10602 - A Complete Multiplicity Survey of Galactic O2/O3/O3.5 Stars with ACS

Cycle: 14, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets*	*Configurations*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) HD93128	ACS/HRC ACS/WFC	2	14-Nov-2005 21:01:57.0	yes
02	(2) HD93205	ACS/HRC ACS/WFC	2	14-Nov-2005 21:02:31.0	yes
03	(3) HD93250	ACS/HRC ACS/WFC	2	14-Nov-2005 21:03:06.0	yes
04	(4) MJ257	ACS/HRC ACS/WFC	2	14-Nov-2005 21:03:37.0	yes

Visit	*Targets*	*Configurations*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
05	(5) NGC3603	ACS/HRC ACS/WFC	2	14-Nov-2005 21:04:02.0	yes
06	(6) PISMIS24	ACS/HRC ACS/WFC	2	14-Nov-2005 21:04:27.0	yes
07	(7) HD64568	ACS/HRC ACS/WFC	2	14-Nov-2005 21:04:55.0	yes
08	(8) HD150136A	ACS/HRC ACS/WFC	2	14-Nov-2005 21:05:26.0	yes
09	(9) CYGOB2-7	ACS/HRC ACS/WFC	2	14-Nov-2005 21:05:52.0	yes
10	(10) CYGOB2-22A	ACS/HRC ACS/WFC	2	14-Nov-2005 21:06:13.0	yes
11	(11) HDE228766	ACS/HRC ACS/WFC	2	14-Nov-2005 21:06:44.0	yes
53	(12) HD93250-COPY	ACS/HRC ACS/WFC	2	14-Nov-2005 21:07:18.0	yes

24 Total Orbits Used

ABSTRACT

Massive stars are preferentially formed in compact multiple systems and clusters and many of them remain spatially unresolved to date, even in our Galaxy. This has hindered the determination of the stellar upper mass limit. The lack of an accurate knowledge of the multiplicity of massive stars can also introduce biases in the calculation of the IMF at its high-mass end. We have recently used ACS/HRC to resolve HD 93129 A, the earliest O-type star known in the Galaxy, into a 55 mas binary. We propose here to extend that work into a complete multi-filter ACS imaging survey of all (20) known O2/O3/O3.5 Galactic stars to characterize the multiplicity of the most massive stars. The data will be combined with existing FGS

observations to explore as large a parameter range as possible and to check for consistency. We will also derive the IMF of each system using a crowded-field photometry package and processing the data with CHORIZOS, a code that can derive stellar temperatures, extinctions, and extinction laws from multicolor photometry.

OBSERVING DESCRIPTION

We propose observing each of the objects in our sample with a combination of ACS/HRC and ACS/WFC imaging. The observing program has been designed with the following ideas in mind:

Maximizing spatial resolution in order to provide as complete a study of multiplicity as possible.
Avoiding saturation in at least one exposure per filter for the same reason.
Using as many filters as possible in order to calculate temperatures, extinctions, and extinction laws.
Detecting stars as dim as possible down the main sequence in order to calculate the IMF.
Covering an area large enough to calculate the contamination to the IMF by background stars.
Rejecting cosmic rays, eliminating hot pixels, and avoiding zones not covered by the detector (HRC occulting finger, WFC interchip gap).
Including nebular exposures to maximize the archival value of the data.
Fitting each star into a single 2-orbit visit in order to maximize telescope efficiency.

Satisfying all of the above requirements is difficult due to the overhead requirements, especially those associated with buffer dumps, but not impossible. Applying the experience learned from our previous 10205 GO program, where we fit 22 HRC exposures into a single orbit to observe HD 93129, we have used APT to try different combinations until we arrived at the one presented here:

The first orbit will contain HRC exposures using six continuum filters (F220W, F250W, F330W, F435W, F550M, and F850LP) from the UV to the z band and two nebular filters (F658N and F660N, corresponding to Halpha and [N II] 6584). All filters (except F660N) will be dithered using an especially-tailored box pattern that avoids the HRC occulting finger, for a total of 29 exposures. The continuum exposure times will be kept very short in order to avoid saturation by the central object (this should be possible for all filters and targets except maybe for HD 150136 A) but long

enough to reach S/N ratios of approx. 1 000 for the central object. A gain of 2 will be selected in all cases except for HD 150136 A, where a value of 4 will be used in case there is a slight saturation (note that in such a case, HRC remains better than 1% linear if one takes into account the bleeding into the nearby pixels). The HRC exposures will be used for the main goal of this program, the analysis of the multiplicity of the most massive stars. The UV filters in ACS/HRC are chosen because they provide the best spatial resolution (in terms of PSF size with reasonable sampling)
available at the present time for HST. The rest are selected in order to obtain as much color information as possible (see below).

The second orbit will be used with WFC exposures centered on the HRC field using the three reddest continuum filters above, F435W, F550M, and F850LP. All filters will be dithered with the standard line pattern that bridges the gap between the two WFC chips and that also allows for the rejection of cosmic rays and the elimination of hot pixels. The large overheads associated with short-exposure buffer dumps make the inclusion of short exposures impossible, so we expect that some stars will be saturated. In order to minimize the impact on the photometry, a gain of 2 will be
selected for the WFC exposures, thus allowing for accurate photometry of saturated stars. Furthermore, note that the region where the brightest stars are expected and where crowding is likely to be more severe will be covered by the HRC in those same filters.

We will use HD 93128 as our example for S/N calculations. We model the star using an O5~V Kurucz atmosphere with V=8.77 and $E(B-V) = 0.54$ in the ACS ETC. For the six HRC continuum filters (F220W, F250W, F330W, F435W, F550M, F850LP) we get times to saturation of 3.77, 1.52, 0.76, 0.27, 0.53, and 1.16 s, respectively. Leaving a safety margin, we set the times to 2.0, 1.0, 0.5, 0.2, 0.4, and 0.8 s for each of the 4 exposures in the dithering pattern for each filter and we adjust the nebular exposure times to fill the rest of the orbit. The central star will have a S/N ratio close to 1 000 in all filters. For other cluster members, we use as a model a B8 V with a Delta m of 6 magnitudes with respect to HD 93128 and obtained S/N ratios of 5.2, 10.0, 15.8, 46.1, 61.9, and 99.7 for the six HRC continuum filters. With respect to the WFC exposures, we are able to fit two exposures of 342 s for each of the three filters, F435W, F550M, and F850LP. Using as a model an M2 V star with a Δm of 16 magnitudes with respect to HD 93128 (i.e., a 0.4 M$_\odot$ main-sequence star), we obtain S/N ratios of 1.9, 6.1, and 37.0, respectively.

The data will be extracted using a crowded-field photometry package. Given the stability of the ACS instrumental PSF and the availability of stars with very high S/N on each field for possible corrections, we can guarantee that a high-quality PSF will be produced for each filter. A special

treatment will be given for two special cases: (a) the central star itself, where a detailed manual search for close companions (that the automated package may miss) will be conducted; and (b) the saturated stars in the WFC exposures, where the counts produced by bleeding into neighboring pixels will have to be added. For the five stars (between GO 10205 and this program) observed with FGS, the results from the detailed manual search for close companions will be compared with those from that instrument in order to: (a) produce a more in-depth exploration of the Delta m-separation space and (b) test both methods for consistency.

After the photometry for all stars has been obtained, the resulting data will be fed into CHORIZOS, a chi-square code for parameterized photometric modeling (Ma?z-Apell?niz 2004). The output will allow us to calculate the temperature, extinction, and extinction law on a star-by-star basis, thus producing detailed and unbiased theoretical H-R diagrams that can be compared with evolutionary tracks.

Visit

Proposal 10602, Visit 01 Tue Nov 15 02:07:23 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC, ACS/HRC

Special Requirements: ORIENT 147.0D TO 167.0 D

Comments: Orientation requirement imposed in order to ensure continuity (lack of gaps) with HD 93129 field in program 10205.

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=2.7 Line Spacing=0.135	Coordinate Frame=POS-TARG Pattern Orientation=0 Angle Between Sides=90 Center Pattern=true		(1), (2), (3), (4), (7), (8), (9)
(2)	Pattern Type=ACS-HRC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=2.7 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=5.8 Angle Between Sides= Center Pattern=true		(10)
(3)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.011 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.3 Angle Between Sides= Center Pattern=false		(11), (12), (13)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD93128	RA: 10 43 54.3720 (160.9765500d) Dec: -59 32 57.37 (-59.54927d) Equinox: J2000 Plate Id: (?)		V=8.77	Coordinate Source: HIPPARCOS/TYCHO_CATALOGUE

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(1) HD93128	ACS/HRC, ACCUM, HRC	F220W	CR-SPLIT=NO; GAIN=2		Pattern 1-1 (1)	2.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***

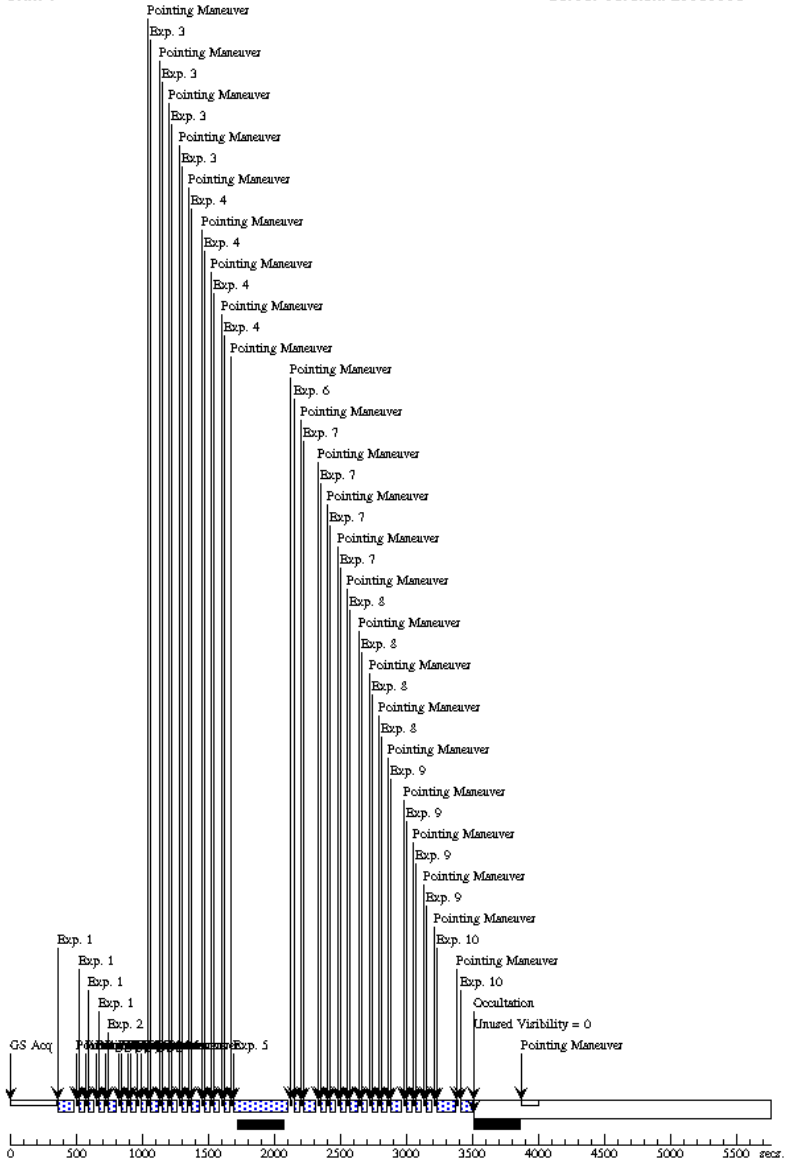
Exposures (continued)

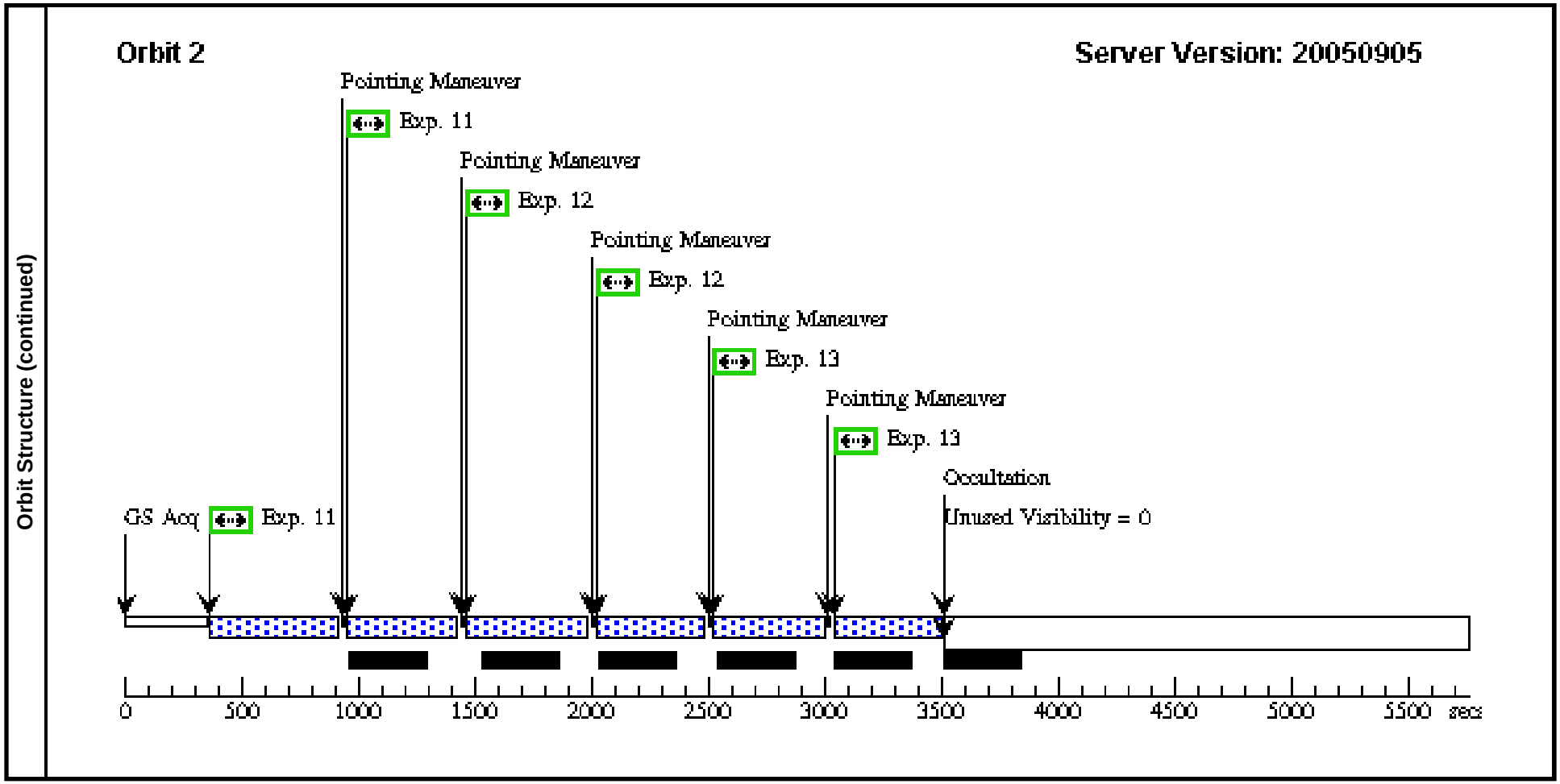
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
2		(1) HD93128	ACS/HRC, ACCUM, HRC	F250W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (1)	0.8 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
3		(1) HD93128	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=2		Pattern 3-3 (1)	0.4 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
4		(1) HD93128	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 4-4 (1)	0.2 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
5		(1) HD93128	ACS/HRC, ACCUM, HRC	F660N	CR-SPLIT=NO; GAIN=4	POS TARG 1.343,0.138		357.0 Secs	
								[==>]	***[1]***
6		(1) HD93128	ACS/HRC, ACCUM, HRC	F660N	CR-SPLIT=NO; GAIN=2	POS TARG -1.343,-0.138		7.0 Secs	
								[==>]	***[1]***
7		(1) HD93128	ACS/HRC, ACCUM, HRC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 7-7 (1)	0.3 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
8		(1) HD93128	ACS/HRC, ACCUM, HRC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 8-8 (1)	0.6 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
9		(1) HD93128	ACS/HRC, ACCUM, HRC	F658N	CR-SPLIT=NO; GAIN=2		Pattern 9-9 (1)	3.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
10		(1) HD93128	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=4		Pattern 10-10 (2)	54.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
11		(1) HD93128	ACS/WFC, ACCUM, WFC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 11-11 (3)	349.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	 ***[2]***
12		(1) HD93128	ACS/WFC, ACCUM, WFC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 12-12 (3)	339.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	 ***[2]***
13		(1) HD93128	ACS/WFC, ACCUM, WFC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 13-13 (3)	339.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	 ***[2]***

