



12203 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

Cycle: 18, 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	(2) ISCS25.687 ANY	ACS/WFC WFC3/IR	1	28-Jul-2010 11:24:44.0	yes
02	(2) ISCS25.687 ANY	ACS/WFC WFC3/IR	5	28-Jul-2010 11:24:52.0	yes
03	(4) ISCS25.260 ANY	ACS/WFC WFC3/IR	1	28-Jul-2010 11:24:56.0	yes
04	(4) ISCS25.260 ANY	ACS/WFC WFC3/IR	5	28-Jul-2010 11:25:03.0	yes

<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>
05	(5) ISCS25.659 ANY	ACS/WFC WFC3/IR	1	28-Jul-2010 11:25:06.0	yes
06	(5) ISCS25.659 ANY	ACS/WFC WFC3/IR	5	28-Jul-2010 11:25:13.0	yes
07	(6) ISCS25.352 ANY	ACS/WFC WFC3/IR	1	28-Jul-2010 11:25:16.0	yes
08	(6) ISCS25.352 ANY	ACS/WFC WFC3/IR	5	28-Jul-2010 11:25:22.0	yes
09	(7) ISCS25.128 ANY	ACS/WFC WFC3/IR	1	28-Jul-2010 11:25:26.0	yes
10	(7) ISCS25.128 ANY	ACS/WFC WFC3/IR	5	28-Jul-2010 11:25:32.0	yes

30 Total Orbits Used

ABSTRACT

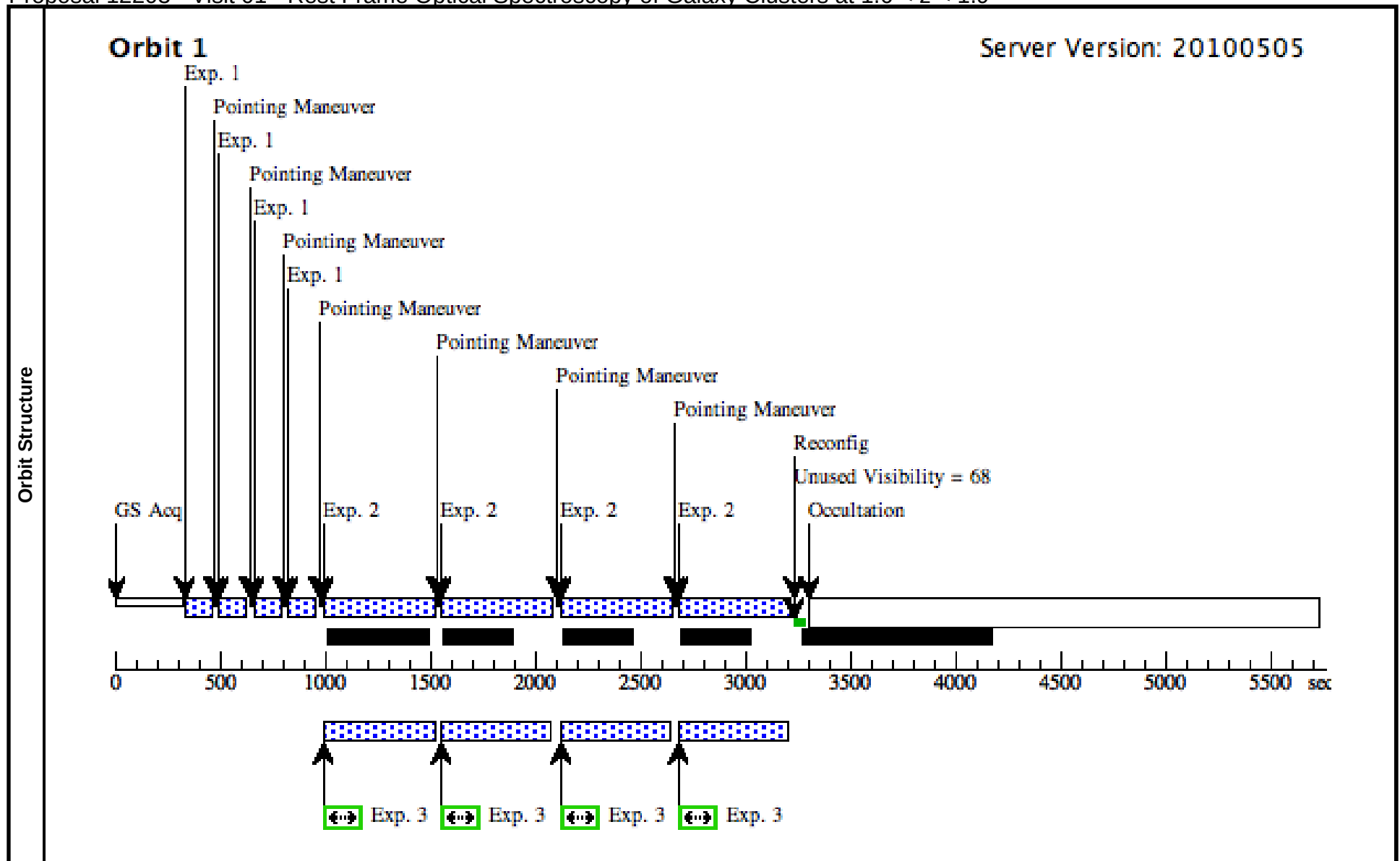
We propose to obtain WFC3 IR grism spectroscopy of IRAC-selected galaxy clusters at $1.6 < z < 1.9$ in the Bootes field. The candidate clusters were identified as three dimensional overdensities, based on full photometric redshifts determined from optical-NIR-MIR photometry. These 5 cluster candidates are being imaged by WFC3+ACS in Cycle 17 to obtain rest frame optical morphologies for the galaxies, and precise color-magnitude diagrams. Obtaining firm redshifts for the red galaxy populations in the absence of emission lines is extremely difficult from the ground at these redshifts. With the WFC3 IR grism data we will be able to measure the redshifts and determine the star formation histories of the red galaxy populations through SED fitting of the rest frame optical spectra that will include continuous coverage of the Balmer and 4000 Angstrom breaks.

OBSERVING DESCRIPTION

WFC3 G102 and G141 grism spectroscopy of high- z galaxy clusters

Proposal 12203 (STScI Edit Number: 0, Created: Wednesday, July 28, 2010 11:25:34 AM EDT) - Overview

Visit	Proposal 12203, Visit 01, implementation Wed Jul 28 15:25:34 GMT 2010									
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: (none)									
Patterns	#	Primary Pattern				Secondary Pattern				Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1), (2-3)
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous	
	(2)	ISCS25.687	RA: 14 26 32.8696 (216.6369567d) Dec: +35 08 23.97 (35.13999d) Equinox: J2000				V=25+/-2		Reference Frame: ICRS	
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	ISCS25.687 g141direct	(2) ISCS25.687	WFC3/IR, MULTIACCUM, G141-REF	F140W	NSAMP=5; SAMP-SEQ=SPAR S25		Pattern 1, Exps 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	ISCS25.687 g141spec	(2) ISCS25.687	WFC3/IR, MULTIACCUM, IR	G141	NSAMP=6; SAMP-SEQ=SPAR S100		Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	3	ISCS25.687 g141par	ANY	ACS/WFC, ACCUM, WFC-FIX	F850LP			Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	400 Secs [==>325 Secs (Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 12203 - Visit 01 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

Visit	Proposal 12203, Visit 02, implementation Wed Jul 28 15:25:34 GMT 2010				
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: SAME ORIENT AS 01				
Patterns	#	Primary Pattern		Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365		Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false	(1), (2-3), (4-5)
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
	(2)	ISCS25.687	RA: 14 26 32.8696 (216.6369567d) Dec: +35 08 23.97 (35.13999d) Equinox: J2000		V=25+/-2 Reference Frame: ICRS

Proposal 12203 - Visit 01 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	ISCS25.687 g102direct	(2) ISCS25.687	WFC3/IR, MULTIACCUM, G141-REF	F105W	NSAMP=5; SAMP-SEQ=SPAR S25		Pattern 1, Exps 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	ISCS25.687 g102spec	(2) ISCS25.687	WFC3/IR, MULTIACCUM, IR	G102	NSAMP=6; SAMP-SEQ=SPAR S100		Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	3	ISCS25.687 g102par	ANY	ACS/WFC, ACCUM, WFC-FIX	F850LP			Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	400 Secs [==>325 Secs (Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	4	ISCS25.687 g102spec	(2) ISCS25.687	WFC3/IR, MULTIACCUM, IR	G102	NSAMP=15; SAMP-SEQ=SPAR S50		Pattern 1, Exps 4-5 (1) Prime + Parallel Group 4-5	[==>(Pattern 1, Copy 1)] [==>(Pattern 1, Copy 2)] [==>(Pattern 1, Copy 3)] [==>(Pattern 1, Copy 4)] [==>(Pattern 2, Copy 1)] [==>(Pattern 2, Copy 2)] [==>(Pattern 2, Copy 3)] [==>(Pattern 2, Copy 4)] [==>(Pattern 3, Copy 1)] [==>(Pattern 3, Copy 2)] [==>(Pattern 3, Copy 3)] [==>(Pattern 3, Copy 4)] [==>(Pattern 4, Copy 1)] [==>(Pattern 4, Copy 2)] [==>(Pattern 4, Copy 3)] [==>(Pattern 4, Copy 4)]	[2] [3] [4] [5]

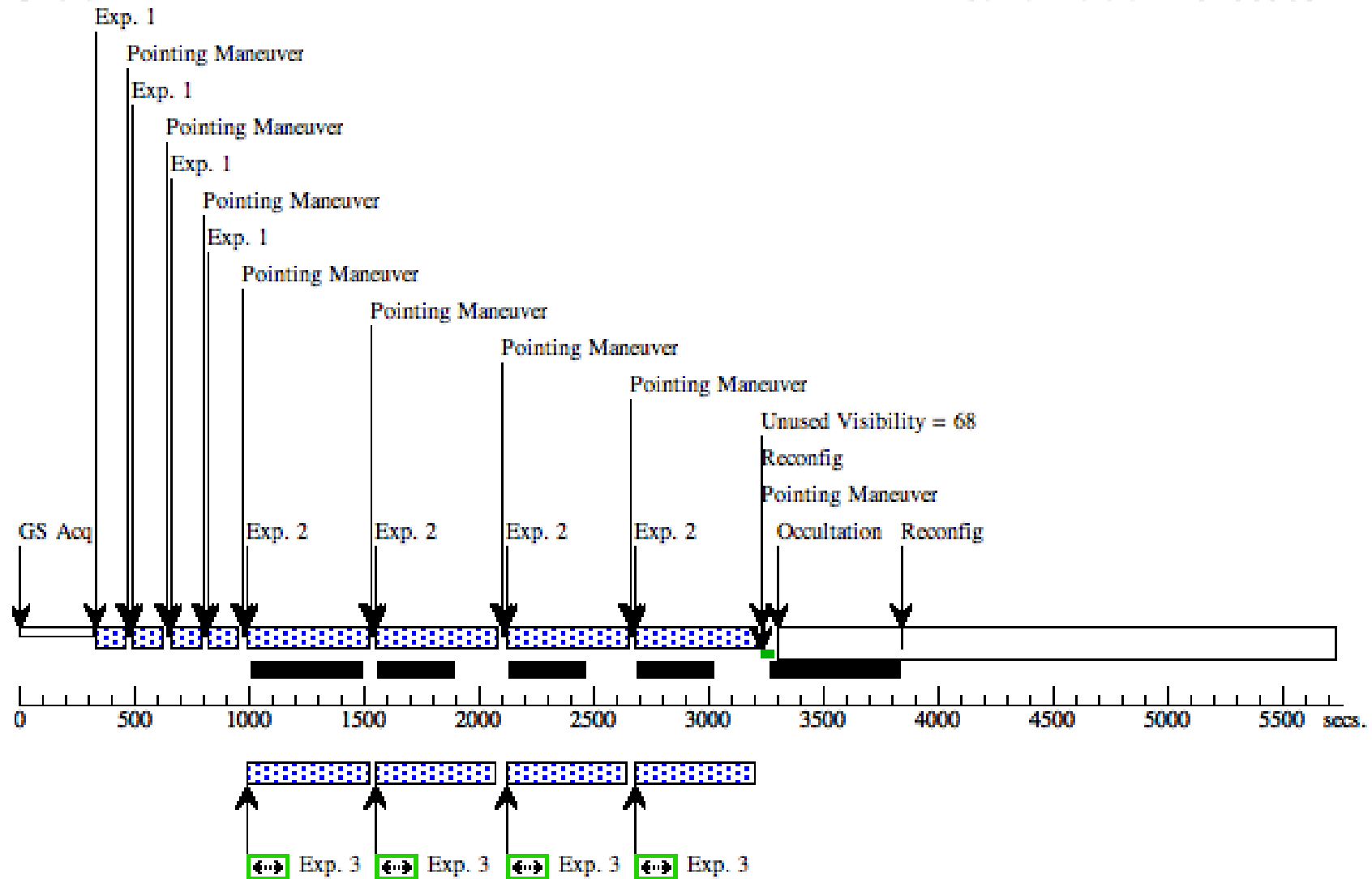
Proposal 12203 - Visit 01 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

5	ISCS25.687 g102par	ANY	ACS/WFC, ACCUM, WFC-FIX	F850LP	Pattern 1, Exps 4-5 (1) Prime + Parallel Group 4-5	600 Secs X 4	
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Orbit 1

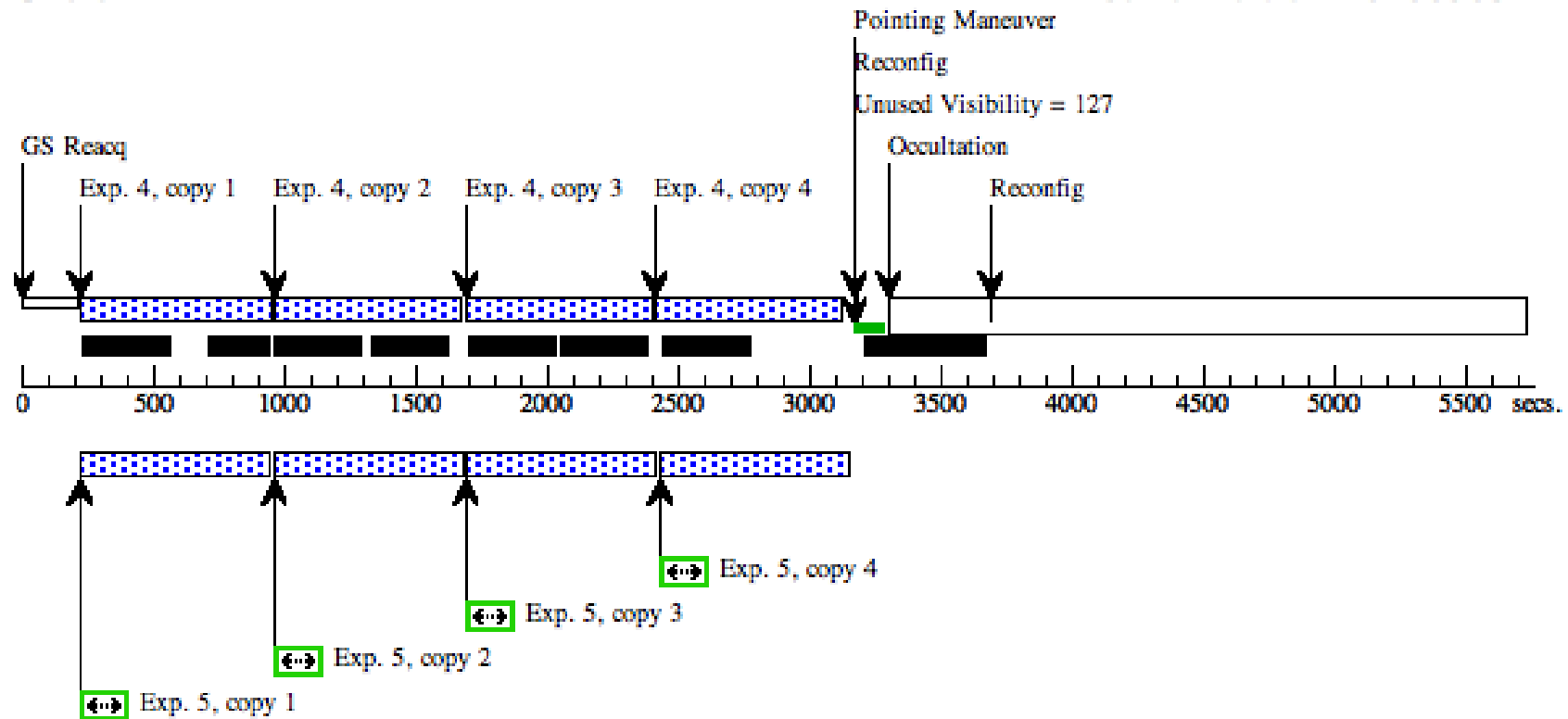
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Orbit Structure



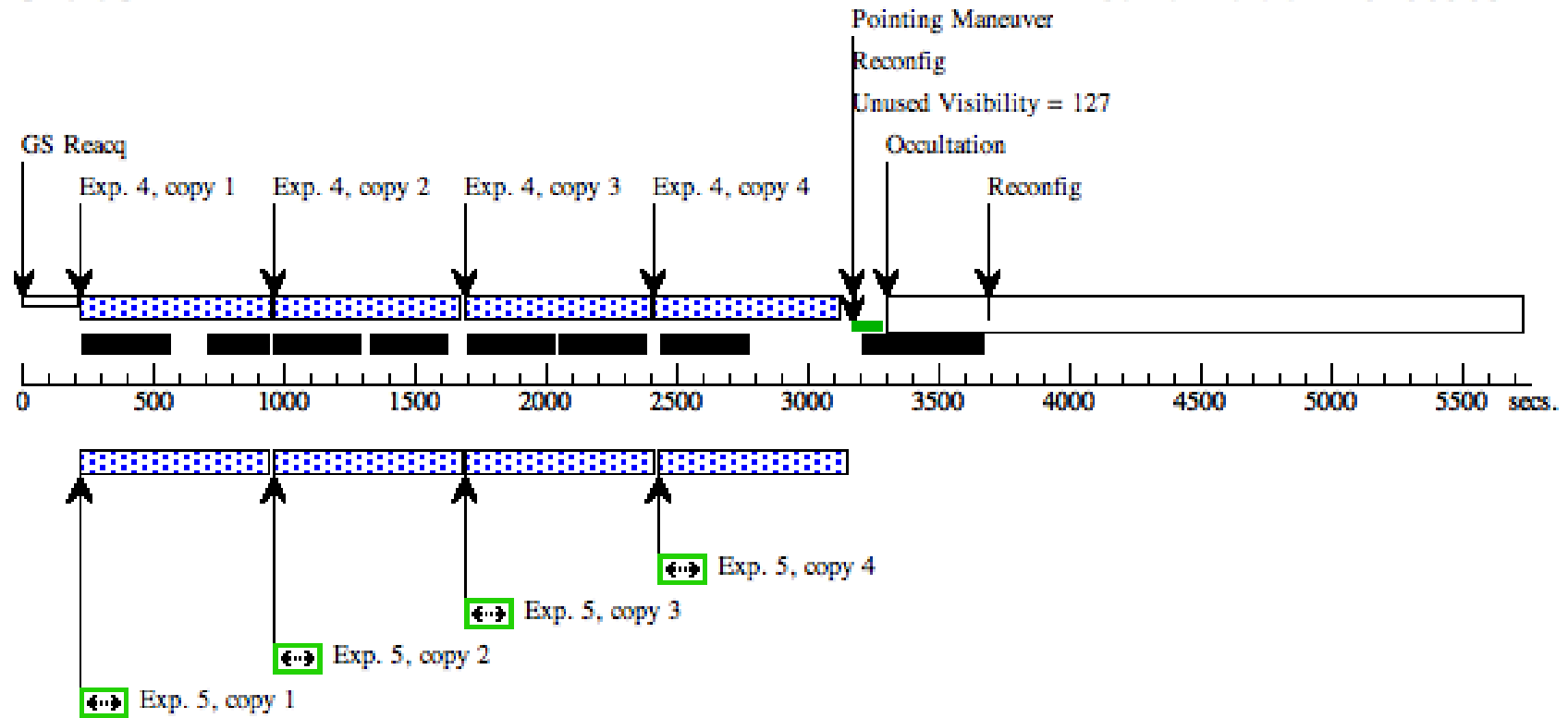
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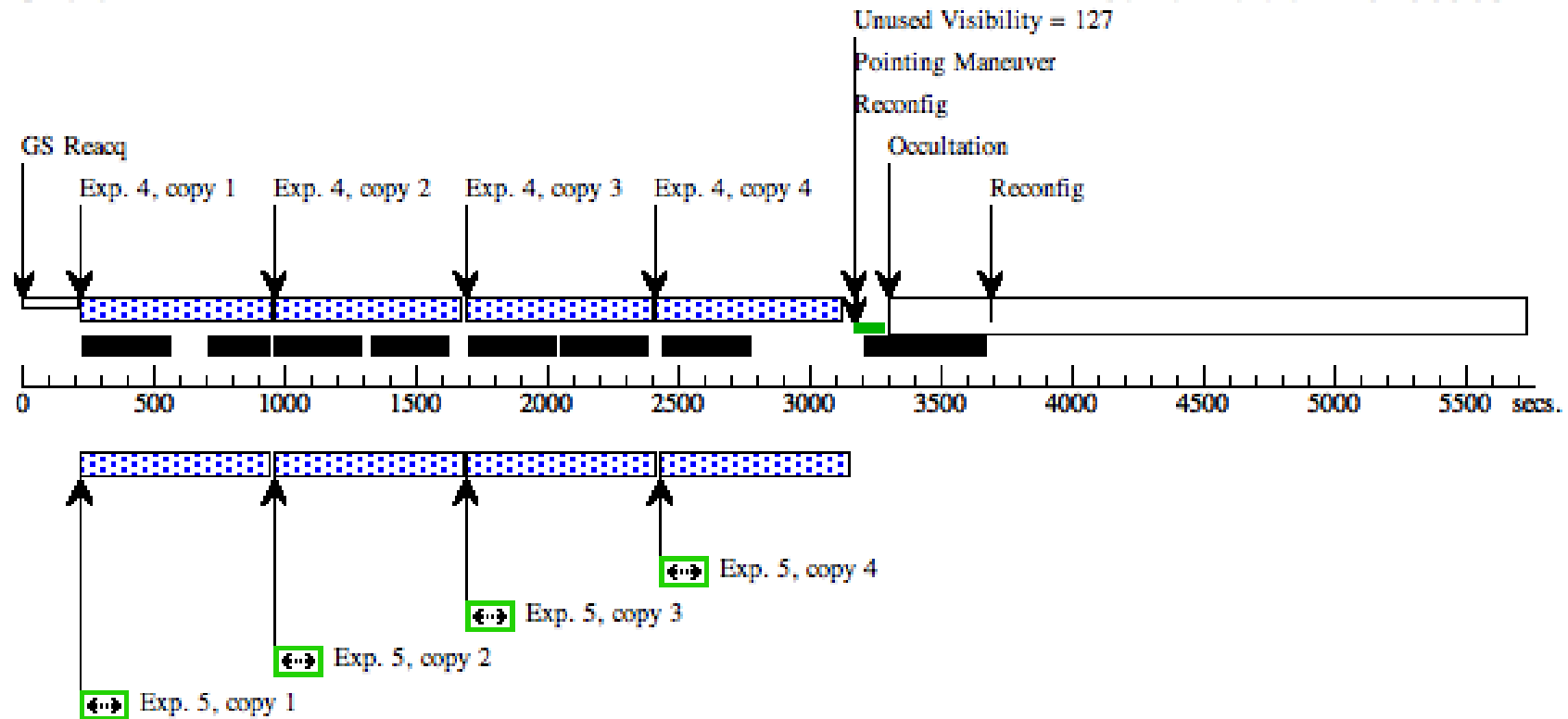
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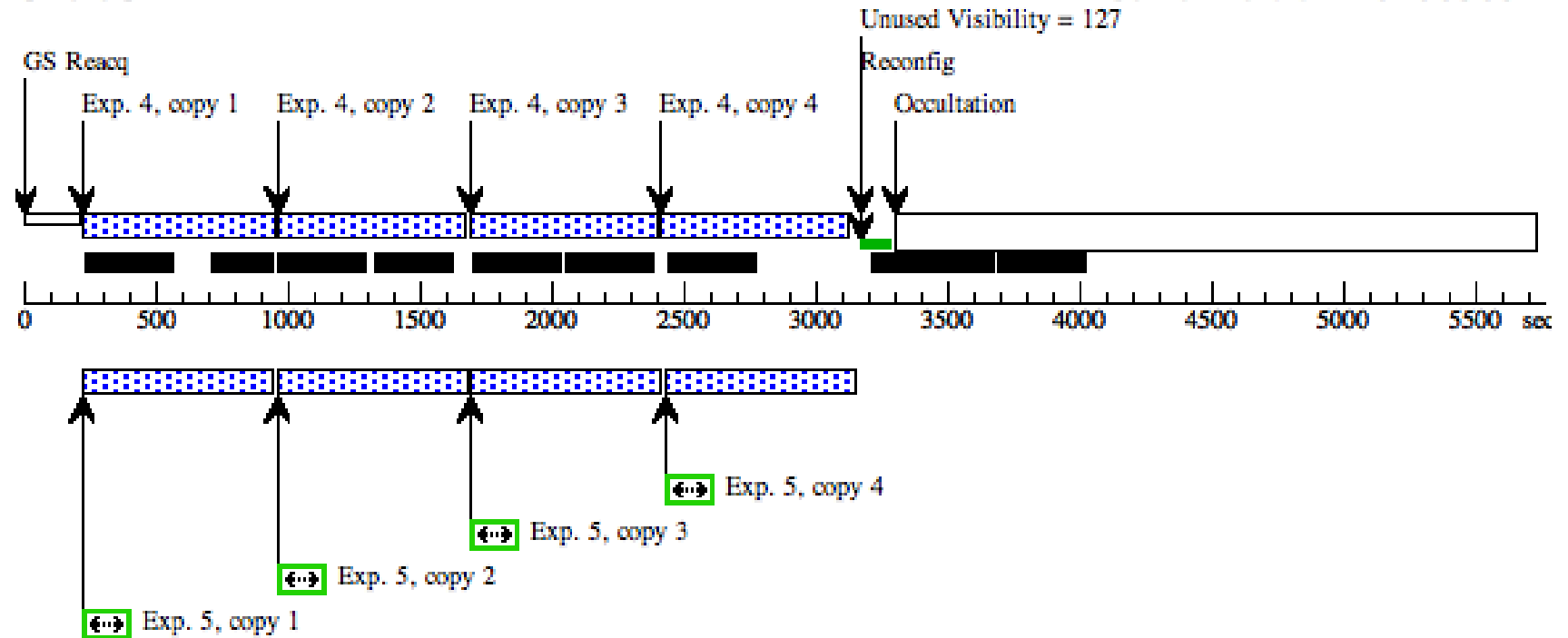
Orbit 4

Server Version: 20100505



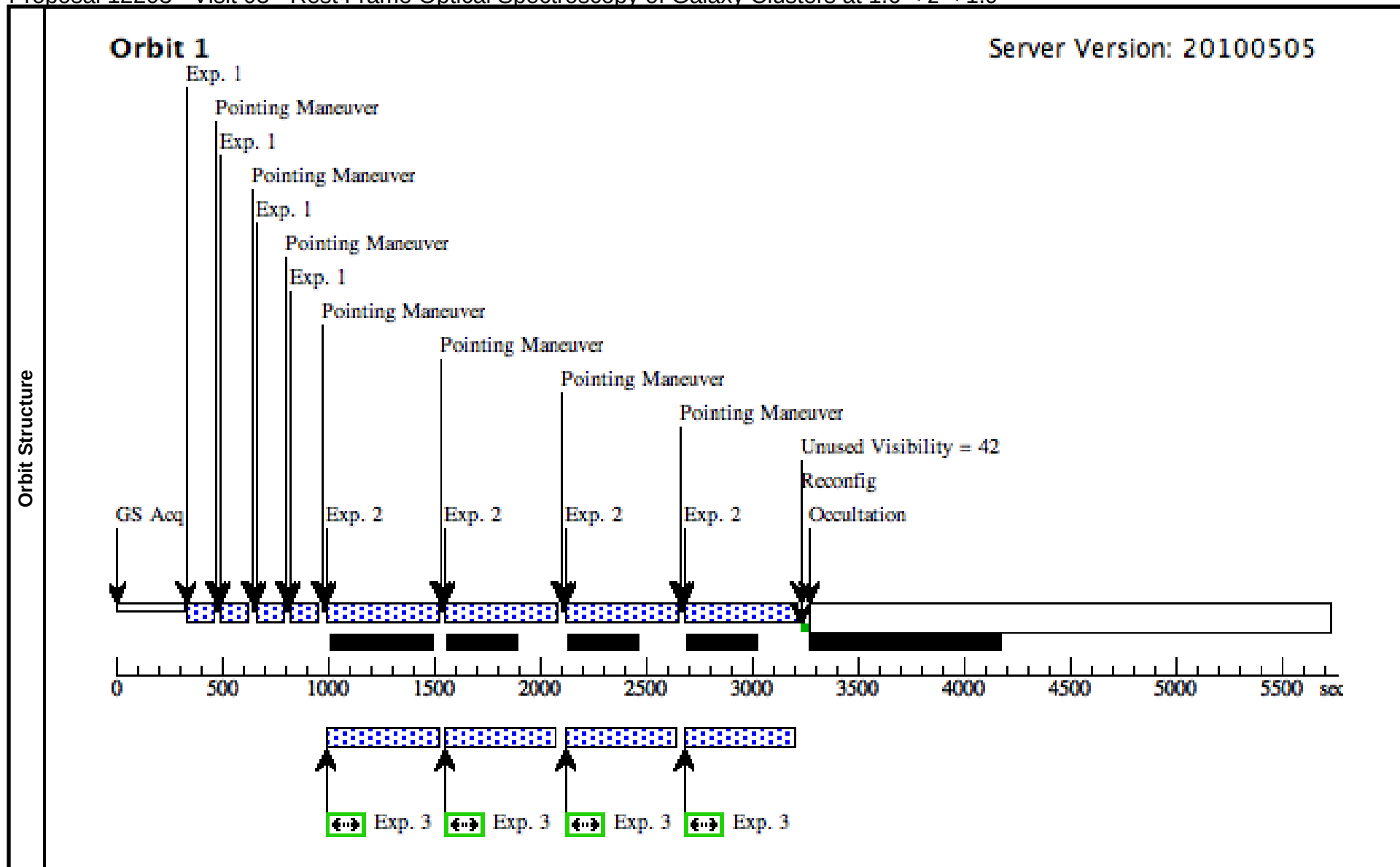
Orbit 5

Server Version: 20100505



Proposal 12203 - Visit 02 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

Visit	Proposal 12203, Visit 03, implementation Wed Jul 28 15:25:35 GMT 2010									
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: (none)									
Patterns	#	Primary Pattern				Secondary Pattern				Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1), (2-3)
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous	
	(4)	ISCS25.260	RA: 14 27 24.3130 (216.8513042d) Dec: +33 42 42.02 (33.71167d) Equinox: J2000				V=25+/-2		Reference Frame: ICRS	
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	ISCS25.260 g141direct	(4) ISCS25.260	WFC3/IR, MULTIACCUM, G141-REF	F140W	NSAMP=5; SAMP-SEQ=SPAR S25		Pattern 1, Exps 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	ISCS25.260 g141spec	(4) ISCS25.260	WFC3/IR, MULTIACCUM, IR	G141	NSAMP=6; SAMP-SEQ=SPAR S100		Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	3	ISCS25.260 g141par	ANY	ACS/WFC, ACCUM, WFC-FIX	F850LP			Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	400 Secs [==>325 Secs (Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 12203 - Visit 03 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

Visit	Proposal 12203, Visit 04, implementation Wed Jul 28 15:25:35 GMT 2010				
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: SAME ORIENT AS 03				
Patterns	#	Primary Pattern		Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365		Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false	(1), (2-3), (4-5)
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
	(4)	ISCS25.260	RA: 14 27 24.3130 (216.8513042d) Dec: +33 42 42.02 (33.71167d) Equinox: J2000		V=25+/-2 Reference Frame: ICRS

Proposal 12203 - Visit 03 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	ISCS25.260 g102direct	(4) ISCS25.260	WFC3/IR, MULTIACCUM, G141-REF	F105W	NSAMP=5; SAMP-SEQ=SPAR S25		Pattern 1, Exps 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	ISCS25.260 g102spec	(4) ISCS25.260	WFC3/IR, MULTIACCUM, IR	G102	NSAMP=6; SAMP-SEQ=SPAR S100		Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	3	ISCS25.260 g102par	ANY	ACS/WFC, ACCUM, WFC-FIX	F850LP			Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	400 Secs [==>325 Secs (Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	4	ISCS25.260 g102spec	(4) ISCS25.260	WFC3/IR, MULTIACCUM, IR	G102	NSAMP=15; SAMP-SEQ=SPAR S50		Pattern 1, Exps 4-5 (1) Prime + Parallel Group 4-5	[==>(Pattern 1, Copy 1)] [==>(Pattern 1, Copy 2)] [==>(Pattern 1, Copy 3)] [==>(Pattern 1, Copy 4)] [==>(Pattern 2, Copy 1)] [==>(Pattern 2, Copy 2)] [==>(Pattern 2, Copy 3)] [==>(Pattern 2, Copy 4)] [==>(Pattern 3, Copy 1)] [==>(Pattern 3, Copy 2)] [==>(Pattern 3, Copy 3)] [==>(Pattern 3, Copy 4)] [==>(Pattern 4, Copy 1)] [==>(Pattern 4, Copy 2)] [==>(Pattern 4, Copy 3)] [==>(Pattern 4, Copy 4)]	[2] [3] [4] [5]

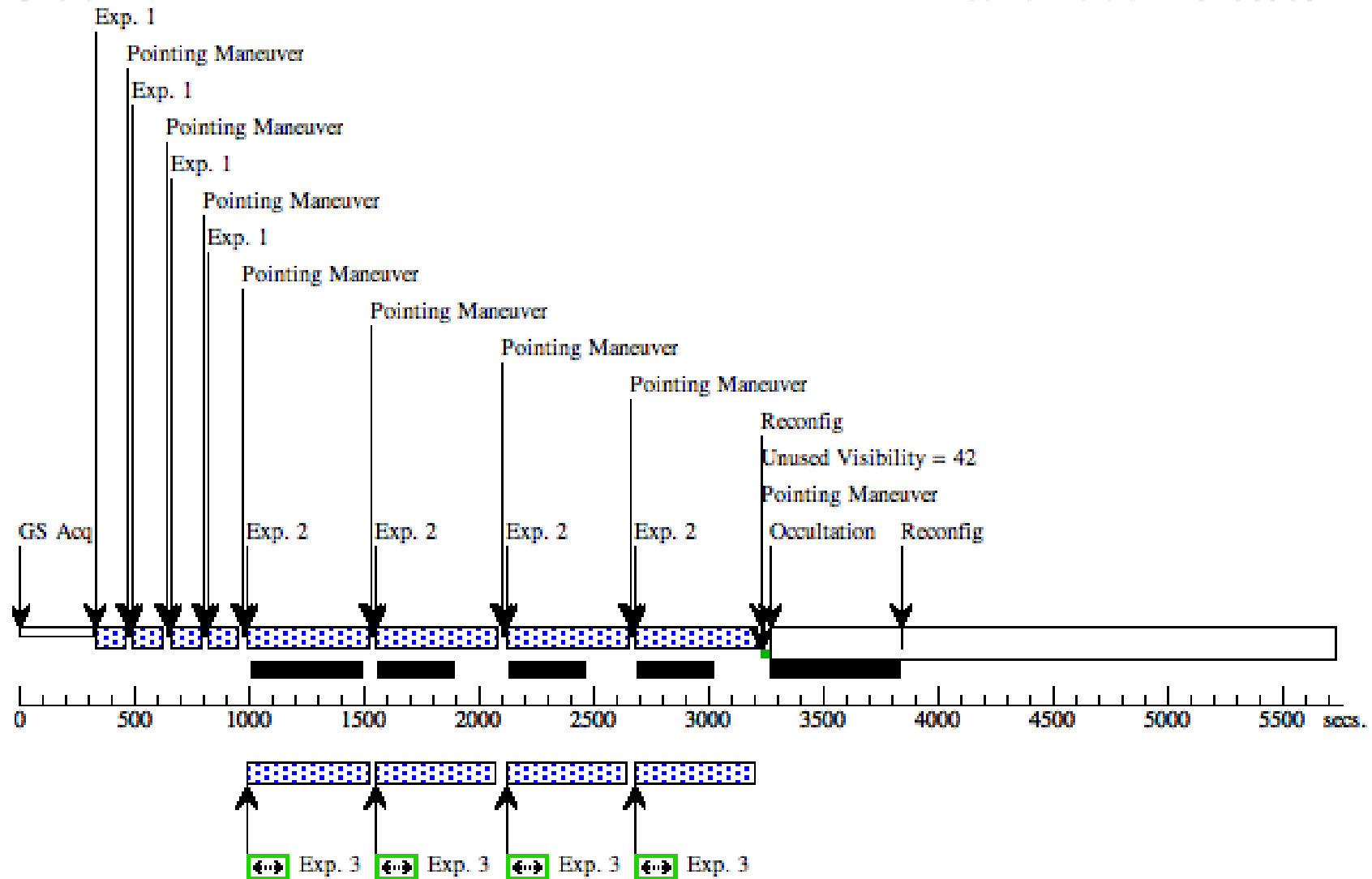
Proposal 12203 - Visit 03 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

5	ISCS25.260 g102par	ANY	ACS/WFC, ACCUM, WFC-FIX	F850LP	Pattern 1, Exps 4-5 (1) Prime + Parallel Group 4-5	600 Secs X 4	
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Orbit 1

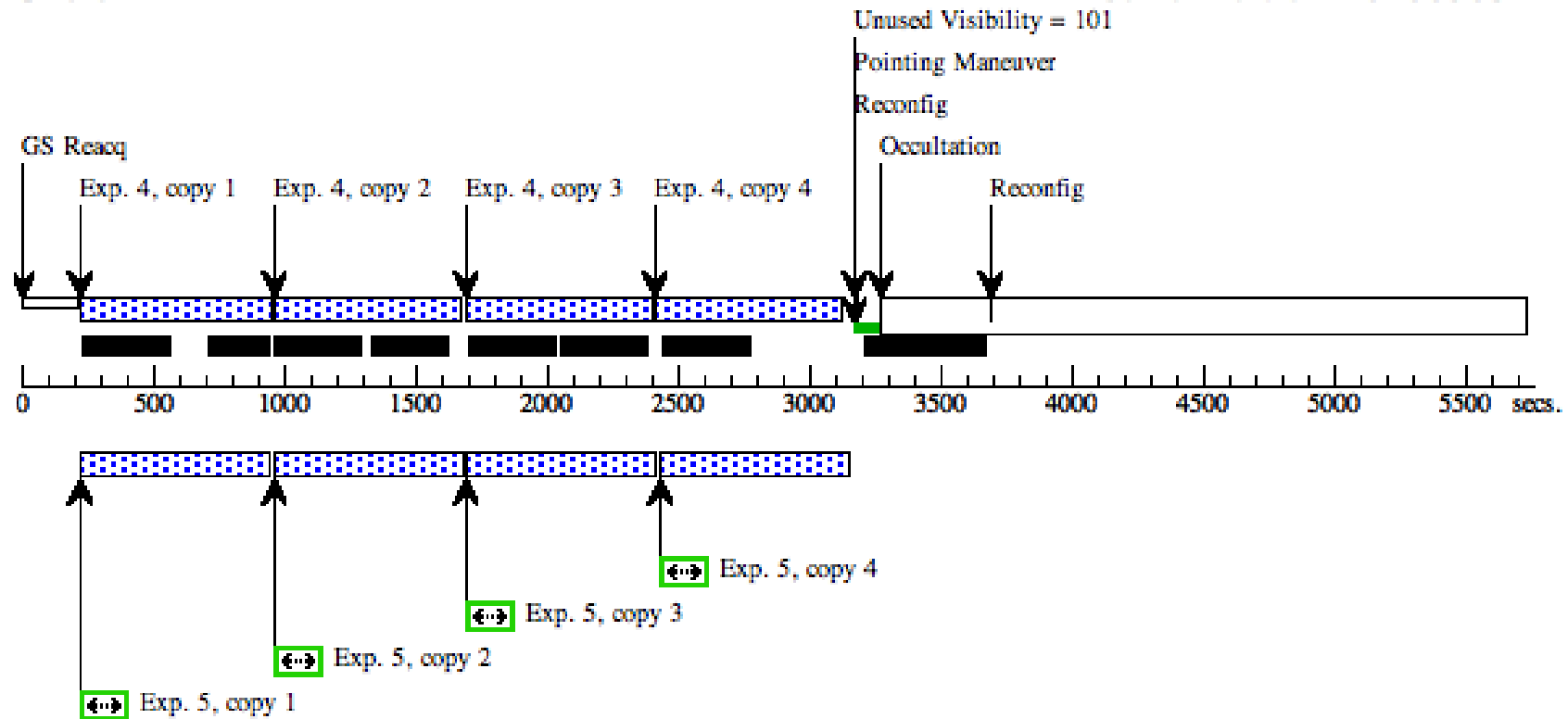
Server Version: 20100505

Orbit Structure



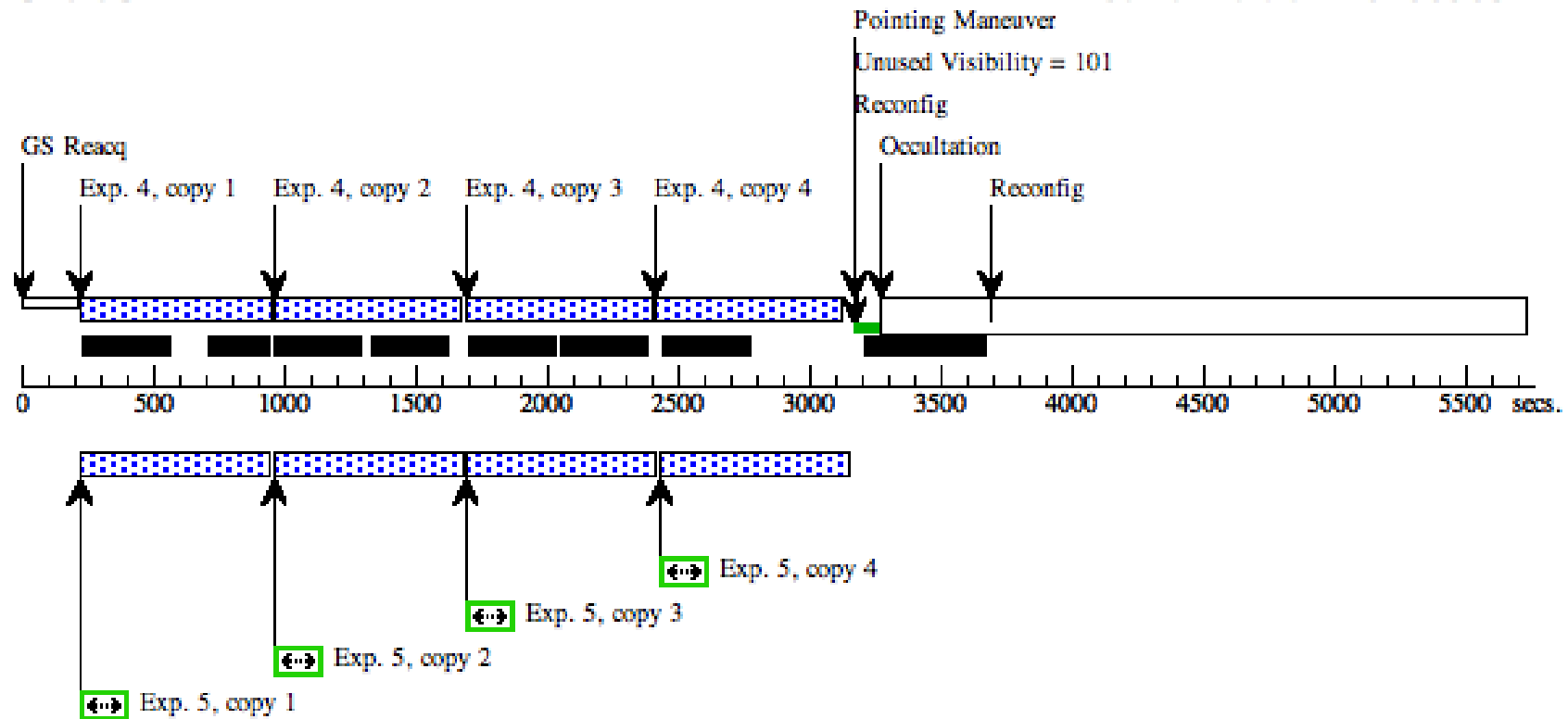
Orbit 2

Server Version: 20100505



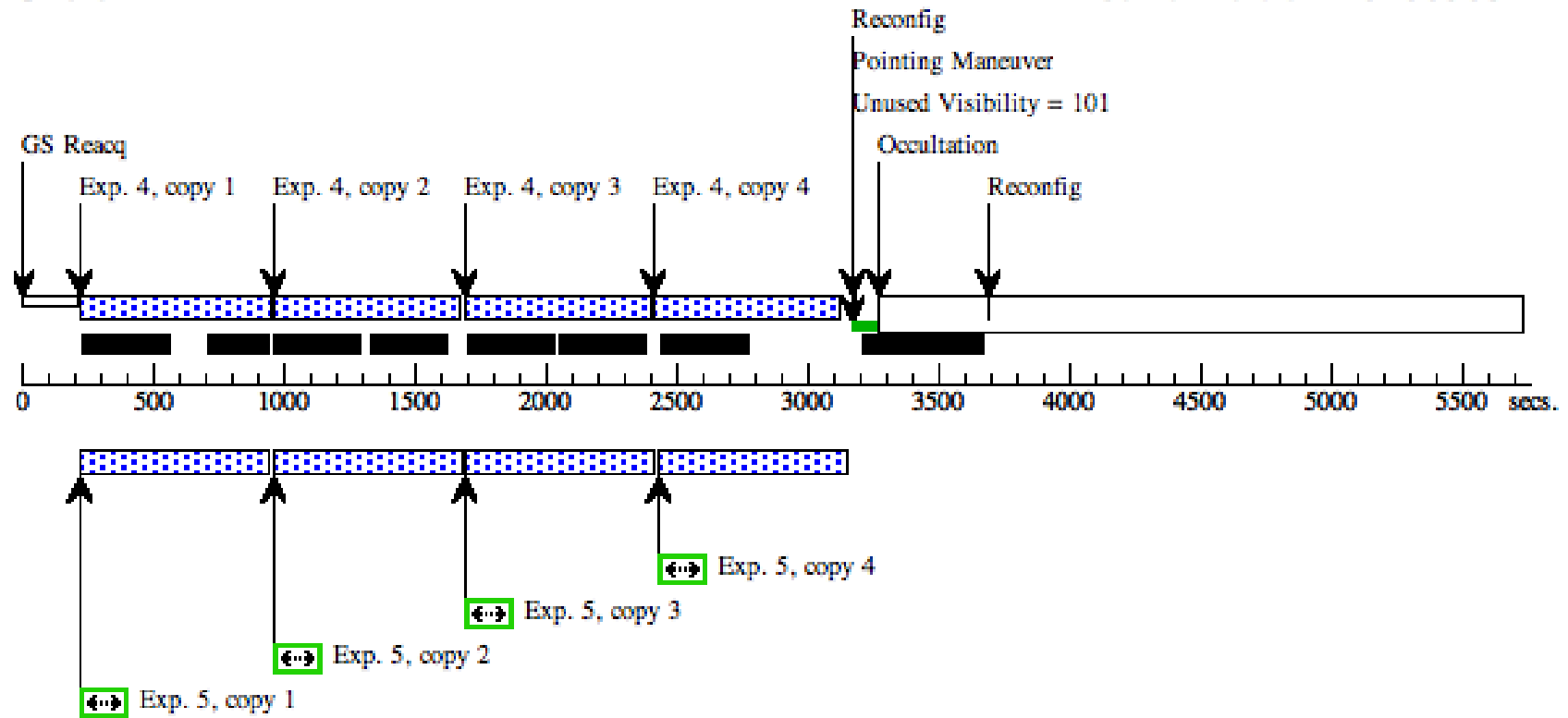
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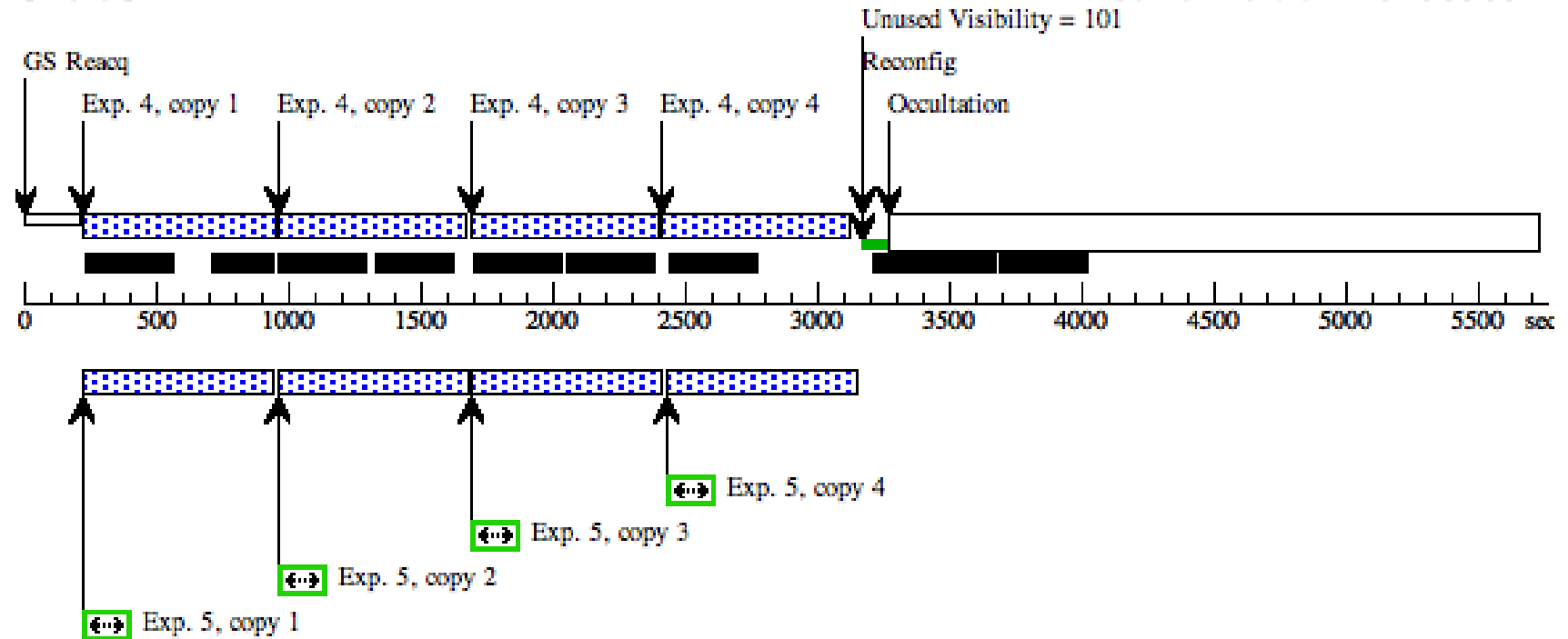
Orbit 4

Server Version: 20100505



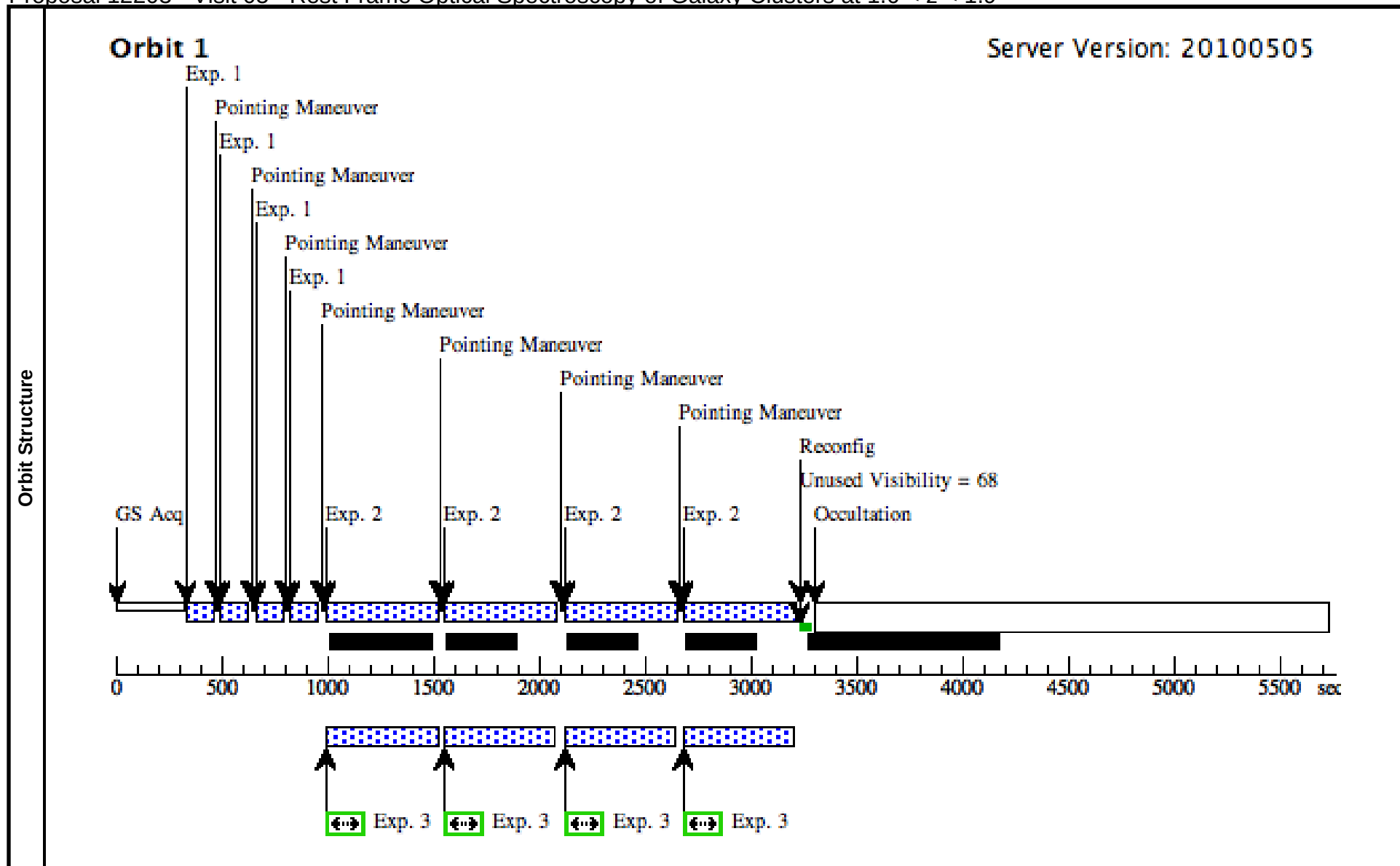
Orbit 5

Server Version: 20100505



Proposal 12203 - Visit 04 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

Visit	Proposal 12203, Visit 05, implementation Wed Jul 28 15:25:35 GMT 2010									
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: (none)									
Patterns	#	Primary Pattern				Secondary Pattern				Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1), (2-3)
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous	
	(5)	ISCS25.659	RA: 14 24 46.4348 (216.1934783d) Dec: +35 03 36.46 (35.06013d) Equinox: J2000				V=25+/-2		Reference Frame: ICRS	
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	ISCS25.659 g141direct	(5) ISCS25.659	WFC3/IR, MULTIACCUM, G141-REF	F140W	NSAMP=5; SAMP-SEQ=SPAR S25		Pattern 1, Exps 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	ISCS25.659 g141spec	(5) ISCS25.659	WFC3/IR, MULTIACCUM, IR	G141	NSAMP=6; SAMP-SEQ=SPAR S100		Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	3	ISCS25.659 g141par	ANY	ACS/WFC, ACCUM, WFC-FIX	F850LP			Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	400 Secs [==>325 Secs (Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 12203 - Visit 05 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

Visit	Proposal 12203, Visit 06, implementation Wed Jul 28 15:25:35 GMT 2010				
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: SAME ORIENT AS 05				
Patterns	#	Primary Pattern		Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365		Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false	(1), (2-3), (4-5)
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
	(5)	ISCS25.659	RA: 14 24 46.4348 (216.1934783d) Dec: +35 03 36.46 (35.06013d) Equinox: J2000		V=25+/-2 Reference Frame: ICRS

Proposal 12203 - Visit 05 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	ISCS25.659 g102direct	(5) ISCS25.659	WFC3/IR, MULTIACCUM, G141-REF	F105W	NSAMP=5; SAMP-SEQ=SPAR S25		Pattern 1, Exps 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	ISCS25.659 g102spec	(5) ISCS25.659	WFC3/IR, MULTIACCUM, IR	G102	NSAMP=6; SAMP-SEQ=SPAR S100		Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	3	ISCS25.659 g102par	ANY	ACS/WFC, ACCUM, WFC-FIX	F850LP			Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	400 Secs [==>325 Secs (Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	4	ISCS25.659 g102spec	(5) ISCS25.659	WFC3/IR, MULTIACCUM, IR	G102	NSAMP=15; SAMP-SEQ=SPAR S50		Pattern 1, Exps 4-5 (1) Prime + Parallel Group 4-5	[==>(Pattern 1, Copy 1)] [==>(Pattern 1, Copy 2)] [==>(Pattern 1, Copy 3)] [==>(Pattern 1, Copy 4)]	[2]
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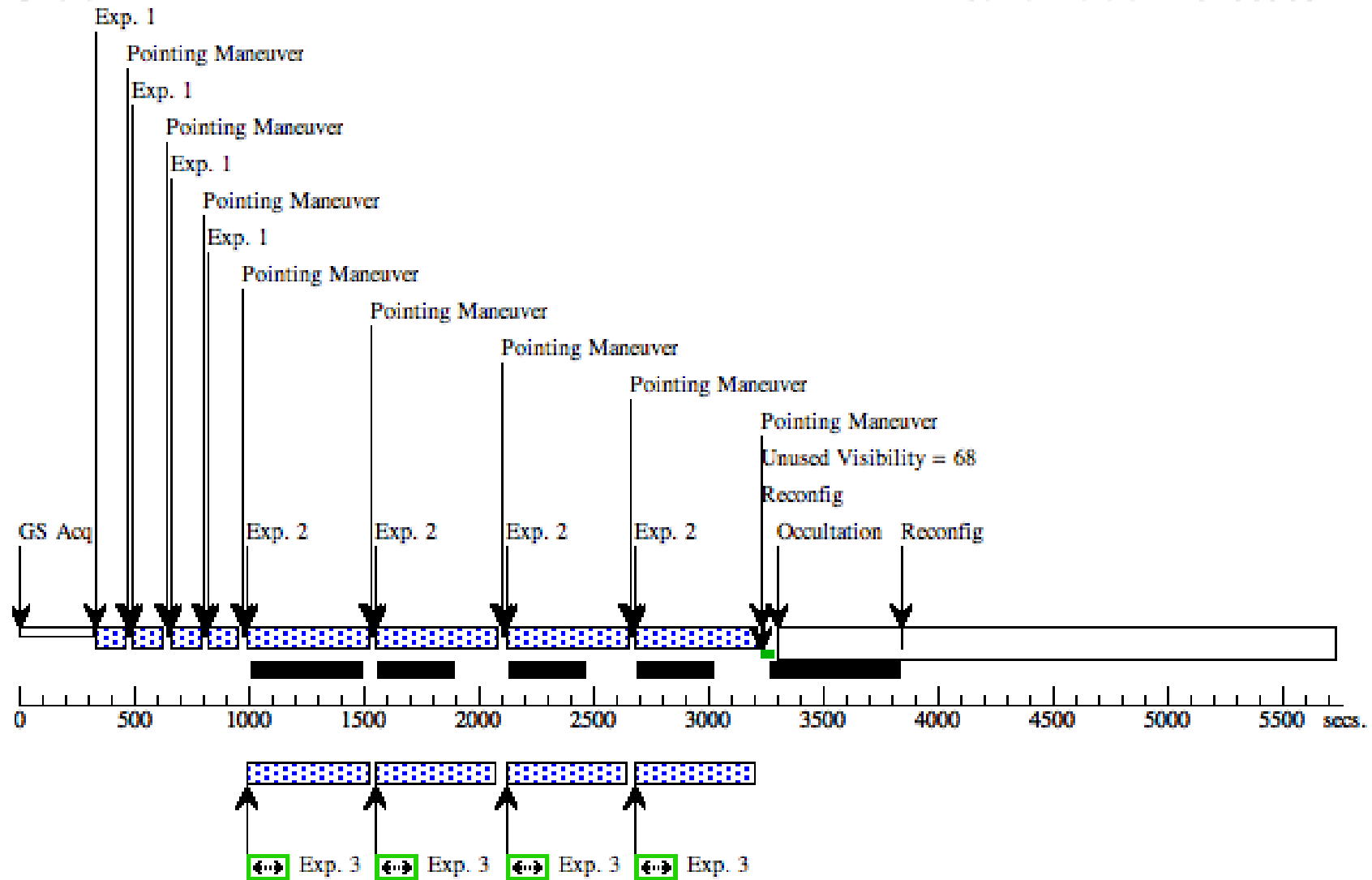
Proposal 12203 - Visit 05 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

5	ISCS25.659 ANY g102par	ACS/WFC, ACCUM, WFC-FIX	F850LP	Pattern 1, Exps 4-5 (1) Prime + Parallel Group 4-5	600 Secs X 4	
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Orbit 1

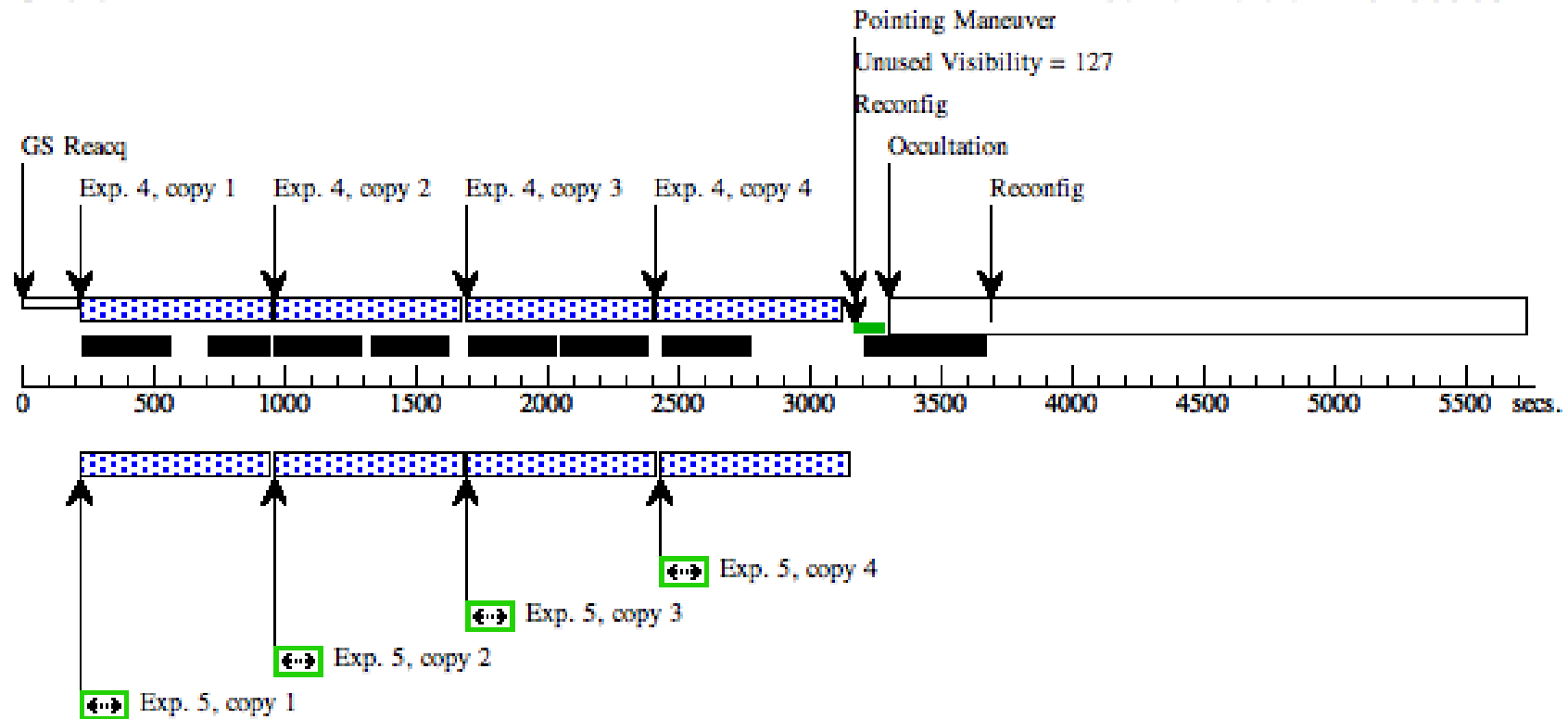
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Orbit Structure



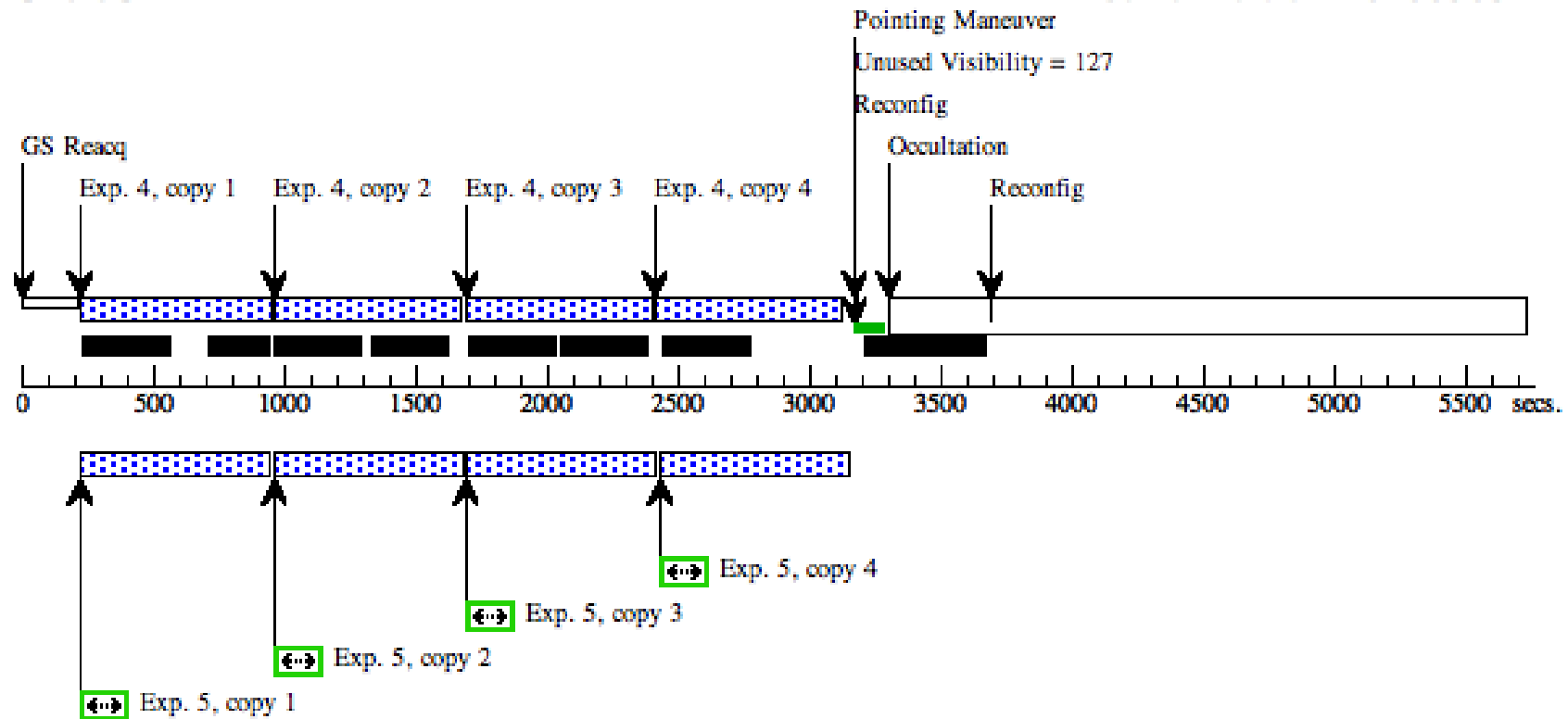
Orbit 2

Server Version: 20100505



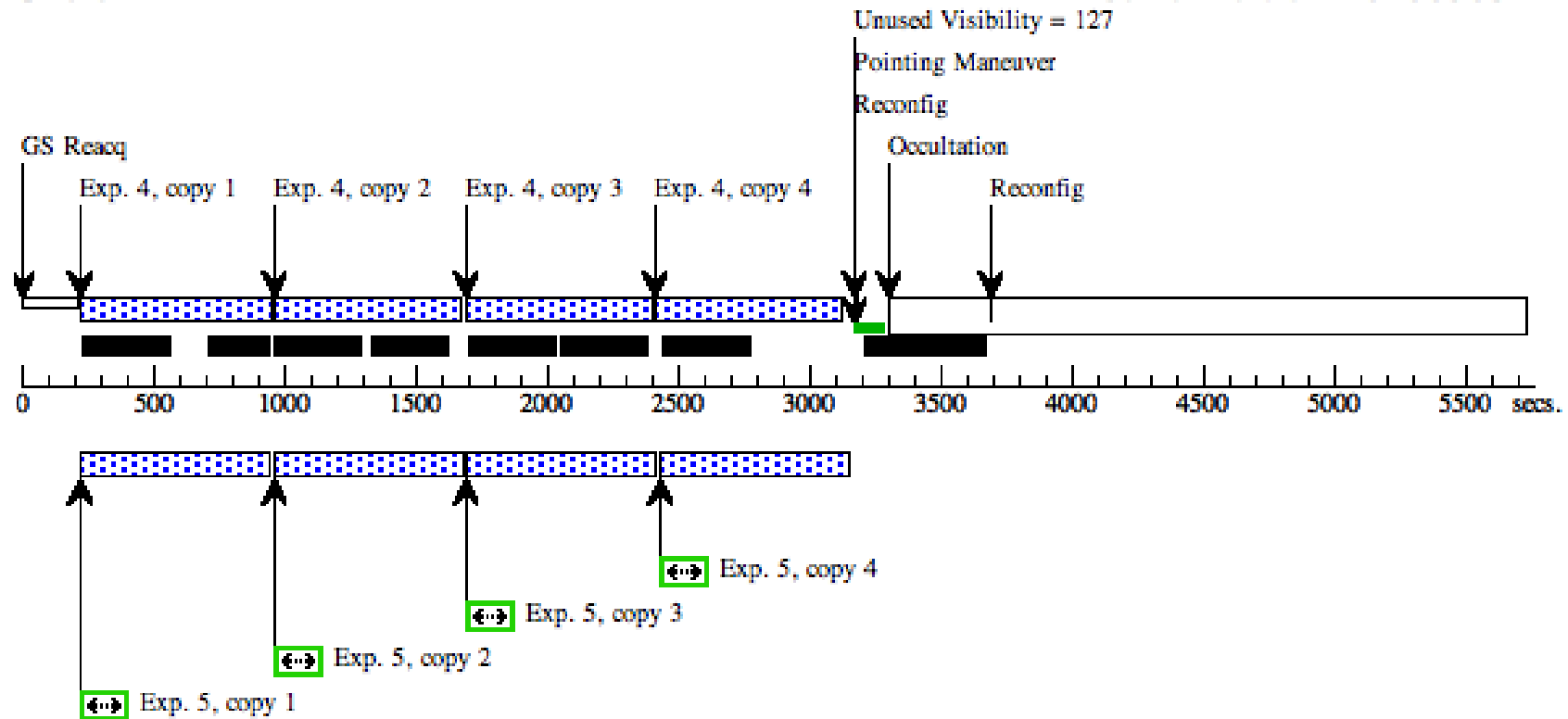
Orbit 3

Server Version: 20100505



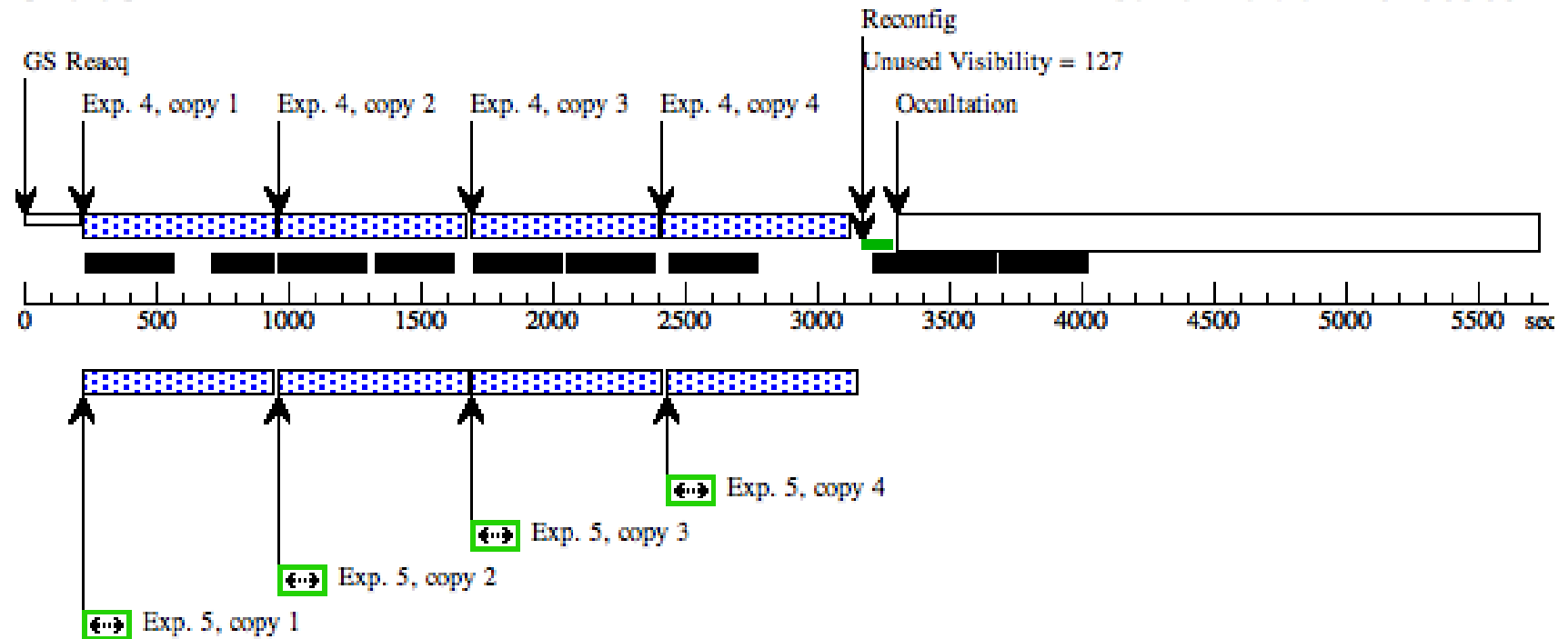
Orbit 4

Server Version: 20100505



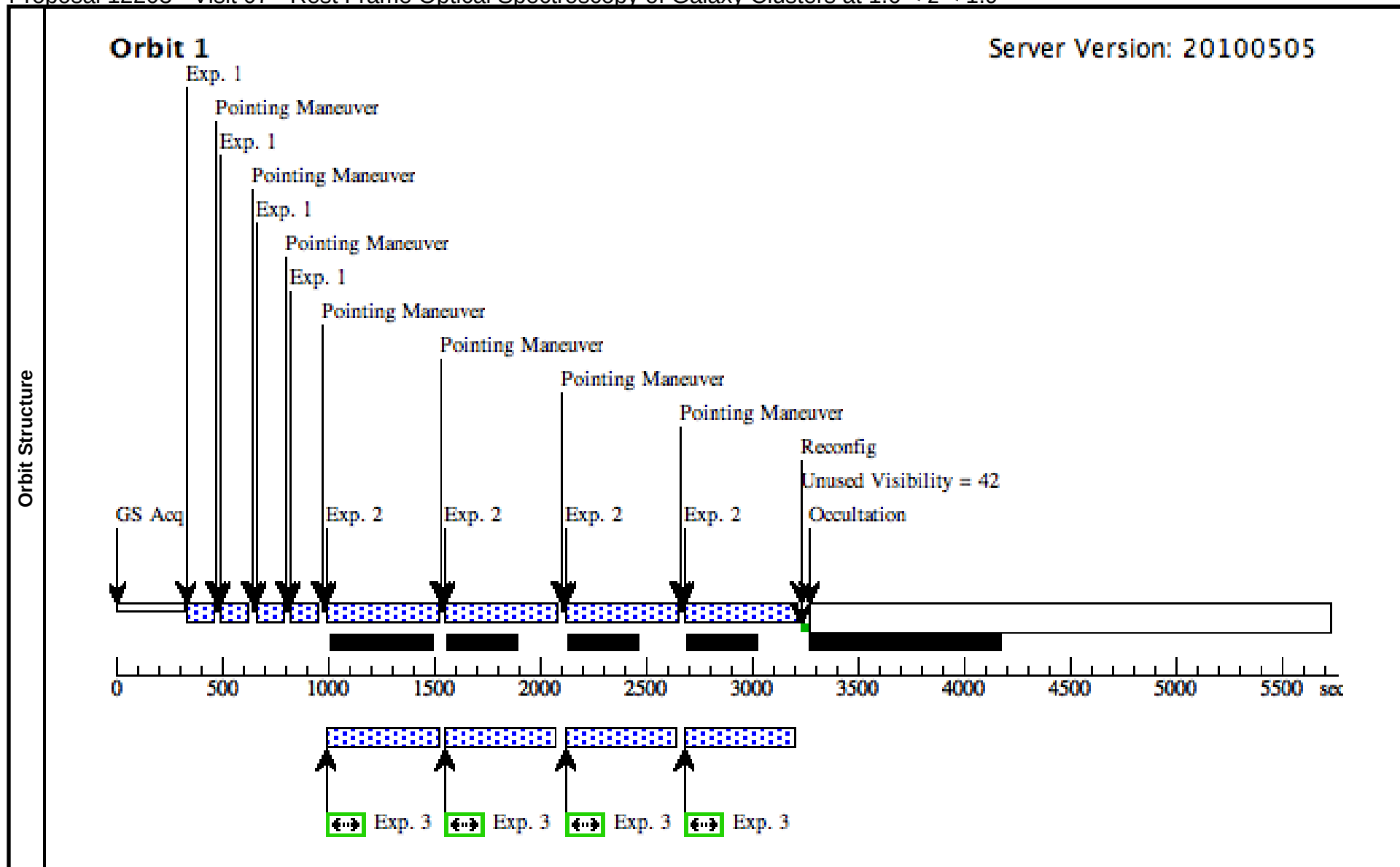
Orbit 5

Server Version: 20100505



Proposal 12203 - Visit 06 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

Visit	Proposal 12203, Visit 07, implementation Wed Jul 28 15:25:36 GMT 2010									
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: (none)									
Patterns	#	Primary Pattern				Secondary Pattern				Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1), (2-3)
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous	
	(6)	ISCS25.352	RA: 14 35 29.7000 (218.8737500d) Dec: +34 02 15.11 (34.03753d) Equinox: J2000				V=25+/-2		Reference Frame: ICRS	
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	ISCS25.352 g141direct	(6) ISCS25.352	WFC3/IR, MULTIACCUM, G141-REF	F140W	NSAMP=5; SAMP-SEQ=SPAR S25		Pattern 1, Exps 1-1 (1)	[= > (Pattern 1)] [= > (Pattern 2)] [= > (Pattern 3)] [= > (Pattern 4)]	[1]
	2	ISCS25.352 g141spec	(6) ISCS25.352	WFC3/IR, MULTIACCUM, IR	G141	NSAMP=6; SAMP-SEQ=SPAR S100		Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	[= > (Pattern 1)] [= > (Pattern 2)] [= > (Pattern 3)] [= > (Pattern 4)]	[1]
	3	ISCS25.352 g141par	ANY	ACS/WFC, ACCUM, WFC-FIX	F850LP			Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	400 Secs	
									[= > 325 Secs (Pattern 1)] [= > (Pattern 2)] [= > (Pattern 3)] [= > (Pattern 4)]	[1]



Proposal 12203 - Visit 07 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

Visit	Proposal 12203, Visit 08, implementation Wed Jul 28 15:25:36 GMT 2010				
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: SAME ORIENT AS 07				
Patterns	#	Primary Pattern		Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365		Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false	(1), (2-3), (4-5)
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
	(6)	ISCS25.352	RA: 14 35 29.7000 (218.8737500d) Dec: +34 02 15.11 (34.03753d) Equinox: J2000		V=25+/-2 Reference Frame: ICRS

Proposal 12203 - Visit 07 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	ISCS25.352 g102direct	(6) ISCS25.352	WFC3/IR, MULTIACCUM, G141-REF	F105W	NSAMP=5; SAMP-SEQ=SPAR S25		Pattern 1, Exps 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	ISCS25.352 g102spec	(6) ISCS25.352	WFC3/IR, MULTIACCUM, IR	G102	NSAMP=6; SAMP-SEQ=SPAR S100		Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	3	ISCS25.352 g102par	ANY	ACS/WFC, ACCUM, WFC-FIX	F850LP			Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	400 Secs [==>325 Secs (Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	4	ISCS25.352 g102spec	(6) ISCS25.352	WFC3/IR, MULTIACCUM, IR	G102	NSAMP=15; SAMP-SEQ=SPAR S50		Pattern 1, Exps 4-5 (1) Prime + Parallel Group 4-5	[==>(Pattern 1, Copy 1)] [==>(Pattern 1, Copy 2)] [==>(Pattern 1, Copy 3)] [==>(Pattern 1, Copy 4)]	[2]
									[==>(Pattern 2, Copy 1)] [==>(Pattern 2, Copy 2)] [==>(Pattern 2, Copy 3)] [==>(Pattern 2, Copy 4)]	[3]
									[==>(Pattern 3, Copy 1)] [==>(Pattern 3, Copy 2)] [==>(Pattern 3, Copy 3)] [==>(Pattern 3, Copy 4)]	[4]
									[==>(Pattern 4, Copy 1)] [==>(Pattern 4, Copy 2)] [==>(Pattern 4, Copy 3)] [==>(Pattern 4, Copy 4)]	[5]

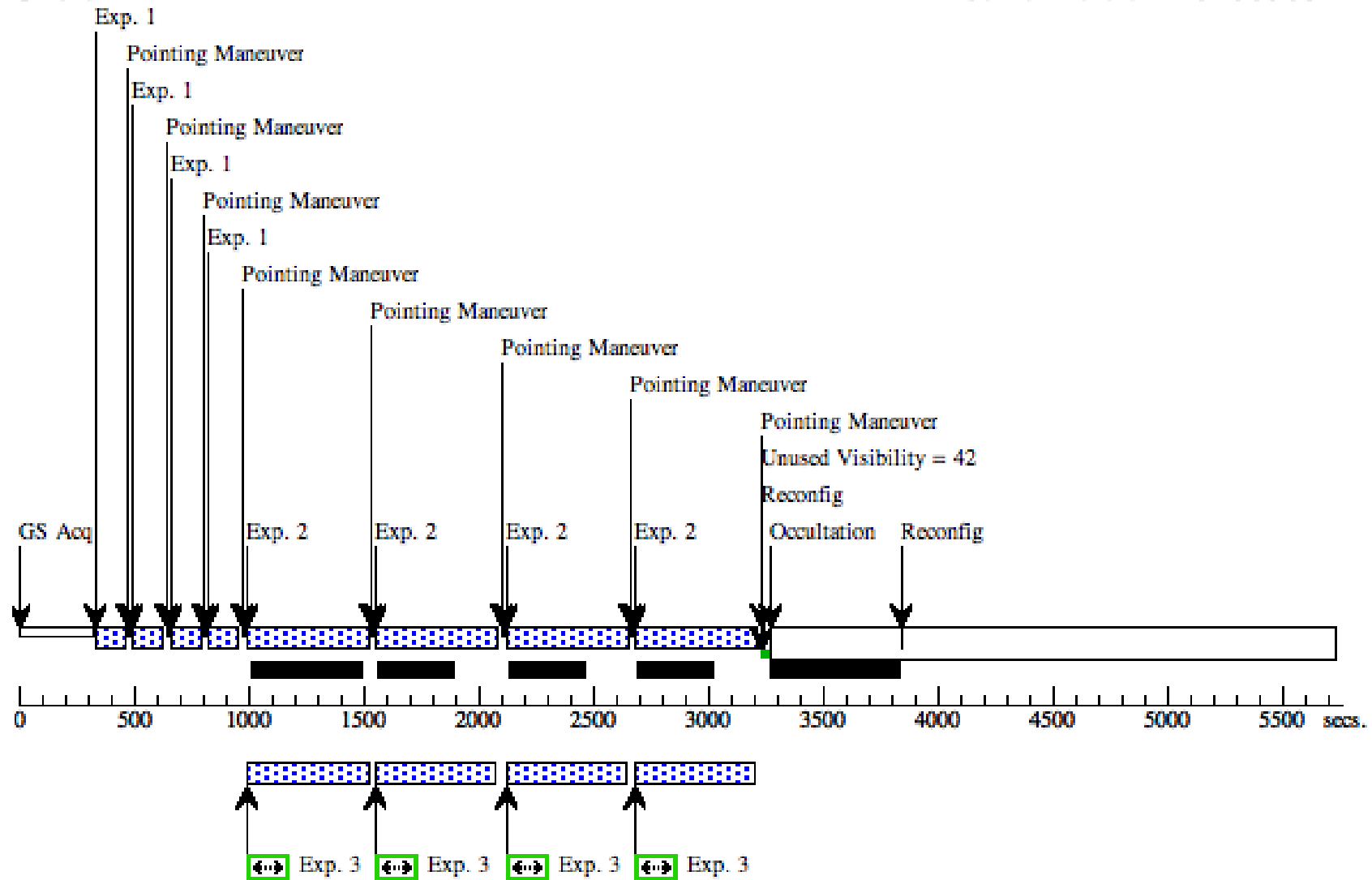
Proposal 12203 - Visit 07 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

5	ISCS25.352 ANY g102par	ACS/WFC, ACCUM, WFC-FIX	F850LP	Pattern 1, Exps 4-5 (1) Prime + Parallel Group 4-5	600 Secs X 4	
					[==>(Pattern 1, Copy 1)]	[2]
					[==>(Pattern 1, Copy 2)]	
					[==>(Pattern 1, Copy 3)]	
					[==>(Pattern 1, Copy 4)]	
					[==>(Pattern 2, Copy 1)]	[3]
					[==>(Pattern 2, Copy 2)]	
					[==>(Pattern 2, Copy 3)]	
					[==>(Pattern 2, Copy 4)]	
					[==>(Pattern 3, Copy 1)]	[4]
					[==>(Pattern 3, Copy 2)]	
					[==>(Pattern 3, Copy 3)]	
					[==>(Pattern 3, Copy 4)]	
					[==>(Pattern 4, Copy 1)]	[5]
					[==>(Pattern 4, Copy 2)]	
					[==>(Pattern 4, Copy 3)]	
					[==>(Pattern 4, Copy 4)]	

Orbit 1

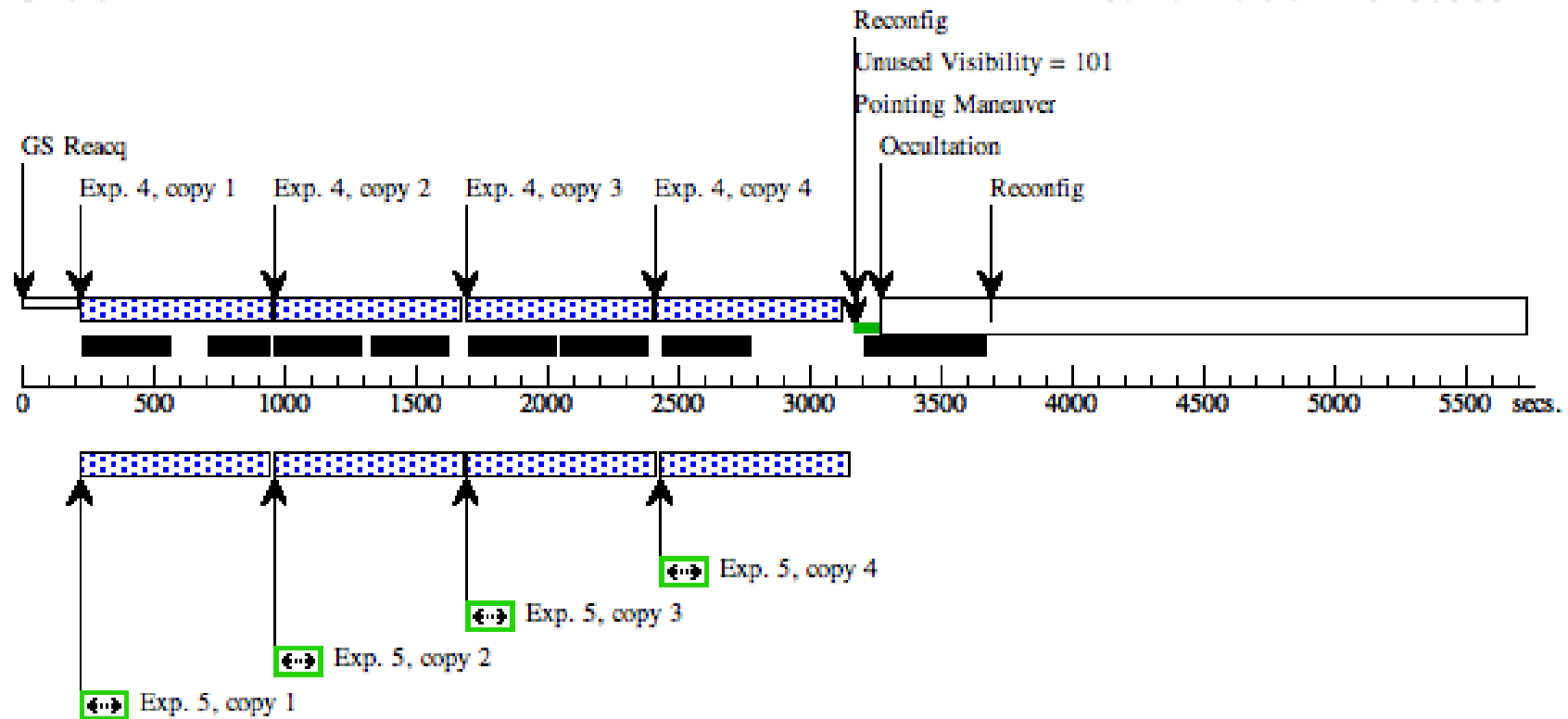
Server Version: 20100505

Orbit Structure



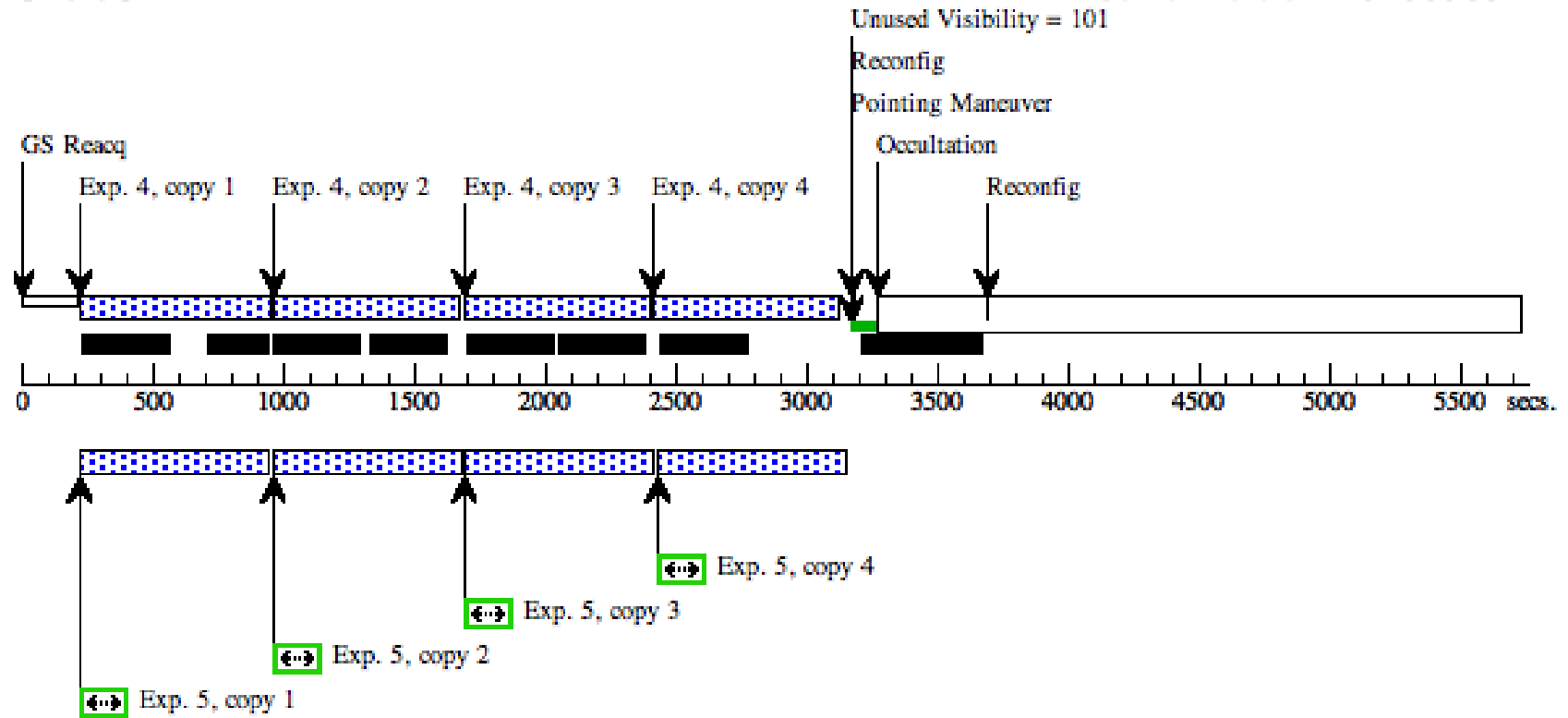
Orbit 2

Server Version: 20100505



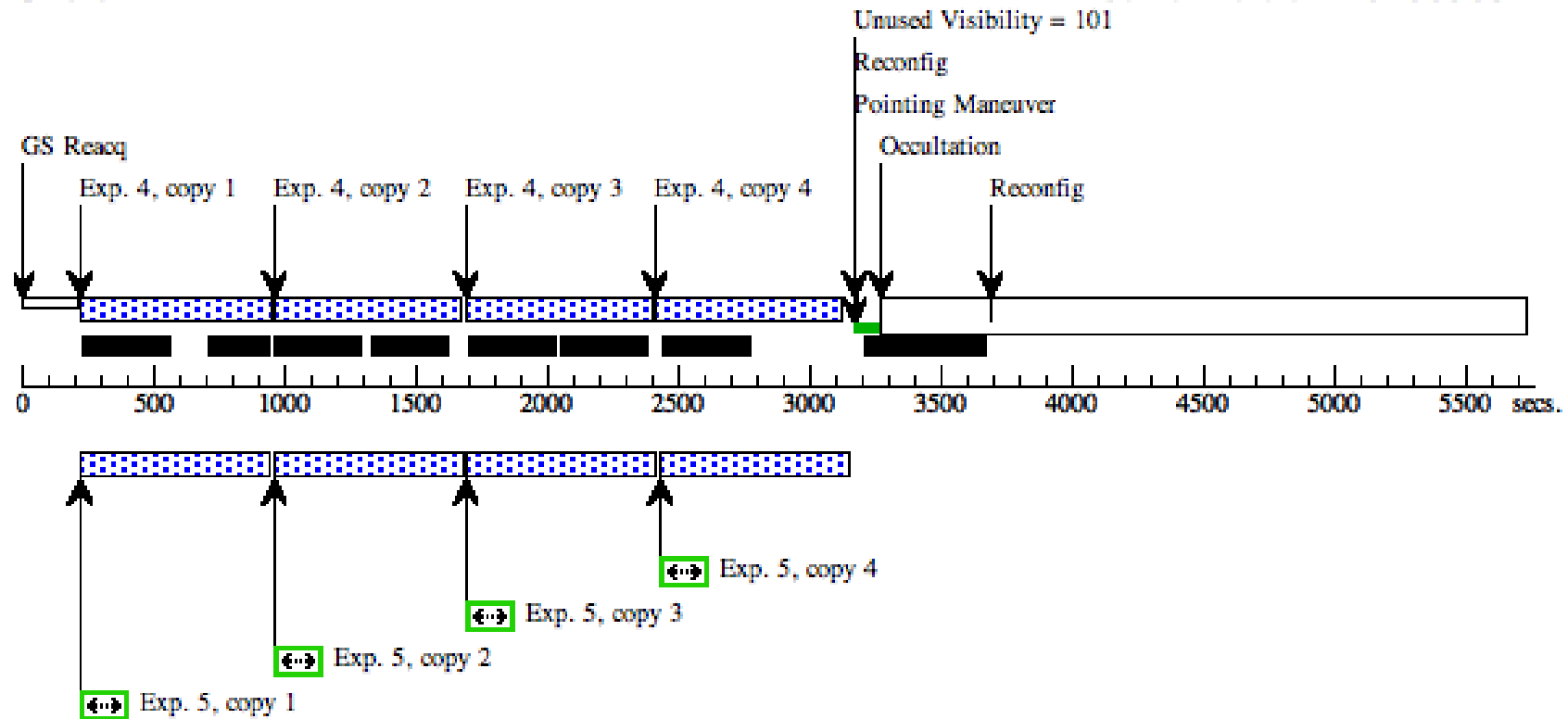
Orbit 3

Server Version: 20100505



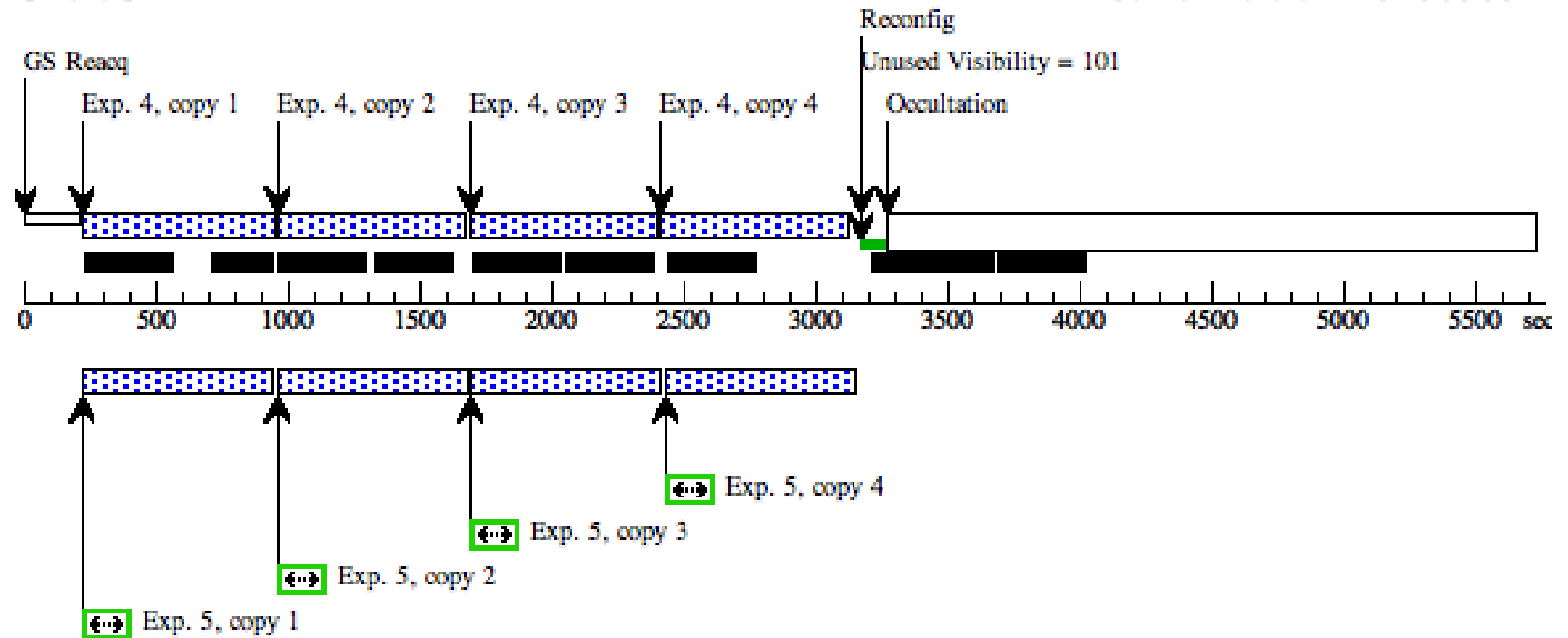
Orbit 4

Server Version: 20100505



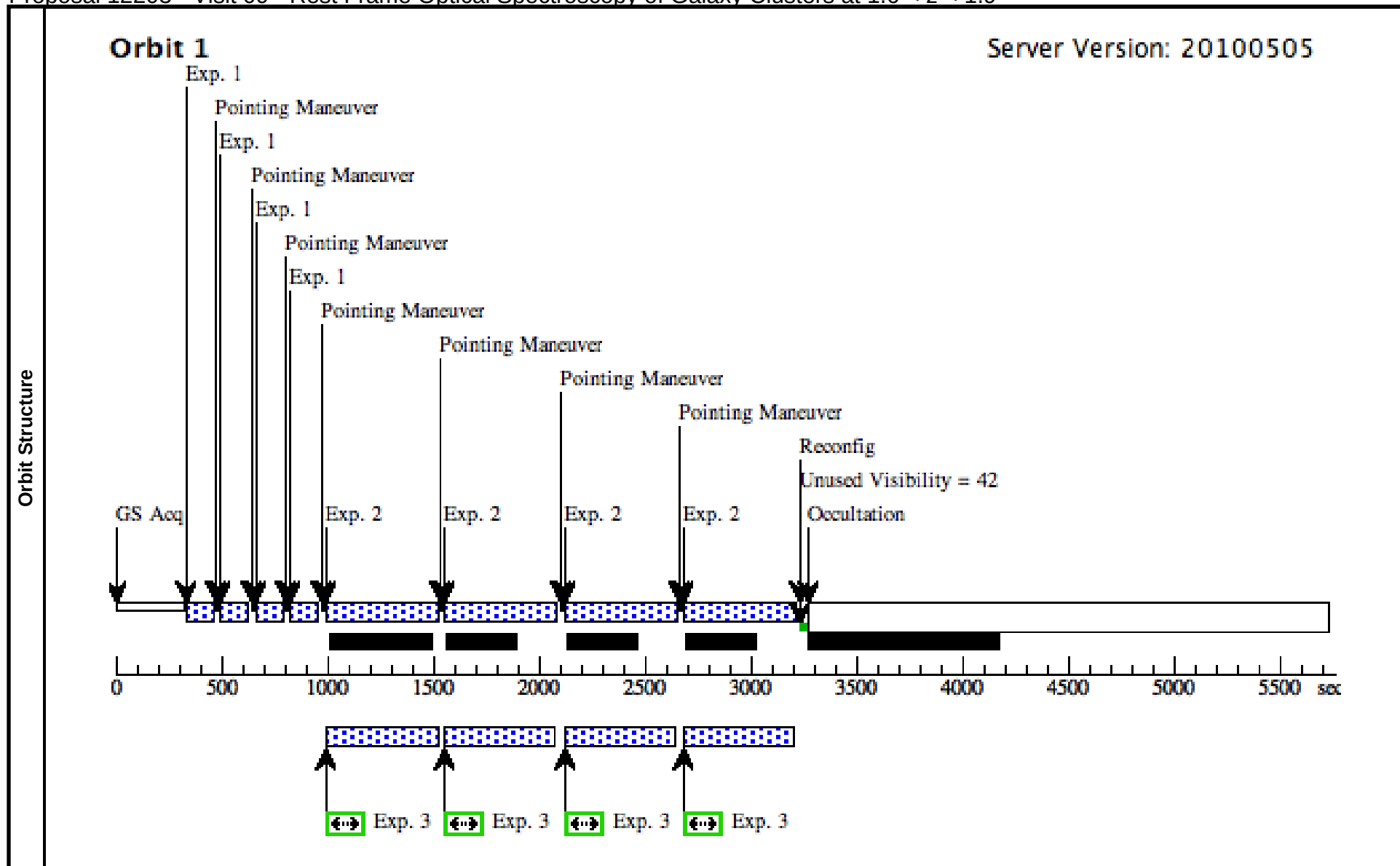
Orbit 5

Server Version: 20100505



Proposal 12203 - Visit 08 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

Visit	Proposal 12203, Visit 09, implementation Wed Jul 28 15:25:36 GMT 2010									
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: (none)									
Patterns	#	Primary Pattern				Secondary Pattern				Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1), (2-3)
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous	
	(7)	ISCS25.128	RA: 14 33 12.8870 (218.3036958d) Dec: +33 06 45.72 (33.11270d) Equinox: J2000				V=25+/-2		Reference Frame: ICRS	
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	ISCS25.128 g141direct	(7) ISCS25.128	WFC3/IR, MULTIACCUM, G141-REF	F140W	NSAMP=5; SAMP-SEQ=SPAR S25		Pattern 1, Exps 1-1 (1)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]
	2	ISCS25.128 g141spec	(7) ISCS25.128	WFC3/IR, MULTIACCUM, IR	G141	NSAMP=6; SAMP-SEQ=SPAR S100		Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]
	3	ISCS25.128 g141par	ANY	ACS/WFC, ACCUM, WFC-FIX	F850LP			Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	400 Secs [=>325 Secs (Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]



Proposal 12203 - Visit 09 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

Visit	Proposal 12203, Visit 10, implementation Wed Jul 28 15:25:36 GMT 2010				
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: SAME ORIENT AS 09				
Patterns	#	Primary Pattern		Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365		Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false	(1), (2-3), (4-5)
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
	(7)	ISCS25.128	RA: 14 33 12.8870 (218.3036958d) Dec: +33 06 45.72 (33.11270d) Equinox: J2000		V=25+/-2 Reference Frame: ICRS

Proposal 12203 - Visit 09 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	ISCS25.128 g102direct	(7) ISCS25.128	WFC3/IR, MULTIACCUM, G141-REF	F105W	NSAMP=5; SAMP-SEQ=SPAR S25		Pattern 1, Exps 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	ISCS25.128 g102spec	(7) ISCS25.128	WFC3/IR, MULTIACCUM, IR	G102	NSAMP=6; SAMP-SEQ=SPAR S100		Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	3	ISCS25.128 g102par	ANY	ACS/WFC, ACCUM, WFC-FIX	F850LP			Pattern 1, Exps 2-3 (1) Prime + Parallel Group 2-3	400 Secs [==>325 Secs (Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	4	ISCS25.128 g102spec	(7) ISCS25.128	WFC3/IR, MULTIACCUM, IR	G102	NSAMP=15; SAMP-SEQ=SPAR S50		Pattern 1, Exps 4-5 (1) Prime + Parallel Group 4-5	[==>(Pattern 1, Copy 1)] [==>(Pattern 1, Copy 2)] [==>(Pattern 1, Copy 3)] [==>(Pattern 1, Copy 4)]	[2]
									[==>(Pattern 2, Copy 1)] [==>(Pattern 2, Copy 2)] [==>(Pattern 2, Copy 3)] [==>(Pattern 2, Copy 4)]	[3]
									[==>(Pattern 3, Copy 1)] [==>(Pattern 3, Copy 2)] [==>(Pattern 3, Copy 3)] [==>(Pattern 3, Copy 4)]	[4]
									[==>(Pattern 4, Copy 1)] [==>(Pattern 4, Copy 2)] [==>(Pattern 4, Copy 3)] [==>(Pattern 4, Copy 4)]	[5]

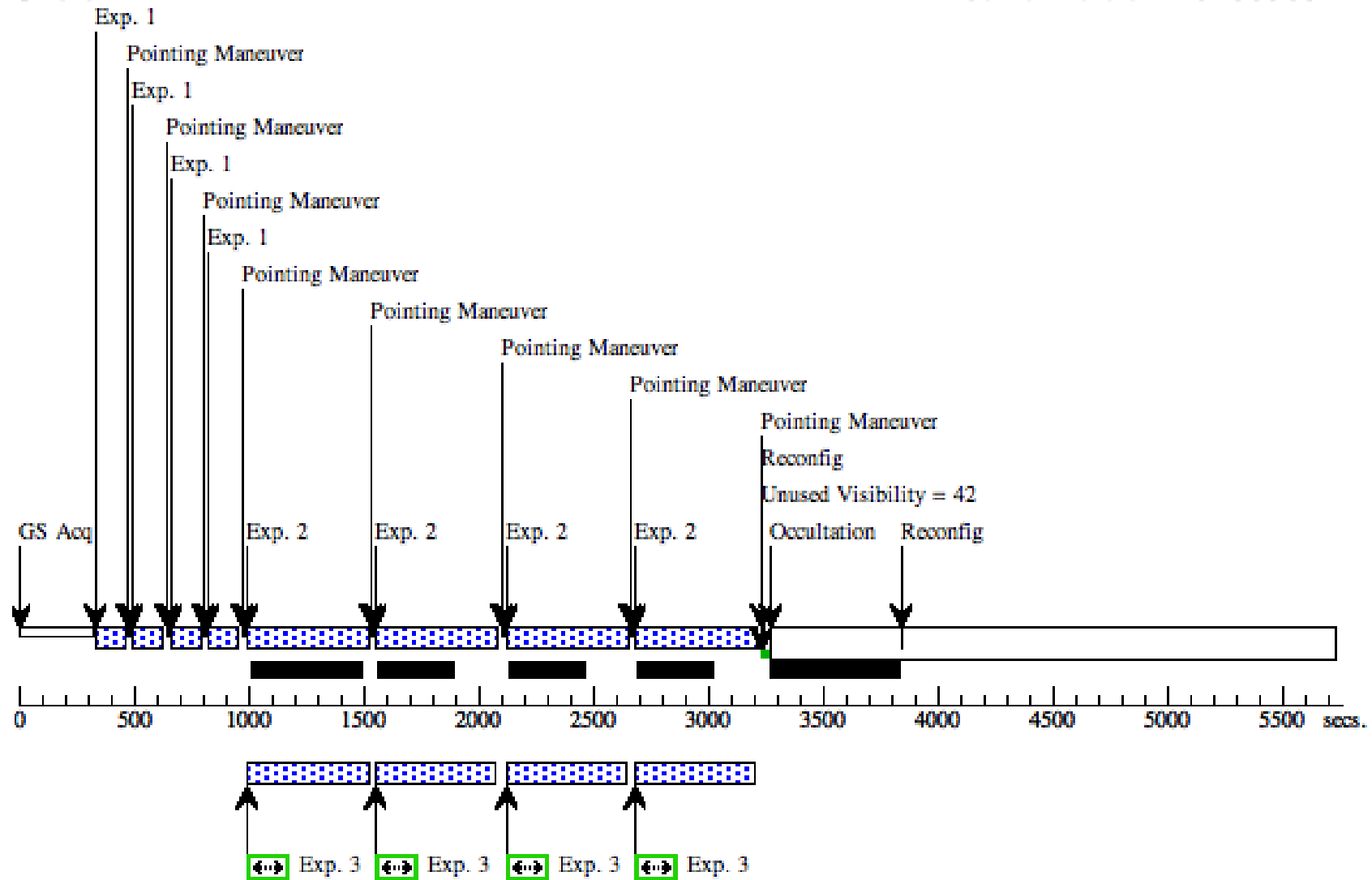
Proposal 12203 - Visit 09 - Rest Frame Optical Spectroscopy of Galaxy Clusters at $1.6 < z < 1.9$

5	ISCS25.128 ANY g102par	ACS/WFC, ACCUM, WFC-FIX	F850LP	Pattern 1, Exps 4-5 (1) Prime + Parallel Group 4-5	600 Secs X 4	
					[==>(Pattern 1, Copy 1)]	[2]
					[==>(Pattern 1, Copy 2)]	
					[==>(Pattern 1, Copy 3)]	
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					[==>(Pattern 2, Copy 2)]	
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Orbit 1

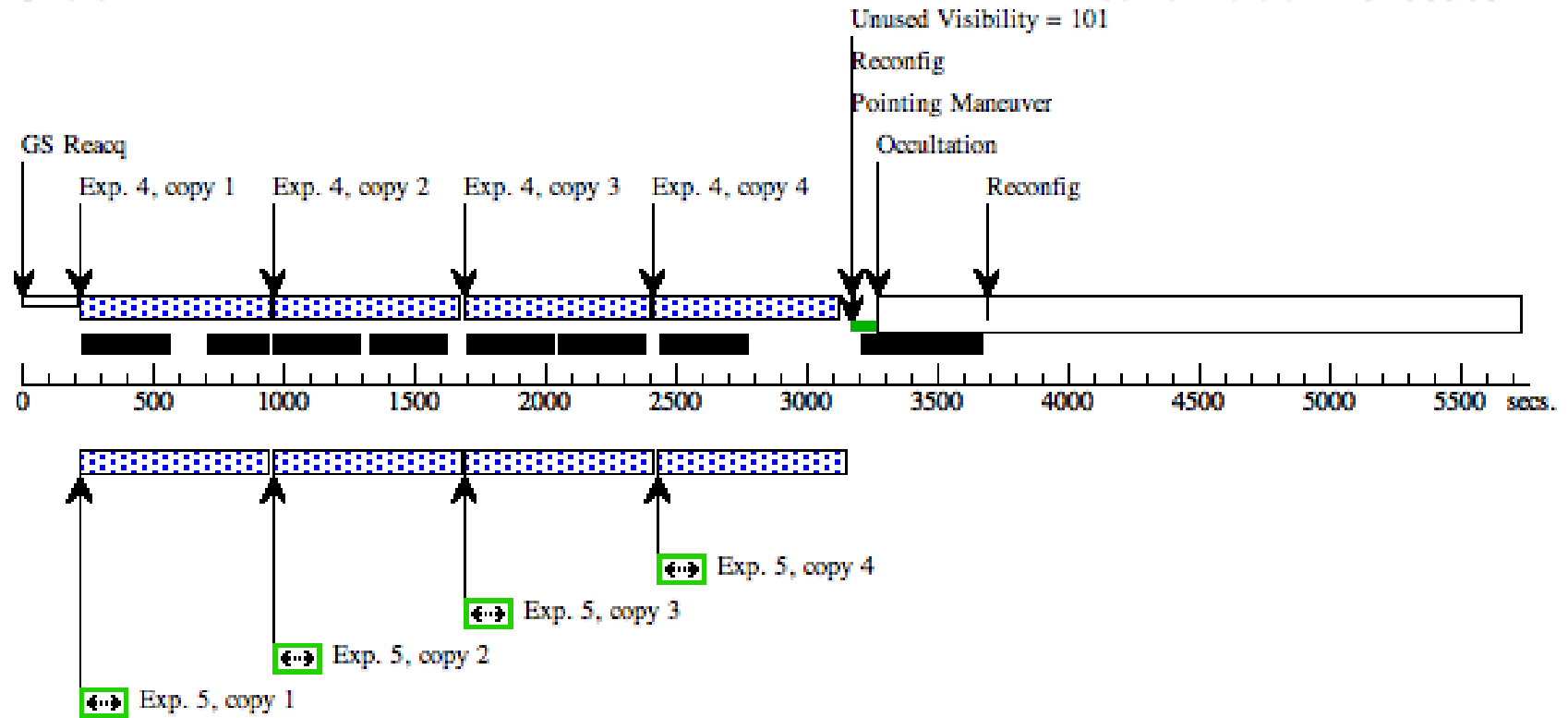
Server Version: 20100505

Orbit Structure



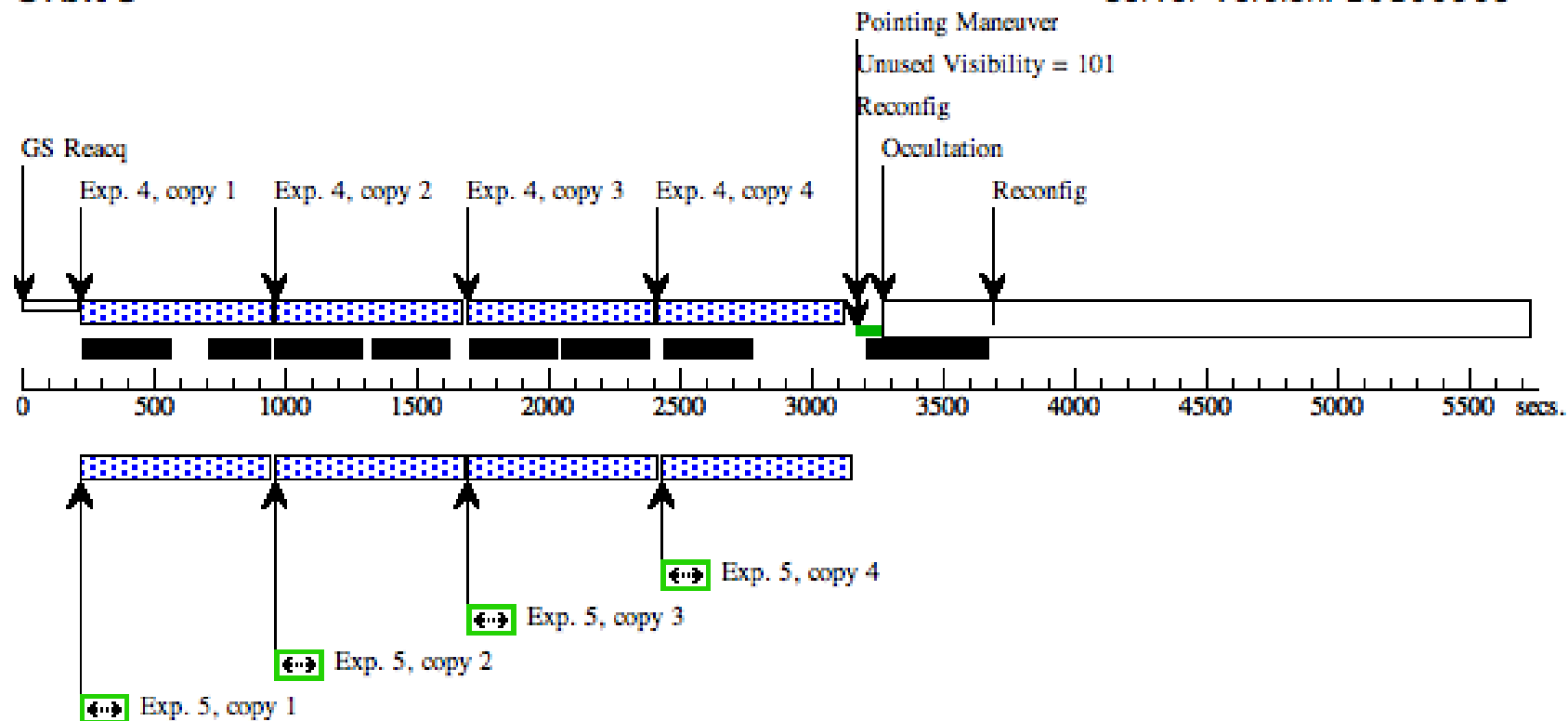
Orbit 2

Server Version: 20100505



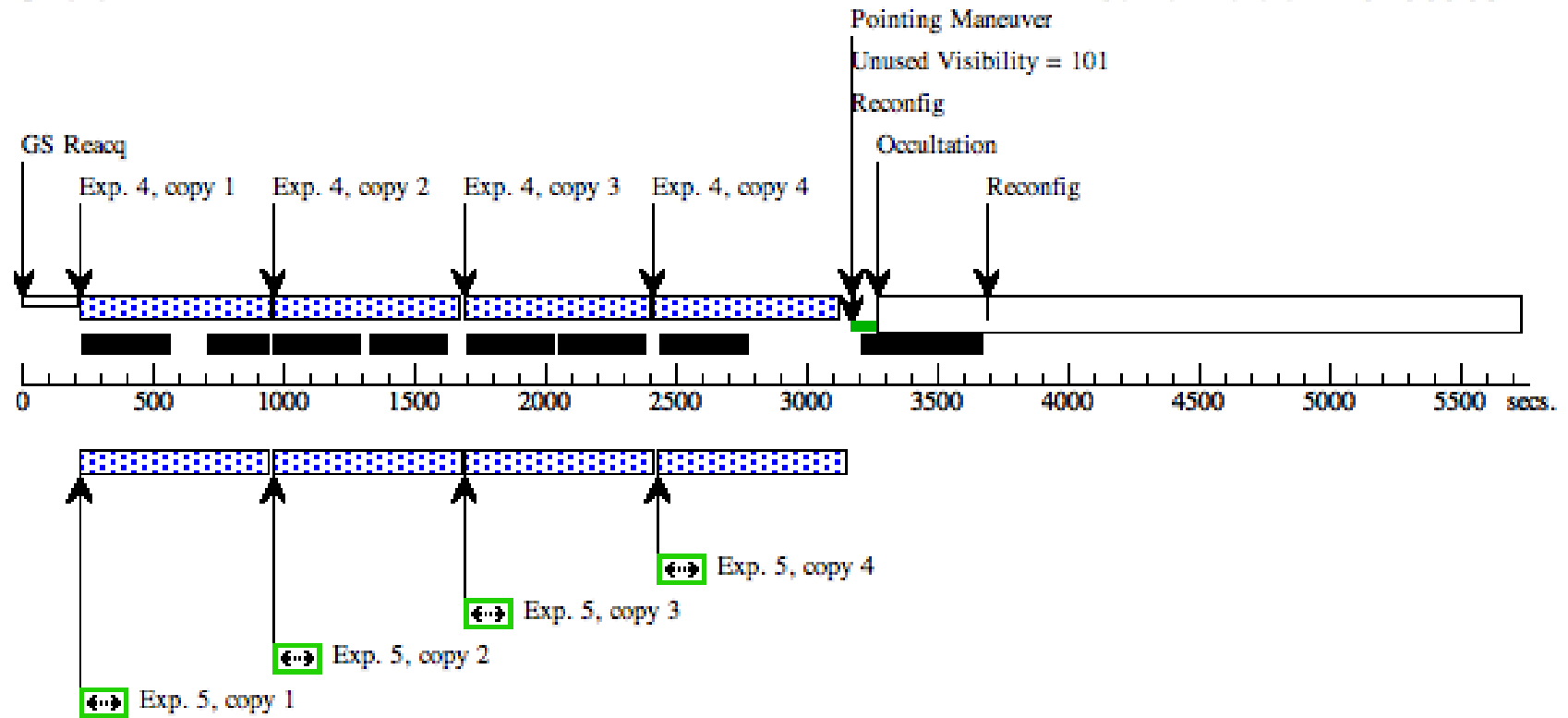
Orbit 3

Server Version: 20100505



Orbit 4

Server Version: 20100505



Orbit 5

Server Version: 20100505

