



11002 - A Census of LIRGs in Clusters of Galaxies in the First Half of the Universe from the IRAC Shallow Survey

Cycle: 15, 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>
02	(2) ISCS15	WFPC2	4	17-Jan-2008 16:32:59.0	yes
03	(3) ISCS20	WFPC2	3	17-Jan-2008 16:33:04.0	yes
04	(4) ISCS39	WFPC2	3	17-Jan-2008 16:33:07.0	yes
05	(5) ISCS33	WFPC2	4	17-Jan-2008 16:33:10.0	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>
06	(6) ISCS49	WFPC2	4	17-Jan-2008 16:33:14.0	yes
09	(9) ISCS87	WFPC2	4	17-Jan-2008 16:33:19.0	yes
10	(2) ISCS15	WFPC2	2	17-Jan-2008 16:33:22.0	yes
11	(6) ISCS49	WFPC2	3	17-Jan-2008 16:33:24.0	yes
12	(9) ISCS87	WFPC2	4	17-Jan-2008 16:33:28.0	yes
13	(5) ISCS33	WFPC2	2	17-Jan-2008 16:33:31.0	yes
25	(5) ISCS33	WFPC2	1	17-Jan-2008 16:33:32.0	yes

34 Total Orbits Used

ABSTRACT

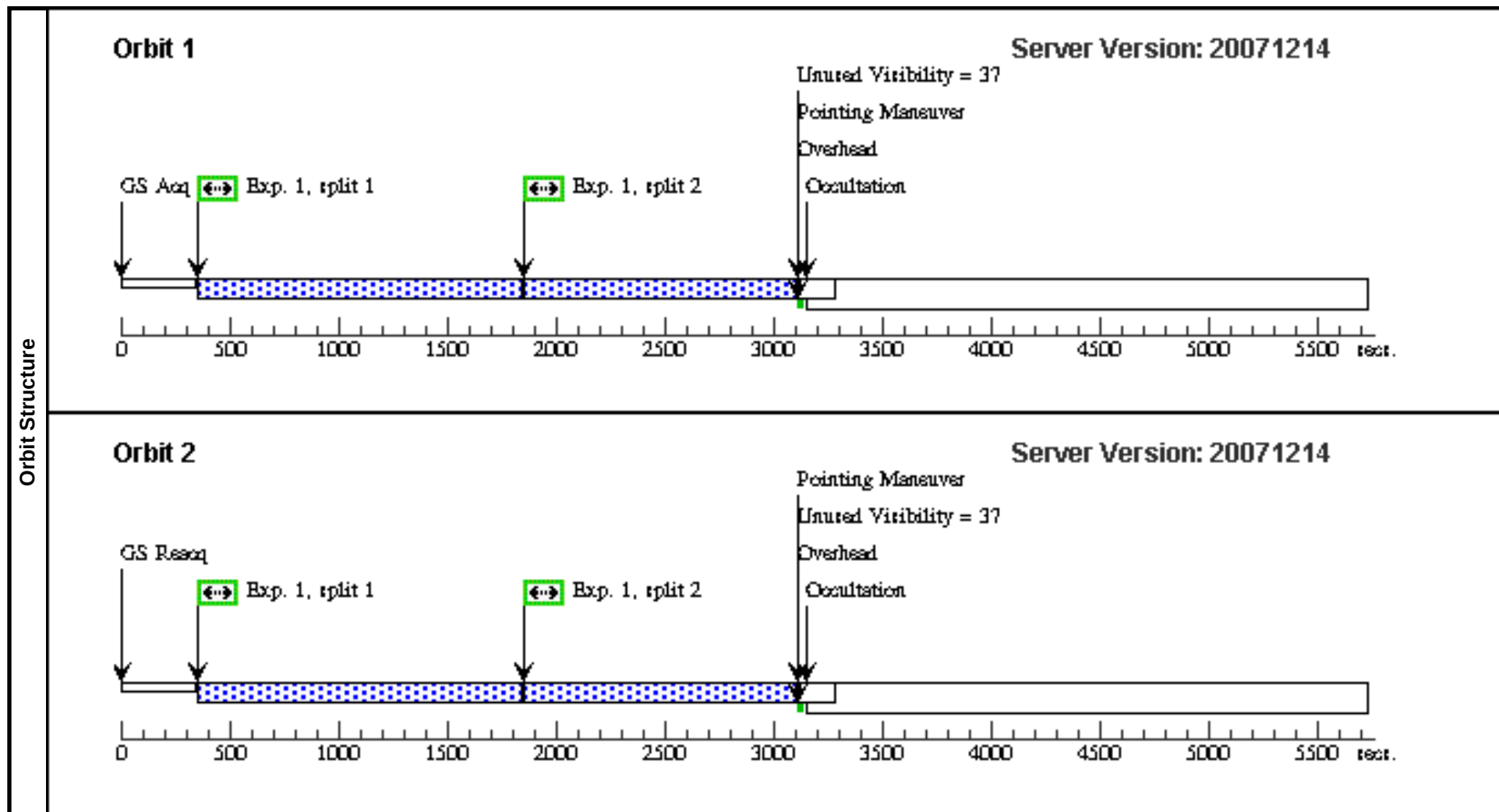
The incidence of LIRGs and ULIRGs is roughly two orders of magnitude higher in the field at redshift $z > 1$, and at these redshifts such objects dominate the global star formation activity. Mergers which fuel such activity might be expected to enhance the frequency of LIRGs in dense environments. We propose to use MIPS to obtain a census of LIRGs in $z > 1$ galaxy clusters from a well defined sample found in the IRAC Shallow Survey. Supporting IRAC and HST ACS data are also requested.

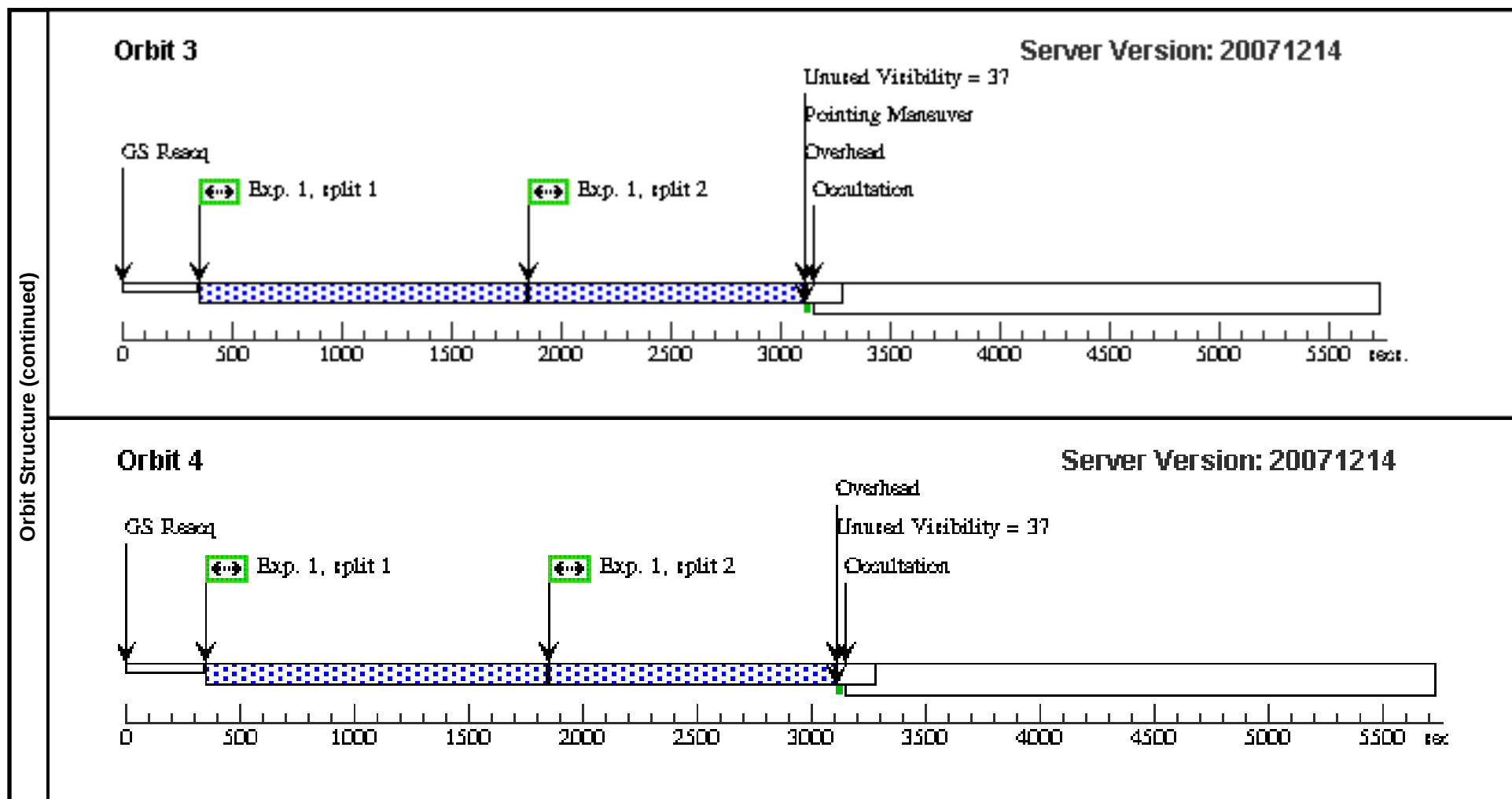
OBSERVING DESCRIPTION

ACS imaging in F814W of high redshift galaxy clusters

Proposal 11002 - Visit 02 - A Census of LIRGs in Clusters of Galaxies in the First Half of the Universe from the IRAC...

