11687 - SNAPing Coronal Iron

Cycle: 17, Proposal Category: SNAP

(Availability Mode: SUPPORTED)

INVESTIGATORS

Name	*Institution*	*E-Mail*
Dr. Thomas R. Ayres (PI)	**University of Colorado at Boulder**	**Thomas.Ayres@Colorado.edu**
Dr. Seth Redfield (CoI)	University of Texas at Austin	sredfield@astro.as.utexas.edu

VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) HD17206	COS/FUV	1	09-Feb-2010 21:01:13.0	yes
06	(6) HD39587	COS/FUV	1	09-Feb-2010 21:01:18.0	yes
08	(8) HD20630	COS/FUV	1	09-Feb-2010 21:01:22.0	yes
09	(9) HD166	COS/FUV	1	09-Feb-2010 21:01:26.0	yes
11	(11) HD17925	COS/FUV	1	09-Feb-2010 21:01:30.0	yes
12	(12) HD22049	COS/FUV	1	09-Feb-2010 21:01:33.0	yes
13	(13) HD209100	COS/FUV	1	09-Feb-2010 21:01:36.0	yes
14	(14) HD201091	COS/FUV	1	09-Feb-2010 21:01:40.0	yes
18	(18) HD220657	COS/FUV	1	09-Feb-2010 21:01:44.0	yes
19	(19) HD111812	COS/FUV	1	09-Feb-2010 21:01:47.0	yes
20	(20) HD6903	COS/FUV	1	09-Feb-2010 21:01:50.0	yes
21	(21) HD223460	COS/FUV	1	09-Feb-2010 21:01:53.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
22	(22) HD141714	COS/FUV	1	09-Feb-2010 21:01:56.0	yes
23	(23) HD82210	COS/FUV	1	09-Feb-2010 21:01:59.0	yes
24	(24) HD203387	COS/FUV	1	09-Feb-2010 21:02:02.0	yes
26	(26) HD72905	COS/FUV	1	09-Feb-2010 21:02:05.0	yes
27	(27) HD131156	COS/FUV	1	09-Feb-2010 21:02:08.0	yes
28	(28) HD93497	COS/FUV	1	09-Feb-2010 21:02:11.0	yes
29	(29) HD159181	COS/FUV	1	09-Feb-2010 21:02:13.0	yes
30	(30) HD164058	COS/FUV	1	09-Feb-2010 21:02:16.0	yes
31	(31) HD432	COS/FUV	1	09-Feb-2010 21:02:19.0	yes
33	(33) HD117555	COS/FUV	1	09-Feb-2010 21:02:22.0	yes
34	(34) HD129333	COS/FUV	1	09-Feb-2010 21:02:25.0	yes
40	(40) HD150798	COS/FUV	1	09-Feb-2010 21:02:28.0	yes
41	(41) HD25825	COS/FUV	1	09-Feb-2010 21:02:30.0	yes
42	(42) HD26767	COS/FUV	1	09-Feb-2010 21:02:32.0	yes
43	(43) HD27835	COS/FUV	1	09-Feb-2010 21:02:35.0	yes
44	(44) HD28992	COS/FUV	1	09-Feb-2010 21:02:37.0	yes
45	(45) HD28344	COS/FUV	1	09-Feb-2010 21:02:39.0	yes
46	(46) HD209750	COS/FUV	1	09-Feb-2010 21:02:42.0	yes
47	(47) HD131873	COS/FUV	1	09-Feb-2010 21:02:44.0	yes
48	(48) HD20902	COS/FUV	1	09-Feb-2010 21:02:46.0	yes
49	(49) HD194093	COS/FUV	1	09-Feb-2010 21:02:48.0	yes
50	(50) HD198700	COS/FUV	1	09-Feb-2010 21:02:50.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
51	(51) HD8890	COS/FUV	1	09-Feb-2010 21:02:52.0	yes
52	(52) HD37350	COS/FUV	1	09-Feb-2010 21:02:54.0	yes
53	(53) HD3712	COS/FUV	1	09-Feb-2010 21:02:57.0	yes
54	(54) HD78647	COS/FUV	1	09-Feb-2010 21:02:59.0	yes
55	(55) MEL20-350	COS/FUV COS/NUV	1	09-Feb-2010 21:03:01.0	yes
56	(56) MEL20-709	COS/FUV COS/NUV	1	09-Feb-2010 21:03:03.0	yes

40 Total Orbits Used

ABSTRACT

This is a Snapshot Survey to explore two forbidden lines of highly ionized iron in late-type coronal sources. Fe XII 1349 (T~ 2 MK) and Fe XXI 1354 (T~ 10 MK) -- well known to Solar Physics -- have been detected in about a dozen cool stars, mainly with HST/STIS. The UV coronal forbidden lines are important because they can be observed with velocity resolution of better than 15 km/s, whereas even the state-of-the-art X-ray spectrometers on Chandra can manage only 300 km/s in the kilovolt band where lines of highly ionized iron more commonly are found. The kinematic properties of hot coronal plasmas, which are of great interest to theorists and modelers, thus only are accessible in the UV at present. The bad news is that the UV coronal forbidden lines are faint, and were captured only in very deep observations with STIS. The good news is that 3rd-generation Cosmic Origins Spectrograph, slated for installation in HST by SM4, in a mere 25 minute exposure with its G130M mode can duplicate the sensitivity of a landmark 25-orbit STIS E140M observation of AD Leo, easily the deepest such exposure of a late-type star so far. Our goal is to build up understanding of the properties of Fe XII and Fe XXI in additional objects beyond the current limited sample: how the lineshapes depend on activity, whether large scale velocity shifts can be detected, and whether the dynamical content of the lines can be inverted to map the spatial morphology of the stellar corona (as in "Doppler Imaging"). In other words, we want to bring to bear in the coronal venue all the powerful tricks of spectroscopic remote sensing, well in advance of the time that this will be possible exploiting the corona's native X-ray radiation. The 1290-1430 band captured by side A of G130M also contains a wide range of key plasma diagnostics that form at temperatures from below 10,000 K (neutral

lines of CNO), to above 200,000 K (semi-permitted O V 1371), including the important bright multiplets of C II at 1335 and Si IV at 1400; yielding a diagnostic gold mine for the subcoronal atmosphere. Because of the broad value of the SNAP spectra, beyond the coronal iron project, we waive the normal proprietary rights.

OBSERVING DESCRIPTION

The objective of the program is to record key coronal forbidden lines Fe XII 1349 and Fe XXI 1354 in a variety of active cool stars. These lines fall on detector segment A of the G130M mode. Because the stars of the sample typically also have very bright chromospheric Lyman-alpha emission in the G130M bandpass, it is necessary to power down the B side of the detector for the acquisitions (in dispersed light: see below) and the science exposures.

Targets for the Coronal Iron SNAP Survey were drawn mainly from the extensive ROSAT/IUE "Coronathon" program of Ayres et al. (1995: ApJS 96), the "STIS Coronal Forbidden Line Survey" of Ayres et al. (2003: ApJ 583), and the HST/GHRS study of Hertzsprung gap giants by Ayres et al. (1998: ApJ 496). A list of more than 100 potential targets was whittled down to the 40 approved SNAP opportunities by considering the ROSAT X-ray fluxes, which are an excellent predictor of the forbidden line strengths; FUV fluxes, which in some cases grossly exceeded detector safety limits, causing a candidate to be excluded; and whether the object was in fact a close double with separation greater than a few arcseconds, which would be problematic for the COS 2.5 arcsec aperture. A few targets were drawn from a low X-ray flux group, to serve as a control for spectral blends in the vicinity of the two main coronal iron forbidden lines. Thirteen of the target/visits were rated high ("H") priority; an equal number were rated low ("L"); and the remaining 14 were set at medium ("M").

In order to maximize the available exposure time, a simple 2X2 search pattern in dispersed light (with the same grating setting as used for the main science exposure) will be performed following Guide Star acquisition. All of the targets are Hipparcos stars with accurately known coordinates and proper motions, certainly better than 1 arcsecond. The 2X2 search will center the target in the Primary Science Aperture accurately enough for our purposes. There is no need to perform a subsequent peakup in either direction, since these only would improve the wavelength zero point (not a concern in this program, because sharp chromospheric emission lines in the G130M bandpass provide an internal marker for the stellar radial velocity), but at the expense of several minutes of lost exposure time. The spectroscopy search typically is faster than a direct NUV imaging

acquisition, when the exposure time at each dwell point is less than a minute or so (the case here thanks to bright chromospheric emission lines in the G130M bandpass). This amounts to a minimum of about 10 minutes for Guide Star and target acquisition, leaving up to 35 minutes of possible science exposure, including overheads, out of the maximum SNAP total of 45 minutes.

Exposure times for the G130M acquisitions were determined using the COS-ETC and STIS FUV spectra of the targets from the "CoolCAT" catalog, where available; and from IUE (and GHRS) material otherwise. For this purpose, the CoolCAT spectra were restricted to the specific wavelength range of the G130M setting (either 1291 or 1309) and the A detector segment, and all fluxes below 1 sigma significance with respect to a local smoothed photometric noise level were zeroed, to avoid biasing the counts calculation. For the non-STIS stars (about half the targets), IUE/SWP-LO fluxes were taken from the Coronathon survey -- for the bright multiplets of O I (1305), C II (1335), and Si IV (1400) -- and entered into the "emission line" specification in the ETC to estimate the exposure time. Comparisons of this approach for the stars with both STIS and IUE fluxes showed that the emission-line only exposure times were only slightly longer than those estimated with the full spectrum. In a few of the non-STIS cases, GHRS G140L spectra were available, and these were used in preference to the IUE fluxes. The ACQ exposure times ranged from a low of a few seconds to a high of about 1.5 minutes. Even in the latter case, the dispersed light ACQ was faster than an NUV imaging acquisition. The exposure times were calculated to achieve S/N=40, although an acquisition probably would succeed at only 20; so the exposure times are conservative. The specific ETC run numbers are provided in the "comments" section of each ACQ-SEARCH module, in lieu of tabulating the stellar fluxes in detail.

The science exposure will be taken using G130M, mainly the 1291 setting, but in a few cases 1309 to avoid over-bright atomic oxygen lines between 1302-06. Only segment A of the detector will be utilized, as mentioned earlier, because the H I Lyman-alpha emission of most of the stars exceeds safety limits. An exposure of 25 minutes (1500 s) was estimated to achieve adequate S/N at the coronal iron forbidden lines in even the fainter targets, and this was adopted uniformly for all the objects. In all cases, the total duration of the observation is less than 45 minutes; for the shortest exposure acquisitions, it is only about 38 minutes. Each 1500 second T-TAG exposure was FP-SPLIT between POS3 and POS4, to suppress fixed pattern and avoid detector artifacts. A more aggressive FP-SPLIT was judged to be too time consuming. A buffer time of 640 seconds was chosen for each 750 second exposure segment to minimize overheads.

Postscript: After vetting the Phase II program through the safety check procedure, 16 of the original targets were disallowed. Accordingly, 16 new

targets (Nos. 41-56) were added to the program, mainly from a pool of FUSE observations of late-type objects having small proper motions: that is one of the most effective means of safety checking a source, because the interloping 16th magnitude O5 stars of potential concern would leave a clear continuum signature in a typical deep FUSE observation. During the process of revising the program, one of the original SNAP targets -- No. 28, Mu Velorum -- fortuitously was observed by COS. While the observation was successful, and a good quality spectrum was obtained, the target image appears to have been partially out of the PSA, reducing throughput. This likely was a consequence of the minimal 2x2 acquisition search. It was decided, therefore, to revise the dispersed light searches to a 3x3 pattern, and use the FLR option on the centering to boost contrast (allowing in some cases for reduction in the target S/N at the peak pointing, from 40 to 30, thereby permitting shorter exposures and less of an impact from the larger number of dwell steps). The science exposure times were reduced accordingly, to adhere to the SNAP maximum of 45 minutes. In most cases, this was less than a 10% reduction from the original exposure times. Two of the new targets are optically faint, but coronally bright G dwarfs from the Alpha Per cluster (drawn from the "Sleuthing the Dynamo" FOS/GHRS program [Ayres, PI] of the 1990's). The predicted acquisition times were long enough that it was judged better to attempt a "blind pointing," given the accurately known coordinates. Five of the new targets are Hyades dwarfs, also drawn from the "Sleuthing" program. These are bright enough to perform the 3x3 search in a reasonable amount of time. A check of SIMBAD and Aladin showed that the fields around the 7 cluster dwarfs (which all are faint enough optically that they don't overexpose the survey plates) are clear of 16th magnitude objects in the present epoch (with the known proper motions of the cluster stars). All the other targets are cleared on the basis of lack of significant FUV continuum emission in FUSE pointings.

Postscript II: in mid-November 2009, one of the STScI support scientists recommended that the new 3x3 searches for the 24 original targets that passed safety checks should be replaced by the original 2x2 searches, but adding XD and D peakups. This was said to reduce the possibility that the 24 would have to be safety checked all over again. It was OK to leave the 3x3's in for the 16 replacement targets, since these would have to be safety checked from the beginning. The two approaches should yield comparable centering accuracy, and both require about the same amount of time. The PI slightly prefers the 3x3 because it covers a 4x larger area, and one can use the "FLR" option on the centering to improve contrast of the search peak. It was decided to revise the original 24 "passed" targets for the 2x2's plus peakups, and leave the 16 replacement targets as is, i.e., with the 3x3's. If nothing else, this will provide a good post-facto comparison of the two acquisition strategies. After adjusting each sequence to meet the 45m limit, the typical on-source exposure time was 1300s compared with the original 1500s.

Visit

Proposal 11687, Visit 01, scheduling Wed Feb 10 02:03:08 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

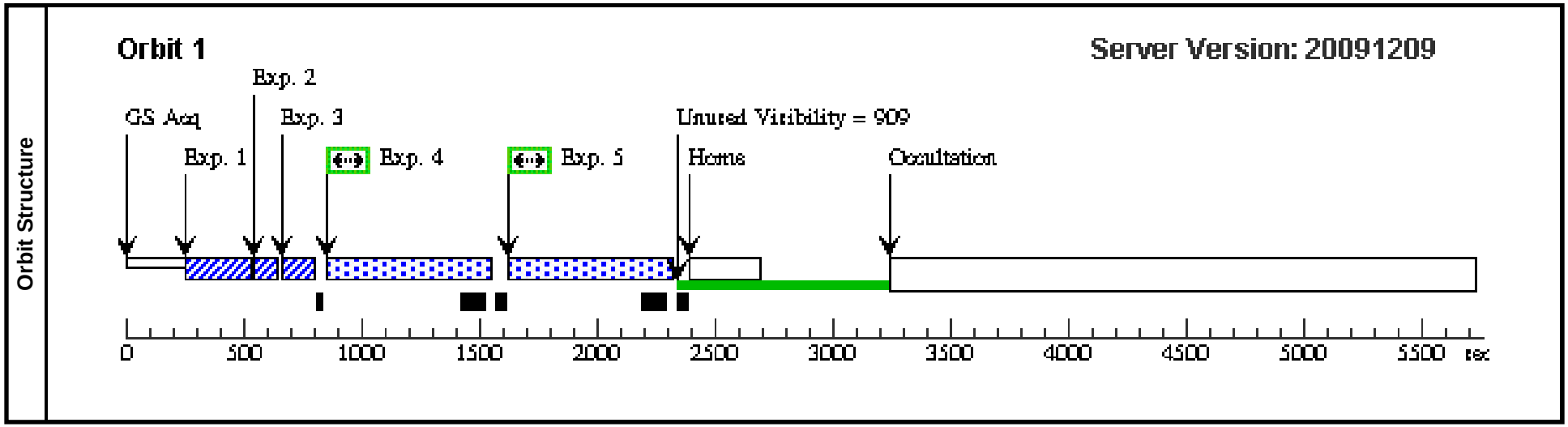
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD17206	RA: 02 45 6.1850 (41.2757708d)	Proper Motion RA: 0.0233s/yr	V=4.50+/-0.1	Reference Frame: ICRS
	Alt Name1: TAU1ERI	Dec: -18 34 21.23 (-18.57256d)	Proper Motion Dec: 0.0363"/yr		
		Equinox: J2000	Parallax: 0.0716"		
			Epoch of Position: 2000		
			Radial Velocity: 25.6 km/sec		

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(1) HD17206	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			13.2 Secs *[==>]*	***[1]***
Comments: COS77113									
2	DISP-ACQ	(1) HD17206	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			13.2 Secs *[==>]*	***[1]***
Comments: COS77113									
3	DISP-ACQ	(1) HD17206	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			13.2 Secs *[==>]*	***[1]***
Comments: COS77113									
4	FUV-A-EXP1	(1) HD17206	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(1) HD17206	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Unused Visibility = 909
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 06, scheduling Wed Feb 10 02:03:09 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

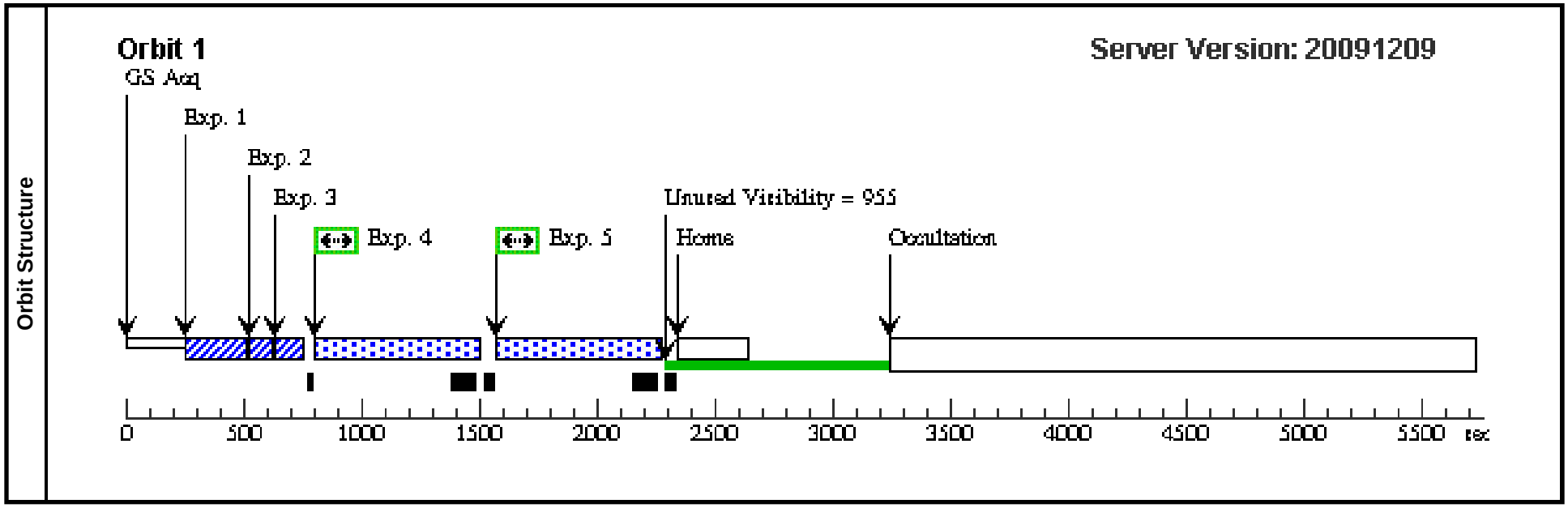
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	HD39587 Alt Name1: CHI1ORI	RA: 05 54 22.9830 (88.5957625d) Dec: +20 16 34.23 (20.27618d) Equinox: J2000	Proper Motion RA: -0.0116s/yr Proper Motion Dec: -0.0989"/yr Parallax: 0.1154" Epoch of Position: 2000 Radial Velocity: -13.5 km/sec	V=4.41+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(6) HD39587	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			7.4 Secs *[==>]*	***[1]***
Comments: COS77249									
2	DISP-ACQ	(6) HD39587	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			7.4 Secs *[==>]*	***[1]***
Comments: COS77249									
3	DISP-ACQ	(6) HD39587	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			7.4 Secs *[==>]*	***[1]***
Comments: COS77249									
4	FUV-A-EXP1	(6) HD39587	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(6) HD39587	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Unused Visibility = 955
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 08, scheduling Wed Feb 10 02:03:09 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

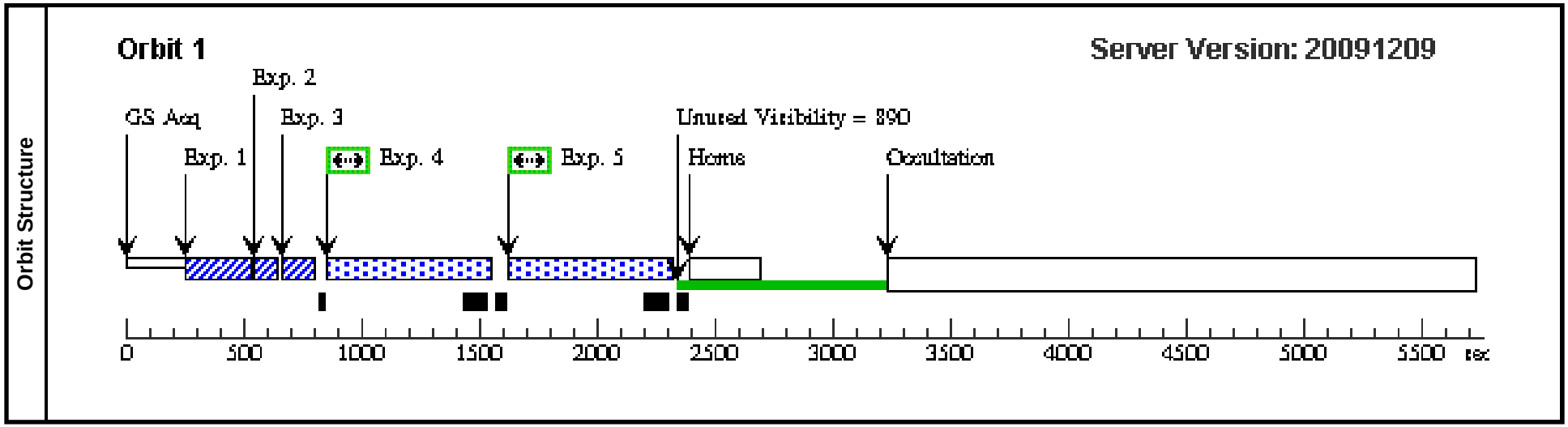
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	HD20630 Alt Name1: KAP1CET	RA: 03 19 21.6960 (49.8404000d) Dec: +03 22 12.71 (3.37020d) Equinox: J2000	Proper Motion RA: 0.0180s/yr Proper Motion Dec: 0.0935"/yr Parallax: 0.1092" Epoch of Position: 2000 Radial Velocity: 19.9 km/sec	V=4.83+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(8) HD20630	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			13.7 Secs *[==>]*	***[1]***
Comments: COS77252									
2	DISP-ACQ	(8) HD20630	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			13.7 Secs *[==>]*	***[1]***
Comments: COS77252									
3	DISP-ACQ	(8) HD20630	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			13.7 Secs *[==>]*	***[1]***
Comments: COS77252									
4	FUV-A-EXP1	(8) HD20630	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(8) HD20630	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
Exp. 2
GS Acq
Exp. 3
Unused Visibility = 890
Exp. 1
Exp. 4
Exp. 5
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 09, scheduling Wed Feb 10 02:03:10 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

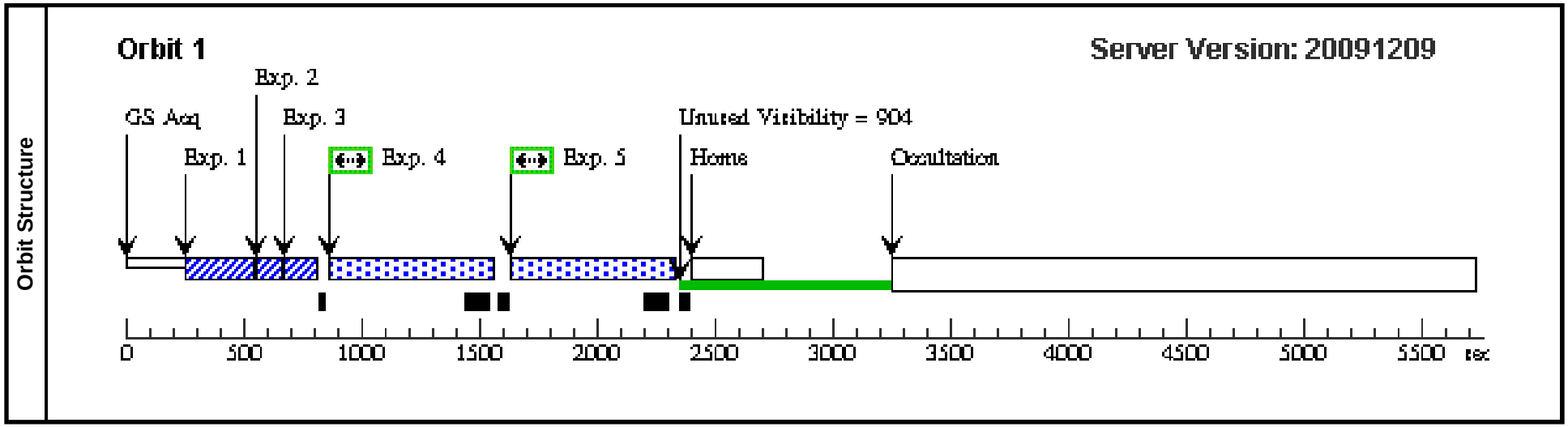
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	HD166 Alt Name1: HR8	RA: 00 06 36.7840 (1.6532667d) Dec: +29 01 17.41 (29.02150d) Equinox: J2000	Proper Motion RA: 0.0290s/yr Proper Motion Dec: -0.1784"/yr Parallax: 0.0730" Epoch of Position: 2000 Radial Velocity: -8.2 km/sec	V=6.13+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(9) HD166	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			15 Secs *[==>]*	***[1]***
Comments: COS77254 (texp for S/N=30)									
2	DISP-ACQ	(9) HD166	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			15 Secs *[==>]*	***[1]***
Comments: COS77254 (texp for S/N=30)									
3	DISP-ACQ	(9) HD166	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			15 Secs *[==>]*	***[1]***
Comments: COS77254 (texp for S/N=30)									
4	FUV-A-EX P1	(9) HD166	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EX P2	(9) HD166	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
Exp. 2
GS Acq
Exp. 3
Unused Visibility = 904
Exp. 1
Exp. 4
Exp. 5
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 11, scheduling Wed Feb 10 02:03:10 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

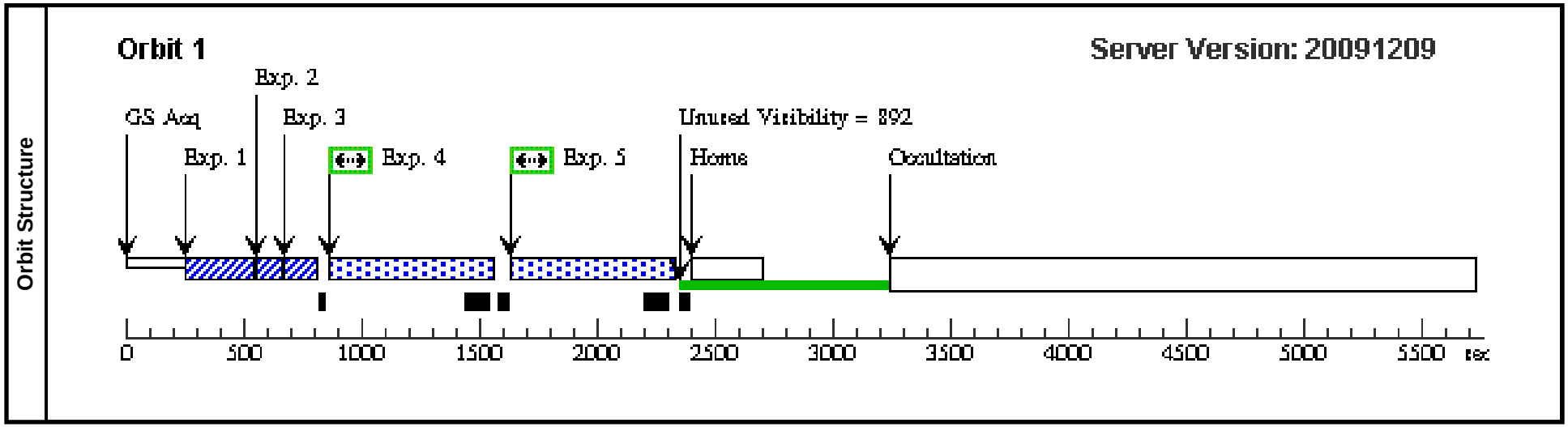
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	HD17925 Alt Name1: HR857	RA: 02 52 32.1290 (43.1338708d) Dec: -12 46 10.97 (-12.76971d) Equinox: J2000	Proper Motion RA: 0.0272s/yr Proper Motion Dec: -0.1895"/yr Parallax: 0.0963" Epoch of Position: 2000 Radial Velocity: 18.8 km/sec	V=6.00+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(11) HD17925	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			15 Secs *[==>]*	***[1]***
Comments: COS77159 (texp for S/N=30)									
2	DISP-ACQ	(11) HD17925	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			15 Secs *[==>]*	***[1]***
Comments: COS77159 (texp for S/N=30)									
3	DISP-ACQ	(11) HD17925	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			15 Secs *[==>]*	***[1]***
Comments: COS77159 (texp for S/N=30)									
4	FUV-A-EXP1	(11) HD17925	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(11) HD17925	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
Exp. 2
GS Acq
Exp. 3
Unused Visibility = 892
Exp. 1
Exp. 4
Exp. 5
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 12, scheduling Wed Feb 10 02:03:10 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

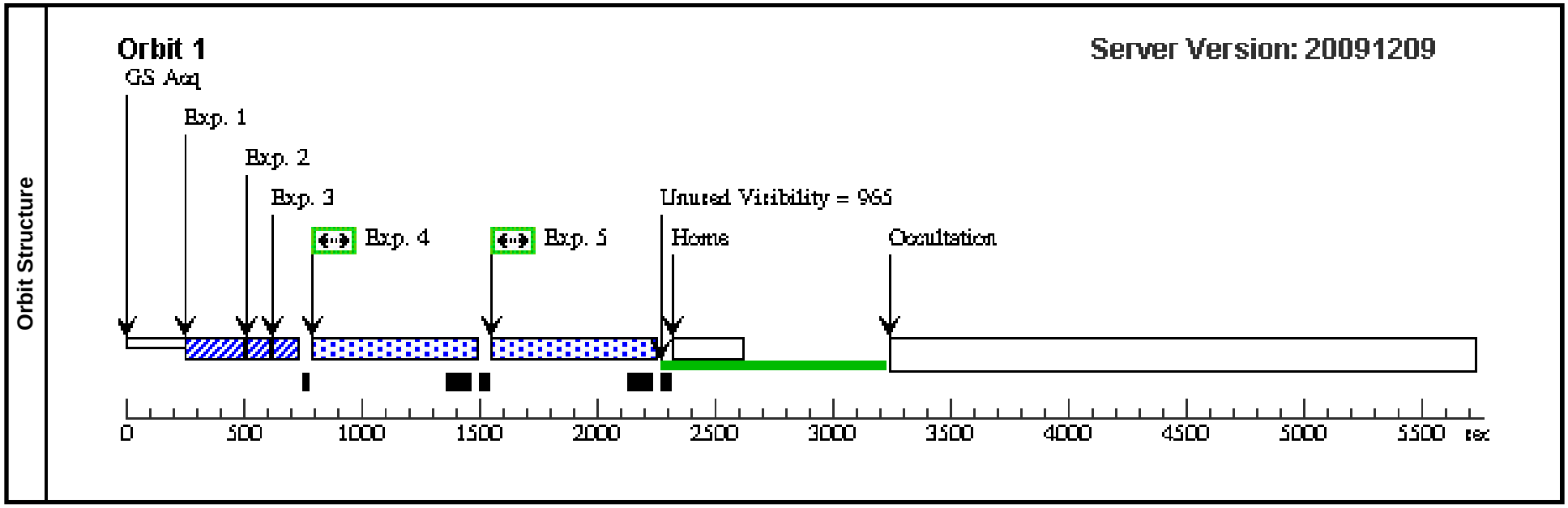
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(12)	HD22049	RA: 03 32 55.8440 (53.2326833d)	Proper Motion RA: -0.0660s/yr	V=3.73+/-0.1	Reference Frame: ICRS
	Alt Name1: EPSERI	Dec: -09 27 29.74 (-9.45826d)	Proper Motion Dec: 0.0180"/yr		
		Equinox: J2000	Parallax: 0.3107"		
			Epoch of Position: 2000		
			Radial Velocity: 15.5 km/sec		

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(12) HD22049	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			5.3 Secs *[==>]*	***[1]***
Comments: COS77258									
2	DISP-ACQ	(12) HD22049	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			5.3 Secs *[==>]*	***[1]***
Comments: COS77258									
3	DISP-ACQ	(12) HD22049	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			5.3 Secs *[==>]*	***[1]***
Comments: COS77258									
4	FUV-A-EXP1	(12) HD22049	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(12) HD22049	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Unused Visibility = 965
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 13, scheduling Wed Feb 10 02:03:10 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

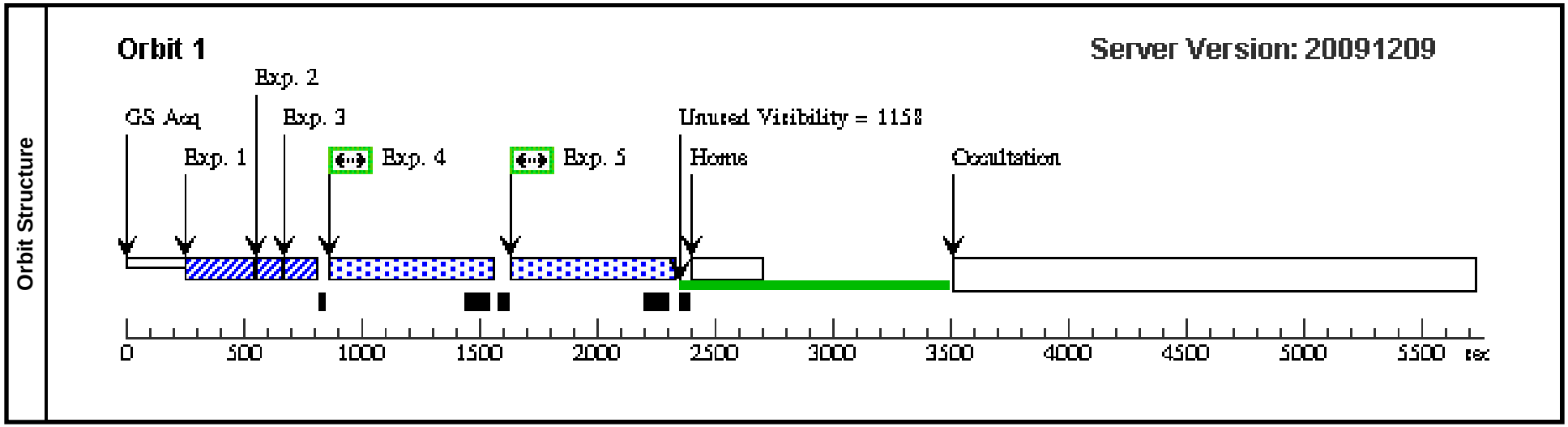
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(13)	HD209100 Alt Name1: EPSIND	RA: 22 03 21.6570 (330.8402375d) Dec: -56 47 9.51 (-56.78598d) Equinox: J2000	Proper Motion RA: 0.4821s/yr Proper Motion Dec: -2.5383"/yr Parallax: 0.2758" Epoch of Position: 2000 Radial Velocity: -40.4 km/sec	V=4.69+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(13) HD209100	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			15 Secs *[==>]*	***[1]***
Comments: COS77164 (texp for S/N=30)									
2	DISP-ACQ	(13) HD209100	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			15 Secs *[==>]*	***[1]***
Comments: COS77164 (texp for S/N=30)									
3	DISP-ACQ	(13) HD209100	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			15 Secs *[==>]*	***[1]***
Comments: COS77164 (texp for S/N=30)									
4	FUV-A-EXP1	(13) HD209100	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(13) HD209100	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
Exp. 2
GS Acq
Exp. 3
Unused Visibility = 115s
Exp. 1
Exp. 4
Exp. 5
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 14, scheduling Wed Feb 10 02:03:11 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