Orbit Structure




Orbit Structure (continued)
Orbit 2
Server Version: 20050905
Pointing Maneuver
Exp. 11
Pointing Maneuver
Exp. 12
Pointing Maneuver
Exp. 12
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Exp. 13
Pointing Maneuver
Exp. 13
Occultation
Unused Visibility = 0
GS Acq
Exp. 11
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs

Visit

Proposal 10602, Visit 02 Tue Nov 15 02:07:26 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC, ACS/HRC

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=2.7 Line Spacing=0.135	Coordinate Frame=POS-TARG Pattern Orientation=0 Angle Between Sides=90 Center Pattern=true		(3), (4), (5), (8), (9), (10)
(2)	Pattern Type=ACS-HRC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=2.7 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=5.8 Angle Between Sides= Center Pattern=true		(1), (2), (11)
(3)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.011 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.3 Angle Between Sides= Center Pattern=false		(12), (13), (14)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	HD93205	RA: 10 44 33.0000 (161.1375000d) Dec: -59 44 20.00 (-59.73889d) Equinox: J2000 Plate Id: (?)		V=7.75	Coordinate Source: HIPPARCOS/TYCHO_CATALOGUE

Comments: Coordinates offset from HD 93205 in order to include HD 93204 in the field

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(2) HD93205	ACS/HRC, ACCUM, HRC	F220W	CR-SPLIT=NO; GAIN=2		Pattern 1-1 (2)	0.3 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	 ***[1]***
2		(2) HD93205	ACS/HRC, ACCUM, HRC	F250W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (2)	0.2 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	 ***[1]***

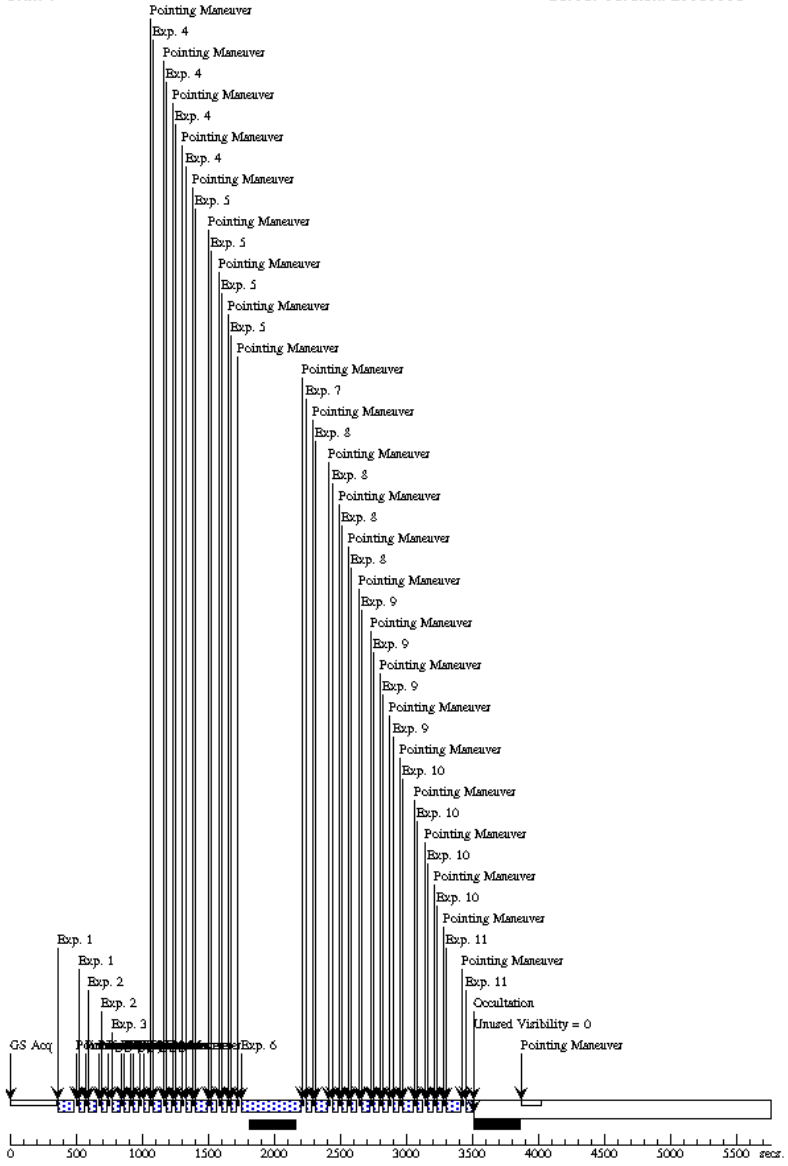
Exposures (continued)

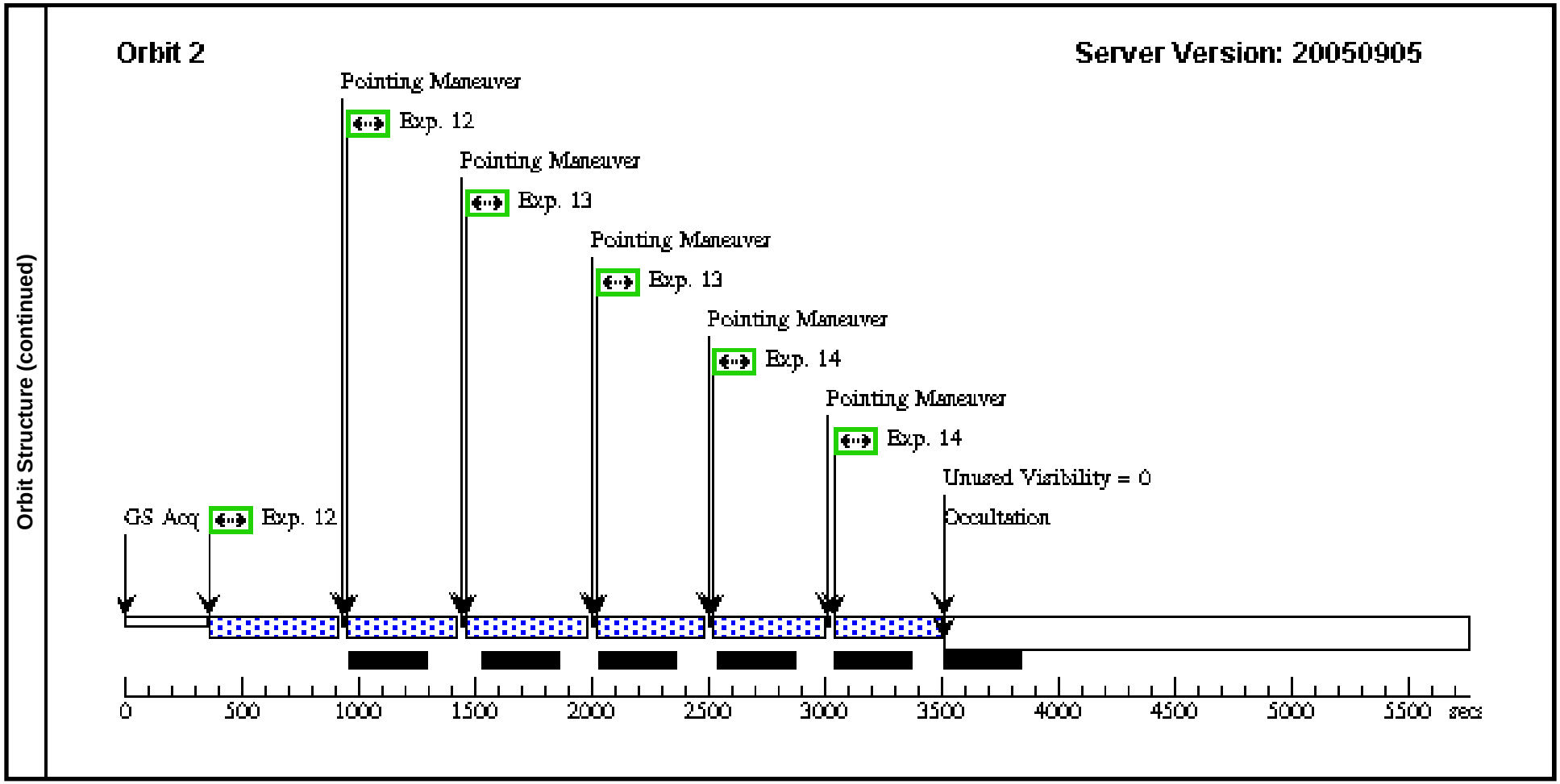
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
3		(2) HD93205	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=2		Pattern 3-3 (1)	0.1 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
4		(2) HD93205	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=NO; GAIN=4		Pattern 4-4 (1)	0.1 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
5		(2) HD93205	ACS/HRC, ACCUM, HRC	F502N	CR-SPLIT=NO; GAIN=2		Pattern 5-5 (1)	1.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
6		(2) HD93205	ACS/HRC, ACCUM, HRC	F660N	CR-SPLIT=NO; GAIN=4	POS TARG 1.343,0.138		357.0 Secs	
								[==>]	***[1]***
7		(2) HD93205	ACS/HRC, ACCUM, HRC	F660N	CR-SPLIT=NO; GAIN=2	POS TARG -1.343,-0.138		3.0 Secs	
								[==>]	***[1]***
8		(2) HD93205	ACS/HRC, ACCUM, HRC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 8-8 (1)	0.1 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
9		(2) HD93205	ACS/HRC, ACCUM, HRC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 9-9 (1)	0.3 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
10		(2) HD93205	ACS/HRC, ACCUM, HRC	F658N	CR-SPLIT=NO; GAIN=2		Pattern 10-10 (1)	1.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
11		(2) HD93205	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=4		Pattern 11-11 (2)	15.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
12		(2) HD93205	ACS/WFC, ACCUM, WFC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 12-12 (3)	349.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	 ***[2]***
13		(2) HD93205	ACS/WFC, ACCUM, WFC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 13-13 (3)	339.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	 ***[2]***
14		(2) HD93205	ACS/WFC, ACCUM, WFC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 14-14 (3)	339.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	 ***[2]***

Orbit Structure




Orbit Structure (continued)
Orbit 2
Server Version: 20050905
Pointing Maneuver
Exp. 12
Pointing Maneuver
Exp. 13
Pointing Maneuver
Exp. 13
Pointing Maneuver
Exp. 14
Pointing Maneuver
Exp. 14
Unused Visibility = 0
Occultation
GS Acq
Exp. 12
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 10602, Visit 03 Tue Nov 15 02:07:28 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC, ACS/HRC

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=2.7 Line Spacing=0.135	Coordinate Frame=POS-TARG Pattern Orientation=0 Angle Between Sides=90 Center Pattern=true		(3), (4), (5), (8), (9), (10)
(2)	Pattern Type=ACS-HRC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=2.7 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=5.8 Angle Between Sides= Center Pattern=true		(1), (2), (11)
(3)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.011 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.3 Angle Between Sides= Center Pattern=false		(12), (13), (14)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	HD93250	RA: 10 44 45.0280 (161.1876167d) Dec: -59 33 54.67 (-59.56519d) Equinox: J2000 Plate Id: (?)		V=7.38	Coordinate Source: HIPPARCOS/TYCHO_CATALOGUE

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(3) HD93250	ACS/HRC, ACCUM, HRC	F220W	CR-SPLIT=NO; GAIN=2		Pattern 1-1 (2)	0.4 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	*[1]*
2		(3) HD93250	ACS/HRC, ACCUM, HRC	F250W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (2)	0.2 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	*[1]*

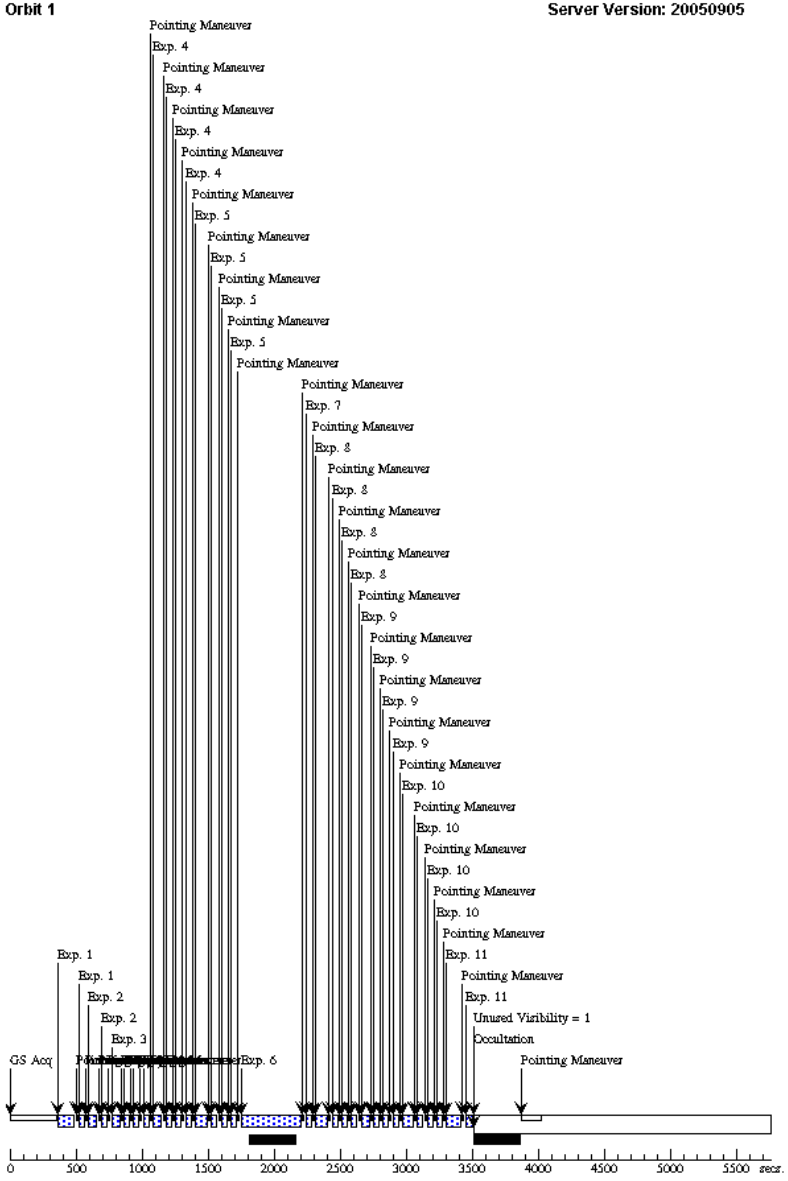
Exposures (continued)

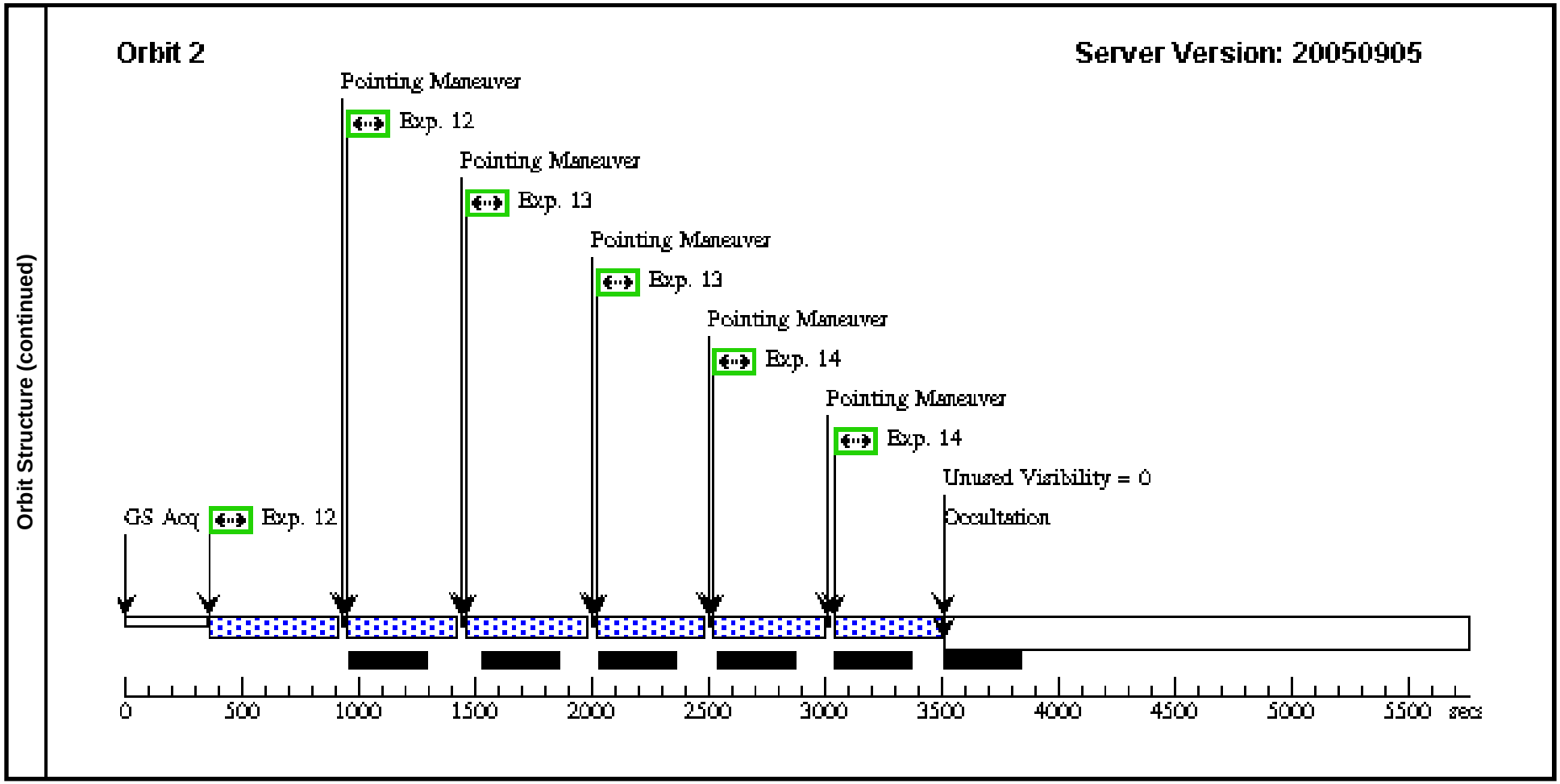
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
3		(3) HD93250	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=2		Pattern 3-3 (1)	0.1 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
4		(3) HD93250	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=NO; GAIN=4		Pattern 4-4 (1)	0.1 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
5		(3) HD93250	ACS/HRC, ACCUM, HRC	F502N	CR-SPLIT=NO; GAIN=2		Pattern 5-5 (1)	0.7 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
6		(3) HD93250	ACS/HRC, ACCUM, HRC	F660N	CR-SPLIT=NO; GAIN=4	POS TARG 1.343,0.138		357.0 Secs	
								[==>]	***[1]***
7		(3) HD93250	ACS/HRC, ACCUM, HRC	F660N	CR-SPLIT=NO; GAIN=2	POS TARG -1.343,-0.138		2.0 Secs	
								[==>]	***[1]***
8		(3) HD93250	ACS/HRC, ACCUM, HRC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 8-8 (1)	0.1 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
9		(3) HD93250	ACS/HRC, ACCUM, HRC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 9-9 (1)	0.2 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
10		(3) HD93250	ACS/HRC, ACCUM, HRC	F658N	CR-SPLIT=NO; GAIN=2		Pattern 10-10 (1)	0.7 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
11		(3) HD93250	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=4		Pattern 11-11 (2)	15.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
12		(3) HD93250	ACS/WFC, ACCUM, WFC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 12-12 (3)	349.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***
13		(3) HD93250	ACS/WFC, ACCUM, WFC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 13-13 (3)	339.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***
14		(3) HD93250	ACS/WFC, ACCUM, WFC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 14-14 (3)	339.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***

Orbit Structure




Orbit Structure (continued)
Orbit 2
Server Version: 20050905
Pointing Maneuver
Exp. 12
Pointing Maneuver
Exp. 13
Pointing Maneuver
Exp. 13
Pointing Maneuver
Exp. 14
Pointing Maneuver
Exp. 14
Unused Visibility = 0
Occultation
GS Acq
Exp. 12
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs

Visit

Proposal 10602, Visit 04 Tue Nov 15 02:07:29 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC, ACS/HRC

Special Requirements: ORIENT 20.0D TO 40.0 D; ORIENT 200.0D TO 220.0 D

Comments: Orientation requirement imposed in order to include both MJ 257 and HD 93162.

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=2.7 Line Spacing=0.135	Coordinate Frame=POS-TARG Pattern Orientation=0 Angle Between Sides=90 Center Pattern=true		(1), (2), (3), (4), (7), (8), (9)
(2)	Pattern Type=ACS-HRC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=2.7 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=5.8 Angle Between Sides= Center Pattern=true		(10)
(3)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.011 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.3 Angle Between Sides= Center Pattern=false		(11), (12), (13)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	MJ257	RA: 10 44 11.6000 (161.0483333d) Dec: -59 43 10.60 (-59.71961d) Equinox: J2000 Plate Id: (?)		V=10.78	Coordinate Source: HIPPARCOS/TYCHO_CATALOGUE

Comments: Target coordinates correspond to a point in between MJ 257 and HD 93162

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(4) MJ257	ACS/HRC, ACCUM, HRC	F220W	CR-SPLIT=NO; GAIN=2		Pattern 1-1 (1)	2.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***

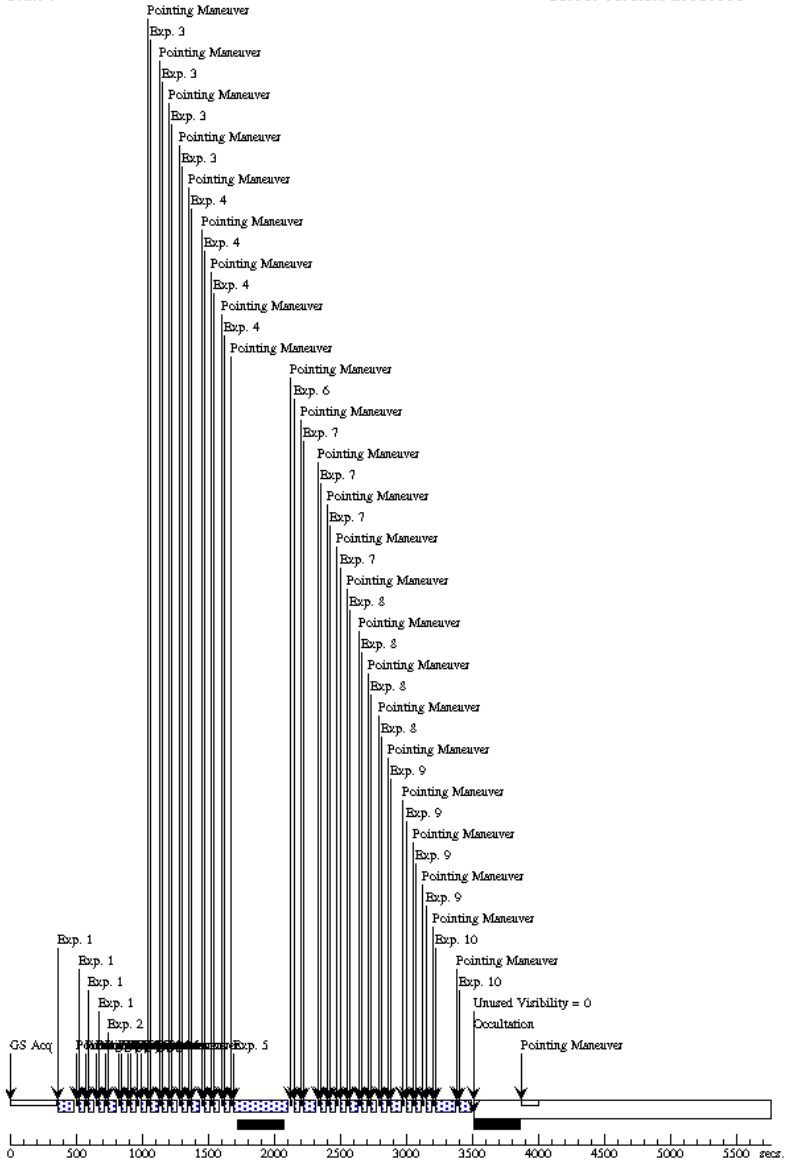
Exposures (continued)

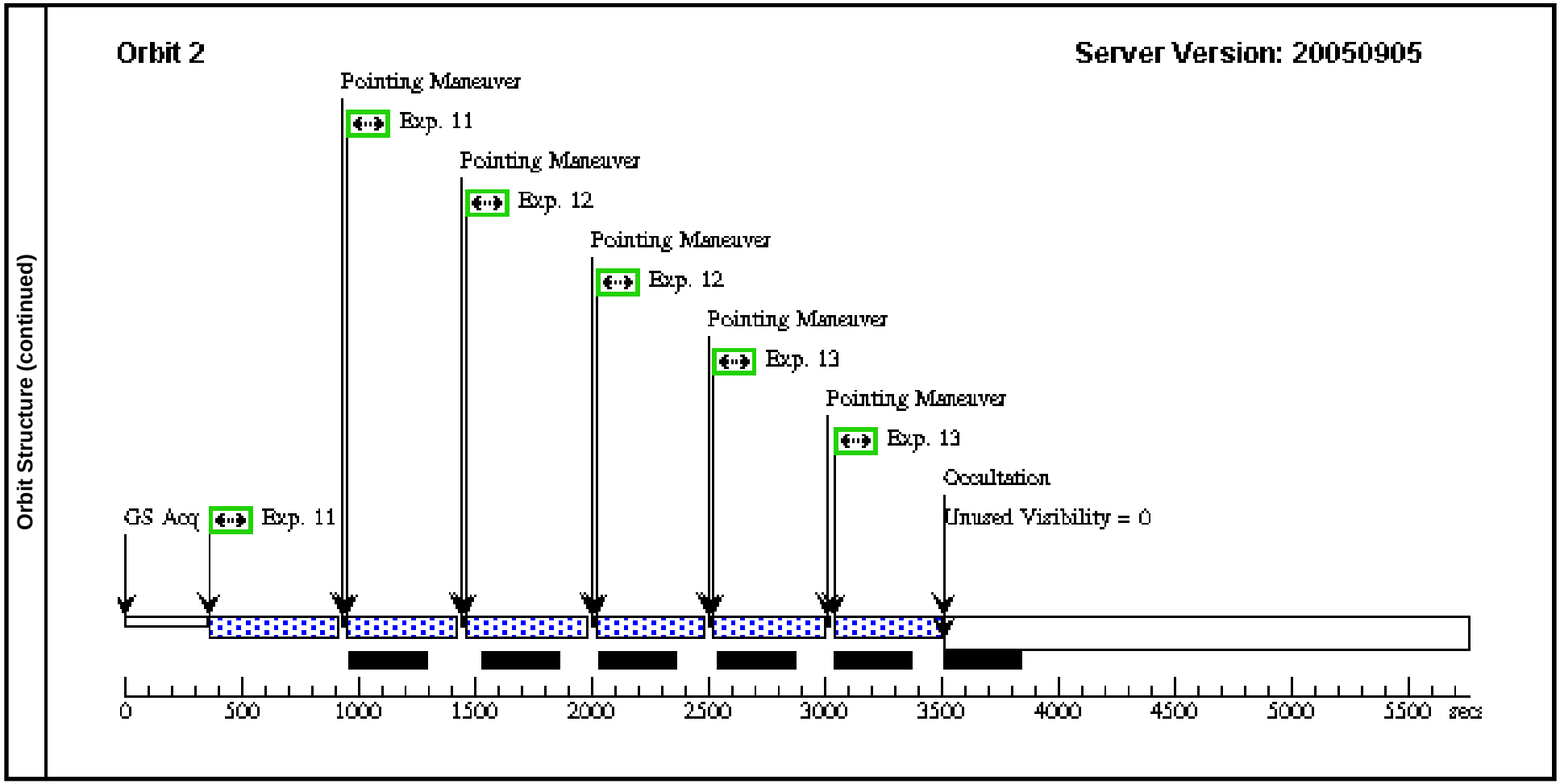
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
2		(4) MJ257	ACS/HRC, ACCUM, HRC	F250W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (1)	0.8 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
3		(4) MJ257	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=2		Pattern 3-3 (1)	0.3 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
4		(4) MJ257	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 4-4 (1)	0.1 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
5		(4) MJ257	ACS/HRC, ACCUM, HRC	F660N	CR-SPLIT=NO; GAIN=4	POS TARG 1.343,0.138		357.0 Secs	
								[==>]	***[1]***
6		(4) MJ257	ACS/HRC, ACCUM, HRC	F660N	CR-SPLIT=NO; GAIN=2	POS TARG -1.343,-0.138		5.0 Secs	
								[==>]	***[1]***
7		(4) MJ257	ACS/HRC, ACCUM, HRC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 7-7 (1)	0.2 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
8		(4) MJ257	ACS/HRC, ACCUM, HRC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 8-8 (1)	0.3 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
9		(4) MJ257	ACS/HRC, ACCUM, HRC	F658N	CR-SPLIT=NO; GAIN=2		Pattern 9-9 (1)	2.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
10		(4) MJ257	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=4		Pattern 10-10 (2)	57.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
11		(4) MJ257	ACS/WFC, ACCUM, WFC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 11-11 (3)	349.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***
12		(4) MJ257	ACS/WFC, ACCUM, WFC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 12-12 (3)	339.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***
13		(4) MJ257	ACS/WFC, ACCUM, WFC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 13-13 (3)	339.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***

Orbit Structure




Orbit Structure (continued)
Orbit 2
Server Version: 20050905
Pointing Maneuver
Exp. 11
Pointing Maneuver
Exp. 12
Pointing Maneuver
Exp. 12
Pointing Maneuver
Exp. 13
Pointing Maneuver
Exp. 13
Occultation
Unused Visibility = 0
GS Acq
Exp. 11
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs

Visit

Proposal 10602, Visit 05 Tue Nov 15 02:07:31 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC, ACS/HRC

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=2.7 Line Spacing=0.135	Coordinate Frame=POS-TARG Pattern Orientation=0 Angle Between Sides=90 Center Pattern=true		(1), (2), (3), (4), (6), (7)
(2)	Pattern Type=ACS-HRC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=2.7 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=5.8 Angle Between Sides= Center Pattern=true		(5)
(3)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.011 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.3 Angle Between Sides= Center Pattern=false		(8), (9), (10)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	NGC3603	RA: 11 15 7.1000 (168.7795833d) Dec: -61 15 38.00 (-61.26056d) Equinox: J2000 Plate Id: (?)		V=11.12 V magnitude is that of the brightest star in the field	Coordinate Source: HIPPARCOS/TYCHO_CATALOGUE

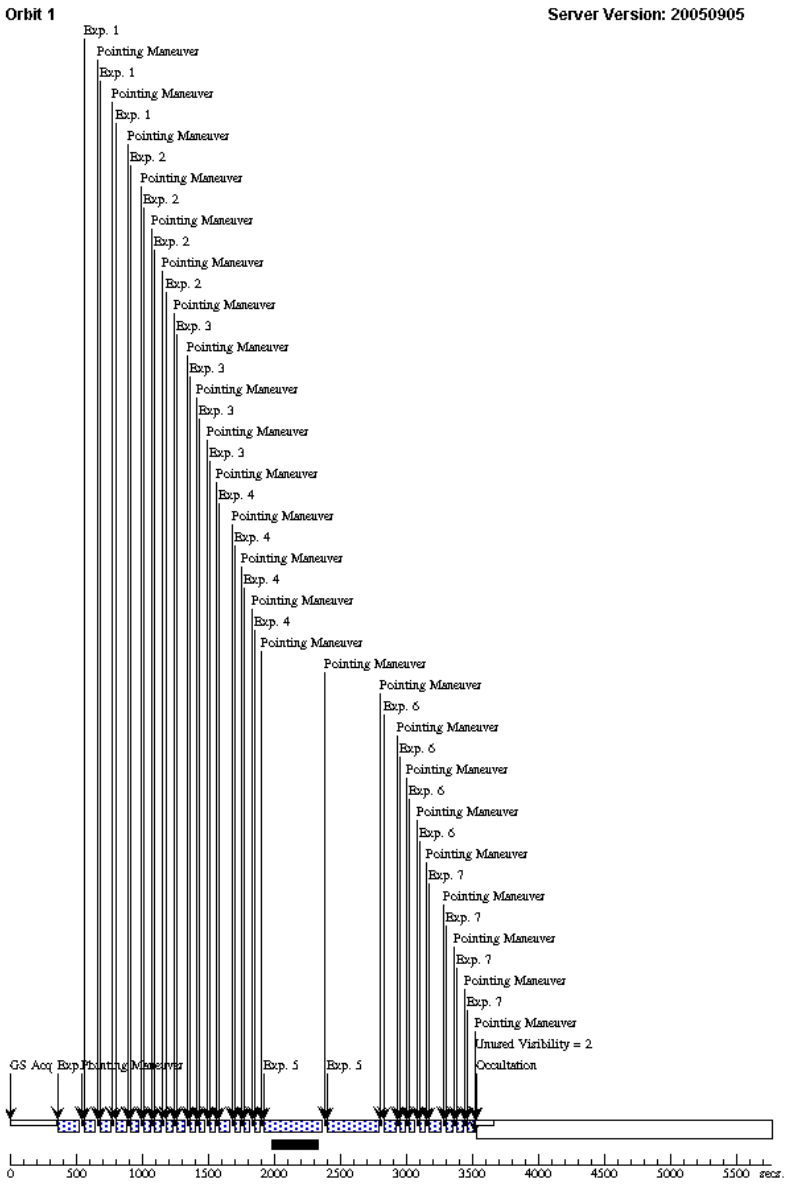
Exposures

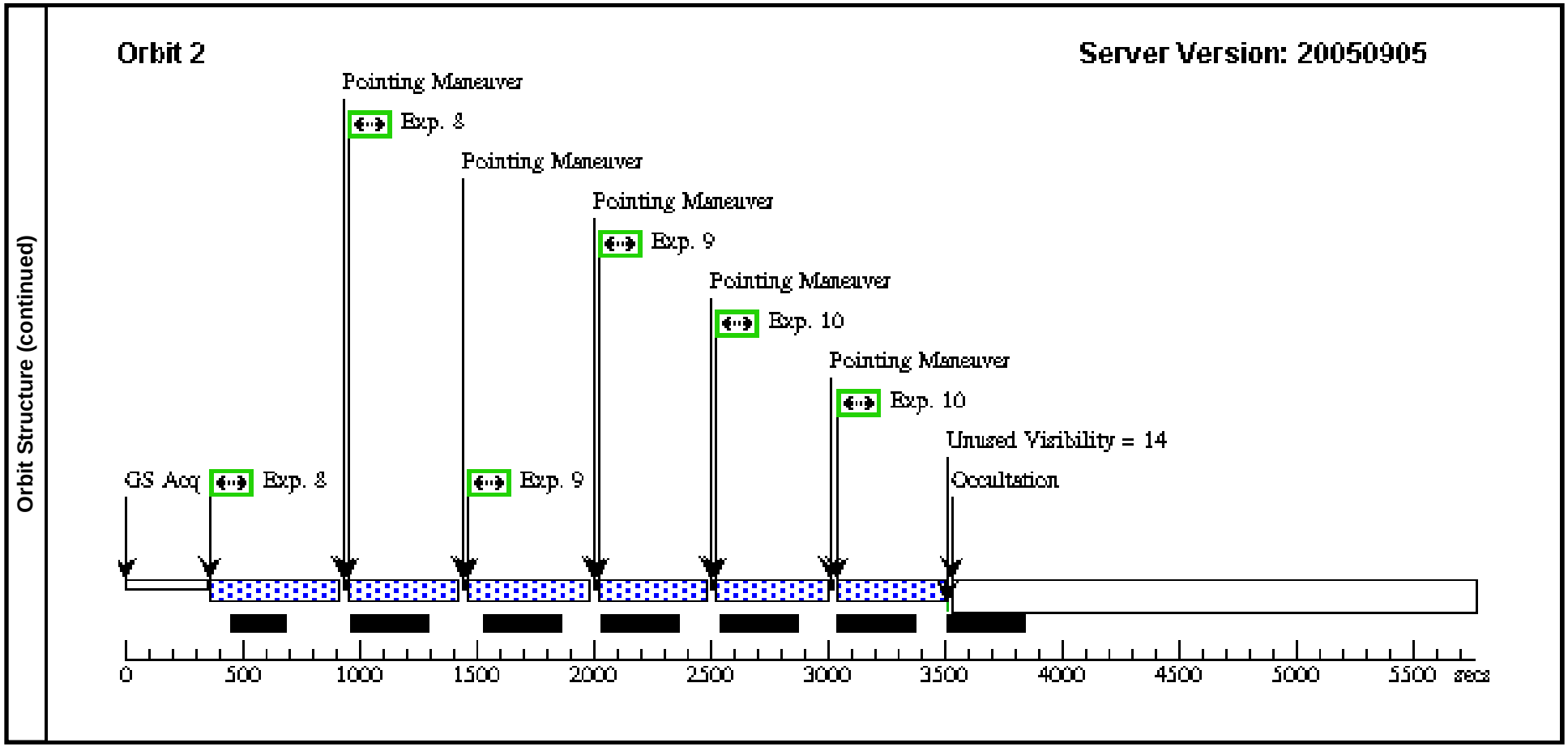
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(5) NGC3603	ACS/HRC, ACCUM, HRC	F250W	CR-SPLIT=NO; GAIN=4		Pattern 1-1 (1)	44.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		(5) NGC3603	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (1)	10.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
3		(5) NGC3603	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 3-3 (1)	2.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
4		(5) NGC3603	ACS/HRC, ACCUM, HRC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 4-4 (1)	2.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
5		(5) NGC3603	ACS/HRC, ACCUM, HRC	F220W	CR-SPLIT=NO; GAIN=4		Pattern 5-5 (2)	357.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[1]***
6		(5) NGC3603	ACS/HRC, ACCUM, HRC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 6-6 (1)	1.5 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
7		(5) NGC3603	ACS/HRC, ACCUM, HRC	F658N	CR-SPLIT=NO; GAIN=2		Pattern 7-7 (1)	10.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
8		(5) NGC3603	ACS/WFC, ACCUM, WFC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 8-8 (3)	349.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***
9		(5) NGC3603	ACS/WFC, ACCUM, WFC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 9-9 (3)	339.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***
10		(5) NGC3603	ACS/WFC, ACCUM, WFC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 10-10 (3)	339.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***

Orbit Structure




Orbit Structure (continued)
Orbit 2
Server Version: 20050905
Pointing Maneuver
Exp. 8
Pointing Maneuver
Pointing Maneuver
Exp. 9
Pointing Maneuver
Exp. 10
Pointing Maneuver
Exp. 10
Unused Visibility = 14
Occultation
GS Acq
Exp. 8
Exp. 9
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs

Visit

Proposal 10602, Visit 06 Tue Nov 15 02:07:32 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC, ACS/HRC

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=2.7 Line Spacing=0.135	Coordinate Frame=POS-TARG Pattern Orientation=0 Angle Between Sides=90 Center Pattern=true		(2), (3), (4), (6), (7)
(2)	Pattern Type=ACS-HRC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=2.7 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=5.8 Angle Between Sides= Center Pattern=true		(1), (5)
(3)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.011 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.3 Angle Between Sides= Center Pattern=false		(8), (9), (10)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	PISMIS24	RA: 17 24 44.1000 (261.1837500d) Dec: -34 11 59.48 (-34.19986d) Equinox: J2000 Plate Id: (?)		V=10.43 V magnitude is that of Pismis 24 -1	Coordinate Source: HIPPARCOS/TYCHO_CATALOGUE

Comments: Target coordinates correspond to a point in between Pismis 24-1 and 24-17

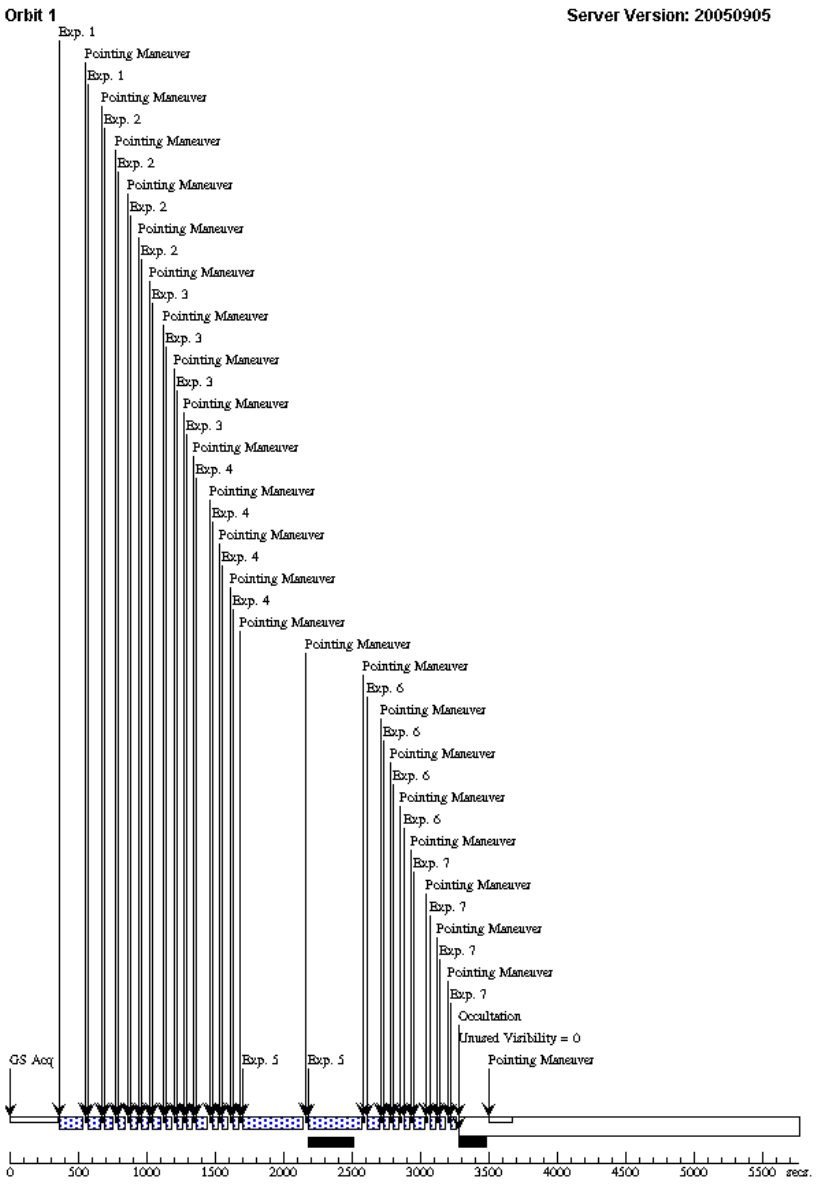
Exposures

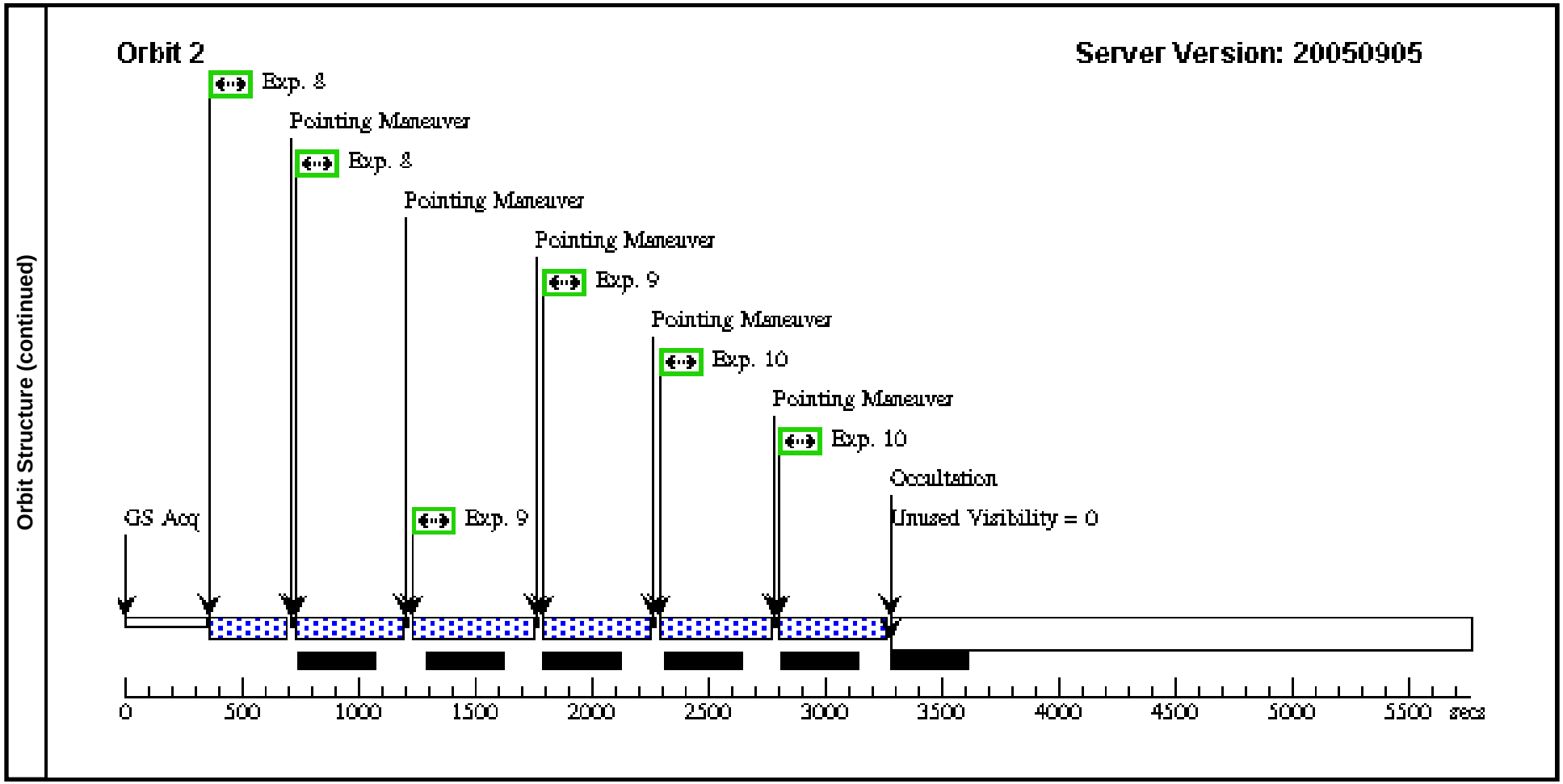
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(6) PISMIS24	ACS/HRC, ACCUM, HRC	F250W	CR-SPLIT=NO; GAIN=4		Pattern 1-1 (2)	50.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	*[1]*
2		(6) PISMIS24	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (1)	10.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	*[1]*

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
3		(6) PISMIS24	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 3-3 (1)	2.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
4		(6) PISMIS24	ACS/HRC, ACCUM, HRC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 4-4 (1)	1.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
5		(6) PISMIS24	ACS/HRC, ACCUM, HRC	F220W	CR-SPLIT=NO; GAIN=4		Pattern 5-5 (2)	357.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[1]***
6		(6) PISMIS24	ACS/HRC, ACCUM, HRC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 6-6 (1)	0.5 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
7		(6) PISMIS24	ACS/HRC, ACCUM, HRC	F658N	CR-SPLIT=NO; GAIN=2		Pattern 7-7 (1)	5.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
8		(6) PISMIS24	ACS/WFC, ACCUM, WFC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 8-8 (3)	349.0 Secs	
								[==>121.0 Secs (Pattern 1)] *[==>339.0 Secs (Pattern 2)]*	***[2]***
9		(6) PISMIS24	ACS/WFC, ACCUM, WFC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 9-9 (3)	339.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***
10		(6) PISMIS24	ACS/WFC, ACCUM, WFC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 10-10 (3)	339.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***

Orbit Structure




Orbit Structure (continued)
Orbit 2
Server Version: 20050905
Exp. 8
Pointing Maneuver
Exp. 8
Pointing Maneuver
Pointing Maneuver
Exp. 9
Pointing Maneuver
Exp. 10
Pointing Maneuver
Exp. 10
Occultation
Unused Visibility = 0
GS Acq
Exp. 9
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs

Visit

Proposal 10602, Visit 07 Tue Nov 15 02:07:33 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC, ACS/HRC

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=2.7 Line Spacing=0.135	Coordinate Frame=POS-TARG Pattern Orientation=0 Angle Between Sides=90 Center Pattern=true		(1), (2), (3), (4), (7), (8), (9)
(3)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.011 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.3 Angle Between Sides= Center Pattern=false		(10), (11), (12)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	HD64568	RA: 07 53 38.2060 (118.4091917d) Dec: -26 14 2.62 (-26.23406d) Equinox: J2000 Plate Id: (?)		V=9.4	Coordinate Source: HIPPARCOS/TYCHO_CATALOGUE

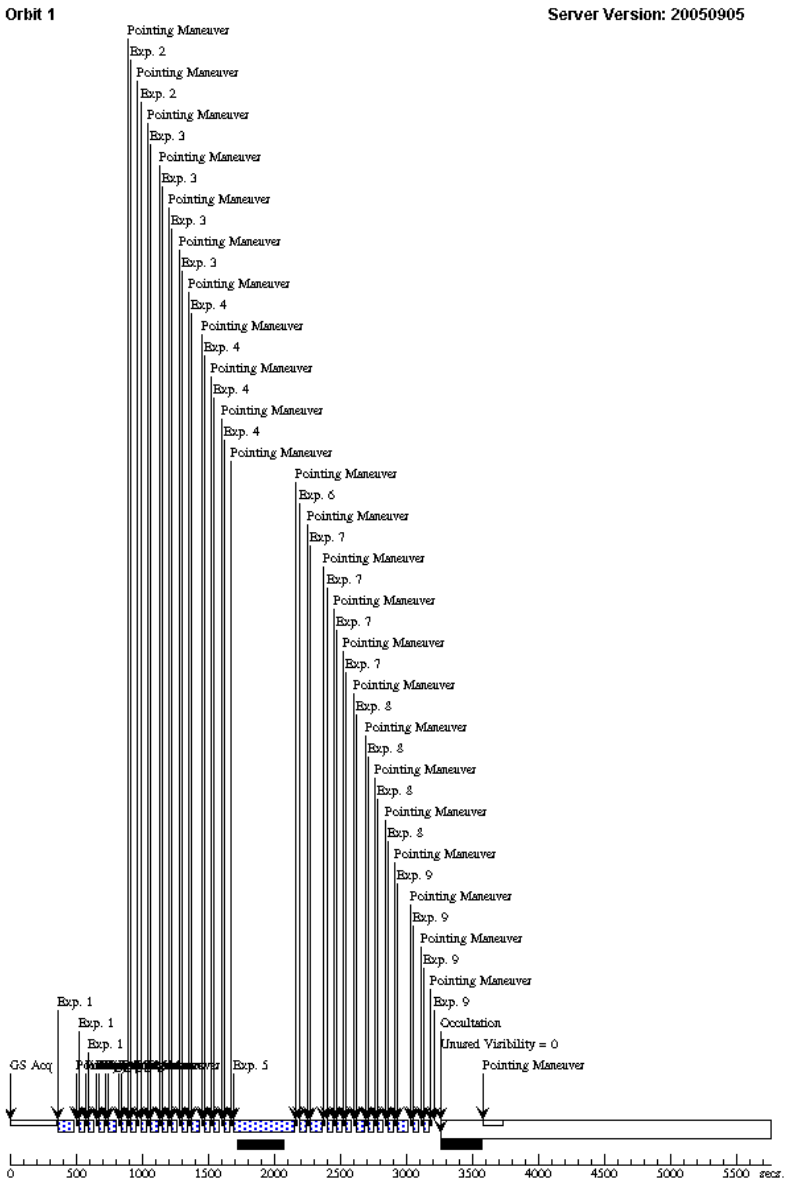
Exposures

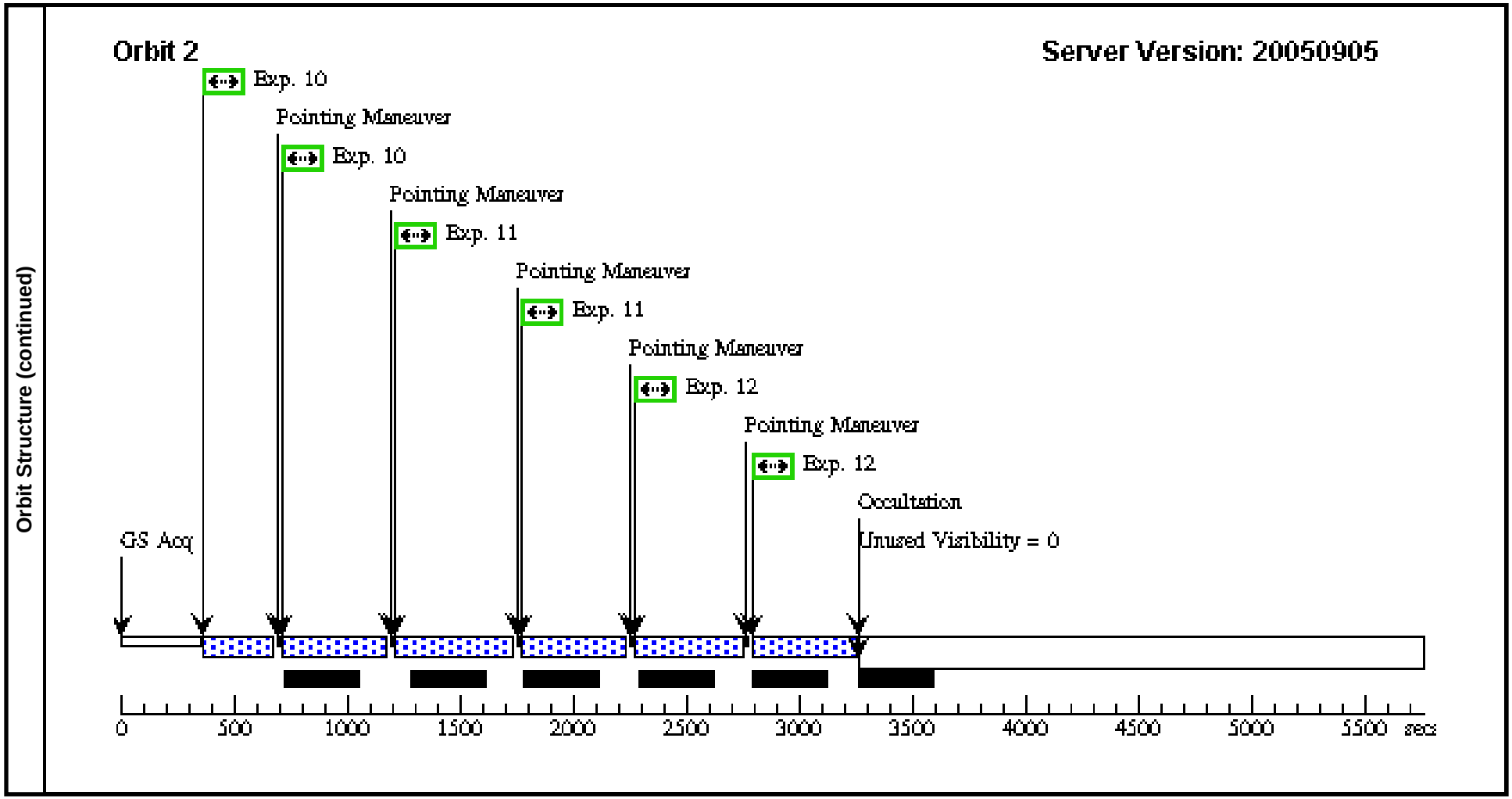
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(7) HD64568	ACS/HRC, ACCUM, HRC	F220W	CR-SPLIT=NO; GAIN=2		Pattern 1-1 (1)	1.5 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	 ***[1]***
2		(7) HD64568	ACS/HRC, ACCUM, HRC	F250W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (1)	0.8 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	 ***[1]***
3		(7) HD64568	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=2		Pattern 3-3 (1)	0.5 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	 ***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
4		(7) HD64568	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 4-4 (1)	0.2 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
5		(7) HD64568	ACS/HRC, ACCUM, HRC	F660N	CR-SPLIT=NO; GAIN=4	POS TARG 1.343,0.138		399.0 Secs	
								[==>]	***[1]***
6		(7) HD64568	ACS/HRC, ACCUM, HRC	F660N	CR-SPLIT=NO; GAIN=2	POS TARG -1.343,-0.138		10.0 Secs	
								[==>]	***[1]***
7		(7) HD64568	ACS/HRC, ACCUM, HRC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 7-7 (1)	0.5 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
8		(7) HD64568	ACS/HRC, ACCUM, HRC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 8-8 (1)	1.5 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
9		(7) HD64568	ACS/HRC, ACCUM, HRC	F658N	CR-SPLIT=NO; GAIN=2		Pattern 9-9 (1)	5.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
10		(7) HD64568	ACS/WFC, ACCUM, WFC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 10-10 (3)	349.0 Secs	
								[==>105.0 Secs (Pattern 1)] *[==>339.0 Secs (Pattern 2)]*	***[2]***
11		(7) HD64568	ACS/WFC, ACCUM, WFC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 11-11 (3)	339.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***
12		(7) HD64568	ACS/WFC, ACCUM, WFC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 12-12 (3)	339.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***

Orbit Structure




Orbit Structure (continued)
Orbit 2
Server Version: 20050905
Exp. 10
Pointing Maneuver
Exp. 10
Pointing Maneuver
Exp. 11
Pointing Maneuver
Exp. 11
Pointing Maneuver
Exp. 12
Pointing Maneuver
Exp. 12
Occultation
Unused Visibility = 0
GS Acq
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 10602, Visit 08 Tue Nov 15 02:07:36 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC, ACS/HRC

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=2.7 Line Spacing=0.135	Coordinate Frame=POS-TARG Pattern Orientation=0 Angle Between Sides=90 Center Pattern=true		(1), (6), (10), (11)
(2)	Pattern Type=ACS-HRC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=2.7 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=5.8 Angle Between Sides= Center Pattern=true		(2), (3), (4), (5), (9), (12)
(3)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.011 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.3 Angle Between Sides= Center Pattern=false		(13), (14), (15)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	HD150136A	RA: 16 41 20.4450 (250.3351875d) Dec: -48 45 46.74 (-48.76298d) Equinox: J2000 Plate Id: (?)		V=5.54	Coordinate Source: HIPPARCOS/TYCHO_CATALOGUE

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(8) HD150136A	ACS/HRC, ACCUM, HRC	F220W	CR-SPLIT=NO; GAIN=4		Pattern 1-1 (1)	0.1 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	 ***[1]***
2		(8) HD150136A	ACS/HRC, ACCUM, HRC	F250W	CR-SPLIT=NO; GAIN=4		Pattern 2-2 (2)	0.1 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	 ***[1]***

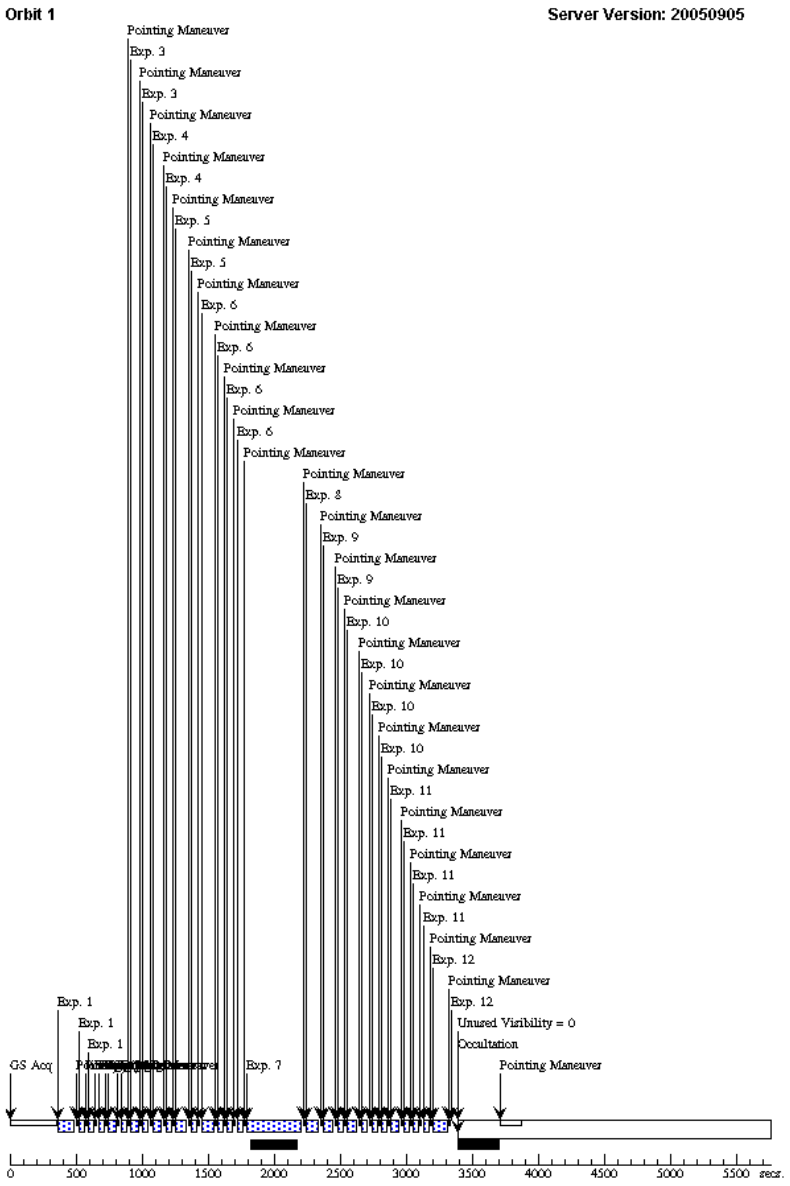
Exposures (continued)

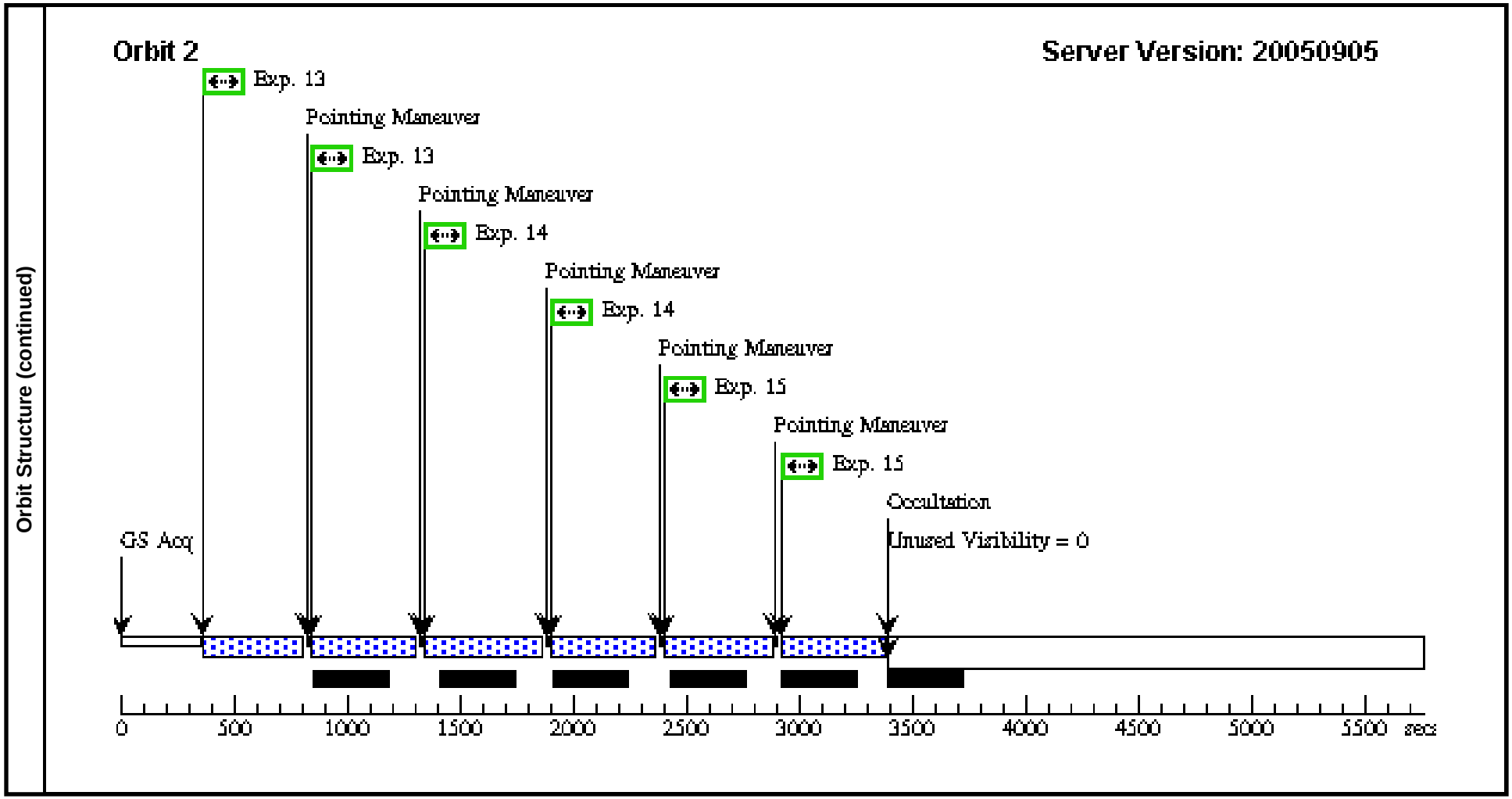
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
3		(8) HD150136A	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=4		Pattern 3-3 (2)	0.1 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	 ***[1]***
4		(8) HD150136A	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=NO; GAIN=4		Pattern 4-4 (2)	0.1 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	 ***[1]***
5		(8) HD150136A	ACS/HRC, ACCUM, HRC	F550M	CR-SPLIT=NO; GAIN=4		Pattern 5-5 (2)	0.1 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	 ***[1]***
6		(8) HD150136A	ACS/HRC, ACCUM, HRC	F344N	CR-SPLIT=NO; GAIN=2		Pattern 6-6 (1)	0.1 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	 ***[1]***
7		(8) HD150136A	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=4	POS TARG 1.343,0.138		357.0 Secs *[==>]*	 ***[1]***
8		(8) HD150136A	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=4	POS TARG -1.343,-0.138		54.0 Secs *[==>]*	 ***[1]***
9		(8) HD150136A	ACS/HRC, ACCUM, HRC	F850LP	CR-SPLIT=NO; GAIN=4		Pattern 9-9 (2)	0.1 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	 ***[1]***
10		(8) HD150136A	ACS/HRC, ACCUM, HRC	F502N	CR-SPLIT=NO; GAIN=2		Pattern 10-10 (1)	0.1 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	 ***[1]***
11		(8) HD150136A	ACS/HRC, ACCUM, HRC	F658N	CR-SPLIT=NO; GAIN=2		Pattern 11-11 (1)	0.1 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	 ***[1]***
12		(8) HD150136A	ACS/HRC, ACCUM, HRC	F660N	CR-SPLIT=NO; GAIN=2		Pattern 12-12 (2)	0.3 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	 ***[1]***
13		(8) HD150136A	ACS/WFC, ACCUM, WFC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 13-13 (3)	349.0 Secs *[==>240.0 Secs (Pattern 1)]* *[==>339.0 Secs (Pattern 2)]*	 ***[2]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
14		(8) HD150136A	ACS/WFC, ACCUM, WFC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 14-14 (3)	339.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[2]***
15		(8) HD150136A	ACS/WFC, ACCUM, WFC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 15-15 (3)	339.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[2]***

Orbit Structure




Orbit Structure (continued)
Orbit 2
Server Version: 20050905
Exp. 13
Pointing Maneuver
Exp. 13
Pointing Maneuver
Exp. 14
Pointing Maneuver
Exp. 14
Pointing Maneuver
Exp. 15
Pointing Maneuver
Exp. 15
Occultation
Unused Visibility = 0
GS Acq
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 10602, Visit 09 Tue Nov 15 02:07:37 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC, ACS/HRC

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=2.7 Line Spacing=0.135	Coordinate Frame=POS-TARG Pattern Orientation=0 Angle Between Sides=90 Center Pattern=true		(1), (3), (4), (7), (8)
(2)	Pattern Type=ACS-HRC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=2.7 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=5.8 Angle Between Sides= Center Pattern=true		(2)
(3)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.011 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.3 Angle Between Sides= Center Pattern=false		(9), (10), (11)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	CYGOB2-7	RA: 20 33 14.9000 (308.3120833d) Dec: +41 20 19.00 (41.33861d) Equinox: J2000 Plate Id: (?)		V=10.55	Coordinate Source: HIPPARCOS/TYCHO_CATALOGUE

Comments: Coordinates offset from Cyg OB2-7 in order to include Cyg OB2-17 in the field

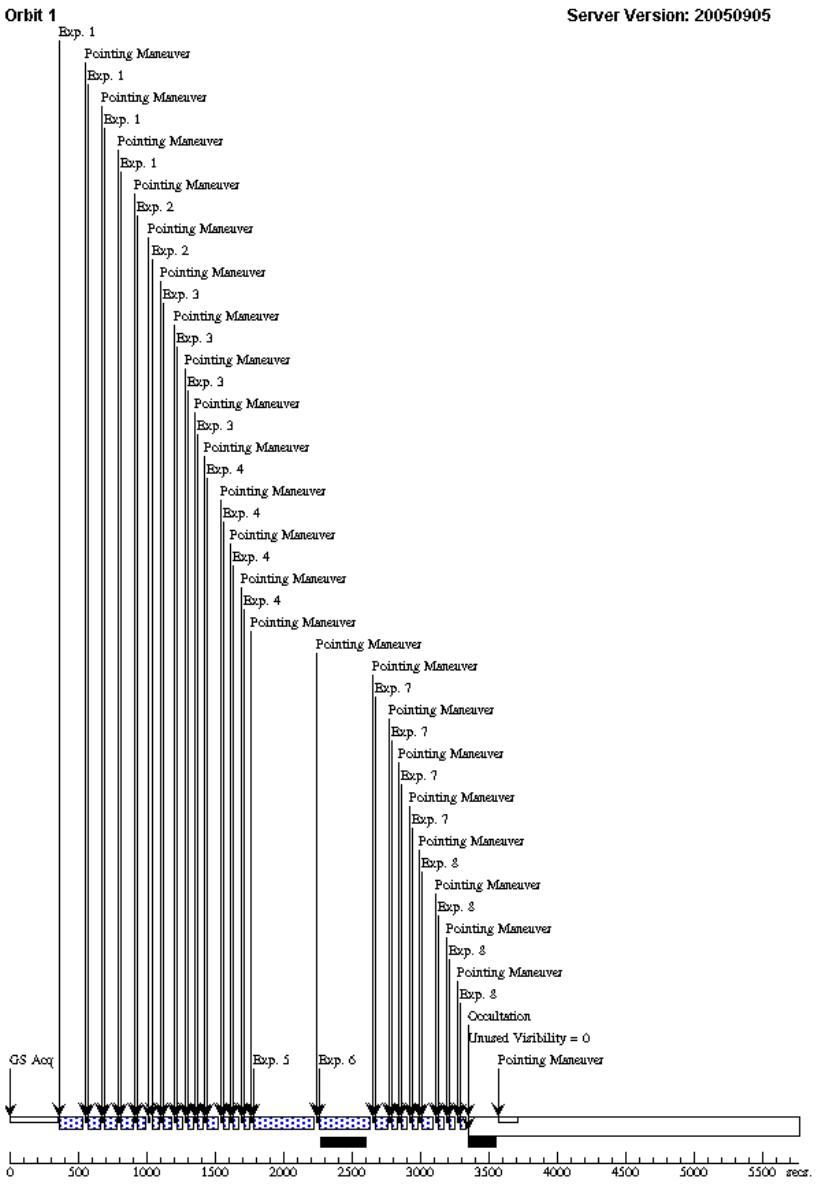
Exposures

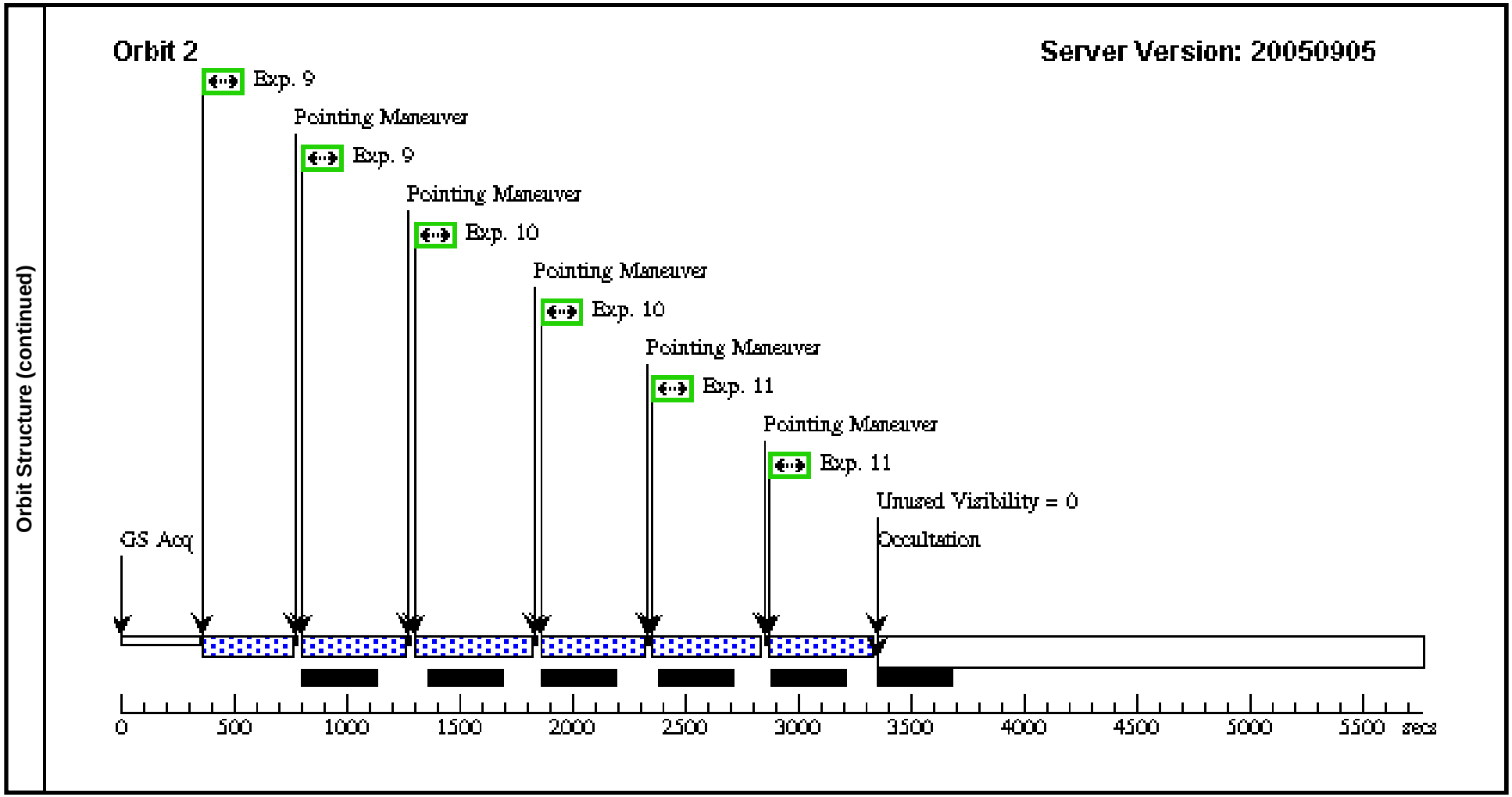
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(9) CYGOB2-7	ACS/HRC, ACCUM, HRC	F250W	CR-SPLIT=NO; GAIN=4		Pattern 1-1 (1)	50.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	 ***[1]***
2		(9) CYGOB2-7	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (2)	10.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	 ***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
3		(9) CYGOB2-7	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 3-3 (1)	2.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
4		(9) CYGOB2-7	ACS/HRC, ACCUM, HRC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 4-4 (1)	1.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
5		(9) CYGOB2-7	ACS/HRC, ACCUM, HRC	F220W	CR-SPLIT=NO; GAIN=4	POS TARG 1.343,0.138		357.0 Secs	
								[==>]	***[1]***
6		(9) CYGOB2-7	ACS/HRC, ACCUM, HRC	F220W	CR-SPLIT=NO; GAIN=4	POS TARG -1.343,-0.138		341.0 Secs	
								[==>]	***[1]***
7		(9) CYGOB2-7	ACS/HRC, ACCUM, HRC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 7-7 (1)	0.5 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
8		(9) CYGOB2-7	ACS/HRC, ACCUM, HRC	F658N	CR-SPLIT=NO; GAIN=2		Pattern 8-8 (1)	6.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
9		(9) CYGOB2-7	ACS/WFC, ACCUM, WFC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 9-9 (3)	349.0 Secs	
								[==>189.0 Secs (Pattern 1)] *[==>339.0 Secs (Pattern 2)]*	***[2]***
10		(9) CYGOB2-7	ACS/WFC, ACCUM, WFC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 10-10 (3)	339.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***
11		(9) CYGOB2-7	ACS/WFC, ACCUM, WFC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 11-11 (3)	339.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***

Orbit Structure




Orbit Structure (continued)
Orbit 2
Server Version: 20050905
Exp. 9
Pointing Maneuver
Exp. 9
Pointing Maneuver
Exp. 10
Pointing Maneuver
Exp. 10
Pointing Maneuver
Exp. 11
Pointing Maneuver
Exp. 11
Unused Visibility = 0
GS Acq
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs

Visit

Proposal 10602, Visit 10 Tue Nov 15 02:07:38 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC, ACS/HRC

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=2.7 Line Spacing=0.135	Coordinate Frame=POS-TARG Pattern Orientation=0 Angle Between Sides=90 Center Pattern=true		(1), (3), (4), (7), (8)
(2)	Pattern Type=ACS-HRC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=2.7 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=5.8 Angle Between Sides= Center Pattern=true		(2)
(3)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.011 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.3 Angle Between Sides= Center Pattern=false		(9), (10), (11)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	CYGOB2-22A	RA: 20 33 9.3000 (308.2887500d) Dec: +41 13 9.00 (41.21917d) Equinox: J2000 Plate Id: (?)		V=12.12	Coordinate Source: HIPPARCOS/TYCHO_CATALOGUE

Comments: Coordinates offset from Cyg OB2-22A in order to include neighbor members of Cyg OB2 in the field

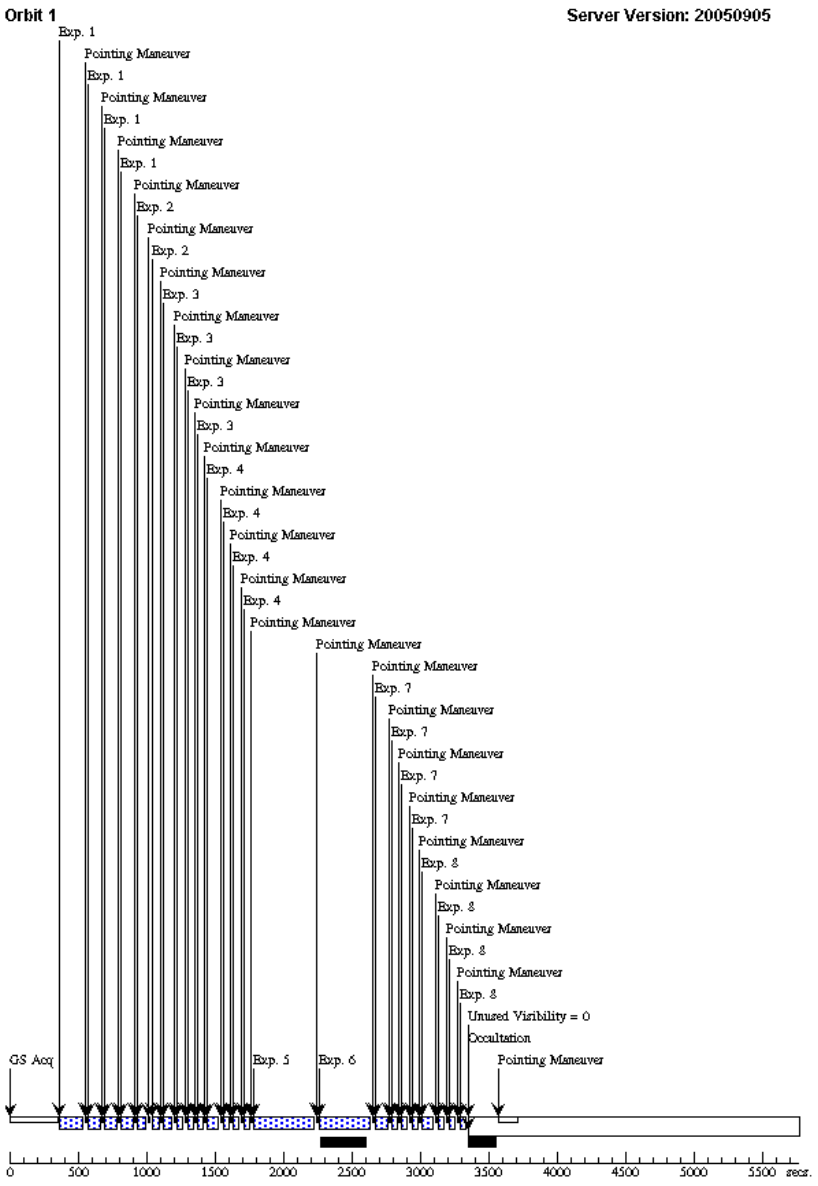
Exposures

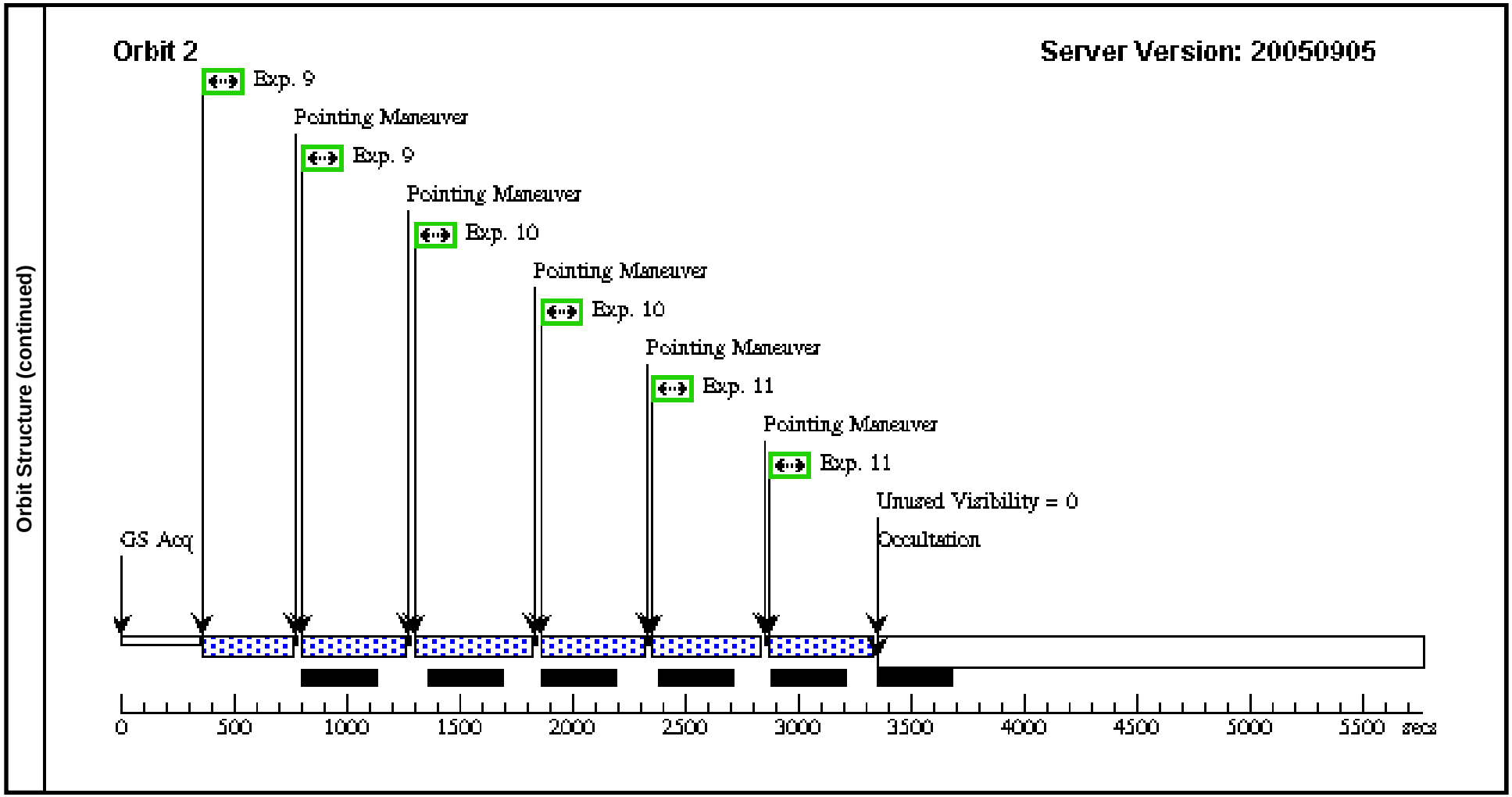
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(10) CYGOB2-22A	ACS/HRC, ACCUM, HRC	F250W	CR-SPLIT=NO; GAIN=4		Pattern 1-1 (1)	50.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		(10) CYGOB2-22A	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (2)	10.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
3		(10) CYGOB2-22A	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 3-3 (1)	2.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
4		(10) CYGOB2-22A	ACS/HRC, ACCUM, HRC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 4-4 (1)	1.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
5		(10) CYGOB2-22A	ACS/HRC, ACCUM, HRC	F220W	CR-SPLIT=NO; GAIN=4	POS TARG 1.343,0.138		357.0 Secs	
								[==>]	***[1]***
6		(10) CYGOB2-22A	ACS/HRC, ACCUM, HRC	F220W	CR-SPLIT=NO; GAIN=4	POS TARG -1.343,-0.138		341.0 Secs	
								[==>]	***[1]***
7		(10) CYGOB2-22A	ACS/HRC, ACCUM, HRC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 7-7 (1)	0.5 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
8		(10) CYGOB2-22A	ACS/HRC, ACCUM, HRC	F658N	CR-SPLIT=NO; GAIN=2		Pattern 8-8 (1)	6.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
9		(10) CYGOB2-22A	ACS/WFC, ACCUM, WFC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 9-9 (3)	349.0 Secs	
								[==>189.0 Secs (Pattern 1)] *[==>339.0 Secs (Pattern 2)]*	***[2]***
10		(10) CYGOB2-22A	ACS/WFC, ACCUM, WFC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 10-10 (3)	339.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***
11		(10) CYGOB2-22A	ACS/WFC, ACCUM, WFC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 11-11 (3)	339.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***

Orbit Structure




Orbit Structure (continued)
Orbit 2
Server Version: 20050905
Exp. 9
Pointing Maneuver
Exp. 9
Pointing Maneuver
Exp. 10
Pointing Maneuver
Exp. 10
Pointing Maneuver
Exp. 11
Pointing Maneuver
Exp. 11
Unused Visibility = 0
Occultation
GS Acq
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs

Visit

Proposal 10602, Visit 11 Tue Nov 15 02:07:40 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC, ACS/HRC

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=2.7 Line Spacing=0.135	Coordinate Frame=POS-TARG Pattern Orientation=0 Angle Between Sides=90 Center Pattern=true		(1), (2), (3), (4), (7), (8), (9)
(3)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.011 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.3 Angle Between Sides= Center Pattern=false		(10), (11), (12)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	HDE228766	RA: 20 17 29.7030 (304.3737625d) Dec: +37 18 31.13 (37.30865d) Equinox: J2000 Plate Id: (?)		V=9.14	Coordinate Source: HIPPARCOS/TYCHO_CATALOGUE

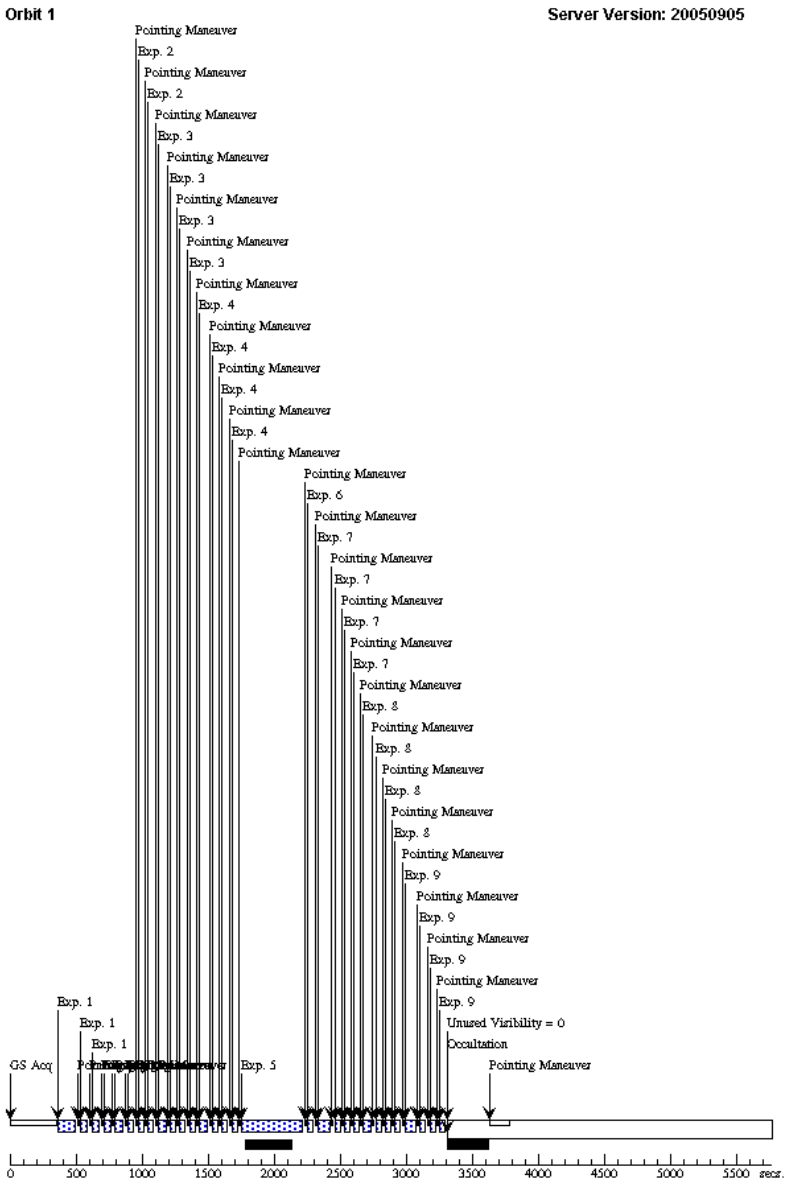
Exposures

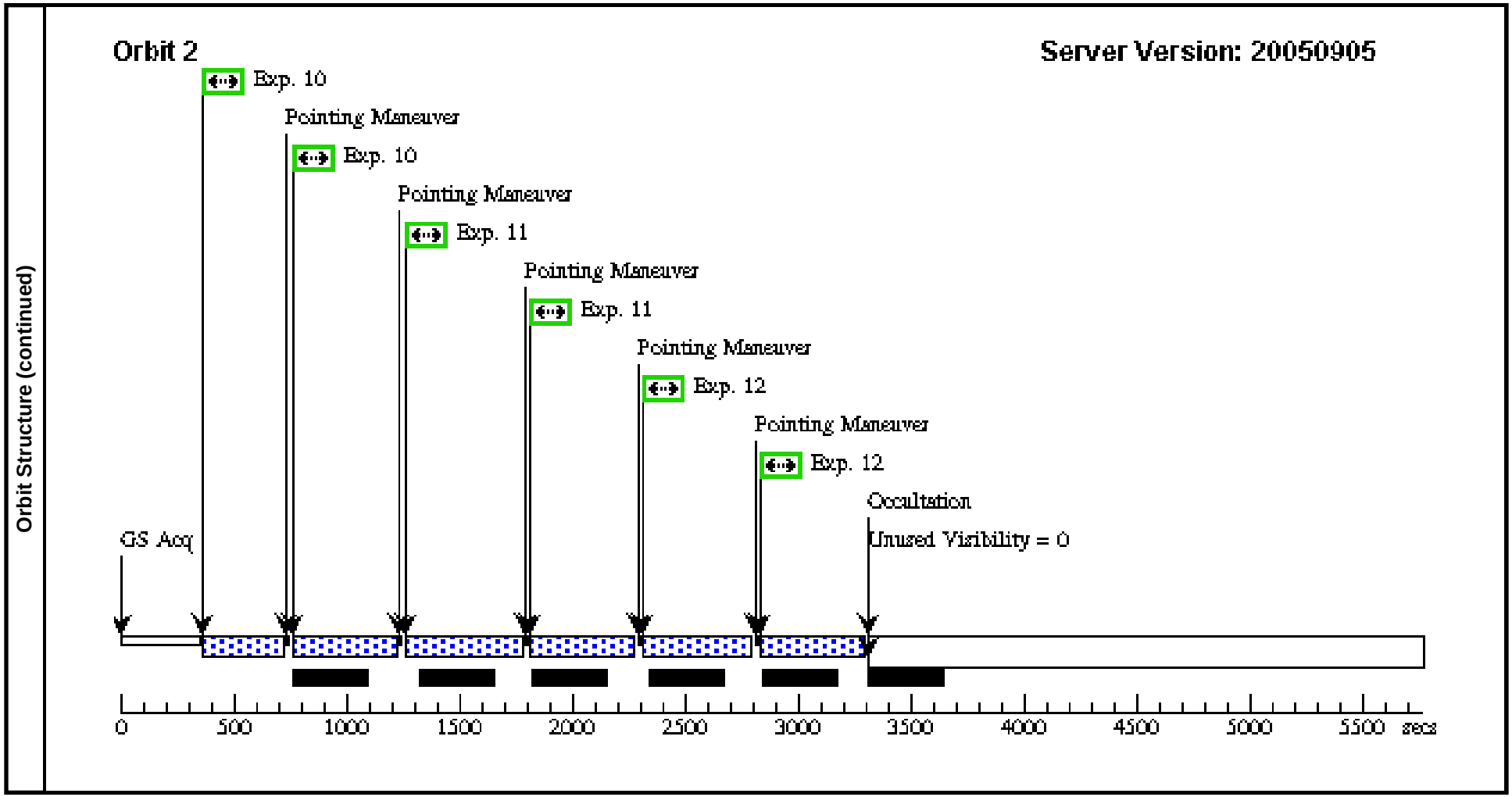
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(11) HDE228766	ACS/HRC, ACCUM, HRC	F220W	CR-SPLIT=NO; GAIN=2		Pattern 1-1 (1)	15.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		(11) HDE228766	ACS/HRC, ACCUM, HRC	F250W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (1)	3.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
3		(11) HDE228766	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=2		Pattern 3-3 (1)	1.0 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
4		(11) HDE228766	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 4-4 (1)	0.3 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
5		(11) HDE228766	ACS/HRC, ACCUM, HRC	F660N	CR-SPLIT=NO; GAIN=4	POS TARG 1.343,0.138		402.0 Secs	
								[==>]	***[1]***
6		(11) HDE228766	ACS/HRC, ACCUM, HRC	F660N	CR-SPLIT=NO; GAIN=2	POS TARG -1.343,-0.138		6.0 Secs	
								[==>]	***[1]***
7		(11) HDE228766	ACS/HRC, ACCUM, HRC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 7-7 (1)	0.4 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
8		(11) HDE228766	ACS/HRC, ACCUM, HRC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 8-8 (1)	0.4 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
9		(11) HDE228766	ACS/HRC, ACCUM, HRC	F658N	CR-SPLIT=NO; GAIN=2		Pattern 9-9 (1)	2.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
10		(11) HDE228766	ACS/WFC, ACCUM, WFC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 10-10 (3)	349.0 Secs	
								[==>148.0 Secs (Pattern 1)] *[==>339.0 Secs (Pattern 2)]*	***[2]***
11		(11) HDE228766	ACS/WFC, ACCUM, WFC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 11-11 (3)	339.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***
12		(11) HDE228766	ACS/WFC, ACCUM, WFC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 12-12 (3)	339.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***

Orbit Structure




Orbit Structure (continued)
Orbit 2
Server Version: 20050905
Exp. 10
Pointing Maneuver
Exp. 10
Pointing Maneuver
Exp. 11
Pointing Maneuver
Exp. 11
Pointing Maneuver
Exp. 12
Pointing Maneuver
Exp. 12
Occultation
Unused Visibility = 0
GS Acq
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs

Visit

Proposal 10602, Visit 53 Tue Nov 15 02:07:41 GMT 2005

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC, ACS/HRC

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=2.7 Line Spacing=0.135	Coordinate Frame=POS-TARG Pattern Orientation=0 Angle Between Sides=90 Center Pattern=true		(3), (4), (5), (8), (9), (10)
(2)	Pattern Type=ACS-HRC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=2.7 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=5.8 Angle Between Sides= Center Pattern=true		(1), (2), (11)
(3)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.011 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.3 Angle Between Sides= Center Pattern=false		(12), (13), (14)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(12)	HD93250-COPY	RA: 10 44 45.0280 (161.1876167d) Dec: -59 33 54.67 (-59.56519d) Equinox: J2000 Plate Id: (?)		V=7.38	Coordinate Source: HIPPARCOS/TYCHO_CATALOGUE

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(12) HD93250-COPY	ACS/HRC, ACCUM, HRC	F220W	CR-SPLIT=NO; GAIN=2		Pattern 1-1 (2)	0.4 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
2		(12) HD93250-COPY	ACS/HRC, ACCUM, HRC	F250W	CR-SPLIT=NO; GAIN=2		Pattern 2-2 (2)	0.2 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***

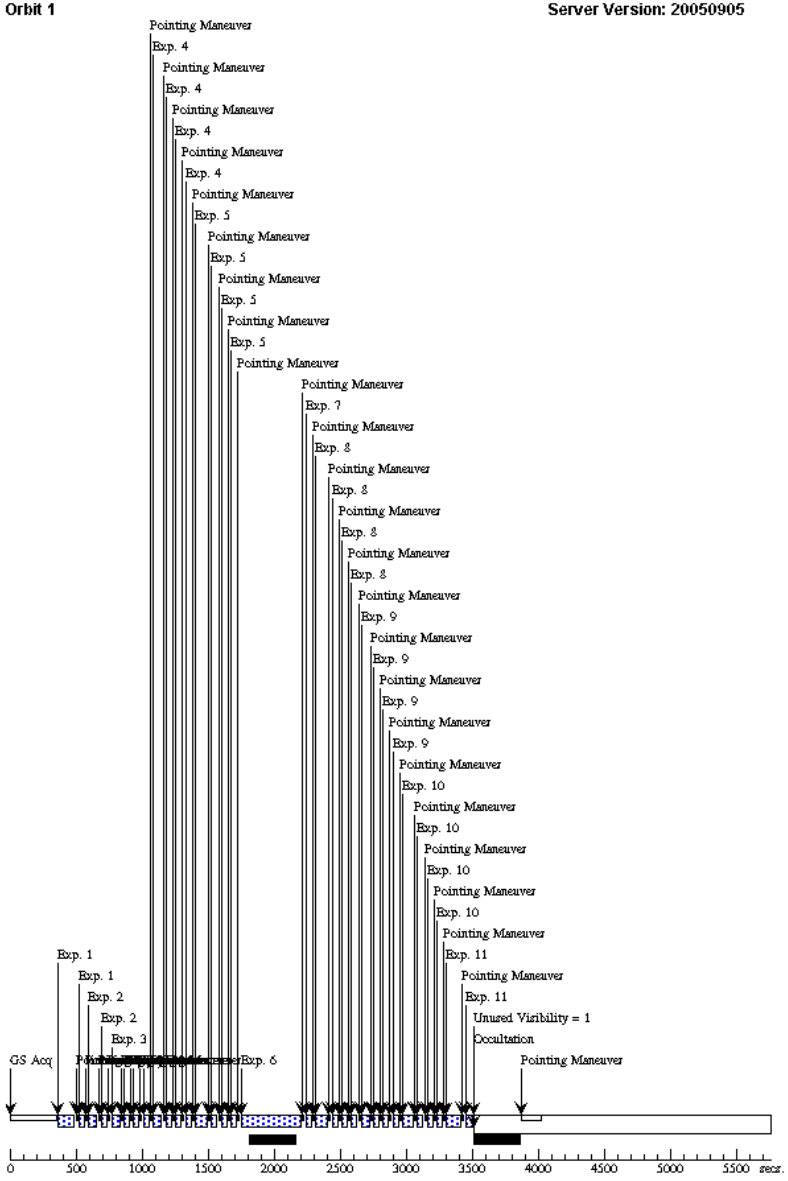
Exposures (continued)

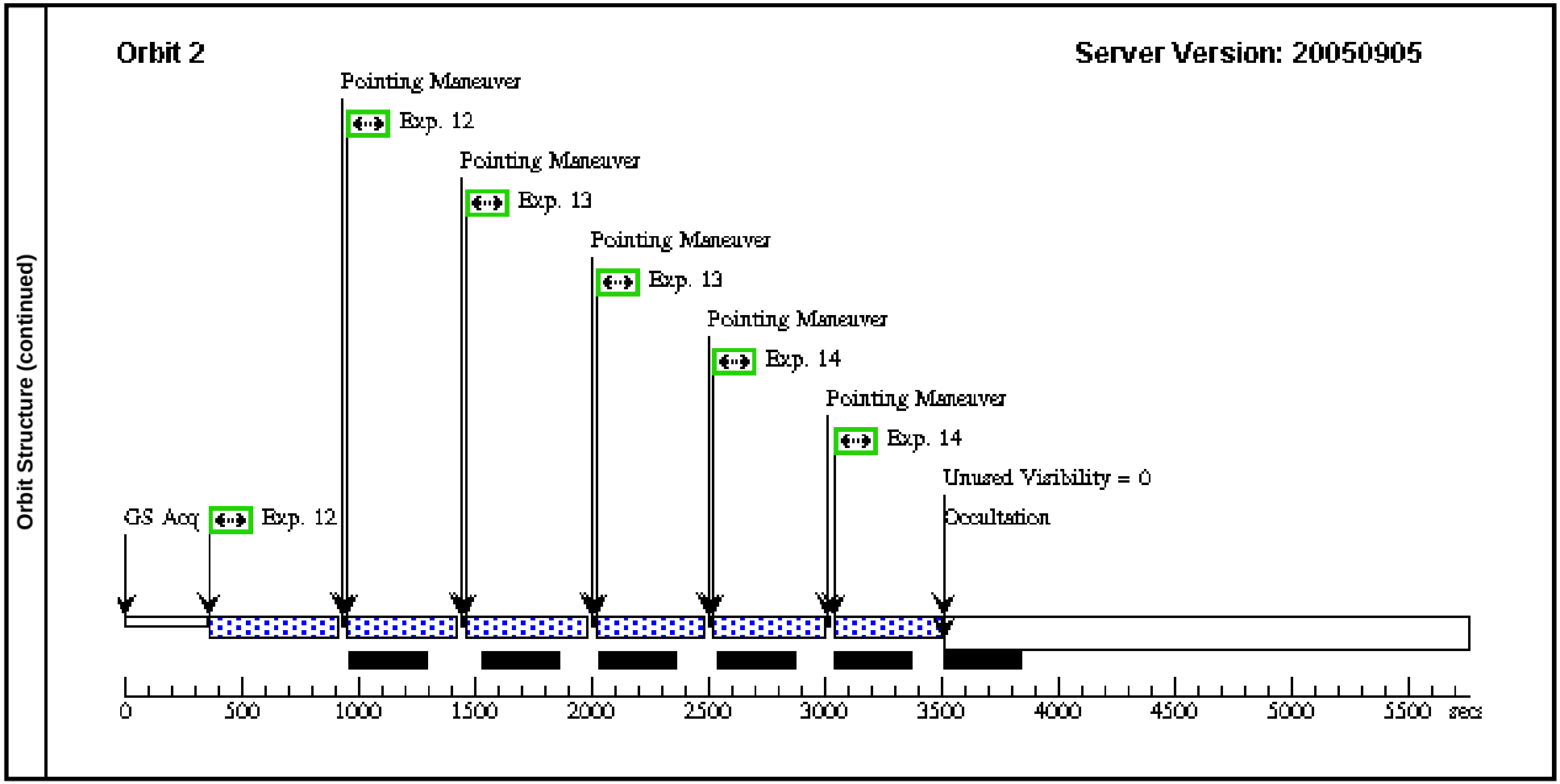
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
3		(12) HD93250-COPY	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=2		Pattern 3-3 (1)	0.1 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
4		(12) HD93250-COPY	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=NO; GAIN=4		Pattern 4-4 (1)	0.1 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
5		(12) HD93250-COPY	ACS/HRC, ACCUM, HRC	F502N	CR-SPLIT=NO; GAIN=2		Pattern 5-5 (1)	0.7 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
6		(12) HD93250-COPY	ACS/HRC, ACCUM, HRC	F660N	CR-SPLIT=NO; GAIN=4	POS TARG 1.343,0.138		357.0 Secs	
								[==>]	***[1]***
7		(12) HD93250-COPY	ACS/HRC, ACCUM, HRC	F660N	CR-SPLIT=NO; GAIN=2	POS TARG -1.343,-0.138		2.0 Secs	
								[==>]	***[1]***
8		(12) HD93250-COPY	ACS/HRC, ACCUM, HRC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 8-8 (1)	0.1 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
9		(12) HD93250-COPY	ACS/HRC, ACCUM, HRC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 9-9 (1)	0.2 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
10		(12) HD93250-COPY	ACS/HRC, ACCUM, HRC	F658N	CR-SPLIT=NO; GAIN=2		Pattern 10-10 (1)	0.7 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
11		(12) HD93250-COPY	ACS/HRC, ACCUM, HRC	F330W	CR-SPLIT=NO; GAIN=4		Pattern 11-11 (2)	15.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
12		(12) HD93250-COPY	ACS/WFC, ACCUM, WFC	F435W	CR-SPLIT=NO; GAIN=2		Pattern 12-12 (3)	349.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***
13		(12) HD93250-COPY	ACS/WFC, ACCUM, WFC	F550M	CR-SPLIT=NO; GAIN=2		Pattern 13-13 (3)	339.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***
14		(12) HD93250-COPY	ACS/WFC, ACCUM, WFC	F850LP	CR-SPLIT=NO; GAIN=2		Pattern 14-14 (3)	339.0 Secs	
								[==>(Pattern 1)] *[==>(Pattern 2)]*	***[2]***

Orbit Structure




Orbit Structure (continued)
Orbit 2
Server Version: 20050905
Pointing Maneuver
Exp. 12
Pointing Maneuver
Exp. 13
Pointing Maneuver
Exp. 13
Pointing Maneuver
Exp. 14
Pointing Maneuver
Exp. 14
Unused Visibility = 0
Occultation
GS Acq
Exp. 12
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs