10813 - MgII Absorption Line Systems: Galaxy Halos or the Metal-Enriched IGM?

Cycle: 15, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

Name	*Institution*	*E-Mail*
Dr. David V. Bowen (PI)	**Princeton University**	**dvb@astro.princeton.edu**
Dr. Todd Tripp (CoI)	University of Massachusetts	tripp@fcrao1.astro.umass.edu
Dr. Edward B. Jenkins (CoI)	Princeton University	ebj@astro.princeton.edu
Dr. Kenneth Sembach (CoI)	Space Telescope Science Institute	sembach@stsci.edu

VISITS

Visit	*Targets*	*Configurations*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) SDSSJ004746.24-000036.4	ACS/WFC	3	02-Aug-2006 21:29:37.0	yes
02	(2) SDSSJ012913.7+011428	ACS/WFC	3	02-Aug-2006 21:29:51.0	yes
03	(3) SDSSJ015900.89-004839.1	ACS/WFC	3	02-Aug-2006 21:30:01.0	yes
04	(4) SDSSJ025002.88-082406	ACS/WFC	3	02-Aug-2006 21:30:10.0	yes
05	(5) SDSSJ073458.85+371444.5	ACS/WFC	3	02-Aug-2006 21:30:22.0	yes
06	(6) SDSSJ083456.52+473957.5	ACS/WFC	3	02-Aug-2006 21:30:30.0	yes
07	(7) SDSSJ091040.03+535427.9	ACS/WFC	3	02-Aug-2006 21:30:39.0	yes
08	(8) SDSSJ091213.73+513210.5	ACS/WFC	3	02-Aug-2006 21:30:48.0	yes
09	(9) SDSSJ092149.72+525829.4	ACS/WFC	3	02-Aug-2006 21:30:59.0	yes

Visit	*Targets*	*Configurations*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
10	(10) SDSSJ112719.46+654143.4	ACS/WFC	3	02-Aug-2006 21:31:17.0	yes
11	(11) SDSSJ113852.63+632934	ACS/WFC	3	02-Aug-2006 21:31:28.0	yes
12	(12) SDSSJ234020.86+005559.7	ACS/WFC	3	02-Aug-2006 21:31:37.0	yes

36 Total Orbits Used

ABSTRACT

MgII QSO absorption lines detected in the spectra of background QSOs were used over a decade ago to infer that all redshift z > 0.2 galaxies have gaseous halos of radius ~ 60 kpc. The actual size of the halo was believed to be proportional to the luminosity of the galaxy. However, these conclusions are now much harder to understand in light of the results from numerical simulations which show how gas evolves in the universe. These models predict that gas and galaxies merely share the same filamentary structures defined by dark matter. If these models are correct, how are MgII systems and galaxies really related? We can better understand the distribution of absorbing gas if we FIRST select galaxies close to QSO sightlines and THEN search for MgII absorption at the redshift of the intervening galaxies. This is the antithesis of the original experiments which sought to find absorbing galaxies based on known MgII systems. The frequency with which we detect MgII lines from randomly selected galaxies should enable us to better understand if absorption arises in the halos of individual galaxies, or if MgII merely arises in the same IGM that galaxies inhabit.

We have used ground-based telescopes to indentify twenty z = 0.31-0.55 galaxies within 14-51 kpc of a g < 20 QSO, and to search for MgII absorption at the galaxies' redshifts. Surprisingly, we find that only 50% of our QSOs show MgII absorption. In this proposal, we seek multi-color ACS images of twelve of the fields to i) correlate the incidence of MgII with galaxy morphology; ii) determine if absorption (or lack thereof) is related to galaxy disks or halos; iii) search for signs of galaxy interactions which may explain the large cross-sections of MgII systems; and iv) look for faint interloping galaxies closer to the line of sight than the one we identified. An important component of the program is to observe each field in the SDSS g-, r- and i-bands, to permit an estimate of the photometric redshift of any objects which lie closer to the QSO sightline than the identified galaxy, and which might actually be responsible for the absorption.

OBSERVING DESCRIPTION

The pointing of the ACS WFCCENTER aperture is selected in such a way as to place the QSO-galaxy pairs away from the chip gap and closer to the center of a chip (ususally WFC1). This ensures that the chip gap never comes close to the area between QSO and galaxy, and that the chip gap stays away from the area around the QSO-galaxy pair, which may contain other companion (group) galaxies.

For each field, we used the VTT and Guide Star Catalog 2 DSS images to reposition the pair so that other (very faint) galaxies might be included in the image, while still allowing a large range of suitable ORIENT angles to be retained. (The ORIENT angles were read directly from the VTT.) Hence, the Target Name given in this phase 2 is the official SDSS name for the QSO of the QSO-galaxy pair, but the Target position itself in not that of the QSO, but of these selected co-ordinates.

Eleven of the twelve fields are dithered using the standard ACS-WFC-DITHER-BOX and default settings. One field (Target 10) is available in the CVZ, and for this we use the SPIRAL pattern with nine pointings in order to fill the CVZ but also keep the individual sub exposures similar in length to the non-CVZ orbits (450-550 sec). POINT-SPACING and PATTERN-ORIENTATION are taken from the ACS-WFC-DITHER-BOX parameters.

Visit

Proposal 10813, Visit 01 Thu Aug 03 01:31:40 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 3.0D TO 59.0 D; ORIENT 183.0D TO 239.0 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=false		(1), (2), (3)

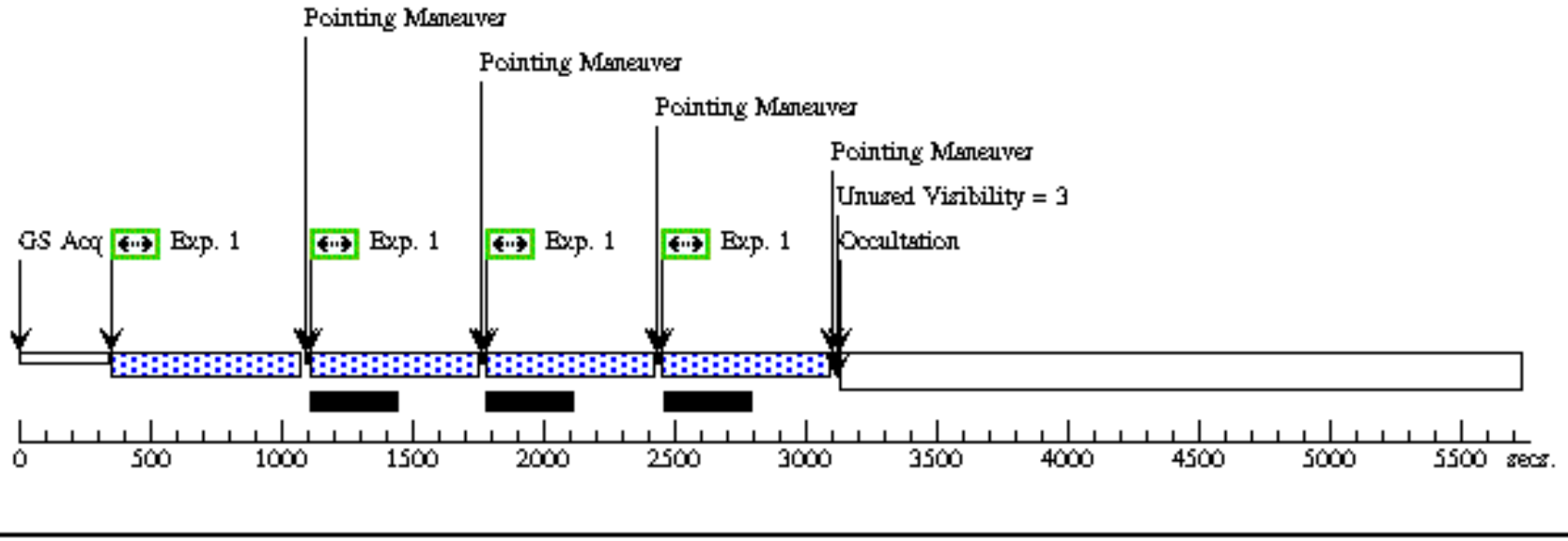
Fixed Targets

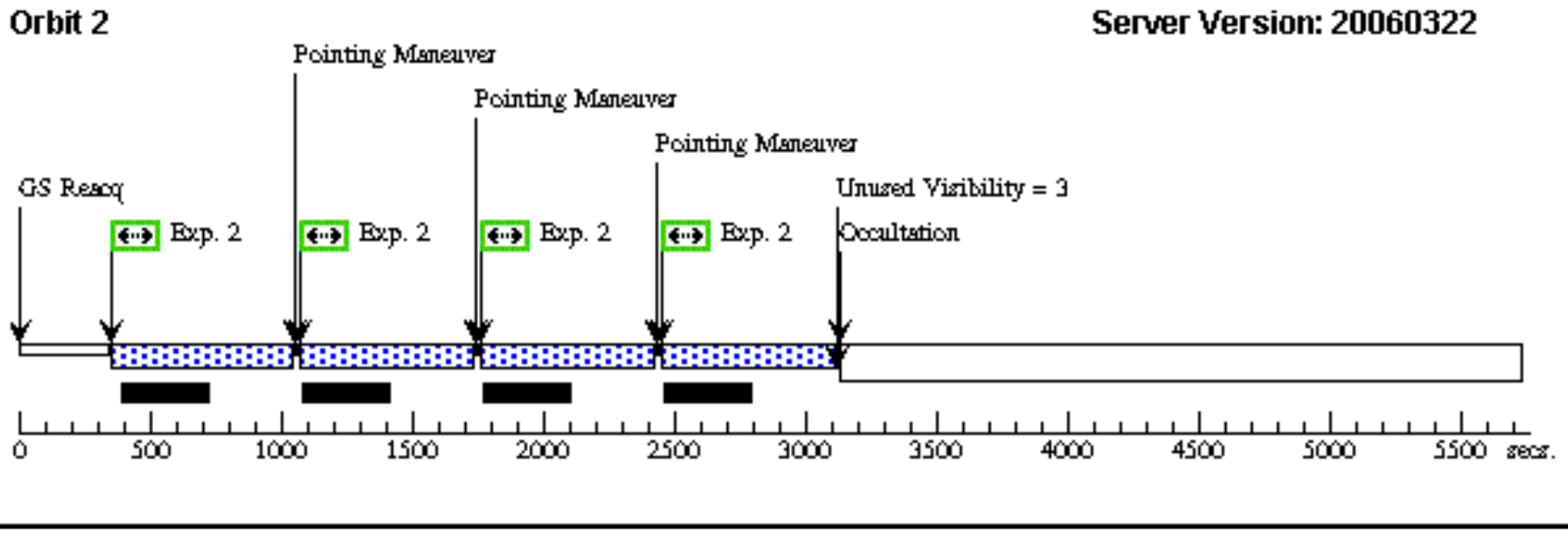
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SDSSJ004746.24-000036.4	RA: 00 47 45.6770 (11.9403208d) Dec: -00 01 10.00 (-.01944d) Equinox: J2000	Redshift: 1.541	V=19.4 u=19.8, g=19.4, r=19.2, i=19.0	Reference Frame: ICRS

Exposures

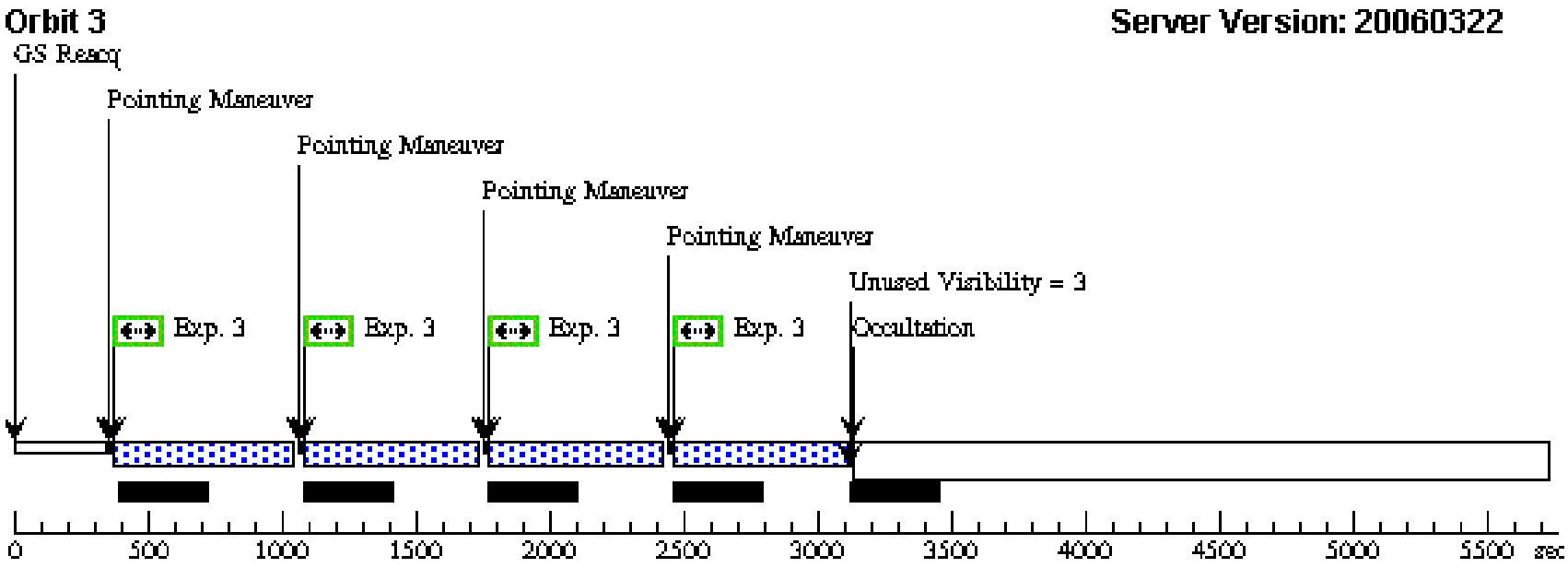
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(1) SDSSJ004746.24-000036.4	ACS/WFC, ACCUM, WFCENTER	F475W	CR-SPLIT=NO		Pattern 1-1 (1)	400.0 Secs	
								[==>517.0 Secs (Pattern 1)] *[==>517.0 Secs (Pattern 2)]* *[==>517.0 Secs (Pattern 3)]* *[==>517.0 Secs (Pattern 4)]*	***[1]***
2		(1) SDSSJ004746.24-000036.4	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO		Pattern 2-2 (1)	400.0 Secs	
								[==>535.0 Secs (Pattern 1)] *[==>535.0 Secs (Pattern 2)]* *[==>535.0 Secs (Pattern 3)]* *[==>535.0 Secs (Pattern 4)]*	***[2]***
3		(1) SDSSJ004746.24-000036.4	ACS/WFC, ACCUM, WFCENTER	F775W	CR-SPLIT=NO		Pattern 3-3 (1)	400.0 Secs	
								[==>533.0 Secs (Pattern 1)] *[==>533.0 Secs (Pattern 2)]* *[==>533.0 Secs (Pattern 3)]* *[==>533.0 Secs (Pattern 4)]*	***[3]***

Orbit Structure





Orbit Structure (continued)



Visit

Proposal 10813, Visit 02 Thu Aug 03 01:31:42 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 342.0D TO 60.0 D; ORIENT 162.0D TO 240.0 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=false		(1), (2), (3)

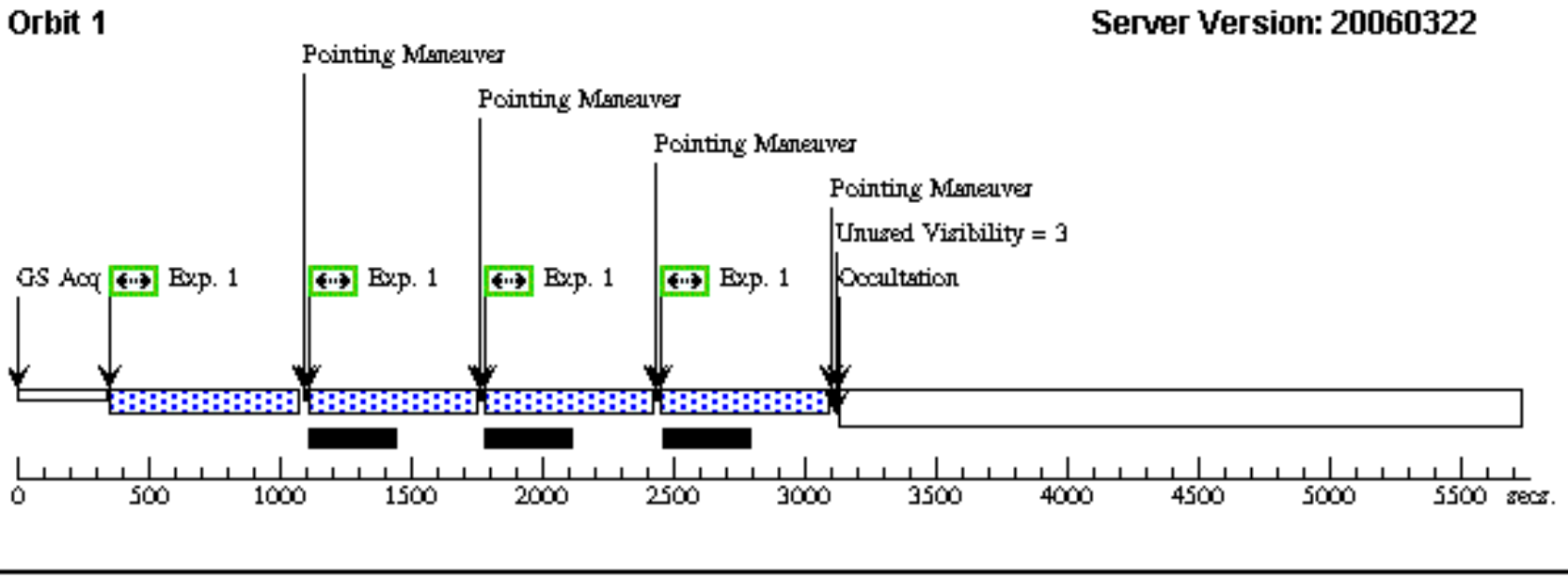
Fixed Targets

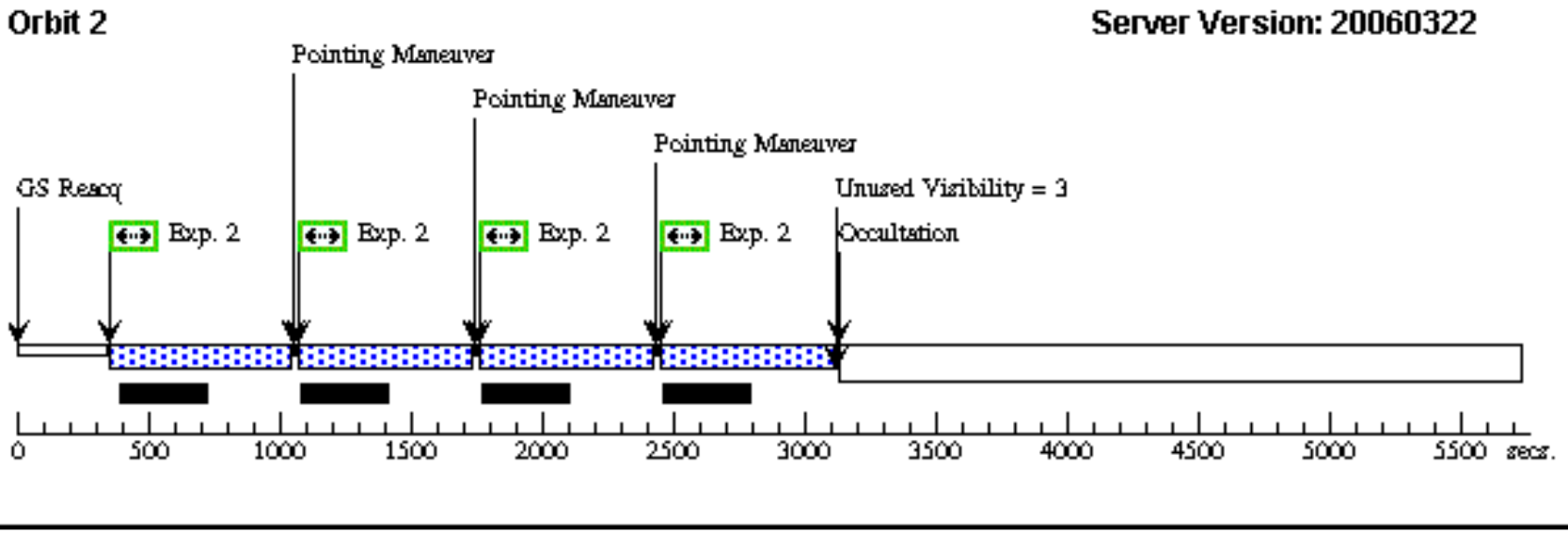
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	SDSSJ012913.7+011428	RA: 01 29 12.5510 (22.3022958d) Dec: +01 13 57.00 (1.23250d) Equinox: J2000	Redshift: 1.783	V=19.7 u=20.2, g=19.7, r=19.2, i=18.7	Reference Frame: ICRS

Exposures

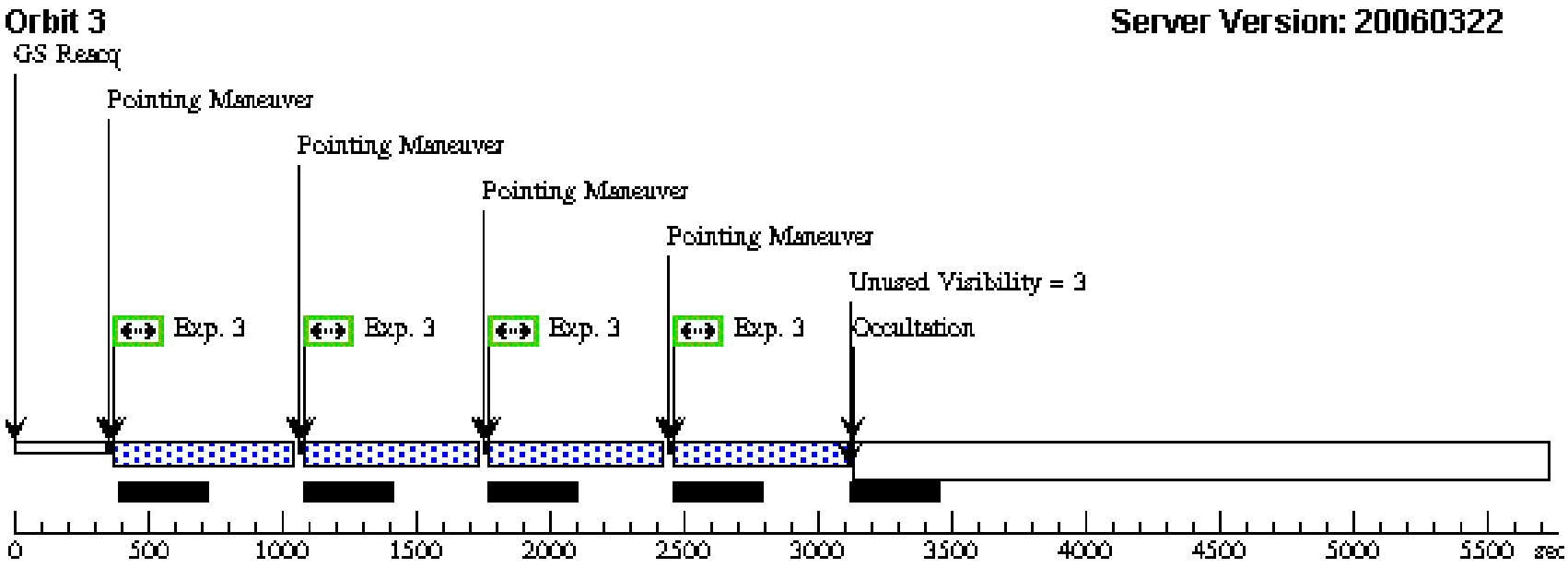
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(2) SDSSJ012913.7+011428	ACS/WFC, ACCUM, WFCENTER	F475W	CR-SPLIT=NO		Pattern 1-1 (1)	400.0 Secs	
								[==>517.0 Secs (Pattern 1)] *[==>517.0 Secs (Pattern 2)]* *[==>517.0 Secs (Pattern 3)]* *[==>517.0 Secs (Pattern 4)]*	***[1]***
2		(2) SDSSJ012913.7+011428	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO		Pattern 2-2 (1)	400.0 Secs	
								[==>535.0 Secs (Pattern 1)] *[==>535.0 Secs (Pattern 2)]* *[==>535.0 Secs (Pattern 3)]* *[==>535.0 Secs (Pattern 4)]*	***[2]***
3		(2) SDSSJ012913.7+011428	ACS/WFC, ACCUM, WFCENTER	F775W	CR-SPLIT=NO		Pattern 3-3 (1)	400.0 Secs	
								[==>533.0 Secs (Pattern 1)] *[==>533.0 Secs (Pattern 2)]* *[==>533.0 Secs (Pattern 3)]* *[==>533.0 Secs (Pattern 4)]*	***[3]***

Orbit Structure





Orbit Structure (continued)



Visit

Proposal 10813, Visit 03 Thu Aug 03 01:31:43 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 300.0D TO 6.0 D; ORIENT 120.0D TO 186.0 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=false		(1), (2), (3)

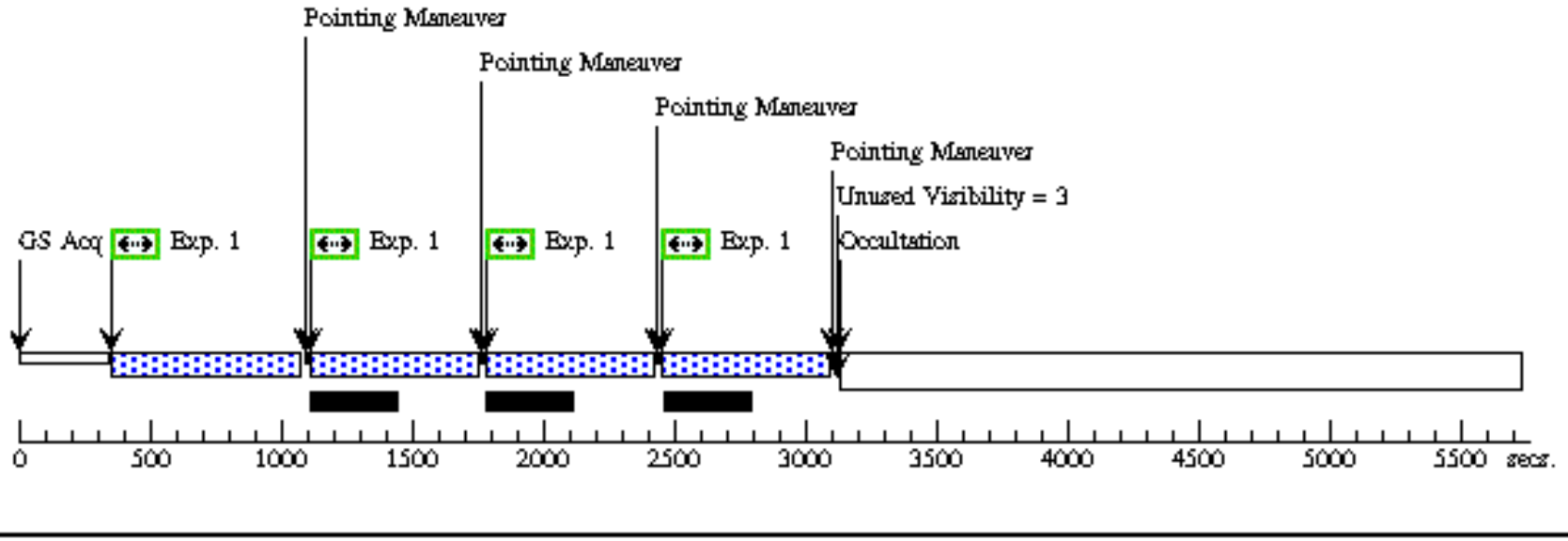
Fixed Targets

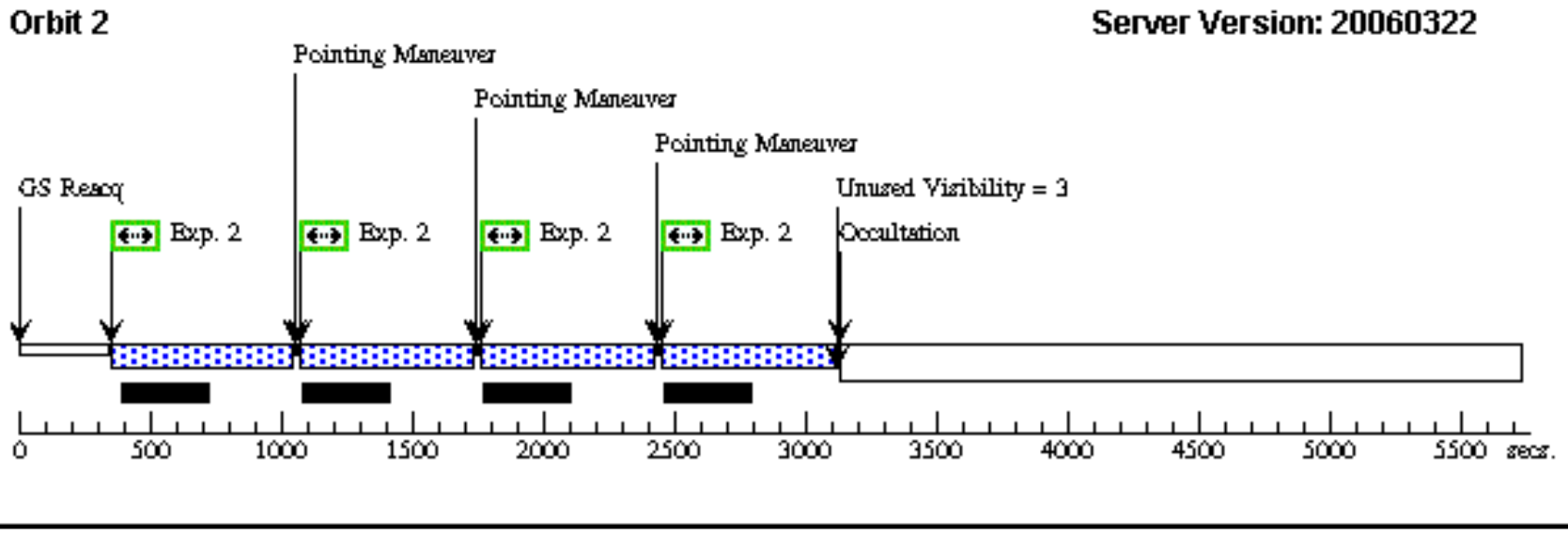
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SDSSJ015900.89-004839.1	RA: 01 59 1.7490 (29.7572875d) Dec: -00 49 9.00 (-.81917d) Equinox: J2000	Redshift: 0.95	V=18.7 u=18.9, g=18.7, r=18.5, i=18.6	Reference Frame: ICRS