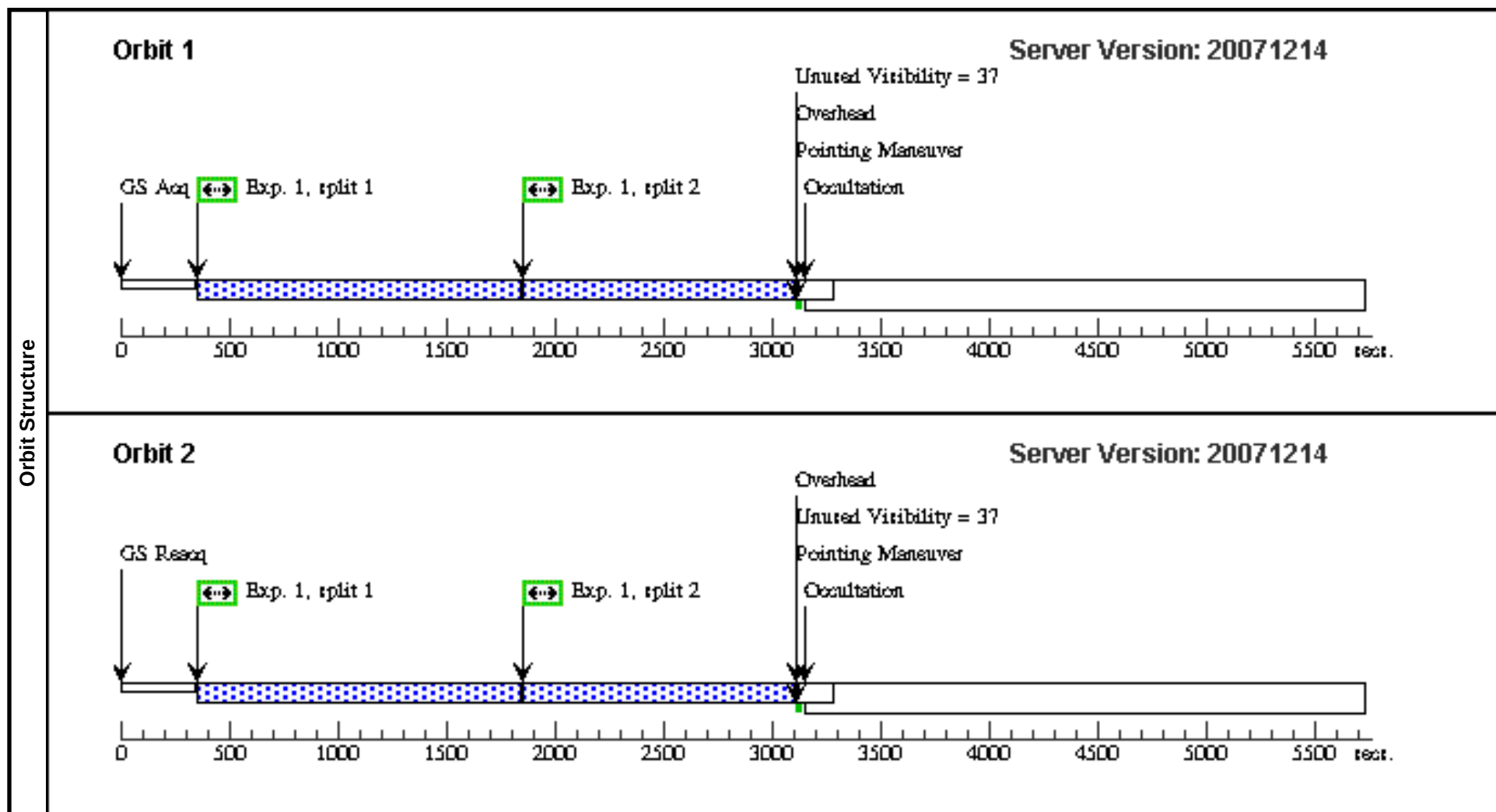
Visit	Proposal 11002, Visit 02, implementation										Thu Jan 17 21:33:35 GMT 2008		
	Diagnostic Status: No Diagnostics												
	Scientific Instruments: WFPC2												
	Special Requirements: (none)												
Patterns	#	Primary Pattern					Secondary Pattern					Exposures	
	(2)	Pattern Type=WFPC2-BOX		Coordinate Frame=POS-TARG								(1)	
Purpose=DITHER		Pattern Orientation=26.56505											
Number Of Points=4		Angle Between Sides=143.1301											
Point Spacing=0.559017		Center Pattern=false											
Line Spacing=0.559017													
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous				
	(2)	ISCS15	RA: 14 26 30.1000 (216.6254167d)				V=25		Reference Frame: ICRS				
		Alt Name1: 10.14		Dec: +33 39 33.00 (33.65917d)									
				Equinox: J2000									
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit	
	1	15a	(2) ISCS15	WFPC2, IMAGE, WF3		F814W	CR-SPLIT=DEF		Pattern 1-1 (2)	2400.0 Secs			
										[==>(Pattern 1, Split 1)]		[1]	
										[==>(Pattern 1, Split 2)]			
										[==>(Pattern 2, Split 1)]			[2]
										[==>(Pattern 2, Split 2)]			
										[==>(Pattern 3, Split 1)]		[3]	
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									[==>(Pattern 4, Split 2)]				

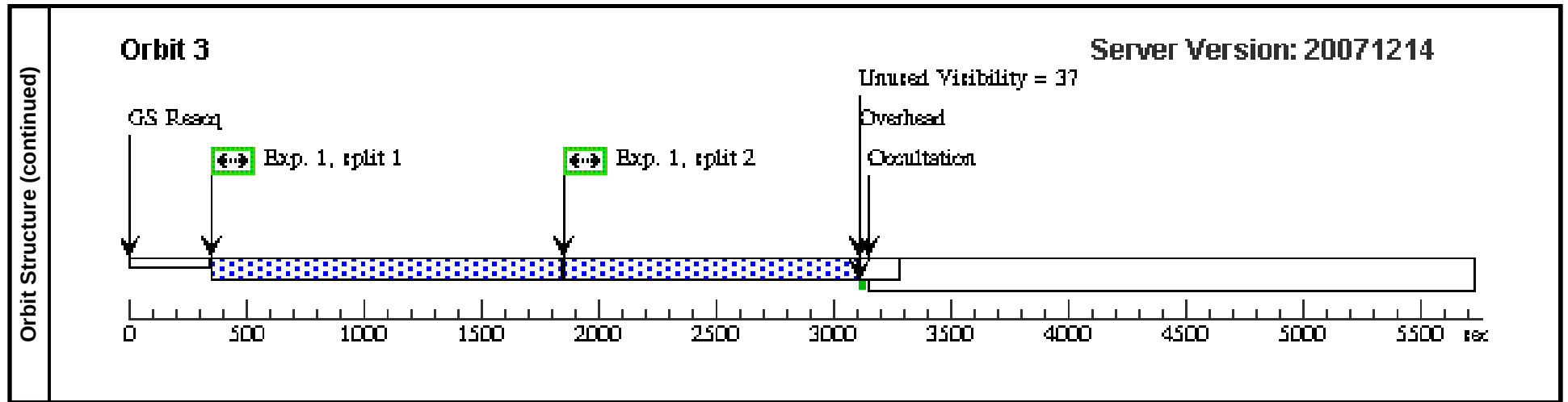




Proposal 11002 - Visit 03 - A Census of LIRGs in Clusters of Galaxies in the First Half of the Universe from the IRAC...

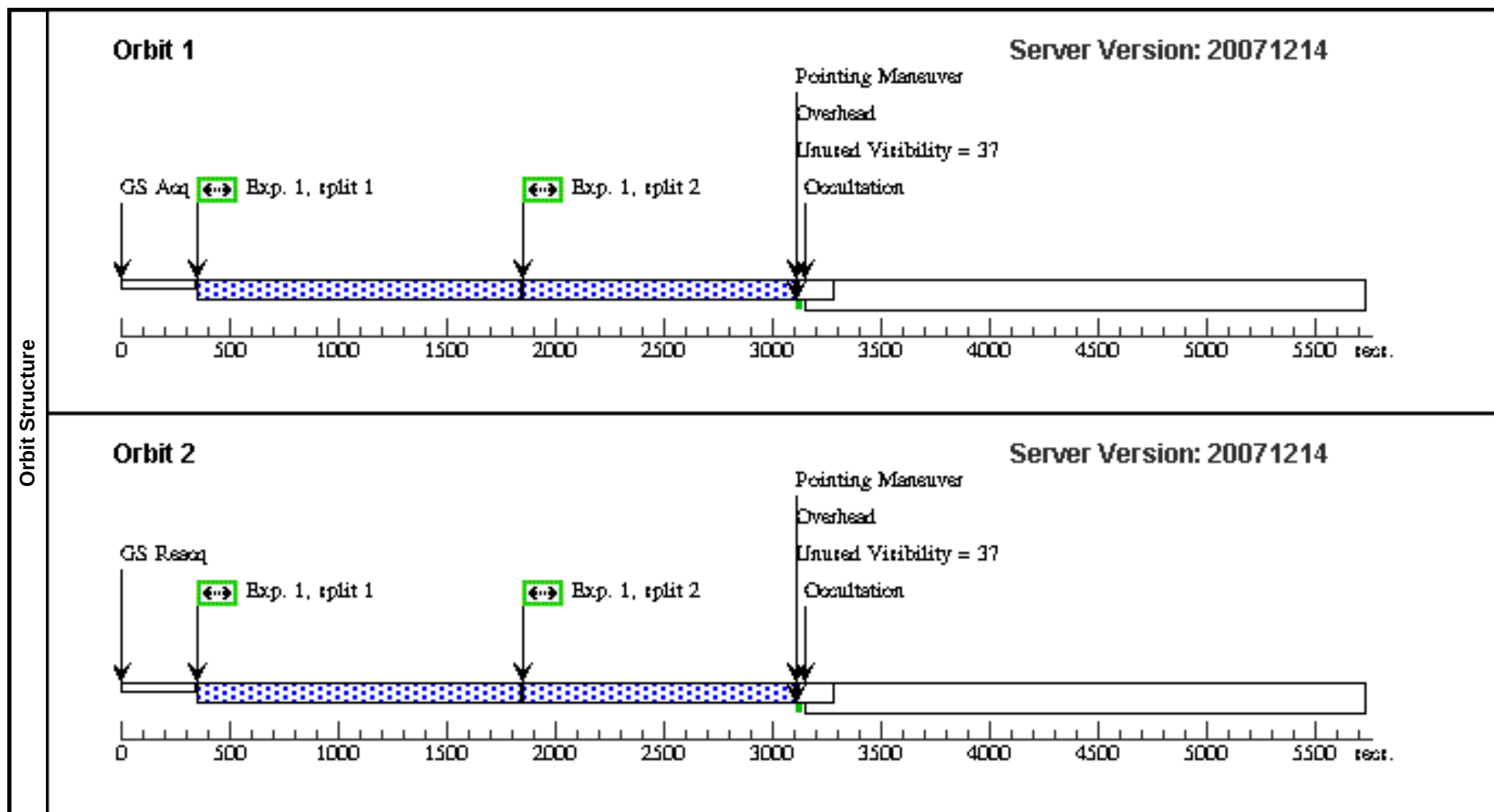
Visit	Proposal 11002, Visit 03, completed										Thu Jan 17 21:33:36 GMT 2008
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	Scientific Instruments: WFPC2										
	Special Requirements: (none)										
Patterns	#	Primary Pattern					Secondary Pattern				Exposures
	(3)	Pattern Type=SPIRAL		Coordinate Frame=POS-TARG							(1)
Purpose=DITHER		Pattern Orientation=0.0									
Number Of Points=3		Angle Between Sides=									
Point Spacing=0.25		Center Pattern=false									
Line Spacing=											
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(3)	ISCS20	RA: 14 26 8.8000 (216.5366667d)				V=25		Reference Frame: ICRS		
Alt Name1: 10.34		Dec: +34 03 27.00 (34.05750d)									
Equinox: J2000											
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
	1	20	(3) ISCS20	WFPC2, IMAGE, WF3	F814W	CR-SPLIT=DEF		Pattern 1-1 (3)	2400.0 Secs		
									[==>1200.0 Secs (Pattern 1, Split 1)]		[1]
									[==>1200.0 Secs (Pattern 1, Split 2)]		
	[==>1200.0 Secs (Pattern 2, Split 2)]										
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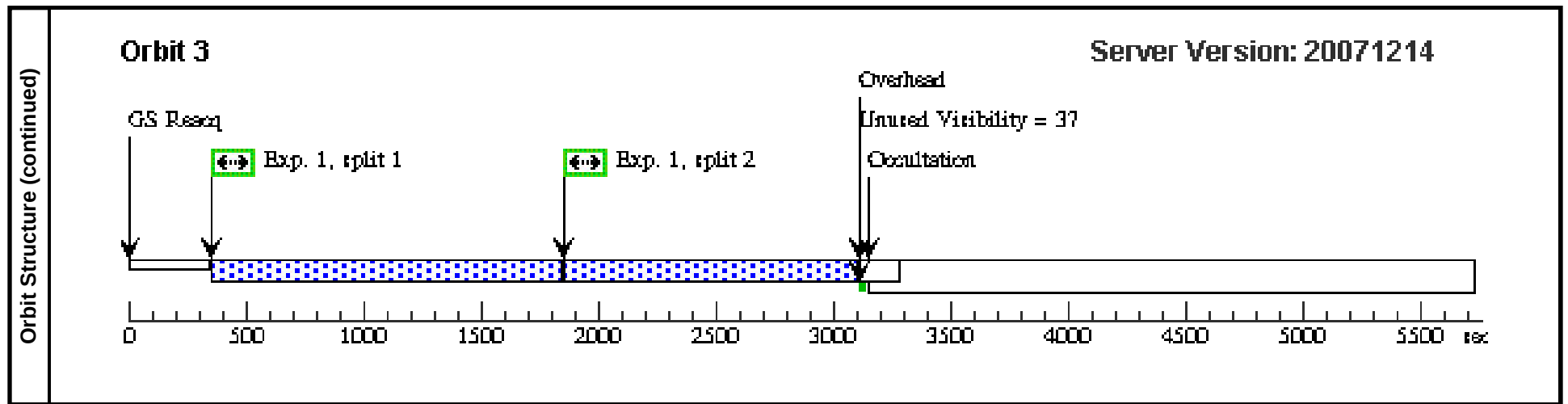




Proposal 11002 - Visit 04 - A Census of LIRGs in Clusters of Galaxies in the First Half of the Universe from the IRAC...

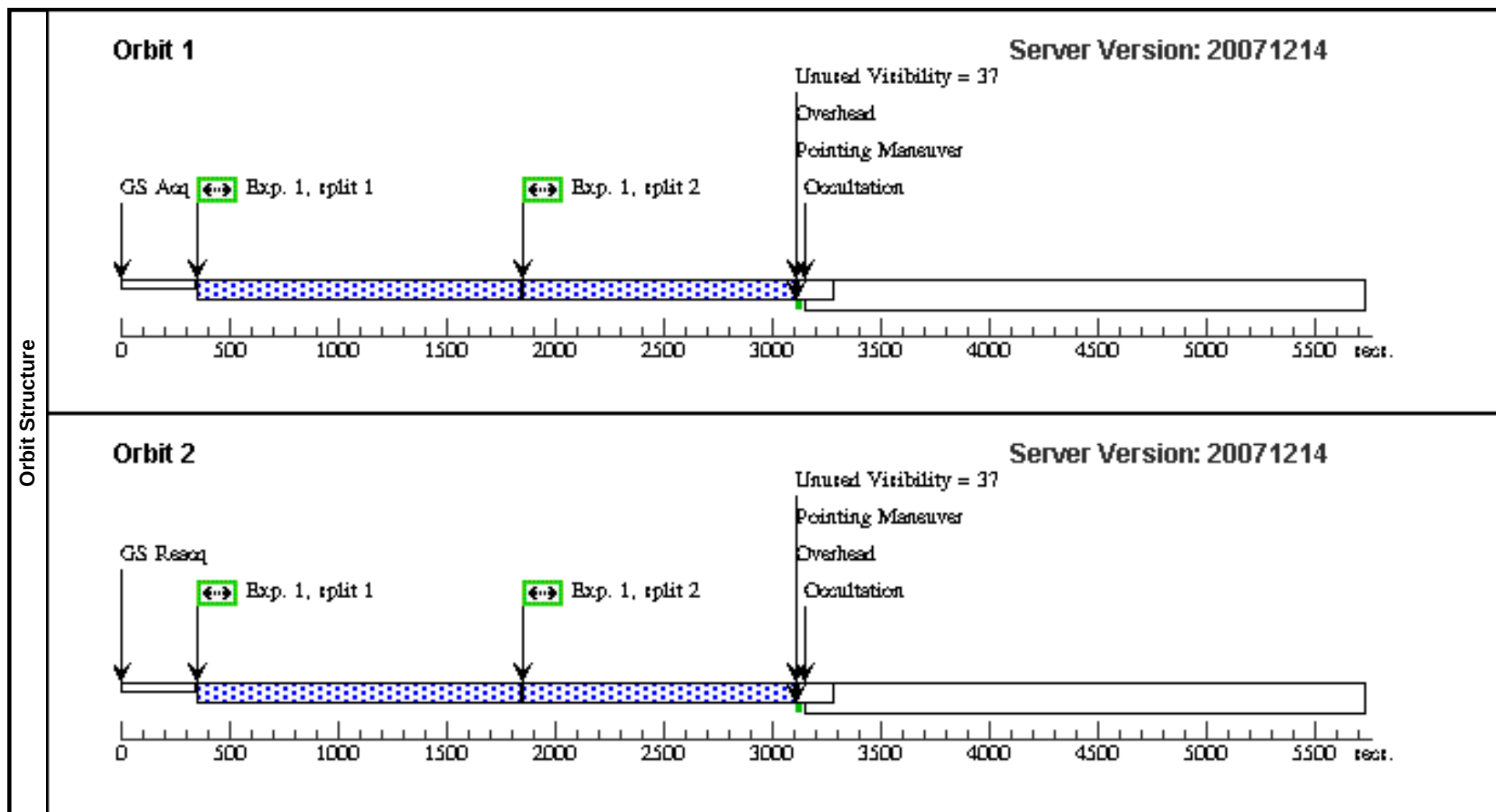
Visit	Proposal 11002, Visit 04, completed										Thu Jan 17 21:33:37 GMT 2008		
	Diagnostic Status: No Diagnostics												
	Scientific Instruments: WFPC2												
	Special Requirements: (none)												
Patterns	#	Primary Pattern					Secondary Pattern					Exposures	
	(3)	Pattern Type=SPIRAL Purpose=DITHER Number Of Points=3 Point Spacing=0.25 Line Spacing=			Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=false								(1)
Fixed Targets	#	Name		Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous			
	(4)	ISCS39 Alt Name1: 10.51		RA: 14 29 13.2000 (217.3050000d) Dec: +33 57 29.00 (33.95806d) Equinox: J2000				V=25		Reference Frame: ICRS			
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit	
	1	39	(4) ISCS39	WFPC2, IMAGE, WF3		F814W	CR-SPLIT=DEF		Pattern 1-1 (3)	2400.0 Secs			
										[==>(Pattern 1, Split 1)]			
										[==>(Pattern 1, Split 2)]		[1]	
										[==>(Pattern 2, Split 1)]			
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										[==>(Pattern 3, Split 1)]			
									[==>(Pattern 3, Split 2)]		[3]		

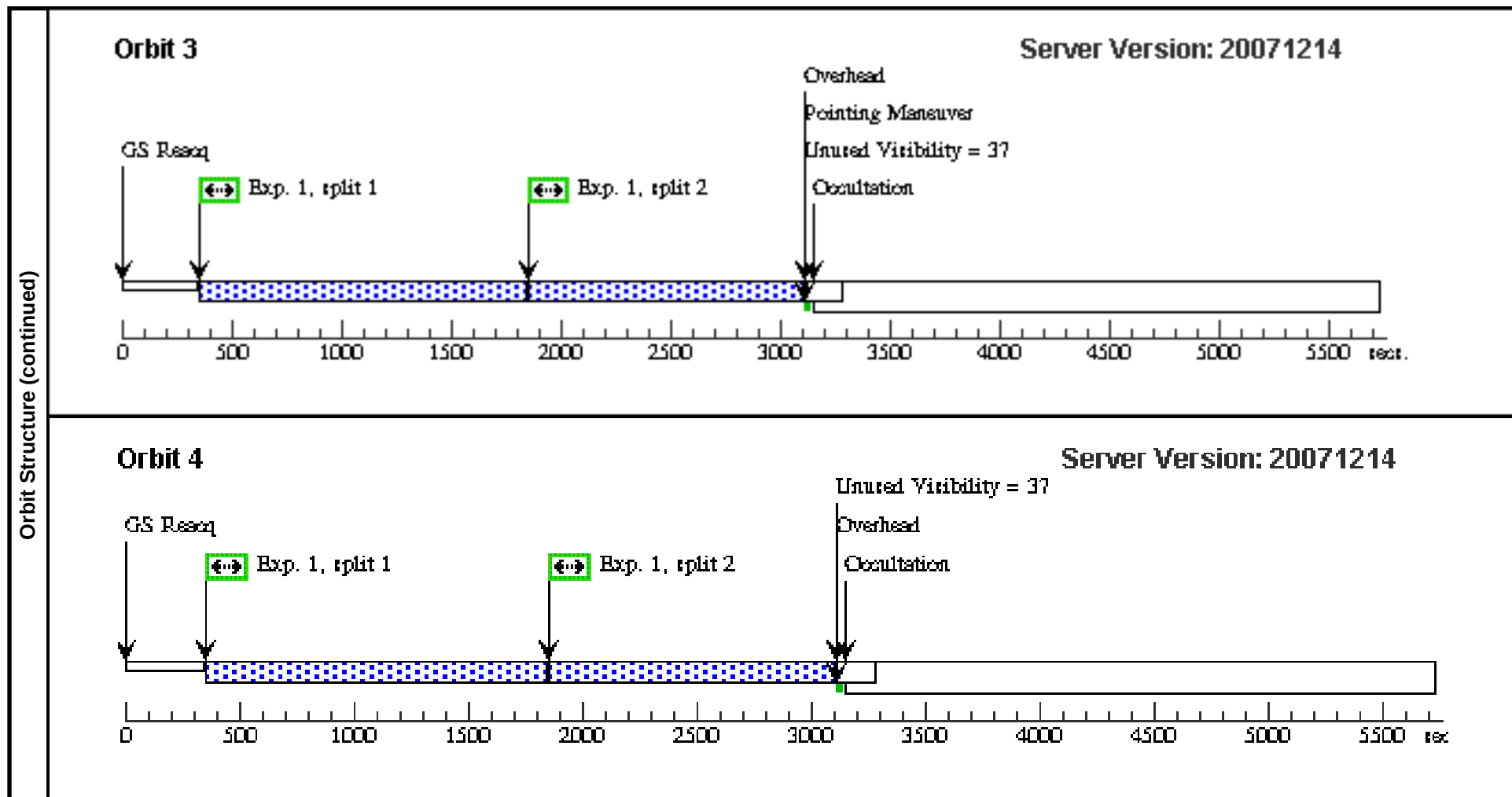




Proposal 11002 - Visit 05 - A Census of LIRGs in Clusters of Galaxies in the First Half of the Universe from the IRAC...

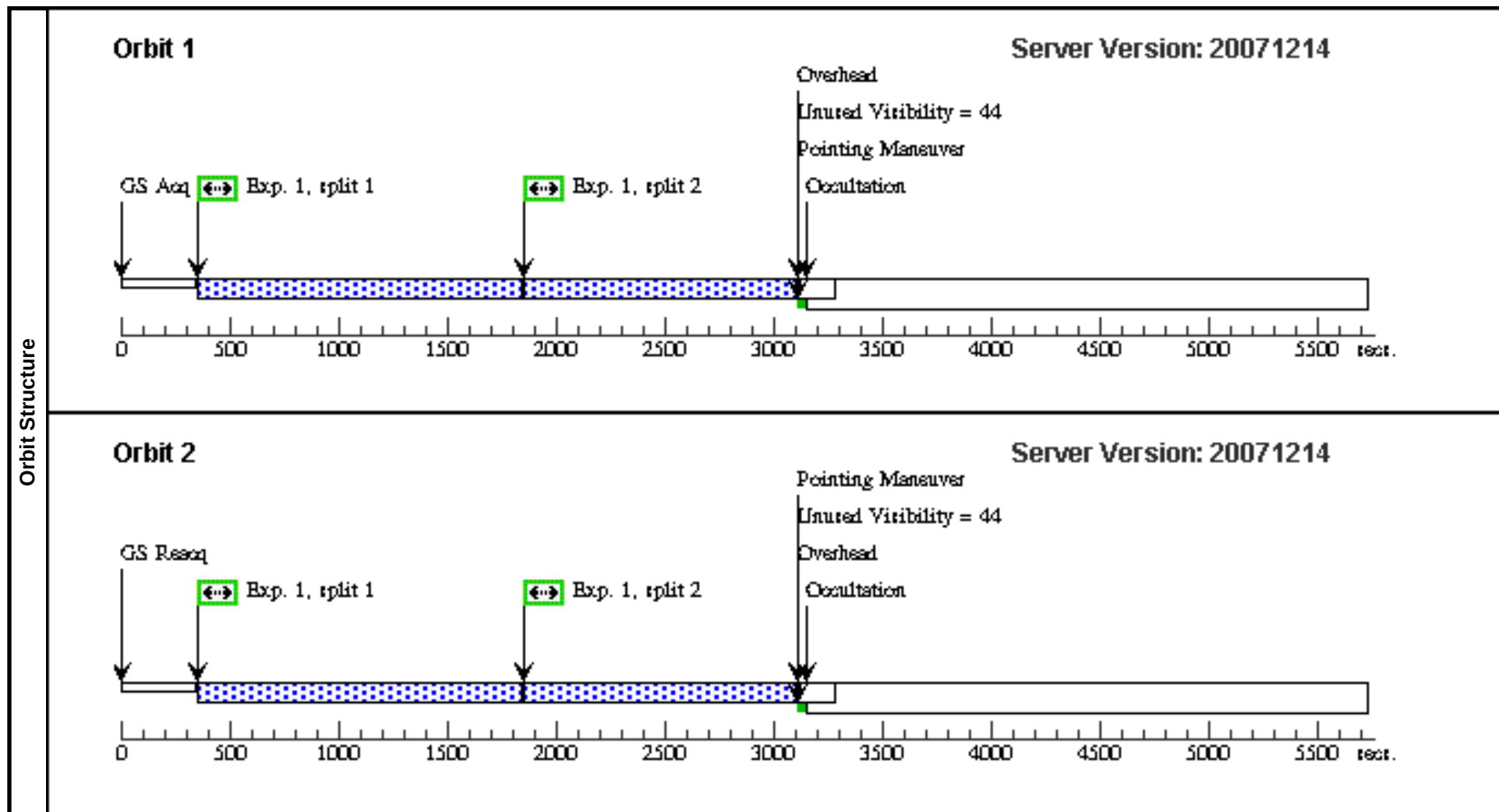
Visit	Proposal 11002, Visit 05, failed Thu Jan 17 21:33:38 GMT 2008									
	Diagnostic Status: Error Scientific Instruments: WFPC2 Special Requirements: SAME ORIENT AS 13									
Diagnostics	(Visit 05) Error (Form): Unresolvable ORIENT references.									
Patterns	#	Primary Pattern				Secondary Pattern			Exposures	
	(2)	Pattern Type=WFPC2-BOX Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=26.56505 Number Of Points=4 Angle Between Sides=143.1301 Point Spacing=0.559017 Center Pattern=false Line Spacing=0.559017							(1)	
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous	
	(5)	ISCS33	RA: 14 27 54.3000 (216.9762500d)				V=25		Reference Frame: ICRS	
		Alt Name1: 10.50	Dec: +34 30 2.00 (34.50056d)							
			Equinox: J2000							
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	ISCS33a	(5) ISCS33	WFPC2, IMAGE, WF3	F814W	CR-SPLIT=DEF		Pattern 1-1 (2)	2400.0 Secs	
									[==>(Pattern 1, Split 1)]	
									[==>(Pattern 1, Split 2)]	[1]
									[==>(Pattern 2, Split 1)]	
									[==>(Pattern 2, Split 2)]	[2]
									[==>(Pattern 3, Split 1)]	
									[==>(Pattern 3, Split 2)]	[3]
									[==>(Pattern 4, Split 1)]	
									[==>(Pattern 4, Split 2)]	[4]

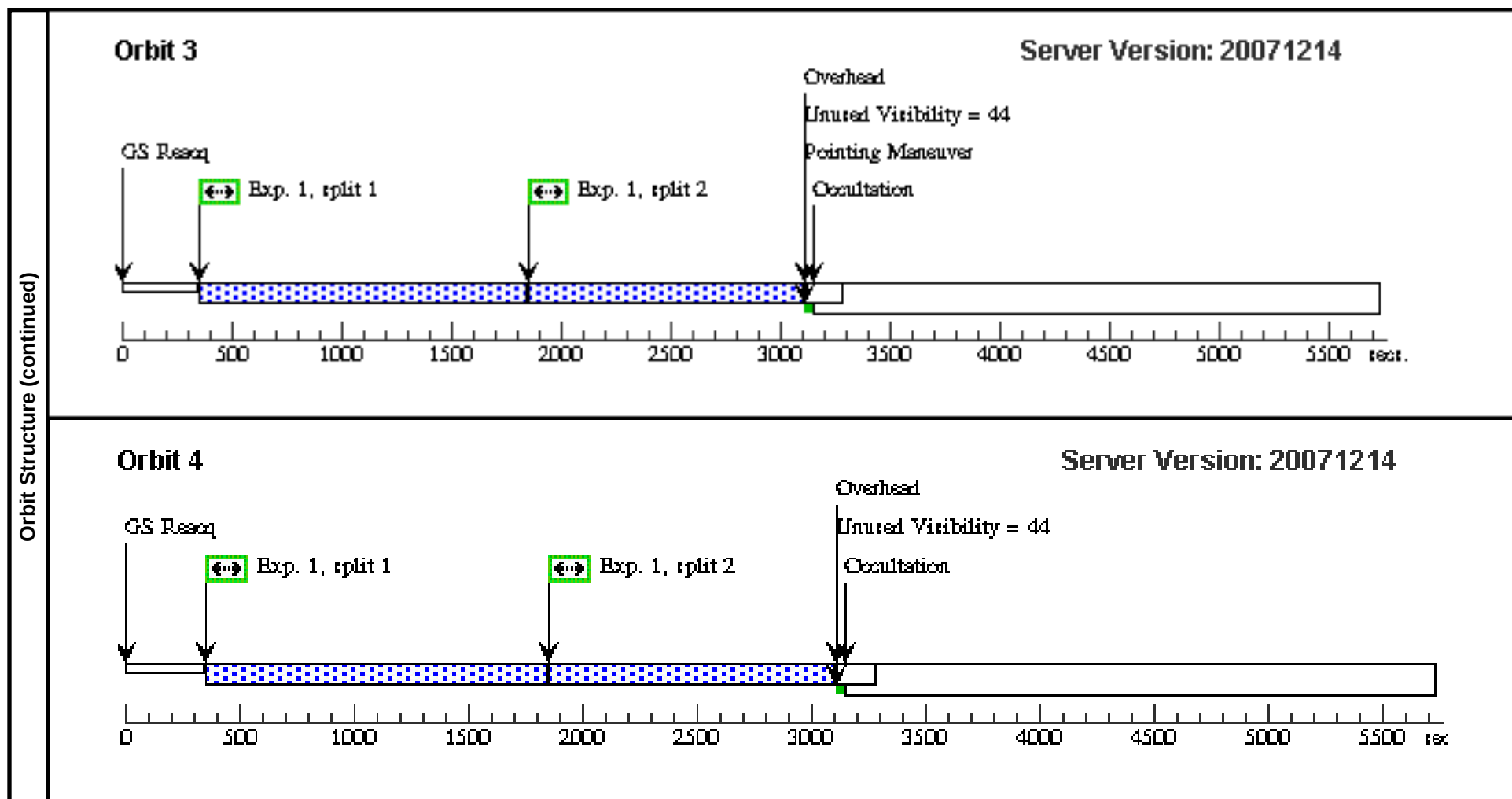




Proposal 11002 - Visit 06 - A Census of LIRGs in Clusters of Galaxies in the First Half of the Universe from the IRAC...

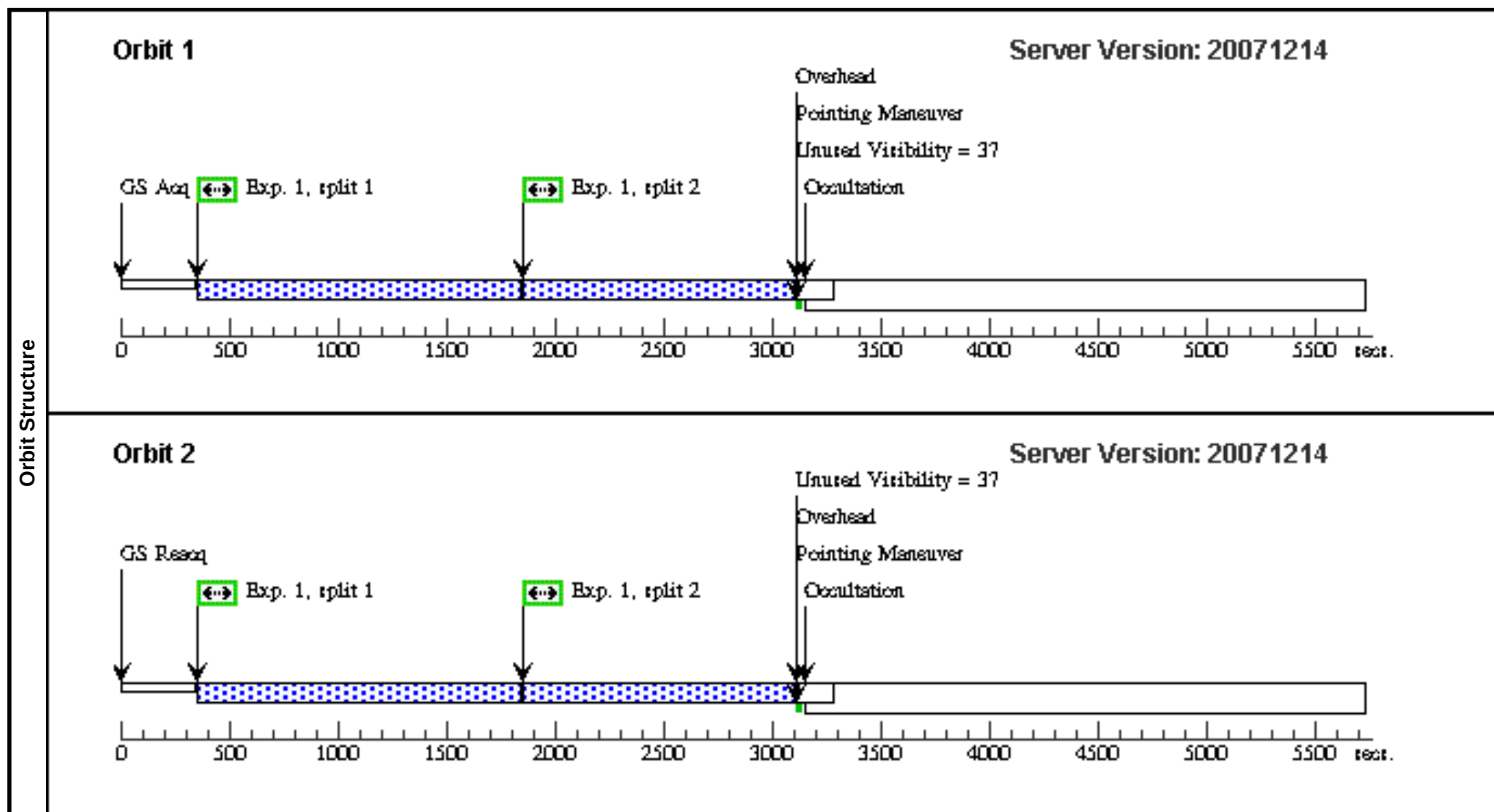
Visit	Proposal 11002, Visit 06, implementation										Thu Jan 17 21:33:38 GMT 2008		
	Diagnostic Status: No Diagnostics												
	Scientific Instruments: WFPC2												
	Special Requirements: (none)												
Patterns	#	Primary Pattern					Secondary Pattern					Exposures	
	(2)	Pattern Type=WFPC2-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.559017 Line Spacing=0.559017			Coordinate Frame=POS-TARG Pattern Orientation=26.56505 Angle Between Sides=143.1301 Center Pattern=false								(1)
Fixed Targets	#	Name		Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous			
	(6)	ISCS49 Alt Name1: 10.82		RA: 14 25 3.2000 (216.2633333d) Dec: +35 20 4.00 (35.33444d) Equinox: J2000				V=25		Reference Frame: ICRS			
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit	
	1	ISCS49a	(6) ISCS49	WFPC2, IMAGE, WF3		F814W	CR-SPLIT=DEF		Pattern 1-1 (2)	2400.0 Secs			
										[==>(Pattern 1, Split 1)]			
										[==>(Pattern 1, Split 2)]		[1]	
										[==>(Pattern 2, Split 1)]			
										[==>(Pattern 2, Split 2)]		[2]	
										[==>(Pattern 3, Split 1)]			
									[==>(Pattern 3, Split 2)]		[3]		
									[==>(Pattern 4, Split 1)]				
									[==>(Pattern 4, Split 2)]		[4]		

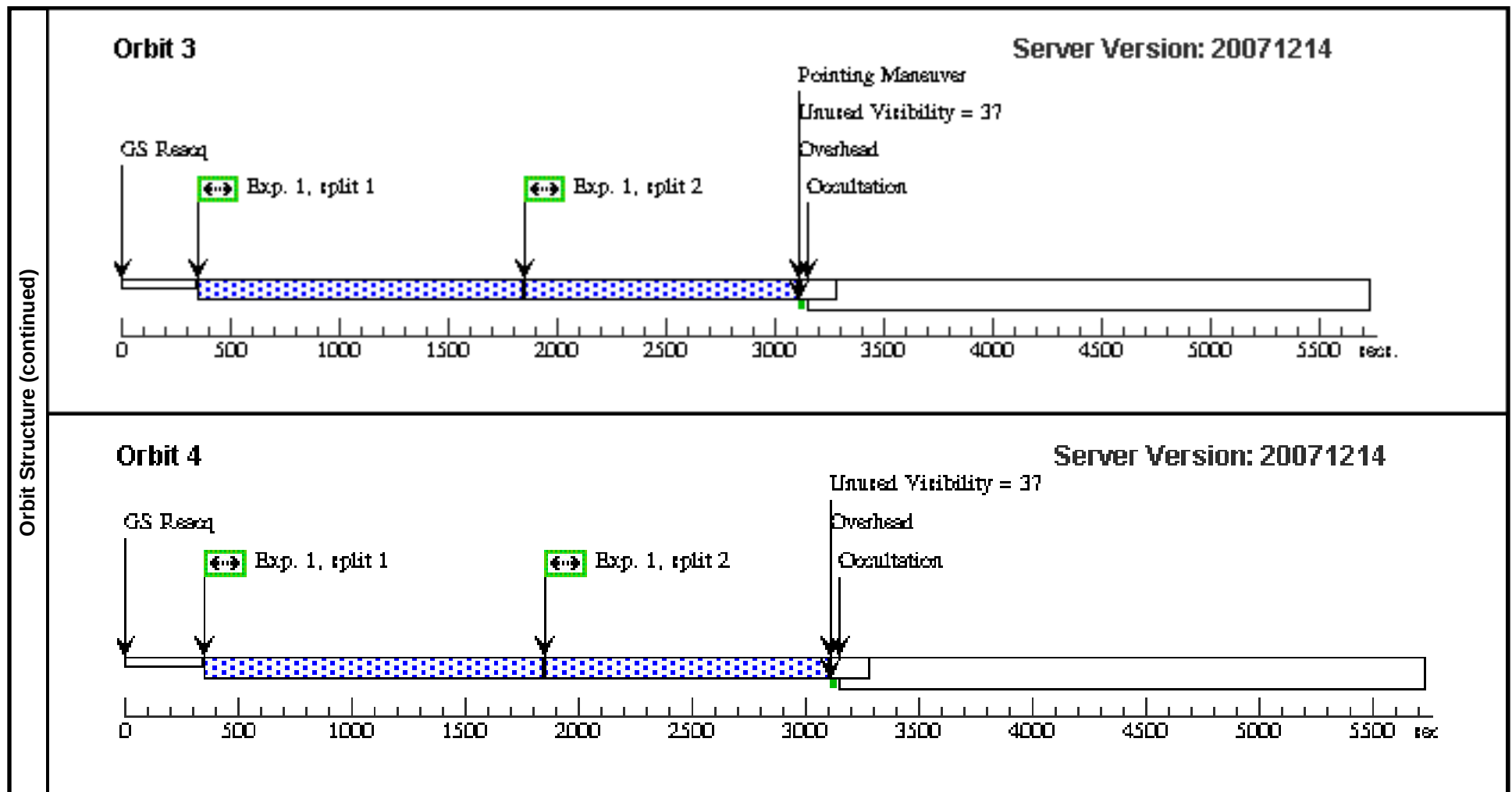




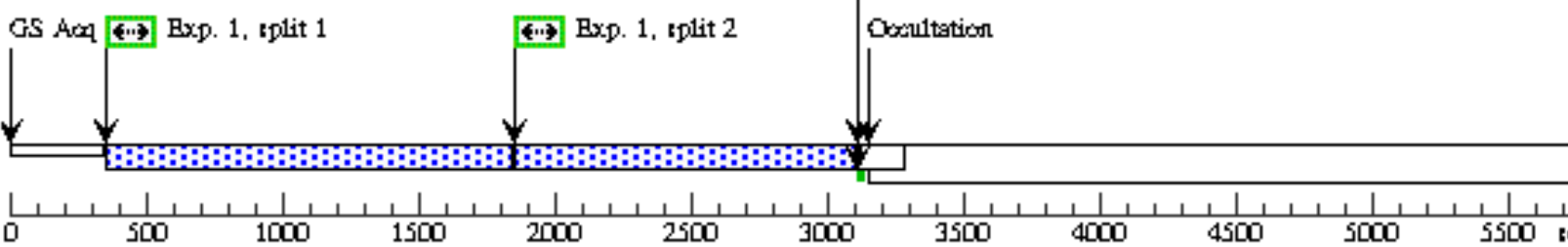
Proposal 11002 - Visit 09 - A Census of LIRGs in Clusters of Galaxies in the First Half of the Universe from the IRAC...

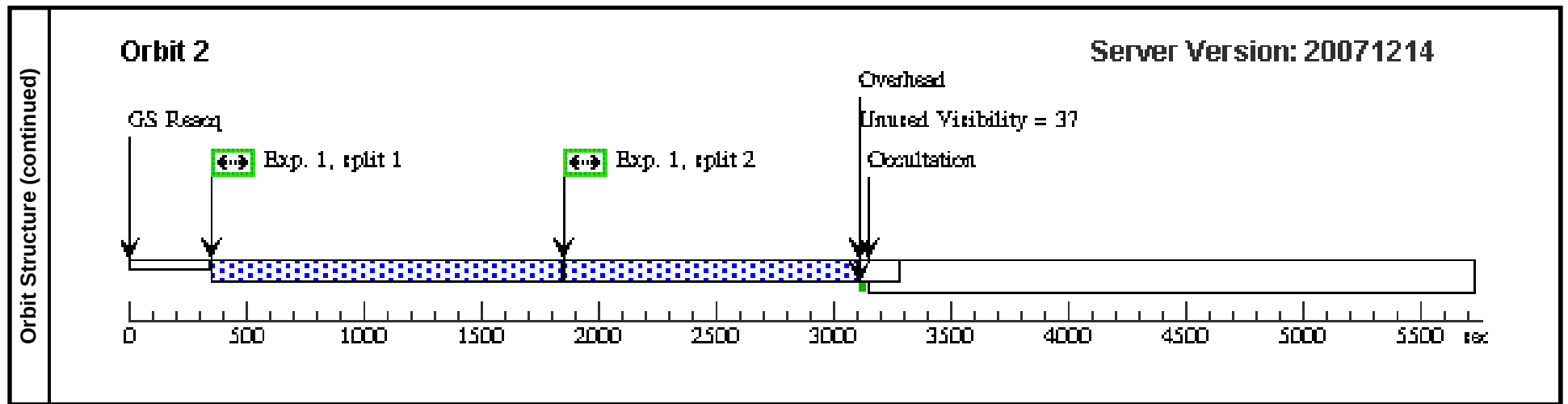
Visit	Proposal 11002, Visit 09, implementation										Thu Jan 17 21:33:39 GMT 2008		
	Diagnostic Status: No Diagnostics												
	Scientific Instruments: WFPC2												
	Special Requirements: (none)												
Patterns	#	Primary Pattern					Secondary Pattern					Exposures	
	(2)	Pattern Type=WFPC2-BOX		Coordinate Frame=POS-TARG								(1)	
Purpose=DITHER		Pattern Orientation=26.56505											
Number Of Points=4		Angle Between Sides=143.1301											
Point Spacing=0.559017		Center Pattern=false											
Line Spacing=0.559017													
Fixed Targets	#	Name		Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous			
	(9)	ISCS87		RA: 14 29 14.1000 (217.3087500d)				V=25		Reference Frame: ICRS			
		Alt Name1: 10.103		Dec: +34 25 18.00 (34.42167d)									
				Equinox: J2000									
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit	
	1	87a	(9) ISCS87	WFPC2, IMAGE, WF3		F814W	CR-SPLIT=DEF		Pattern 1-1 (2)	2400.0 Secs			
										[==>(Pattern 1, Split 1)]		[1]	
										[==>(Pattern 1, Split 2)]			
										[==>(Pattern 2, Split 1)]		[2]	
										[==>(Pattern 2, Split 2)]			
										[==>(Pattern 3, Split 1)]		[3]	
										[==>(Pattern 3, Split 2)]			
									[==>(Pattern 4, Split 1)]		[4]		
									[==>(Pattern 4, Split 2)]				





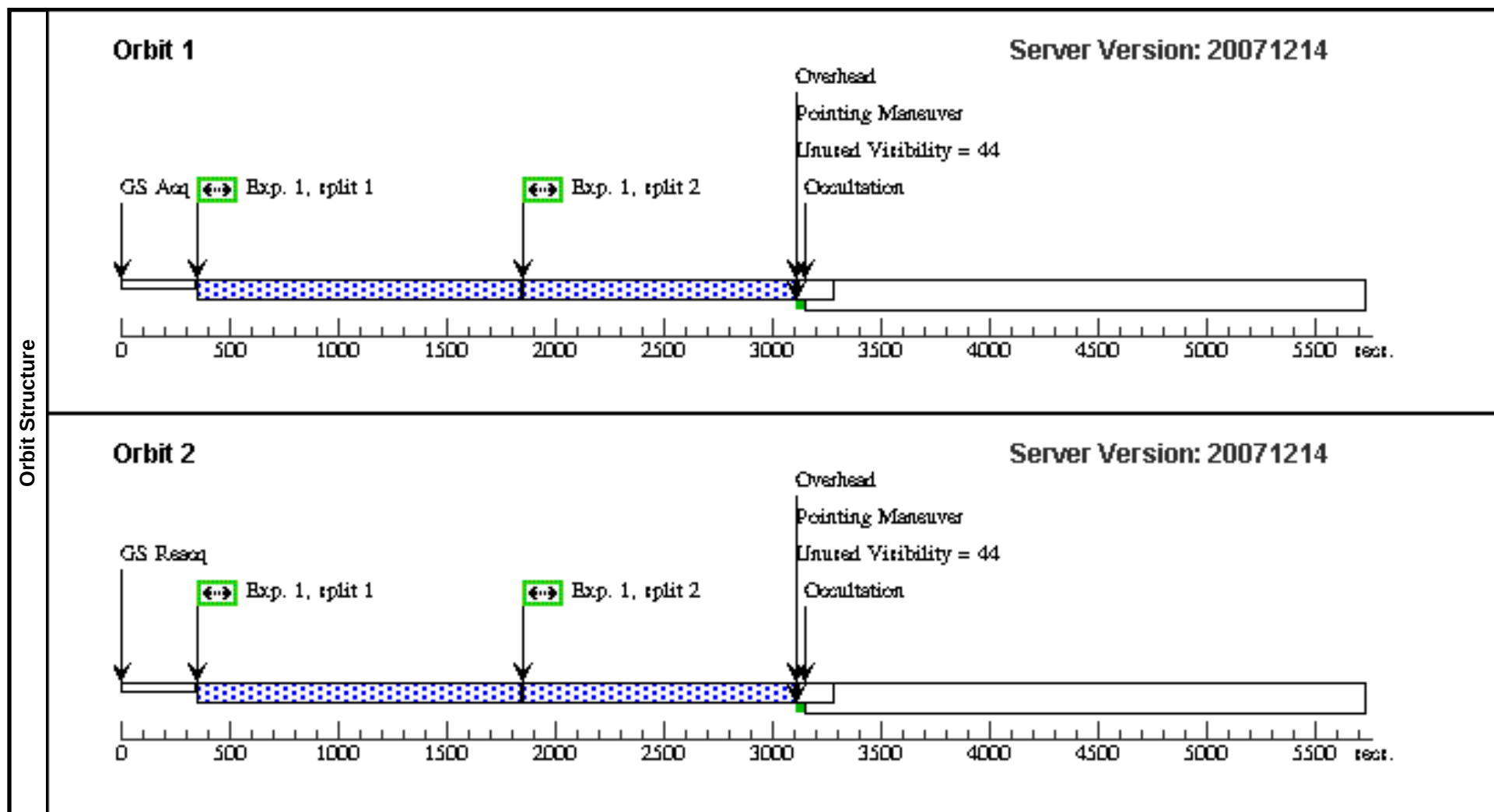
Proposal 11002 - Visit 10 - A Census of LIRGs in Clusters of Galaxies in the First Half of the Universe from the IRAC...

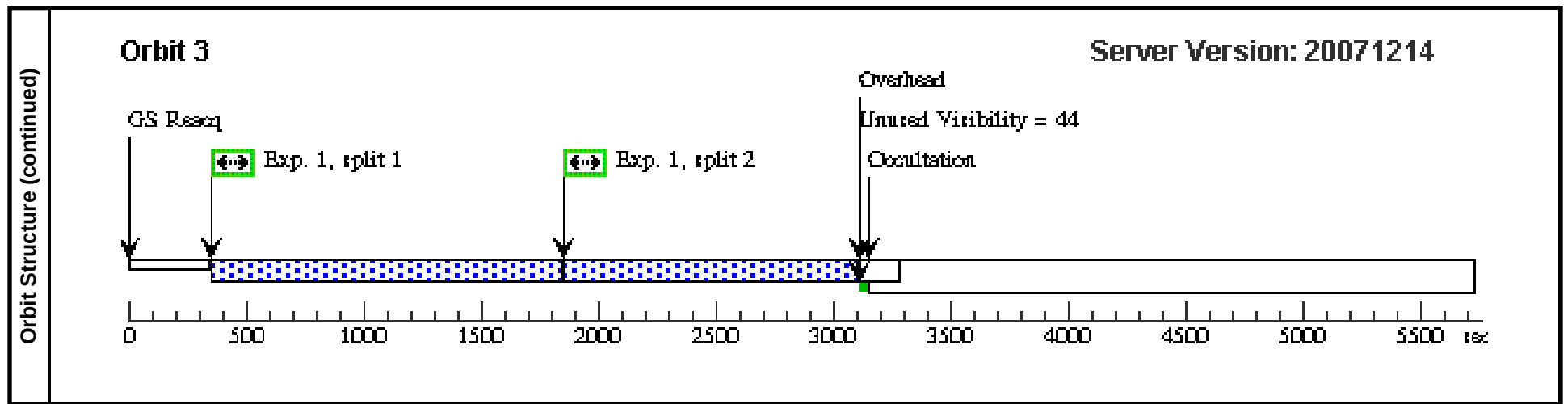
Visit	Proposal 11002, Visit 10, scheduling										Thu Jan 17 21:33:40 GMT 2008
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: WFPC2										
	Special Requirements: SAME ORIENT AS 02										
	Comments: Second visit to ISCS15a, last two orbits										
Patterns	#	Primary Pattern				Secondary Pattern				Exposures	
	(1)	Pattern Type=WFPC2-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.3535 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=45.0 Angle Between Sides= Center Pattern=false						(1)	
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(2)	ISCS15 Alt Name1: 10.14	RA: 14 26 30.1000 (216.6254167d) Dec: +33 39 33.00 (33.65917d) Equinox: J2000				V=25		Reference Frame: ICRS		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit	
	1	15b	(2) ISCS15	WFPC2, IMAGE, WF3	F814W	CR-SPLIT=DEF		Pattern 1-1 (1)	2400.0 Secs		
									[==>(Pattern 1, Split 1)]		
									[==>(Pattern 1, Split 2)]	[1]	
									[==>(Pattern 2, Split 1)]		
									[==>(Pattern 2, Split 2)]	[2]	
Orbit Structure	Orbit 1 Server Version: 20071214										
	Unused Visibility = 37 Pointing Maneuver Overhead Occultation GS Acq Exp. 1, split 1 Exp. 1, split 2 										



Proposal 11002 - Visit 11 - A Census of LIRGs in Clusters of Galaxies in the First Half of the Universe from the IRAC...

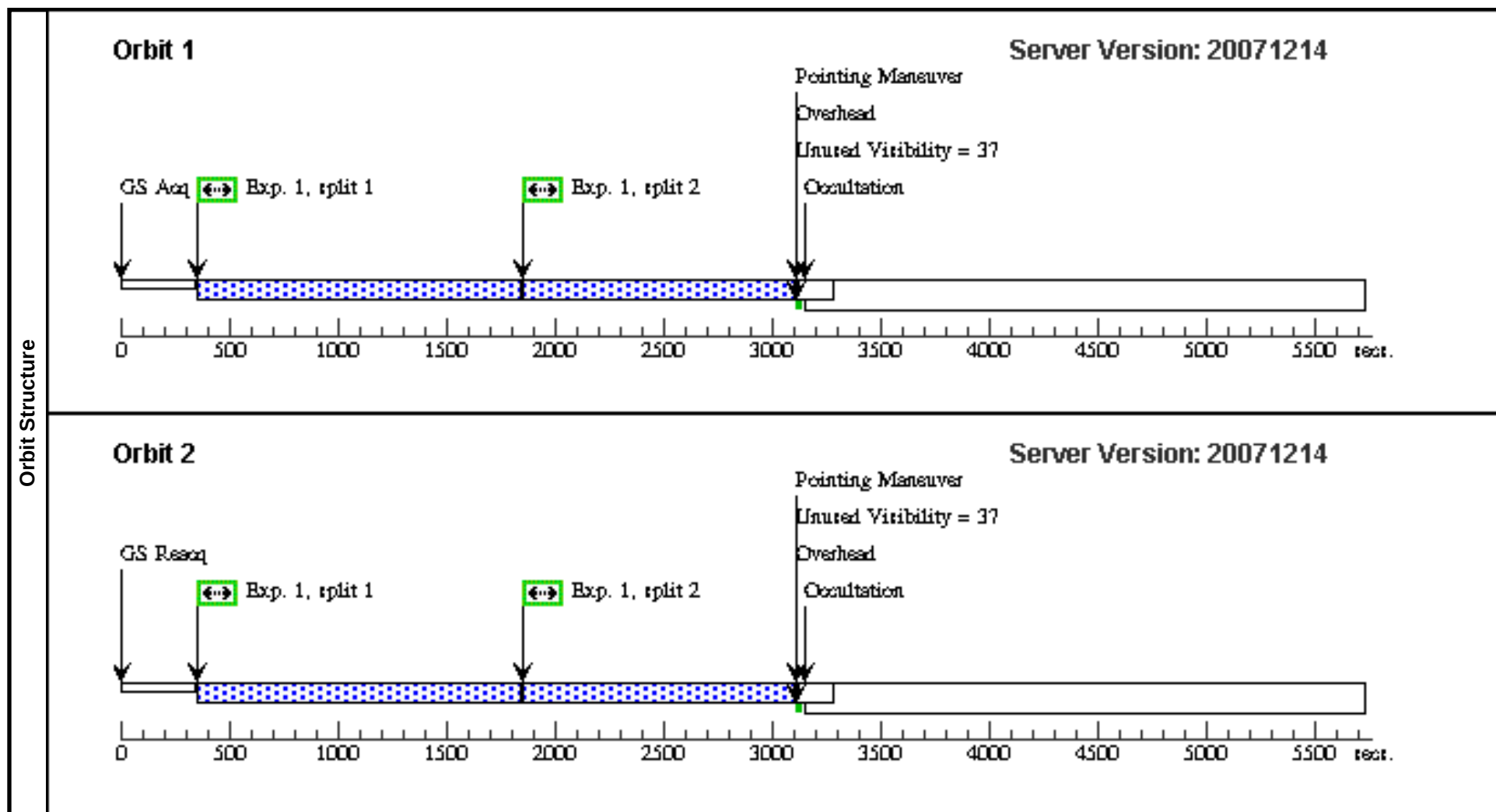
Visit	Proposal 11002, Visit 11, scheduling										Thu Jan 17 21:33:40 GMT 2008
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: WFPC2										
	Special Requirements: SAME ORIENT AS 06										
Patterns	#	Primary Pattern					Secondary Pattern				Exposures
	(3)	Pattern Type=SPIRAL		Coordinate Frame=POS-TARG							(1)
Purpose=DITHER		Pattern Orientation=0.0									
Number Of Points=3		Angle Between Sides=									
Point Spacing=0.25		Center Pattern=false									
Line Spacing=											
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(6)	ISCS49	RA: 14 25 3.2000 (216.2633333d)				V=25		Reference Frame: ICRS		
Alt Name1: 10.82		Dec: +35 20 4.00 (35.33444d)									
		Equinox: J2000									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
	1	49b	(6) ISCS49	WFPC2, IMAGE, WF3	F814W	CR-SPLIT=DEF		Pattern 1-1 (3)	2400.0 Secs		
										[==>(Pattern 1, Split 1)]	[1]
										[==>(Pattern 1, Split 2)]	
										[==>(Pattern 2, Split 1)]	[2]
										[==>(Pattern 2, Split 2)]	
										[==>(Pattern 3, Split 1)]	[3]
									[==>(Pattern 3, Split 2)]		

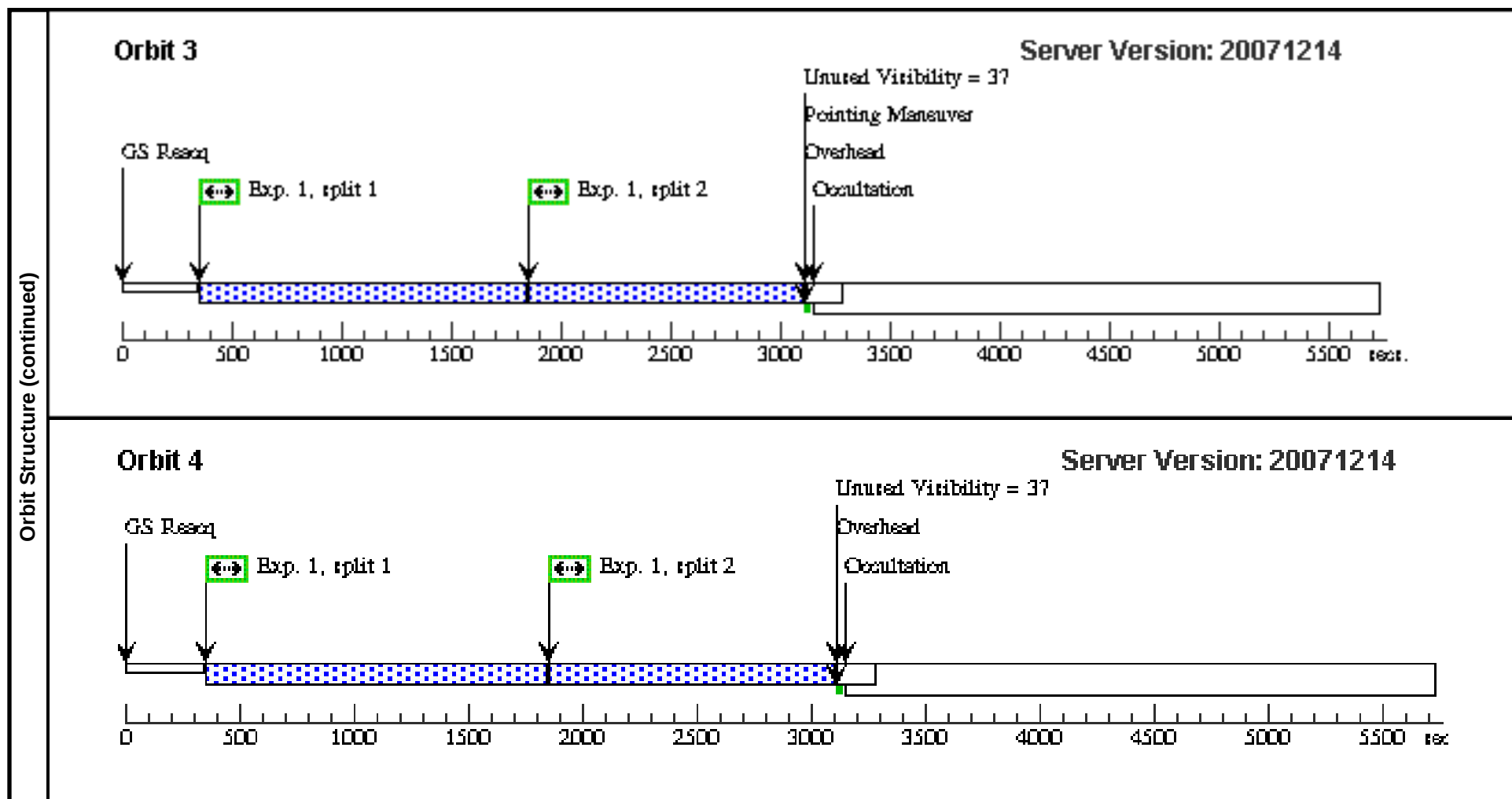




Proposal 11002 - Visit 12 - A Census of LIRGs in Clusters of Galaxies in the First Half of the Universe from the IRAC...

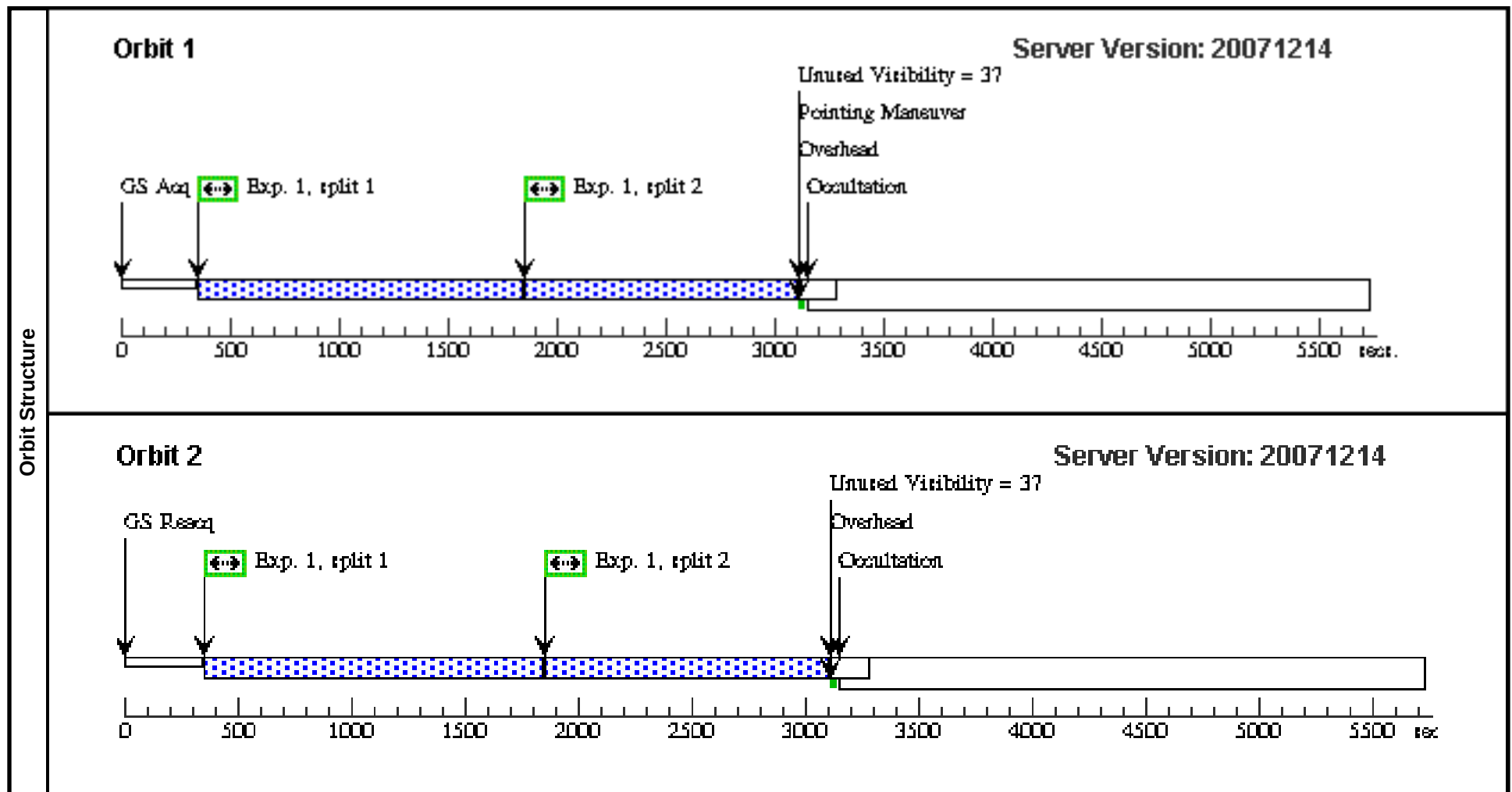
Visit	Proposal 11002, Visit 12, scheduling										Thu Jan 17 21:33:41 GMT 2008
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: WFPC2										
	Special Requirements: SAME ORIENT AS 09										
Patterns	#	Primary Pattern					Secondary Pattern				Exposures
	(2)	Pattern Type=WFPC2-BOX		Coordinate Frame=POS-TARG							(1)
Purpose=DITHER		Pattern Orientation=26.56505									
Number Of Points=4		Angle Between Sides=143.1301									
Point Spacing=0.559017		Center Pattern=false									
Line Spacing=0.559017											
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(9)	ISCS87	RA: 14 29 14.1000 (217.3087500d)				V=25		Reference Frame: ICRS		
Alt Name1: 10.103		Dec: +34 25 18.00 (34.42167d)									
		Equinox: J2000									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
	1	87b	(9) ISCS87	WFPC2, IMAGE, WF3	F814W	CR-SPLIT=DEF		Pattern 1-1 (2)	2400.0 Secs		
										[==>(Pattern 1, Split 1)]	[1]
										[==>(Pattern 1, Split 2)]	
										[==>(Pattern 2, Split 1)]	
										[==>(Pattern 2, Split 2)]	
										[==>(Pattern 3, Split 1)]	[3]
										[==>(Pattern 3, Split 2)]	
									[==>(Pattern 4, Split 1)]	[4]	
									[==>(Pattern 4, Split 2)]		





Proposal 11002 - Visit 13 - A Census of LIRGs in Clusters of Galaxies in the First Half of the Universe from the IRAC...

Visit	Proposal 11002, Visit 13, completed										Thu Jan 17 21:33:41 GMT 2008			
	Diagnostic Status: Error													
	Scientific Instruments: WFPC2													
	Special Requirements: SAME ORIENT AS 05													
Diagnostics	(Visit 13) Error (Form): Unresolvable ORIENT references.													
Patterns	#	Primary Pattern						Secondary Pattern				Exposures		
	(1)	Pattern Type=WFPC2-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.3535 Line Spacing=				Coordinate Frame=POS-TARG Pattern Orientation=45.0 Angle Between Sides= Center Pattern=false						(1)		
Fixed Targets	#	Name		Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous				
	(5)	ISCS33 Alt Name1: 10.50		RA: 14 27 54.3000 (216.9762500d) Dec: +34 30 2.00 (34.50056d) Equinox: J2000				V=25		Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit		
	1	33b	(5) ISCS33	WFPC2, IMAGE, WF3		F814W	CR-SPLIT=DEF		Pattern 1-1 (1)	2400.0 Secs				
										[==>(Pattern 1, Split 1)]		[1]		
										[==>(Pattern 1, Split 2)]				
											[==>(Pattern 2, Split 1)]		[2]	
										[==>(Pattern 2, Split 2)]				



Visit	Proposal 11002, Visit 25, implementation Thu Jan 17 21:33:42 GMT 2008									
	Diagnostic Status: Error Scientific Instruments: WFPC2 Special Requirements: SAME ORIENT AS 05 Comments: Repeat of 2nd exposure from visit 05.									
Diagnostics	(Visit 25) Error (Form): Unresolvable ORIENT references.									
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous	
	(5)	ISCS33 Alt Name1: 10.50	RA: 14 27 54.3000 (216.9762500d) Dec: +34 30 2.00 (34.50056d) Equinox: J2000				V=25		Reference Frame: ICRS	
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	ISCS33a	(5) ISCS33	WFPC2, IMAGE, WF3	F814W	CR-SPLIT=DEF			2400.0 Secs [==>(Split 1)] [==>(Split 2)]	[1]
Orbit Structure	Orbit 1 GS Acq Exp. 1, split 1 Exp. 1, split 2 Unused Visibility = 37 Overhead Occultation Server Version: 20071214									