



## 10520 - Resolving the Complex Star Formation History of the Leo I Dwarf Spheroidal Galaxy

Cycle: 14, Proposal Category: GO

(Availability Mode: SUPPORTED)

### INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
<b>Dr. Tammy A. Smecker-Hane (PI)</b>	<b>University of California - Irvine</b>	<b>tsmecker@uci.edu</b>
Dr. Andrew A. Cole (CoI) (ESA Member)	Kapteyn Astronomical Institute	cole@astro.rug.nl
Prof. John S. Gallagher III (CoI)	University of Wisconsin - Madison	jsg@astro.wisc.edu
Dr. James Bullock (CoI)	University of California - Irvine	bullock@uci.edu

### VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	(1) LEO-I ANY	ACS/WFC WFPC2	4	02-Feb-2007 21:01:14.0	yes
02	(1) LEO-I	ACS/WFC WFPC2	4	02-Feb-2007 21:01:23.0	yes
03	(1) LEO-I	ACS/WFC WFPC2	1	02-Feb-2007 21:01:28.0	yes
04	(1) LEO-I	ACS/WFC WFPC2	3	02-Feb-2007 21:01:35.0	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	(1) LEO-I	ACS/WFC WFPC2	3	02-Feb-2007 21:01:41.0	yes
06	(1) LEO-I	ACS/WFC	1	02-Feb-2007 21:01:45.0	yes
51	(1) LEO-I ANY	ACS/WFC WFPC2	2	02-Feb-2007 21:01:49.0	yes
52	(2) LEO-I-B	WFPC2	3	02-Feb-2007 21:01:52.0	yes
53	(3) LEO-I-C	WFPC2	3	02-Feb-2007 21:01:56.0	yes

24 Total Orbits Used

### **ABSTRACT**

Determining the star formation histories (SFHs) and chemical evolution of nearby galaxies gives us powerful constraints on the physical processes that regulate galaxy evolution. The SFHs can be measured most accurately by comparing the observed densities of stars in color-magnitude diagrams (CMDs) to predictions from stellar evolutionary models. WFPC2 imaging of the Leo I dSph shows it is unique because its stellar population is relatively young. Approximately 68% of its stars formed between 1 and 7 Gyr ago and only 12% of its stars formed  $> \sim 10$  Gyr ago. We propose to vastly improve the derived SFH of Leo I by exploiting ACS/WFC's higher quantum efficiency at bluer wavelengths, higher spatial resolution, and larger field-of-view. The figure of merit for our proposed observations, defined as the age resolution times the number of stars detected, will be a factor of 12 higher than existing WFPC2 observations. To surmount the degeneracy of age and metallicity in the CMD, we have independently measured the metallicity distribution of its stars using spectroscopy. Simultaneously modeling the metallicity distribution and CMD, we will firmly constrain the evolution of the Leo I dSph, a unique example of an isolated dwarf galaxy that has not been influenced by interactions with the Milky Way or M31.

### **OBSERVING DESCRIPTION**

We will take a series of images in F435W (B filter) and F814W (I filter) with ACS WFC in order to do accurate stellar photometry for stars in the Leo I dSph galaxy. Our goal is to get 5 sigma detections in the combined set of images about 2 magnitudes below the oldest main-sequence turnoff in Leo I at stellar magnitudes of  $B=28.6$  mag and  $I = 27.5$  mag. This gives us photometric errors of  $\sigma_B = 0.04$  mag and  $\sigma_I = 0.03$  mag at the oldest main-sequence turnoff, which occurs at  $B = 26.6$  mag and  $I = 25.5$  mag. We request Earth Shadow for the observations because of the faintness of these stars.

The field center is chosen so that the corner of the ACS WFC will be at the center of the galaxy so that the field will span the largest galactocentric radius in the galaxy to average over any existing spacial gradient in the stellar population. We do not specify a fixed orientation angle, because the galaxy is much larger than the ACS field of view (core radius = 3.3 arcmin, tidal radius = 12.6 arc min). However all subsequent Visits must have the same orientation as the initial Visit, Visit 01.

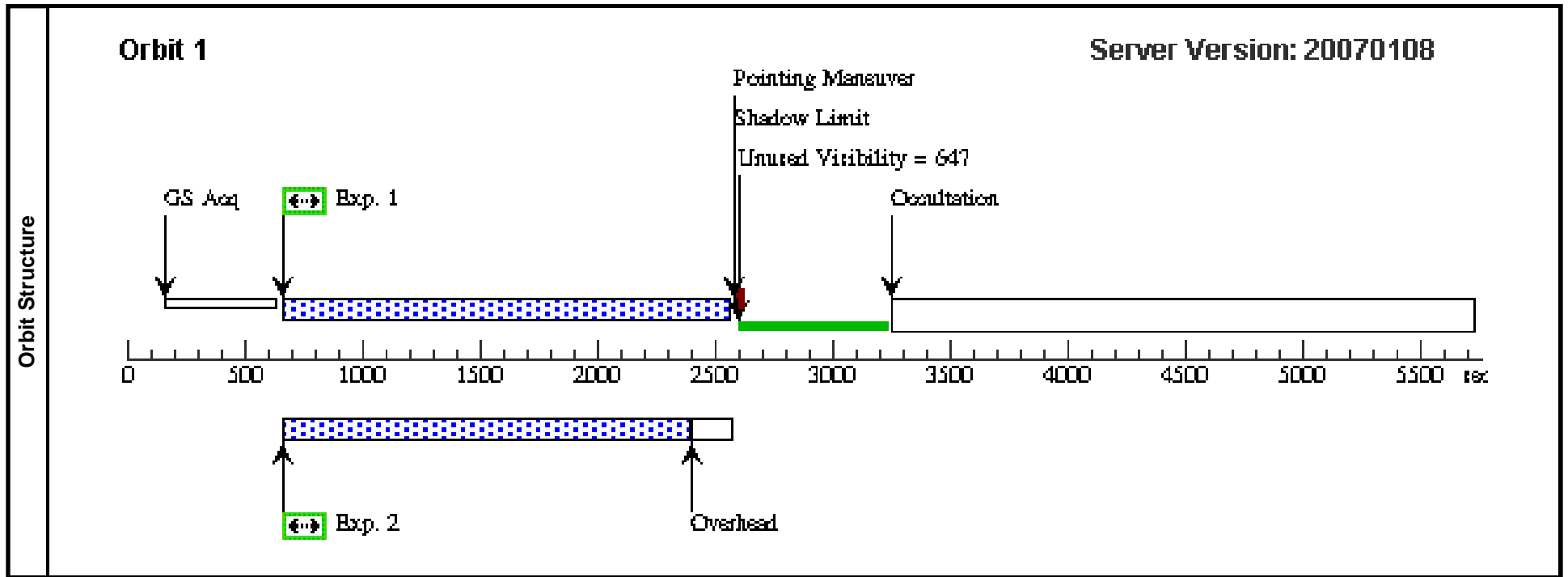
We will acquire a total of nine 1700 sec images in F435W (B filter). Two sets of 4-point WFC-Box-Dither patterns will be performed and one additional image taken. Pos targ's will be used for the later two's initial starting positions. We will acquire six 1700s images in F814W (I filter) using two sets of 3 point WFC-Line-Dither patterns with a pos targ for the second set's initial starting point. We will also acquire three 440 sec images in F814W (I filter) with a 3 point WFC-Line-Dither pattern. The shorter images are necessary because saturation occurs for the stars on the top 1.5 magnitudes of the red giant branch in the 1700s F814W images.

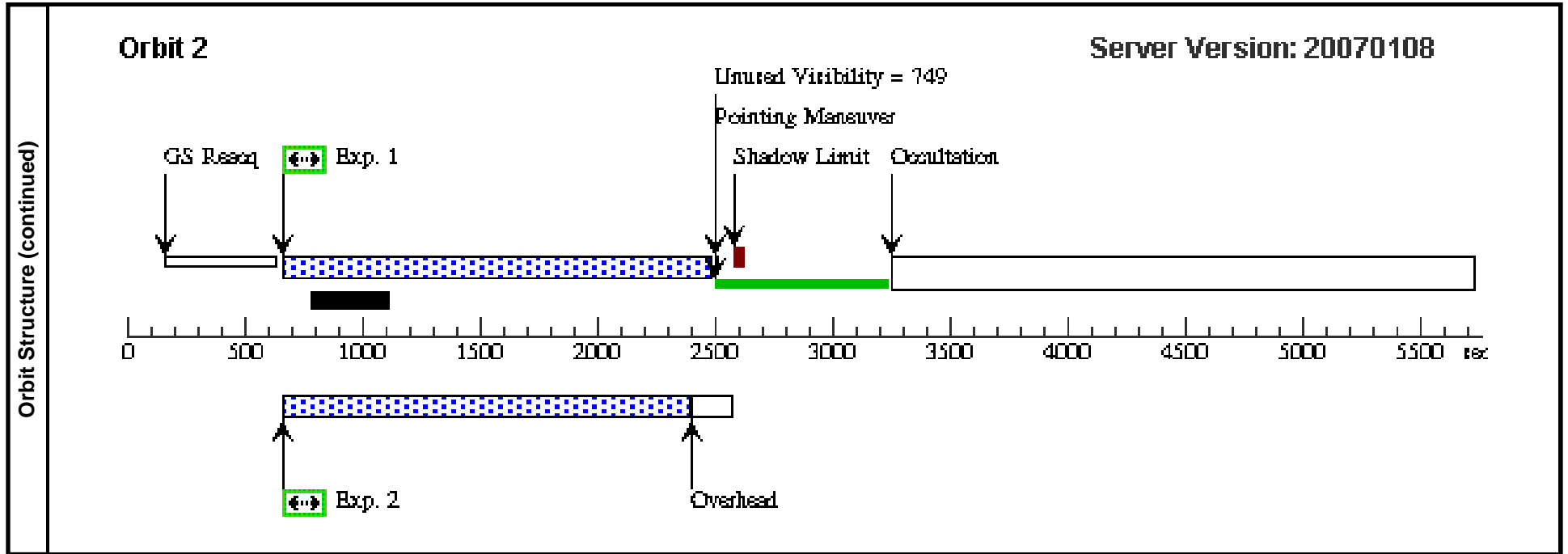
We also will obtain coordinated parallel observations with WFPC2. When we are observing with F435W with ACS we will observe with F555W (V filter) with WFPC2, and when we are observing with F814W with ACS we will observe with F814W with WFPC2. Because WFPC2's blue sensitivity is much less than ACS, we need to use a redder filter to reach approximately the same depth in the color-magnitude diagrams. Again, because the galaxy is large (tidal radius = 12.8 arcmin), WFPC2 will fall at some point inside the galaxy no matter what the orientation angle. We will acquire nine 1600 sec images in F555W, six 1600 sec images in F814W and three 400 sec images in F814W in the parallel WFPC2 field.

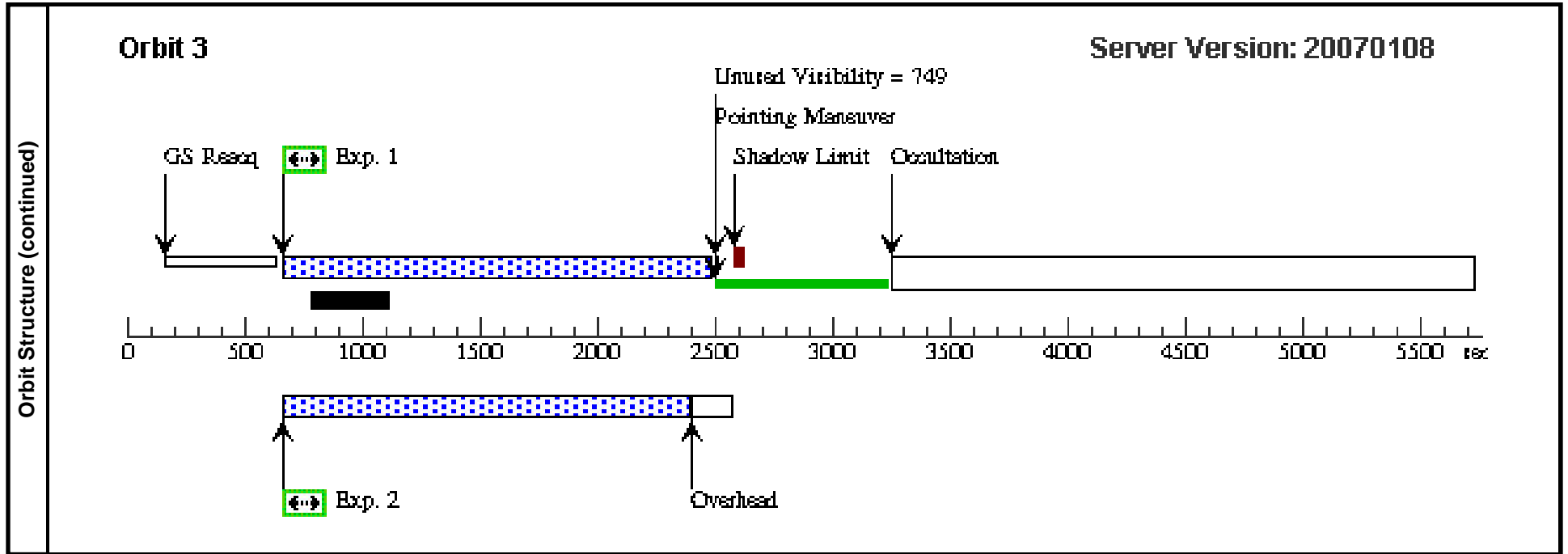
Proposal 10520 - Visit 01 - Resolving the Complex Star Formation History of the Leo I Dwarf Spheroidal Galaxy

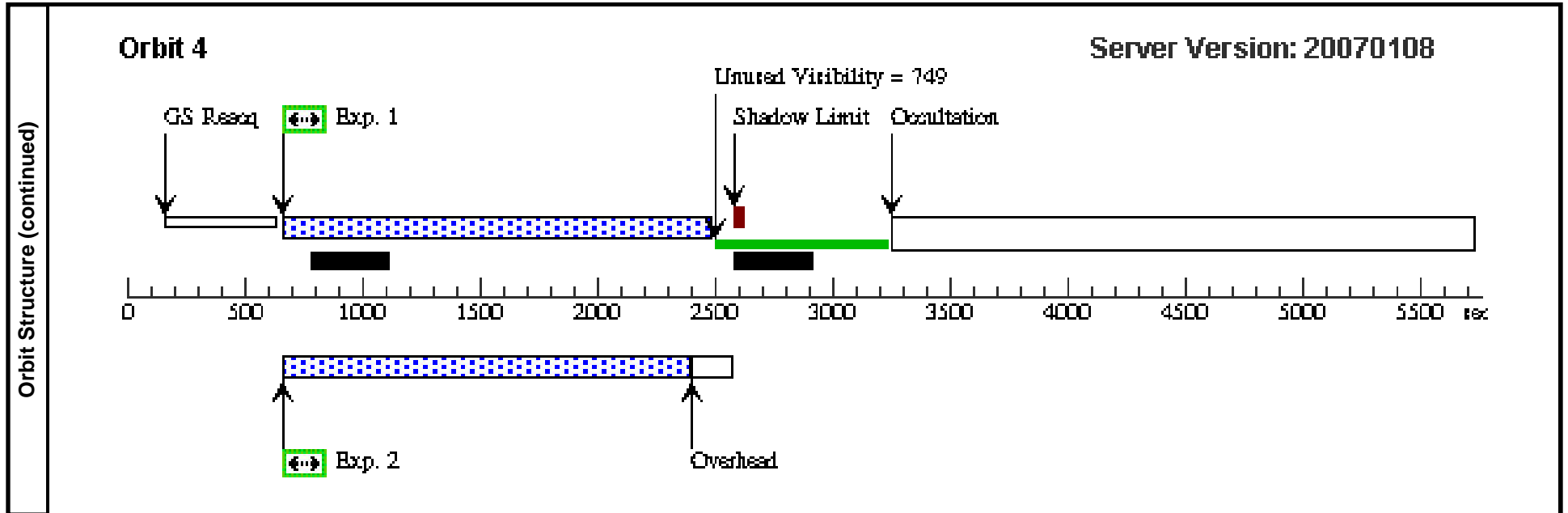
Sat Feb 03 02:01:59 GMT 2007

Visit	<b>Proposal 10520, Visit 01, failed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: ACS/WFC, WFPC2 Special Requirements: (none)									
	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)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	LEO-I	RA: 10 08 22.5000 (152.0937500d) Dec: +12 18 6.00 (12.30167d) Equinox: J2000 Plate Id: (?)		V=28.0	Coordinate Source: GUIDE_STAR_CATALOG				
<i>Comments: This position was chosen to probe the maximum range of galactocentric radii by putting the center of the galaxy near the edge of the ACS frame. This also keeps some bright stars from possibly falling into the WFPC2 field in parallel exposures.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	ACS-WFC, B, long exp	(1) LEO-I	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	SHADOW	Pattern 1-2 (1) Prime + Parallel Group 1-2	1700.0 Secs	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[2]
									[==>(Pattern 3)]	[3]
									[==>(Pattern 4)]	[4]
2	WFPC2par, V, long exp	ANY	WFPC2, IMAGE, WFALL	F555W	CR-SPLIT=NO		Pattern 1-2 (1) Prime + Parallel Group 1-2	1600.0 Secs		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[2]	
								[==>(Pattern 3)]	[3]	
								[==>(Pattern 4)]	[4]	





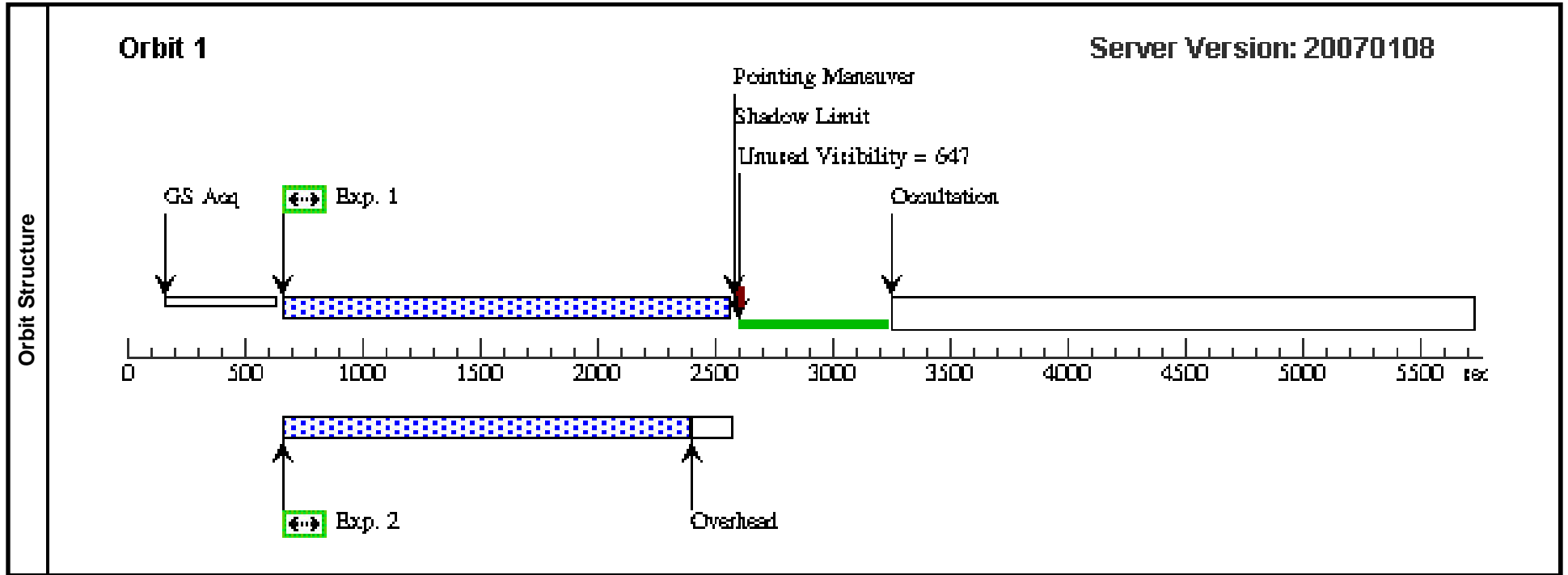


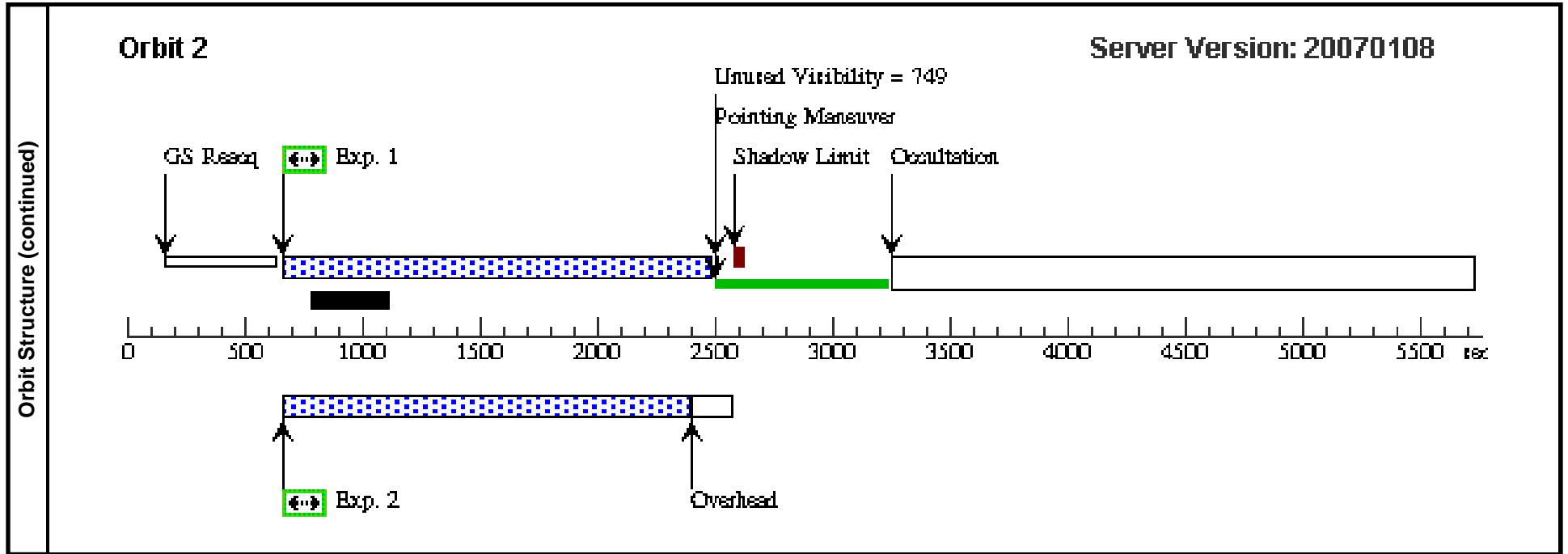


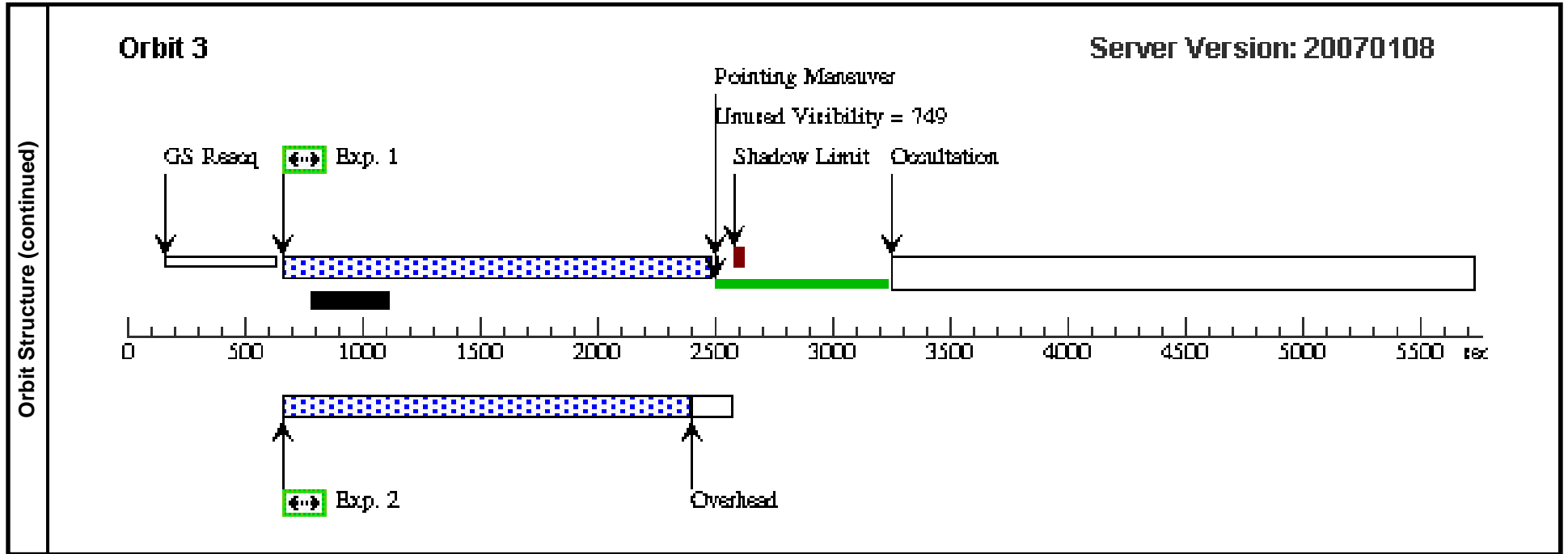
Proposal 10520 - Visit 02 - Resolving the Complex Star Formation History of the Leo I Dwarf Spheroidal Galaxy

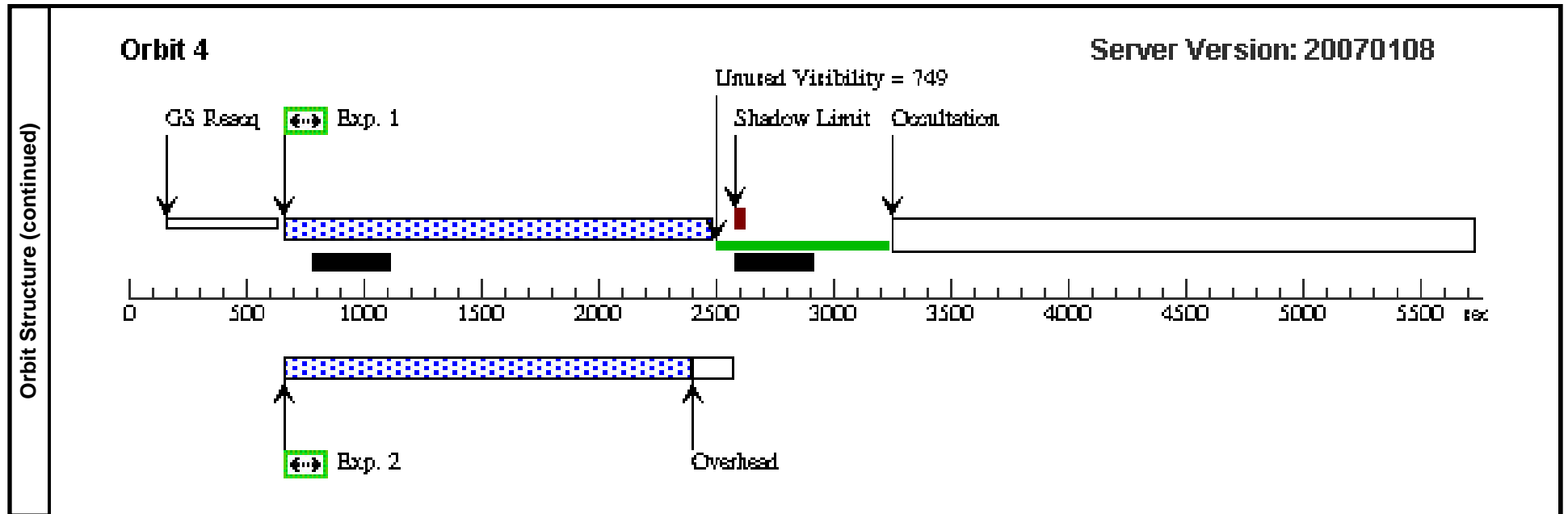
Sat Feb 03 02:02:01 GMT 2007

<b>Visit</b>	<b>Proposal 10520, Visit 02, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: ACS/WFC, WFPC2 Special Requirements: SAME ORIENT AS 01									
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			<b>Exposures</b>
(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)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>		<b>Targ. Coord. Corrections</b>		<b>Fluxes</b>	<b>Miscellaneous</b>		
	(1)	LEO-I	RA: 10 08 22.5000 (152.0937500d) Dec: +12 18 6.00 (12.30167d) Equinox: J2000 Plate Id: (?)				V=28.0	Coordinate Source: GUIDE_STAR_CATALOG		
<i>Comments: This position was chosen to probe the maximum range of galactocentric radii by putting the center of the galaxy near the edge of the ACS frame. This also keeps some bright stars from possibly falling into the WFPC2 field in parallel exposures.</i>										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1	ACS-WFC, B, long exp	(1) LEO-I	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0.25935, 0.01235; SHADOW	Pattern 1-2 (1) Prime + Parallel Group 1-2	1700.0 Secs	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[2]
									[==>(Pattern 3)]	[3]
									[==>(Pattern 4)]	[4]
2	WFPC2par, V, long exp	(1) LEO-I	WFPC2, IMAGE, WFALL	F555W	CR-SPLIT=NO		Pattern 1-2 (1) Prime + Parallel Group 1-2	1600.0 Secs		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[2]	
								[==>(Pattern 3)]	[3]	
								[==>(Pattern 4)]	[4]	









# Proposal 10520 - Visit 03 - Resolving the Complex Star Formation History of the Leo I Dwarf Spheroidal Galaxy

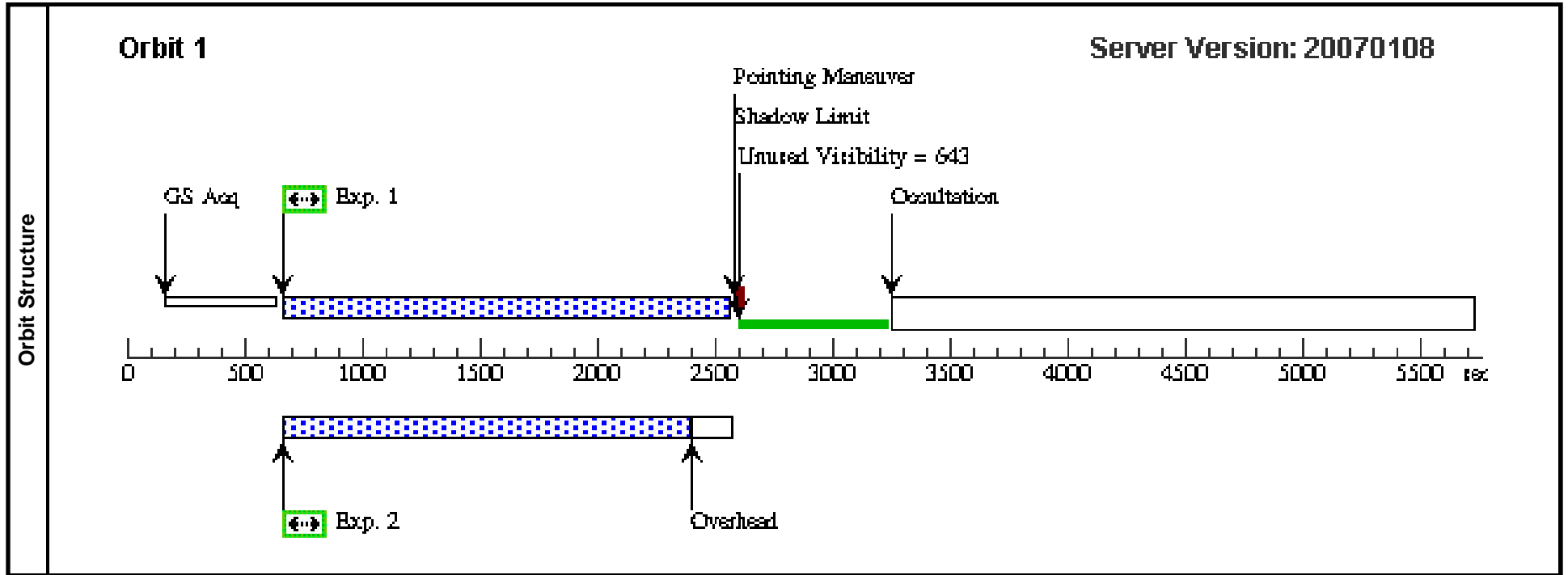
Sat Feb 03 02:02:03 GMT 2007

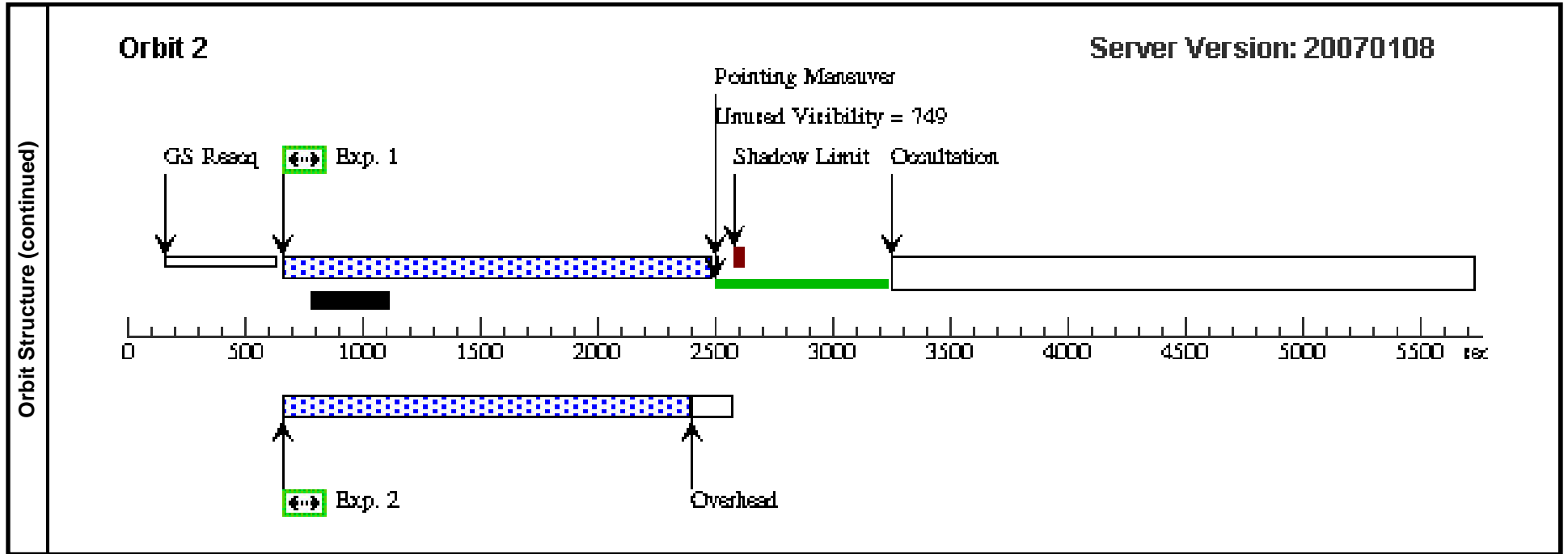
<b>Visit</b>	<b>Proposal 10520, Visit 03, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: ACS/WFC, WFPC2 Special Requirements: SAME ORIENT AS 01									
	<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
(1)		LEO-I	RA: 10 08 22.5000 (152.0937500d) Dec: +12 18 6.00 (12.30167d) Equinox: J2000 Plate Id: (?)		V=28.0	Coordinate Source: GUIDE_STAR_CATALOG				
<i>Comments: This position was chosen to probe the maximum range of galactocentric radii by putting the center of the galaxy near the edge of the ACS frame. This also keeps some bright stars from possibly falling into the WFPC2 field in parallel exposures.</i>										
<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	ACS-WFC, B, long exp	(1) LEO-I	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0.3705,0 .1235; SHADOW	Prime + Parallel Group 1-2	1700.0 Secs [==>]	[1]
	2	WFPC2par, V, long exp	(1) LEO-I	WFPC2, IMAGE, WFALL	F555W	CR-SPLIT=NO		Prime + Parallel Group 1-2	1600.0 Secs [==>]	[1]
<b>Orbit Structure</b>	<div style="display: flex; justify-content: space-between;"> <span><b>Orbit 1</b></span> <span><b>Server Version: 20070108</b></span> </div> <p>Unused Visibility = 667</p> <p>GS Acq</p> <p>Exp. 1</p> <p>Shadow Limit</p> <p>Occultation</p> <p>Exp. 2</p> <p>Overhead</p> <p>0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 sec</p>									

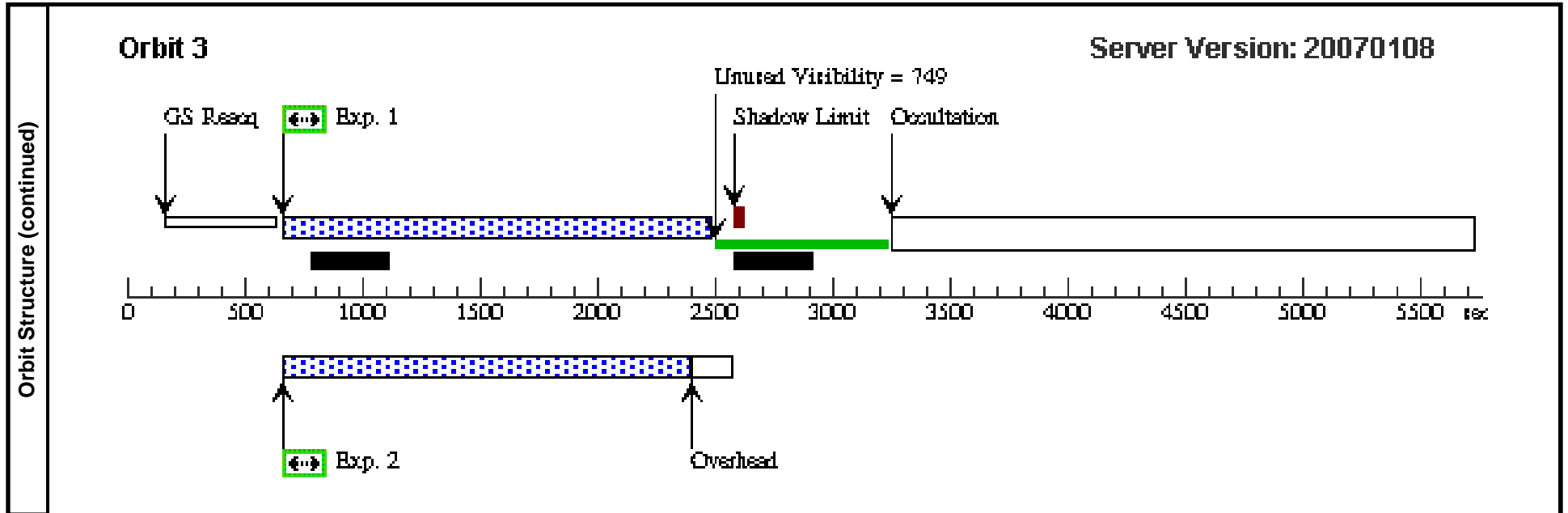
Proposal 10520 - Visit 04 - Resolving the Complex Star Formation History of the Leo I Dwarf Spheroidal Galaxy

Sat Feb 03 02:02:04 GMT 2007

<b>Visit</b>	<b>Proposal 10520, Visit 04, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: ACS/WFC, WFPC2 Special Requirements: SAME ORIENT AS 01									
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			<b>Exposures</b>
(2)		Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=3 Point Spacing=3.011 Line Spacing=				Coordinate Frame=POS-TARG Pattern Orientation=85.3 Angle Between Sides= Center Pattern=false			(1-2)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>		<b>Targ. Coord. Corrections</b>		<b>Fluxes</b>	<b>Miscellaneous</b>		
	(1)	LEO-I	RA: 10 08 22.5000 (152.0937500d) Dec: +12 18 6.00 (12.30167d) Equinox: J2000 Plate Id: (?)				V=28.0	Coordinate Source: GUIDE_STAR_CATALOG		
<i>Comments: This position was chosen to probe the maximum range of galactocentric radii by putting the center of the galaxy near the edge of the ACS frame. This also keeps some bright stars from possibly falling into the WFPC2 field in parallel exposures.</i>										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1	ACS-WFC, I, long exp	(1) LEO-I	ACS/WFC, ACCUM, WFCENTER	F814W	CR-SPLIT=NO	SHADOW	Pattern 1-2 (2) Prime + Parallel Group 1-2	1700.0 Secs	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[2]
									[==>(Pattern 3)]	[3]
	2	WFPC2par, I, long exp	(1) LEO-I	WFPC2, IMAGE, WFALL	F814W	CR-SPLIT=NO		Pattern 1-2 (2) Prime + Parallel Group 1-2	1600.0 Secs	
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[2]	
								[==>(Pattern 3)]	[3]	



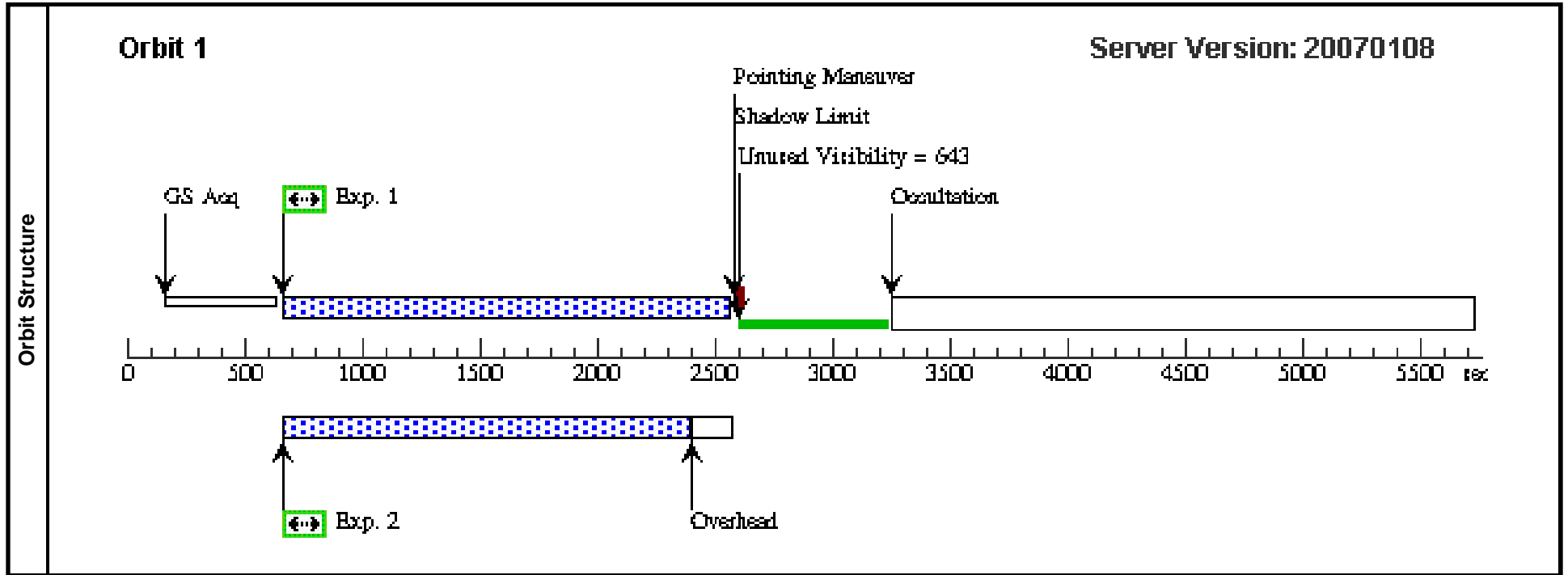


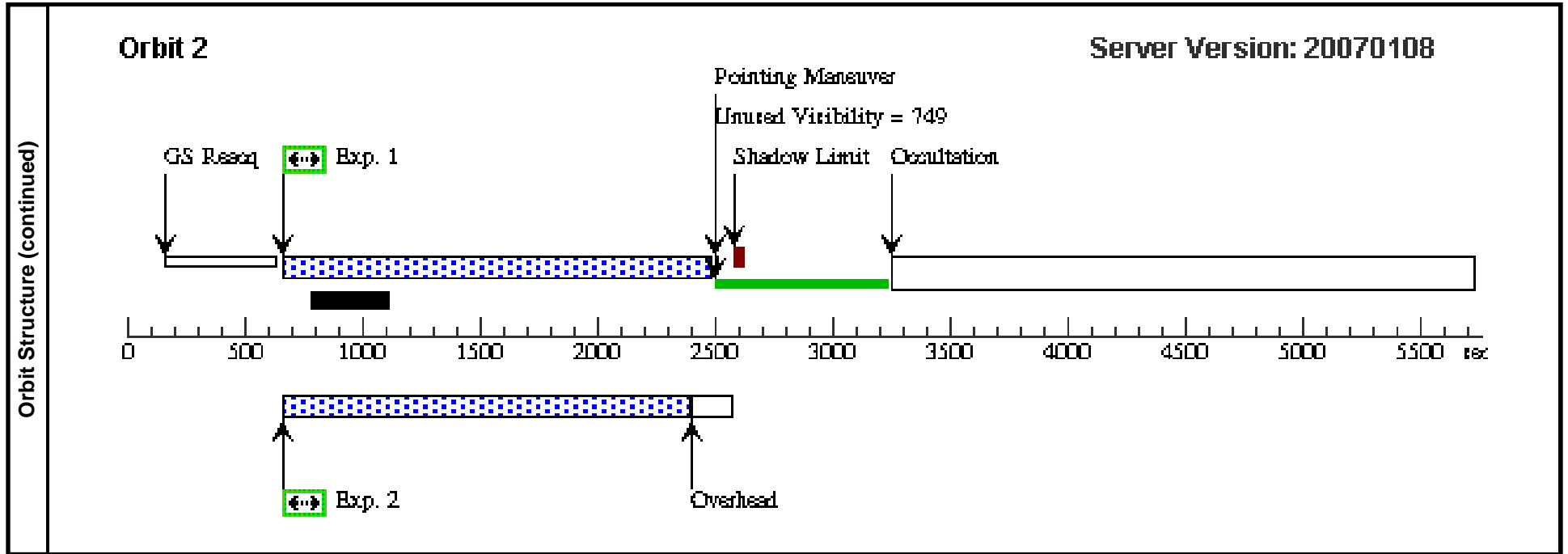


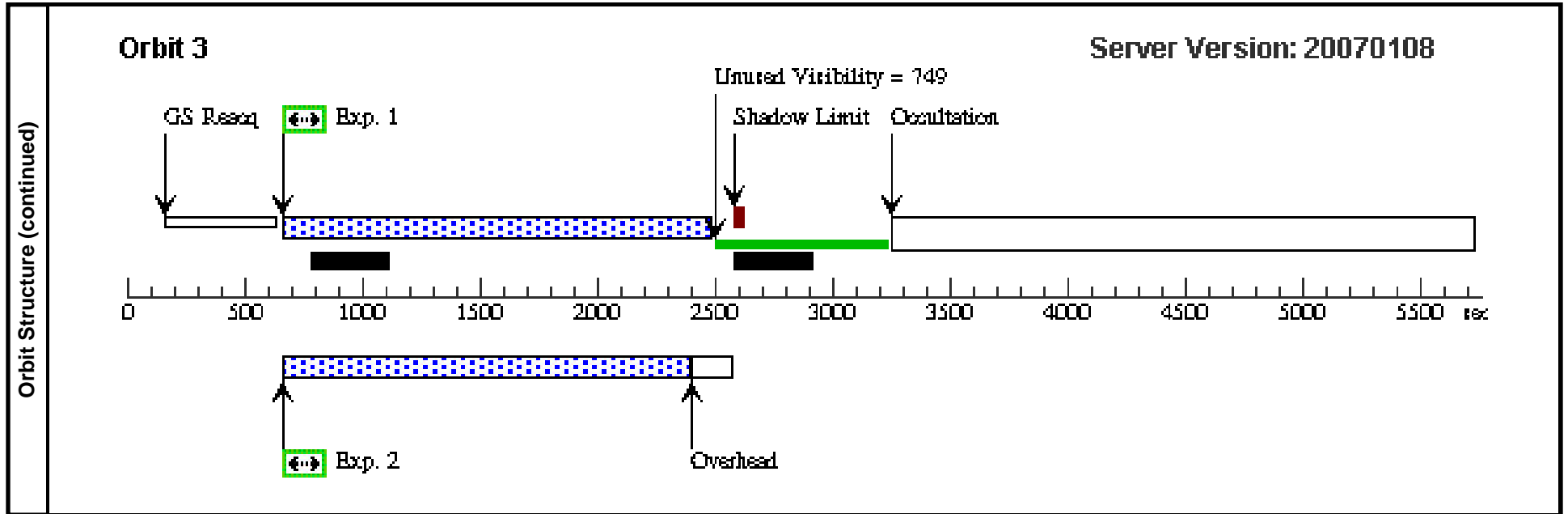
Proposal 10520 - Visit 05 - Resolving the Complex Star Formation History of the Leo I Dwarf Spheroidal Galaxy

Sat Feb 03 02:02:05 GMT 2007

<b>Visit</b>	<b>Proposal 10520, Visit 05, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: ACS/WFC, WFPC2 Special Requirements: SAME ORIENT AS 01									
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			<b>Exposures</b>
(2)		Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=3 Point Spacing=3.011 Line Spacing=				Coordinate Frame=POS-TARG Pattern Orientation=85.3 Angle Between Sides= Center Pattern=false			(1-2)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>		<b>Targ. Coord. Corrections</b>		<b>Fluxes</b>		<b>Miscellaneous</b>	
	(1)	LEO-I	RA: 10 08 22.5000 (152.0937500d) Dec: +12 18 6.00 (12.30167d) Equinox: J2000 Plate Id: (?)				V=28.0		Coordinate Source: GUIDE_STAR_CATALOG	
<i>Comments: This position was chosen to probe the maximum range of galactocentric radii by putting the center of the galaxy near the edge of the ACS frame. This also keeps some bright stars from possibly falling into the WFPC2 field in parallel exposures.</i>										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1	ACS-WFC, I, long exp	(1) LEO-I	ACS/WFC, ACCUM, WFCENTER	F814W	CR-SPLIT=NO	POS TARG 0.25935, 0.01235; SHADOW	Pattern 1-2 (2) Prime + Parallel Group 1-2	1700.0 Secs	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[2]
									[==>(Pattern 3)]	[3]
	2	WFPC2par, I, long exp	(1) LEO-I	WFPC2, IMAGE, WFALL	F814W	CR-SPLIT=NO		Pattern 1-2 (2) Prime + Parallel Group 1-2	1600.0 Secs	
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[2]	
								[==>(Pattern 3)]	[3]	



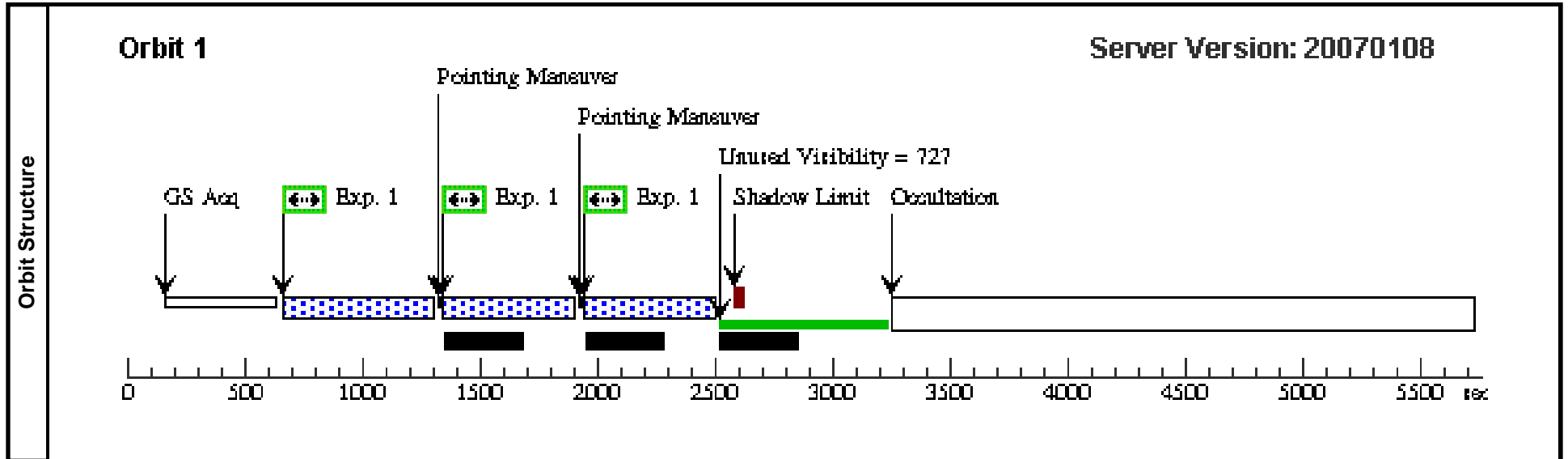




Proposal 10520 - Visit 06 - Resolving the Complex Star Formation History of the Leo I Dwarf Spheroidal Galaxy

Sat Feb 03 02:02:06 GMT 2007

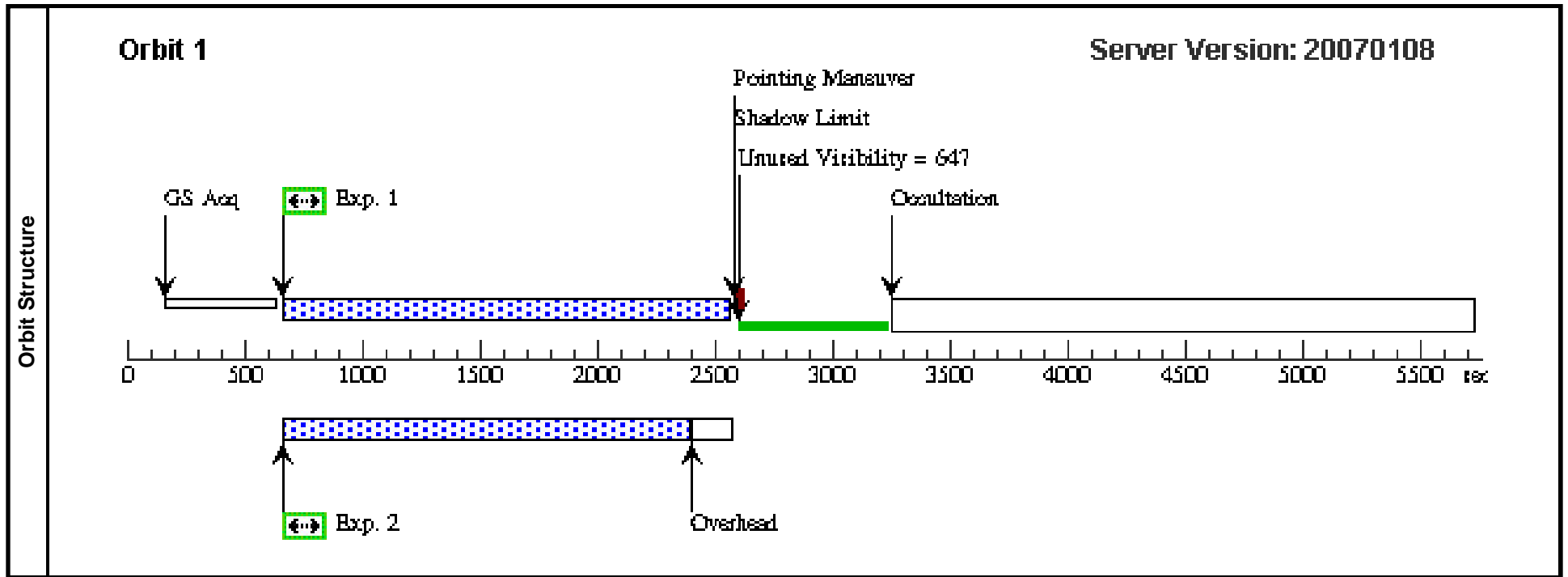
<b>Visit</b>	<b>Proposal 10520, Visit 06, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: ACS/WFC Special Requirements: SAME ORIENT AS 01										
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>				<b>Exposures</b>
(2)		Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=3 Point Spacing=3.011 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=85.3 Angle Between Sides= Center Pattern=false						(1)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>		<b>Targ. Coord. Corrections</b>		<b>Fluxes</b>		<b>Miscellaneous</b>		
	(1)	LEO-I	RA: 10 08 22.5000 (152.0937500d) Dec: +12 18 6.00 (12.30167d) Equinox: J2000 Plate Id: (?)				V=28.0		Coordinate Source: GUIDE_STAR_CATALOG		
<i>Comments: This position was chosen to probe the maximum range of galactocentric radii by putting the center of the galaxy near the edge of the ACS frame. This also keeps some bright stars from possibly falling into the WFPC2 field in parallel exposures.</i>											
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>		<b>Orbit</b>
	1	ACS-WFC, I, short exp	(1) LEO-I	ACS/WFC, ACCUM, WFCENTER	F814W	CR-SPLIT=NO	SHADOW	Pattern 1-1 (2)	440.0 Secs		
									[=>(Pattern 1)]		
									[=>(Pattern 2)]		
									[=>(Pattern 3)]	[1]	

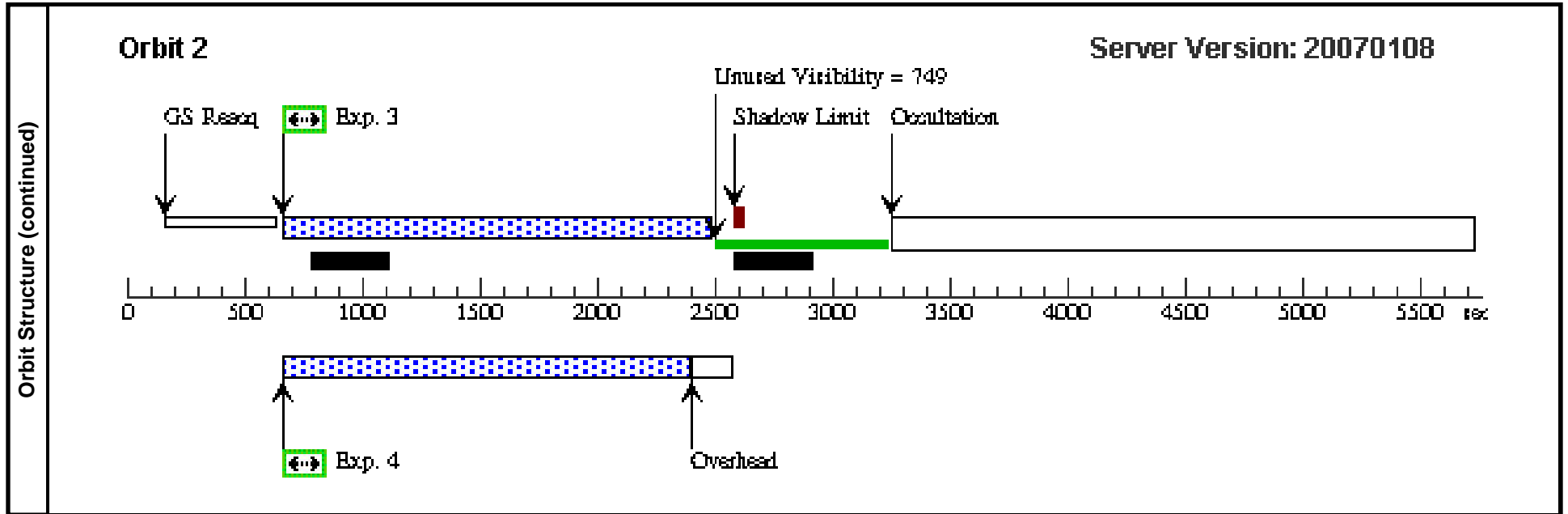


# Proposal 10520 - Visit 51 - Resolving the Complex Star Formation History of the Leo I Dwarf Spheroidal Galaxy

Sat Feb 03 02:02:07 GMT 2007

Visit	<b>Proposal 10520, Visit 51, withdrawn</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: ACS/WFC, WFPC2 Special Requirements: ORIENT 314.0D TO 314.0 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(1)	LEO-I	RA: 10 08 22.5000 (152.0937500d) Dec: +12 18 6.00 (12.30167d) Equinox: J2000 Plate Id: (?)		V=28.0	Coordinate Source: GUIDE_STAR_CATALOG				
	<i>Comments: This position was chosen to probe the maximum range of galactocentric radii by putting the center of the galaxy near the edge of the ACS frame. This also keeps some bright stars from possibly falling into the WFPC2 field in parallel exposures.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	ACS-WFC, B, long exp	(1) LEO-I	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0.248,0.094; SHADOW	Prime + Parallel Group 1-2	1700.0 Secs [==>]	[1]
	2	WFPC2par, V, long exp	ANY	WFPC2, IMAGE, WFALL	F555W	CR-SPLIT=NO		Prime + Parallel Group 1-2	1600.0 Secs [==>]	[1]
	3	ACS-WFC, B, long exp	(1) LEO-I	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0.124,0.233; SHADOW	Prime + Parallel Group 3-4	1700.0 Secs [==>]	[2]
	4	WFPC2par, V, long exp	ANY	WFPC2, IMAGE, WFALL	F555W	CR-SPLIT=NO		Prime + Parallel Group 3-4	1600.0 Secs [==>]	[2]

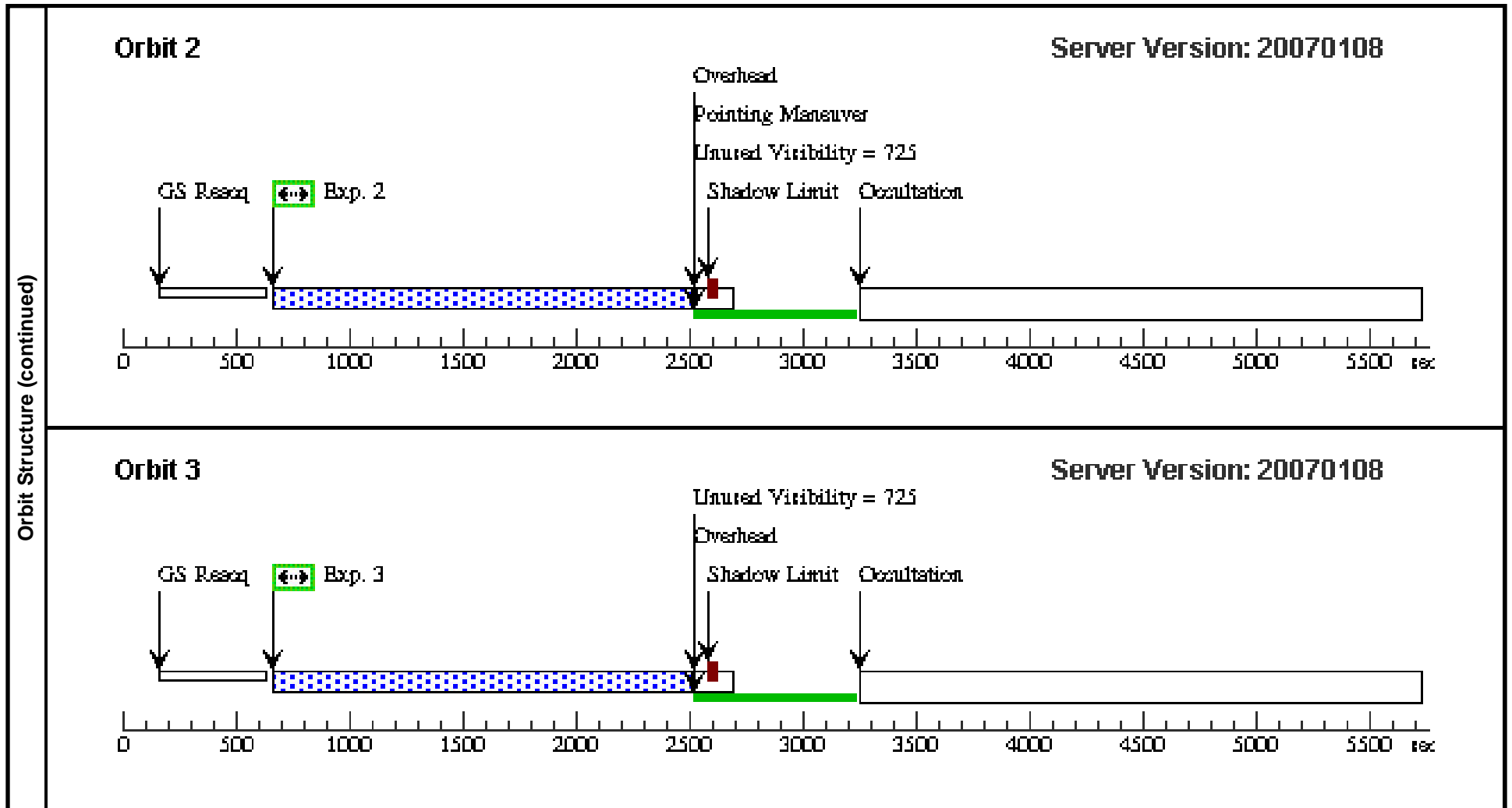




Proposal 10520 - Visit 52 - Resolving the Complex Star Formation History of the Leo I Dwarf Spheroidal Galaxy

Sat Feb 03 02:02:07 GMT 2007

<b>Visit</b>	Proposal 10520, Visit 52, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFPC2 Special Requirements: ORIENT 278.0D TO 278.0 D									
	<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
(2)		LEO-I-B	RA: 10 08 24.5000 (152.1020833d) Dec: +12 18 5.00 (12.30139d) Equinox: J2000 Plate Id: (?)		V=28.0	Coordinate Source: GUIDE_STAR_CATALOG				
<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	WFPC2, B, 1 (2) LEO-I-B ong exp	(2) LEO-I-B	WFPC2, IMAGE, WFALL	F450W	CR-SPLIT=NO	SHADOW		1700.0 Secs [==>]	[1]
	2	WFPC2, B, 1 (2) LEO-I-B ong exp	(2) LEO-I-B	WFPC2, IMAGE, WFALL	F450W	CR-SPLIT=NO	POS TARG 2.5,2.5; SHADOW		1700.0 Secs [==>]	[2]
	3	WFPC2, B, 1 (2) LEO-I-B ong exp	(2) LEO-I-B	WFPC2, IMAGE, WFALL	F450W	CR-SPLIT=NO	POS TARG 5.25,5.2 5; SHADOW		1700.0 Secs [==>]	[3]
<b>Orbit Structure</b>	<p><b>Orbit 1</b> <span style="float: right;"><b>Server Version: 20070108</b></span></p>									
	<p>Timeline labels: GS Acq, Exp. 1, Pointing Maneuver, Unused Visibility = 725, Overhead, Shadow Limit, Occultation.</p> <p>X-axis: 0, 500, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 5500 sec</p>									



Proposal 10520 - Visit 53 - Resolving the Complex Star Formation History of the Leo I Dwarf Spheroidal Galaxy

Sat Feb 03 02:02:08 GMT 2007

<b>Visit</b>	<b>Proposal 10520, Visit 53, implementation</b>				
	<b>Diagnostic Status: No Diagnostics</b>				
	Scientific Instruments: WFPC2				
	Special Requirements: ORIENT 278.0D TO 278.0 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(3)	LEO-I-C	RA: 10 08 20.3000 (152.0845833d) Dec: +12 18 14.00 (12.30389d) Equinox: J2000 Plate Id: (?)		V=28.0	Coordinate Source: GUIDE_STAR_CATALOG

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	WFPC2, B, 1 (3) LEO-I-C ong exp	(3) LEO-I-C	WFPC2, IMAGE, WFALL	F450W	CR-SPLIT=NO	SHADOW		1700.0 Secs [==>]	[1]
	2	WFPC2, B, 1 (3) LEO-I-C ong exp	(3) LEO-I-C	WFPC2, IMAGE, WFALL	F450W	CR-SPLIT=NO	POS TARG 2.5,2.5; SHADOW		1700.0 Secs [==>]	[2]
	3	WFPC2, B, 1 (3) LEO-I-C ong exp	(3) LEO-I-C	WFPC2, IMAGE, WFALL	F450W	CR-SPLIT=NO	POS TARG 5.25,5.2 5; SHADOW		1700.0 Secs [==>]	[3]