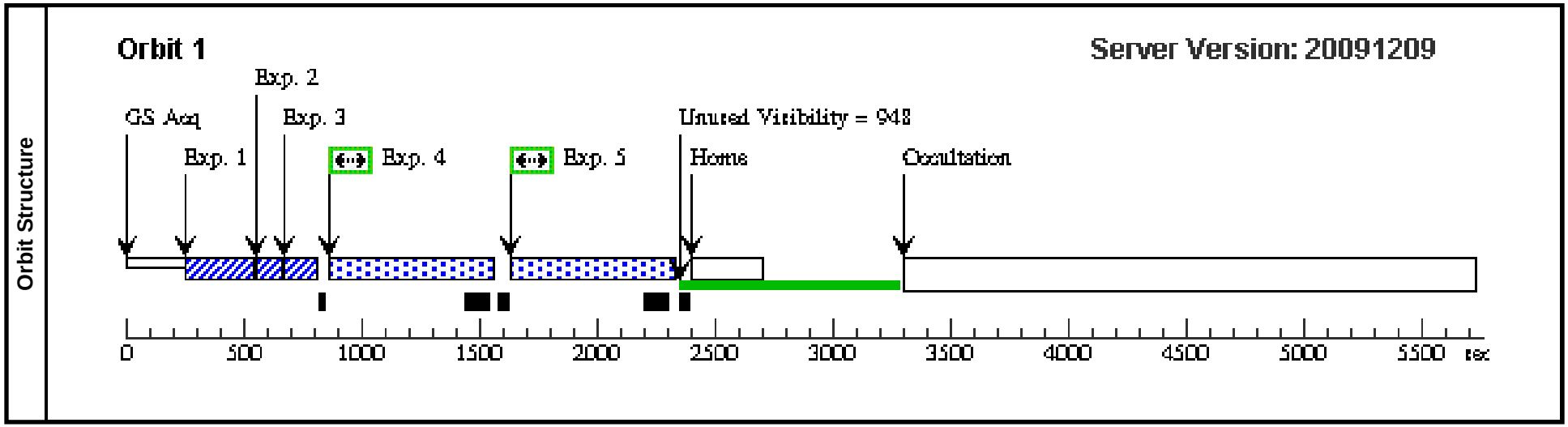
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(14)	HD201091 Alt Name1: 61CYGA	RA: 21 06 53.9430 (316.7247625d) Dec: +38 44 57.90 (38.74942d) Equinox: J2000	Proper Motion RA: 0.3553s/yr Proper Motion Dec: 3.2594"/yr Parallax: 0.2872" Epoch of Position: 2000 Radial Velocity: -64.3 km/sec	V=5.21+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(14) HD201091	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			15 Secs *[==>]*	***[1]***
Comments: COS77168 (texp for S/N=30)									
2	DISP-ACQ	(14) HD201091	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			15 Secs *[==>]*	***[1]***
Comments: COS77168 (texp for S/N=30)									
3	DISP-ACQ	(14) HD201091	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			15 Secs *[==>]*	***[1]***
Comments: COS77168 (texp for S/N=30)									
4	FUV-A-EXP1	(14) HD201091	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(14) HD201091	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
Exp. 2
GS Acq
Exp. 3
Unused Visibility = 948
Exp. 1
Exp. 4
Exp. 5
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 18, scheduling Wed Feb 10 02:03:11 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

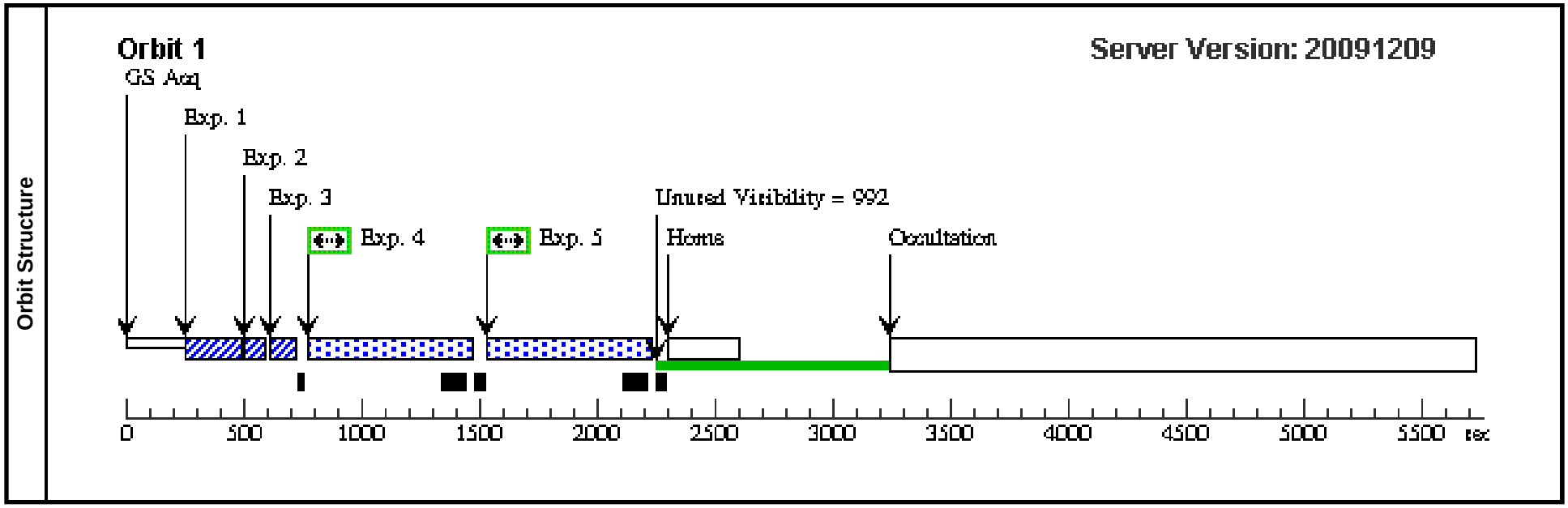
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(18)	HD220657 Alt Name1: UPSPEG	RA: 23 25 22.7840 (351.3449333d) Dec: +23 24 14.76 (23.40410d) Equinox: J2000	Proper Motion RA: 0.0140s/yr Proper Motion Dec: 0.0365"/yr Parallax: 0.0188" Epoch of Position: 2000 Radial Velocity: -11.1 km/sec	V=4.40+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(18) HD220657	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			3.0 Secs *[==>]*	***[1]***
Comments: COS77261									
2	DISP-ACQ	(18) HD220657	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			3.0 Secs *[==>]*	***[1]***
Comments: COS77261									
3	DISP-ACQ	(18) HD220657	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			3.0 Secs *[==>]*	***[1]***
Comments: COS77261									
4	FUV-A-EXP1	(18) HD220657	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(18) HD220657	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Unused Visibility = 992
Horns
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 19, scheduling Wed Feb 10 02:03:11 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

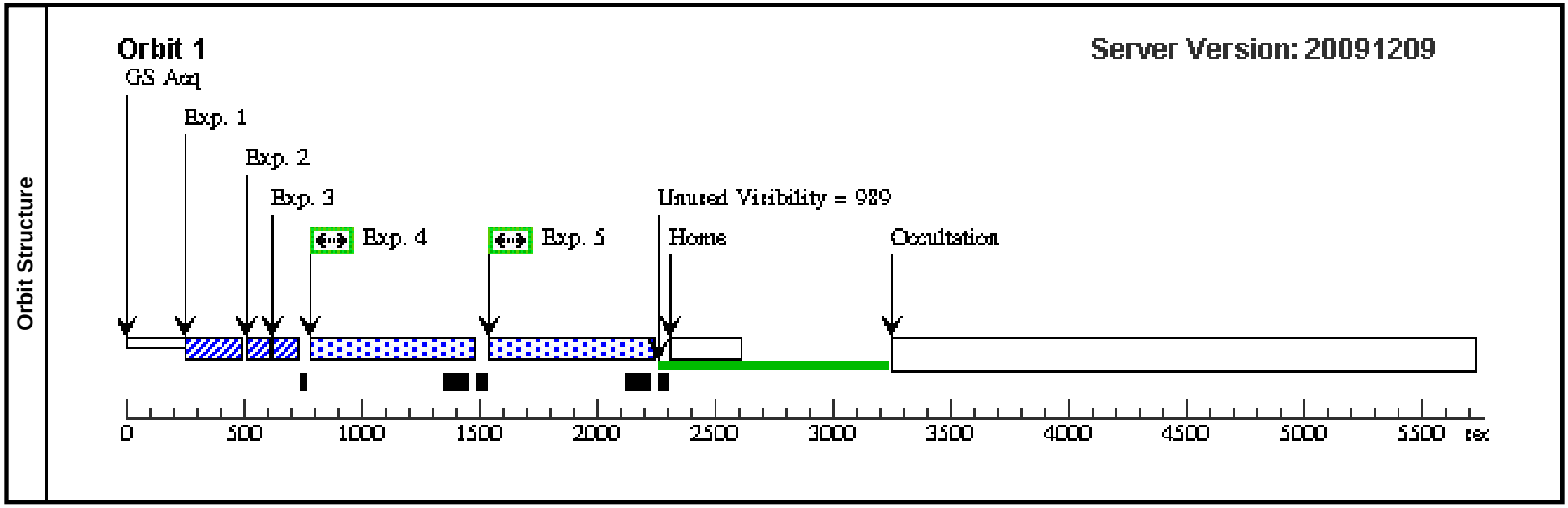
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(19)	HD111812 Alt Name1: 31COM	RA: 12 51 41.9220 (192.9246750d) Dec: +27 32 26.57 (27.54071d) Equinox: J2000	Proper Motion RA: -0.0007s/yr Proper Motion Dec: -0.0088"/yr Parallax: 0.0106" Epoch of Position: 2000 Radial Velocity: -1.4 km/sec	V=4.93+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(19) HD111812	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			4.1 Secs *[==>]*	***[1]***
Comments: COS77264									
2	DISP-ACQ	(19) HD111812	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			4.1 Secs *[==>]*	***[1]***
Comments: COS77264									
3	DISP-ACQ	(19) HD111812	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			4.1 Secs *[==>]*	***[1]***
Comments: COS77264									
4	FUV-A-EXP1	(19) HD111812	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(19) HD111812	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Unused Visibility = 989
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 20, scheduling Wed Feb 10 02:03:11 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

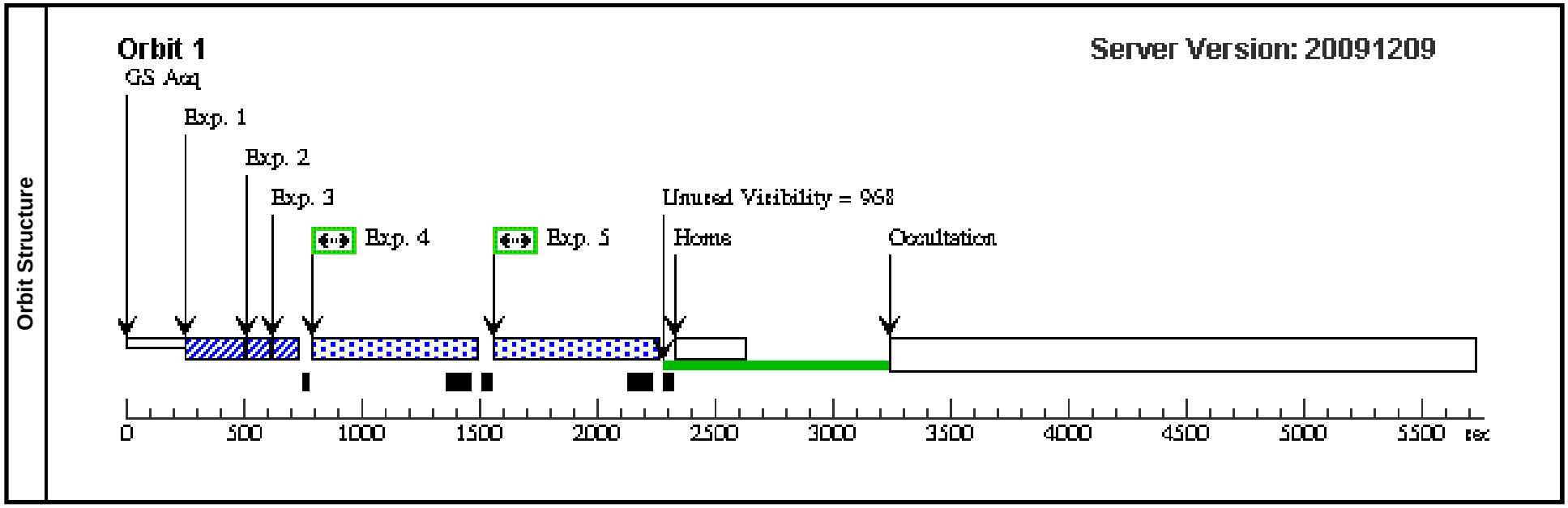
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(20)	HD6903 Alt Name1: PSI3PSC	RA: 01 09 49.2020 (17.4550083d) Dec: +19 39 30.27 (19.65841d) Equinox: J2000	Proper Motion RA: -0.0003s/yr Proper Motion Dec: 0.0093"/yr Parallax: 0.0081" Epoch of Position: 2000 Radial Velocity: -8.0 km/sec	V=5.57+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(20) HD6903	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			6 Secs *[==>]*	***[1]***
Comments: COS77192 (texp for S/N=30)									
2	DISP-ACQ	(20) HD6903	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			6 Secs *[==>]*	***[1]***
Comments: COS77192 (texp for S/N=30)									
3	DISP-ACQ	(20) HD6903	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			6 Secs *[==>]*	***[1]***
Comments: COS77192 (texp for S/N=30)									
4	FUV-A-EX P1	(20) HD6903	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EX P2	(20) HD6903	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Unused Visibility = 968
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 21, scheduling Wed Feb 10 02:03:12 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

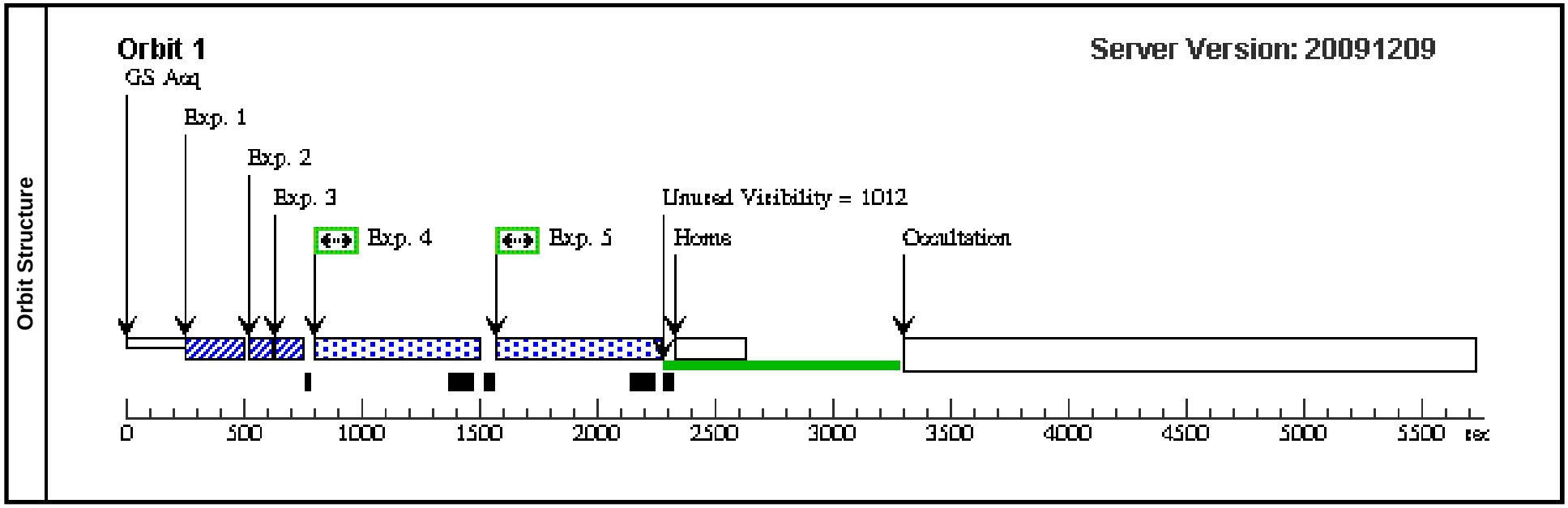
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(21)	HD223460 Alt Name1: HR9024	RA: 23 49 40.9600 (357.4206667d) Dec: +36 25 31.01 (36.42528d) Equinox: J2000	Proper Motion RA: 0.0000s/yr Proper Motion Dec: -0.0478"/yr Parallax: 0.0074" Epoch of Position: 2000 Radial Velocity: 0.7 km/sec	V=5.90+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(21) HD223460	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			7 Secs *[==>]*	***[1]***
Comments: COS77268 (texp for S/N=30)									
2	DISP-ACQ	(21) HD223460	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			7 Secs *[==>]*	***[1]***
Comments: COS77268 (texp for S/N=30)									
3	DISP-ACQ	(21) HD223460	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			7 Secs *[==>]*	***[1]***
Comments: COS77268 (texp for S/N=30)									
4	FUV-A-EXP1	(21) HD223460	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(21) HD223460	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Unused Visibility = 1012
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 22, scheduling Wed Feb 10 02:03:12 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

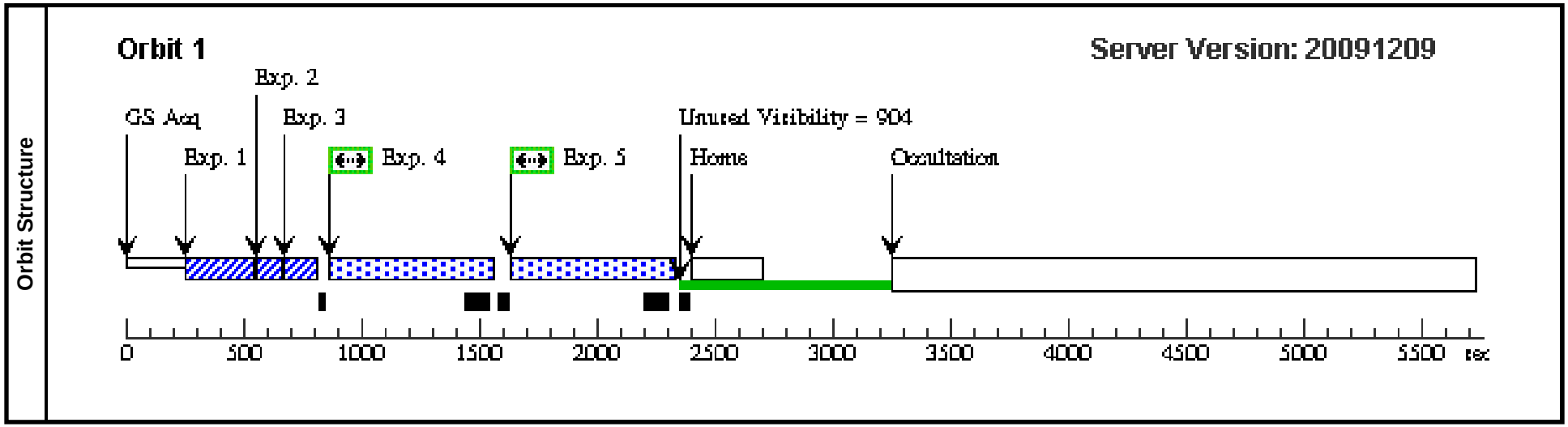
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(22)	HD141714	RA: 15 49 35.6460 (237.3985250d)	Proper Motion RA: -0.0059s/yr	V=4.60+/-0.1	Reference Frame: ICRS
	Alt Name1: DELCRB	Dec: +26 04 6.22 (26.06839d)	Proper Motion Dec: -0.0638"/yr		
		Equinox: J2000	Parallax: 0.0197"		
			Epoch of Position: 2000		
			Radial Velocity: -19.1 km/sec		

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(22) HD141714	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			15 Secs *[==>]*	***[1]***
Comments: COS77202 (texp for S/N=30)									
2	DISP-ACQ	(22) HD141714	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			15 Secs *[==>]*	***[1]***
Comments: COS77202 (texp for S/N=30)									
3	DISP-ACQ	(22) HD141714	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			15 Secs *[==>]*	***[1]***
Comments: COS77202 (texp for S/N=30)									
4	FUV-A-EXP1	(22) HD141714	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(22) HD141714	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Unused Visibility = 904
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 23, scheduling Wed Feb 10 02:03:13 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

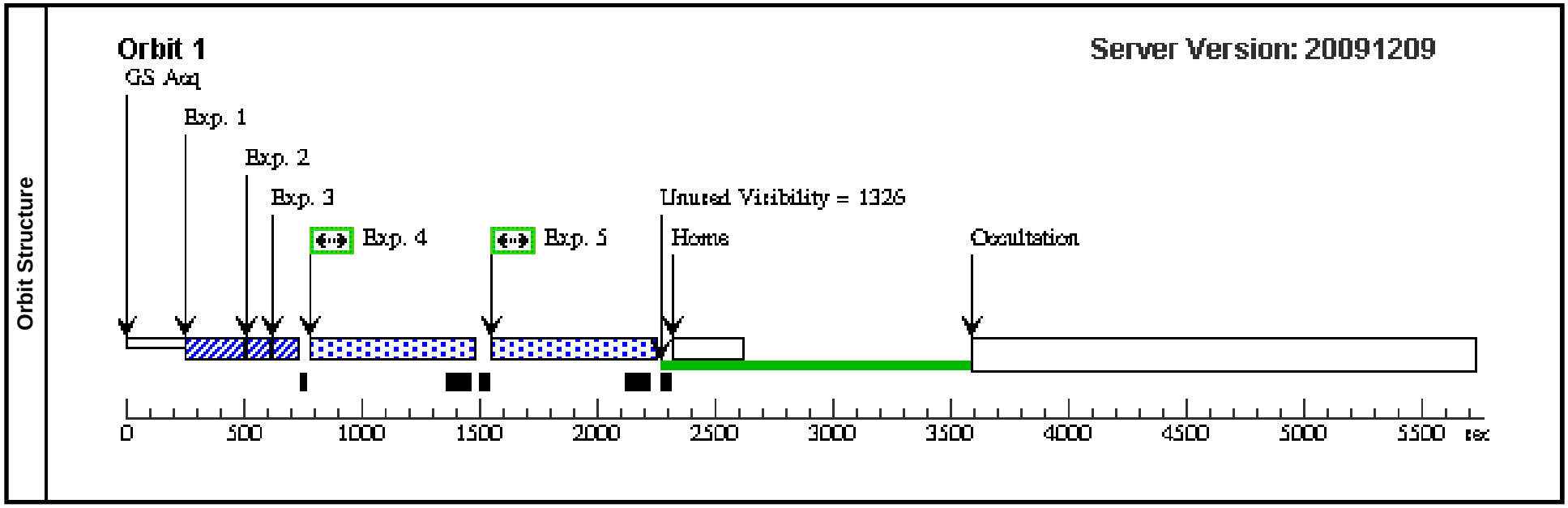
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(23)	HD82210 Alt Name1: 24UMA	RA: 09 34 28.8600 (143.6202500d) Dec: +69 49 49.23 (69.83034d) Equinox: J2000	Proper Motion RA: -0.0124s/yr Proper Motion Dec: 0.0776"/yr Parallax: 0.0309" Epoch of Position: 2000 Radial Velocity: -27.2 km/sec	V=4.57+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(23) HD82210	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			5 Secs *[==>]*	***[1]***
Comments: COS77269 (texp for S/N=30)									
2	DISP-ACQ	(23) HD82210	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			5 Secs *[==>]*	***[1]***
Comments: COS77269 (texp for S/N=30)									
3	DISP-ACQ	(23) HD82210	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			5 Secs *[==>]*	***[1]***
Comments: COS77269 (texp for S/N=30)									
4	FUV-A-EX P1	(23) HD82210	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EX P2	(23) HD82210	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Unused Visibility = 1326
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 24, scheduling Wed Feb 10 02:03:13 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

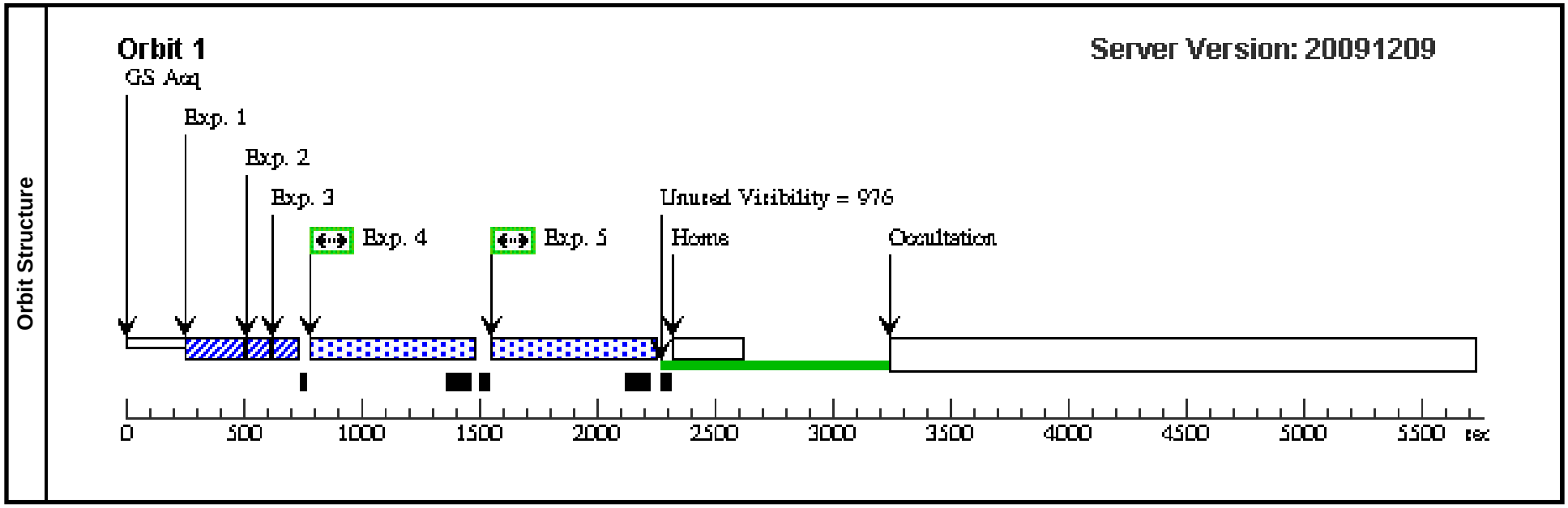
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(24)	HD203387 Alt Name1: IOTCAP	RA: 21 22 14.7960 (320.5616500d) Dec: -16 50 4.35 (-16.83454d) Equinox: J2000	Proper Motion RA: 0.0021s/yr Proper Motion Dec: 0.0053"/yr Parallax: 0.0151" Epoch of Position: 2000 Radial Velocity: 11.5 km/sec	V=4.30+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(24) HD203387	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			5 Secs *[==>]*	***[1]***
Comments: COS77270 (texp for S/N=30)									
2	DISP-ACQ	(24) HD203387	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			5 Secs *[==>]*	***[1]***
Comments: COS77270 (texp for S/N=30)									
3	DISP-ACQ	(24) HD203387	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			5 Secs *[==>]*	***[1]***
Comments: COS77270 (texp for S/N=30)									
4	FUV-A-EX P1	(24) HD203387	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EX P2	(24) HD203387	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Unused Visibility = 976
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 26, scheduling Wed Feb 10 02:03:13 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

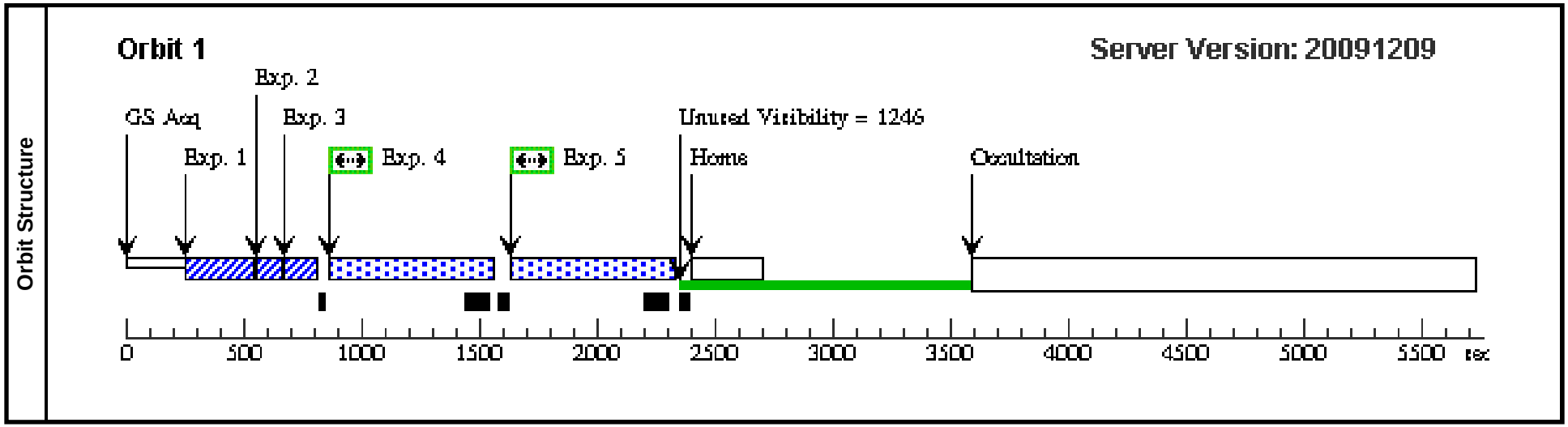
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(26)	HD72905 Alt Name1: PI1UMA	RA: 08 39 11.7040 (129.7987667d) Dec: +65 01 15.26 (65.02091d) Equinox: J2000	Proper Motion RA: -0.0044s/yr Proper Motion Dec: 0.0879"/yr Parallax: 0.0701" Epoch of Position: 2000 Radial Velocity: -12.0 km/sec	V=5.64+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(26) HD72905	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			15 Secs *[==>]*	***[1]***
Comments: COS77210 (texp for S/N=30)									
2	DISP-ACQ	(26) HD72905	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			15 Secs *[==>]*	***[1]***
Comments: COS77210 (texp for S/N=30)									
3	DISP-ACQ	(26) HD72905	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			15 Secs *[==>]*	***[1]***
Comments: COS77210 (texp for S/N=30)									
4	FUV-A-EXP1	(26) HD72905	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(26) HD72905	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Unused Visibility = 1246
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 27, scheduling Wed Feb 10 02:03:13 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

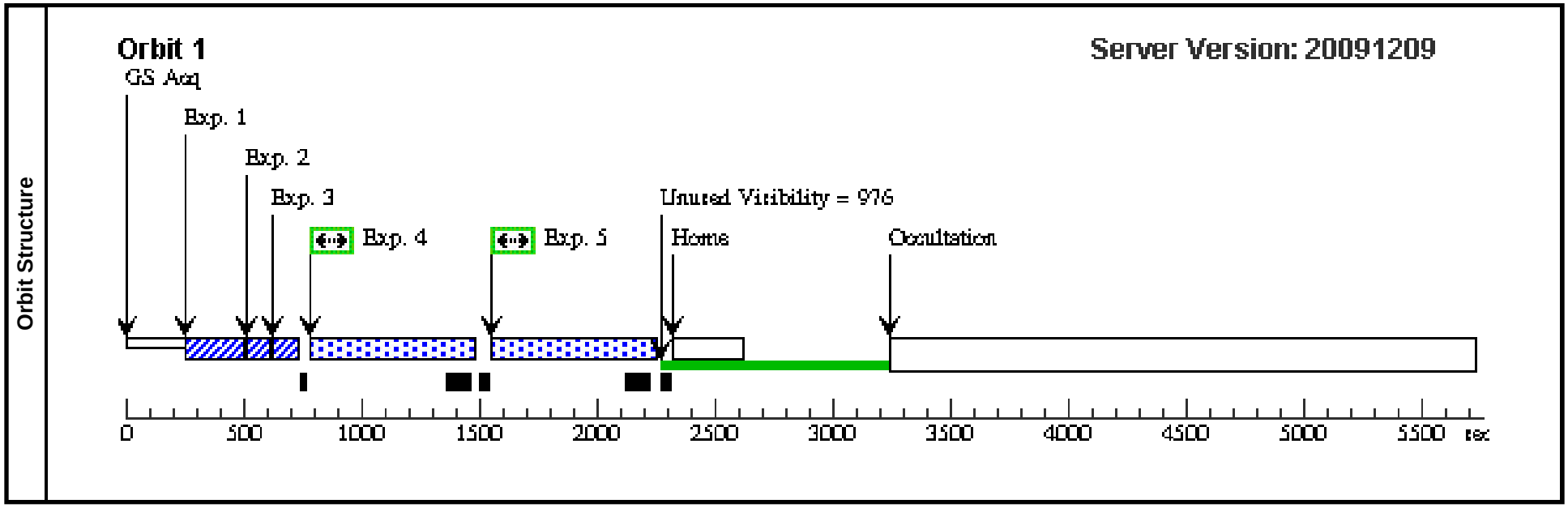
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(27)	HD131156 Alt Name1: XIBOO	RA: 14 51 23.3780 (222.8474083d) Dec: +19 06 1.66 (19.10046d) Equinox: J2000	Proper Motion RA: 0.0108s/yr Proper Motion Dec: -0.0713"/yr Parallax: 0.1493" Epoch of Position: 2000 Radial Velocity: 3.0 km/sec	V=4.55+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(27) HD131156	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			5 Secs *[==>]*	***[1]***
Comments: COS77272 (texp for S/N=30)									
2	DISP-ACQ	(27) HD131156	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			5 Secs *[==>]*	***[1]***
Comments: COS77272 (texp for S/N=30)									
3	DISP-ACQ	(27) HD131156	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			5 Secs *[==>]*	***[1]***
Comments: COS77272 (texp for S/N=30)									
4	FUV-A-EXP1	(27) HD131156	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(27) HD131156	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Unused Visibility = 976
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 28, completed Wed Feb 10 02:03:14 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

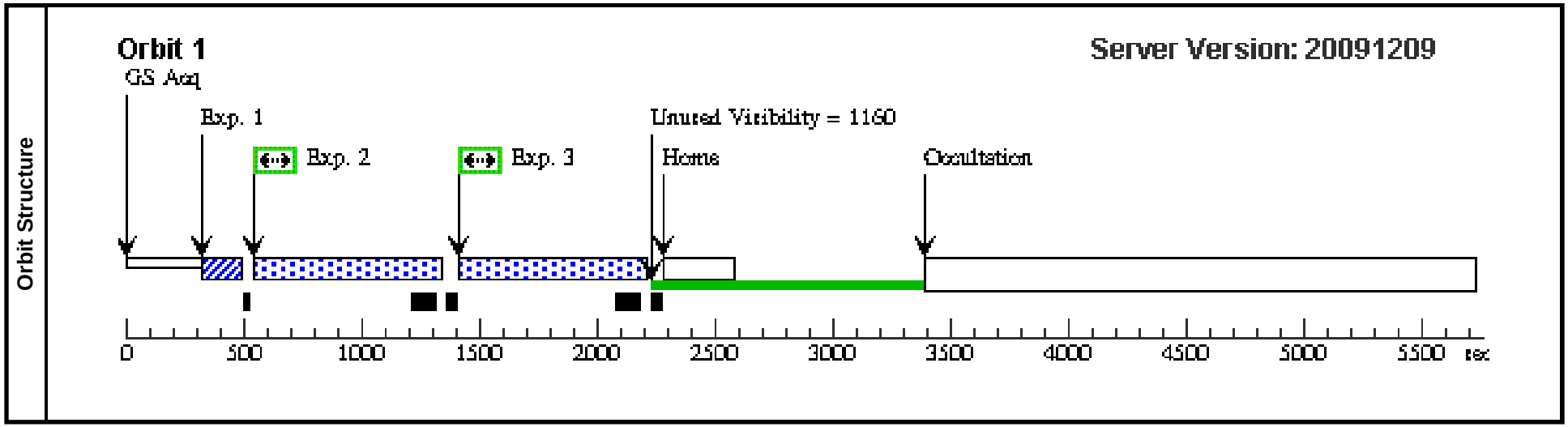
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(28)	HD93497 Alt Name1: MUVEL	RA: 10 46 46.1780 (161.6924083d) Dec: -49 25 12.92 (-49.42026d) Equinox: J2000	Proper Motion RA: 0.0064s/yr Proper Motion Dec: -0.0536"/yr Parallax: 0.0282" Epoch of Position: 2000 Radial Velocity: 6.2 km/sec	V=2.72+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(28) HD93497	COS/FUV, ACQ/SEARCH, PSA	G130M 1309 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			3.4 Secs *[==>]*	***[1]***
Comments: COS77275									
2	FUV-A-EX P1	(28) HD93497	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=640; SEGMENT=A; FLASH=YES; FP-POS=3			750 Secs *[==>]*	***[1]***
3	FUV-A-EX P2	(28) HD93497	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=640; SEGMENT=A; FLASH=YES; FP-POS=4			750 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Unused Visibility = 1160
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 29, scheduling Wed Feb 10 02:03:14 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

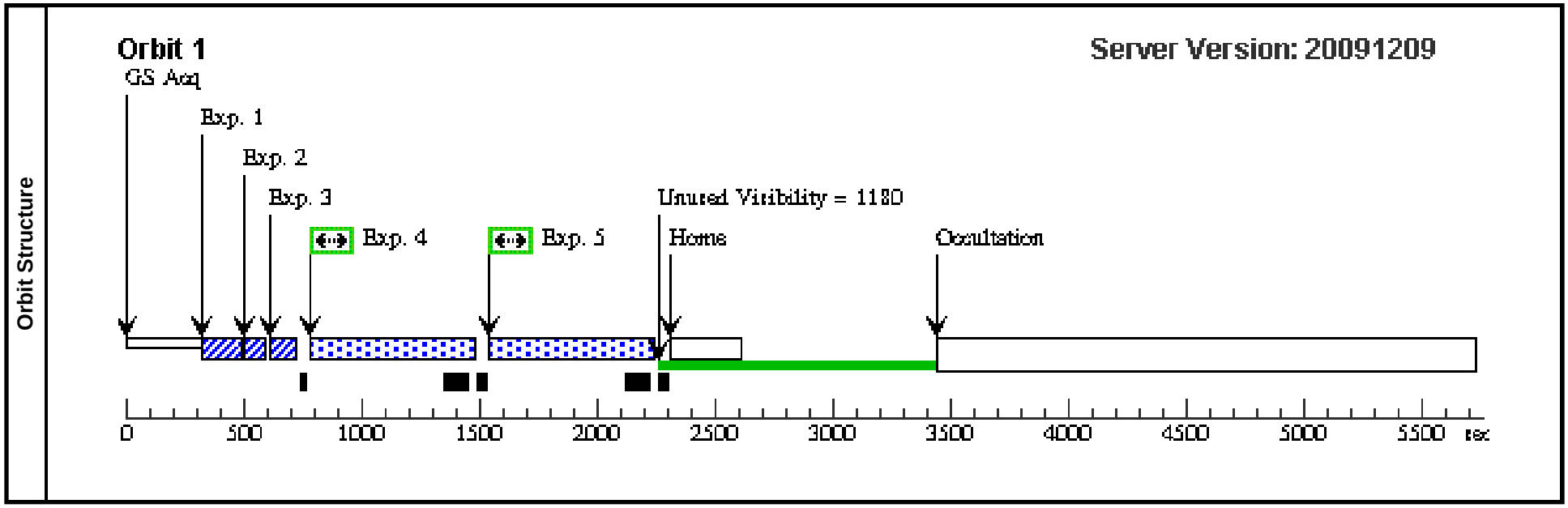
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(29)	HD159181 Alt Name1: BETDRA	RA: 17 30 25.9620 (262.6081750d) Dec: +52 18 4.99 (52.30139d) Equinox: J2000	Proper Motion RA: -0.0017s/yr Proper Motion Dec: 0.0116"/yr Parallax: 0.0090" Epoch of Position: 2000 Radial Velocity: -20.0 km/sec	V=2.79+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(29) HD159181	COS/FUV, ACQ/SEARCH, PSA	G130M 1309 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			4.0 Secs *[==>]*	***[1]***
Comments: COS77240									
2	DISP-ACQ	(29) HD159181	COS/FUV, ACQ/PEAKXD, PSA	G130M 1309 A	SEGMENT=A			4.0 Secs *[==>]*	***[1]***
Comments: COS77240									
3	DISP-ACQ	(29) HD159181	COS/FUV, ACQ/PEAKD, PSA	G130M 1309 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			4.0 Secs *[==>]*	***[1]***
Comments: COS77240									
4	FUV-A-EXP1	(29) HD159181	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(29) HD159181	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Unused Visibility = 1180
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 30, scheduling Wed Feb 10 02:03:14 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

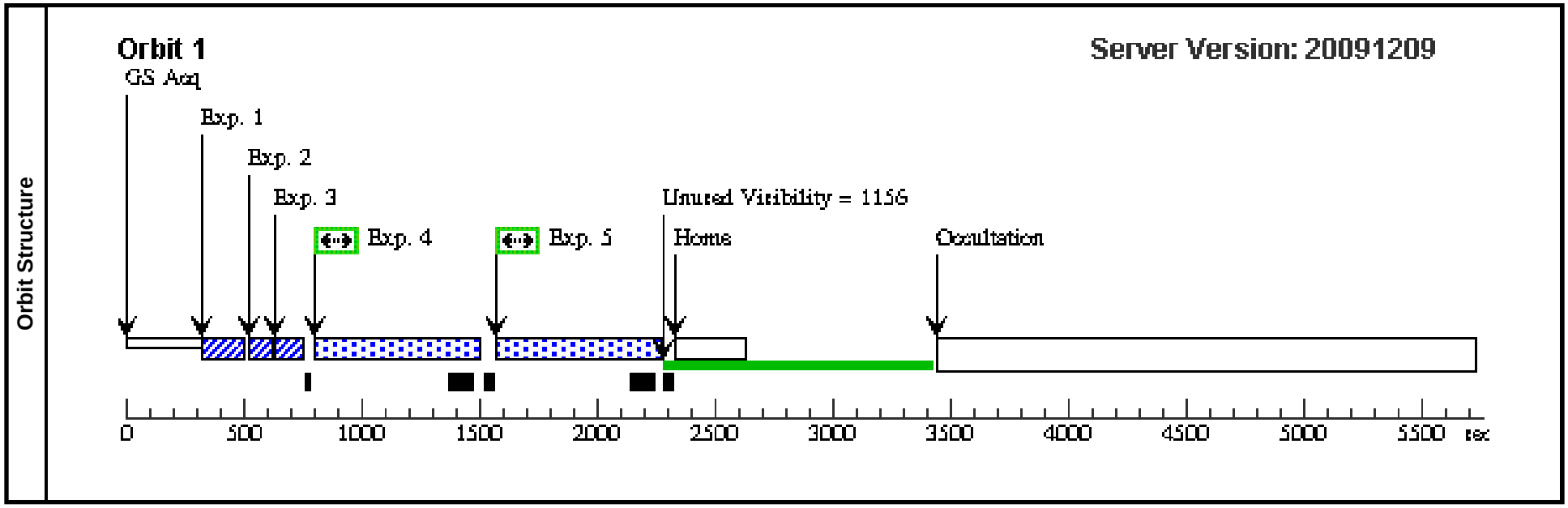
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(30)	HD164058 Alt Name1: GAMDRA	RA: 17 56 36.3700 (269.1515417d) Dec: +51 29 20.02 (51.48889d) Equinox: J2000	Proper Motion RA: -0.0009s/yr Proper Motion Dec: -0.0231"/yr Parallax: 0.0221" Epoch of Position: 2000 Radial Velocity: -27.6 km/sec	V=2.23+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(30) HD164058	COS/FUV, ACQ/SEARCH, PSA	G130M 1309 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			7 Secs *[==>]*	***[1]***
Comments: COS77283 (texp for S/N=30)									
2	DISP-ACQ	(30) HD164058	COS/FUV, ACQ/PEAKXD, PSA	G130M 1309 A	SEGMENT=A			7 Secs *[==>]*	***[1]***
Comments: COS77283 (texp for S/N=30)									
3	DISP-ACQ	(30) HD164058	COS/FUV, ACQ/PEAKD, PSA	G130M 1309 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			7 Secs *[==>]*	***[1]***
Comments: COS77283 (texp for S/N=30)									
4	FUV-A-EXP1	(30) HD164058	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(30) HD164058	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Unused Visibility = 1156
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 31, scheduling Wed Feb 10 02:03:15 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

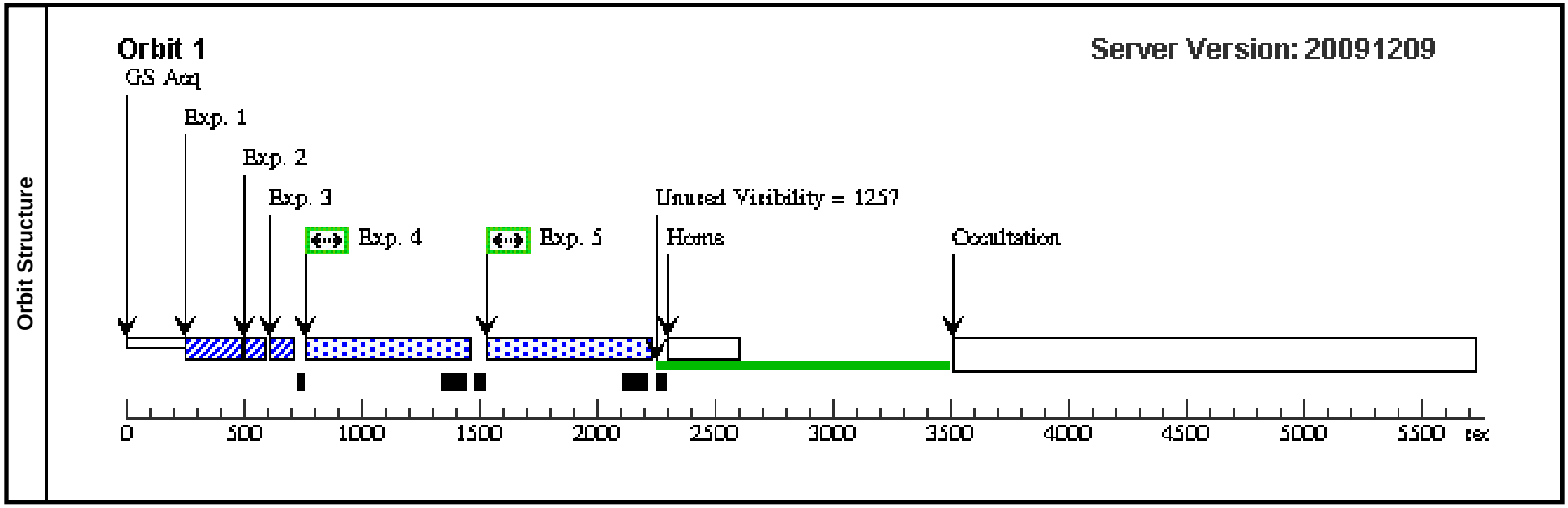
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(31)	HD432 Alt Name1: BETCAS	RA: 00 09 10.6850 (2.2945208d) Dec: +59 08 59.21 (59.14978d) Equinox: J2000	Proper Motion RA: 0.0680s/yr Proper Motion Dec: -0.1804"/yr Parallax: 0.0599" Epoch of Position: 2000 Radial Velocity: 11.3 km/sec	V=2.27+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(31) HD432	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			2.5 Secs *[==>]*	***[1]***
Comments: COS77219									
2	DISP-ACQ	(31) HD432	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			2.5 Secs *[==>]*	***[1]***
Comments: COS77219									
3	DISP-ACQ	(31) HD432	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			2.5 Secs *[==>]*	***[1]***
Comments: COS77219									
4	FUV-A-EXP1	(31) HD432	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(31) HD432	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Unused Visibility = 1257
Horns
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 33, scheduling Wed Feb 10 02:03:15 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

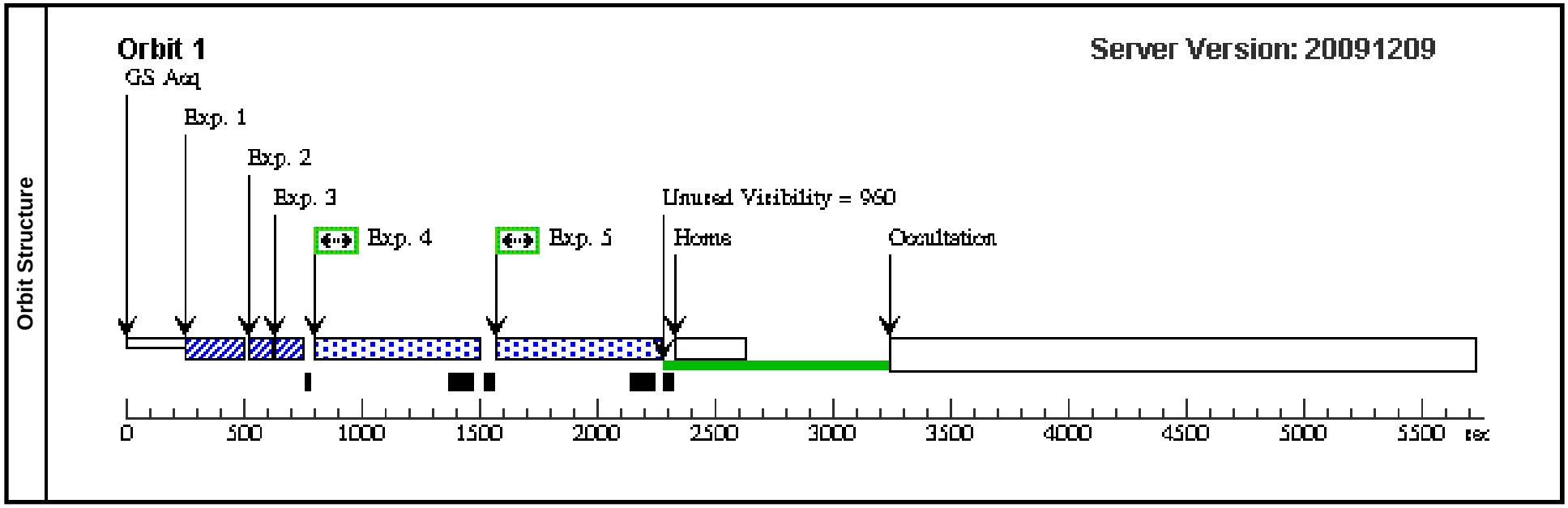
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(33)	HD117555 Alt Name1: FKCOM	RA: 13 30 46.8040 (202.6950167d) Dec: +24 13 57.75 (24.23271d) Equinox: J2000	Proper Motion RA: -0.0039s/yr Proper Motion Dec: -0.0198"/yr Parallax: 0.0043" Epoch of Position: 2000 Radial Velocity: -16.6 km/sec	V=8.17+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(33) HD117555	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			7 Secs *[==>]*	***[1]***
Comments: COS77223 (texp for S/N=30)									
2	DISP-ACQ	(33) HD117555	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			7 Secs *[==>]*	***[1]***
Comments: COS77223 (texp for S/N=30)									
3	DISP-ACQ	(33) HD117555	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			7 Secs *[==>]*	***[1]***
Comments: COS77223 (texp for S/N=30)									
4	FUV-A-EXP1	(33) HD117555	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(33) HD117555	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Unused Visibility = 960
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 34, scheduling Wed Feb 10 02:03:15 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

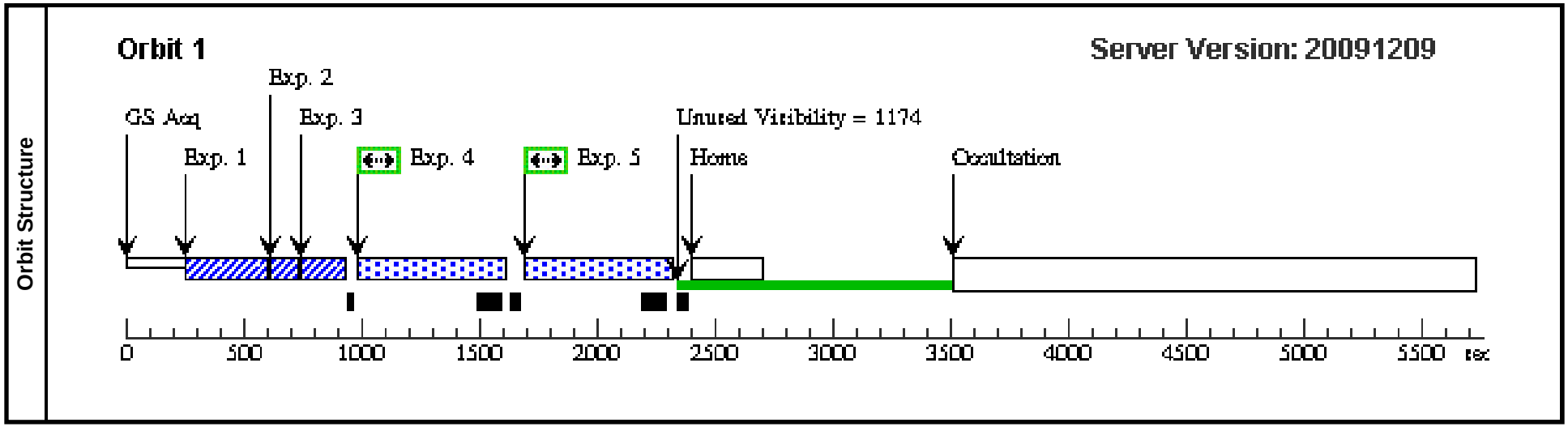
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(34)	HD129333 Alt Name1: EKDRA	RA: 14 39 0.2120 (219.7508833d) Dec: +64 17 29.96 (64.29166d) Equinox: J2000	Proper Motion RA: -0.0213s/yr Proper Motion Dec: -0.0119"/yr Parallax: 0.0295" Epoch of Position: 2000 Radial Velocity: -30.5 km/sec	V=7.61+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(34) HD129333	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			30 Secs *[==>]*	***[1]***
Comments: COS77225 (texp for S/N=30)									
2	DISP-ACQ	(34) HD129333	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=A			30 Secs *[==>]*	***[1]***
Comments: COS77225 (texp for S/N=30)									
3	DISP-ACQ	(34) HD129333	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			30 Secs *[==>]*	***[1]***
Comments: COS77225 (texp for S/N=30)									
4	FUV-A-EXP1	(34) HD129333	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=470; SEGMENT=A; FLASH=YES; FP-POS=3			580 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(34) HD129333	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=470; SEGMENT=A; FLASH=YES; FP-POS=4			580 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Unused Visibility = 1174
Horns
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 40, scheduling Wed Feb 10 02:03:15 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

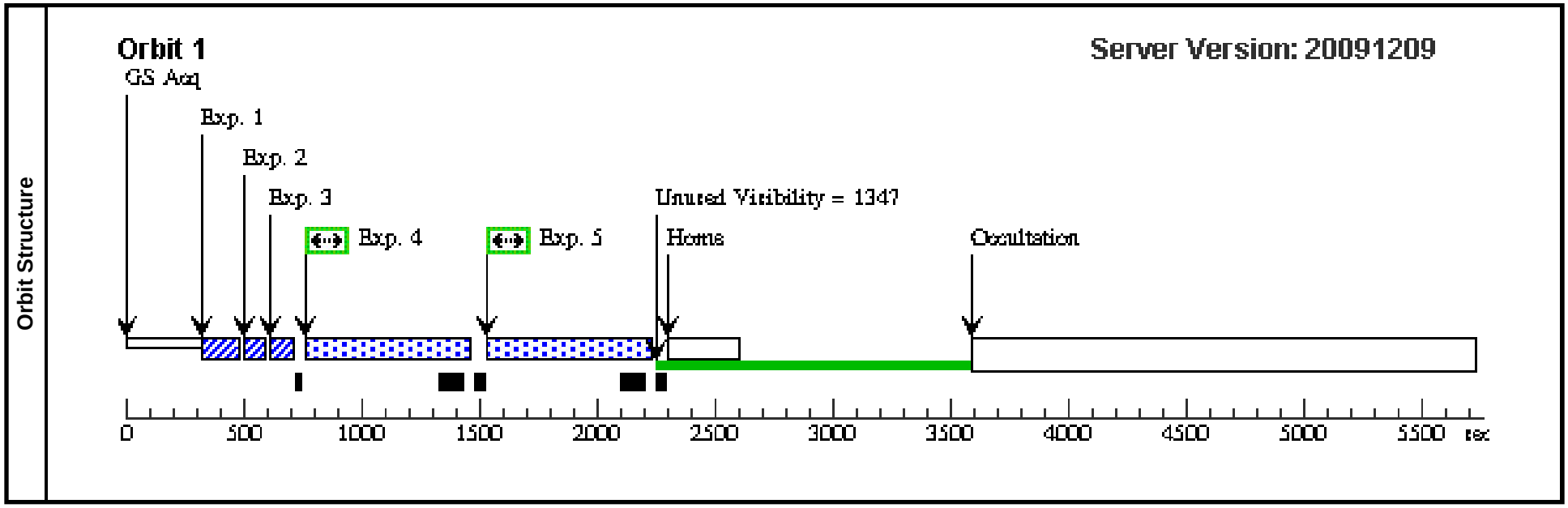
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(40)	HD150798 Alt Name1: ALPTRA	RA: 16 48 39.8950 (252.1662292d) Dec: -69 01 39.77 (-69.02771d) Equinox: J2000	Proper Motion RA: 0.0033s/yr Proper Motion Dec: -0.0329"/yr Parallax: 0.0079" Epoch of Position: 2000 Radial Velocity: -3.3 km/sec	V=1.92+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(40) HD150798	COS/FUV, ACQ/SEARCH, PSA	G130M 1309 A	CENTER=FLUX-WT; SCAN-SIZE=2; STEP-SIZE=1.767; SEGMENT=A			2.2 Secs *[==>]*	***[1]***
Comments: COS77292									
2	DISP-ACQ	(40) HD150798	COS/FUV, ACQ/PEAKXD, PSA	G130M 1309 A	SEGMENT=A			2.2 Secs *[==>]*	***[1]***
Comments: COS77292									
3	DISP-ACQ	(40) HD150798	COS/FUV, ACQ/PEAKD, PSA	G130M 1309 A	CENTER=DEF; NUM-POS=3; STEP-SIZE=1.2; SEGMENT=A			2.2 Secs *[==>]*	***[1]***
Comments: COS77292									
4	FUV-A-EXP1	(40) HD150798	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=3			650 Secs *[==>]*	***[1]***
5	FUV-A-EXP2	(40) HD150798	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=540; SEGMENT=A; FLASH=YES; FP-POS=4			650 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Unused Visibility = 1347
Horns
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 41, scheduling Wed Feb 10 02:03:15 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

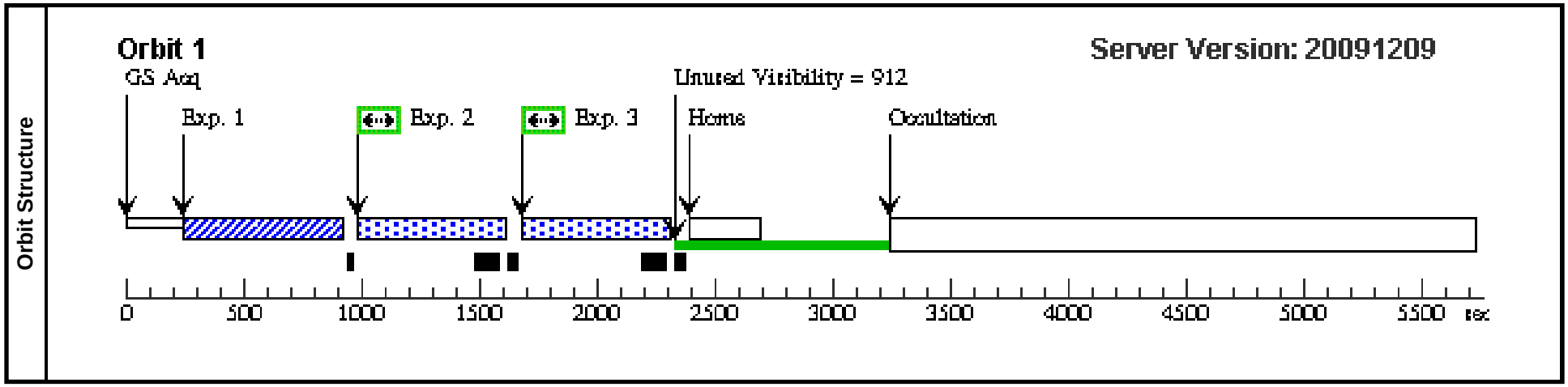
Comments: ETC spectral simulations: V=4.41 Hyades-activity G0V star Chi1 Ori scaled to V=8 Hyades G dwarf, based on high-res STIS echelle spectra (ETC version from StarCAT). The peak pixel in the spectral simulations (at Ly-alpha) is overestimated, since selective HI absorption and reddening will diminish the Hyades Ly-alpha profile compared with that of 4X nearer Chi1.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(41)	HD25825 Alt Name1: MEL25-10	RA: 04 06 16.2097 (61.5675404d) Dec: +15 41 53.04 (15.69807d) Equinox: J2000	Proper Motion RA: +0.0082s/yr Proper Motion Dec: -0.020"/yr Parallax: 0.0214" Epoch of Position: 2010 Radial Velocity: 36.1 km/sec	V=+7.811+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(41) HD25825	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT-FLR; SCAN-SIZE=3; STEP-SIZE=1.767			35 Secs *[==>]*	*[1]*
Comments: COS172665 (texp for S/N=30)									
2	FUV-A-EXP1	(41) HD25825	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=470; FLASH=YES; FP-POS=3			580 Secs *[==>]*	*[1]*
Comments: COS172672									
3	FUV-A-EXP2	(41) HD25825	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=470; FLASH=YES; FP-POS=4			580 Secs *[==>]*	*[1]*
Comments: COS172672									


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Unused Vitibility = 912
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 42, scheduling Wed Feb 10 02:03:16 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

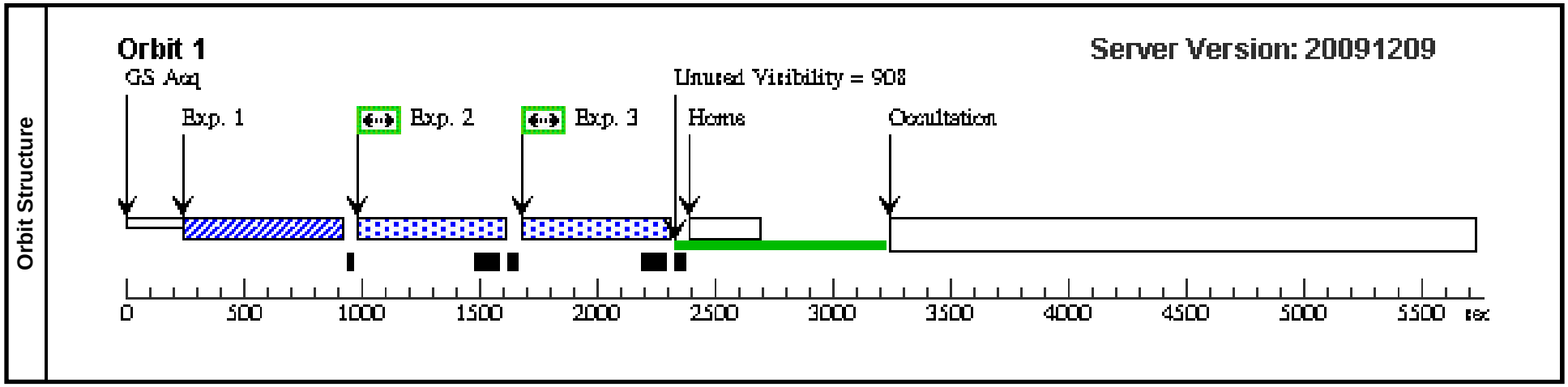
Comments: ETC spectral simulations: V=4.41 Hyades-activity G0V star Chi1 Ori scaled to V=8 Hyades G dwarf, based on high-res STIS echelle spectra (ETC version from StarCAT). The peak pixel in the spectral simulations (at Ly-alpha) is overestimated, since selective HI absorption and reddening will diminish the Hyades Ly-alpha profile compared with that of 4X nearer Chi1.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(42)	HD26767	RA: 04 14 27.3363 (63.6139012d)	Proper Motion RA: +0.0080s/yr	V=+8.030	Reference Frame: ICRS
	Alt Name1: MEL25-18	Dec: +12 26 7.07 (12.43530d)	Proper Motion Dec: -0.009"/yr		
		Equinox: J2000	Parallax: 0.02219"		
			Epoch of Position: 2010		
			Radial Velocity: +39.1 km/sec		

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(42) HD26767	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT-FLR; SCAN-SIZE=3; STEP-SIZE=1.767			35 Secs *[==>]*	*[1]*
Comments: COS172665 (texp for S/N=30)									
2	FUV-A-EXP1	(42) HD26767	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=470; FLASH=YES; FP-POS=3			580 Secs *[==>]*	*[1]*
Comments: COS172672									
3	FUV-A-EXP2	(42) HD26767	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=470; FLASH=YES; FP-POS=4			580 Secs *[==>]*	*[1]*
Comments: COS172672									


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Unused Visibility = 908
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 43, scheduling Wed Feb 10 02:03:16 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

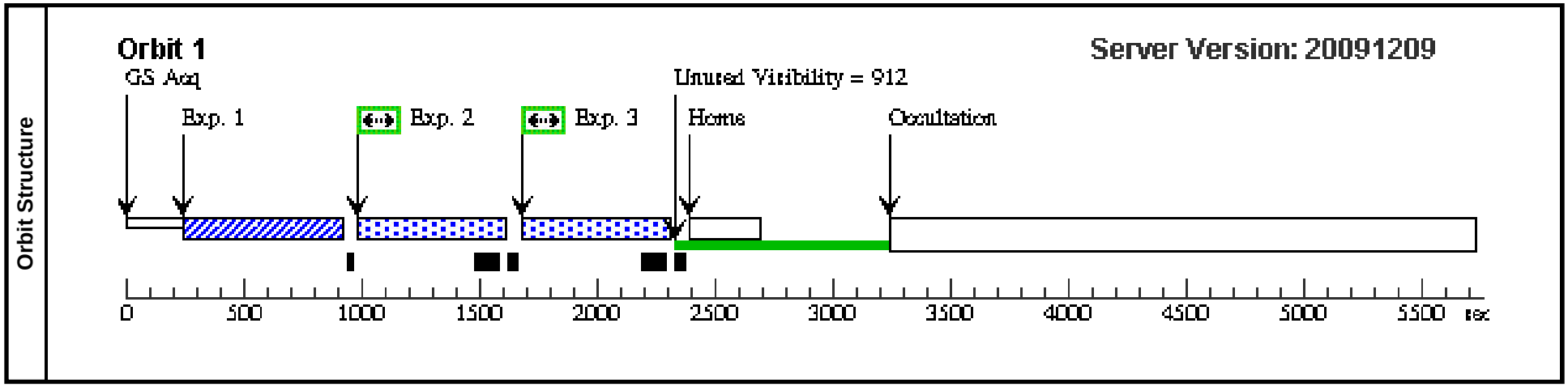
Comments: ETC spectral simulations: V=4.41 Hyades-activity G0V star Chi1 Ori scaled to V=8 Hyades G dwarf, based on high-res STIS echelle spectra (ETC version from StarCAT). The peak pixel in the spectral simulations (at Ly-alpha) is overestimated, since selective HI absorption and reddening will diminish the Hyades Ly-alpha profile compared with that of 4X nearer Chi1.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(43)	HD27835 Alt Name1: MEL25-49	RA: 04 24 12.8424 (66.0535100d) Dec: +16 22 43.91 (16.37886d) Equinox: J2000	Proper Motion RA: +0.0060s/yr Proper Motion Dec: -0.0230"/yr Parallax: 0.022" Epoch of Position: 2010 Radial Velocity: +35.9 km/sec	V=+8.203+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(43) HD27835	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT-FLR; SCAN-SIZE=3; STEP-SIZE=1.767			35 Secs *[==>]*	 ***[1]***
Comments: COS172665 (texp for S/N=30)									
2	FUV-A-EXP1	(43) HD27835	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=470; FLASH=YES; FP-POS=3			580 Secs *[==>]*	 ***[1]***
Comments: COS172672									
3	FUV-A-EXP2	(43) HD27835	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=470; FLASH=YES; FP-POS=4			580 Secs *[==>]*	 ***[1]***
Comments: COS172672									


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Unused Visibility = 912
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 44, scheduling Wed Feb 10 02:03:16 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

Comments: ETC spectral simulations: V=4.41 Hyades-activity G0V star Chi1 Ori scaled to V=8 Hyades G dwarf, based on high-res STIS echelle spectra (ETC version from StarCAT). The peak pixel in the spectral simulations (at Ly-alpha) is overestimated, since selective HI absorption and reddening will diminish the Hyades Ly-alpha profile compared with that of 4X nearer Chi1.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(44)	HD28992	RA: 04 34 35.3793 (68.6474138d)	Proper Motion RA: +0.0069s/yr	V=+7.898+/-0.1	Reference Frame: ICRS
	Alt Name1: MEL25-97	Dec: +15 30 16.35 (15.50454d)	Proper Motion Dec: -0.028"/yr		
		Equinox: J2000	Parallax: 0.0232"		
			Epoch of Position: 2010		
			Radial Velocity: +42.0 km/sec		

Comments: F8V in Simbad, but (B-V) color more like G2V

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(44) HD28992	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT-FLR; SCAN-SIZE=3; STEP-SIZE=1.767			35 Secs *[==>]*	***[1]***

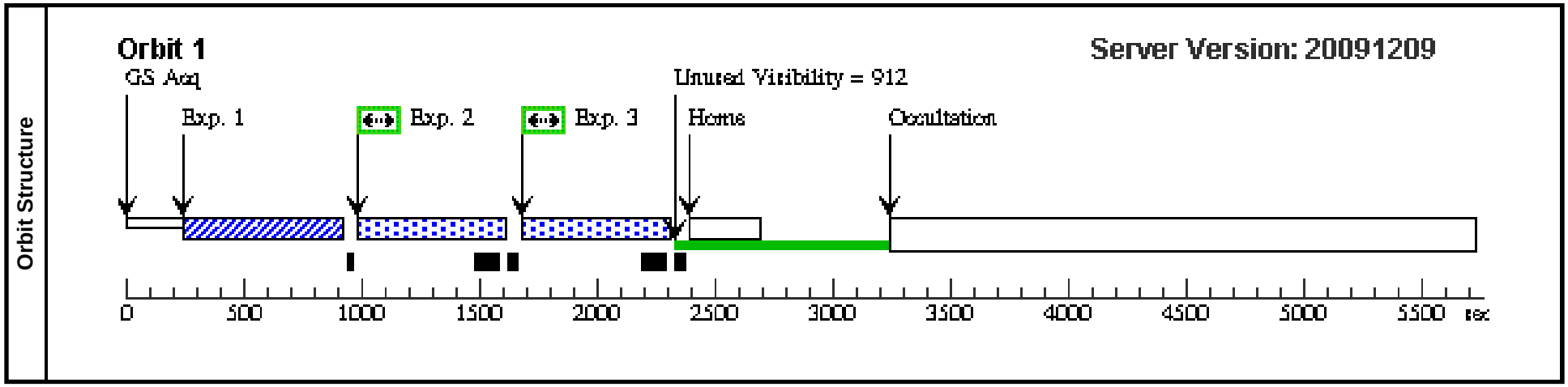
Comments: COS172665 (texp for S/N=30)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
2	FUV-A-EX P1	(44) HD28992	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=470; FLASH=YES; FP-POS=3			580 Secs *[==>]*	***[1]***

Comments: COS172672

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
3	FUV-A-EX P2	(44) HD28992	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=470; FLASH=YES; FP-POS=4			580 Secs *[==>]*	***[1]***

Comments: COS172672


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Unused Visibility = 912
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 45, scheduling Wed Feb 10 02:03:16 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

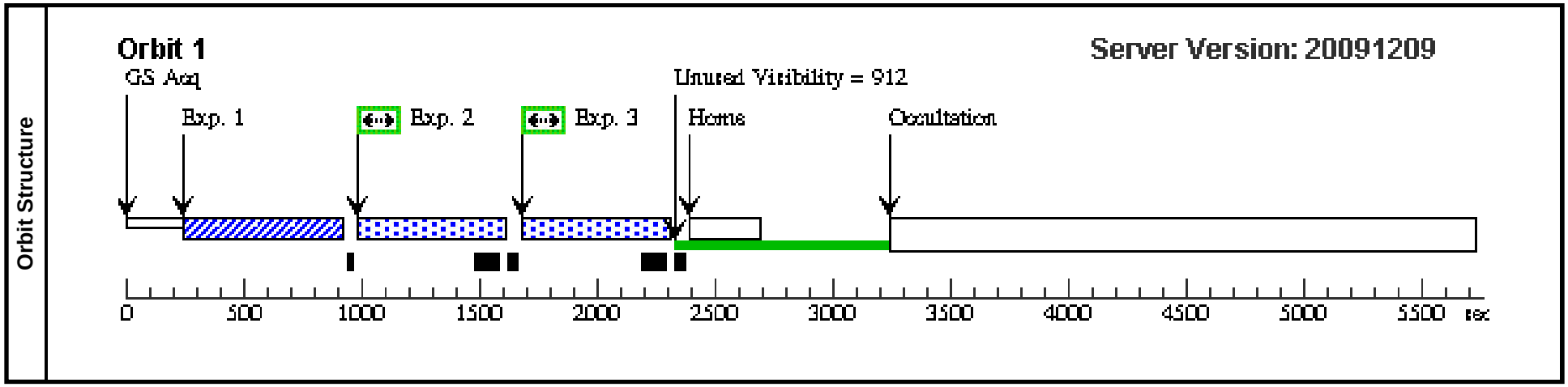
Comments: ETC spectral simulations: V=4.41 Hyades-activity G0V star Chi1 Ori scaled to V=8 Hyades G dwarf, based on high-res STIS echelle spectra (ETC version from StarCAT). The peak pixel in the spectral simulations (at Ly-alpha) is overestimated, since selective HI absorption and reddening will diminish the Hyades Ly-alpha profile compared with that of 4X nearer Chi1.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(45)	HD28344 Alt Name1: MEL25-73	RA: 04 28 48.3701 (67.2015421d) Dec: +17 17 7.37 (17.28538d) Equinox: J2000	Proper Motion RA: +0.0074s/yr Proper Motion Dec: -0.030"/yr Parallax: 0.0211" Epoch of Position: 2010 Radial Velocity: +39.8 km/sec	V=+7.837+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(45) HD28344	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT-FLR; SCAN-SIZE=3; STEP-SIZE=1.767			35 Secs *[==>]*	*[1]*
Comments: COS172665 (texp for S/N=30)									
2	FUV-A-EX P1	(45) HD28344	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=470; FLASH=YES; FP-POS=3			580 Secs *[==>]*	*[1]*
Comments: COS172672									
3	FUV-A-EX P2	(45) HD28344	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=470; FLASH=YES; FP-POS=4			580 Secs *[==>]*	*[1]*
Comments: COS172672									


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Unused Visibility = 912
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 46, scheduling Wed Feb 10 02:03:16 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

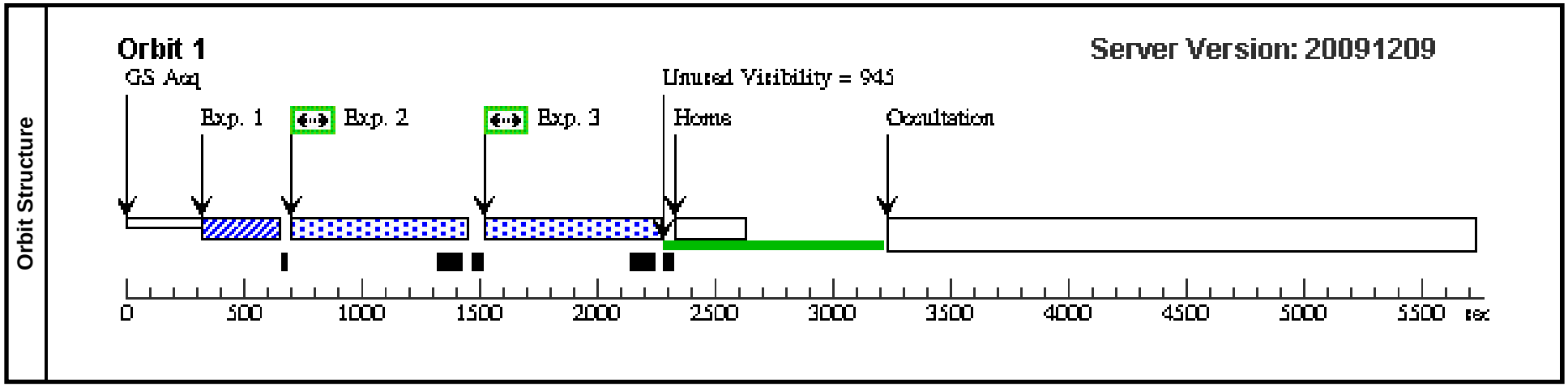
Comments: ETC spectral simulations based on high-res STIS echelle spectra of Beta Aqr (ETC version from StarCAT), a G supergiant of nearly identical FUV spectral properties.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(46)	HD209750	RA: 22 05 47.0476 (331.4460317d) Dec: -00 19 11.56 (-.31988d) Equinox: J2000	Proper Motion RA: +0.0012s/yr Proper Motion Dec: -0.010"/yr Parallax: 0.0043" Epoch of Position: 2010 Radial Velocity: +7.5 km/sec	V=+2.950+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(46) HD209750	COS/FUV, ACQ/SEARCH, PSA	G130M 1309 A	CENTER=FLUX-WT-FLR; SCAN-SIZE=3; STEP-SIZE=1.767			4 Secs *[==>]*	 ***[1]***
Comments: COS172738: texp 2X longer than S/N=40 value; 9-step scan instead of 4									
2	FUV-A-EX P1	(46) HD209750	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=590; FLASH=YES; FP-POS=3			700 Secs *[==>]*	 ***[1]***
Comments: COS172735									
3	FUV-A-EX P2	(46) HD209750	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=590; FLASH=YES; FP-POS=4			700 Secs *[==>]*	 ***[1]***
Comments: COS172735									


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Unused Visibility = 945
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 47, scheduling Wed Feb 10 02:03:17 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

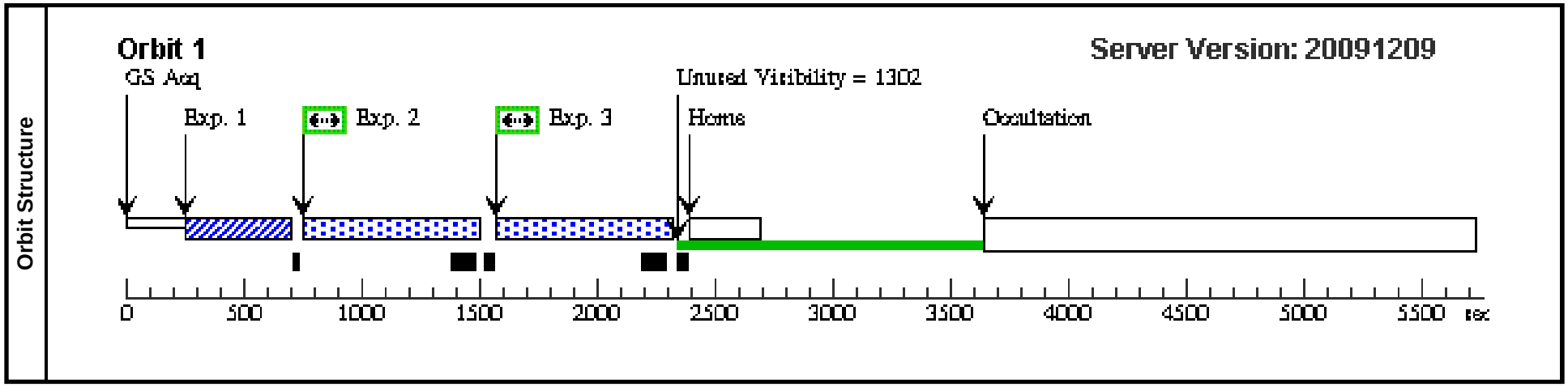
Comments: ETC spectral simulations based on high-res STIS echelle spectra of Alpha Tau (ETC version from StarCAT), a K giant of nearly identical FUV spectral properties. Alp Tau is 3X brighter in visual luminosity, and 8X in IUE OI 130 nm. The latter factor was assumed for the DISP/ACQ simulation.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(47)	HD131873	RA: 14 50 42.2476 (222.6760317d) Dec: +74 09 19.94 (74.15554d) Equinox: J2000	Proper Motion RA: -0.0078s/yr Proper Motion Dec: +0.012"/yr Parallax: 0.0258" Epoch of Position: 2010 Radial Velocity: +17.0 km/sec	V=+2.078+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(47) HD131873	COS/FUV, ACQ/SEARCH, PSA	G130M 1327 A	CENTER=FLUX-WT-FLR; SCAN-SIZE=3; STEP-SIZE=1.767; SEGMENT=A			10 Secs *[==>]*	***[1]***
Comments: COS172766: texp for S/N=40; 9-step scan instead of 4									
2	FUV-A-EX P1	(47) HD131873	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=590; FLASH=YES; FP-POS=3; SEGMENT=A			700 Secs *[==>]*	***[1]***
Comments: COS172767									
3	FUV-A-EX P2	(47) HD131873	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=590; FLASH=YES; FP-POS=4; SEGMENT=A			700 Secs *[==>]*	***[1]***
Comments: COS172767									


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Unused Visibility = 1302
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 48, scheduling Wed Feb 10 02:03:17 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

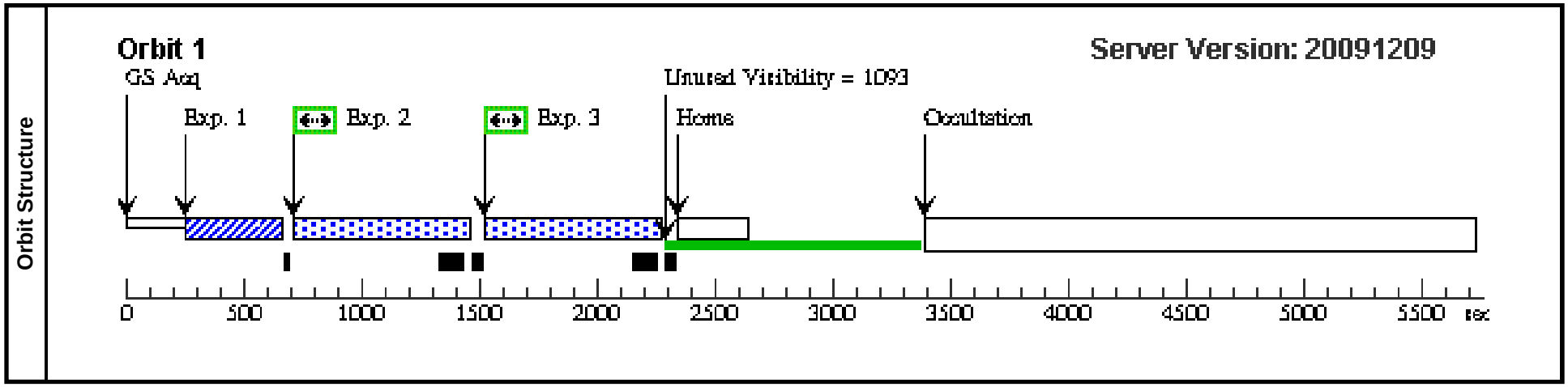
Comments: ETC spectral simulations based on high-res STIS echelle spectra of Alpha Car (ETC version from StarCAT), an F supergiant similar to the target, Alpha Per. Alp Car has a steep continuum in FUV, which was normalized to 1E-13 at 140 nm, the value recorded for Alp Per by IUE. Similar results were obtained using a Castelli & Kurucz model for F5I, also normalized to 1E-13 at 140 nm.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(48)	HD20902	RA: 03 24 19.3952 (51.0808133d) Dec: +49 51 39.99 (49.86111d) Equinox: J2000	Proper Motion RA: +0.0025s/yr Proper Motion Dec: -0.0260"/yr Parallax: 0.0055" Epoch of Position: 2010 Radial Velocity: -2.4 km/sec	V=+1.816+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(48) HD20902	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT-FLR; SCAN-SIZE=3; STEP-SIZE=1.767; SEGMENT=A			5 Secs *[==>]*	***[1]***
Comments: COS165186: texp for S/N>40; 9-step scan instead of 4									
2	FUV-A-EX P1	(48) HD20902	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=590; FLASH=YES; FP-POS=3; SEGMENT=A			700 Secs *[==>]*	***[1]***
Comments: COS165188									
3	FUV-A-EX P2	(48) HD20902	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=590; FLASH=YES; FP-POS=4; SEGMENT=A			700 Secs *[==>]*	***[1]***
Comments: COS165188									


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Unused Visibility = 1093
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 49, scheduling Wed Feb 10 02:03:17 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

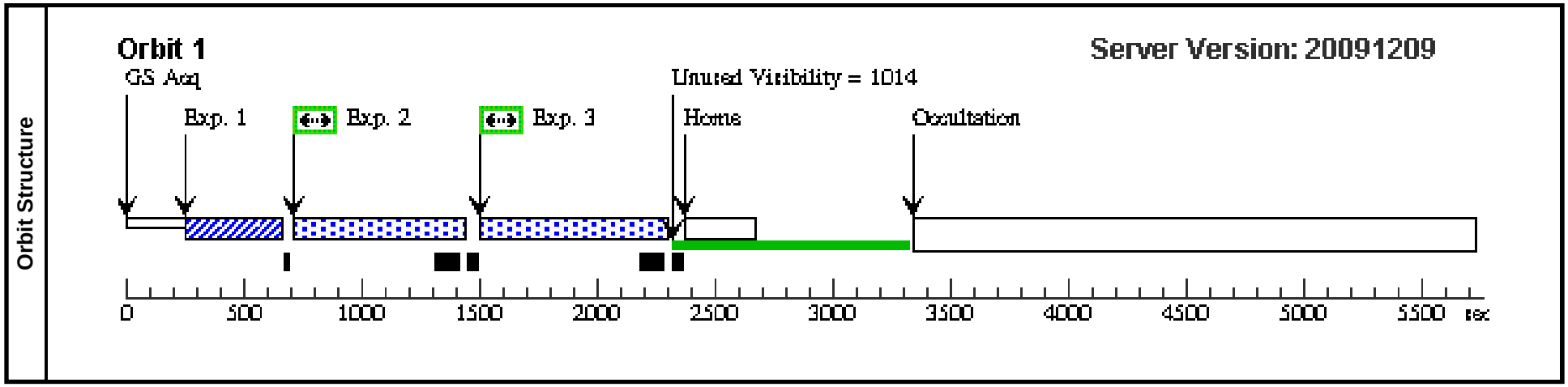
Comments: ETC spectral simulations based on high-res STIS echelle spectra of Beta Aqr (ETC version from StarCAT), a G0 supergiant similar in FUV properties to the target, Gamma Cyg. Similar results were obtained using a Castelli & Kurucz model for F5I, normalized to V=2.24. Gam Cyg continuum at 140 nm is similar to that of Bet Aqr, although OI 130 nm lines are 2-3X weaker (according to IUE). An unscaled Bet Aqr SED was used, so DISP/ACQ texp=5s probably is somewhat underestimated.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(49)	HD194093	RA: 20 22 13.7040 (305.5571000d) Dec: +40 15 24.04 (40.25668d) Equinox: J2000	Proper Motion RA: +0.0002s/yr Proper Motion Dec: -0.0009"/yr Parallax: 0.00214" Epoch of Position: 2010 Radial Velocity: -7.5 km/sec	V=+2.237+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(49) HD194093	COS/FUV, ACQ/SEARCH, PSA	G130M 1327 A	CENTER=FLUX-WT-FLR; SCAN-SIZE=3; STEP-SIZE=1.767; SEGMENT=A			5 Secs *[==>]*	***[1]***
Comments: COS165162: texp for S/N=40; 9-step scan instead of 4; 1327 + Side A to avoid bright lines in 130-132 nm region.									
2	FUV-A-EX P1	(49) HD194093	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=570; FLASH=YES; FP-POS=3; SEGMENT=A			680 Secs *[==>]*	***[1]***
Comments: COS172768									
3	FUV-A-EX P2	(49) HD194093	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=570; FLASH=YES; FP-POS=4; SEGMENT=A			680 Secs *[==>]*	***[1]***
Comments: COS172768									


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Unused Visibility = 1014
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 50, scheduling Wed Feb 10 02:03:18 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

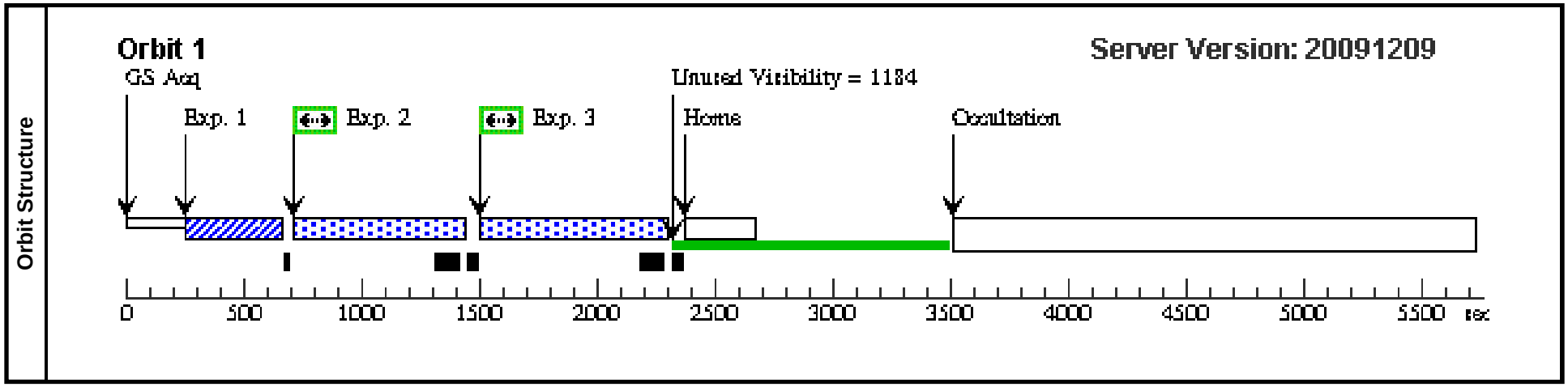
Comments: ETC spectral simulations based on high-res STIS echelle spectra of Alpha TrA (ETC version from StarCAT), an early-K supergiant similar in FUV properties to the target, Beta Ind. Bet Ind OI 130 nm lines are 5X weaker (according to IUE), the MgII 280 nm feature is 7X weaker, and the visual brightness is down by 5X. The latter was adopted as the scale factor.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(50)	HD198700	RA: 20 54 48.6299 (313.7026246d) Dec: -58 27 15.20 (-58.45422d) Equinox: J2000	Proper Motion RA: +0.0027s/yr Proper Motion Dec: -0.02475"/yr Parallax: 0.00541" Epoch of Position: 2010 Radial Velocity: -4.9 km/sec	V=3.658+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(50) HD198700	COS/FUV, ACQ/SEARCH, PSA	G130M 1327 A	CENTER=FLUX-WT-FLR; SCAN-SIZE=3; STEP-SIZE=1.767; SEGMENT=A			5 Secs *[==>]*	***[1]***
Comments: COS165151: texp for S/N=40; 9-step scan instead of 4; 1327 + Side A to avoid bright lines in 130-132 nm region.									
2	FUV-A-EX P1	(50) HD198700	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=570; FLASH=YES; FP-POS=3; SEGMENT=A			680 Secs *[==>]*	***[1]***
Comments: COS165136									
3	FUV-A-EX P2	(50) HD198700	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=570; FLASH=YES; FP-POS=4; SEGMENT=A			680 Secs *[==>]*	***[1]***
Comments: COS165136									


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Unused Visibility = 1184
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 51, implementation Wed Feb 10 02:03:18 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

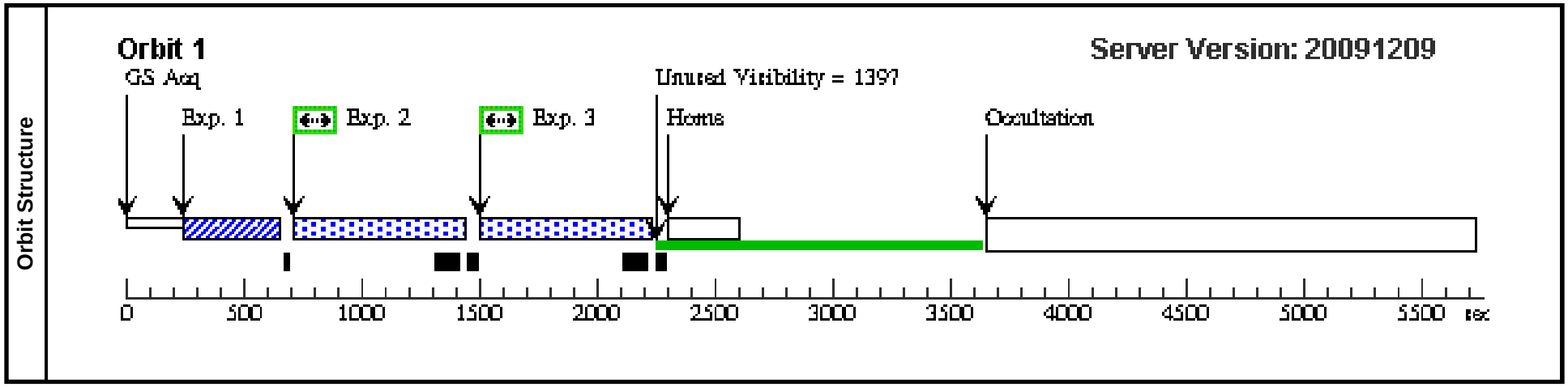
Comments: ETC spectral simulations based on IUE spectra of the target, Alpha UMi. These show what appears to be a flat continuum below 140 nm, at a level of about 5E-14; probably mostly scattered light (in SWP-LO). Similar results were obtained from a Castelli-Kurucz F5I model normalized to 5E-14 at 140 nm or to the V=2.00 magnitude.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(51)	HD8890	RA: 02 31 51.3790 (37.9640792d) Dec: +89 15 50.68 (89.26408d) Equinox: J2000	Proper Motion RA: +0.2295s/yr Proper Motion Dec: -0.01175"/yr Parallax: 0.00756" Epoch of Position: 2010 Radial Velocity: -17.4 km/sec	V=+2.005+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(51) HD8890	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	CENTER=FLUX-WT-FLR; SCAN-SIZE=3; STEP-SIZE=1.767			5 Secs *[==>]*	 ***[1]***
Comments: COS172777 (F5I norm'd to 5E-14 at 140 nm): texp for S/N=40; 9-step scan instead of 4; see also COS172775 (F5I norm'd to V=2)									
2	FUV-A-EXP1	(51) HD8890	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=570; FLASH=YES; FP-POS=3			680 Secs *[==>]*	 ***[1]***
3	FUV-A-EXP2	(51) HD8890	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=570; FLASH=YES; FP-POS=4			680 Secs *[==>]*	 ***[1]***


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Unused Visibility = 1397
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 52, scheduling Wed Feb 10 02:03:18 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

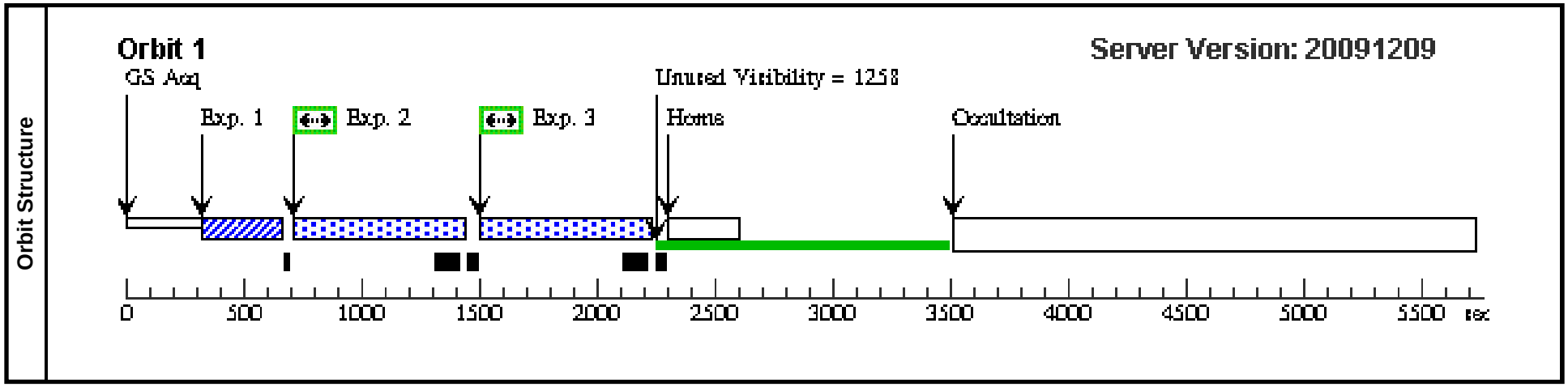
Comments: ETC simulations based on scaling the early-G supergiant Beta Aqr (ETC spectrum from StarCAT), which has 2X brighter OI 130 nm emission than the target, Beta Dor, which displays a similar FUV spectrum (IUE SWP-LO). Bet Aqr also is 2X brighter than the target in V, so that scaling was adopted.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(52)	HD37350	RA: 05 33 37.5192 (83.4063300d) Dec: -62 29 23.25 (-62.48979d) Equinox: J2000	Proper Motion RA: +0.0001s/yr Proper Motion Dec: +0.01256"/yr Parallax: 0.003414" Epoch of Position: 2010 Radial Velocity: +7.2 km/sec	V=+3.77+/-0.3	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(52) HD37350	COS/FUV, ACQ/SEARCH, PSA	G130M 1309 A	CENTER=FLUX-WT-FLR; SCAN-SIZE=3; STEP-SIZE=1.767			5 Secs *[==>]*	*[1]*
Comments: COS172781 (Bet Aqr divided by 2): texp for S/N=40; 9-step scan instead of 4									
2	FUV-A-EXP1	(52) HD37350	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=570; FLASH=YES; FP-POS=3			680 Secs *[==>]*	*[1]*
3	FUV-A-EXP2	(52) HD37350	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=570; FLASH=YES; FP-POS=4			680 Secs *[==>]*	*[1]*


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Unused Visibility = 1258
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 53, scheduling Wed Feb 10 02:03:18 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

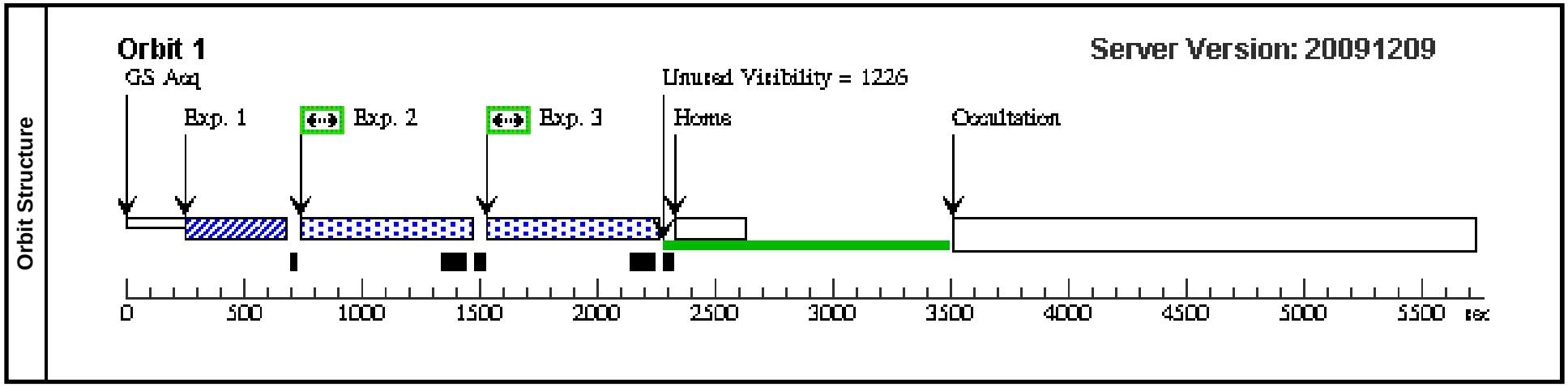
Comments: ETC simulations based on scaling the K giants Alp Boo and Alp Tau (ETC spectra from StarCAT). Alp Boo has 15X brighter OI 130 nm emission than the target, Alpha Cas, and is 8X brighter in V. Alp Tau is 6X brighter in OI and 4X in V. Similar results were obtained taking Alp Boo to be 10X, and Alp Tau 5X, the target in the FUV.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(53)	HD3712	RA: 00 40 30.5014 (10.1270892d) Dec: +56 32 14.07 (56.53724d) Equinox: J2000	Proper Motion RA: +0.006s/yr Proper Motion Dec: -0.0322"/yr Parallax: 0.0143" Epoch of Position: 2010 Radial Velocity: -4.31 km/sec	V=+2.252+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(53) HD3712	COS/FUV, ACQ/SEARCH, PSA	G130M 1327 A	CENTER=FLUX-WT-FLR; SCAN-SIZE=3; STEP-SIZE=1.767; SEGMENT=A			8 Secs *[==>]*	***[1]***
Comments: COS165198 (Alp Boo divided by 10) and COS165202 (Alp Tau divided by 5): texp for S/N=40; 9-step scan instead of 4									
2	FUV-A-EX P1	(53) HD3712	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=570; FLASH=YES; FP-POS=3; SEGMENT=A			680 Secs *[==>]*	***[1]***
Comments: COS165195 and COS165196									
3	FUV-A-EX P2	(53) HD3712	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=570; FLASH=YES; FP-POS=4; SEGMENT=A			680 Secs *[==>]*	***[1]***
Comments: COS165195 and COS165196									


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Unused Visibility = 1226
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 54, scheduling Wed Feb 10 02:03:18 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

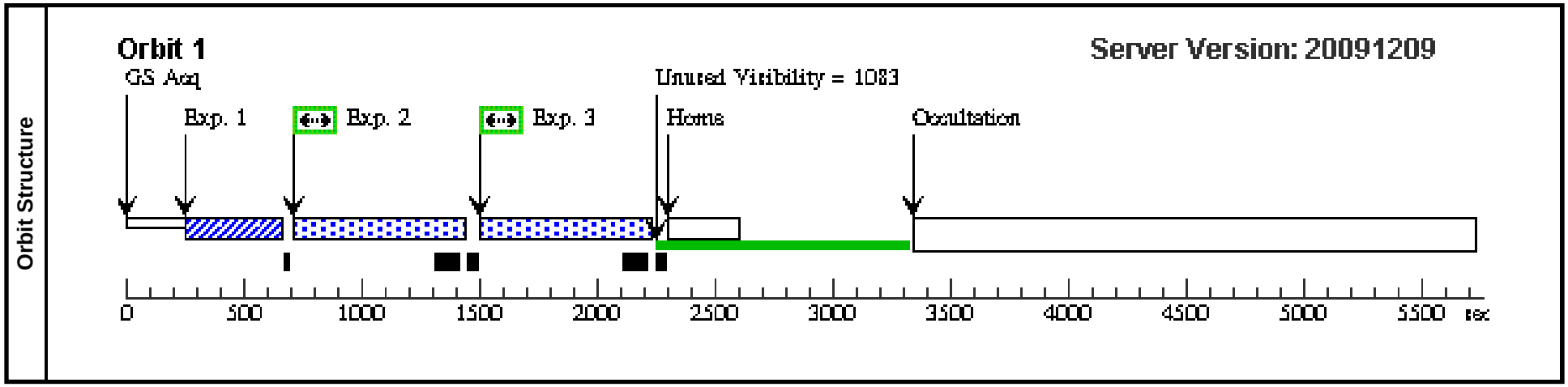
Comments: ETC simulations based on scaling the K giant Alp Tau (ETC spectra from StarCAT). Alp Tau has 2X brighter OI 130 nm and 3X brighter MgII 280 nm emission than the target, Lambda Vel, and is 4X brighter in V. Alp Tau was taken to be 2X the target in the FUV.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(54)	HD78647	RA: 09 07 59.7372 (136.9989050d) Dec: -43 25 57.18 (-43.43255d) Equinox: J2000	Proper Motion RA: -0.0022s/yr Proper Motion Dec: +0.01428"/yr Parallax: 0.0057" Epoch of Position: 2010 Radial Velocity: +18.4 km/sec	V=+2.226+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	DISP-ACQ	(54) HD78647	COS/FUV, ACQ/SEARCH, PSA	G130M 1327 A	CENTER=FLUX-WT-FLR; SCAN-SIZE=3; STEP-SIZE=1.767; SEGMENT=A			5 Secs *[==>]*	***[1]***
Comments: COS172428 (Alp Tau divided by 2): texp for S/N>40; 9-step scan instead of 4									
2	FUV-A-EX P1	(54) HD78647	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=570; FLASH=YES; FP-POS=3; SEGMENT=A			680 Secs *[==>]*	***[1]***
Comments: COS172426									
3	FUV-A-EX P2	(54) HD78647	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=570; FLASH=YES; FP-POS=4; SEGMENT=A			680 Secs *[==>]*	***[1]***
Comments: COS172426									


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Unused Visibility = 1083
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 55, implementation Wed Feb 10 02:03:18 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

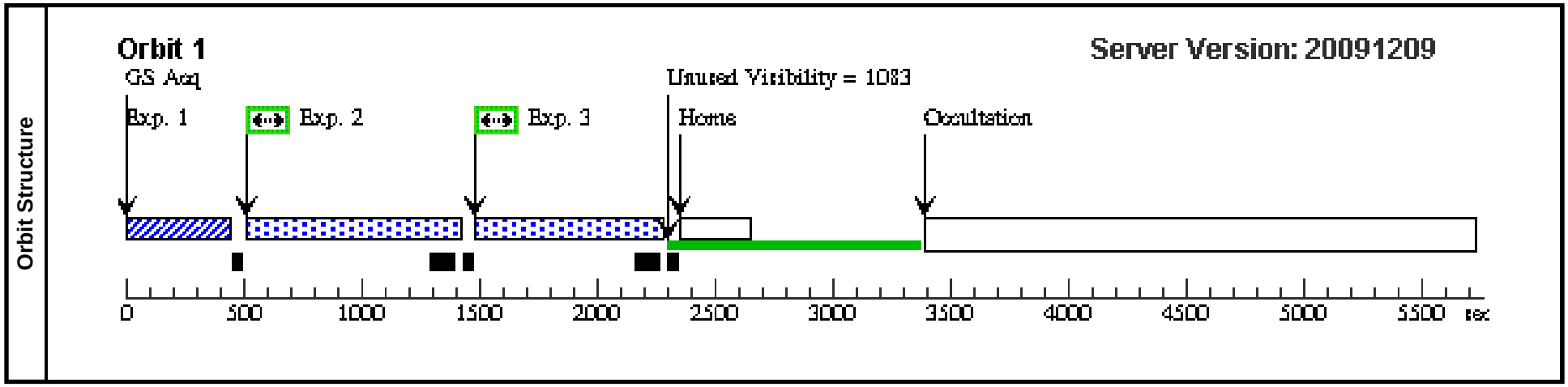
Comments: ETC spectral simulations: V=4.41 Hyades-activity G0V star Chi1 Ori scaled to Alpha Per G dwarf, based on high-res STIS echelle spectra (ETC version from StarCAT). The scaling was according to the ratio of the observed C IV 155 nm fluxes (from FOS, for the Alp Per stars: MEL20-350 and MEL20-709 have similar fluxes). The DISP/ACQ simulations are overestimated, since selective HI absorption and reddening will diminish the Alp Per Ly-alpha profile compared with that of 10X nearer Chi1. Even so, the predicted 175s per step was judged to be too long, so a blind acquistion is preferred.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(55)	MEL20-350	RA: 03 17 36.9466 (49.4039442d) Dec: +48 50 8.24 (48.83562d) Equinox: J2000	Proper Motion RA: +0.0017s/yr Proper Motion Dec: -0.0208"/yr Parallax: 0.000" Epoch of Position: 2010 Radial Velocity: +0.00 km/sec	V=+11.1+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	NUV-ACQ	(55) MEL20-350	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				15 Secs *[==>]*	 ***[1]***
Comments: COS.A225545									
2	FUV-A-EXP1	(55) MEL20-350	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=640; FLASH=YES; FP-POS=3			750 Secs *[==>]*	 ***[1]***
Comments: COS172443									
3	FUV-A-EXP2	(55) MEL20-350	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=640; FLASH=YES; FP-POS=4			750 Secs *[==>]*	 ***[1]***
Comments: COS172443									


Orbit Structure
Orbit 1
Server Version: 20091209
GS Acq
Exp. 1
Exp. 2
Exp. 3
Unused Visibility = 1083
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 11687, Visit 56, implementation Wed Feb 10 02:03:19 GMT 2010

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

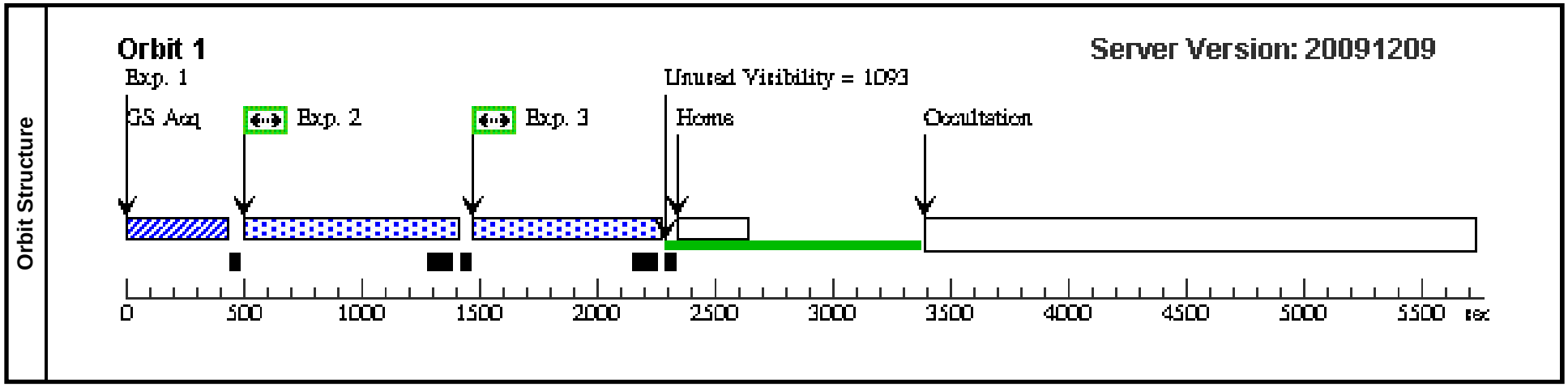
Comments: ETC spectral simulations: V=4.41 Hyades-activity G0V star Chi1 Ori scaled to Alpha Per G dwarf, based on high-res STIS echelle spectra (ETC version from StarCAT). The scaling was according to the ratio of the observed C IV 155 nm fluxes (from FOS, for the Alp Per stars: MEL20-350 and MEL20-709 have similar fluxes). The DISP/ACQ simulations are overestimated, since selective HI absorption and reddening will diminish the Alp Per Ly-alpha profile compared with that of 10X nearer Chi1. Even so, the predicted 175s per step was judged to be too long, so a blind acquistion is preferred.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(56)	MEL20-709	RA: 03 26 43.9582 (51.6831592d) Dec: +49 54 34.05 (49.90946d) Equinox: J2000	Proper Motion RA: +0.0023s/yr Proper Motion Dec: -0.0276"/yr Parallax: 0.000" Epoch of Position: 2010 Radial Velocity: +0.00 km/sec	V=10.7+/-0.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	NUV-ACQ	(56) MEL20-709	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				10 Secs *[==>]*	*[1]*
Comments: COS.A225542									
2	FUV-A-EX P1	(56) MEL20-709	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=640; FLASH=YES; FP-POS=3			750 Secs *[==>]*	*[1]*
Comments: COS172443									
3	FUV-A-EX P2	(56) MEL20-709	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=640; FLASH=YES; FP-POS=4			750 Secs *[==>]*	*[1]*
Comments: COS172443									


Orbit Structure
Orbit 1
Server Version: 20091209
Exp. 1
Unused Visibility = 1093
GS Acq
Exp. 2
Exp. 3
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec