11591 - Are Low-Luminosity Galaxies Responsible for Cosmic Reionization?

Cycle: 17, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
12	(12) ABELL-370-WFC3	WFC3/IR	2	24-Jun-2009 21:06:43.0	yes
13	(13) ABELL-1835-WFC3	WFC3/IR	2	24-Jun-2009 21:06:48.0	yes
14	(4) ABELL-S1077	WFC3/IR	2	24-Jun-2009 21:06:53.0	yes
15	(15) ABELL-68-WFC3	WFC3/IR	2	24-Jun-2009 21:07:01.0	yes
16	(16) CLG-J1347-1145-WFC3	WFC3/IR	2	24-Jun-2009 21:07:06.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
17	(7) CLG-0657-56	WFC3/IR	2	24-Jun-2009 21:07:10.0	yes
18	(8) ABELL2218	WFC3/IR	1	24-Jun-2009 21:07:14.0	yes
19	(9) MS1358+62	WFC3/IR	1	24-Jun-2009 21:07:18.0	yes
10	(10) MACSJ0454-0300	WFC3/IR	2	24-Jun-2009 21:07:21.0	yes
11	(1) ABELL-773	WFC3/IR	2	24-Jun-2009 21:07:25.0	yes
25	(5) ABELL-68	ACS/WFC	4	24-Jun-2009 21:07:30.0	yes
22	(2) ABELL-370	ACS/WFC	4	24-Jun-2009 21:07:35.0	yes
27	(7) CLG-0657-56	ACS/WFC	2	24-Jun-2009 21:07:42.0	yes
26	(6) CLG-J1347-1145	ACS/WFC	1	24-Jun-2009 21:07:45.0	yes
29	(9) MS1358+62	ACS/WFC	1	24-Jun-2009 21:07:47.0	yes
21	(1) ABELL-773	ACS/WFC	4	24-Jun-2009 21:07:51.0	yes
24	(4) ABELL-S1077	ACS/WFC	3	24-Jun-2009 21:07:55.0	yes
23	(3) ABELL-1835	ACS/WFC	3	24-Jun-2009 21:07:59.0	yes
20	(10) MACSJ0454-0300	ACS/WFC	3	24-Jun-2009 21:08:03.0	yes

43 Total Orbits Used

ABSTRACT

Our group has demonstrated that massive clusters, acting as powerful cosmic lenses, can constrain the abundance and properties of low-luminosity star-forming sources beyond z~6; such sources are thought to be responsible for ending cosmic reionization. The large magnification possible in the critical regions of well-constrained clusters brings sources into view that lie at or beyond the limits of conventional exposures such as the UDF. We have shown that the combination of HST and Spitzer is particularly effective in delivering the physical properties of these distant sources, constraining their mass, age and past star formation history. Indirectly, we therefore gain a valuable glimpse to yet earlier epochs. Recognizing the

result (and limitations) of blank field surveys, we propose a systematic search through 10 lensing clusters with ACS/F814W and WFC3/[F110W+F160W] (in conjunction with existing deep IRAC data). Our goal is to measure with great accuracy the luminosity function at z~7 over a range of at least 3 magnitude, based on the identification of about 50 lensed galaxies at 6.5<z<8. Our survey will mitigate cosmic variance and extend the search both to lower luminosities and, by virtue of the WFC3/IRAC combination, to higher redshift. Thanks to the lensing amplification spectroscopic follow-up will be possible and make our findings the most robust prior to the era of JWST and the ELTs.

OBSERVING DESCRIPTION

We are conducting here, an imaging survey (in F814W, F110W and F160W) of 10 massive clusters known to be very efficient gravitational lenses.
To maximize depth, we will used either LOW-SKY (for 8 out of 10 clusters) or CVZ (for A2218 and MS1358).
In general, we will do 4 orbits in F814W, and 1 orbit for each F110W and F160W. However because some clusters have already been observed in the I-band with ACS, we will observe those cluster with only 1, 2 or 3 orbits.
To maximize the image quality (allowing to remove cosmic rays and detectors defects), we will use dither patterns both fo ACS and WFC3/IR. For each filter observation a minimum of 4 up to 8 images will be taken.

REAL TIME JUSTIFICATION

None

CALIBRATION JUSTIFICATION

None

ADDITIONAL COMMENTS

None

Visit

Proposal 11591, Visit 12, implementation Thu Jun 25 01:08:07 GMT 2009

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 15D TO 44 D

Comments: 1 orbit in f110w and 1 orbit in f160w on Abell 370

We implemented a loose ORIENT constraint to remove possible contamination by 2 bright stars (extreme saturation level on the BOT scale). We verified that such constraint was not impacting much the schedulability of the observation.

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(3)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=1.716 Line Spacing=1.095	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

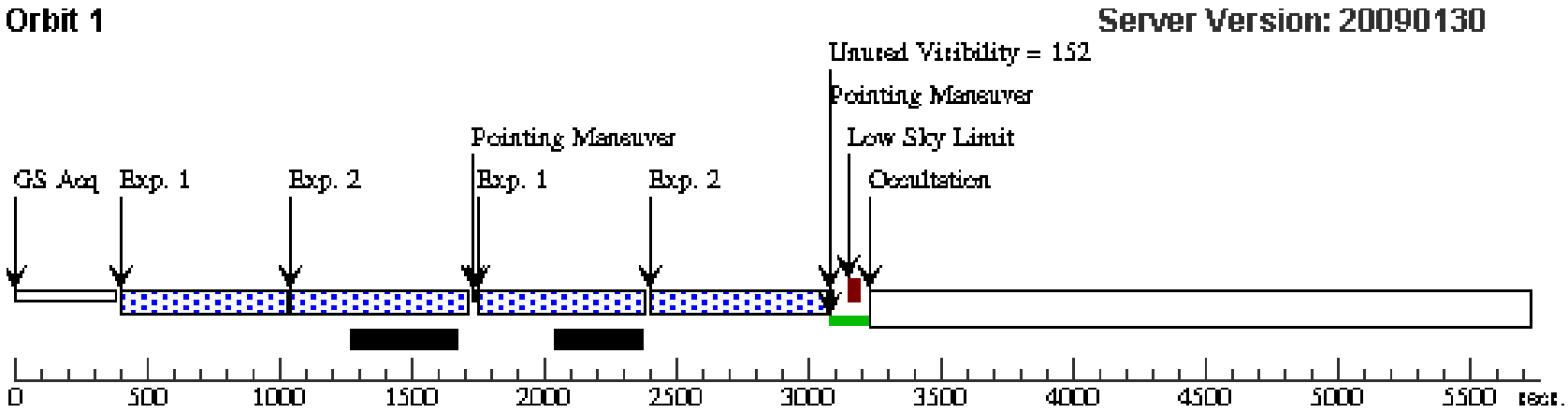
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(12)	ABELL-370-WFC3	RA: 02 39 53.9000 (39.9745833d) Dec: -01 34 32.40 (-1.57567d) Equinox: J2000		V=27	Reference Frame: ICRS

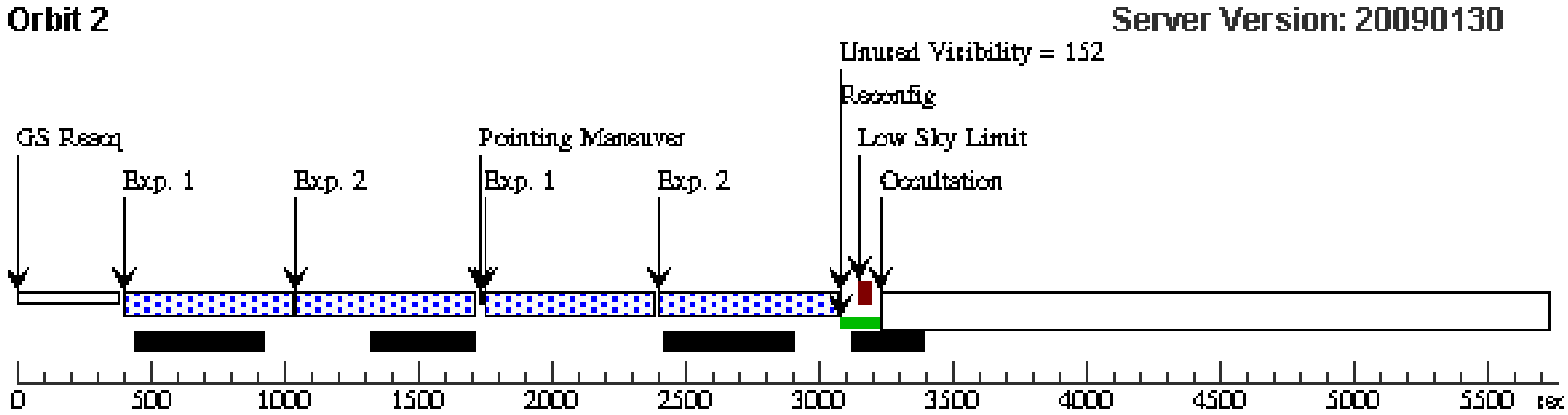
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(12) ABELL-370-WFC3	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=13; SAMP-SEQ=SPARS50	LOW-SKY; GS ACQ SCENARIO BASE1B3	Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)] *[==>(Pattern 4)]*	***[2]***
2		(12) ABELL-370-WFC3	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=14; SAMP-SEQ=SPARS50	LOW-SKY	Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)] *[==>(Pattern 4)]*	***[2]***

Orbit Structure





Visit

Proposal 11591, Visit 13, implementation Thu Jun 25 01:08:08 GMT 2009

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 125D TO 145 D

Comments: 1 orbit in f110w and 1 orbit in f160w on a1835

We implemented a loose ORIENT constraint to remove possible contamination by 1 bright star (extreme saturation level on the BOT scale). We verified that such constraint was not impacting much the schedulability of the observation.

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(3)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=1.716 Line Spacing=1.095	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

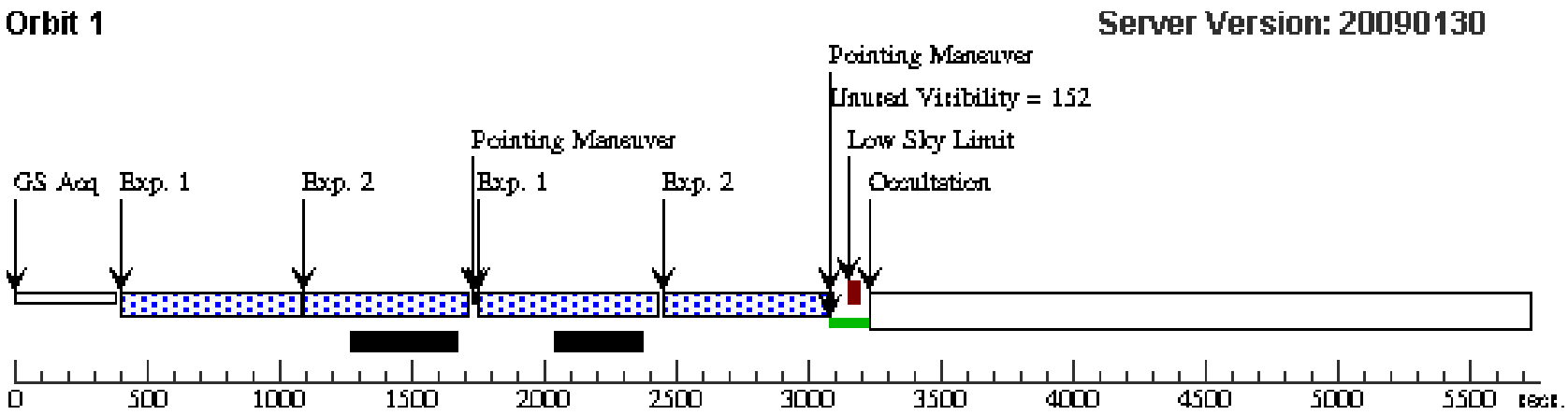
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(13)	ABELL-1835-WFC3	RA: 14 01 1.5000 (210.2562500d) Dec: +02 52 22.00 (2.87278d) Equinox: J2000		V=27	Reference Frame: ICRS

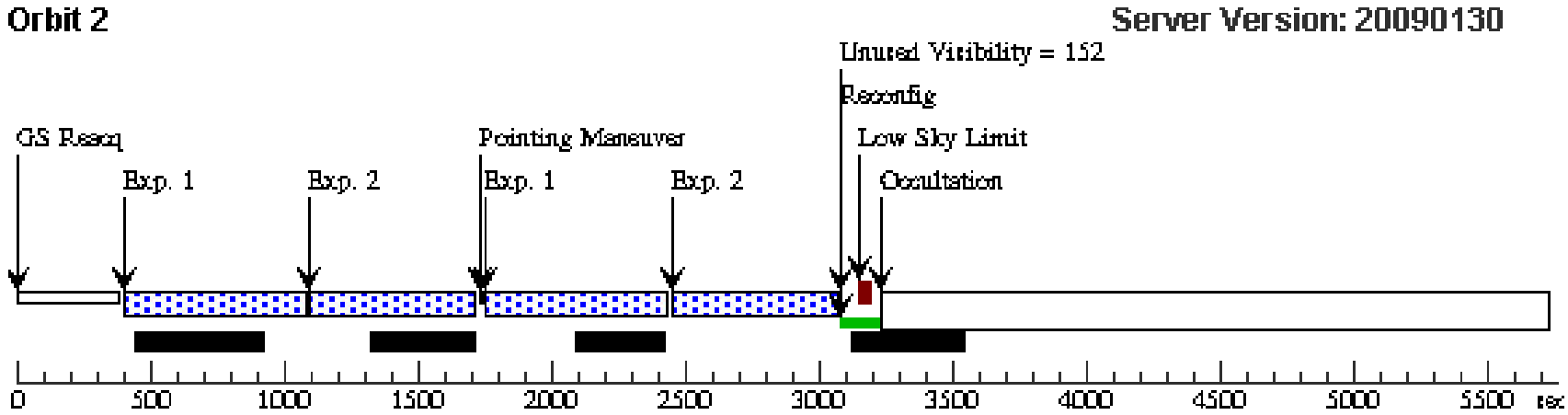
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(13) ABELL-1835-WFC3	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=14; SAMP-SEQ=SPARS50	LOW-SKY	Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)] *[==>(Pattern 4)]*	***[2]***
2		(13) ABELL-1835-WFC3	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=13; SAMP-SEQ=SPARS50	LOW-SKY	Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)] *[==>(Pattern 4)]*	***[2]***

Orbit Structure





Visit

Proposal 11591, Visit 14, implementation Thu Jun 25 01:08:08 GMT 2009

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 20D TO 60 D

Comments: 1 orbit in f110w and 1 orbit in f160w on AS1077

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(3)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=1.716 Line Spacing=1.095	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

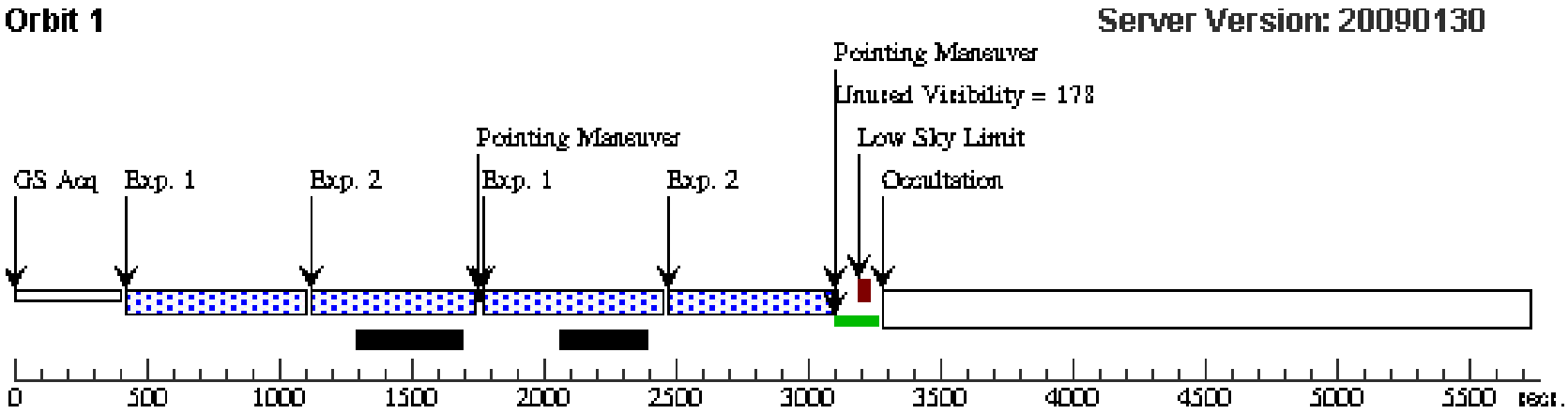
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	ABELL-S1077	RA: 22 58 48.3000 (344.7012500d) Dec: -34 48 9.00 (-34.80250d) Equinox: J2000		V=27	Reference Frame: ICRS

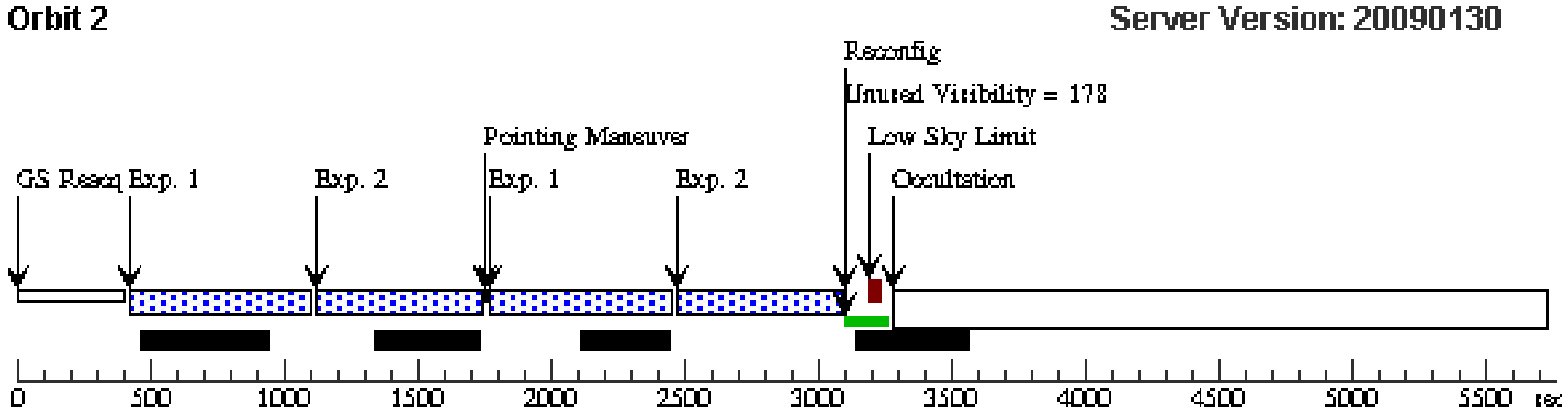
Comments: This object was generated by the targetselector and retrieved from the NED database.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(4) ABELL-S1077	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=14; SAMP-SEQ=SPARS50	LOW-SKY	Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)] *[==>(Pattern 4)]*	***[2]***
2		(4) ABELL-S1077	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=13; SAMP-SEQ=SPARS50	LOW-SKY	Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)] *[==>(Pattern 4)]*	***[2]***

Orbit Structure





Visit

Proposal 11591, Visit 15, implementation Thu Jun 25 01:08:09 GMT 2009

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 60D TO 80 D

Comments: 1 orbit in f110w and 1 orbit in f160w on abell 68

We implemented a loose ORIENT constraint to remove possible contamination by 2 bright stars (extreme saturation level on the BOT scale). We verified that such constraint was not impacting much the schedulability of the observation.

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(3)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=1.716 Line Spacing=1.095	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

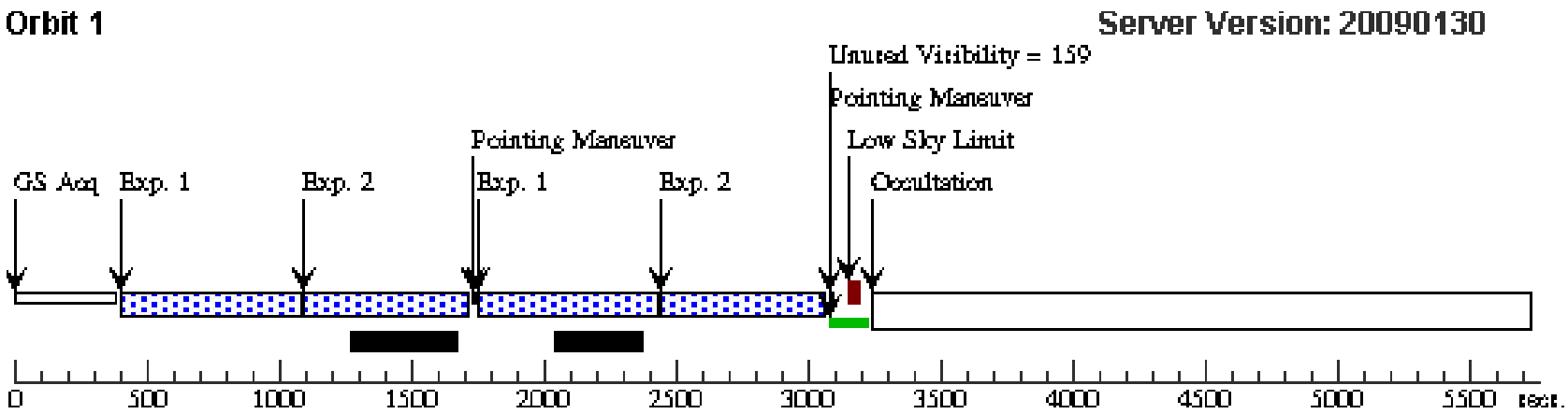
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(15)	ABELL-68-WFC3	RA: 00 37 5.4200 (9.2725833d) Dec: +09 10 3.00 (9.16750d) Equinox: J2000		V=27	Reference Frame: ICRS

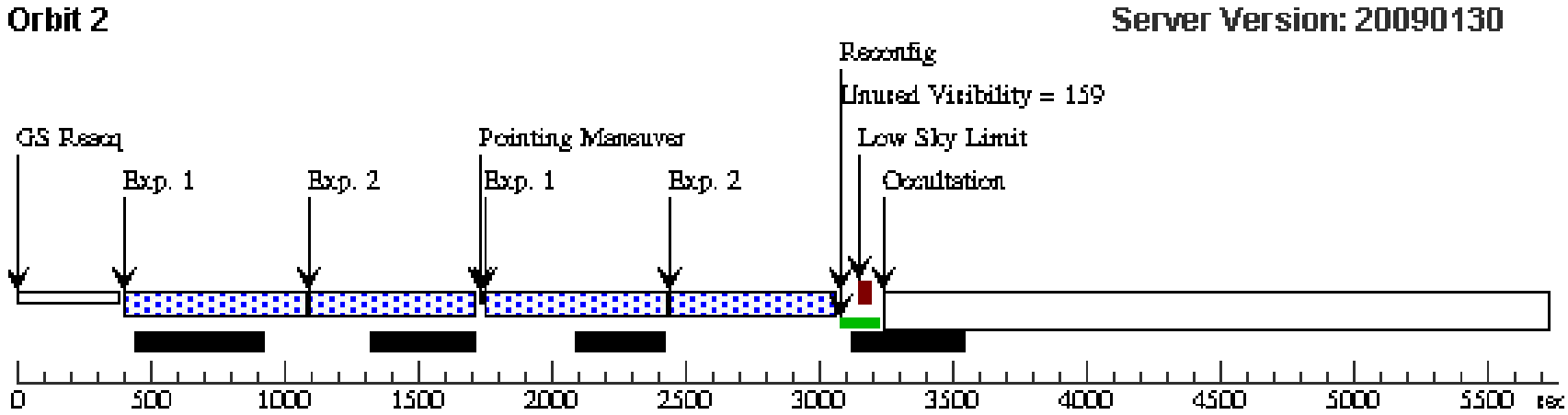
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(15) ABELL-68-WFC3	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=14; SAMP-SEQ=SPARS50	LOW-SKY	Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)] *[==>(Pattern 4)]*	***[2]***
2		(15) ABELL-68-WFC3	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=13; SAMP-SEQ=SPARS50	LOW-SKY	Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)] *[==>(Pattern 4)]*	***[2]***

Orbit Structure





Visit

Proposal 11591, Visit 16, implementation Thu Jun 25 01:08:09 GMT 2009

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 50D TO 90 D

Comments: 1 orbit in f110w and 1 orbit in f160w on RXJ1347

We implemented a loose ORIENT constraint to remove possible contamination by 1 bright star (extreme saturation level on the BOT scale). We verified that such constraint was not impacting much the schedulability of the observation.

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(3)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=1.716 Line Spacing=1.095	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

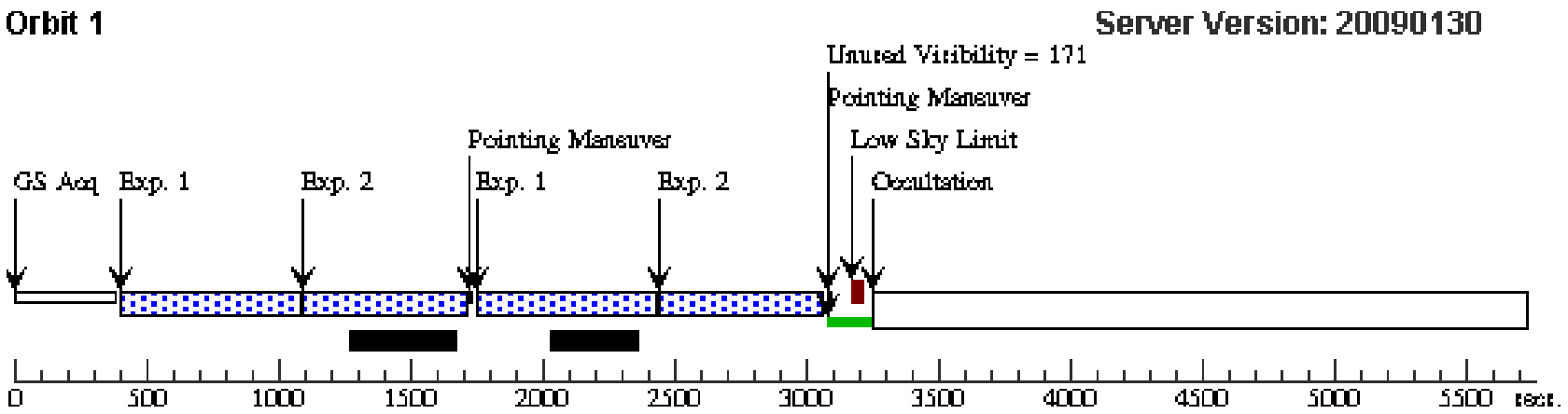
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(16)	CLG-J1347-1145-WFC3	RA: 13 47 31.5000 (206.8812500d) Dec: -11 45 20.00 (-11.75556d) Equinox: J2000		V=27	Reference Frame: ICRS

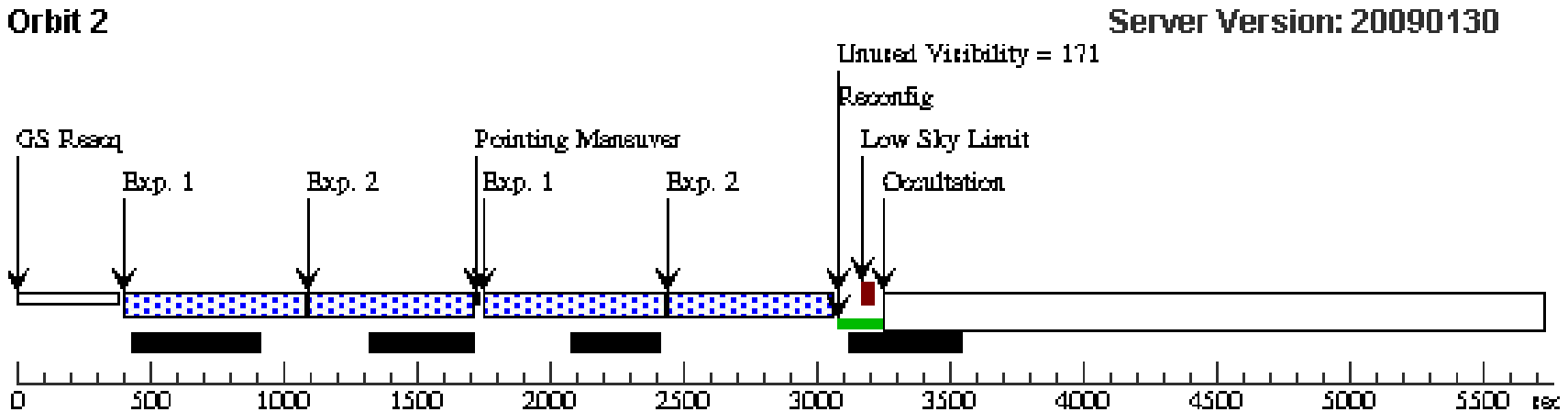
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(16) CLG-J1347-1145-WFC3	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=14; SAMP-SEQ=SPARS50	LOW-SKY	Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)] *[==>(Pattern 4)]*	***[2]***
2		(16) CLG-J1347-1145-WFC3	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=13; SAMP-SEQ=SPARS50	LOW-SKY	Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)] *[==>(Pattern 4)]*	***[2]***

Orbit Structure





Visit

Proposal 11591, Visit 17, implementation Thu Jun 25 01:08:09 GMT 2009

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 320D TO 345 D; ORIENT 140D TO 165 D; ORIENT 50D TO 75 D; ORIENT 230D TO 255 D

Comments: 1 orbit in f110w and 1 orbit in f160w on the bullet cluster

We finally are not using LOWSKY for this cluster as it means a big reduction in exposure time, thus making it less competitive.
We implemented a loose ORIENT constraint to remove possible contamination by 1 bright star (extreme saturation level on the BOT scale). We verified that such constraint was not impacting much the schedulability of the observation.

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(3)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=1.716 Line Spacing=1.095	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

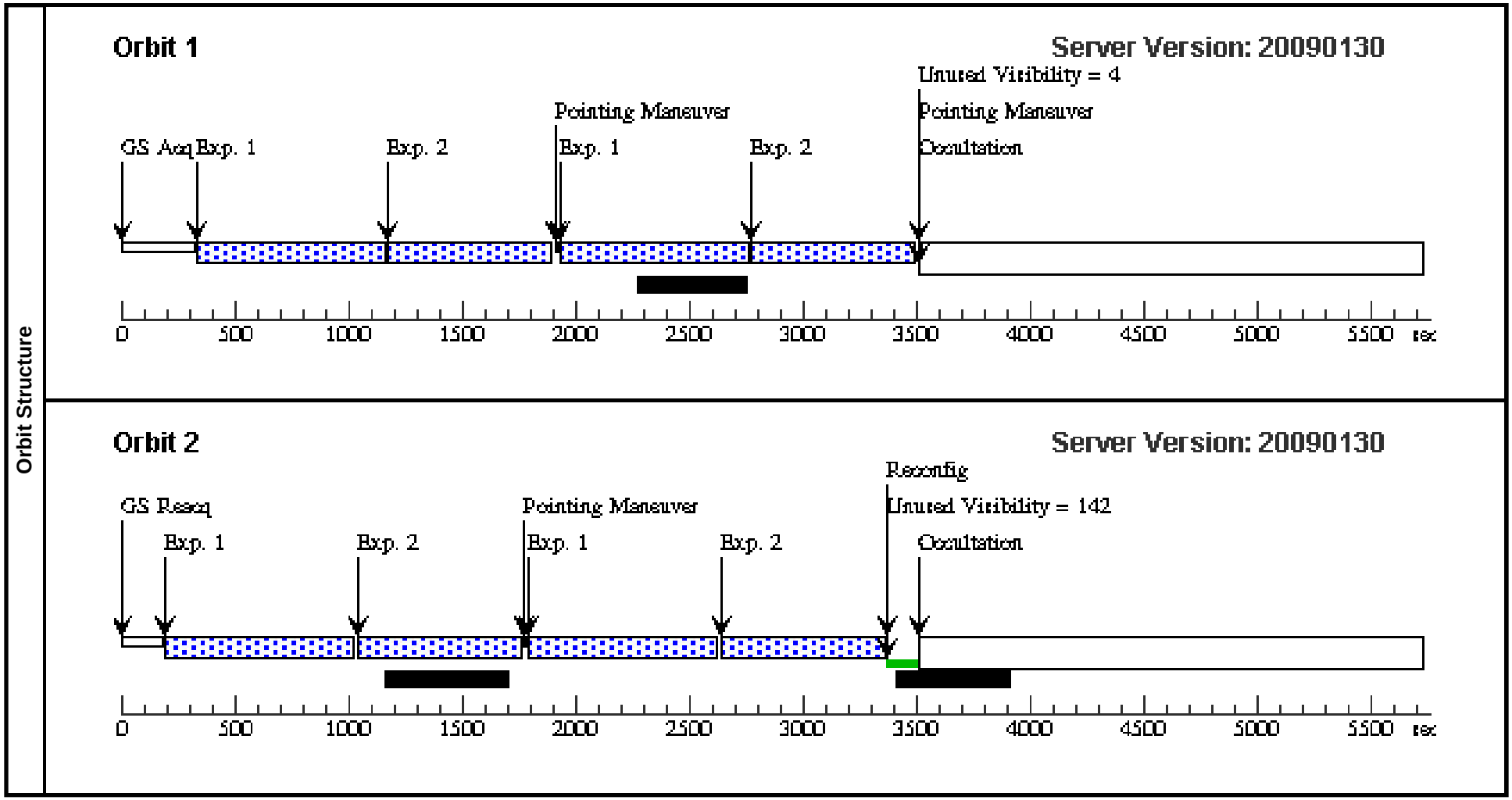
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	CLG-0657-56	RA: 06 58 34.2400 (104.6426667d) Dec: -55 57 11.00 (-55.95306d) Equinox: J2000		V=27	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(7) CLG-0657-56	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=9; SAMP-SEQ=SPARS100		Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)] *[==>(Pattern 4)]*	***[2]***
2		(7) CLG-0657-56	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=8; SAMP-SEQ=SPARS100		Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)] *[==>(Pattern 4)]*	***[2]***


Orbit Structure
Orbit 1
Server Version: 20090130
Unused Visibility = 4
Pointing Maneuver
Pointing Maneuver
GS Acq
Exp. 1
Exp. 2
Exp. 1
Exp. 2
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec
Orbit 2
Server Version: 20090130
Reconfig
GS Reacq
Pointing Maneuver
Unused Visibility = 142
Exp. 1
Exp. 2
Exp. 1
Exp. 2
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11591, Visit 18, implementation Thu Jun 25 01:08:10 GMT 2009

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: CVZ

Comments: 1 CVZ orbit in f110w and in f160w on a2218

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(3)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=1.716 Line Spacing=1.095	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

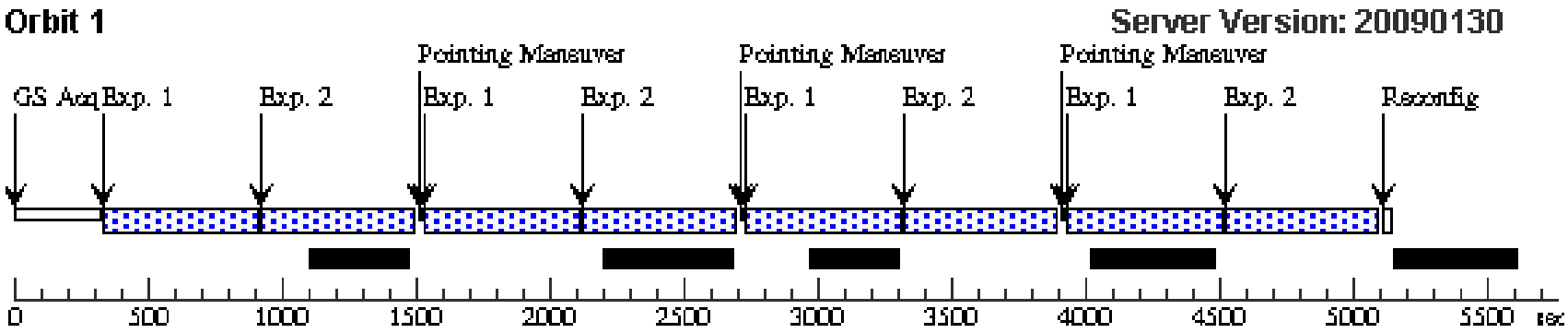
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	ABELL2218	RA: 16 35 52.0000 (248.9666667d) Dec: +66 12 30.00 (66.20833d) Equinox: J2000		V=27	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(8) ABELL2218	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=12; SAMP-SEQ=SPARS50		Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		(8) ABELL2218	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=12; SAMP-SEQ=SPARS50		Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***

Orbit Structure



Visit

Proposal 11591, Visit 19, implementation Thu Jun 25 01:08:10 GMT 2009

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: CVZ

Comments: 1 CVZ orbit in f110w and in f160w on ms1358

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(3)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=1.716 Line Spacing=1.095	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

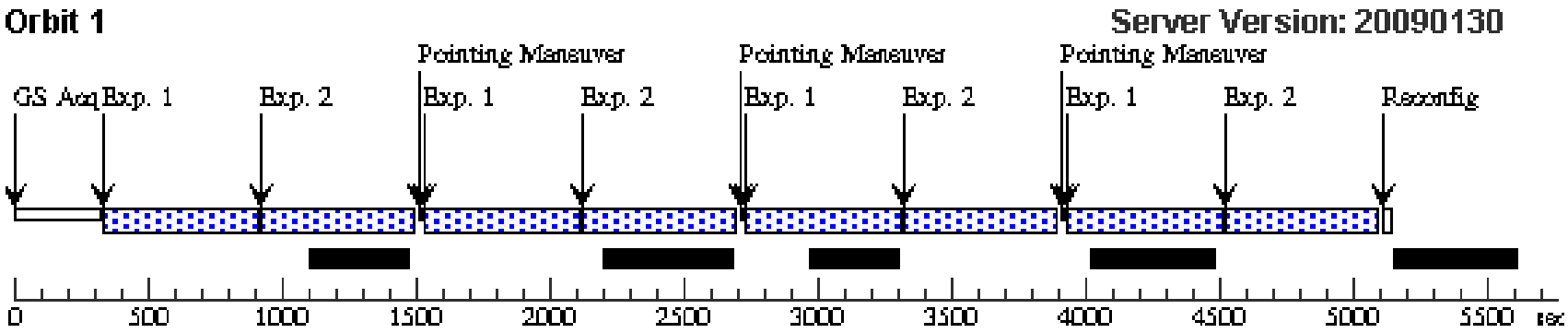
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	MS1358+62	RA: 13 59 50.5000 (209.9604167d) Dec: +62 31 6.50 (62.51847d) Equinox: J2000		V=27	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(9) MS1358+62	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=12; SAMP-SEQ=SPARS50		Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		(9) MS1358+62	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=12; SAMP-SEQ=SPARS50		Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***

Orbit Structure



Visit

Proposal 11591, Visit 10, implementation Thu Jun 25 01:08:10 GMT 2009

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 30D TO 100.0 D

Comments: 1 orbit in f110w and 1 orbit in f160w on MS0451

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(3)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=1.716 Line Spacing=1.095	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

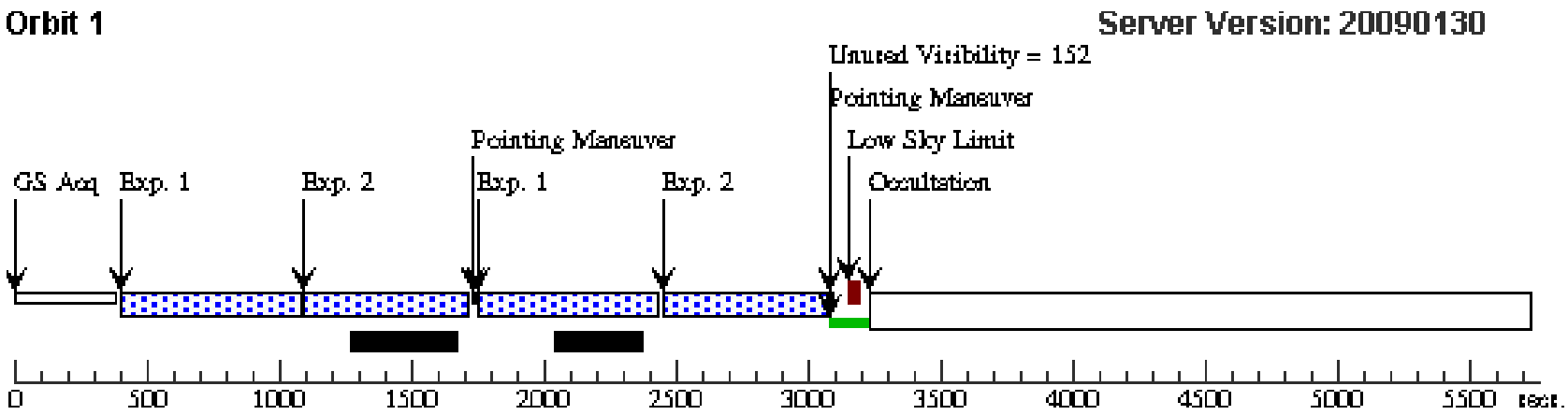
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	MACSJ0454-0300	RA: 04 54 10.9000 (73.5454167d) Dec: -03 00 54.00 (-3.01500d) Equinox: J2000		V=27	Reference Frame: ICRS

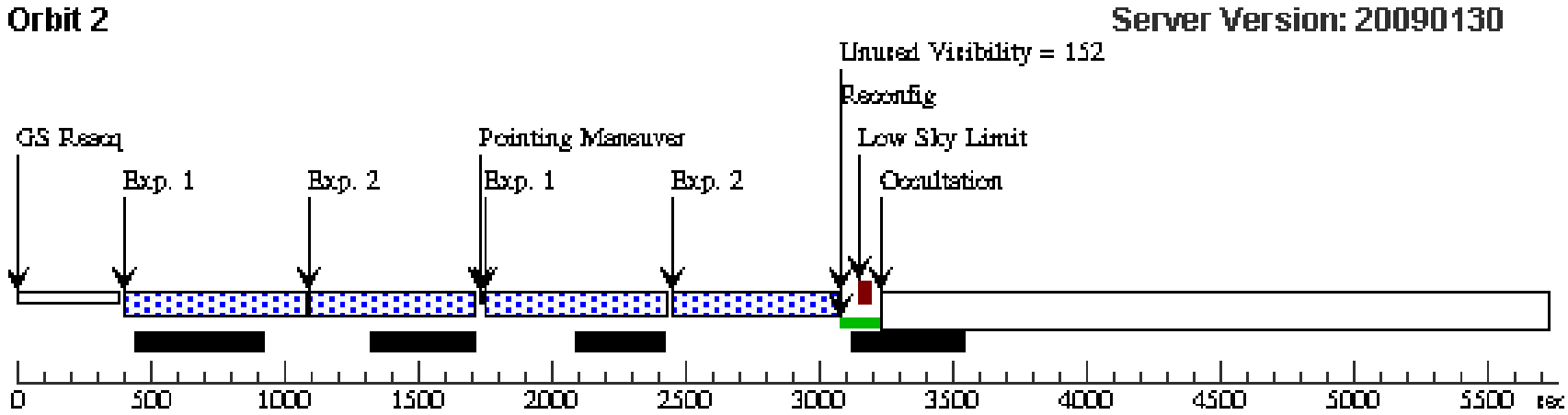
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(10) MACSJ0454-0300	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=14; SAMP-SEQ=SPARS50	LOW-SKY	Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)] *[==>(Pattern 4)]*	***[2]***
2		(10) MACSJ0454-0300	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=13; SAMP-SEQ=SPARS50	LOW-SKY	Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)] *[==>(Pattern 4)]*	***[2]***

Orbit Structure





Visit

Proposal 11591, Visit 11, implementation Thu Jun 25 01:08:11 GMT 2009

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 100D TO 140 D

Comments: 1 orbit in f110w and 1 orbit in f160w on Abell 773

We implemented a loose ORIENT constraint to remove possible contamination by 1 bright star (extreme saturation level on the BOT scale). We verified that such constraint was not impacting much the schedulability of the observation.

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(3)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=1.716 Line Spacing=1.095	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

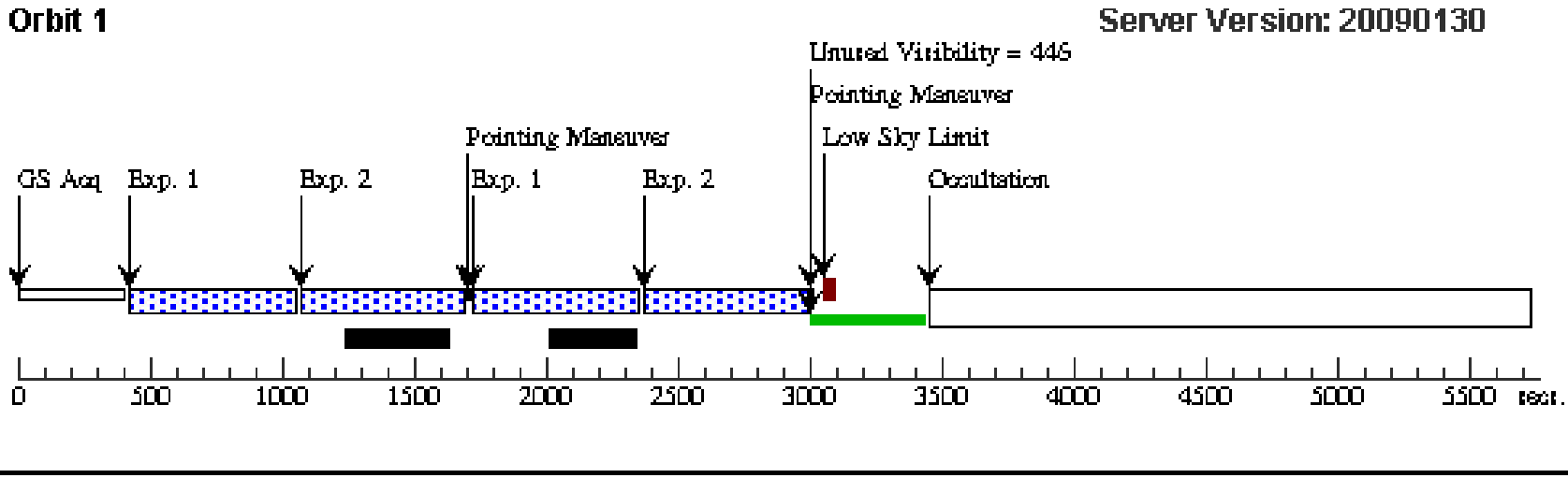
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	ABELL-773	RA: 09 17 56.2000 (139.4841667d) Dec: +51 43 47.00 (51.72972d) Equinox: J2000		V=27	Reference Frame: ICRS

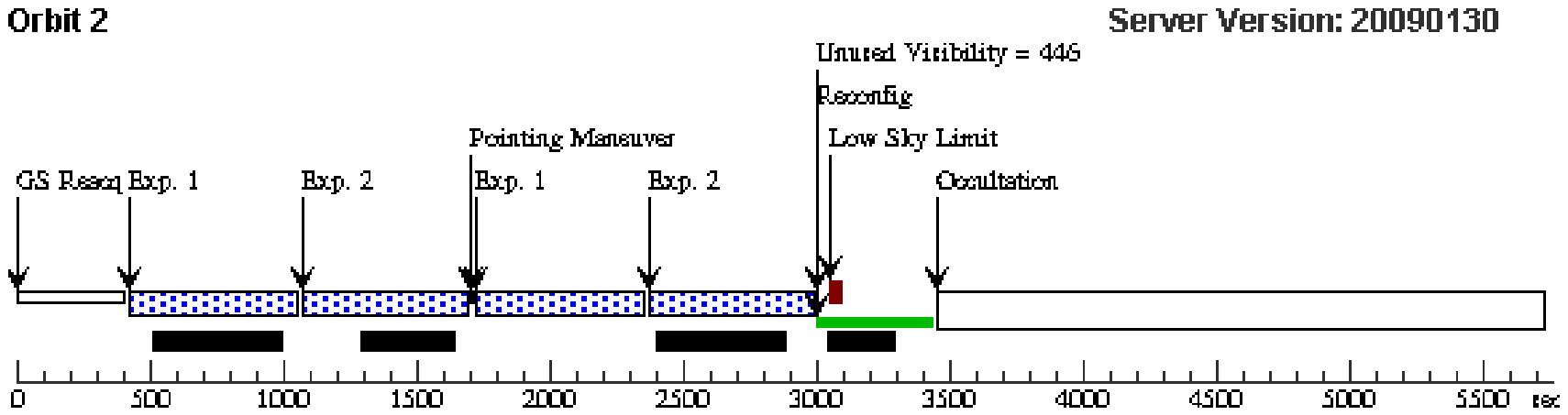
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(1) ABELL-773	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=13; SAMP-SEQ=SPARS50	LOW-SKY	Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)] *[==>(Pattern 4)]*	***[2]***
2		(1) ABELL-773	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=13; SAMP-SEQ=SPARS50	LOW-SKY	Pattern 3, Exps 1-2 (3)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)] *[==>(Pattern 4)]*	***[2]***

Orbit Structure





Visit

Proposal 11591, Visit 25, implementation Thu Jun 25 01:08:11 GMT 2009

Diagnostic Status: Warning

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 50D TO 80 D

Comments: 4 orbits in 814w on abell 68

Diagnostics

(Exposure 2 (Pattern 6, Exps 2-2) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(6)	Pattern Type=LINE	Coordinate Frame=POS-TARG	Pattern Type=LINE	Coordinate Frame=POS-TARG	(1), (2)
	Purpose=DITHER	Pattern Orientation=91.16385	Purpose=DITHER	Pattern Orientation=85.38987	
	Number Of Points=2	Angle Between Sides=	Number Of Points=2	Angle Between Sides=	
	Point Spacing=6.10486	Center Pattern=true	Point Spacing=3.08553	Center Pattern=false	
	Line Spacing=		Line Spacing=		

Fixed Targets

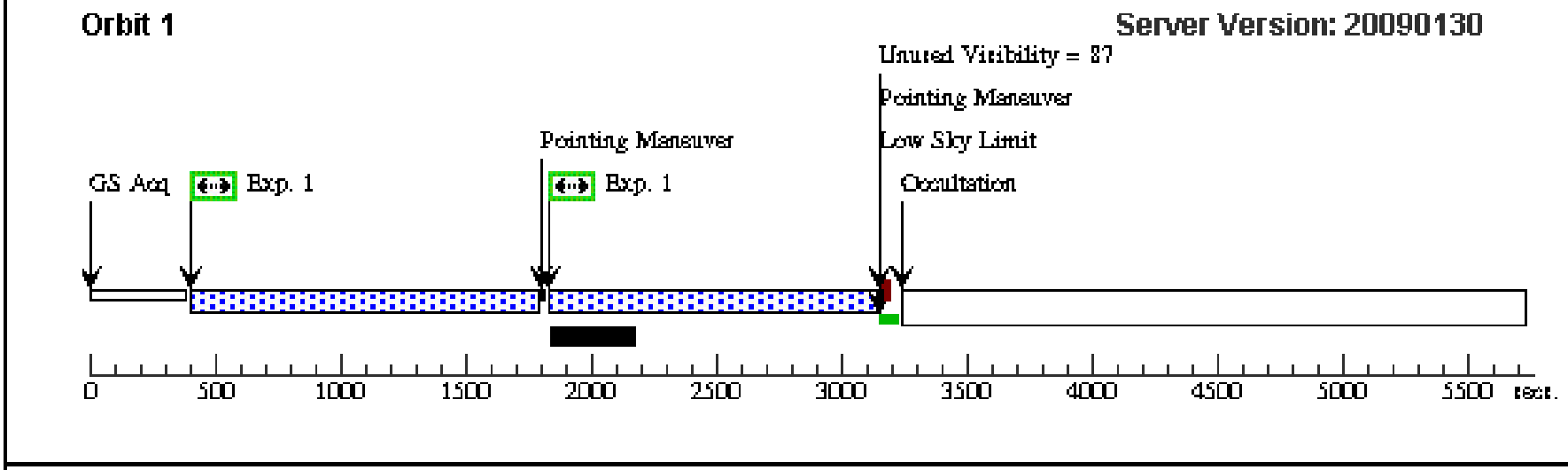
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	ABELL-68	RA: 00 37 6.1800 (9.2757500d)		V=27	Reference Frame: ICRS
		Dec: +09 09 48.70 (9.16353d)			
		Equinox: J2000			

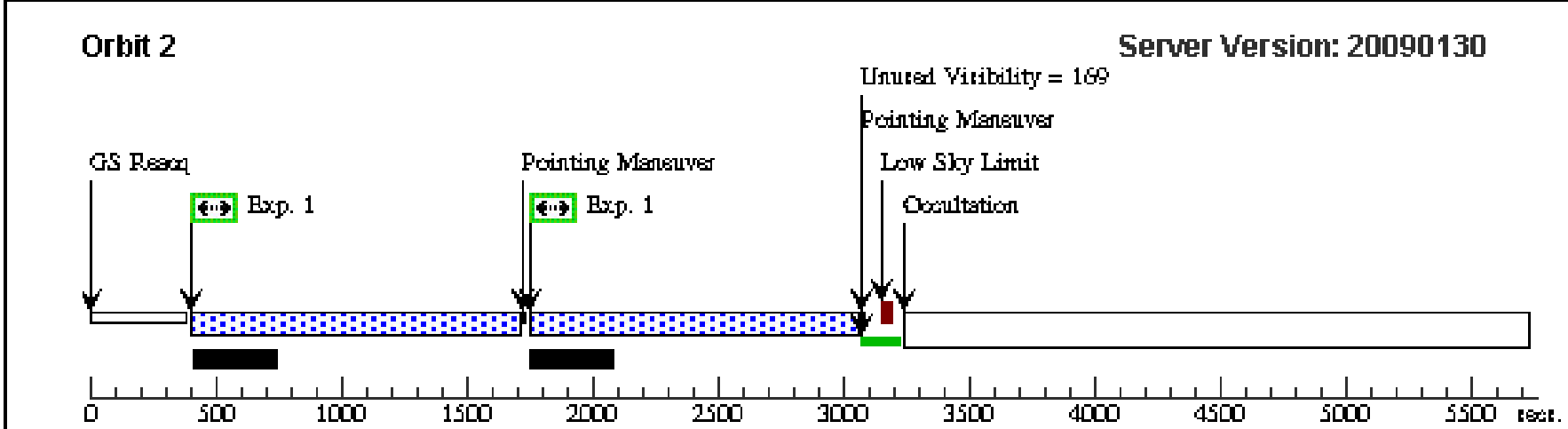
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Exposures

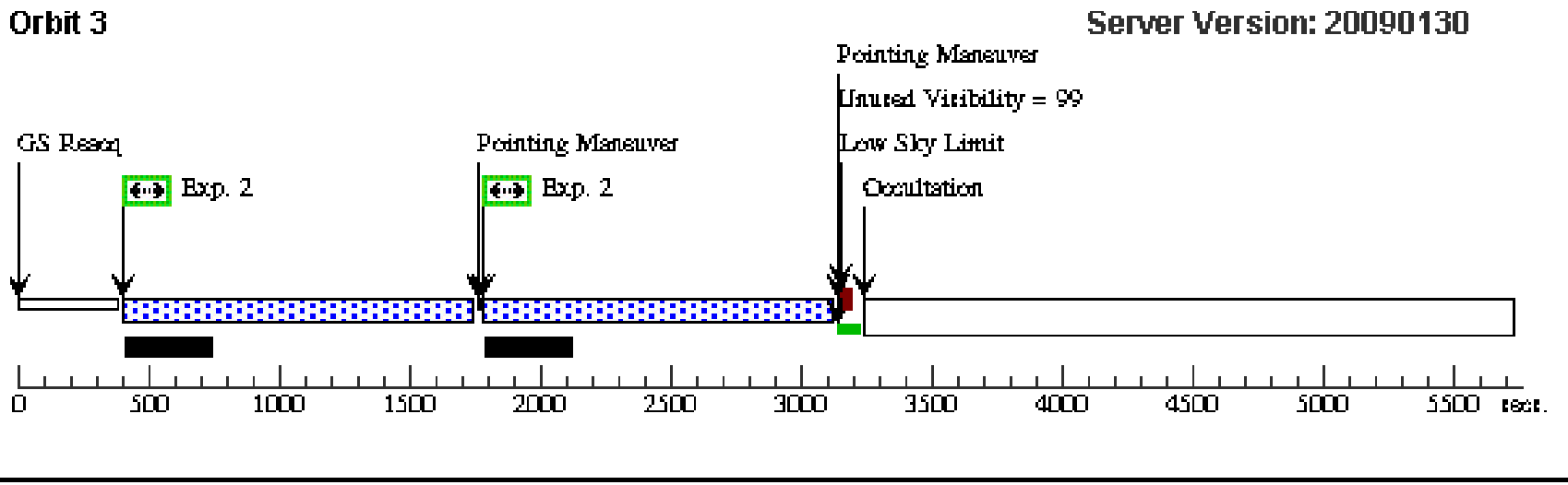
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(5) ABELL-68	ACS/WFC, ACCUM, WFC-FIX	F814W	CR-SPLIT=NO	LOW-SKY; GS ACQ SCENARIO BASE1B3	Pattern 6, Exps 1-1 (6)	1185 Secs	
								[==>(Pattern 1,1)] *[==>(Pattern 1,2)]*	***[1]***
								[==>(Pattern 2,1)] *[==>(Pattern 2,2)]*	***[2]***
2		(5) ABELL-68	ACS/WFC, ACCUM, WFC-FIX	F814W	CR-SPLIT=NO	POS TARG 0.91125, 0.74725; LOW-SKY	Pattern 6, Exps 2-2 (6)	1220 Secs	
								[==>(Pattern 1,1)] *[==>(Pattern 1,2)]*	***[3]***
								[==>(Pattern 2,1)] *[==>(Pattern 2,2)]*	***[4]***

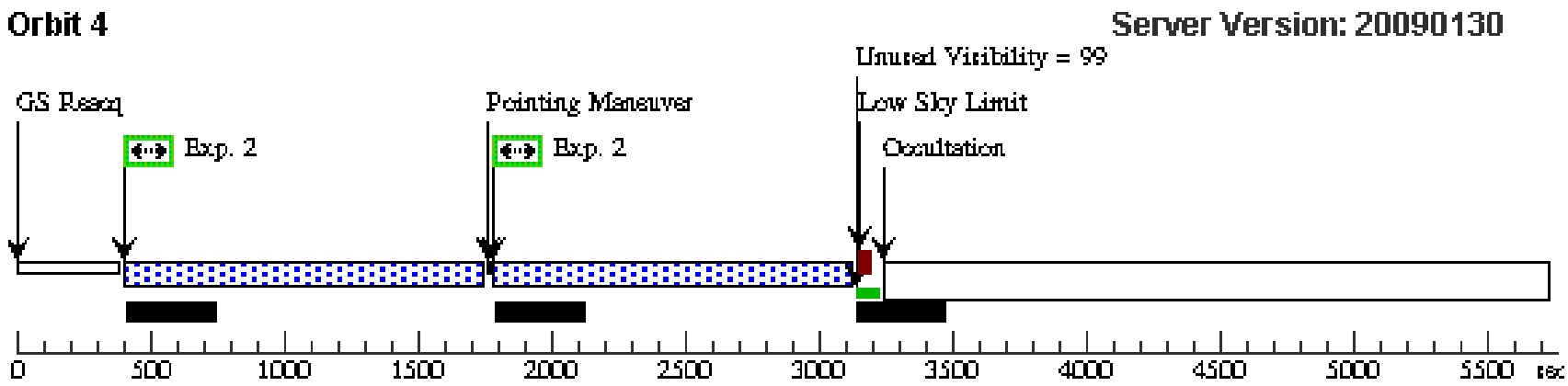
Orbit Structure





Orbit Structure (continued)





Visit

Proposal 11591, Visit 22, implementation Thu Jun 25 01:08:12 GMT 2009

Diagnostic Status: Warning

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 60D TO 80 D

Comments: 4 orbits in 814w on a370

Diagnostics

(Exposure 2 (Pattern 6, Exps 2-2) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(6)	Pattern Type=LINE	Coordinate Frame=POS-TARG	Pattern Type=LINE	Coordinate Frame=POS-TARG	(1), (2)
	Purpose=DITHER	Pattern Orientation=91.16385	Purpose=DITHER	Pattern Orientation=85.38987	
	Number Of Points=2	Angle Between Sides=	Number Of Points=2	Angle Between Sides=	
	Point Spacing=6.10486	Center Pattern=true	Point Spacing=3.08553	Center Pattern=false	
	Line Spacing=		Line Spacing=		

Fixed Targets

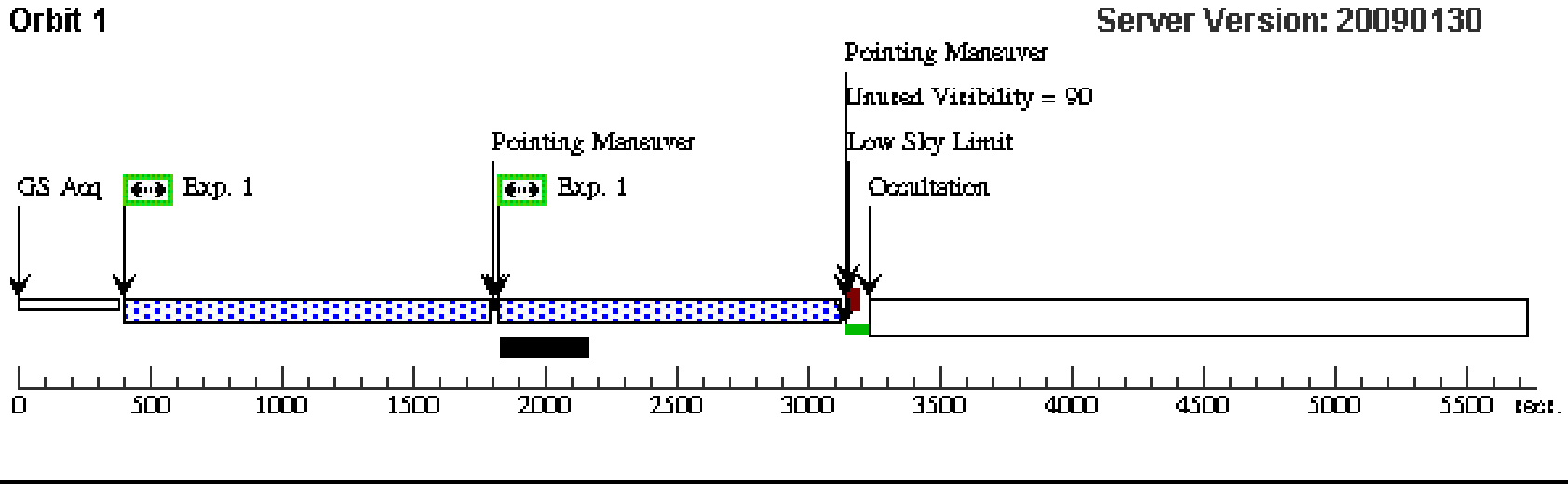
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	ABELL-370	RA: 02 39 51.3000 (39.9637500d)		V=27	Reference Frame: ICRS
		Dec: -01 34 48.00 (-1.58000d)			
		Equinox: J2000			

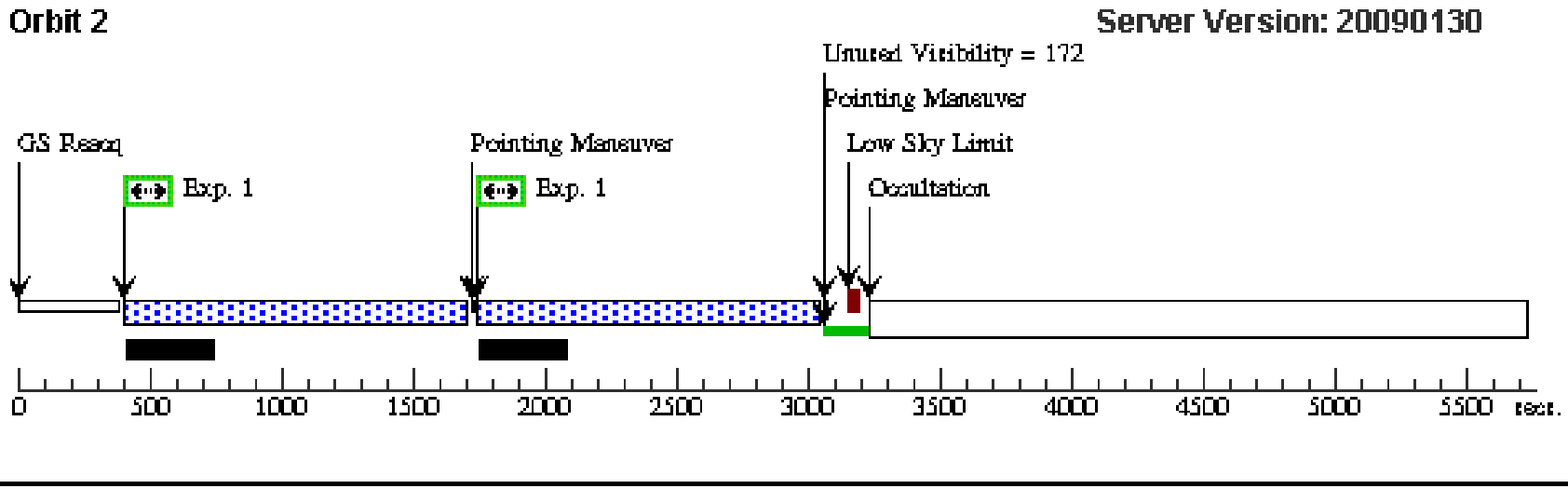
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Exposures

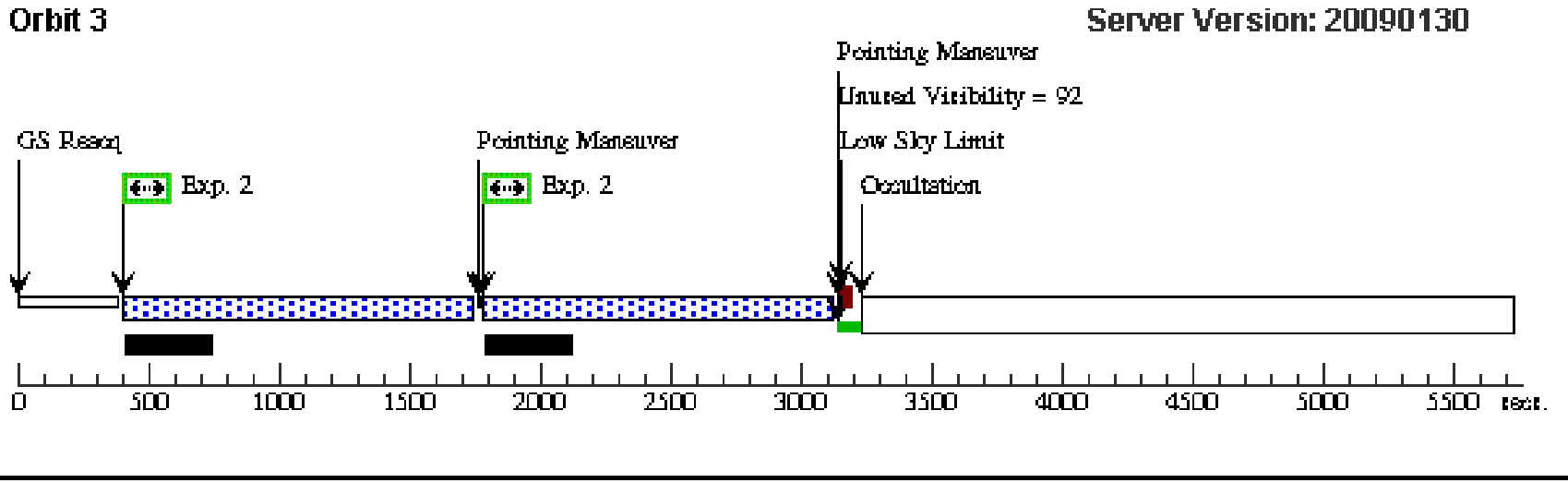
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(2) ABELL-370	ACS/WFC, ACCUM, WFCENTER	F814W	CR-SPLIT=NO	LOW-SKY	Pattern 6, Exps 1-1 (6)	1180 Secs	
								[==>(Pattern 1,1)]	***[1]***
								[==>(Pattern 1,2)]	
								[==>(Pattern 2,1)]	***[2]***
								[==>(Pattern 2,2)]	
2		(2) ABELL-370	ACS/WFC, ACCUM, WFCENTER	F814W	CR-SPLIT=NO	POS TARG 0.91125, 0.74725; LOW-SKY	Pattern 6, Exps 2-2 (6)	1220 Secs	
								[==>(Pattern 1,1)]	***[3]***
								[==>(Pattern 1,2)]	
								[==>(Pattern 2,1)]	***[4]***
								[==>(Pattern 2,2)]	

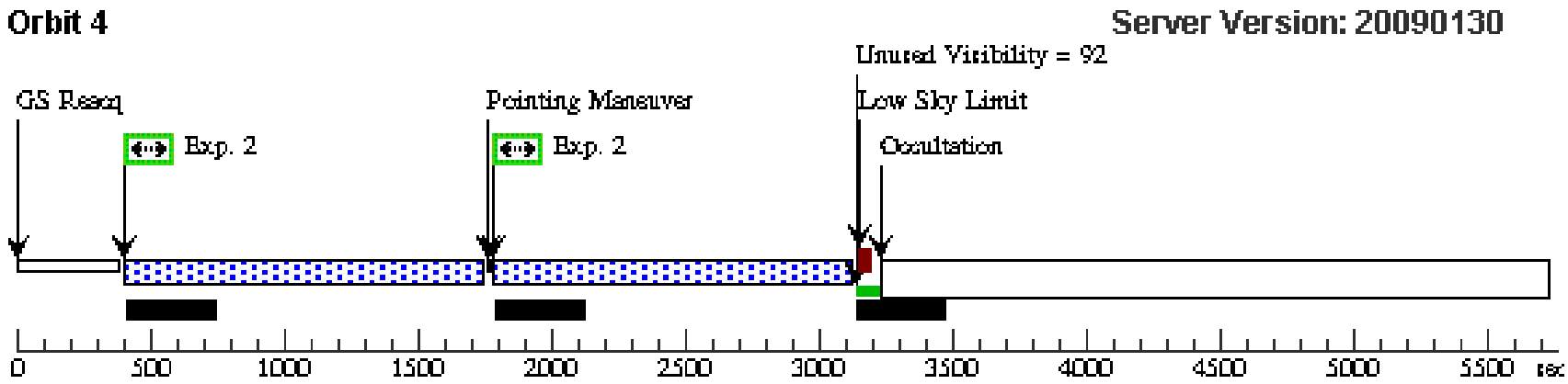
Orbit Structure





Orbit Structure (continued)





Visit

Proposal 11591, Visit 27, implementation Thu Jun 25 01:08:12 GMT 2009

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 0.0D TO 40 D

Comments: 2 orbits in 814w on the bullet cluster

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(6)	Pattern Type=LINE	Coordinate Frame=POS-TARG	Pattern Type=LINE	Coordinate Frame=POS-TARG	(1)
	Purpose=DITHER	Pattern Orientation=91.16385	Purpose=DITHER	Pattern Orientation=85.38987	
	Number Of Points=2	Angle Between Sides=	Number Of Points=2	Angle Between Sides=	
	Point Spacing=6.10486	Center Pattern=true	Point Spacing=3.08553	Center Pattern=false	
	Line Spacing=		Line Spacing=		

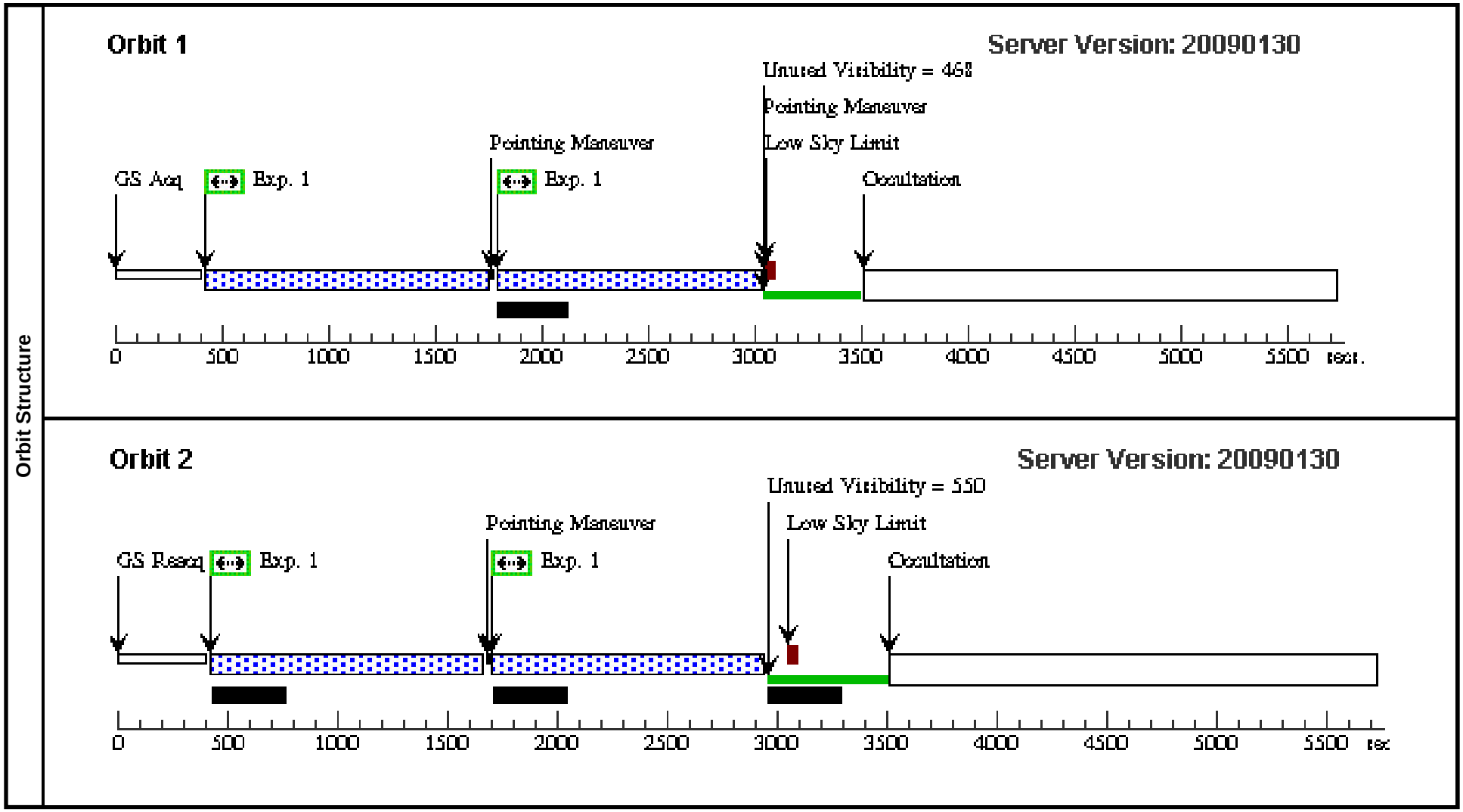
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	CLG-0657-56	RA: 06 58 34.2400 (104.6426667d)		V=27	Reference Frame: ICRS
		Dec: -55 57 11.00 (-55.95306d)			
		Equinox: J2000			

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(7) CLG-0657-56	ACS/WFC, ACCUM, WFC-FIX	F814W	CR-SPLIT=NO	LOW-SKY	Pattern 6, Exps 1-1 (6)	1120 Secs	
								[==>(Pattern 1,1)]	***[1]***
								[==>(Pattern 1,2)]	
								[==>(Pattern 2,1)]	***[2]***
								[==>(Pattern 2,2)]	


Orbit Structure
Orbit 1
Server Version: 20090130
Unused Visibility = 468
Pointing Maneuver
Low Sky Limit
Pointing Maneuver
GS Acq
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec.
Orbit 2
Server Version: 20090130
Unused Visibility = 550
Pointing Maneuver
Low Sky Limit
GS Reacq
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11591, Visit 26, implementation Thu Jun 25 01:08:13 GMT 2009

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 090D TO 120 D

Comments: 1 orbit in 814w on rxj1347

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(6)	Pattern Type=LINE	Coordinate Frame=POS-TARG	Pattern Type=LINE	Coordinate Frame=POS-TARG	(1)
	Purpose=DITHER	Pattern Orientation=91.16385	Purpose=DITHER	Pattern Orientation=85.38987	
	Number Of Points=2	Angle Between Sides=	Number Of Points=2	Angle Between Sides=	
	Point Spacing=6.10486	Center Pattern=true	Point Spacing=3.08553	Center Pattern=false	
	Line Spacing=		Line Spacing=		

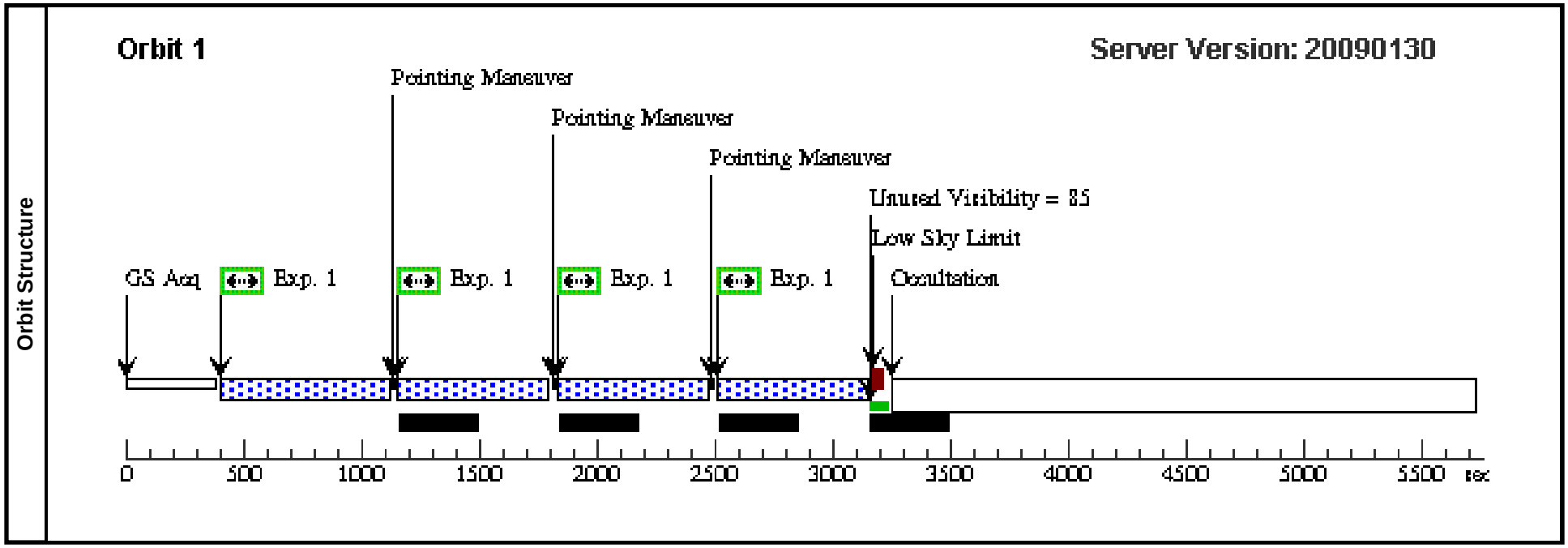
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	CLG-J1347-1145	RA: 13 47 33.0000 (206.8875000d)		V=27	Reference Frame: ICRS
		Dec: -11 45 10.00 (-11.75278d)			
		Equinox: J2000			

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(6) CLG-J1347-1145	ACS/WFC, ACCUM, WFC-FIX	F814W	CR-SPLIT=NO	LOW-SKY	Pattern 6, Exps 1-1 (6)	515 Secs	
								[==>(Pattern 1,1)]	***[1]***
								[==>(Pattern 1,2)]	
								[==>(Pattern 2,1)]	
								[==>(Pattern 2,2)]	


Orbit Structure
Orbit 1
Server Version: 20090130
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Visibility = 85
Low Sky Limit
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11591, Visit 29, implementation Thu Jun 25 01:08:13 GMT 2009

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: CVZ

Comments: 1 orbit in 814w on ms1358 - CVZ

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(6)	Pattern Type=LINE	Coordinate Frame=POS-TARG	Pattern Type=LINE	Coordinate Frame=POS-TARG	(1)
	Purpose=DITHER	Pattern Orientation=91.16385	Purpose=DITHER	Pattern Orientation=85.38987	
	Number Of Points=2	Angle Between Sides=	Number Of Points=2	Angle Between Sides=	
	Point Spacing=6.10486	Center Pattern=true	Point Spacing=3.08553	Center Pattern=false	
	Line Spacing=		Line Spacing=		

Fixed Targets

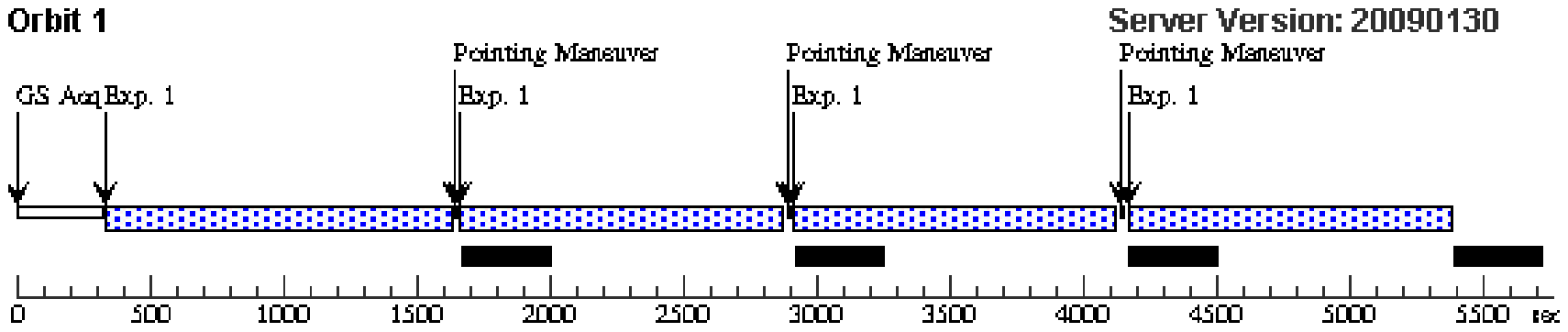
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	MS1358+62	RA: 13 59 50.5000 (209.9604167d) Dec: +62 31 6.50 (62.51847d) Equinox: J2000		V=27	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(9) MS1358+62	ACS/WFC, ACCUM, WFC-FIX	F814W	CR-SPLIT=NO		Pattern 6, Exps 1-1 (6)	1090 Secs *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***

Orbit Structure



Visit

Proposal 11591, Visit 21, implementation Thu Jun 25 01:08:13 GMT 2009

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 90D TO 160 D

Comments: 4 orbits 814w ACS on a773

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(6)	Pattern Type=LINE	Coordinate Frame=POS-TARG	Pattern Type=LINE	Coordinate Frame=POS-TARG	(1), (2)
	Purpose=DITHER	Pattern Orientation=91.16385	Purpose=DITHER	Pattern Orientation=85.38987	
	Number Of Points=2	Angle Between Sides=	Number Of Points=2	Angle Between Sides=	
	Point Spacing=6.10486	Center Pattern=true	Point Spacing=3.08553	Center Pattern=false	
	Line Spacing=		Line Spacing=		

Fixed Targets

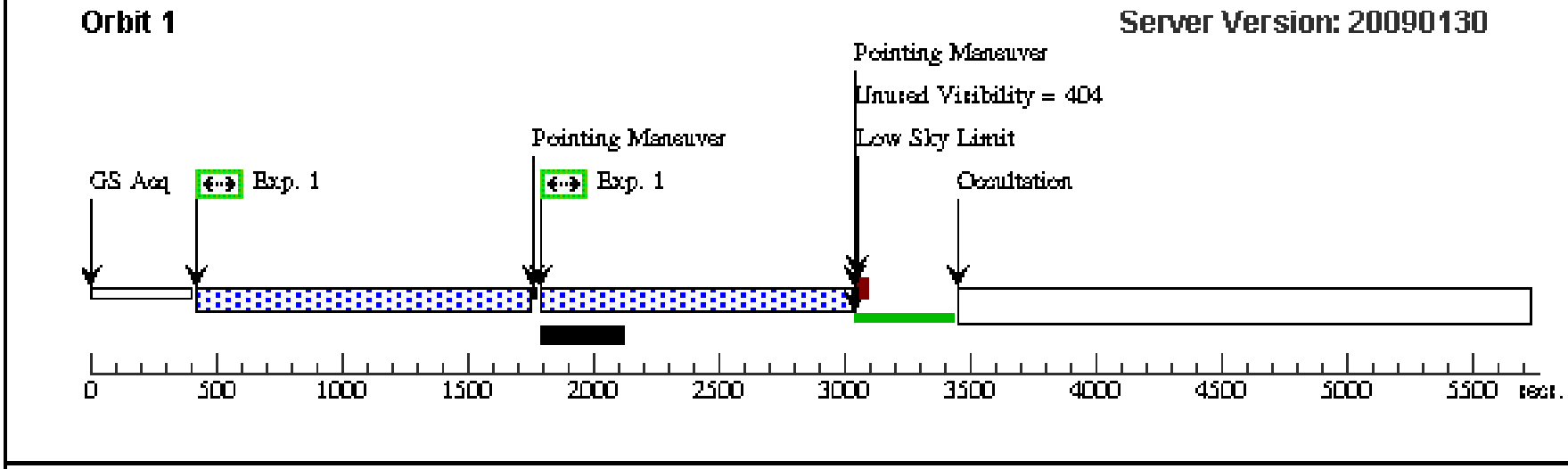
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	ABELL-773	RA: 09 17 56.2000 (139.4841667d)		V=27	Reference Frame: ICRS
		Dec: +51 43 47.00 (51.72972d)			
		Equinox: J2000			

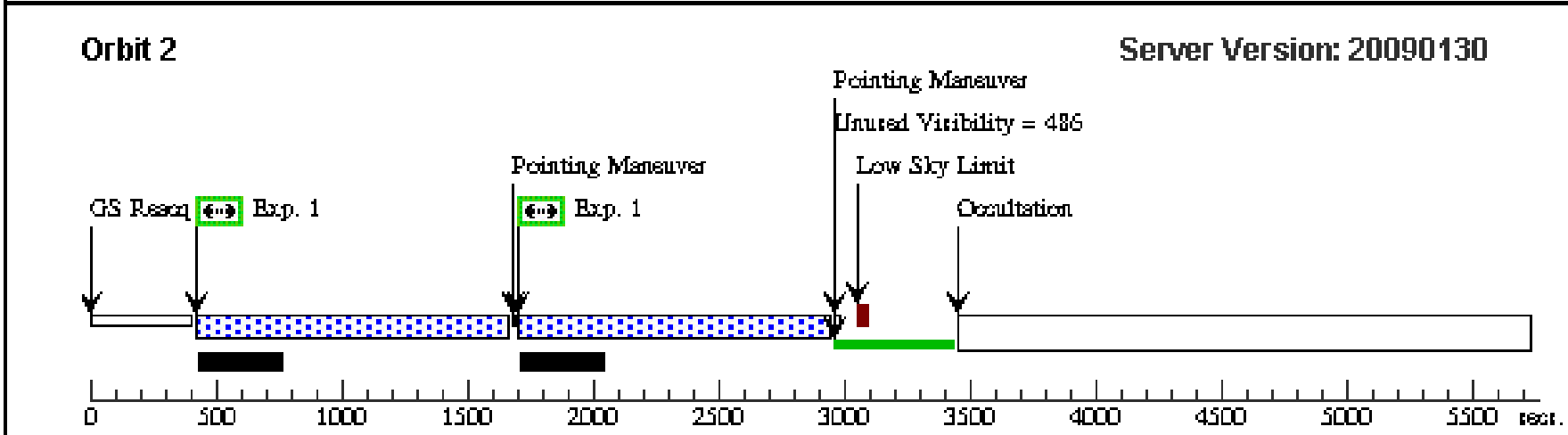
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Exposures

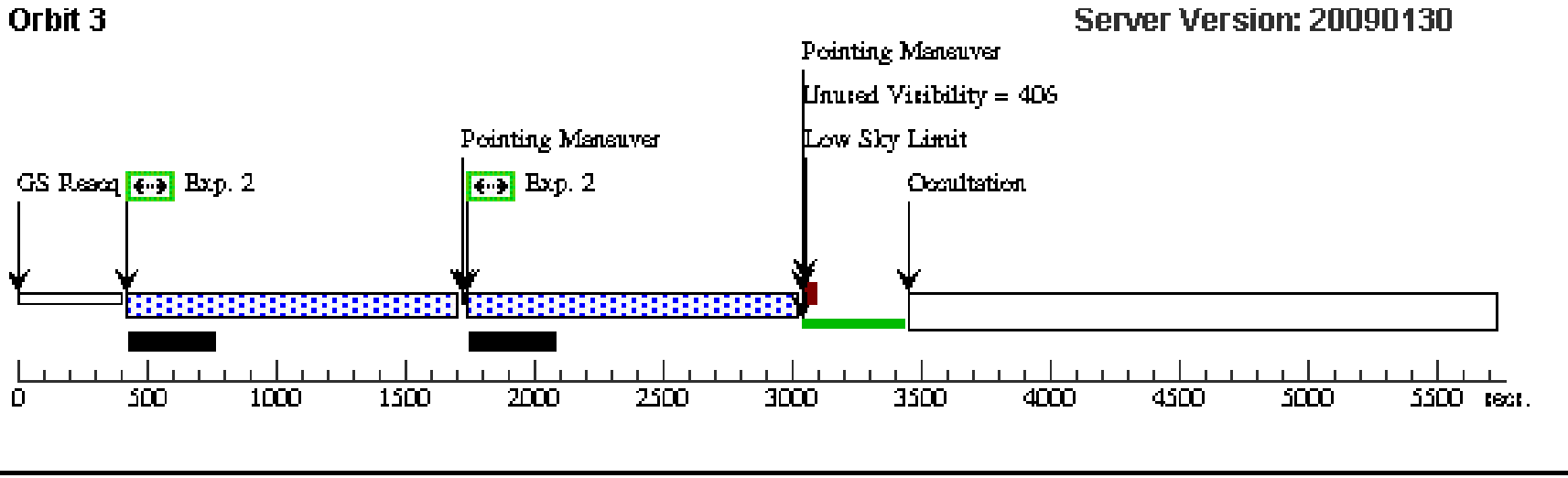
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(1) ABELL-773	ACS/WFC, ACCUM, WFC-FIX	F814W	CR-SPLIT=NO	LOW-SKY	Pattern 6, Exps 1-1 (6)	1120 Secs	
								[==>(Pattern 1,1)]	***[1]***
								[==>(Pattern 1,2)]	
								[==>(Pattern 2,1)]	***[2]***
								[==>(Pattern 2,2)]	
2		(1) ABELL-773	ACS/WFC, ACCUM, WFC-FIX	F814W	CR-SPLIT=NO	LOW-SKY	Pattern 6, Exps 2-2 (6)	1160 Secs	
								[==>(Pattern 1,1)]	***[3]***
								[==>(Pattern 1,2)]	
								[==>(Pattern 2,1)]	***[4]***
								[==>(Pattern 2,2)]	

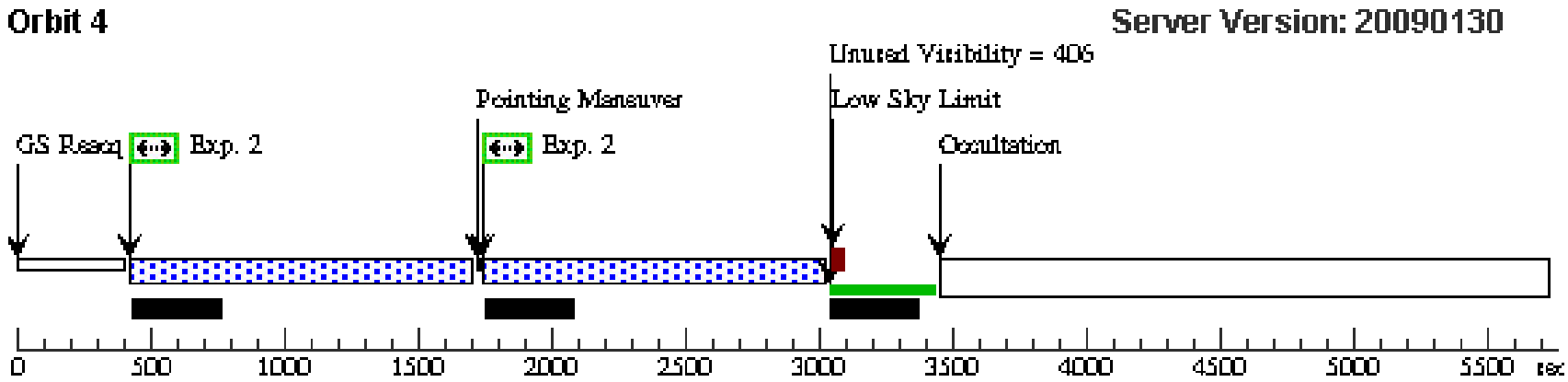
Orbit Structure





Orbit Structure (continued)





Visit

Proposal 11591, Visit 24, implementation Thu Jun 25 01:08:13 GMT 2009

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 20D TO 60 D

Comments: 3 orbits 814w ACS on 1077

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(6)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=6.10486 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=91.16385 Angle Between Sides= Center Pattern=true	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.08553 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.38987 Angle Between Sides= Center Pattern=false	(2)
(7)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.08553 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=91.16385 Angle Between Sides= Center Pattern=true			(1)

Fixed Targets

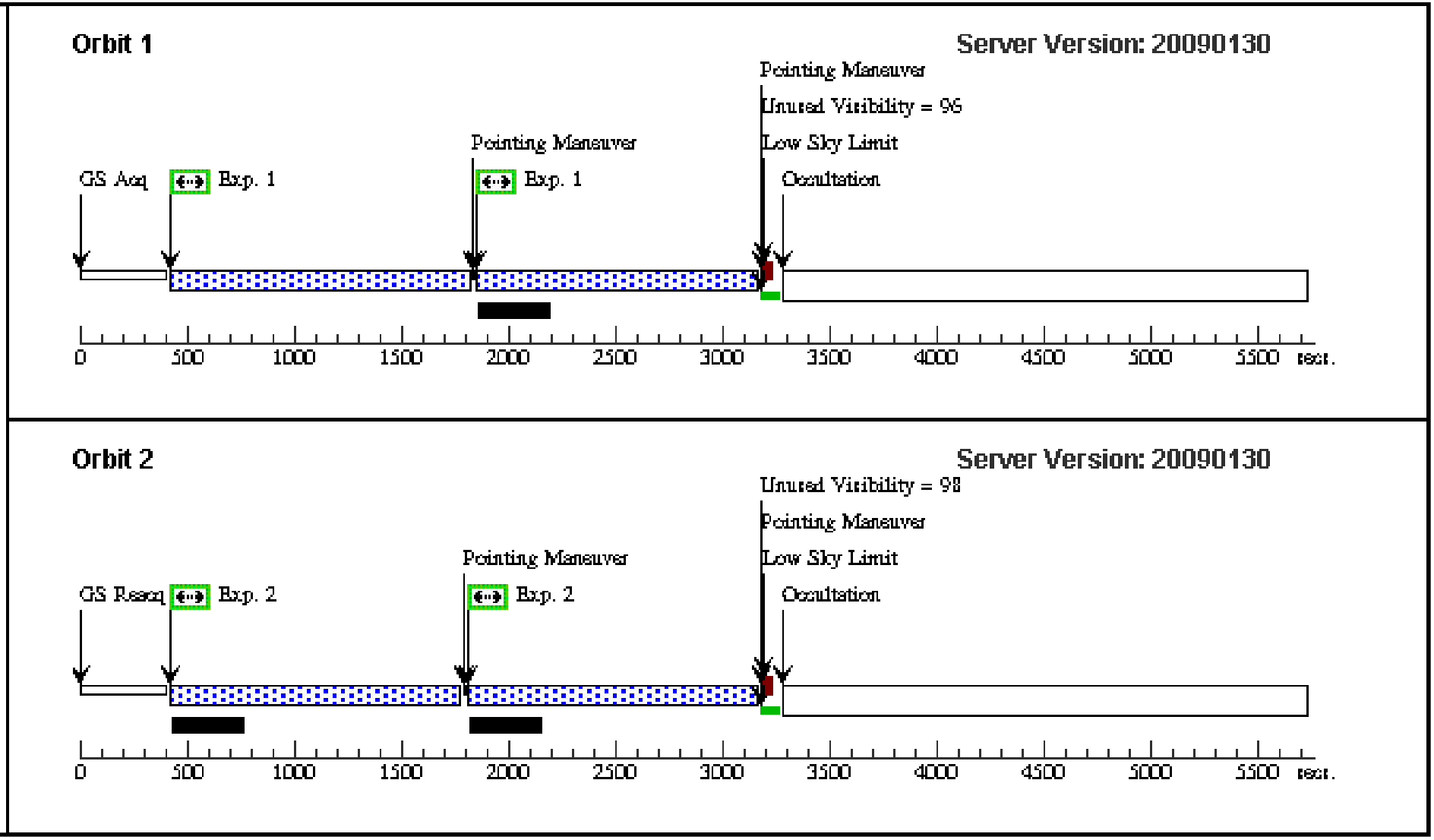
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	ABELL-S1077	RA: 22 58 48.3000 (344.7012500d) Dec: -34 48 9.00 (-34.80250d) Equinox: J2000		V=27	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the NED database.

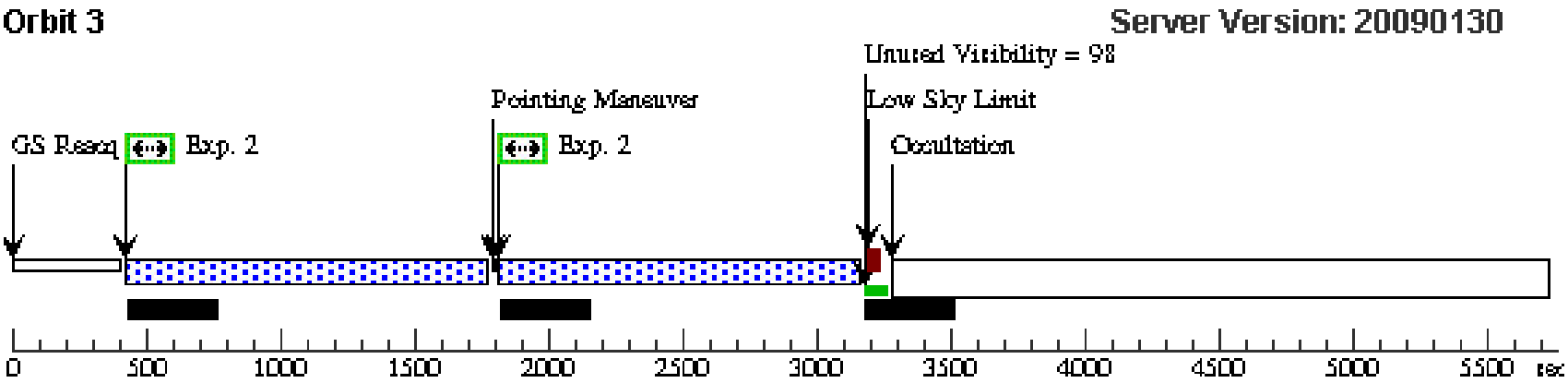
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(4) ABELL-S1077	ACS/WFC, ACCUM, WFC-FIX	F814W	CR-SPLIT=NO	LOW-SKY	Pattern 7, Exps 1-1 (7)	1190 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[1]***
2		(4) ABELL-S1077	ACS/WFC, ACCUM, WFC-FIX	F814W	CR-SPLIT=NO	LOW-SKY	Pattern 6, Exps 2-2 (6)	1230 Secs	
								[==>(Pattern 1,1)] *[==>(Pattern 1,2)]*	***[2]***
								[==>(Pattern 2,1)] *[==>(Pattern 2,2)]*	***[3]***

Orbit Structure



Orbit Structure (continued)



Visit

Proposal 11591, Visit 23, implementation Thu Jun 25 01:08:14 GMT 2009

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 80D TO 105 D

Comments: 3 orbits 814w ACS on a1835

We implemented a loose ORIENT constraint to remove contamination by 3 bright stars (V~12.5). We verified that such constraint was not impacting much the schedulability of the observation.

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(6)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=6.10486 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=91.16385 Angle Between Sides= Center Pattern=true	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.08553 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.38987 Angle Between Sides= Center Pattern=false	(2)
(7)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.08553 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=91.16385 Angle Between Sides= Center Pattern=true			(1)

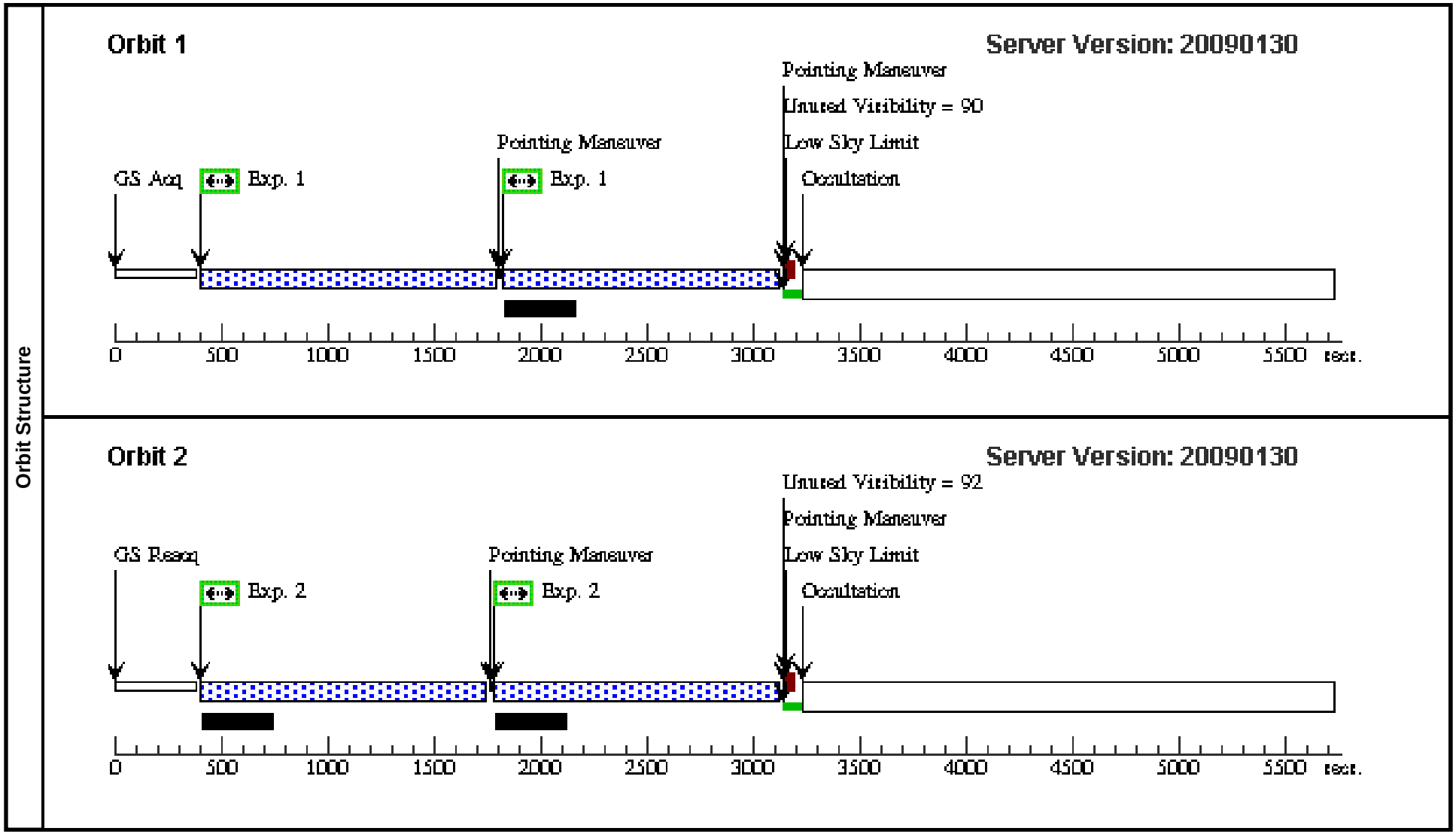
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	ABELL-1835	RA: 14 01 3.4400 (210.2643333d) Dec: +02 51 39.00 (2.86083d) Equinox: J2000		V=27	Reference Frame: ICRS

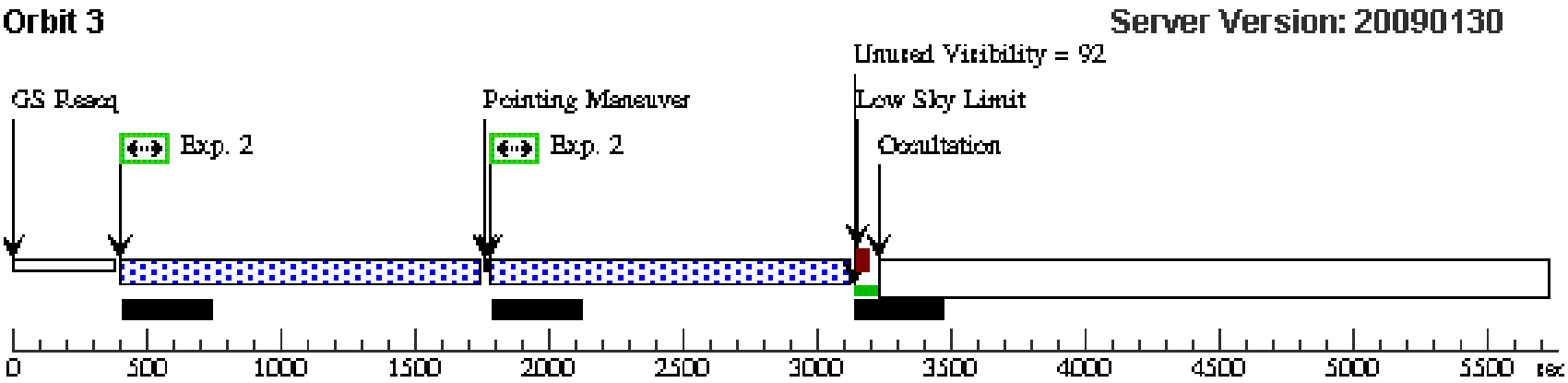
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(3) ABELL-1835	ACS/WFC, ACCUM, WFC-FIX	F814W	CR-SPLIT=NO	LOW-SKY; GS ACQ SCENARIO BASE1B3	Pattern 7, Exps 1-1 (7)	1180 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
2		(3) ABELL-1835	ACS/WFC, ACCUM, WFC-FIX	F814W	CR-SPLIT=NO	LOW-SKY	Pattern 6, Exps 2-2 (6)	1220 Secs *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[2]*** ***[3]***


Orbit Structure
Orbit 1
Server Version: 20090130
Pointing Maneuver
Unused Visibility = 90
Low Sky Limit
Occultation
Pointing Maneuver
GS Acq
Exp. 1
Exp. 1
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec.
Orbit 2
Server Version: 20090130
Unused Visibility = 92
Pointing Maneuver
Low Sky Limit
Occultation
GS Reacq
Pointing Maneuver
Exp. 2
Exp. 2
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec.

Orbit Structure (continued)



Visit

Proposal 11591, Visit 20, implementation Thu Jun 25 01:08:14 GMT 2009

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 30D TO 100 D

Comments: 3 orbits 814w ACS on ms0451

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(6)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=6.10486 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=91.16385 Angle Between Sides= Center Pattern=true	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.08553 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.38987 Angle Between Sides= Center Pattern=false	(2)
(7)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.08553 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=91.16385 Angle Between Sides= Center Pattern=true			(1)

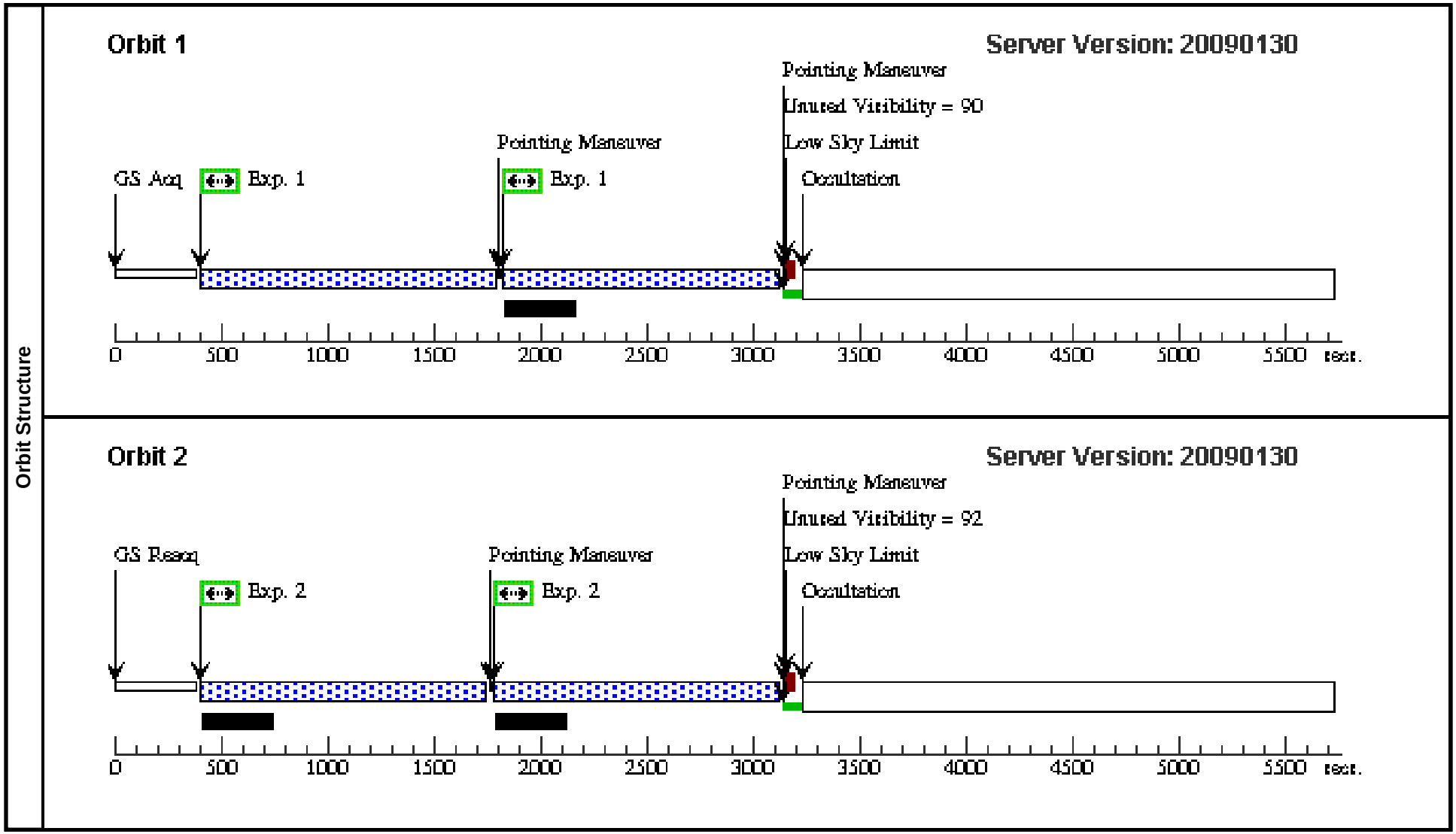
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	MACSJ0454-0300	RA: 04 54 10.9000 (73.5454167d) Dec: -03 00 54.00 (-3.01500d) Equinox: J2000		V=27	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(10) MACSJ0454-0300	ACS/WFC, ACCUM, WFC-FIX	F814W	CR-SPLIT=NO	LOW-SKY	Pattern 7, Exps 1-1 (7)	1180 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[1]***
2		(10) MACSJ0454-0300	ACS/WFC, ACCUM, WFC-FIX	F814W	CR-SPLIT=NO	LOW-SKY	Pattern 6, Exps 2-2 (6)	1220 Secs	
								[==>(Pattern 1,1)] *[==>(Pattern 1,2)]*	***[2]***
								[==>(Pattern 2,1)] *[==>(Pattern 2,2)]*	***[3]***


Orbit Structure
Orbit 1
Server Version: 20090130
Pointing Maneuver
Unused Visibility = 90
Low Sky Limit
Occultation
Pointing Maneuver
GS Acq
Exp. 1
Exp. 1
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec.
Orbit 2
Server Version: 20090130
Pointing Maneuver
Unused Visibility = 92
Low Sky Limit
Occultation
GS Reacq
Pointing Maneuver
Exp. 2
Exp. 2
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec.

Orbit Structure (continued)