Exposures

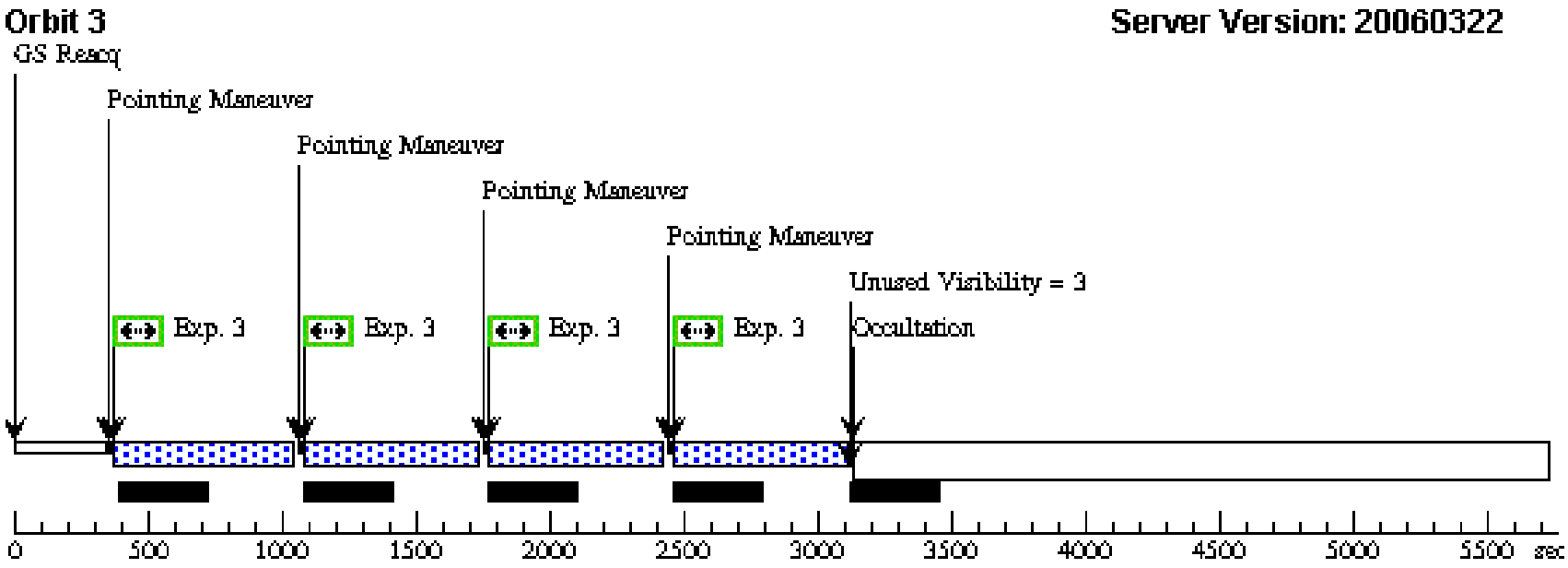
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(3) SDSSJ015900.89-004839.1	ACS/WFC, ACCUM, WFCENTER	F475W	CR-SPLIT=NO		Pattern 1-1 (1)	400.0 Secs	
								[==>517.0 Secs (Pattern 1)] *[==>517.0 Secs (Pattern 2)]* *[==>517.0 Secs (Pattern 3)]* *[==>517.0 Secs (Pattern 4)]*	***[1]***
2		(3) SDSSJ015900.89-004839.1	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO		Pattern 2-2 (1)	400.0 Secs	
								[==>535.0 Secs (Pattern 1)] *[==>535.0 Secs (Pattern 2)]* *[==>535.0 Secs (Pattern 3)]* *[==>535.0 Secs (Pattern 4)]*	***[2]***
3		(3) SDSSJ015900.89-004839.1	ACS/WFC, ACCUM, WFCENTER	F775W	CR-SPLIT=NO		Pattern 3-3 (1)	400.0 Secs	
								[==>533.0 Secs (Pattern 1)] *[==>533.0 Secs (Pattern 2)]* *[==>533.0 Secs (Pattern 3)]* *[==>533.0 Secs (Pattern 4)]*	***[3]***

Orbit Structure





Orbit Structure (continued)



Visit

Proposal 10813, Visit 04 Thu Aug 03 01:31:43 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 355.0D TO 66.0 D; ORIENT 175.0D TO 246.0 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=false		(1), (2), (3)

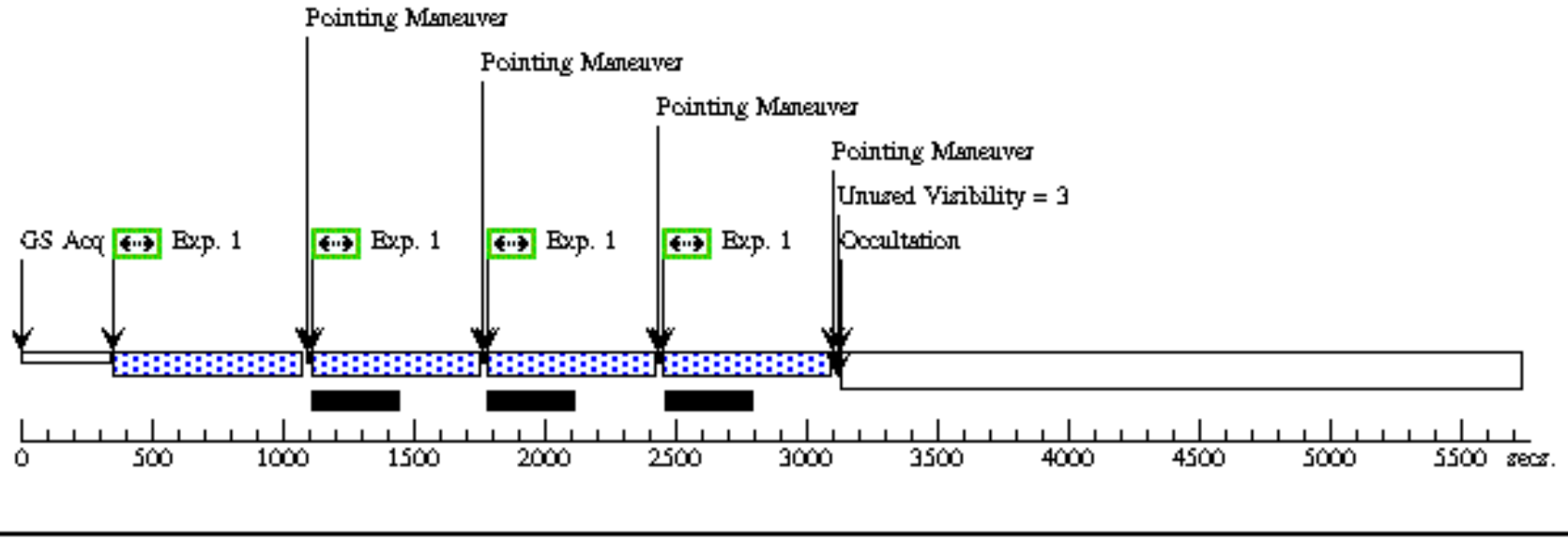
Fixed Targets

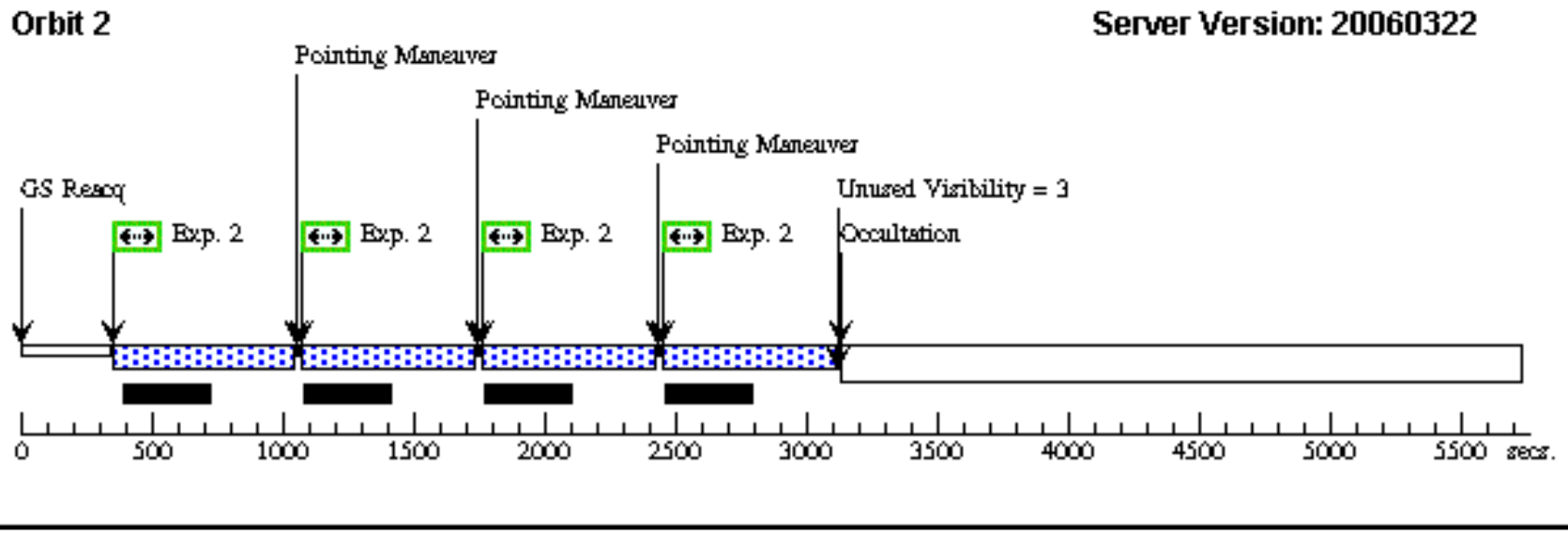
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	SDSSJ025002.88-082406	RA: 02 50 1.5580 (42.5064917d) Dec: -08 24 54.00 (-8.41500d) Equinox: J2000	Redshift: 1.552	V=20.1 u=20.5, g=20.1, r=19.7, i=19.3	Reference Frame: ICRS

Exposures

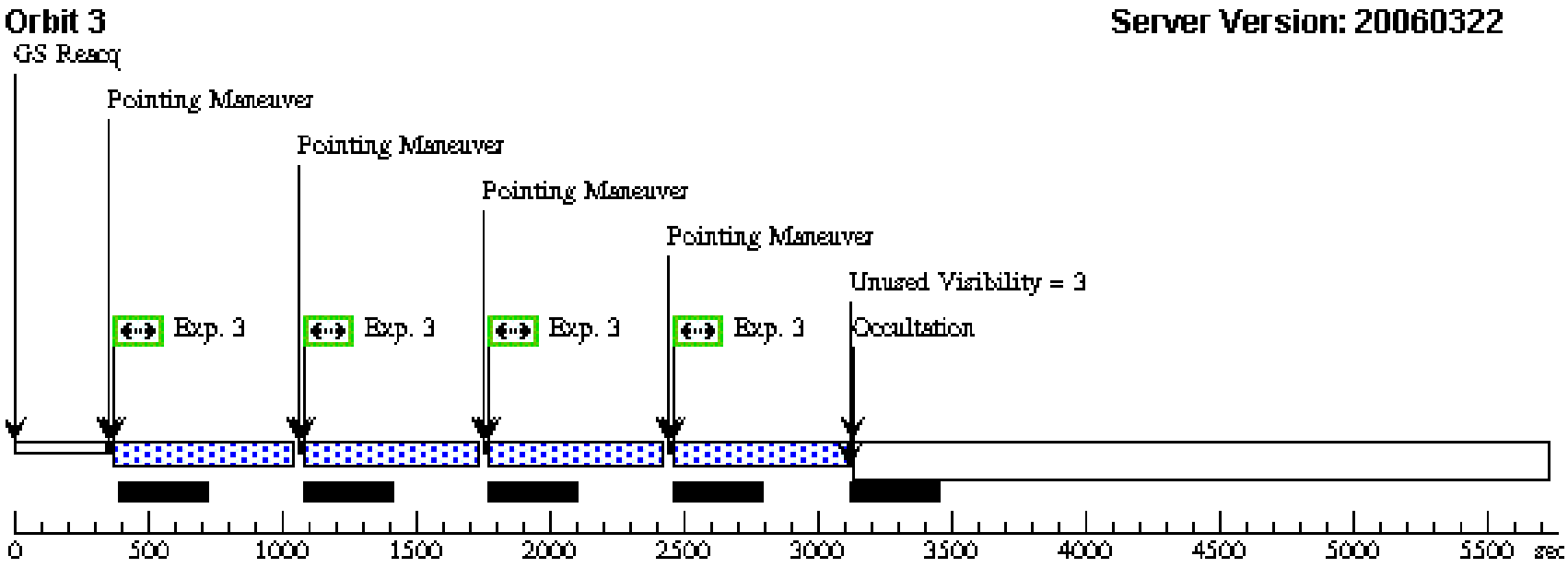
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(4) SDSSJ025002.88-082406	ACS/WFC, ACCUM, WFCENTER	F475W	CR-SPLIT=NO		Pattern 1-1 (1)	400.0 Secs	
								[==>517.0 Secs (Pattern 1)] *[==>517.0 Secs (Pattern 2)]* *[==>517.0 Secs (Pattern 3)]* *[==>517.0 Secs (Pattern 4)]*	***[1]***
2		(4) SDSSJ025002.88-082406	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO		Pattern 2-2 (1)	400.0 Secs	
								[==>535.0 Secs (Pattern 1)] *[==>535.0 Secs (Pattern 2)]* *[==>535.0 Secs (Pattern 3)]* *[==>535.0 Secs (Pattern 4)]*	***[2]***
3		(4) SDSSJ025002.88-082406	ACS/WFC, ACCUM, WFCENTER	F775W	CR-SPLIT=NO		Pattern 3-3 (1)	400.0 Secs	
								[==>533.0 Secs (Pattern 1)] *[==>533.0 Secs (Pattern 2)]* *[==>533.0 Secs (Pattern 3)]* *[==>533.0 Secs (Pattern 4)]*	***[3]***

Orbit Structure





Orbit Structure (continued)



Visit

Proposal 10813, Visit 05 Thu Aug 03 01:31:44 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 130.0D TO 210.0 D; ORIENT 310.0D TO 30.0 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=false		(1), (2), (3)

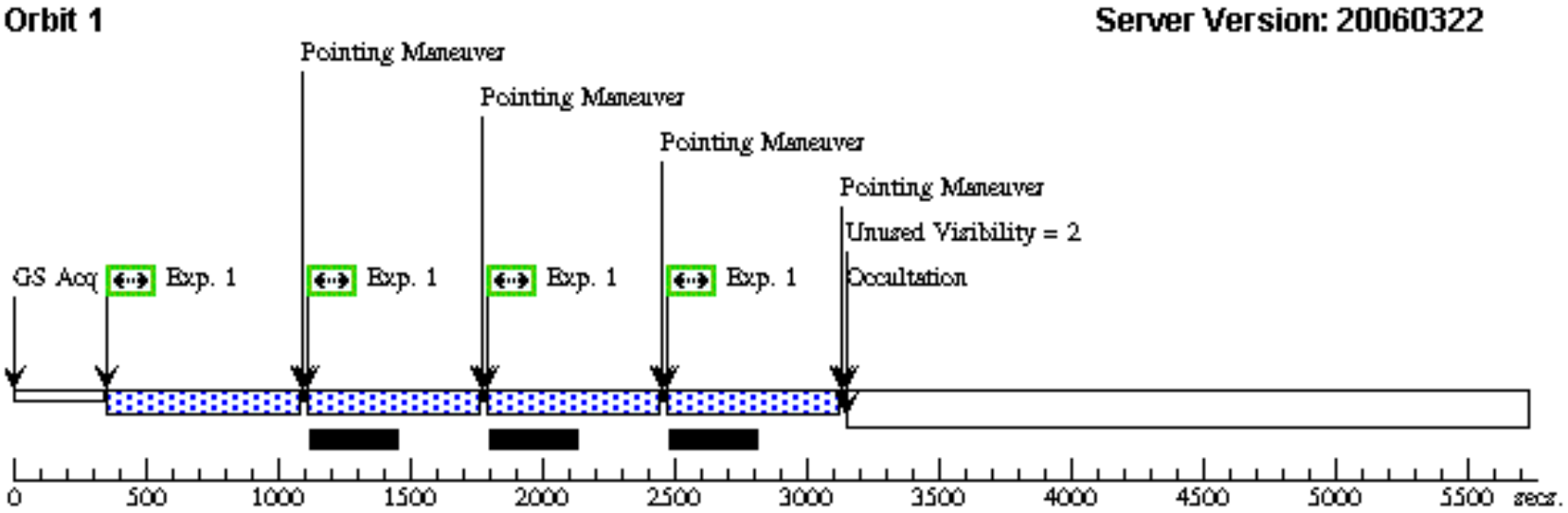
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	SDSSJ073458.85+371444.5	RA: 07 34 58.0500 (113.7418750d) Dec: +37 15 32.00 (37.25889d) Equinox: J2000	Redshift: 1.128	V=19.3 u=19.6, g=19.3, r=18.9, i=18.8	Reference Frame: ICRS

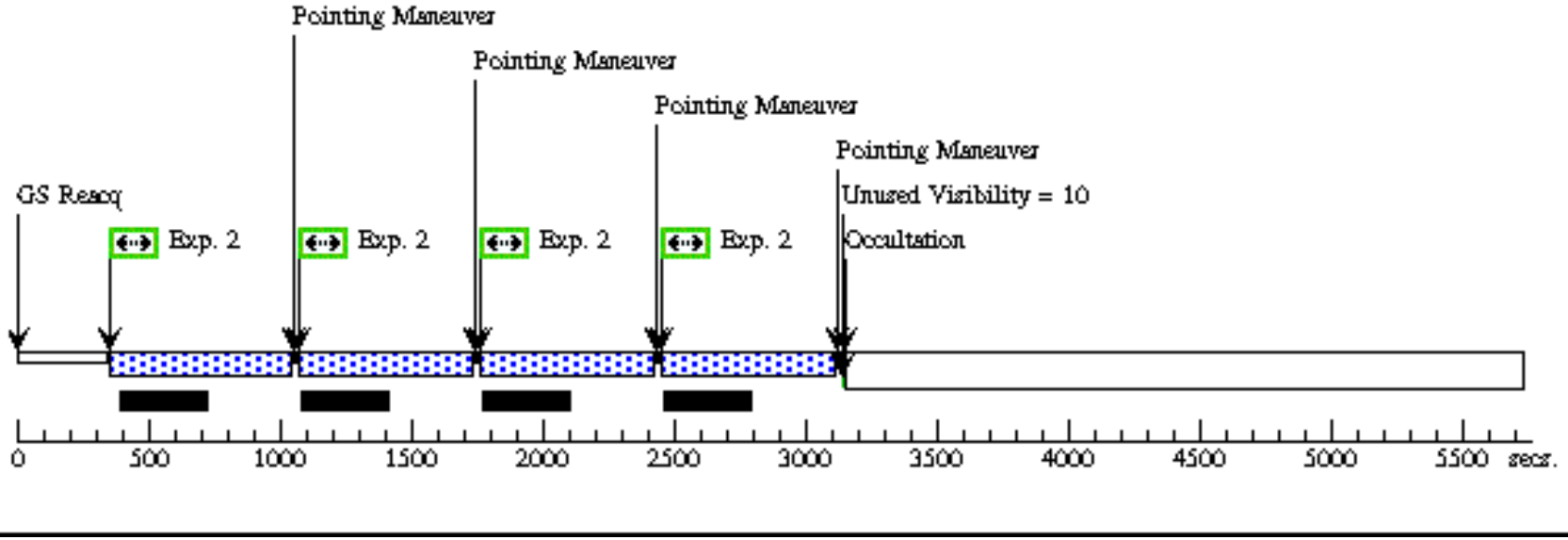
Exposures

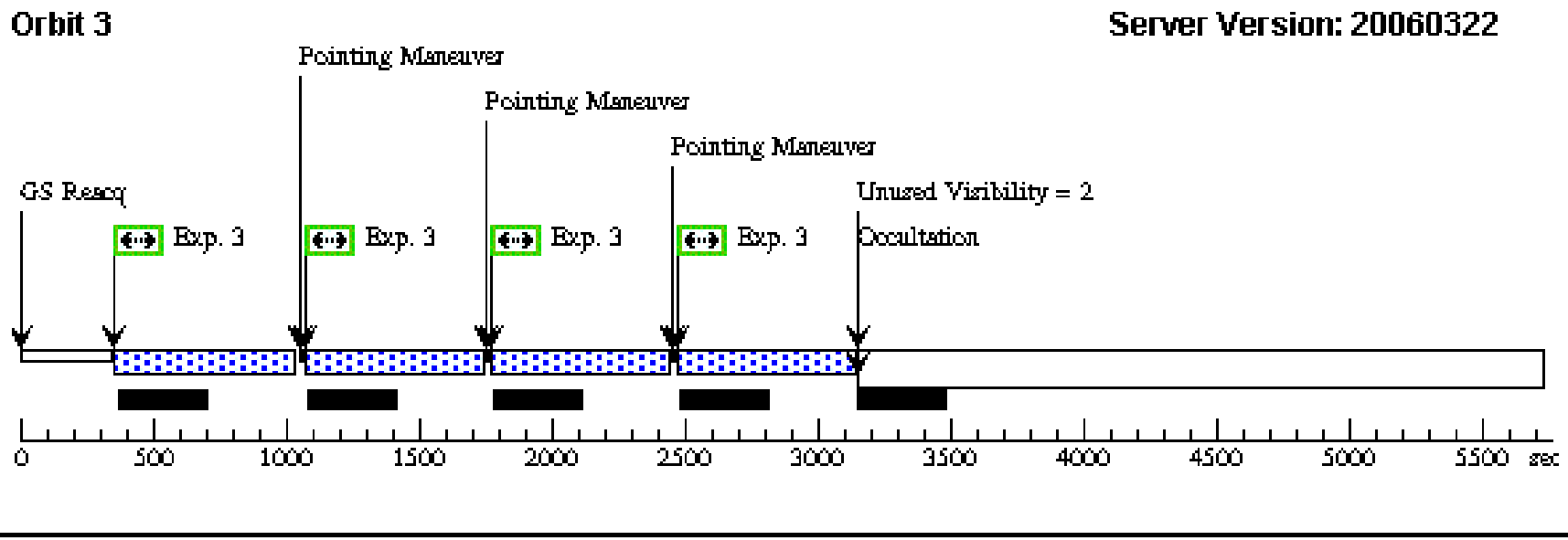
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(5) SDSSJ073458.85+371444.5	ACS/WFC, ACCUM, WFCENTER	F475W	CR-SPLIT=NO		Pattern 1-1 (1)	400.0 Secs	
								[==>524.0 Secs (Pattern 1)] *[==>524.0 Secs (Pattern 2)]* *[==>524.0 Secs (Pattern 3)]* *[==>524.0 Secs (Pattern 4)]*	***[1]***
2		(5) SDSSJ073458.85+371444.5	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO		Pattern 2-2 (1)	400.0 Secs	
								[==>535.0 Secs (Pattern 1)] *[==>535.0 Secs (Pattern 2)]* *[==>535.0 Secs (Pattern 3)]* *[==>535.0 Secs (Pattern 4)]*	***[2]***
3		(5) SDSSJ073458.85+371444.5	ACS/WFC, ACCUM, WFCENTER	F775W	CR-SPLIT=NO		Pattern 3-3 (1)	400.0 Secs	
								[==>545.0 Secs (Pattern 1)] *[==>545.0 Secs (Pattern 2)]* *[==>545.0 Secs (Pattern 3)]* *[==>545.0 Secs (Pattern 4)]*	***[3]***

Orbit Structure



Orbit Structure (continued)





Visit

Proposal 10813, Visit 06 Thu Aug 03 01:31:45 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 337.0D TO 57.0 D; ORIENT 157.0D TO 237.0 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=false		(1), (2), (3)

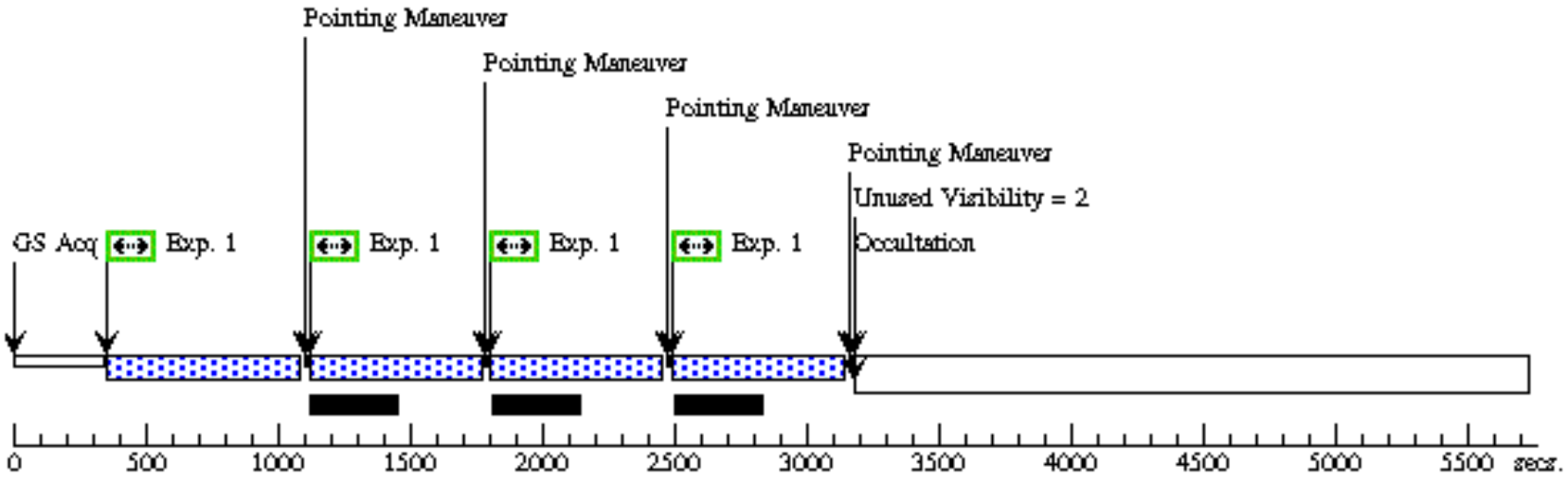
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	SDSSJ083456.52+473957.5	RA: 08 34 55.0480 (128.7293667d) Dec: +47 39 22.00 (47.65611d) Equinox: J2000	Redshift: 1.402	V=19.5 u=19.6, g=19.5, r=19.3, i=19.3	Reference Frame: ICRS

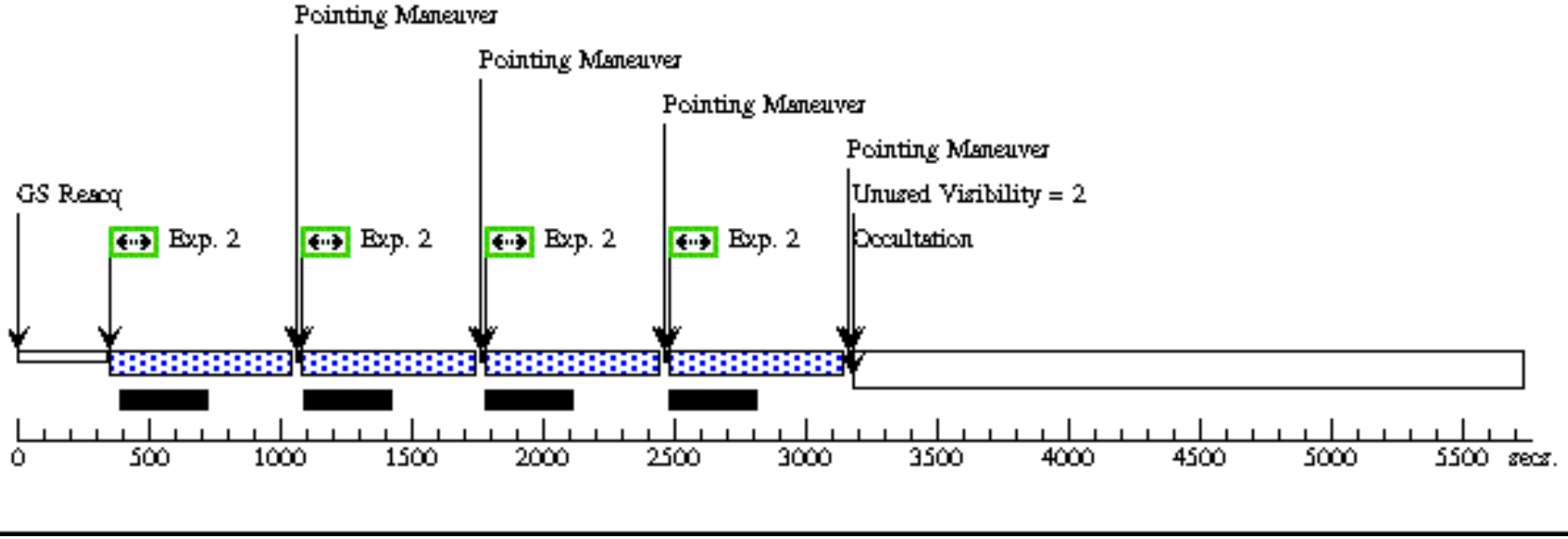
Exposures

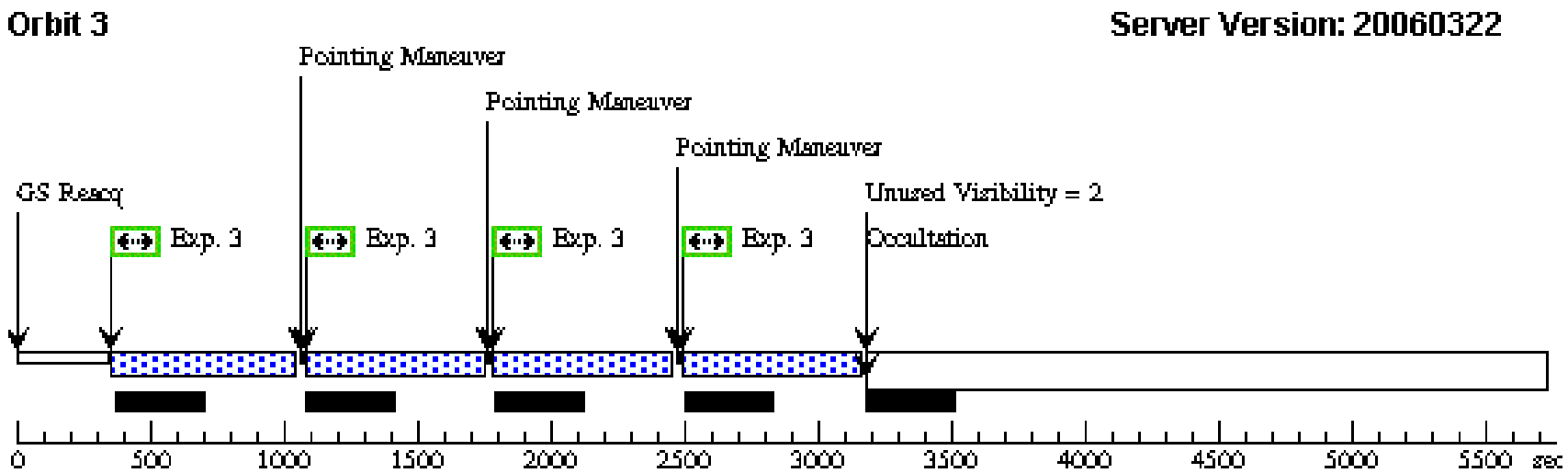
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(6) SDSSJ083456.52 +473957.5	ACS/WFC, ACCUM, WFCENTER	F475W	CR-SPLIT=NO		Pattern 1-1 (1)	400.0 Secs	
								[==>530.0 Secs (Pattern 1)] *[==>530.0 Secs (Pattern 2)]* *[==>530.0 Secs (Pattern 3)]* *[==>530.0 Secs (Pattern 4)]*	***[1]***
2		(6) SDSSJ083456.52 +473957.5	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO		Pattern 2-2 (1)	400.0 Secs	
								[==>543.0 Secs (Pattern 1)] *[==>543.0 Secs (Pattern 2)]* *[==>543.0 Secs (Pattern 3)]* *[==>543.0 Secs (Pattern 4)]*	***[2]***
3		(6) SDSSJ083456.52 +473957.5	ACS/WFC, ACCUM, WFCENTER	F775W	CR-SPLIT=NO		Pattern 3-3 (1)	400.0 Secs	
								[==>551.0 Secs (Pattern 1)] *[==>551.0 Secs (Pattern 2)]* *[==>551.0 Secs (Pattern 3)]* *[==>551.0 Secs (Pattern 4)]*	***[3]***

Orbit Structure



Orbit Structure (continued)





Visit

Proposal 10813, Visit 07 Thu Aug 03 01:31:46 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 105.0D TO 168.0 D; ORIENT 285.0D TO 348.0 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=false		(1), (2), (3)

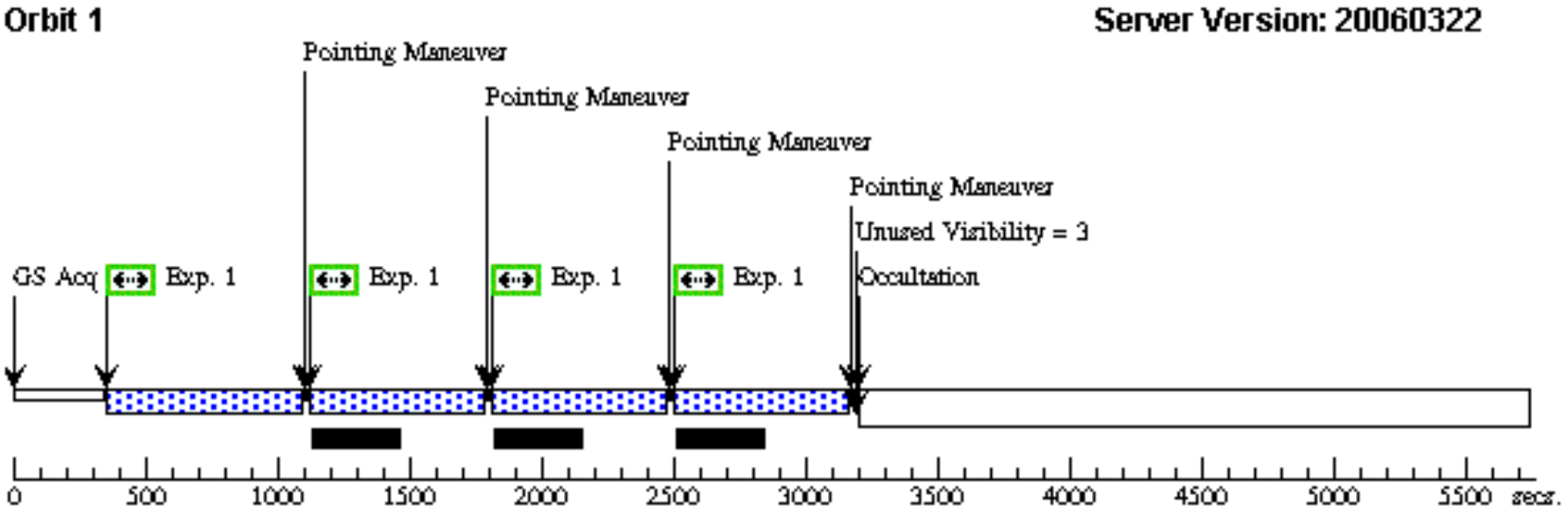
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	SDSSJ091040.03+535427.9	RA: 09 10 43.0140 (137.6792250d) Dec: +53 53 44.00 (53.89556d) Equinox: J2000	Redshift: 1.096	V=19.2 u=19.3, g=19.2, r=19.0, i=19.1	Reference Frame: ICRS

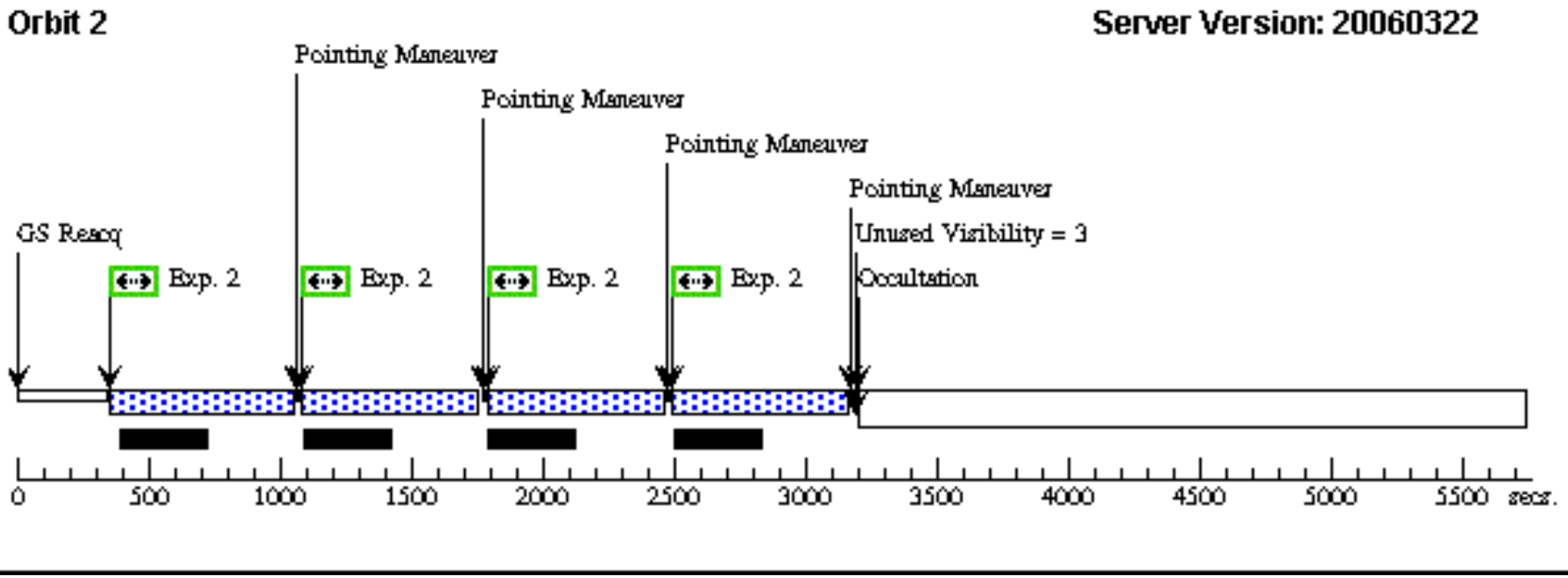
Exposures

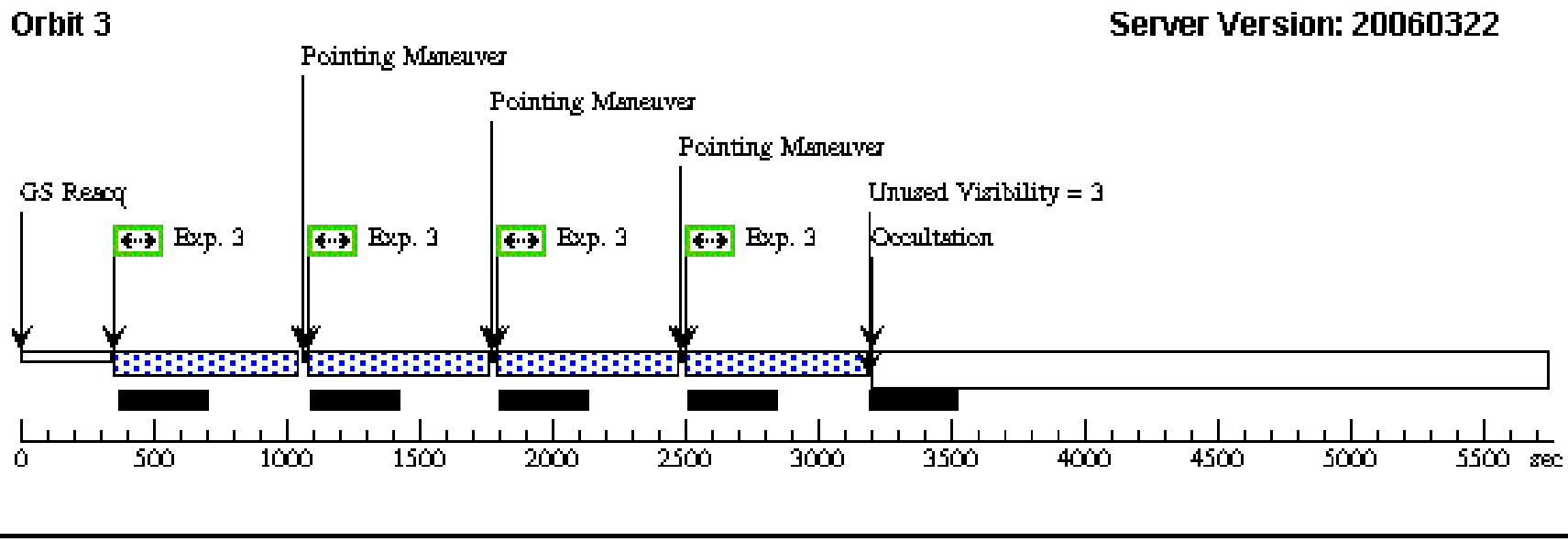
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(7) SDSSJ091040.03+535427.9	ACS/WFC, ACCUM, WFCENTER	F475W	CR-SPLIT=NO		Pattern 1-1 (1)	400.0 Secs	
								[==>534.0 Secs (Pattern 1)] *[==>534.0 Secs (Pattern 2)]* *[==>534.0 Secs (Pattern 3)]* *[==>534.0 Secs (Pattern 4)]*	***[1]***
2		(7) SDSSJ091040.03+535427.9	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO		Pattern 2-2 (1)	400.0 Secs	
								[==>547.0 Secs (Pattern 1)] *[==>547.0 Secs (Pattern 2)]* *[==>547.0 Secs (Pattern 3)]* *[==>547.0 Secs (Pattern 4)]*	***[2]***
3		(7) SDSSJ091040.03+535427.9	ACS/WFC, ACCUM, WFCENTER	F775W	CR-SPLIT=NO		Pattern 3-3 (1)	400.0 Secs	
								[==>555.0 Secs (Pattern 1)] *[==>555.0 Secs (Pattern 2)]* *[==>555.0 Secs (Pattern 3)]* *[==>555.0 Secs (Pattern 4)]*	***[3]***

Orbit Structure



Orbit Structure (continued)





Visit

Proposal 10813, Visit 08 Thu Aug 03 01:31:47 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 134.0D TO 176.0 D; ORIENT 314.0D TO 356.0 D

Patterns

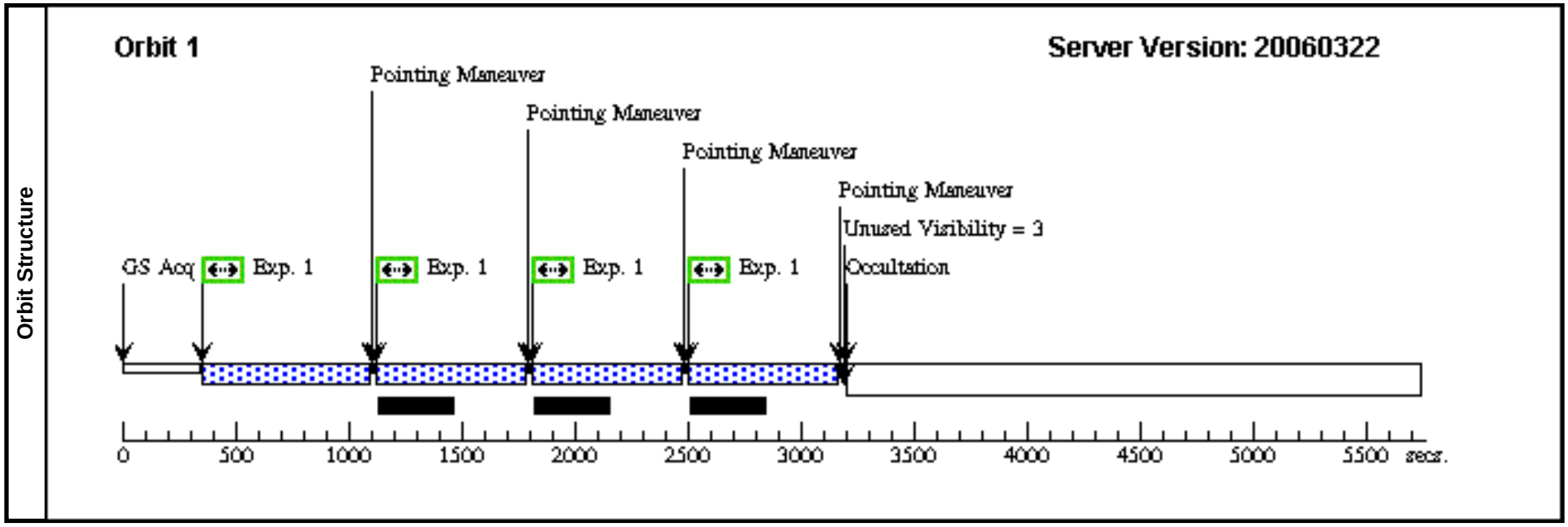
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187	Coordinate Frame=POS-TARG Pattern Orientation=20.7 Angle Between Sides=69.1 Center Pattern=false		(1), (2), (3)

Fixed Targets

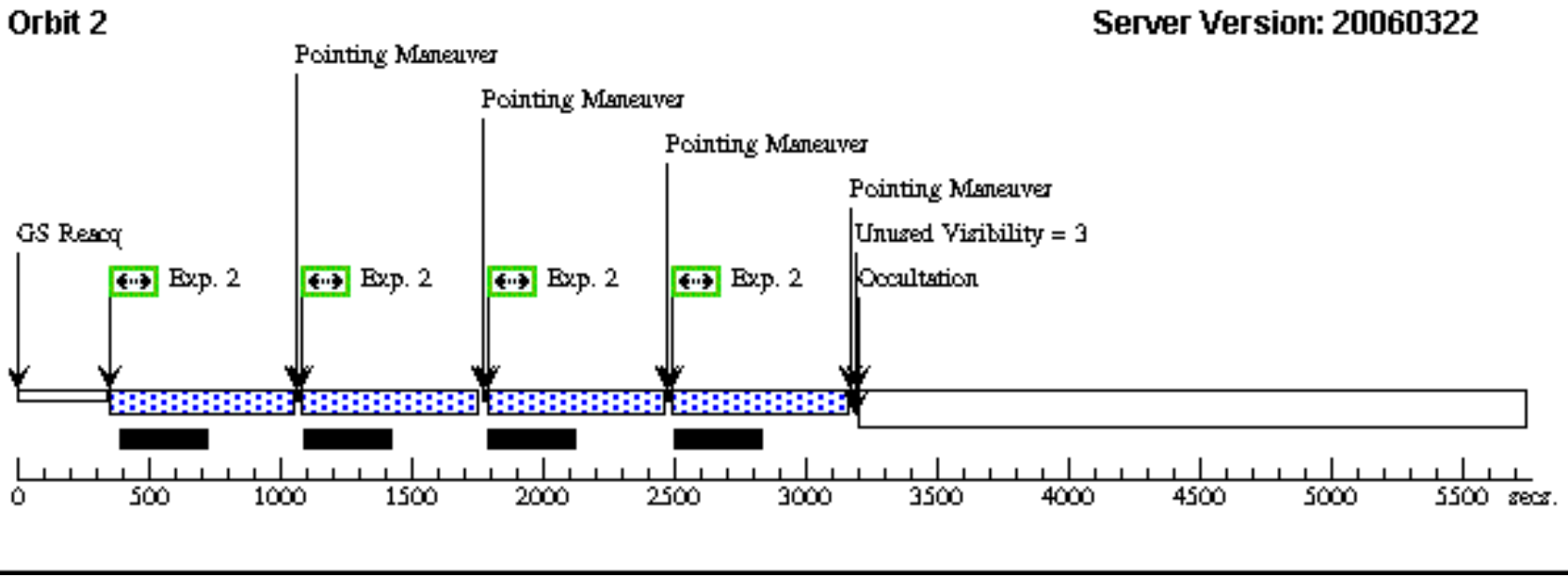
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	SDSSJ091213.73+513210.5	RA: 09 12 13.4592 (138.0560800d) Dec: +51 33 3.74 (51.55104d) Equinox: J2000	Redshift: 1.478	V=18.8 u=19.2, g=18.8, r=18.4, i=18.2	Reference Frame: ICRS

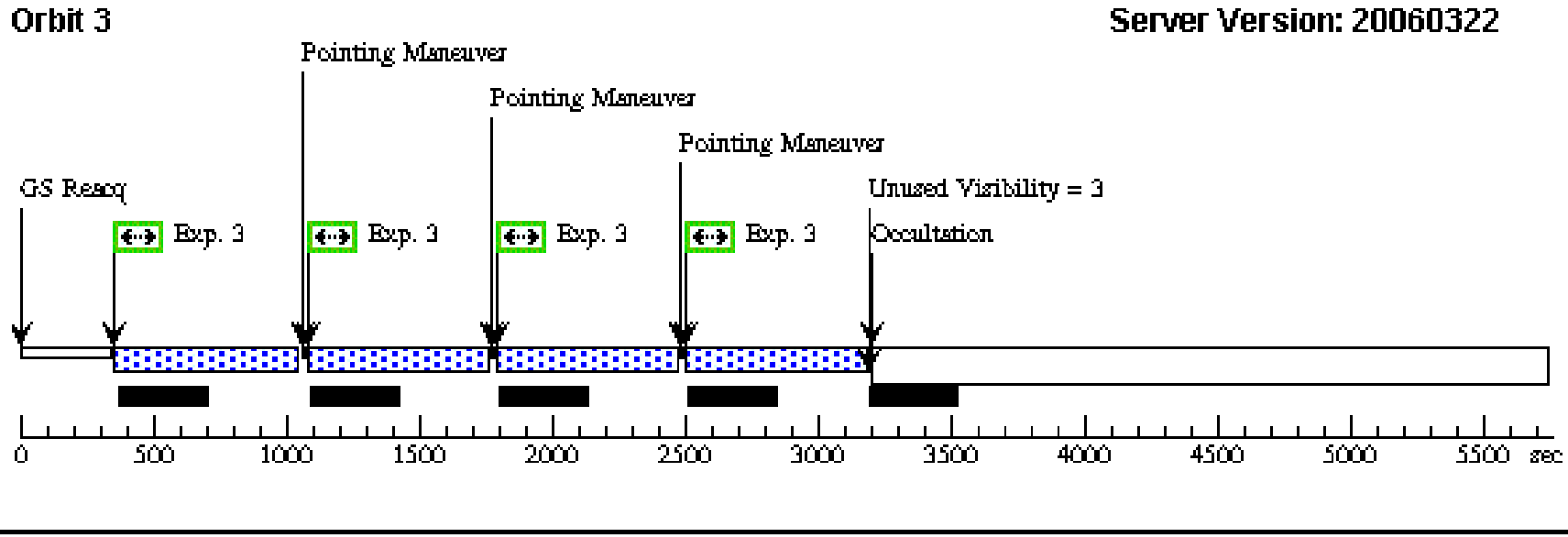
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(8) SDSSJ091213.73+513210.5	ACS/WFC, ACCUM, WFCENTER	F475W	CR-SPLIT=NO		Pattern 1-1 (1)	400.0 Secs	
								[==>534.0 Secs (Pattern 1)] *[==>534.0 Secs (Pattern 2)]* *[==>534.0 Secs (Pattern 3)]* *[==>534.0 Secs (Pattern 4)]*	***[1]***
2		(8) SDSSJ091213.73+513210.5	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO		Pattern 2-2 (1)	400.0 Secs	
								[==>547.0 Secs (Pattern 1)] *[==>547.0 Secs (Pattern 2)]* *[==>547.0 Secs (Pattern 3)]* *[==>547.0 Secs (Pattern 4)]*	***[2]***
3		(8) SDSSJ091213.73+513210.5	ACS/WFC, ACCUM, WFCENTER	F775W	CR-SPLIT=NO		Pattern 3-3 (1)	400.0 Secs	
								[==>555.0 Secs (Pattern 1)] *[==>555.0 Secs (Pattern 2)]* *[==>555.0 Secs (Pattern 3)]* *[==>555.0 Secs (Pattern 4)]*	***[3]***


Orbit Structure
Orbit 1
Server Version: 20060322
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Visibility = 3
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.

Orbit Structure (continued)





Visit

Proposal 10813, Visit 09 Thu Aug 03 01:31:48 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 351.0D TO 56.0 D; ORIENT 171.0D TO 236.0 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=false		(1), (2), (3)

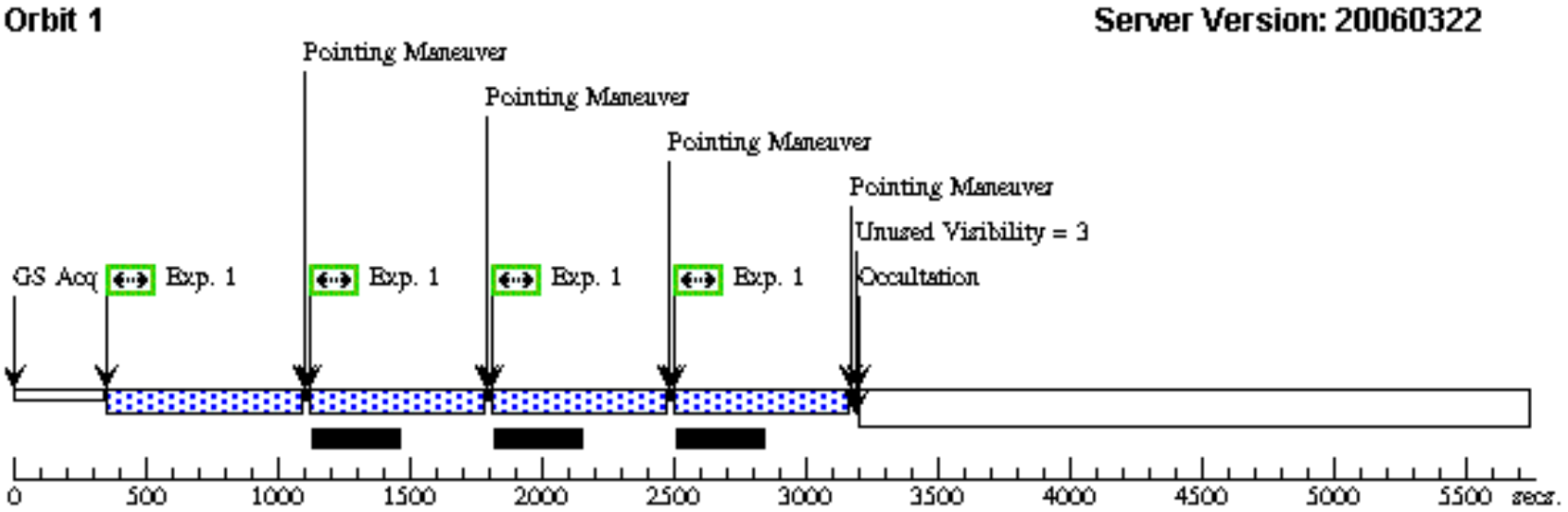
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	SDSSJ092149.72+525829.4	RA: 09 21 49.2930 (140.4553875d) Dec: +52 57 42.00 (52.96167d) Equinox: J2000	Redshift: 1.15	V=18.2 u=18.2, g=18.2, r=18.1, i=18.1	Reference Frame: ICRS

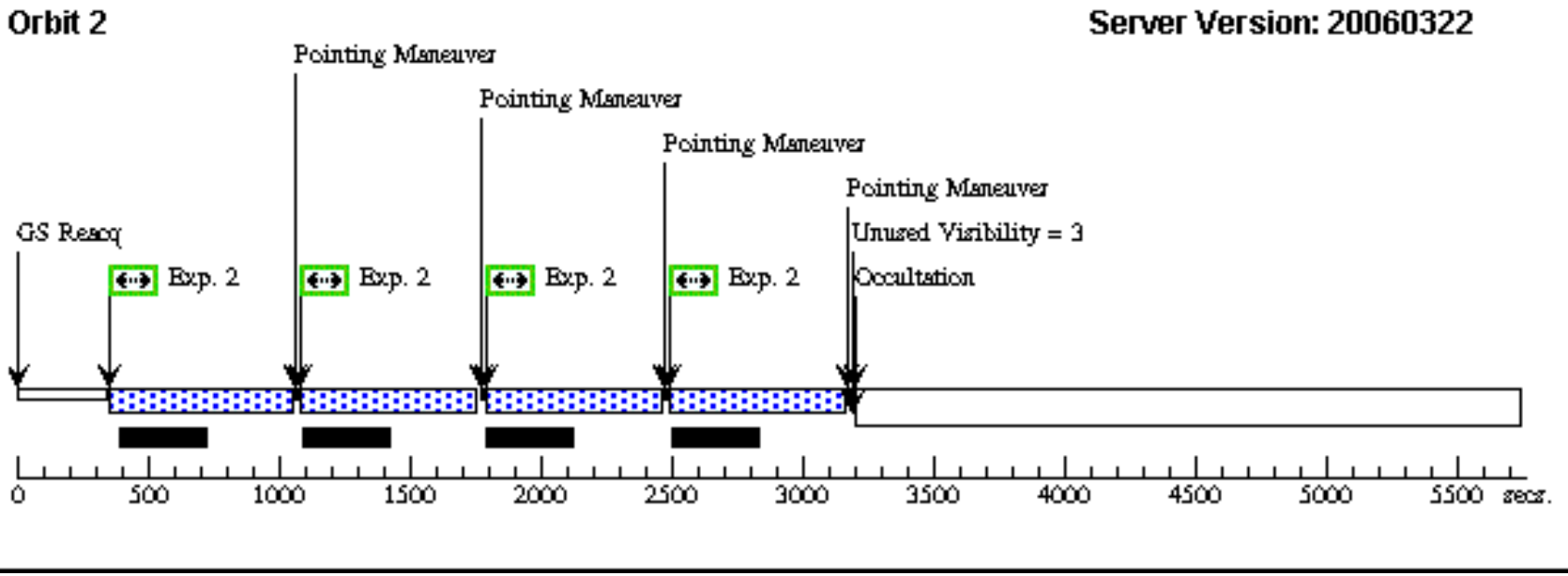
Exposures

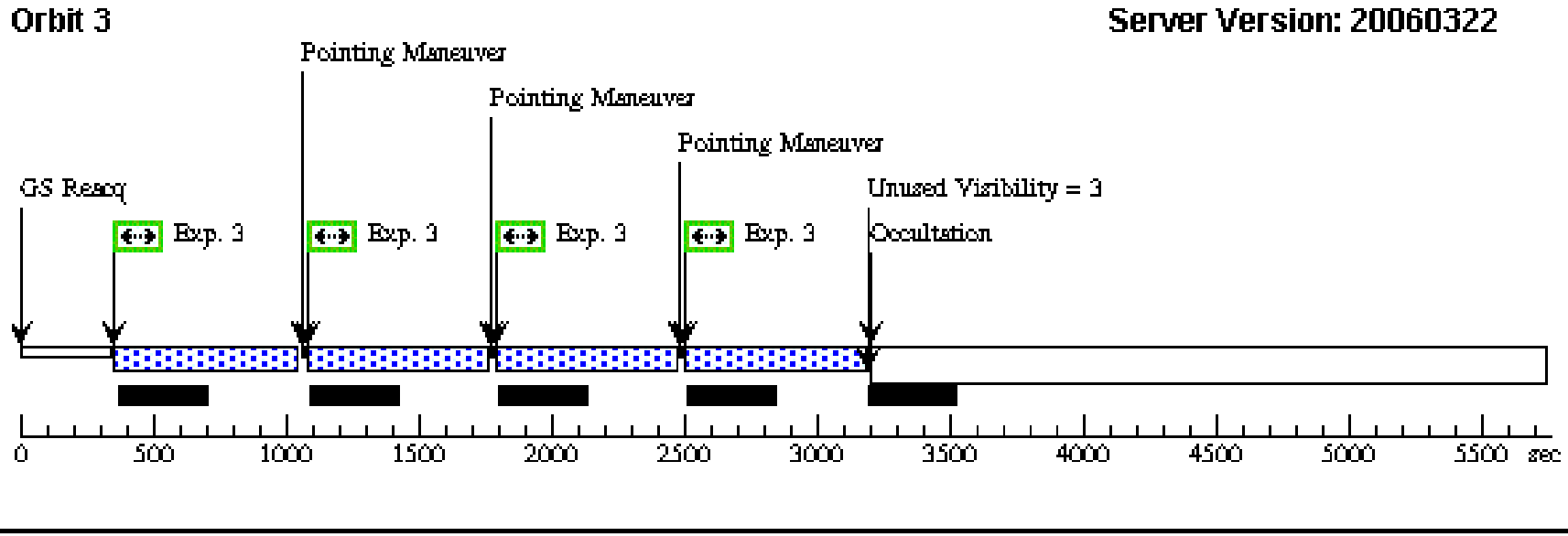
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(9) SDSSJ092149.72+525829.4	ACS/WFC, ACCUM, WFCENTER	F475W	CR-SPLIT=NO		Pattern 1-1 (1)	500.0 Secs	
								[==>534.0 Secs (Pattern 1)] *[==>534.0 Secs (Pattern 2)]* *[==>534.0 Secs (Pattern 3)]* *[==>534.0 Secs (Pattern 4)]*	***[1]***
2		(9) SDSSJ092149.72+525829.4	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO		Pattern 2-2 (1)	500.0 Secs	
								[==>547.0 Secs (Pattern 1)] *[==>547.0 Secs (Pattern 2)]* *[==>547.0 Secs (Pattern 3)]* *[==>547.0 Secs (Pattern 4)]*	***[2]***
3		(9) SDSSJ092149.72+525829.4	ACS/WFC, ACCUM, WFCENTER	F775W	CR-SPLIT=NO		Pattern 3-3 (1)	500.0 Secs	
								[==>555.0 Secs (Pattern 1)] *[==>555.0 Secs (Pattern 2)]* *[==>555.0 Secs (Pattern 3)]* *[==>555.0 Secs (Pattern 4)]*	***[3]***

Orbit Structure



Orbit Structure (continued)





Visit

Proposal 10813, Visit 10 Thu Aug 03 01:31:48 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: CVZ; ORIENT 345.0D TO 50.0 D; ORIENT 165.0D TO 230.0 D

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=2.994 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.3 Angle Between Sides= Center Pattern=false	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.264 Line Spacing=0.185	Coordinate Frame=POS-TARG Pattern Orientation=20.9 Angle Between Sides=69.1 Center Pattern=false	(1), (2), (3)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	SDSSJ112719.46+654143.4	RA: 11 27 19.6320 (171.8318000d) Dec: +65 40 57.00 (65.68250d) Equinox: J2000	Redshift: 1.25	V=18.3 u=18.4, g=18.3, r=18.1, i=18.1	Reference Frame: ICRS

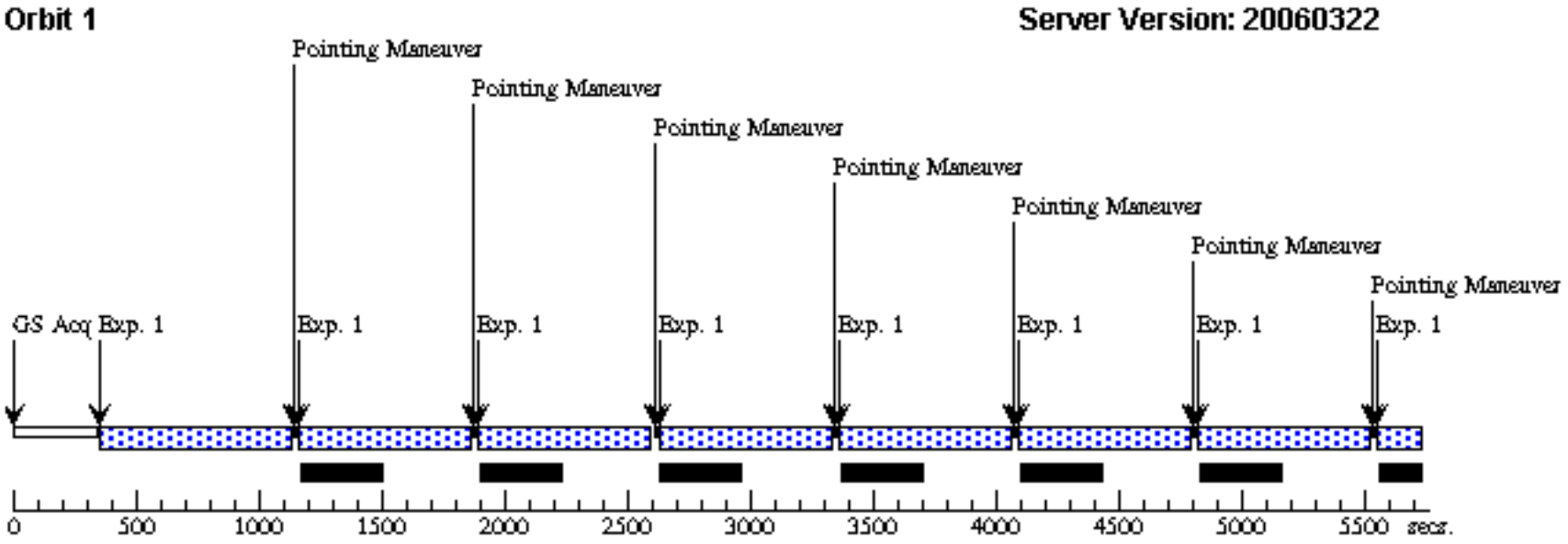
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(10) SDSSJ112719.46+654143.4	ACS/WFC, ACCUM, WFCENTER	F475W	CR-SPLIT=NO		Pattern 1-1 (2)	575.0 Secs	
								[==>(Pattern 1,1)] *[==>(Pattern 1,2)]* *[==>(Pattern 1,3)]* *[==>(Pattern 1,4)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 2,3)]* *[==>(Pattern 2,4)]*	***[1]***
2		(10) SDSSJ112719.46+654143.4	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO		Pattern 2-2 (2)	480.0 Secs	
								[==>(Pattern 1,1)] *[==>(Pattern 1,2)]* *[==>(Pattern 1,3)]* *[==>(Pattern 1,4)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 2,3)]* *[==>(Pattern 2,4)]*	***[2]***

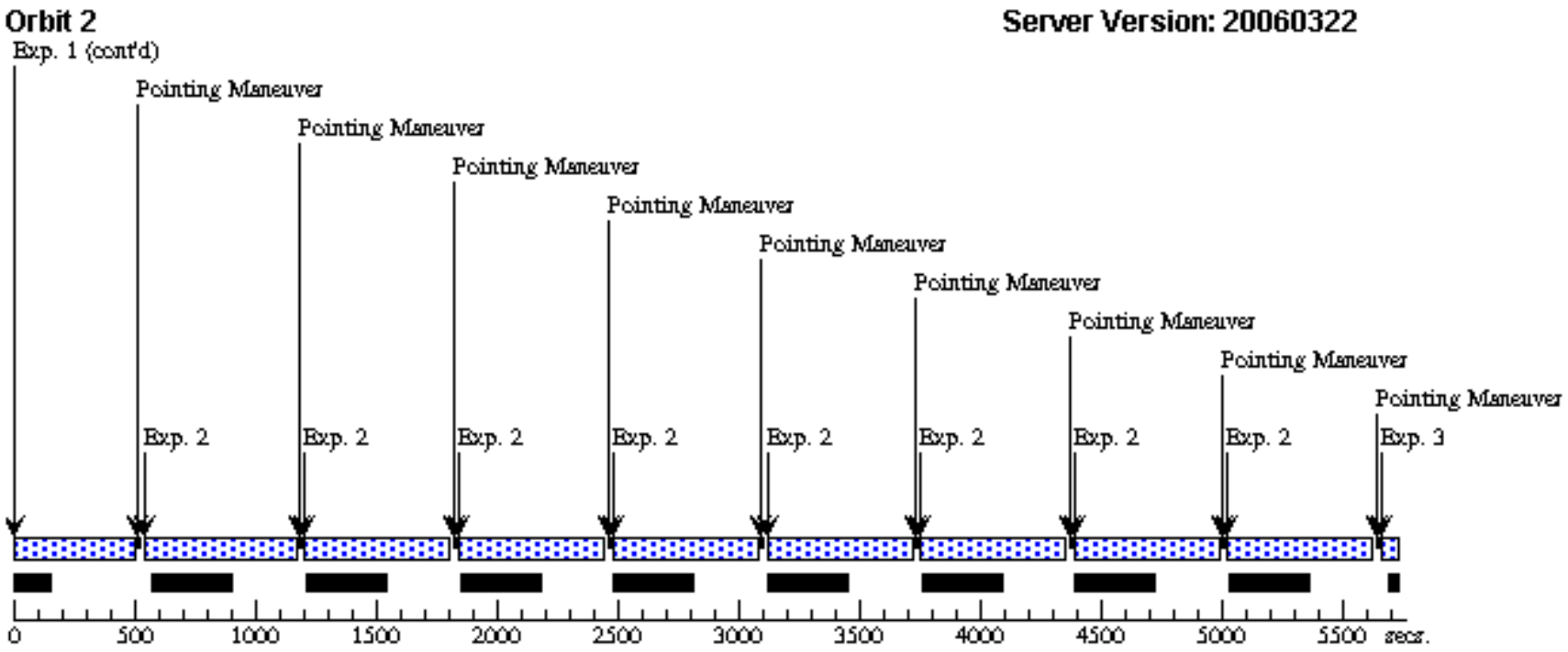
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
3		(10) SDSSJ112719.46+654143.4	ACS/WFC, ACCUM, WFCENTER	F775W	CR-SPLIT=NO		Pattern 3-3 (2)	480.0 Secs	
								[==>(Pattern 1,1)]	***[2]***
								[==>(Pattern 1,2)]	
								[==>(Pattern 1,3)]	
								[==>(Pattern 1,4)]	
								[==>(Pattern 2,1)]	***[3]***
								[==>(Pattern 2,2)]	
								[==>(Pattern 2,3)]	
								[==>(Pattern 2,4)]	

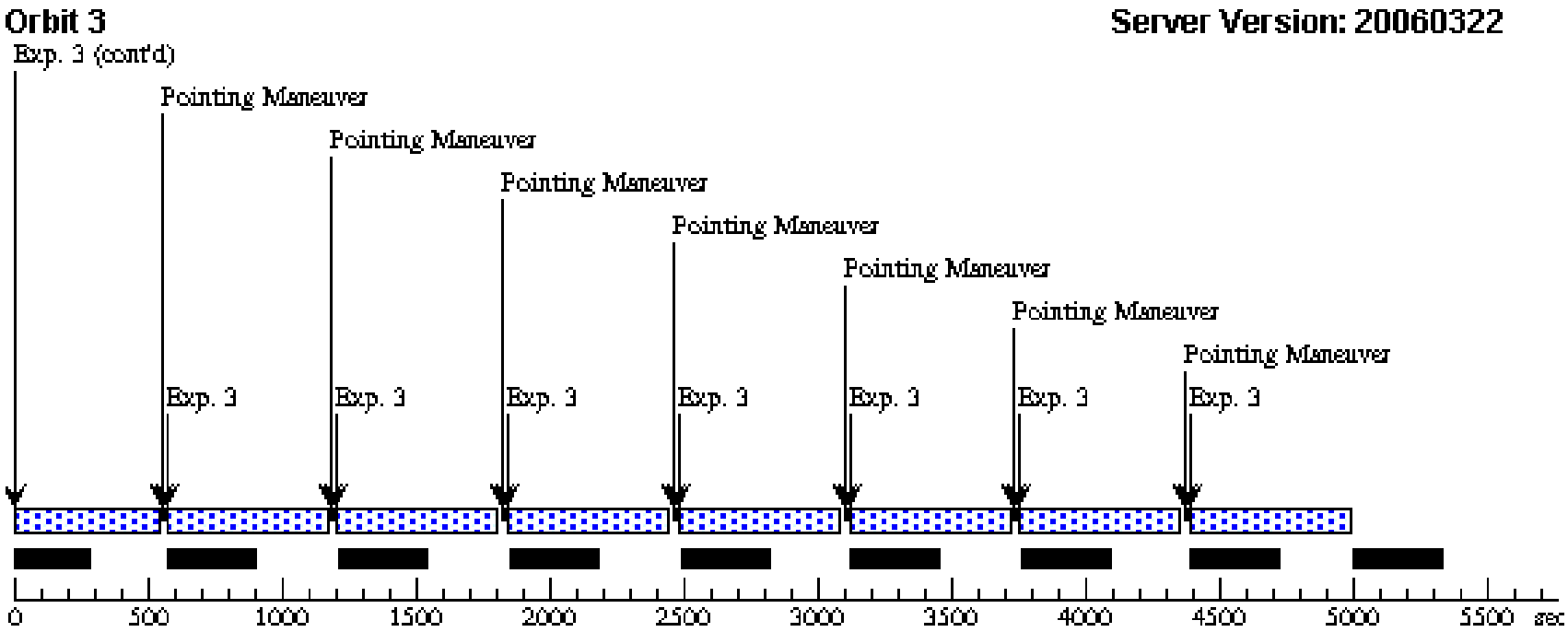
Orbit Structure



Orbit Structure (continued)



Orbit Structure (continued)



Visit

Proposal 10813, Visit 11 Thu Aug 03 01:31:49 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 106.0D TO 190.0 D; ORIENT 286.0D TO 10.0 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=false		(1), (2), (3)

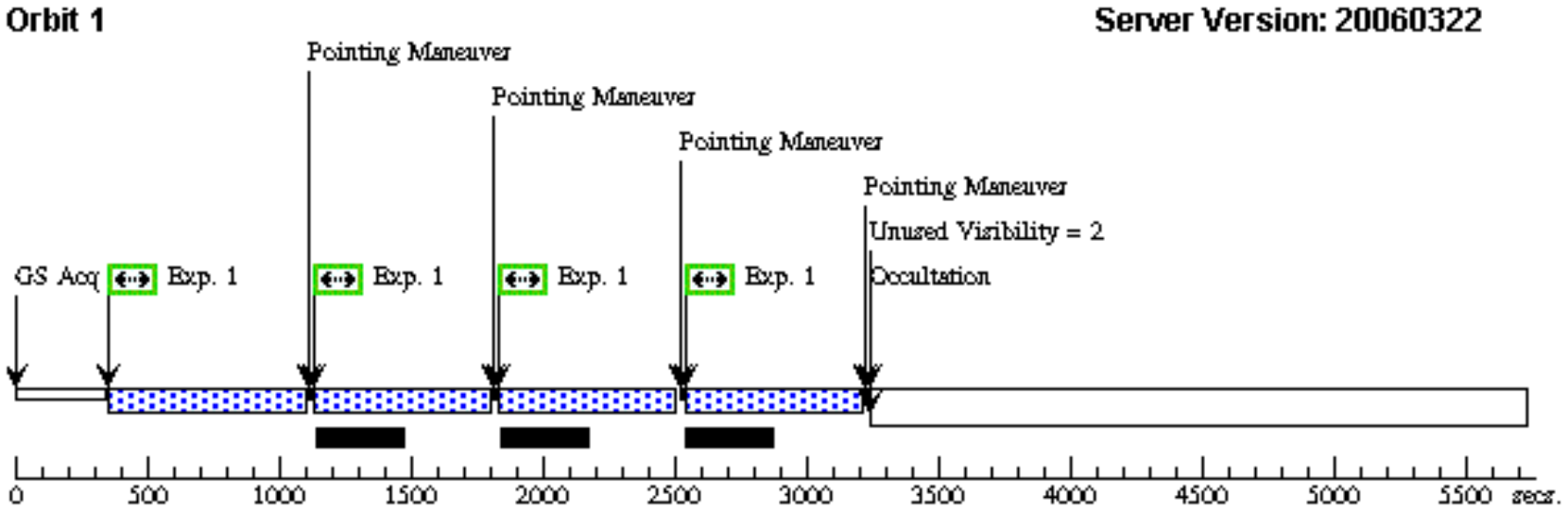
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	SDSSJ113852.63+632934	RA: 11 38 57.0300 (174.7376250d) Dec: +63 28 58.00 (63.48278d) Equinox: J2000	Redshift: 1.876	V=18.9 u=19.0, g=19.0, r=18.9, i=18.6	Reference Frame: ICRS

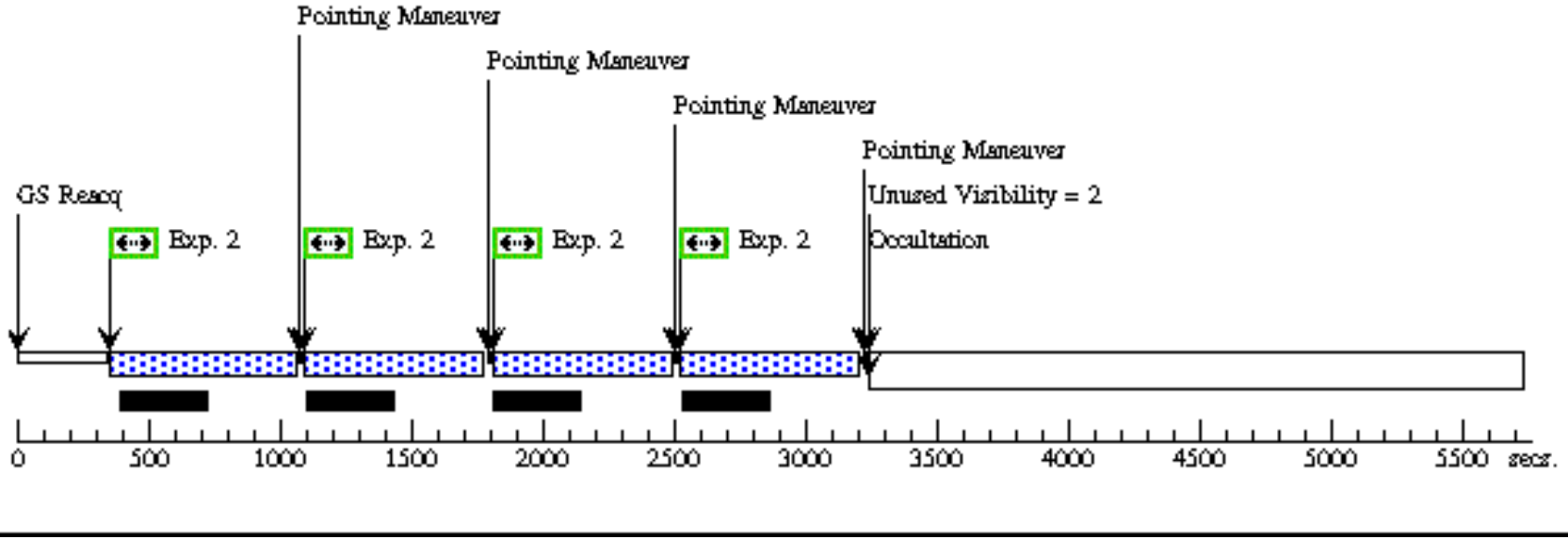
Exposures

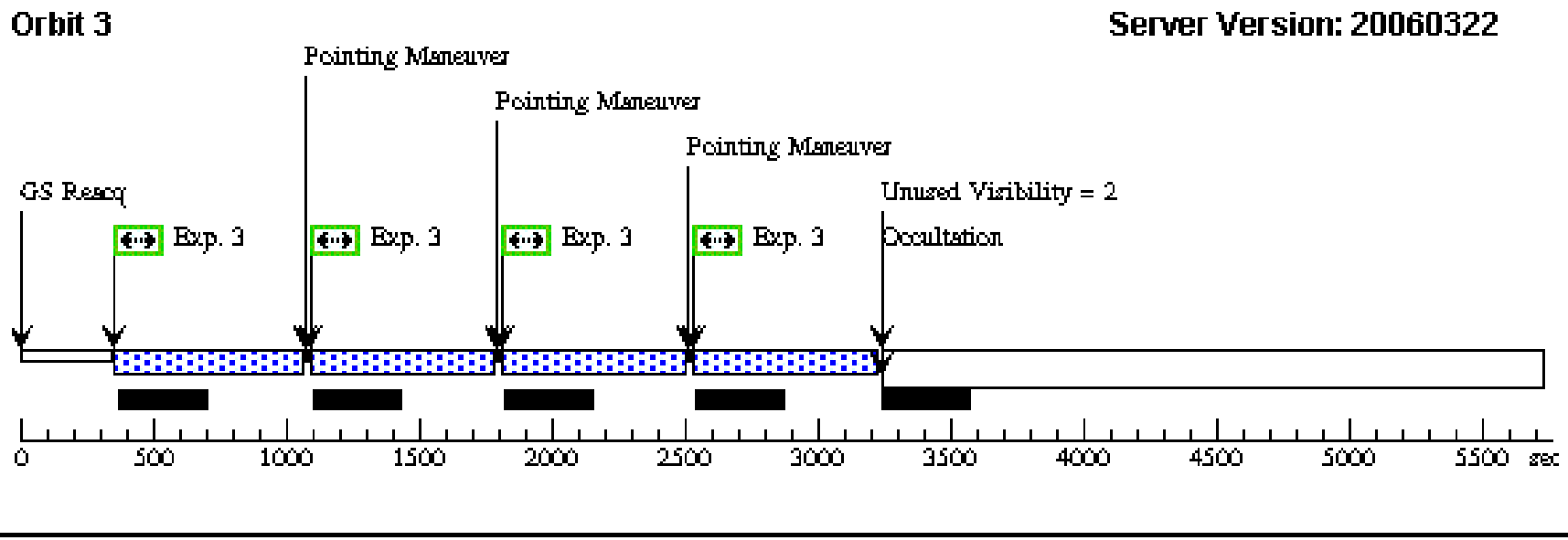
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(11) SDSSJ113852.63+632934	ACS/WFC, ACCUM, WFCENTER	F475W	CR-SPLIT=NO		Pattern 1-1 (1)	400.0 Secs	
								[==>545.0 Secs (Pattern 1)] *[==>545.0 Secs (Pattern 2)]* *[==>545.0 Secs (Pattern 3)]* *[==>545.0 Secs (Pattern 4)]*	***[1]***
2		(11) SDSSJ113852.63+632934	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO		Pattern 2-2 (1)	400.0 Secs	
								[==>558.0 Secs (Pattern 1)] *[==>558.0 Secs (Pattern 2)]* *[==>558.0 Secs (Pattern 3)]* *[==>558.0 Secs (Pattern 4)]*	***[2]***
3		(11) SDSSJ113852.63+632934	ACS/WFC, ACCUM, WFCENTER	F775W	CR-SPLIT=NO		Pattern 3-3 (1)	400.0 Secs	
								[==>566.0 Secs (Pattern 1)] *[==>566.0 Secs (Pattern 2)]* *[==>566.0 Secs (Pattern 3)]* *[==>566.0 Secs (Pattern 4)]*	***[3]***

Orbit Structure



Orbit Structure (continued)





Visit

Proposal 10813, Visit 12 Thu Aug 03 01:31:50 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 305.0D TO 45.0 D; ORIENT 125.0D TO 225.0 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=false		(1), (2), (3)

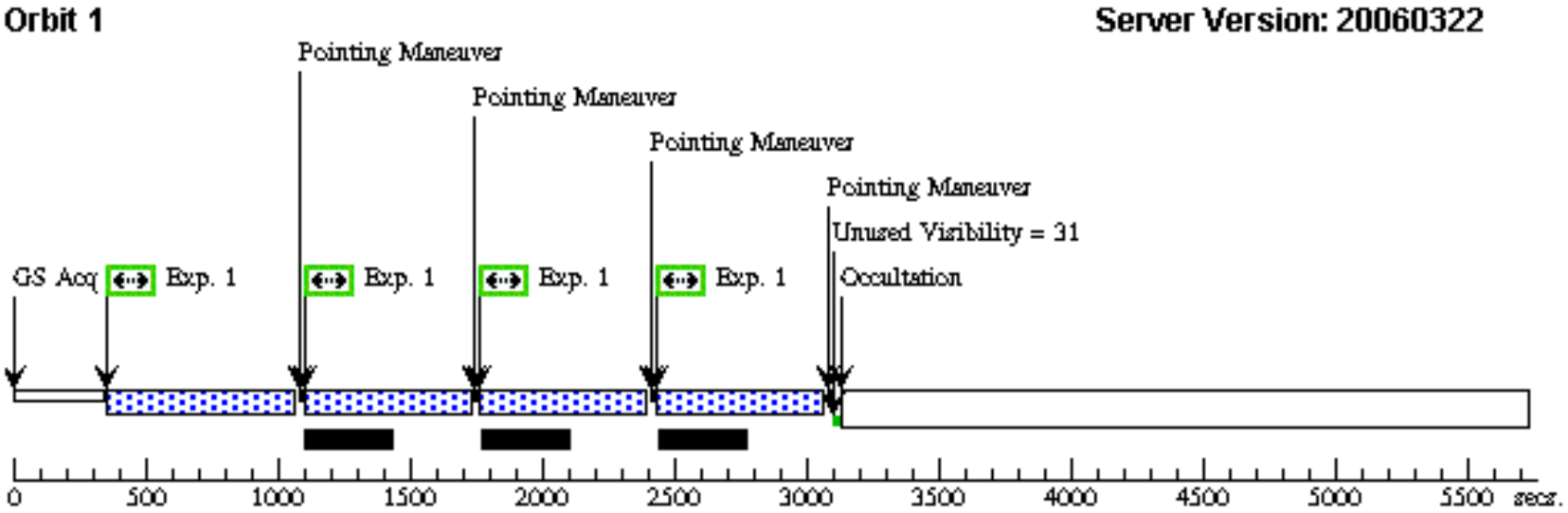
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(12)	SDSSJ234020.86+005559.7	RA: 23 40 20.7780 (355.0865750d) Dec: +00 55 43.00 (.92861d) Equinox: J2000	Redshift: 0.607	V=19.1 u=19.7, g=19.1, r=19.1, i=18.9	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(12) SDSSJ234020.86+005559.7	ACS/WFC, ACCUM, WFCENTER	F475W	CR-SPLIT=NO		Pattern 1-1 (1)	510.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		(12) SDSSJ234020.86+005559.7	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO		Pattern 2-2 (1)	510.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[2]***
3		(12) SDSSJ234020.86+005559.7	ACS/WFC, ACCUM, WFCENTER	F775W	CR-SPLIT=NO		Pattern 3-3 (1)	510.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[3]***

Orbit Structure



Orbit Structure (continued)