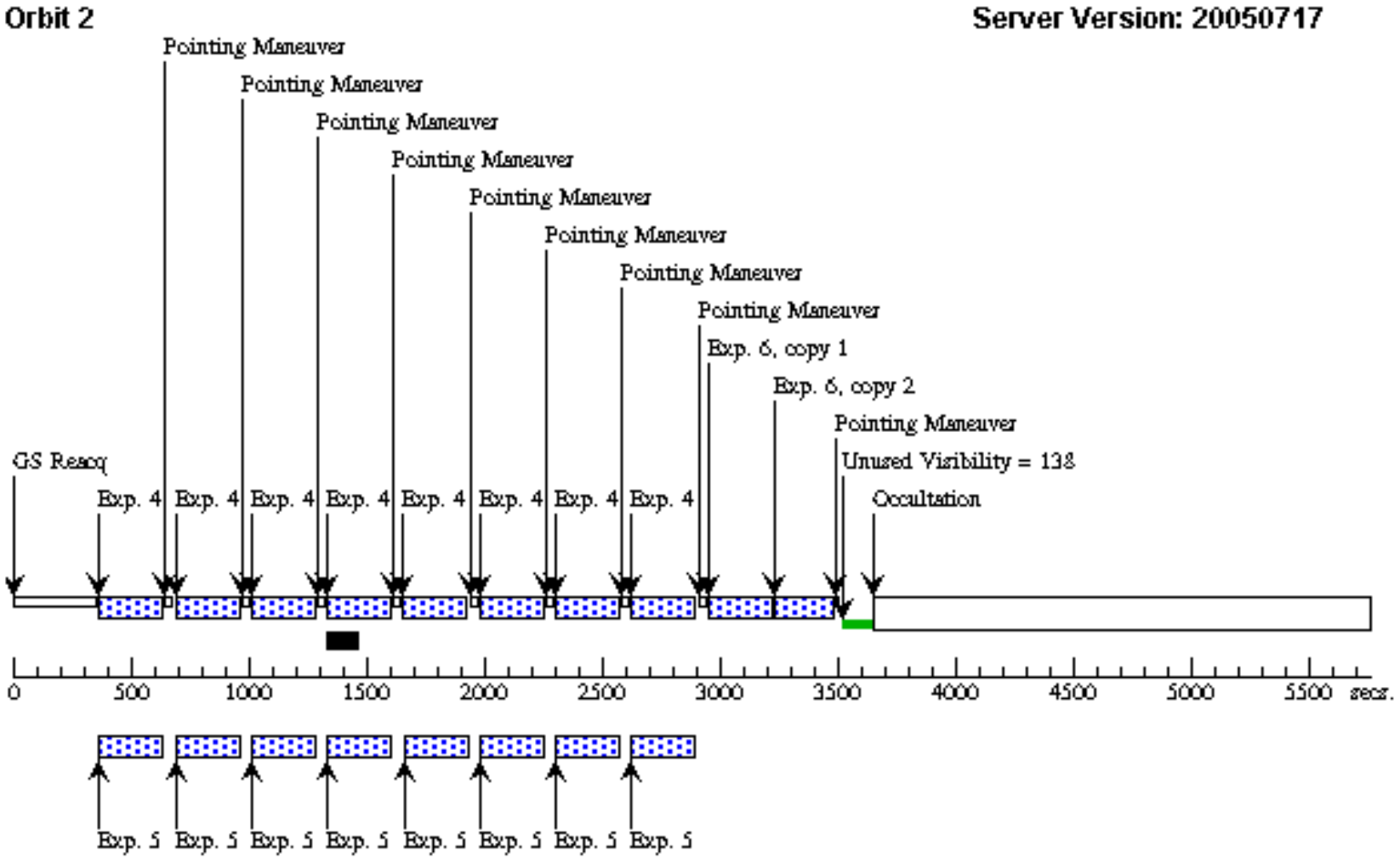
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
7	7	(4) 4C73.08	NIC2, MULTIACCUM, NIC2	POL240L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 7-8 (1) Prime + Parallel Group 7-8	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[3]***
8	8	ANY	NIC1, MULTIACCUM, NIC1	F170M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 7-8 (1) Prime + Parallel Group 7-8	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[3]***
9	9	(4) 4C73.08	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6	POS TARG -1.8,0		*[==>(Copy 1)]* *[==>(Copy 2)]*	***[3]***

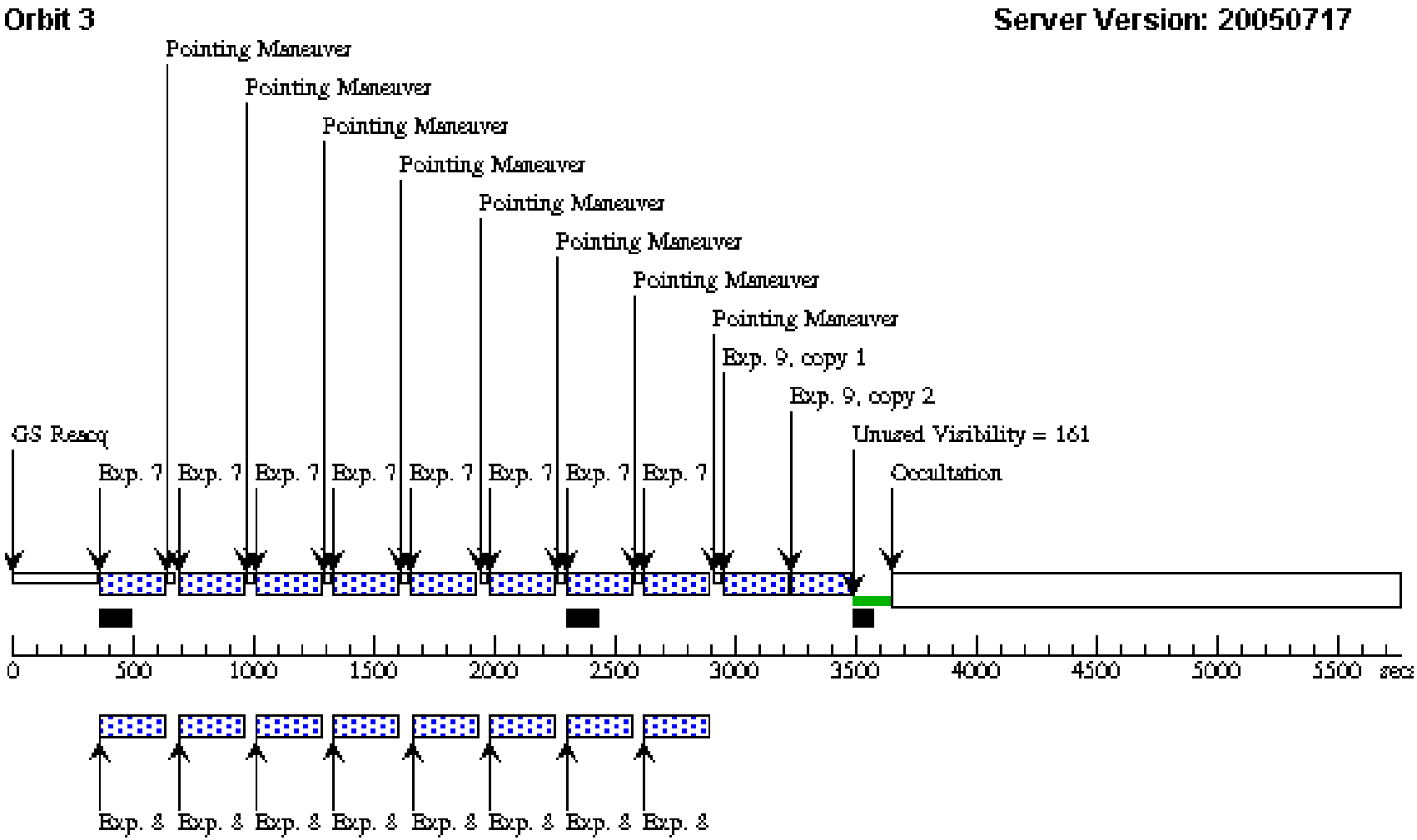
Orbit Structure



Orbit Structure (continued)



Orbit Structure (continued)



Visit

Proposal 10410, Visit 30 Sat Aug 20 01:14:42 GMT 2005

Diagnostic Status: Warning

Scientific Instruments: NIC2, NIC1

Special Requirements: NUMBER OF GYROS 3

Comments: Polarimetry of the radio galaxy 3C236 at 2.0 microns using the three long wavelength polarizers in NIC2, plus exposures at the end of each orbit using F110W in NIC2, plus coordinated parallel exposures in NIC1 with the F145M and F170M filter .

Diagnostics

(Visit 30) Warning: PATTERN POSITION OUTSIDE APERTURE

(Visit 30) Warning: PATTERN POSITION OUTSIDE APERTURE

(Visit 30) Warning: Number of Gyros overrides default value.

(Visit 30) Warning: PATTERN POSITION OUTSIDE APERTURE

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(3)	Pattern Type=NIC-XSTRIP-DITH-CHOP Purpose=DITHER Number Of Points=4 Point Spacing=0.9 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=180 Angle Between Sides= Center Pattern=true	Pattern Type=NIC-XSTRIP-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=35.5 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=270 Angle Between Sides= Center Pattern=false	(1-2), (4-5), (7-8)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	3C236	RA: 10 06 1.7230 (151.5071792d) Dec: +34 54 10.51 (34.90292d) Equinox: J2000 Plate Id: 01RS		V=17.18	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	(5) 3C236	NIC2, MULTIACCUM, NIC2	POL0L	SAMP-SEQ=SPARS64; NSAMP=6	GS ACQ SCENARIO BASE13GO	Pattern 1-2 (3) Prime + Parallel Group 1-2	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[1]***

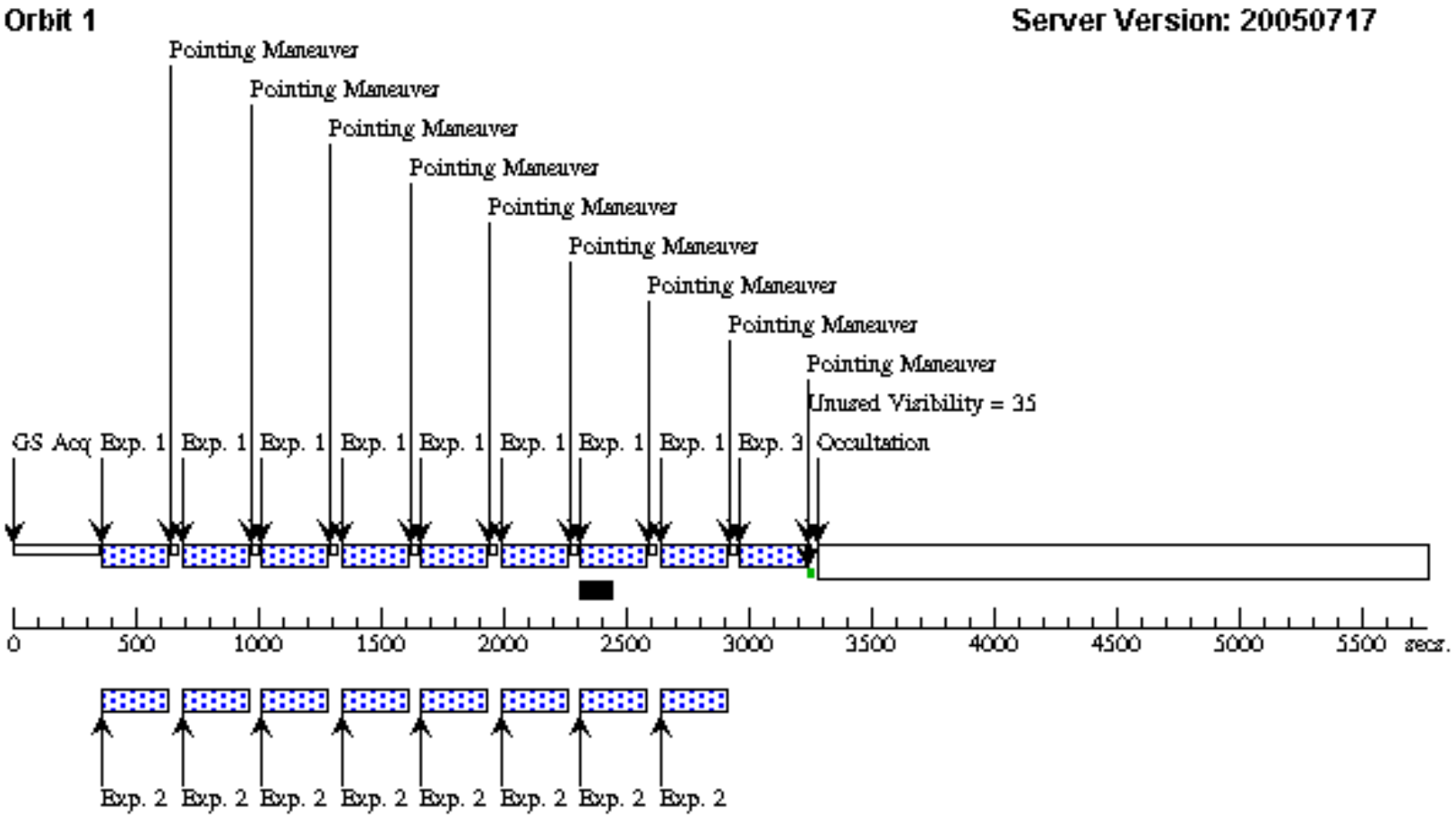
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
2	2	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 1-2 (3) Prime + Parallel Group 1-2	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[1]***
3	3	(5) 3C236	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6			*[==>]*	***[1]***
4	4	(5) 3C236	NIC2, MULTIACCUM, NIC2	POL120L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 4-5 (3) Prime + Parallel Group 4-5	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[2]***
5	5	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 4-5 (3) Prime + Parallel Group 4-5	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[2]***
6	6	(5) 3C236	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6	POS TARG -0.9,0		*[==>]*	***[2]***

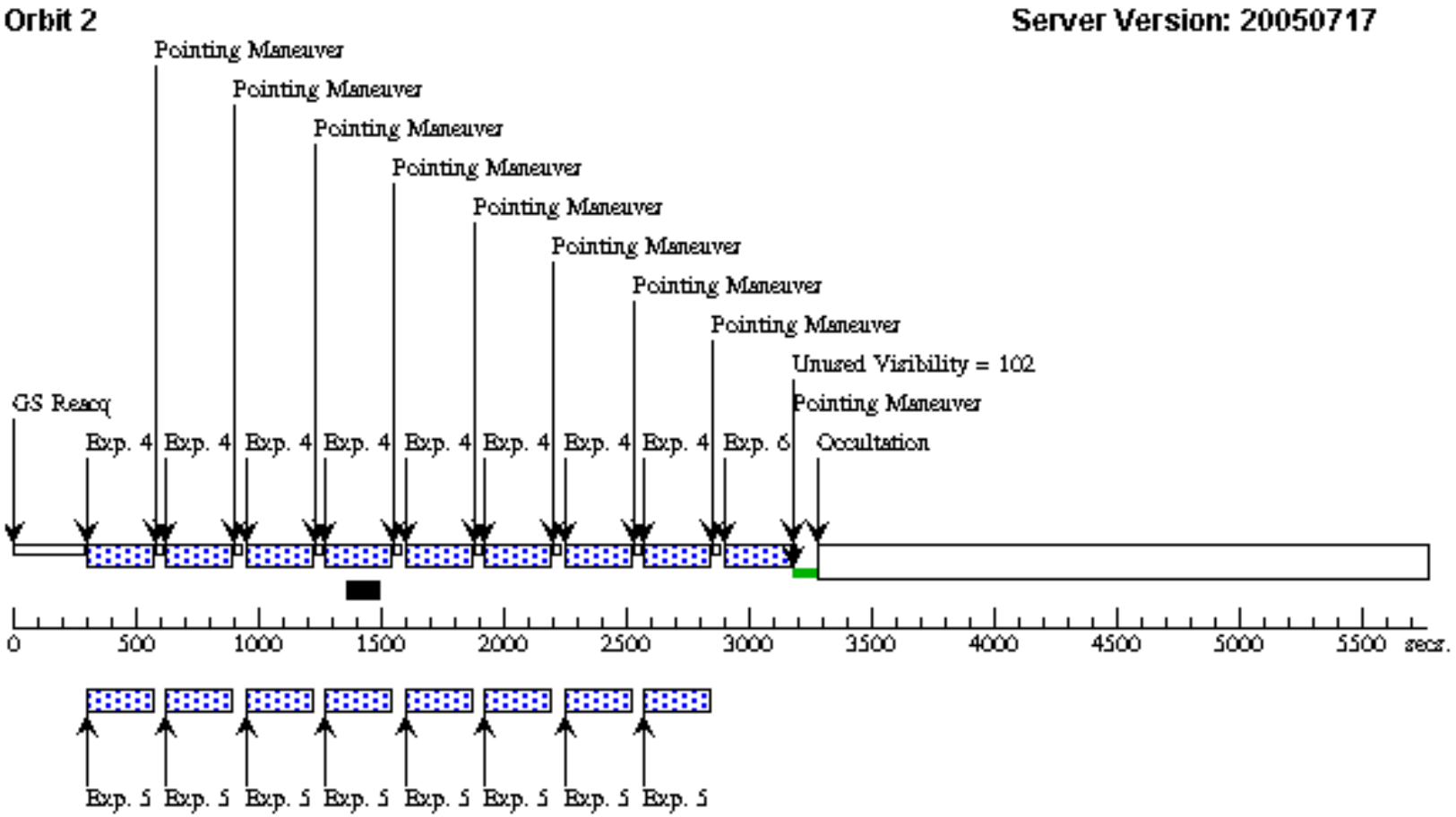
Exposures (continued)

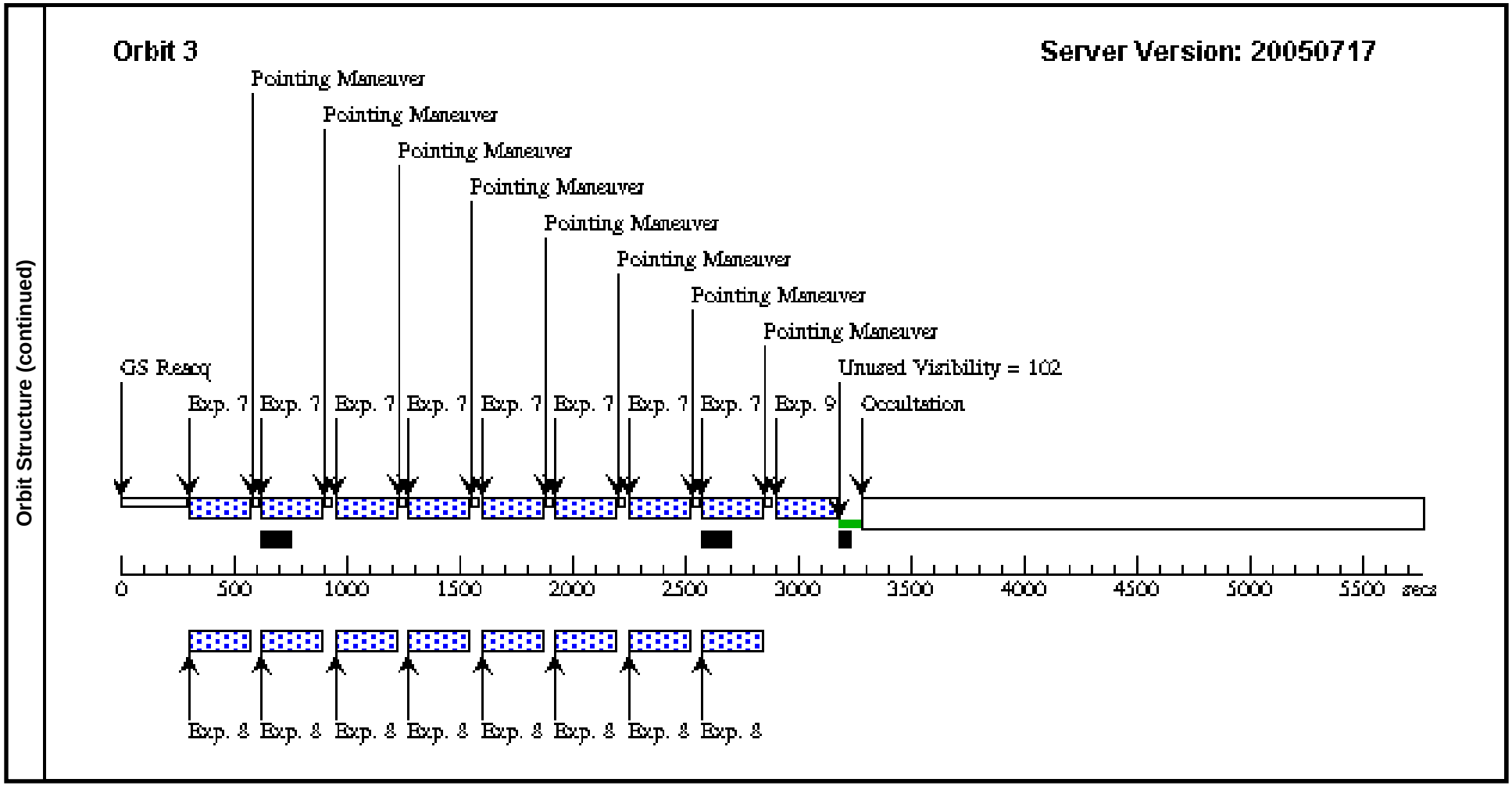
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
7	7	(5) 3C236	NIC2, MULTIACCUM, NIC2	POL240L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 7-8 (3) Prime + Parallel Group 7-8	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[3]***
8	8	ANY	NIC1, MULTIACCUM, NIC1	F170M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 7-8 (3) Prime + Parallel Group 7-8	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[3]***
9	9	(5) 3C236	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6	POS TARG -1.8,0		*[==>]*	***[3]***

Orbit Structure



Orbit Structure (continued)




Orbit Structure (continued)
Orbit 3
Server Version: 20050717
Pointing Maneuver
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GS Reacq
Unused Visibility = 102
Exp. 7
Exp. 7
Exp. 7
Exp. 7
Exp. 7
Exp. 7
Exp. 7
Exp. 7
Exp. 9
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs
Exp. 8
Exp. 8
Exp. 8
Exp. 8
Exp. 8
Exp. 8
Exp. 8
Exp. 8

Visit

Proposal 10410, Visit 35 Sat Aug 20 01:14:43 GMT 2005

Diagnostic Status: Warning

Scientific Instruments: NIC2, NIC1

Special Requirements: NUMBER OF GYROS 3

Comments: Polarimetry of the radio galaxy 3C277.3 at 2.0 microns using the three long wavelength polarizers in NIC2, plus exposures at the end of each orbit using F110W in NIC2, plus coordinated parallel exposures in NIC1 with the F145M and F170M filters.

Diagnostics

(Visit 35) Warning: Number of Gyros overrides default value.

(Visit 35) Warning: PATTERN POSITION OUTSIDE APERTURE

(Visit 35) Warning: PATTERN POSITION OUTSIDE APERTURE

(Visit 35) Warning: PATTERN POSITION OUTSIDE APERTURE

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(3)	Pattern Type=NIC-XSTRIP-DITH-CHOP Purpose=DITHER Number Of Points=4 Point Spacing=0.9 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=180 Angle Between Sides= Center Pattern=true	Pattern Type=NIC-XSTRIP-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=35.5 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=270 Angle Between Sides= Center Pattern=false	(1-2), (4-5), (7-8)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	3C277.3	RA: 12 54 12.0510 (193.5502125d) Dec: +27 37 32.80 (27.62578d) Equinox: J2000 Plate Id: 002K		V=15.94	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	(6) 3C277.3	NIC2, MULTIACCUM, NIC2	POL0L	SAMP-SEQ=SPARS64; NSAMP=6	GS ACQ SCENARIO BASE13GO	Pattern 1-2 (3) Prime + Parallel Group 1-2	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[1]***

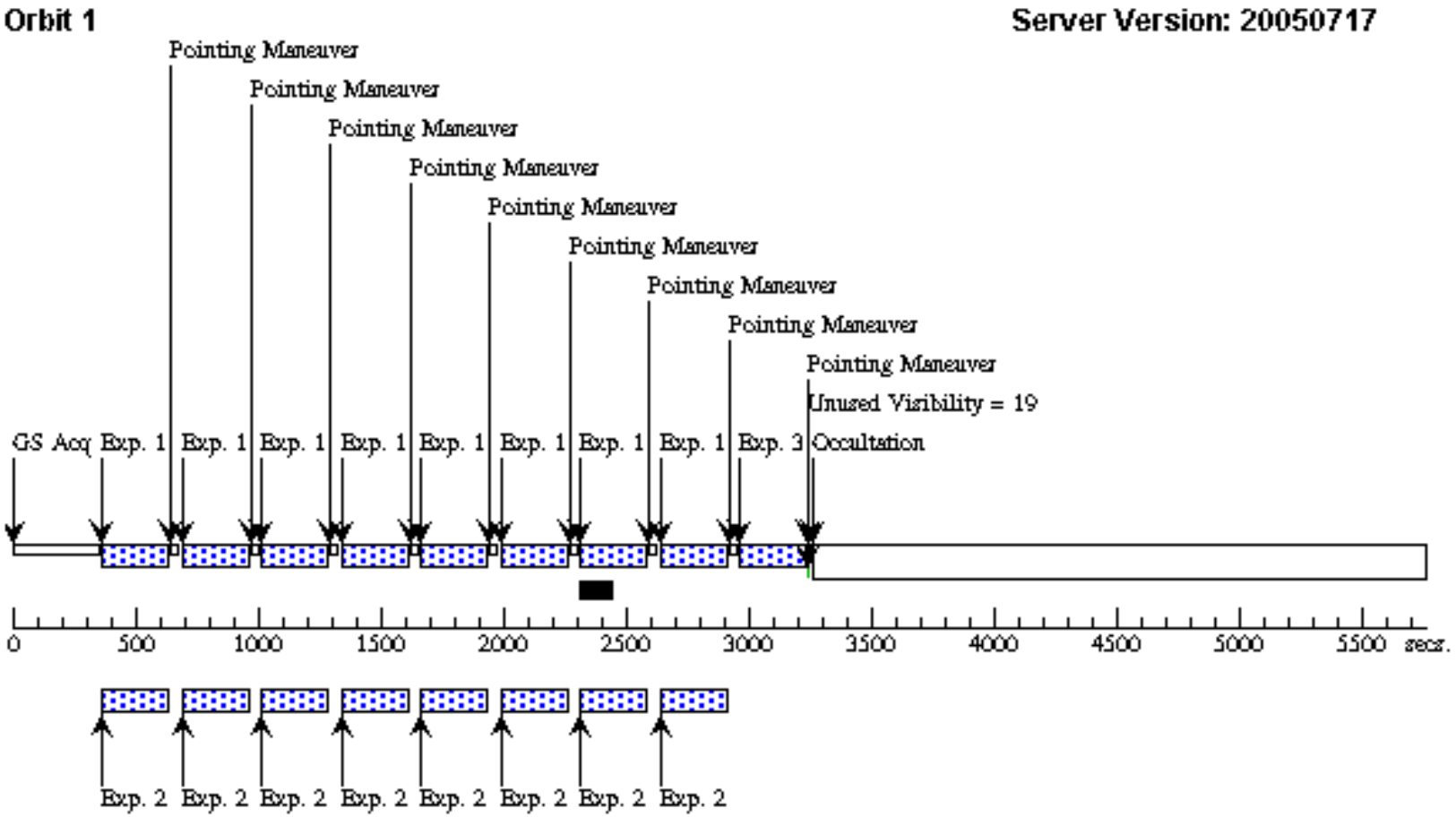
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
2	2	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 1-2 (3) Prime + Parallel Group 1-2	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[1]***
3	3	(6) 3C277.3	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6			*[==>]*	***[1]***
4	4	(6) 3C277.3	NIC2, MULTIACCUM, NIC2	POL120L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 4-5 (3) Prime + Parallel Group 4-5	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[2]***
5	5	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 4-5 (3) Prime + Parallel Group 4-5	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[2]***
6	6	(6) 3C277.3	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6	POS TARG -0.9,0		*[==>]*	***[2]***

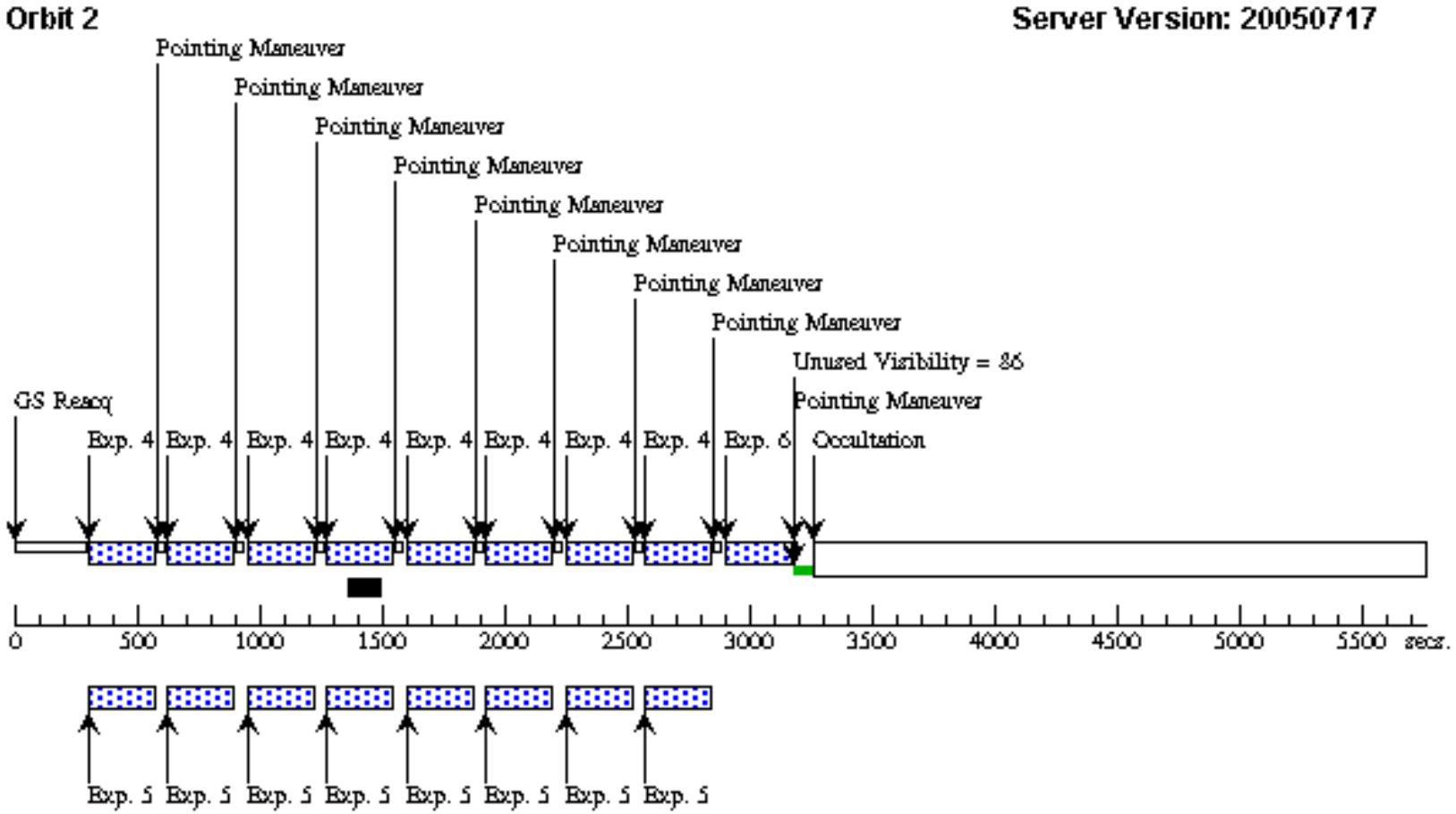
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
7	7	(6) 3C277.3	NIC2, MULTIACCUM, NIC2	POL240L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 7-8 (3) Prime + Parallel Group 7-8	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[3]***
8	8	ANY	NIC1, MULTIACCUM, NIC1	F170M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 7-8 (3) Prime + Parallel Group 7-8	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[3]***
9	9	(6) 3C277.3	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6	POS TARG -1.8,0		*[==>]*	***[3]***

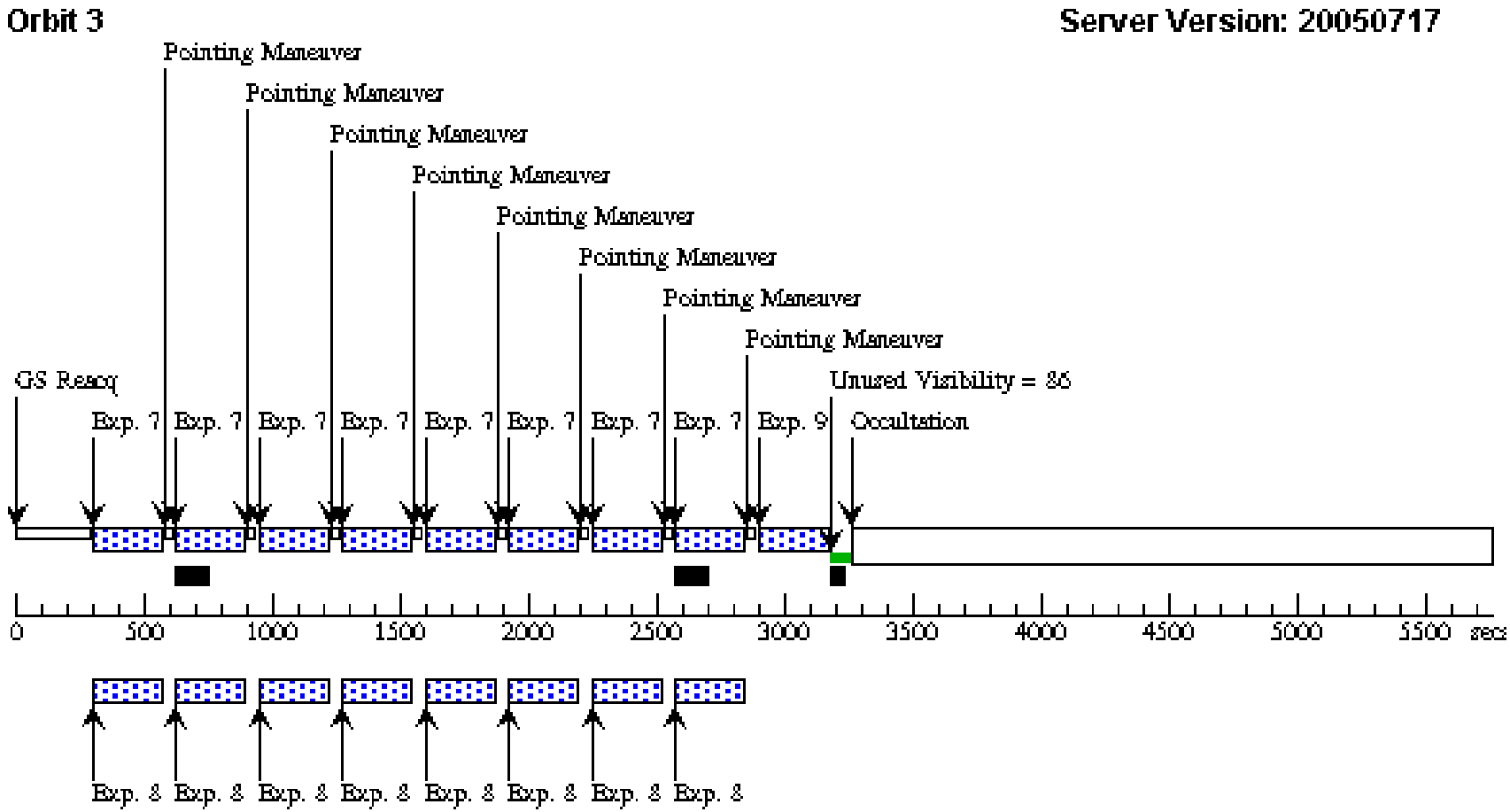
Orbit Structure



Orbit Structure (continued)



Orbit Structure (continued)



Visit

Proposal 10410, Visit 40 Sat Aug 20 01:14:44 GMT 2005

Diagnostic Status: Warning

Scientific Instruments: NIC2, NIC1

Special Requirements: (none)

Comments: Polarimetry of the radio galaxy 3C285 at 2.0 microns using the three long wavelength polarizers in NIC2, plus exposures at the end of each orbit using F110W in NIC2, plus coordinated parallel exposures in NIC1 with the F145M and F170M filters.

Diagnostics

(Visit 40) Warning: PATTERN POSITION OUTSIDE APERTURE

(Visit 40) Warning: PATTERN POSITION OUTSIDE APERTURE

(Visit 40) Warning: PATTERN POSITION OUTSIDE APERTURE

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(3)	Pattern Type=NIC-XSTRIP-DITH-CHOP Purpose=DITHER Number Of Points=4 Point Spacing=0.9 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=180 Angle Between Sides= Center Pattern=true	Pattern Type=NIC-XSTRIP-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=35.5 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=270 Angle Between Sides= Center Pattern=false	(1-2), (4-5), (7-8)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	3C285	RA: 13 21 17.8170 (200.3242375d) Dec: +42 35 15.05 (42.58751d) Equinox: J2000 Plate Id: 01PY		V=16.05	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	(7) 3C285	NIC2, MULTIACCUM, NIC2	POL0L	SAMP-SEQ=SPARS64; NSAMP=6		Pattern 1-2 (3) Prime + Parallel Group 1-2	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[1]***

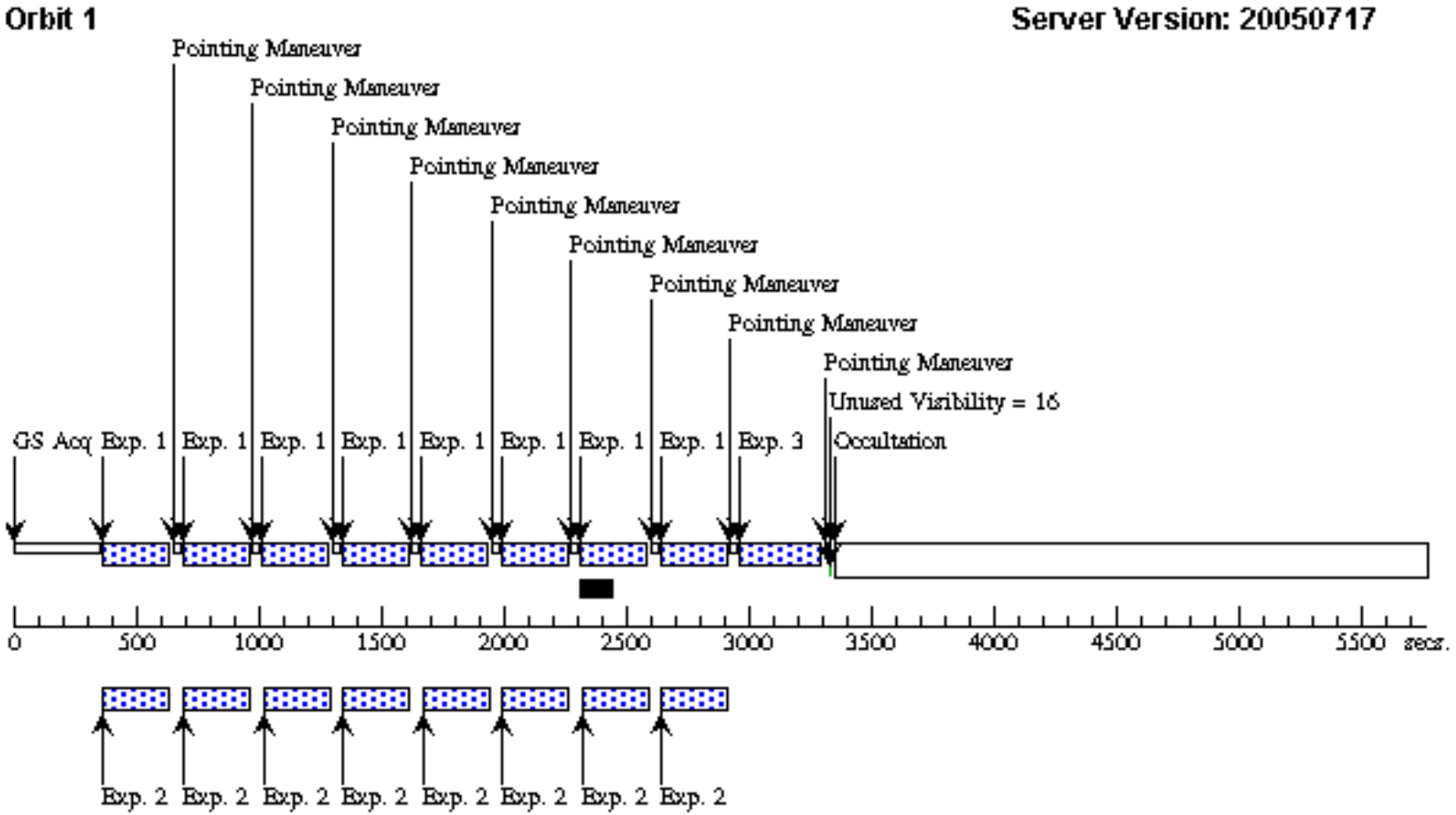
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
2	2	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 1-2 (3) Prime + Parallel Group 1-2	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[1]***
3	3	(7) 3C285	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=7			*[==>]*	***[1]***
4	4	(7) 3C285	NIC2, MULTIACCUM, NIC2	POL120L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 4-5 (3) Prime + Parallel Group 4-5	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[2]***
5	5	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 4-5 (3) Prime + Parallel Group 4-5	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[2]***
6	6	(7) 3C285	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=7	POS TARG -0.9,0		*[==>]*	***[2]***

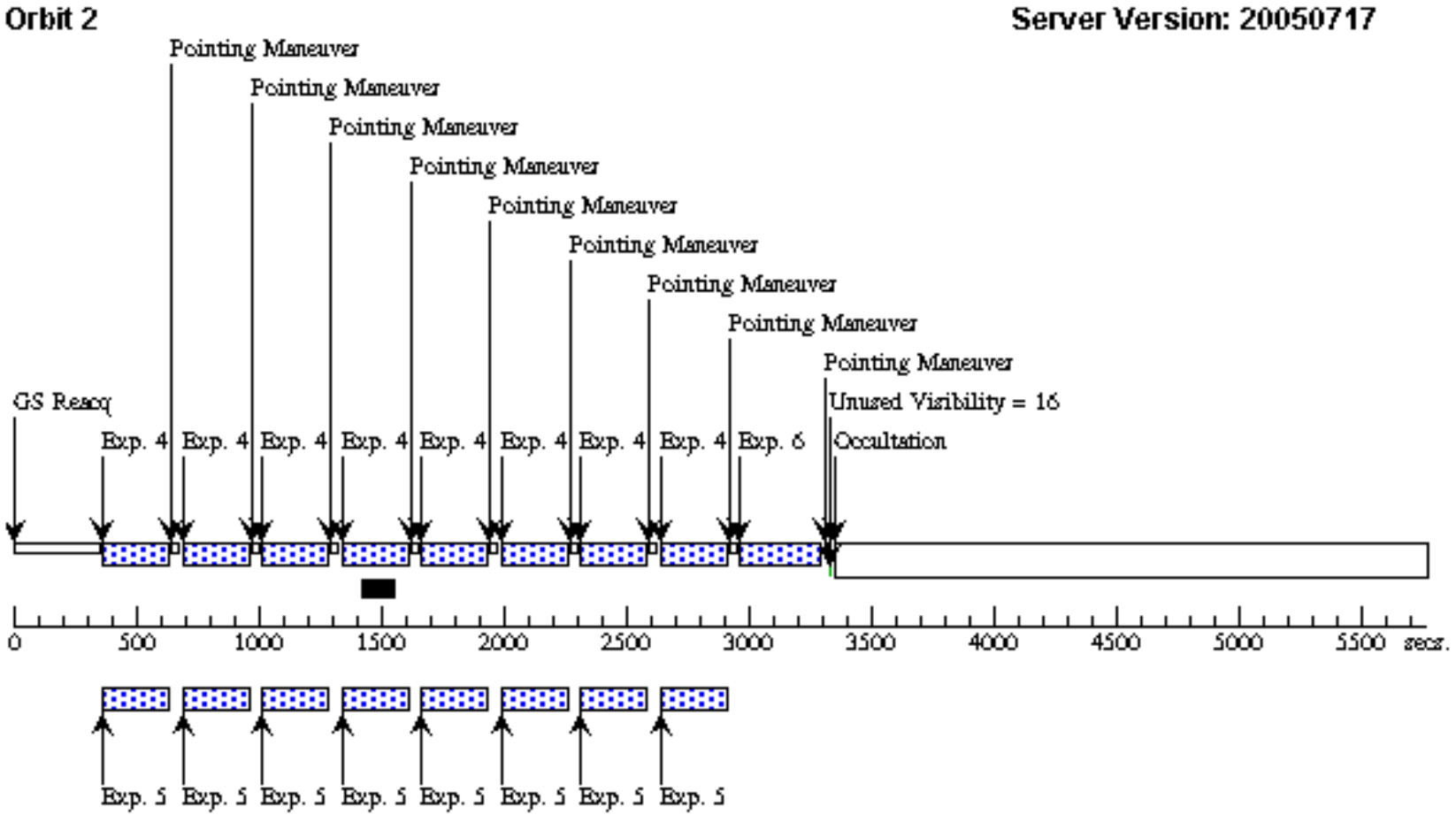
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
7	7	(7) 3C285	NIC2, MULTIACCUM, NIC2	POL240L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 7-8 (3) Prime + Parallel Group 7-8	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[3]***
8	8	ANY	NIC1, MULTIACCUM, NIC1	F170M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 7-8 (3) Prime + Parallel Group 7-8	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[3]***
9	9	(7) 3C285	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=7	POS TARG -1.8,0		*[==>]*	***[3]***

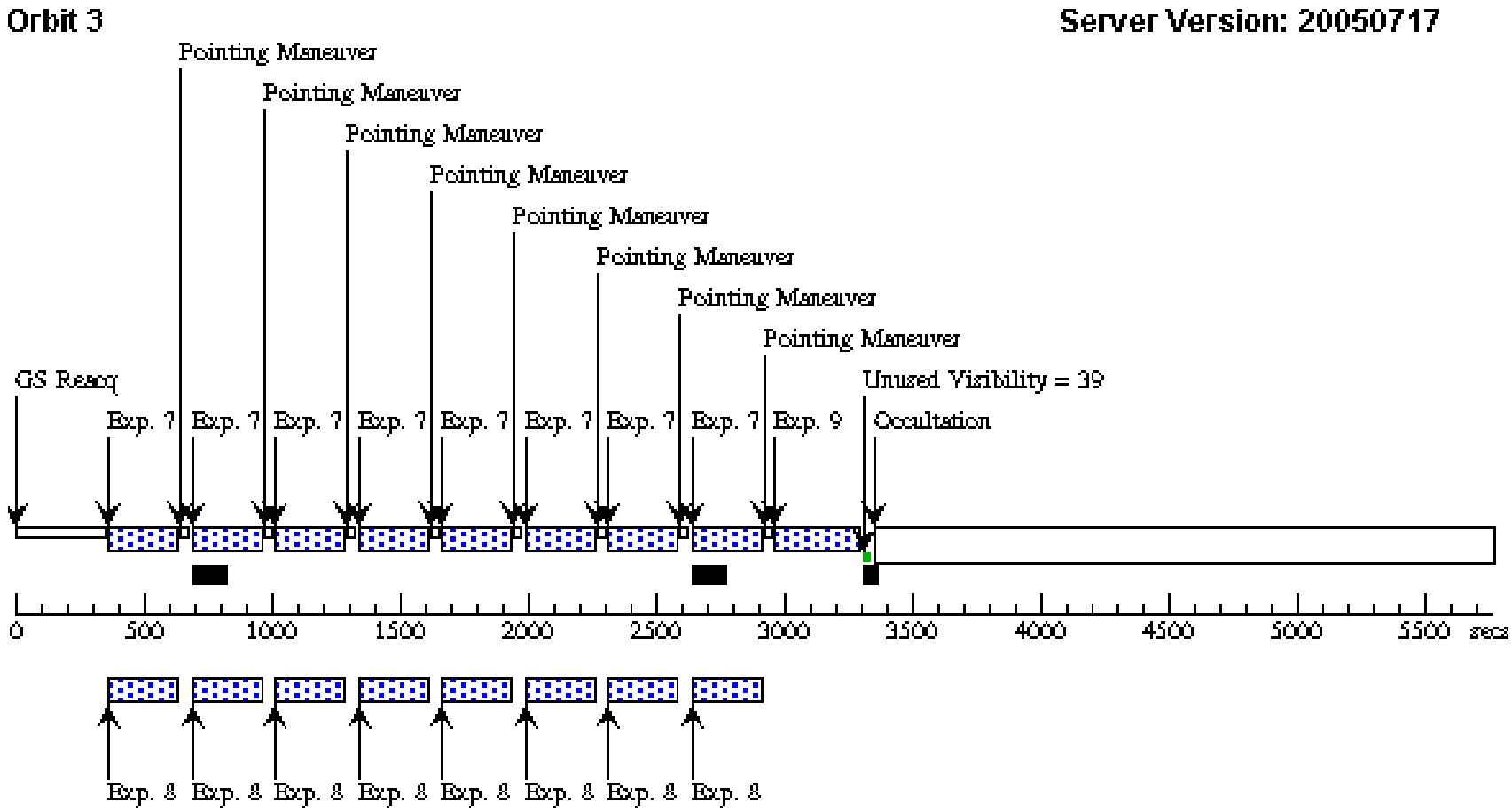
Orbit Structure



Orbit Structure (continued)



Orbit Structure (continued)



Visit

Proposal 10410, Visit 45 Sat Aug 20 01:14:45 GMT 2005

Diagnostic Status: Warning

Scientific Instruments: NIC2, NIC1

Special Requirements: NUMBER OF GYROS 3

Comments: Polarimetry of the radio galaxy 3C321 at 2.0 microns using the three long wavelength polarizers in NIC2, plus exposures at the end of each orbit using F110W in NIC2, plus coordinated parallel exposures in NIC1 with the F145W filter.

Diagnostics

(Visit 45) Warning: PATTERN POSITION OUTSIDE APERTURE

(Visit 45) Warning: PATTERN POSITION OUTSIDE APERTURE

(Visit 45) Warning: Number of Gyros overrides default value.

(Visit 45) Warning: PATTERN POSITION OUTSIDE APERTURE

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(3)	Pattern Type=NIC-XSTRIP-DITH-CHOP Purpose=DITHER Number Of Points=4 Point Spacing=0.9 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=180 Angle Between Sides= Center Pattern=true	Pattern Type=NIC-XSTRIP-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=35.5 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=270 Angle Between Sides= Center Pattern=false	(1-2), (4-5), (7-8)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	3C321	RA: 15 31 43.4080 (232.9308667d) Dec: +24 04 19.25 (24.07201d) Equinox: J2000 Plate Id: 0280		V=15.54	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	(8) 3C321	NIC2, MULTIACCUM, NIC2	POL0L	SAMP-SEQ=SPARS64; NSAMP=6	GS ACQ SCENARIO BASE13GO	Pattern 1-2 (3) Prime + Parallel Group 1-2	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[1]***

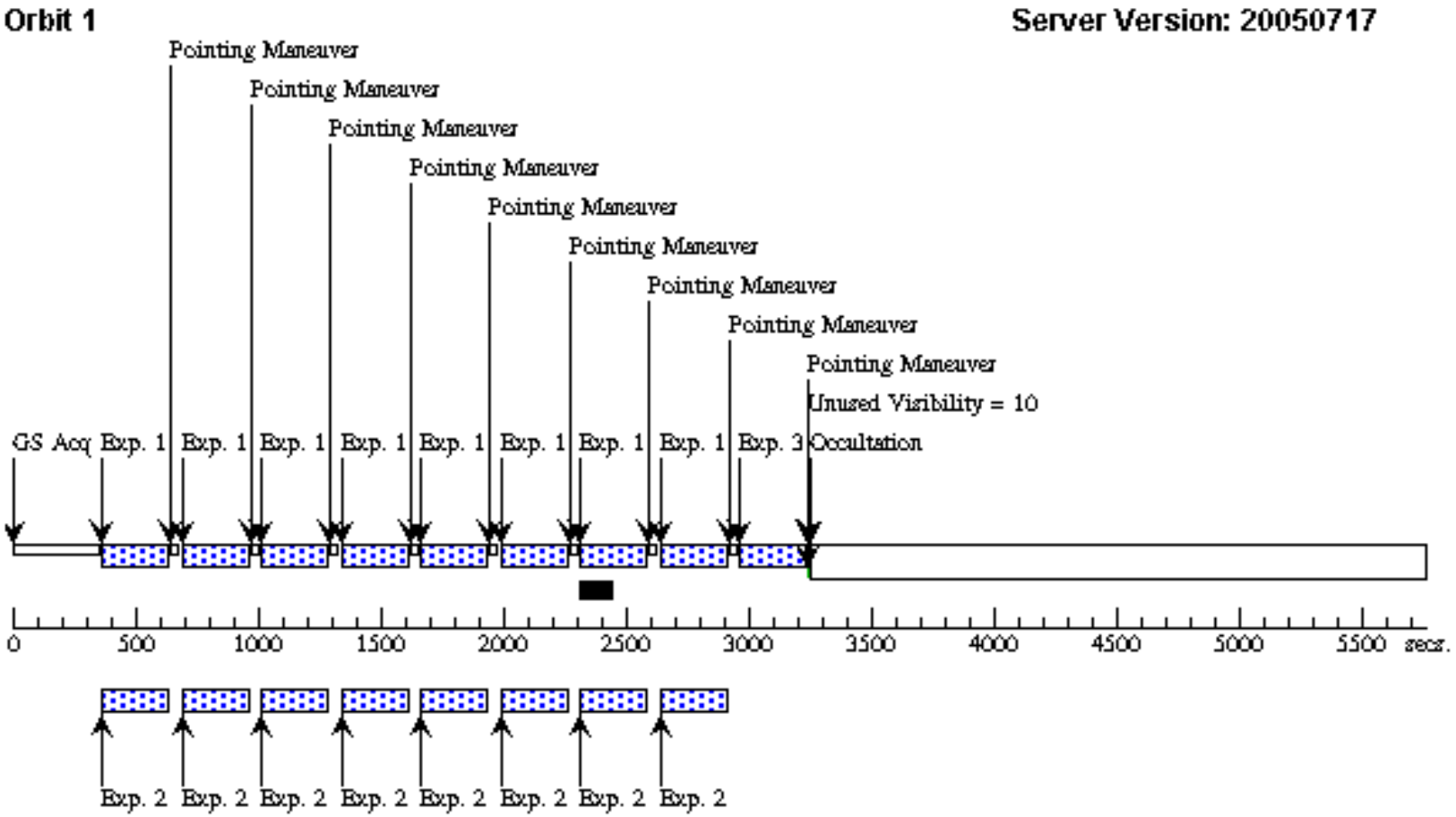
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
2	2	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 1-2 (3) Prime + Parallel Group 1-2	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[1]***
3	3	(8) 3C321	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6			*[==>]*	***[1]***
4	4	(8) 3C321	NIC2, MULTIACCUM, NIC2	POL120L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 4-5 (3) Prime + Parallel Group 4-5	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[2]***
5	5	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 4-5 (3) Prime + Parallel Group 4-5	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[2]***
6	6	(8) 3C321	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6	POS TARG -0.9,0		*[==>]*	***[2]***

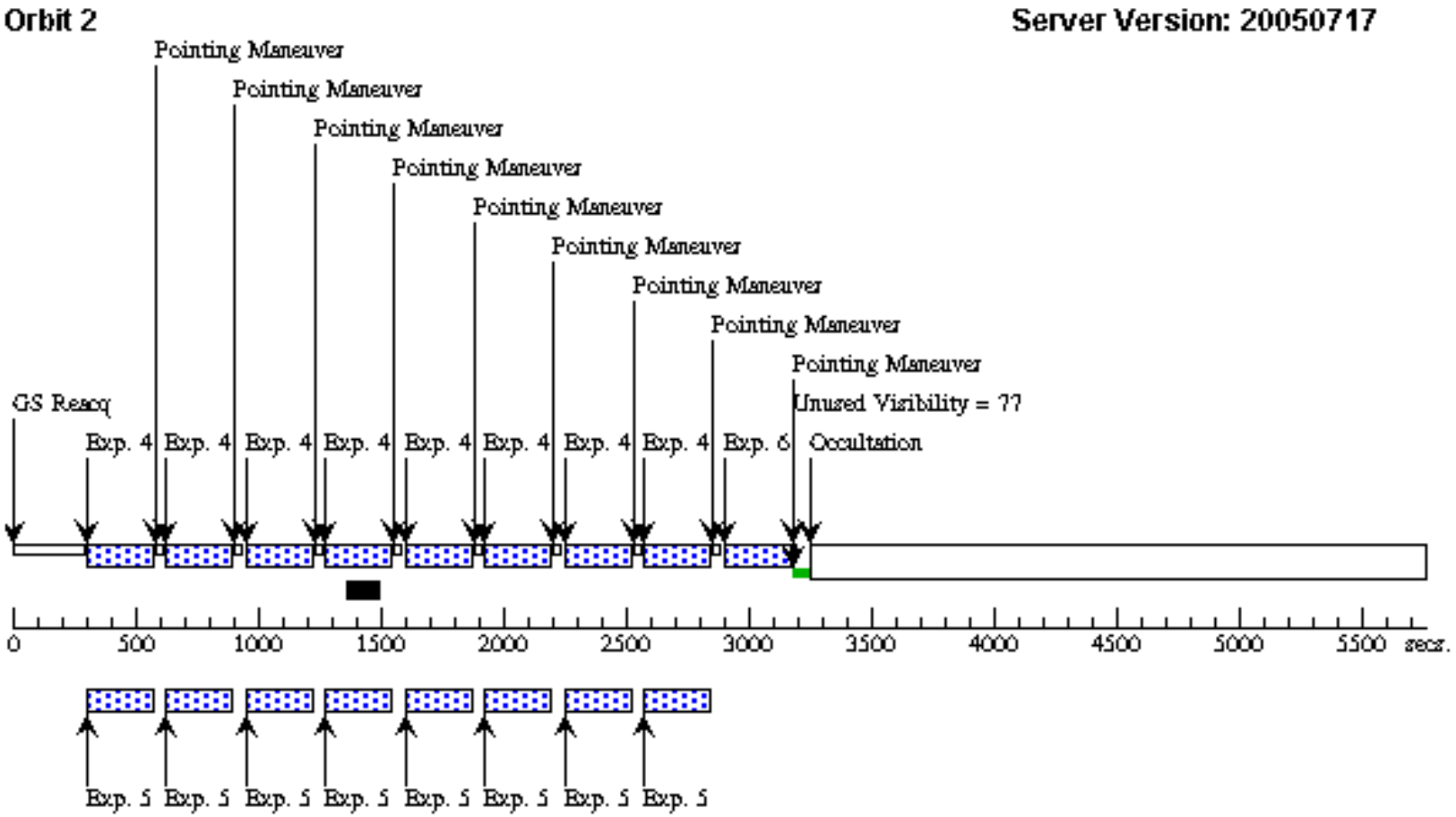
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
7	7	(8) 3C321	NIC2, MULTIACCUM, NIC2	POL240L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 7-8 (3) Prime + Parallel Group 7-8	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[3]***
8	8	ANY	NIC1, MULTIACCUM, NIC1	F170M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 7-8 (3) Prime + Parallel Group 7-8	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[3]***
9	9	(8) 3C321	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=6	POS TARG -1.8,0		*[==>]*	***[3]***

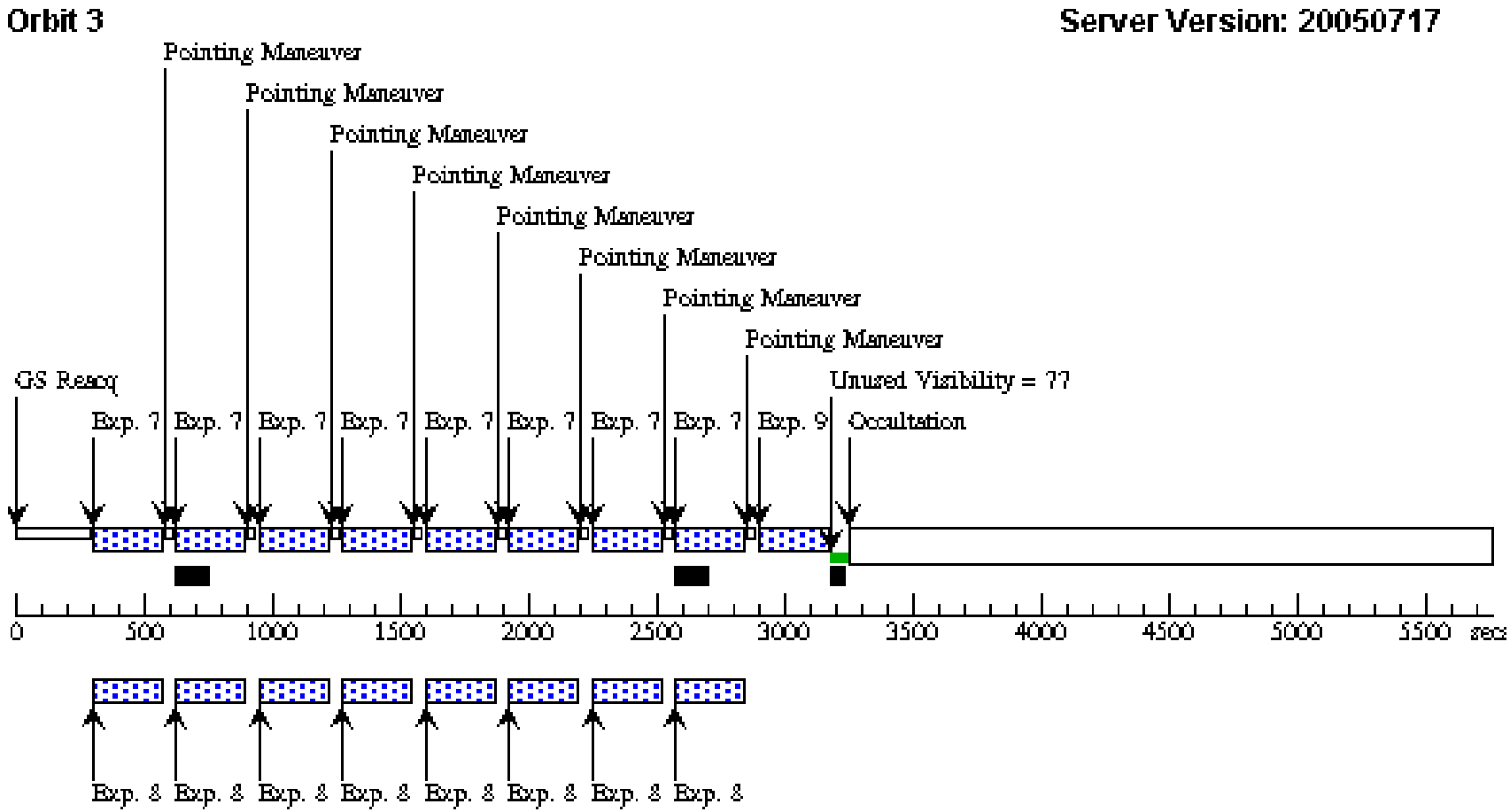
Orbit Structure



Orbit Structure (continued)



Orbit Structure (continued)



Visit	
Visit	**Proposal 10410, Visit 50** Sat Aug 20 01:14:46 GMT 2005 **Diagnostic Status: Warning** Scientific Instruments: NIC2, NIC1 Special Requirements: NUMBER OF GYROS 3 *Comments: Observations of 3C433 with the three long wavelengfth polarizers in NIC2, plus coordinated parallel observations with F170M, F145M and F1110W in NIC1 when NIC2 chops to the sky. In this case, because of saturation issues with a bright nuclear point source in the K-band, the observation strategy is somewhat different from the other objects in the sample. We face the difficulty that the exact brightness of the point source in the K-band is unknown (estimates range from 12.7 to 14.5). Clearly reduced exposure times are required to avoid any possibility of saturation. However, taking several images at each position of the x-strip dither chop used for the objects would lead to problems with residual image effects (see NICMOS manual, polarimetry section), therefore, in order to avoid the residual image effects and saturation we adopt the following strategy:- As before, each orbit will concentrate on observations in NIC2 with only one polarization filter.- The first set of on-source exposures with NIC2 in each orbit will comprise an x-strip-dither with four 16 s sub-exposures (and preceding sky exposures with no dither)- Then three sets with longer (64s) subexposures. Within each set we wil perform an x-strip-dither with four dither positions. The three sets will also be dithered from each other in the y direction. Therefore we will have a total of 12 dither positions for each filter.- The longer expsosure NIC2 observations will be interdispersed with three off source sets of sky exposures. Each set of sky exposures will simply consist of 4 exposures at the same position (in order to avoid overheads), the exposure time of the sub-images is set to be the same as for the on-source observations. Although there is no dithering within each set of sky exposures, the three sets will be dithered relative to each other.- Coordinated parallels with NIC1 and F110W, F170M and F145M are scheduled to coincide with the sky chops.*
Diagnostics	(Visit 50) Warning: POS TARG OUTSIDE OF APERTURE (Visit 50) Warning: POS TARG OUTSIDE OF APERTURE (Visit 50) Warning: POS TARG OUTSIDE OF APERTURE (Visit 50) Warning: POS TARG OUTSIDE OF APERTURE (Visit 50) Warning: POS TARG OUTSIDE OF APERTURE (Visit 50) Warning: POS TARG OUTSIDE OF APERTURE (Visit 50) Warning: POS TARG OUTSIDE OF APERTURE (Visit 50) Warning: Number of Gyros overrides default value. (Visit 50) Warning: POS TARG OUTSIDE OF APERTURE

Diagnostics (continued)

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Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=NIC-XSTRIP-DITH Purpose=DITHER Number Of Points=4 Point Spacing=0.9 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=180 Angle Between Sides= Center Pattern=false		(2), (5), (8), (11), (13), (16), (19), (22), (24), (27), (30), (33)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	3C433	RA: 21 23 44.6330 (320.9359708d) Dec: +25 04 27.53 (25.07431d) Equinox: J2000 Plate Id: 03OE		V=15.54	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	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL0L	SAMP-SEQ=STEP32; NSAMP=7	POS TARG 0,-31.5; GS ACQ SCENARIO BASE13GO		*[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]*	*[1]*

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
2	2	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL0L	SAMP-SEQ=STEP32; NSAMP=7		Pattern 2-2 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
3	3	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL0L	SAMP-SEQ=STEP32; NSAMP=9	POS TARG 0,-31.5	Prime + Parallel Group 3-4	*[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]*	***[1]***
4	4	ANY	NIC1, MULTIACCUM, NIC1	F170M	SAMP-SEQ=SPARS64; NSAMP=6		Prime + Parallel Group 3-4	*[==>]*	***[1]***
5	5	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL0L	SAMP-SEQ=STEP32; NSAMP=9	POS TARG 0,-0.9	Pattern 5-5 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
6	6	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL0L	SAMP-SEQ=STEP32; NSAMP=9	POS TARG -0.9,-31.5	Prime + Parallel Group 6-7	*[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]*	***[1]***
7	7	ANY	NIC1, MULTIACCUM, NIC1	F170M	SAMP-SEQ=SPARS64; NSAMP=6		Prime + Parallel Group 6-7	*[==>]*	***[1]***
8	8	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL0L	SAMP-SEQ=STEP32; NSAMP=9	POS TARG 0,-1.8	Pattern 8-8 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
9	9	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL0L	SAMP-SEQ=STEP32; NSAMP=9	POS TARG -1.8,-31.5	Prime + Parallel Group 9-10	*[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]*	***[1]***
10	10	ANY	NIC1, MULTIACCUM, NIC1	F170M	SAMP-SEQ=SPARS64; NSAMP=6		Prime + Parallel Group 9-10	*[==>]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
11	11	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL0L	SAMP-SEQ=STEP32; NSAMP=9	POS TARG 0,-2.7	Pattern 11-11 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
12	12	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL120L	SAMP-SEQ=STEP32; NSAMP=7	POS TARG 0,-31.5		*[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]*	***[2]***
13	13	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL120L	SAMP-SEQ=STEP32; NSAMP=7	POS TARG 0,0	Pattern 13-13 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[2]***
14	14	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL120L	SAMP-SEQ=STEP32; NSAMP=9	POS TARG 0,-31.5	Prime + Parallel Group 14-15	*[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]*	***[2]***
15	15	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS64; NSAMP=6		Prime + Parallel Group 14-15	*[==>]*	***[2]***
16	16	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL120L	SAMP-SEQ=STEP32; NSAMP=9	POS TARG 0,-0.9	Pattern 16-16 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[2]***
17	17	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL120L	SAMP-SEQ=STEP32; NSAMP=9	POS TARG -0.9,-31.5	Prime + Parallel Group 17-18	*[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]*	***[2]***
18	18	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS64; NSAMP=6		Prime + Parallel Group 17-18	*[==>]*	***[2]***
19	19	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL120L	SAMP-SEQ=STEP32; NSAMP=9	POS TARG 0,-1.8	Pattern 19-19 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[2]***

Exposures (continued)

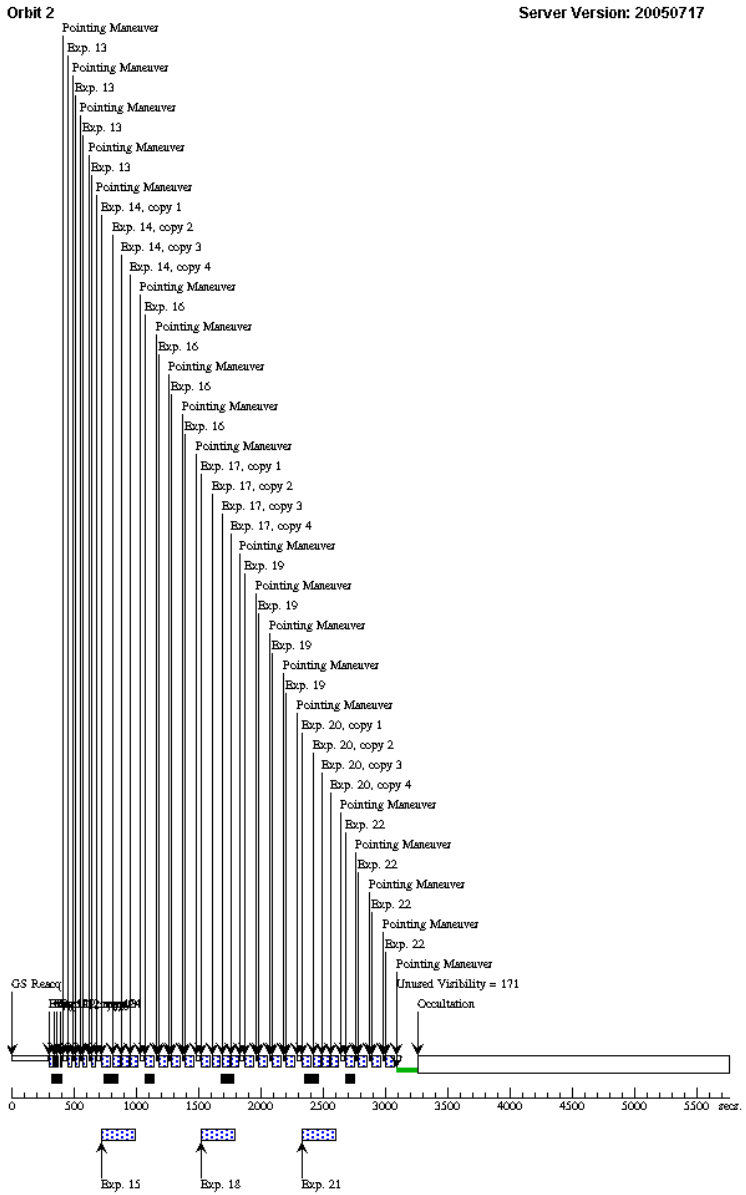
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
20	20	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL120L	SAMP-SEQ=STEP32; NSAMP=9	POS TARG -1.8,-31.5	Prime + Parallel Group 20-21	*[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]*	***[2]***
21	21	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS64; NSAMP=6		Prime + Parallel Group 20-21	*[==>]*	***[2]***
22	22	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL120L	SAMP-SEQ=STEP32; NSAMP=9	POS TARG 0,-2.7	Pattern 22-22 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[2]***
23	23	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL240L	SAMP-SEQ=STEP32; NSAMP=7	POS TARG 0,-31.5		*[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]*	***[3]***
24	24	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL240L	SAMP-SEQ=STEP32; NSAMP=7	POS TARG 0,0	Pattern 24-24 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[3]***
25	25	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL240L	SAMP-SEQ=STEP32; NSAMP=9	POS TARG 0,-31.5	Prime + Parallel Group 25-26	*[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]*	***[3]***
26	26	ANY	NIC1, MULTIACCUM, NIC1	F110W	SAMP-SEQ=SPARS64; NSAMP=6		Prime + Parallel Group 25-26	*[==>]*	***[3]***
27	27	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL240L	SAMP-SEQ=STEP32; NSAMP=9	POS TARG 0,-0.9	Pattern 27-27 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[3]***
28	28	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL240L	SAMP-SEQ=STEP32; NSAMP=9	POS TARG -0.9,-31.5	Prime + Parallel Group 28-29	*[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]*	***[3]***

Exposures (continued)

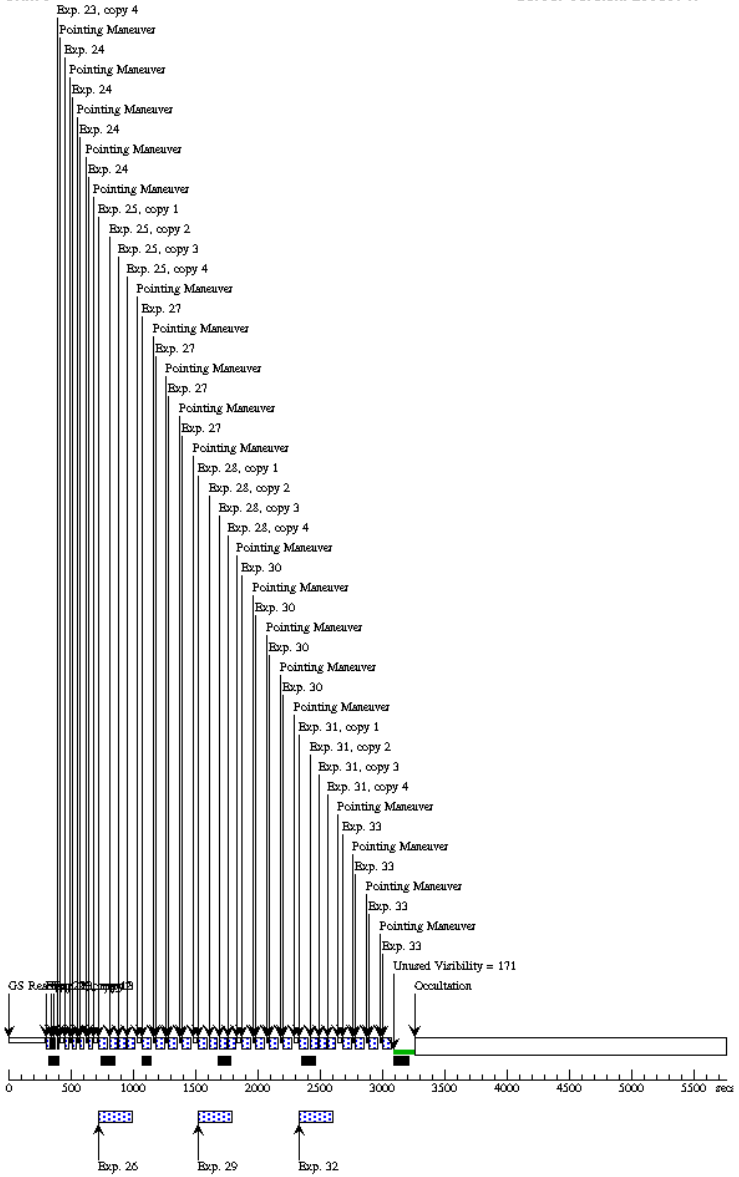
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
29	29	ANY	NIC1, MULTIACCUM, NIC1	F110W	SAMP-SEQ=SPARS64; NSAMP=6		Prime + Parallel Group 28-29	*[==>]*	***[3]***
30	30	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL240L	SAMP-SEQ=STEP32; NSAMP=9	POS TARG 0,-1.8	Pattern 30-30 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[3]***
31	31	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL240L	SAMP-SEQ=STEP32; NSAMP=9	POS TARG -1.8,-31.5	Prime + Parallel Group 31-32	*[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]*	***[3]***
32	32	ANY	NIC1, MULTIACCUM, NIC1	F110W	SAMP-SEQ=SPARS64; NSAMP=6		Prime + Parallel Group 31-32	*[==>]*	***[3]***
33	33	(9) 3C433	NIC2, MULTIACCUM, NIC2	POL240L	SAMP-SEQ=STEP32; NSAMP=9	POS TARG 0,-2.7	Pattern 33-33 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[3]***

Orbit Structure

Orbit Structure (continued)



Orbit Structure (continued)



Visit

Proposal 10410, Visit 55 Sat Aug 20 01:14:53 GMT 2005

Diagnostic Status: Warning

Scientific Instruments: NIC2, NIC1

Special Requirements: (none)

Comments: Polarimetry of the radio galaxy 3C452 at 2.0 microns using the three long wavelength polarizers in NIC2, plus exposures at the end of each orbit using F110W in NIC2, plus coordinated parallel exposures in NIC1 with the F145M and 170M filters.

Diagnostics

(Visit 55) Warning: PATTERN POSITION OUTSIDE APERTURE
(Visit 55) Warning: VISIBILITY OVERRUN
(Visit 55) Warning: PATTERN POSITION OUTSIDE APERTURE
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(Visit 55) Warning: VISIBILITY OVERRUN
(Visit 55) Warning: PATTERN POSITION OUTSIDE APERTURE

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(3)	Pattern Type=NIC-XSTRIP-DITH-CHOP Purpose=DITHER Number Of Points=4 Point Spacing=0.9 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=180 Angle Between Sides= Center Pattern=true	Pattern Type=NIC-XSTRIP-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=35.5 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=270 Angle Between Sides= Center Pattern=false	(1-2), (4-5), (7-8)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	3C452	RA: 22 45 48.8780 (341.4536583d) Dec: +39 41 14.80 (39.68744d) Equinox: J2000 Plate Id: 037L		V=16.86	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	(10) 3C452	NIC2, MULTIACCUM, NIC2	POL0L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 1-2 (3) Prime + Parallel Group 1-2	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[1]***

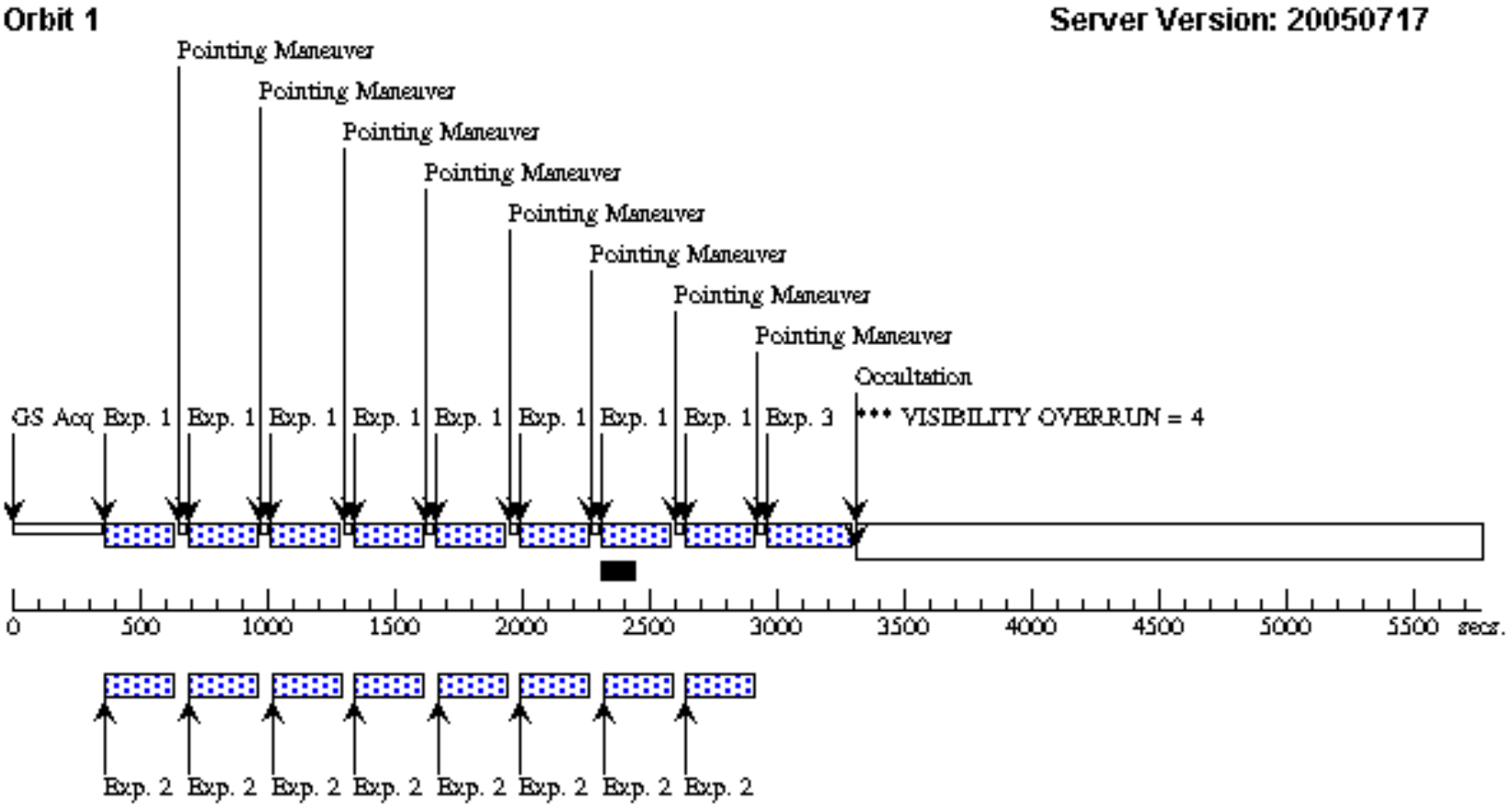
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
2	2	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 1-2 (3) Prime + Parallel Group 1-2	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[1]***
3	3	(10) 3C452	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=7			*[==>]*	***[1]***
4	4	(10) 3C452	NIC2, MULTIACCUM, NIC2	POL120L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 4-5 (3) Prime + Parallel Group 4-5	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[2]***
5	5	ANY	NIC1, MULTIACCUM, NIC1	F145M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 4-5 (3) Prime + Parallel Group 4-5	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[2]***
6	6	(10) 3C452	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=7	POS TARG -0.9,0		*[==>]*	***[2]***

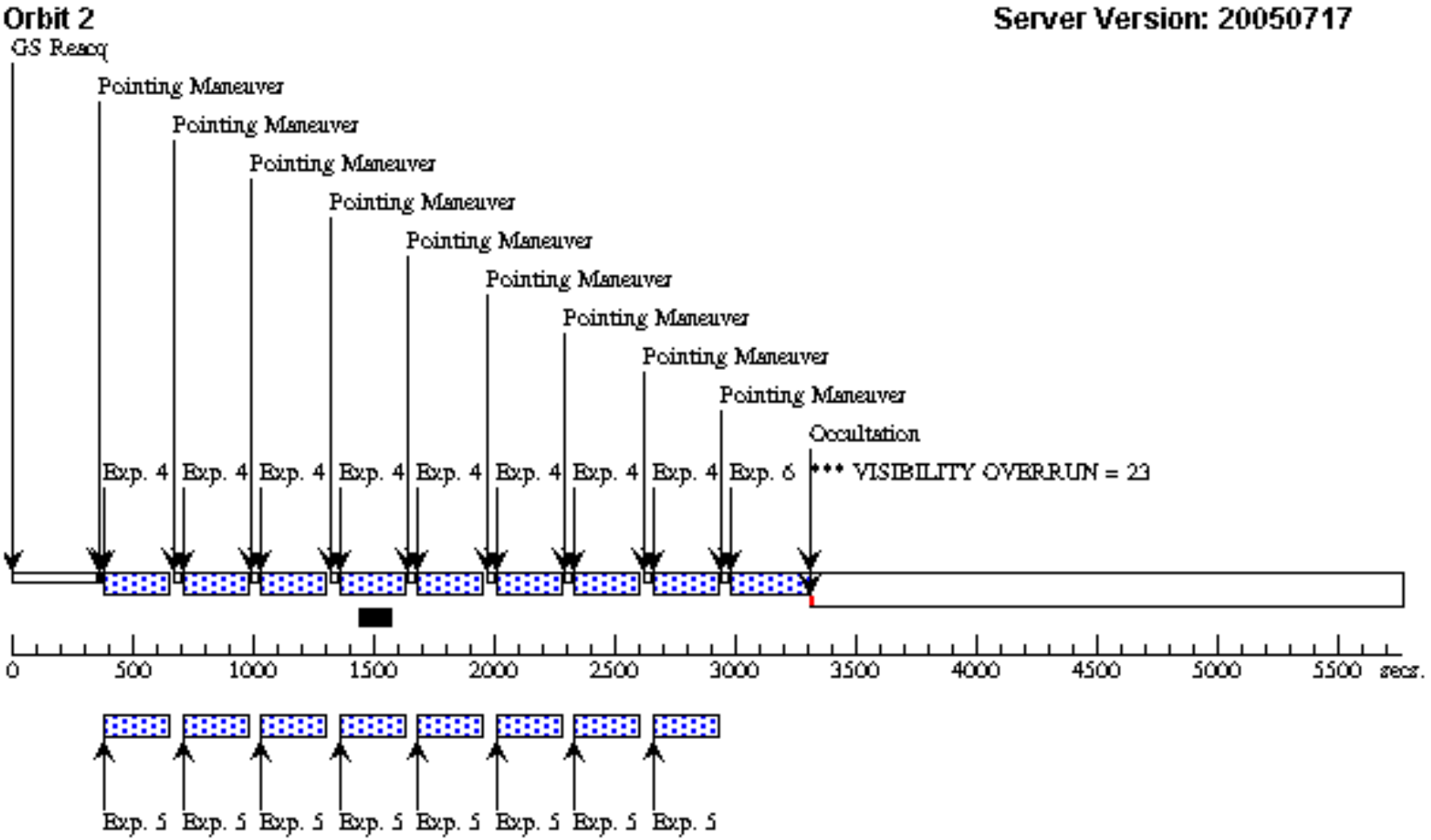
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
7	7	(10) 3C452	NIC2, MULTIACCUM, NIC2	POL240L	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 7-8 (3) Prime + Parallel Group 7-8	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[3]***
8	8	ANY	NIC1, MULTIACCUM, NIC1	F170M	SAMP-SEQ=SPARS 64; NSAMP=6		Pattern 7-8 (3) Prime + Parallel Group 7-8	*[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 4,1)]* *[==>(Pattern 4,2)]*	***[3]***
9	9	(10) 3C452	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 64; NSAMP=7	POS TARG -1.8,0		*[==>]*	***[3]***

Orbit Structure



Orbit Structure (continued)



Orbit Structure (continued)