12581 - A Direct CO/H2 Abundance Measurement in Diffuse and Translucent LMC and SMC Molecular Clouds

Cycle: 19, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) HD-38029	COS/FUV COS/NUV	3	01-Jun-2012 21:11:53.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
02	(2) SK-69279 ANY	ACS/WFC COS/FUV COS/NUV WFC3/IR WFC3/UVIS	4	01-Jun-2012 21:12:51.0	yes
03	(3) SK-68155 ANY	ACS/WFC COS/FUV WFC3/IR WFC3/UVIS	4	01-Jun-2012 21:13:59.0	yes
04	(4) SK-68129 ANY	ACS/WFC COS/FUV COS/NUV WFC3/IR WFC3/UVIS	5	01-Jun-2012 21:15:05.0	yes
05	(5) SK-68140 ANY	ACS/WFC COS/FUV COS/NUV WFC3/IR WFC3/UVIS	4	01-Jun-2012 21:16:14.0	yes
06	(6) HD269445 ANY	COS/FUV COS/NUV WFC3/IR	2	01-Jun-2012 21:17:00.0	yes
07	(7) AV456 ANY	ACS/WFC COS/FUV COS/NUV WFC3/IR WFC3/UVIS	4	01-Jun-2012 21:17:51.0	yes
08	(8) AV6 ANY	COS/FUV WFC3/IR	2	01-Jun-2012 21:18:29.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
09	(9) AV476 ANY	ACS/WFC COS/FUV COS/NUV WFC3/IR WFC3/UVIS	4	01-Jun-2012 21:19:20.0	yes

32 Total Orbits Used

ABSTRACT

Theoretical and observational evidence suggests that molecular gas (H2) is not always correlated with CO because CO is photo-dissociated more easily than H2. The mass of CO-poor H2 present in the envelopes of giant molecular clouds (GMCs) is higher in low metallicity GMCs, which are more exposed to dissociating radiation due to their lower dust abundance. Since we cannot detect H2 directly, the mass of these CO-poor envelopes is effectively "hidden" from radio telescopes. This limitation of CO emission observations hinders our understanding of the correlation between star formation rate, H2, and CO since, in those low metallicity galaxies, neither the CO/H2 abundance, nor the H2 mass can be accurately derived from CO emission. The most sensitive and direct way to determine CO and H2 column densities is to derive them from UV absorption lines. Because of their proximity and low metallicity, the Magellanic Clouds are ideal laboratories to test the current theory of CO/H2 abundance, which can be applied in the high-redshift universe. We propose to observe the 4th positive absorption band of CO with COS toward 9 translucent (Av~1) Magellanic Cloud sightlines probing the edges of GMCs. Covering the Lyman-Werner bands of H2, readily available FUSE spectra can be used to derive H2 column densities toward our targets. These COS observations, which are the only direct test of theoretical predictions for the CO/H2 abundance, will detect CO column densities as low as 1e13 cm-2. They will constrain the structure of GMCs in low-metallicity galaxies, the CO-to-H2 ratio required to estimate the H2 mass from CO emission, and the correlation between star formation rate, H2, and CO.

OBSERVING DESCRIPTION

Goal: We will observe the fourth positive CO absorption band system toward 6 stars in the Large Magellanic Cloud, and 3 stars in the Small Magellanic Cloud. Probing translucent CO column densities requires a S/N of 100:1. The (1-0) … (5-0) ro-vibrational transitions of the CO fourth positive system cover the wavelength range 1392 Ã – 1520 Ã, with the brighter (1-0)-(3-0) lines covering the range 1447 Ã – 1515 Ã. This range will require use of the G160M grating on COS. To obtain the required S/N = 100 after FPPOS correction, we will need an exposure time providing a statistical (based on Poisson statistics) of 120, split equally on all 4 FP-POS and 3 central wavelengths (1577 Ã, 1589 Ã, and 1600 Ã). In addition,

we will need to center the CO absorption lines on the center of segment B, and avoid the 2000 pixels located at each edge of the segment.
Target Acquisition: Since our coordinates are tied to 2MASS and accurate to a fraction of an arcsecond, we will perform a NUV/IMAGE acquisition with the Bright Object Aperture (BOA), and with S/N = 60.
CVZ targets: Four of our targets have fluxes of 1.5â10-13 ergs cm-2 s-1 Ã-1, which would require 5 orbits to achieve a statistical S/N of 120. We propose to observe these targets more efficiently, by requesting Continuous Viewing Zone (CVZ) visibility.
Additional G130M observations to measure gas excitation: For 7 of our targets (all targets except AV6 and HD269445), we will have additional observing time at the end of the last orbit of the visit to perform G130M observations at central wavelength 1327 Ã of key interstellar lines (CI, CII, NI, OI, SiII, SI, SII, FeII). These lines, ubiquitous in the ISM,
typically have equivalent widths > 20 mÃ, and will be detected at the > 4 level with S/N=20.
Coordinated Parallel Observations: We will also obtain parallel observations with both the WFC3 and ACS instruments to study the star formation history nearby our sightlines. At the distance of the Magellanic Clouds, the brightest O stars will saturate in just a few seconds and characterizing solar type stars with high S/N will require exposure times of a few hundred seconds in visible filters. Our exposure times will therefore be set to include both very short observations at the start of each orbit to mitigate saturation among the most massive stars, and
longer exposures to probe low mass stars along the main-sequence. Our default set up will use the same filters as the Panchromatic Hubble Andromeda Treasury Project (PHAT) to complete the multi-wavelength imaging. This will include F275W, F336W, F475W, F814W (UVIS) and F110W, F160W (IR) for WFC3 and F475W and F814W for ACS. However, for our shortest integration times (2 orbits), we will need to make small adjustments in the
number of filters observed or scale back to imaging one parallel field with one instrument to manage buffer dumps from multiple filter exposures (e.g., WFC3/UVIS in one orbit and WFC3/IR in the second orbit). All parallel observations will be constructed to not impact the primary COS exposures.

Visit

Proposal 12581, Visit 01, scheduling Sat Jun 02 01:19:42 GMT 2012

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: ORIENT 240D TO 310 D

Diagnostics

(Visit 01) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

(Visit 01) Warning (Form): If the target coordinates are not known to 0.4" (or better) an ACQ/SEARCH should precede the ACQ/IMAGE.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-38029	RA: 05 36 55.1690 (84.2298708d) Dec: -69 11 37.66 (-69.19379d) Equinox: J2000		V=11.59 Flux at 1300-1700 A (IUE): 3e-13 ergs/cm2/s/A; Flux at 2500A = 2.5e-13	Reference Frame: ICRS

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

Coordinates are from the 2MASS archive, which an absolute astrometric precision of 0.1 arcsec:

http://vizier.u-strasbg.fr/viz-bin/VizieR-S?2MASS%20J05365516-6911376

The BOP was cleared for science and target acquisition, and the exposure time estimated using IUE spectra over the same wavelength range as COS FUV and NUV:

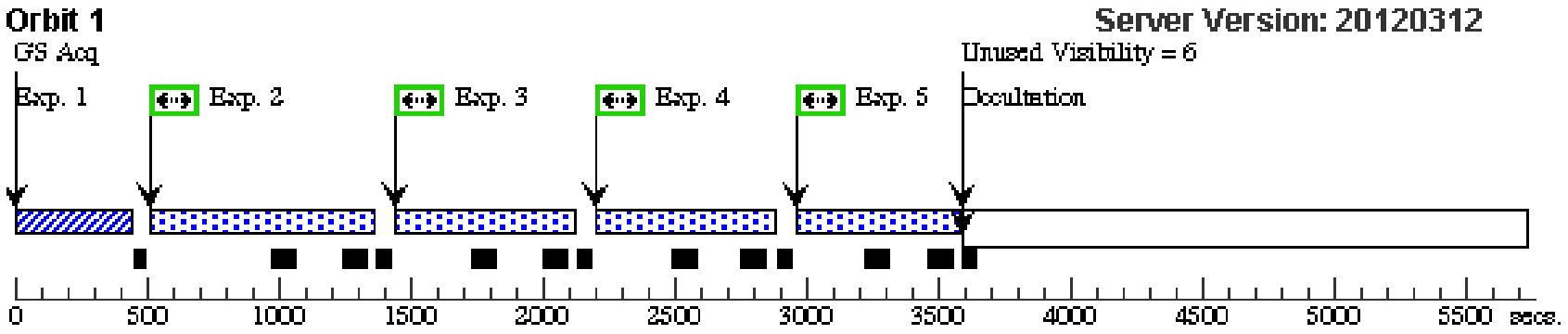
http://archive.stsci.edu/xcorr.php?target=hd38029&max_records=10&action=Search&resolver=SIMBAD&missions%5B%5D=FUSE&missions%5B%5D=IMAPS&missions%5B%5D=BEFS&missions%5B%5D=TUES&missions%5B%5D=IUE&missions%5B%5D=COPERNICUS&missions%5B%5D=HUT&missions%5B%5D=WUPPE&missions%5B%5D=GHRS&missions%5B%5D=STIS-SPECTRUM&missions%5B%5D=COS-SPECTRUM&missions%5B%5D=WFC3-SPECTRUM&missions%5B%5D=ACS-SPECTRUM&missions%5B%5D=FOS&missions%5B%5D=HPOL

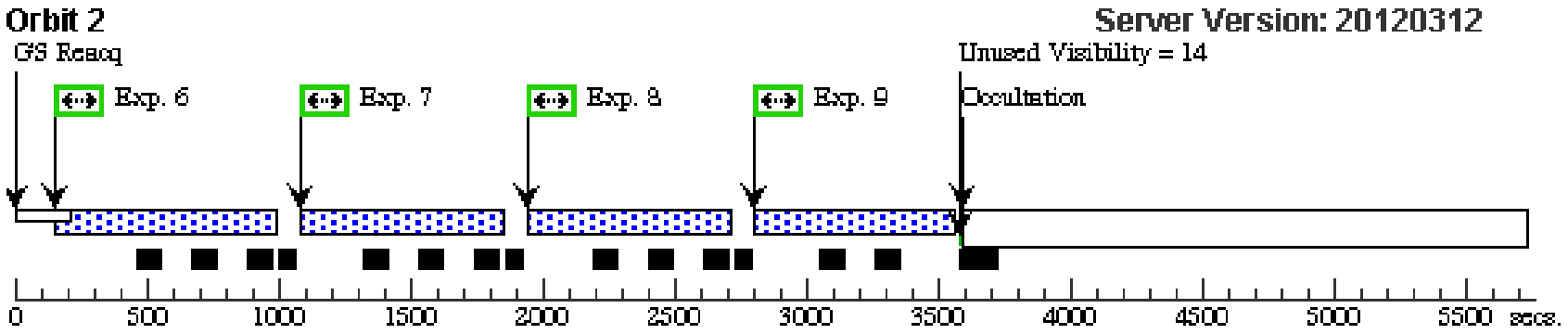
Exposures

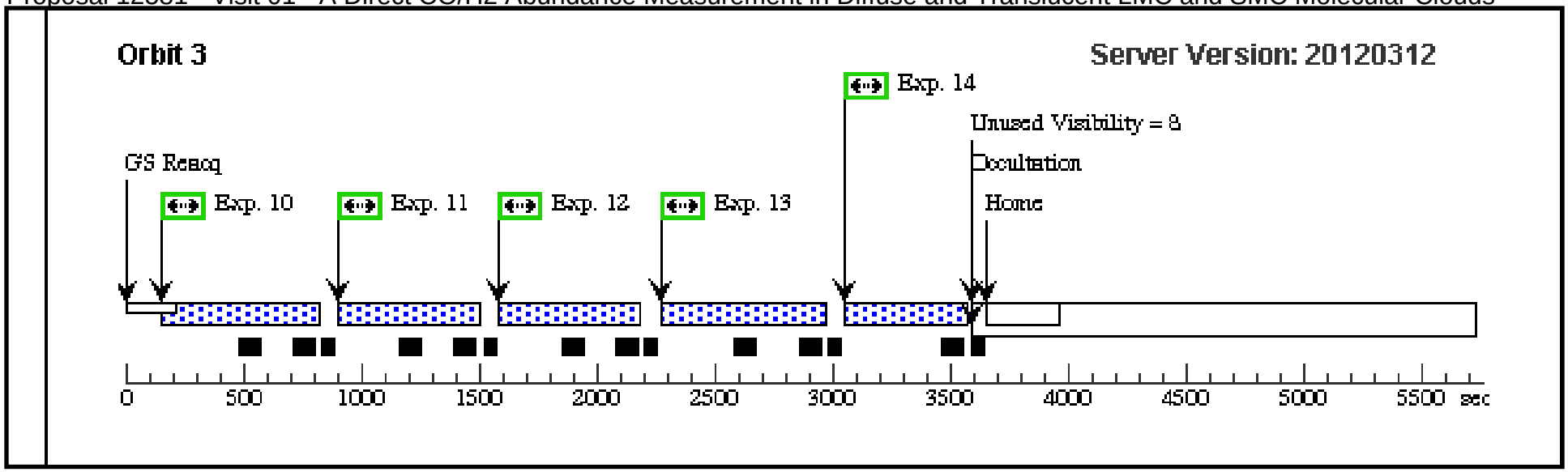
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	acq_hd38029 (COS.ta.177809)	(1) HD-38029	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				18 Secs *[==>]*	***[1]***
2	g160m_sci_1577 (COS.sp.178260)	(1) HD-38029	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=260; EXTENDED=NO			625 Secs *[==>]*	***[1]***
3	g160m_sci_1577 (COS.sp.178260)	(1) HD-38029	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=260; EXTENDED=NO			625 Secs *[==>]*	***[1]***
4	g160m_sci_1577 (COS.sp.178260)	(1) HD-38029	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=260; EXTENDED=NO			625 Secs *[==>]*	***[1]***
5	g160m_sci_1577 (COS.sp.178260)	(1) HD-38029	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=232; EXTENDED=NO			566 Secs *[==>]*	***[1]***
6	g160m_sci_1589 (COS.sp.178262)	(1) HD-38029	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=209; EXTENDED=NO			720 Secs *[==>]*	***[2]***
7	g160m_sci_1589 (COS.sp.178262)	(1) HD-38029	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=209; EXTENDED=NO			720 Secs *[==>]*	***[2]***
8	g160m_sci_1589 (COS.sp.178262)	(1) HD-38029	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=209; EXTENDED=NO			720 Secs *[==>]*	***[2]***

	9	g160m_sci_1589 (COS.sp.17826 2)	(1) HD-38029	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=209; EXTENDED=NO	710 Secs [==>]	[2]
	10	g160m_sci_1600 (COS.sp.17826 3)	(1) HD-38029	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=229; EXTENDED=NO	550 Secs [==>]	[3]
	11	g160m_sci_1600 (COS.sp.17826 3)	(1) HD-38029	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=229; EXTENDED=NO	550 Secs [==>]	[3]
	12	g160m_sci_1600 (COS.sp.17826 3)	(1) HD-38029	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=229; EXTENDED=NO	550 Secs [==>]	[3]
	13	g160m_sci_1600 (COS.sp.17826 3)	(1) HD-38029	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=277; EXTENDED=NO	650 Secs [==>]	[3]
	14	g130m_sci_1327 (COS.sp.17830 8)	(1) HD-38029	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=235; EXTENDED=NO; FP-POS=1; FLASH=YES; SEGMENT=BOTH	332 Secs [==>]	[3]

Orbit Structure



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5000
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sec

Visit

Proposal 12581, Visit 02, scheduling Sat Jun 02 01:19:44 GMT 2012

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, COS/NUV, COS/FUV, WFC3/UVIS, ACS/WFC

Special Requirements: ORIENT 250D TO 310 D

Diagnostics

(Visit 02) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

(Visit 02) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 02) Warning (Form): If the target coordinates are not known to 0.4" (or better) an ACQ/SEARCH should precede the ACQ/IMAGE.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	SK-69279	RA: 05 41 44.6730 (85.4361375d) Dec: -69 35 15.01 (-69.58750d) Equinox: J2000		V=12.768 Flux at 1300-1700 A from IUE: 1.8e-13 ergs/cm2/s/A; Flux at 2500A = 1.3e-13	Reference Frame: ICRS

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

Coordinates are from the 2MASS archive, which an absolute astrometric precision of 0.1 arcsec:

http://vizier.u-strasbg.fr/viz-bin/VizieR-S?2MASS%20J05414467-6935150

The BOP was cleared for science and target acquisition, and the exposure time estimated using IUE spectra over the same wavelength range as COS FUV and NUV:

http://archive.stsci.edu/xcorr.php?target=sk-69279&max_records=10&action=Search&resolver=SIMBAD&missions%5B%5D=FUSE&missions%5B%5D=IMAPS&missions%5B%5D=BEFS&missions%5B%5D=TUES&missions%5B%5D=IUE&missions%5B%5D=COPERNICUS&missions%5B%5D=HUT&missions%5B%5D=WUPPE&missions%5B%5D=GHRS&missions%5B%5D=STIS-SPECTRUM&missions%5B%5D=COS-SPECTRUM&missions%5B%5D=WFC3-SPECTRUM&missions%5B%5D=ACS-SPECTRUM&missions%5B%5D=FOS&missions%5B%5D=HPOL

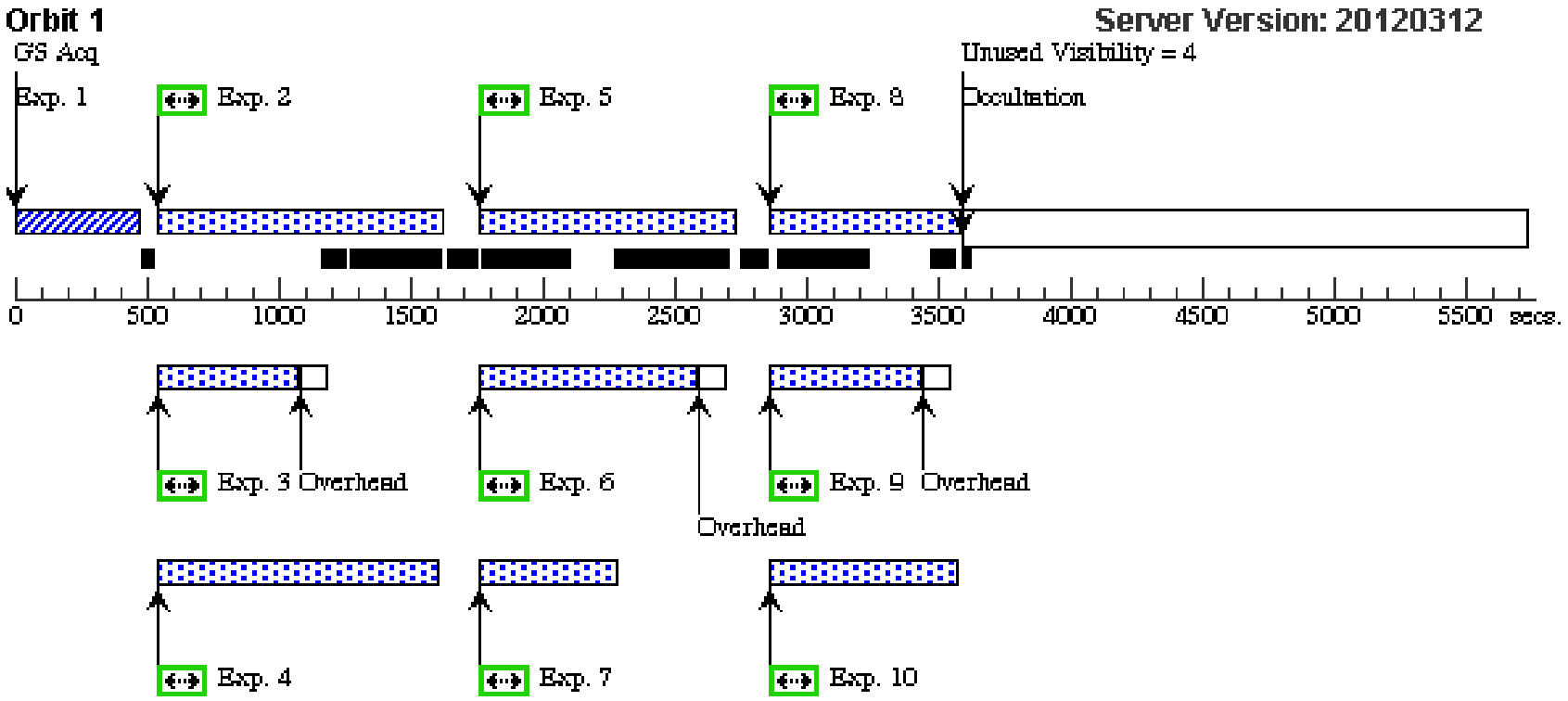
Exposures

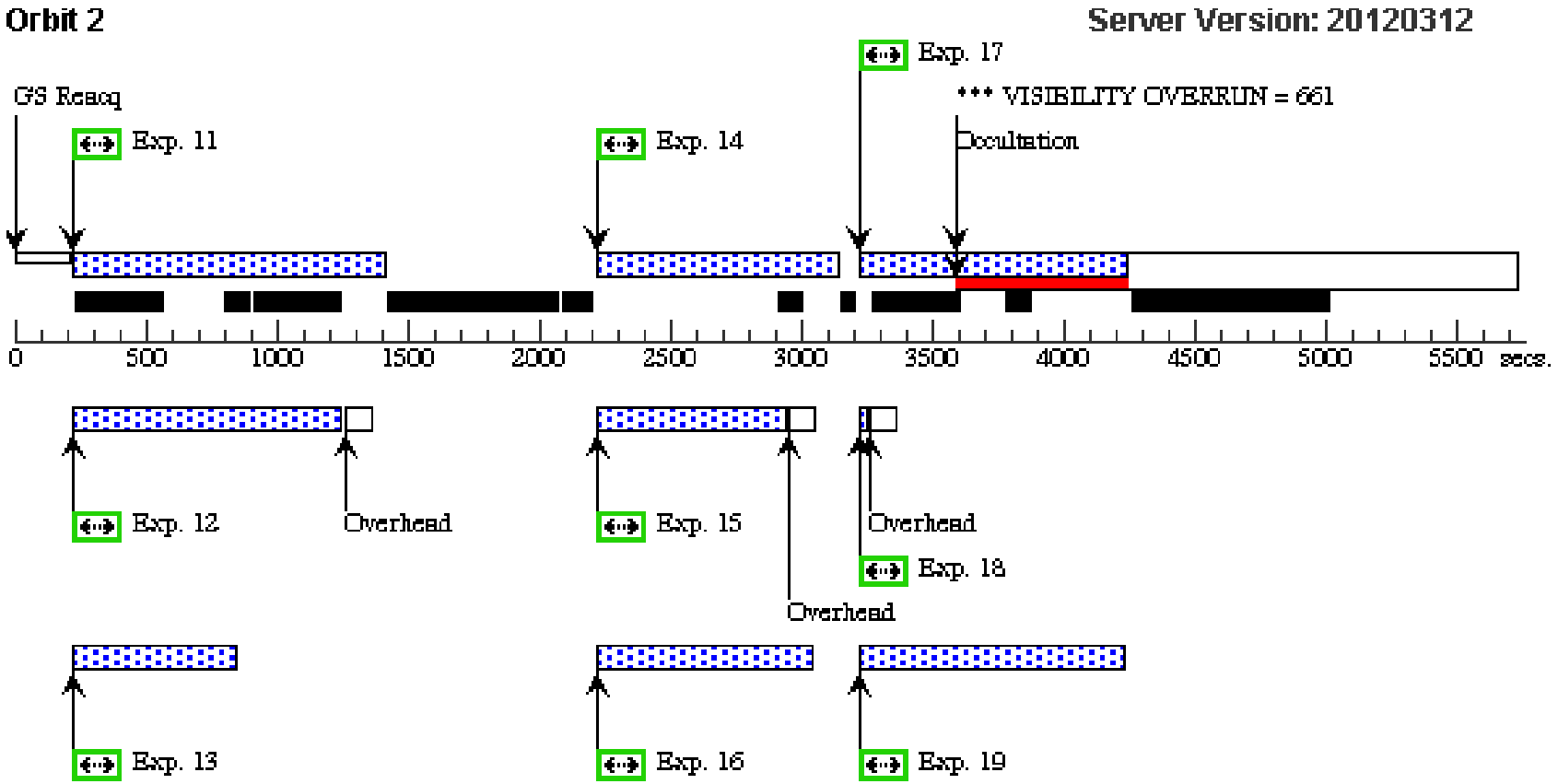
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	acq_sk69279 (COS.ta.177810)	(2) SK-69279	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				33 Secs *[==>]*	*[1]*
2	g160m_sci_1577 (COS.sp.178264)	(2) SK-69279	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=420; EXTENDED=NO		Prime + Parallel Group 2-4 in Visit 02	860 Secs *[==>]*	*[1]*
3		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO		Prime + Parallel Group 2-4 in Visit 02	500 Secs *[==>]*	*[1]*
4		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Group 2-4 in Visit 02	850 Secs *[==>]*	*[1]*
5	g160m_sci_1577 (COS.sp.178264)	(2) SK-69279	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=470; EXTENDED=NO		Prime + Parallel Group 5-7 in Visit 02	920 Secs *[==>]*	*[1]*
6		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F475W	CR-SPLIT=NO		Prime + Parallel Group 5-7 in Visit 02	800 Secs *[==>]*	*[1]*
7		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Group 5-7 in Visit 02	400 Secs *[==>]*	*[1]*
8	g160m_sci_1577 (COS.sp.178264)	(2) SK-69279	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=570; EXTENDED=NO		Prime + Parallel Group 8-10 in Visit 02	663 Secs *[==>]*	*[1]*
9		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO		Prime + Parallel Group 8-10 in Visit 02	550 Secs *[==>]*	*[1]*
10		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 8-10 in Visit 02	550 Secs *[==>]*	*[1]*
11	g160m_sci_1577 (COS.sp.178264)	(2) SK-69279	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=550; EXTENDED=NO		Prime + Parallel Group 11-13 in Visit 02	1140 Secs *[==>]*	*[2]*
12		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO		Prime + Parallel Group 11-13 in Visit 02	1000 Secs *[==>]*	*[2]*
13		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 11-13 in Visit 02	500 Secs *[==>]*	*[2]*

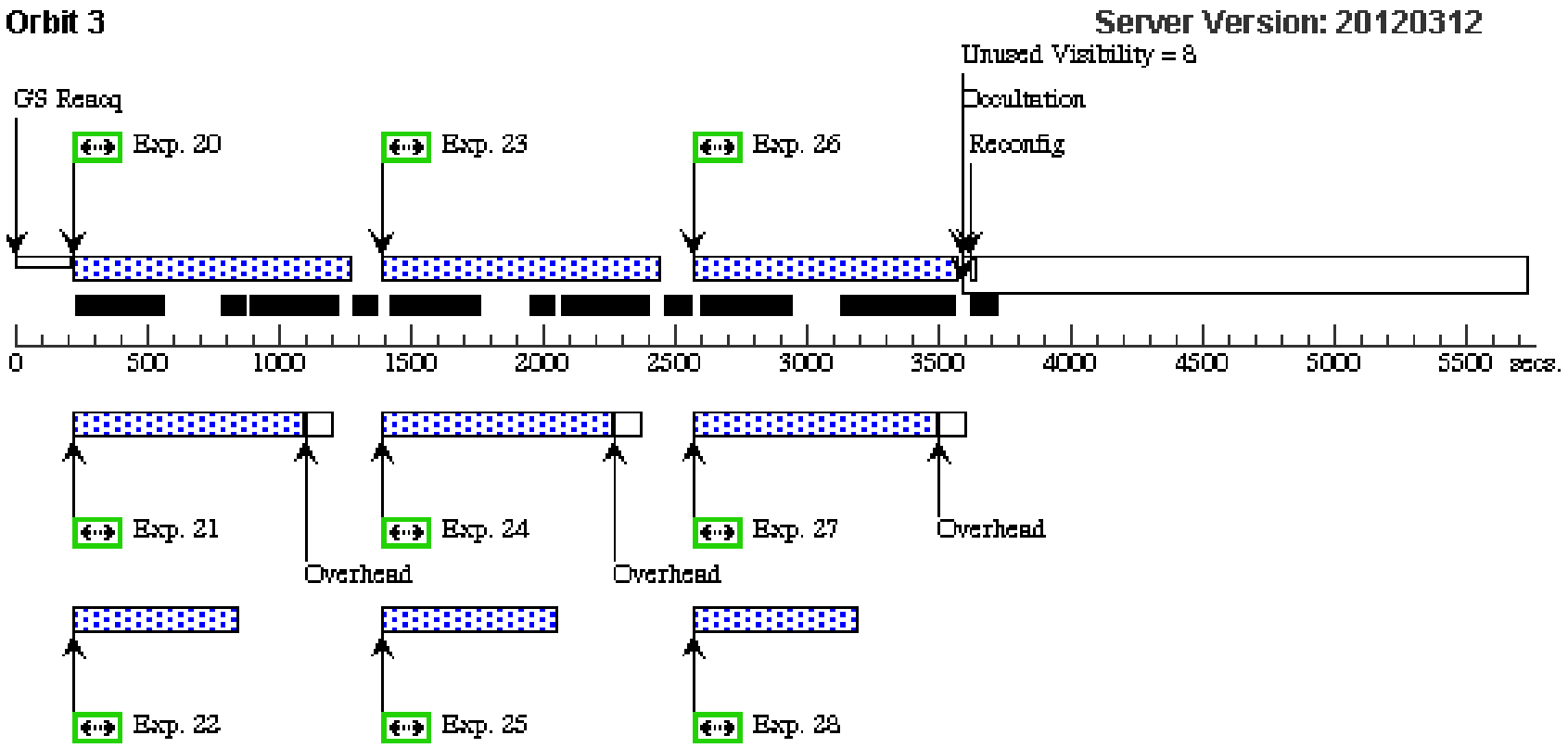
14	g160m_sci_1589 (COS.sp.178265)	(2) SK-69279	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=590; EXTENDED=NO	Prime + Parallel Group 14-16 in Visit 02	800 Secs *[==>]*	***[2]***
15		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO	Prime + Parallel Group 14-16 in Visit 02	700 Secs *[==>]*	***[2]***
16		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 14-16 in Visit 02	700 Secs *[==>]*	***[2]***
17	g160m_sci_1589 (COS.sp.178265)	(2) SK-69279	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=520; EXTENDED=NO	Prime + Parallel Group 17-19 in Visit 02	969 Secs *[==>]*	***[2]***
18		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F475W	CR-SPLIT=NO	Prime + Parallel Group 17-19 in Visit 02	1.5 Secs *[==>]*	***[2]***
19		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 17-19 in Visit 02	850 Secs *[==>]*	***[2]***
20	g160m_sci_1589 (COS.sp.178265)	(2) SK-69279	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=530; EXTENDED=NO	Prime + Parallel Group 20-22 in Visit 02	1000 Secs *[==>]*	***[3]***
21		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO	Prime + Parallel Group 20-22 in Visit 02	850 Secs *[==>]*	***[3]***
22		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 20-22 in Visit 02	500 Secs *[==>]*	***[3]***
23	g160m_sci_1589 (COS.sp.178265)	(2) SK-69279	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=520; EXTENDED=NO	Prime + Parallel Group 23-25 in Visit 02	1000 Secs *[==>]*	***[3]***
24		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F475W	CR-SPLIT=NO	Prime + Parallel Group 23-25 in Visit 02	850 Secs *[==>]*	***[3]***
25		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 23-25 in Visit 02	500 Secs *[==>]*	***[3]***
26	g160m_sci_1600 (COS.sp.178266)	(2) SK-69279	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=450; EXTENDED=NO	Prime + Parallel Group 26-28 in Visit 02	880 Secs *[==>]*	***[3]***

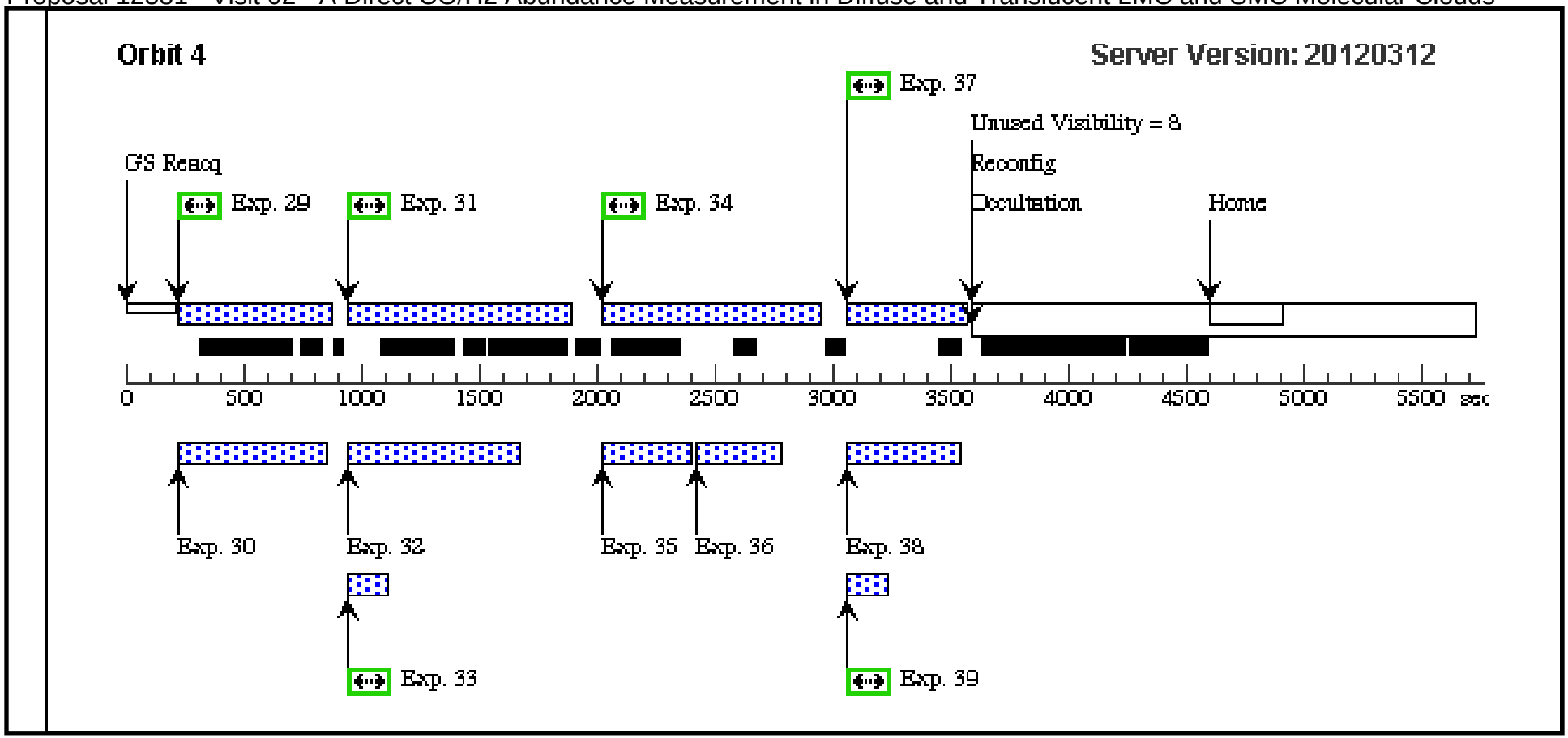
27		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO	Prime + Parallel Group 26-28 in Visit 02	900 Secs *[==>]*	 ***[3]***
28		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 26-28 in Visit 02	500 Secs *[==>]*	 ***[3]***
29	g160m_sci_1600 (COS.sp.178266)	(2) SK-69279	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=490; EXTENDED=NO	Prime + Parallel Group 29-30 in Visit 02	600 Secs *[==>]*	 ***[4]***
30		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=13; SAMP-SEQ=SPARS50	Prime + Parallel Group 29-30 in Visit 02	*[==>]*	***[4]***
31	g160m_sci_1600 (COS.sp.178266)	(2) SK-69279	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=450; EXTENDED=NO	Prime + Parallel Group 31-33 in Visit 02	900 Secs *[==>]*	 ***[4]***
32		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=15; SAMP-SEQ=SPARS50	Prime + Parallel Group 31-33 in Visit 02	*[==>]*	***[4]***
33		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 31-33 in Visit 02	1.5 Secs *[==>]*	 ***[4]***
34	g160m_sci_1600 (COS.sp.178266)	(2) SK-69279	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=520; EXTENDED=NO	Prime + Parallel Group 34-36 in Visit 02	880 Secs *[==>]*	 ***[4]***
35		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=8; SAMP-SEQ=SPARS50	Prime + Parallel Group 34-36 in Visit 02	*[==>]*	***[4]***
36		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=8; SAMP-SEQ=SPARS50	Prime + Parallel Group 34-36 in Visit 02	*[==>]*	***[4]***
37	g130m_sci_1327 (COS.sp.180035)	(2) SK-69279	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=214; EXTENDED=NO; FP-POS=4; FLASH=YES; SEGMENT=BOTH	Prime + Parallel Group 37-39 in Visit 02	318 Secs *[==>]*	 ***[4]***
38		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F128N	NSAMP=10; SAMP-SEQ=SPARS50	Prime + Parallel Group 37-39 in Visit 02	*[==>]*	***[4]***
39		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 37-39 in Visit 02	1.5 Secs *[==>]*	 ***[4]***

Orbit Structure




Orbit 2
Server Version: 20120312
GS Reacq
Exp. 11
Exp. 14
Exp. 17
*** VISIBILITY OVERRUN = 661
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.
Exp. 12
Overhead
Exp. 15
Overhead
Exp. 18
Overhead
Exp. 13
Exp. 16
Exp. 19


Orbit 3
Server Version: 20120312
Unused Visibility = 8
GS Reacq
Occultation
Exp. 20
Exp. 23
Exp. 26
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.
Exp. 21
Overhead
Exp. 24
Overhead
Exp. 27
Overhead
Exp. 22
Exp. 25
Exp. 28


Orbit 4
Server Version: 20120312
Exp. 37
Unused Visibility = 8
GS Reacq
Reconfig
Exp. 29
Exp. 31
Exp. 34
Occultation
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec
Exp. 30
Exp. 32
Exp. 35
Exp. 36
Exp. 38
Exp. 33
Exp. 39

Visit

Proposal 12581, Visit 03, completed Sat Jun 02 01:19:47 GMT 2012

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, COS/FUV, WFC3/UVIS, ACS/WFC

Special Requirements: ORIENT 20D TO 75 D; ORIENT 215D TO 235 D; VISIBILITY INTERVAL 95 M

Diagnostics

(Visit 03) Warning (Form): If the target coordinates are not known to 0.4" (or better) an ACQ/SEARCH should precede the ACQ/PEAKXD.

(Visit 03) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

(Visit 03) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 03) Warning (Orbit Planner): VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SK-68155	RA: 05 42 54.9270 (85.7288625d) Dec: -68 56 54.50 (-68.94847d) Equinox: J2000		V=12.72 Flux at 1300-1700 A (IUE): 1.7. e-13 ergs/cm2/s/A; Flux at 2500 A = 1.5e-13	Reference Frame: ICRS

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

Coordinates are from the 2MASS archive, which an absolute astrometric precision of 0.1 arcsec:

http://vizier.u-strasbg.fr/viz-bin/VizieR-S?2MASS%20J05425492-6856544

The BOP was cleared for science and target acquisition, and the exposure time estimated using IUE spectra over the same wavelength range as COS FUV and NUV:

http://archive.stsci.edu/xcorr.php?target=sk-68155&max_records=10&action=Search&resolver=SIMBAD&missions%5B%5D=FUSE&missions%5B%5D=IMAPS&missions%5B%5D=BEFS&missions%5B%5D=TUES&missions%5B%5D=IUE&missions%5B%5D=COPERNICUS&missions%5B%5D=HUT&missions%5B%5D=WUPPE&missions%5B%5D=GHRS&missions%5B%5D=STIS-SPECTRUM&missions%5B%5D=COS-SPECTRUM&missions%5B%5D=WFC3-SPECTRUM&missions%5B%5D=ACS-SPECTRUM&missions%5B%5D=FOS&missions%5B%5D=HPOL

Exposures

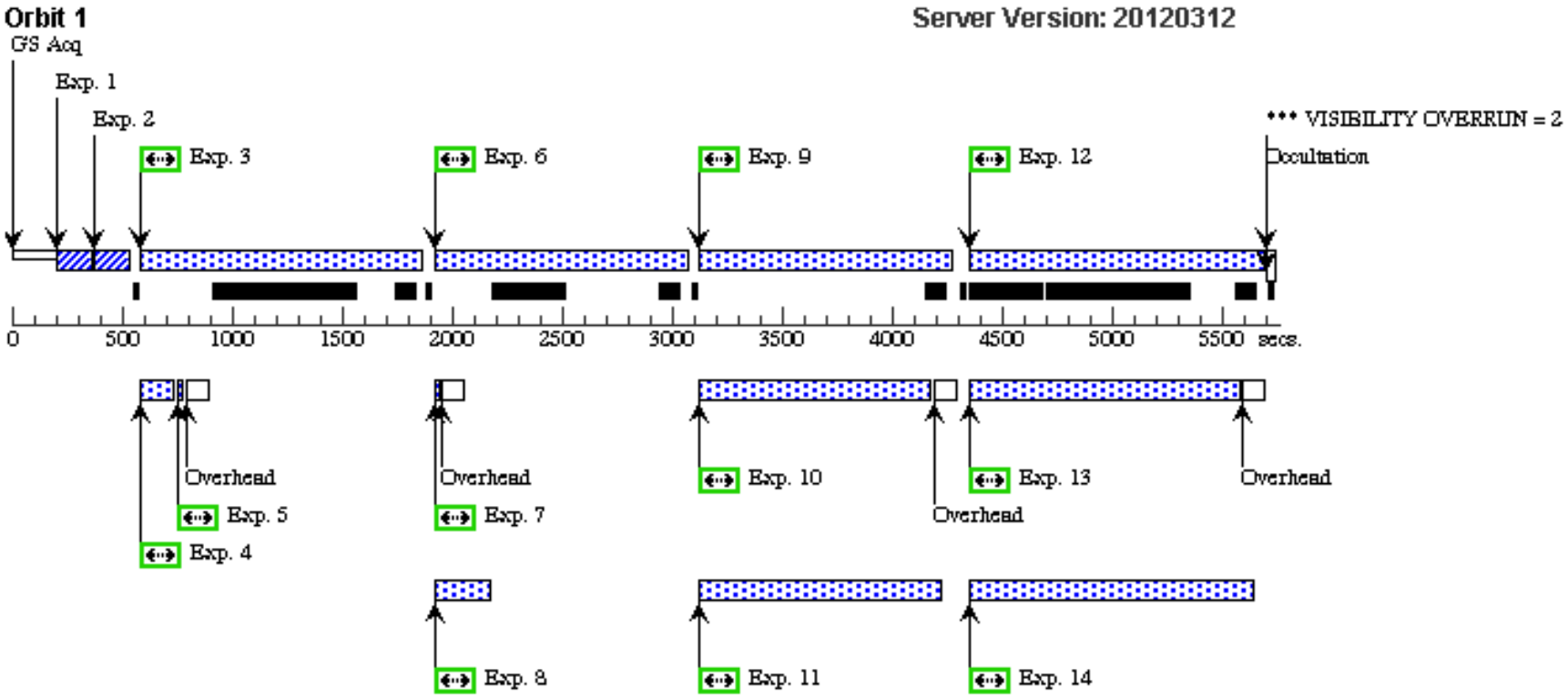
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	acq_sk68155 (COS.sa.247080)	(3) SK-68155	COS/FUV, ACQ/PEAKXD, PSA	G130M 1327 A				1 Secs *[==>]*	*[1]*
2	acq_sk68155 (COS.sa.247080)	(3) SK-68155	COS/FUV, ACQ/PEAKD, PSA	G130M 1327 A	NUM-POS=5; STEP-SIZE=0.9			1 Secs *[==>]*	*[1]*
3	g160m_sci_1577 (COS.sp.185599)	(3) SK-68155	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=9900; EXTENDED=NO		Prime + Parallel Group 3-5 in Visit 03	1100 Secs *[==>]*	*[1]*
4		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO		Prime + Parallel Group 3-5 in Visit 03	2 Secs *[==>]*	*[1]*
5		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F475W	CR-SPLIT=NO		Prime + Parallel Group 3-5 in Visit 03	1.5 Secs *[==>]*	*[1]*
6	g160m_sci_1577 (COS.sp.185599)	(3) SK-68155	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=9900; EXTENDED=NO		Prime + Parallel Group 6-8 in Visit 03	1100 Secs *[==>]*	*[1]*
7		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO		Prime + Parallel Group 6-8 in Visit 03	1.5 Secs *[==>]*	*[1]*
8		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 6-8 in Visit 03	1.5 Secs *[==>]*	*[1]*
9	g160m_sci_1577 (COS.sp.185599)	(3) SK-68155	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=9900; EXTENDED=NO		Prime + Parallel Group 9-11 in Visit 03	1100 Secs *[==>]*	*[1]*
10		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO		Prime + Parallel Group 9-11 in Visit 03	1030 Secs *[==>]*	*[1]*
11		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 9-11 in Visit 03	980 Secs *[==>]*	*[1]*
12	g160m_sci_1577 (COS.sp.185599)	(3) SK-68155	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=1175; EXTENDED=NO		Prime + Parallel Group 12-14 in Visit 03	1285 Secs *[==>]*	*[1]*
13		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO		Prime + Parallel Group 12-14 in Visit 03	1215 Secs *[==>]*	*[1]*

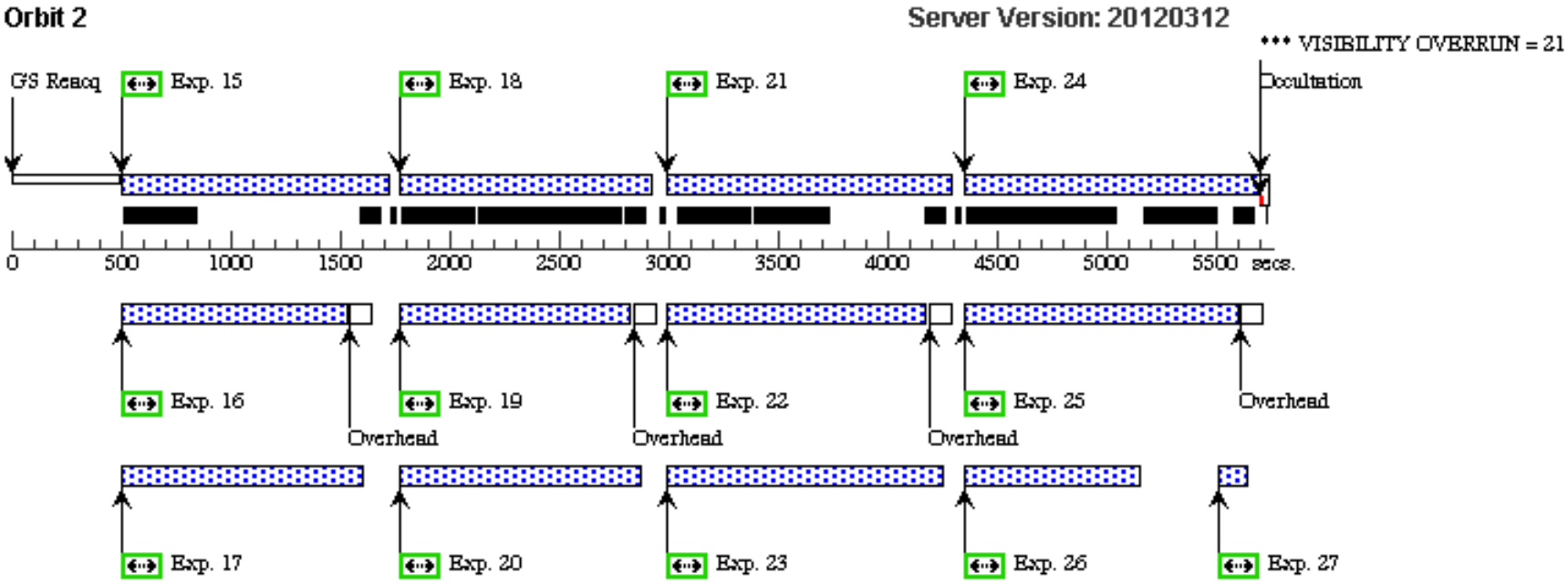
14		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 12-14 in Visit 03	1165 Secs *[==>]*	 ***[1]***
15	g160m_sci_1589 (COS.sp.185599)	(3) SK-68155	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=990; EXTENDED=NO	Prime + Parallel Group 15-17 in Visit 03	1100 Secs *[==>]*	 ***[2]***
16		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO	Prime + Parallel Group 15-17 in Visit 03	1030 Secs *[==>]*	 ***[2]***
17		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 15-17 in Visit 03	980 Secs *[==>]*	 ***[2]***
18	g160m_sci_1589 (COS.sp.185599)	(3) SK-68155	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=990; EXTENDED=NO	Prime + Parallel Group 18-20 in Visit 03	1100 Secs *[==>]*	 ***[2]***
19		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO	Prime + Parallel Group 18-20 in Visit 03	1030 Secs *[==>]*	 ***[2]***
20		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 18-20 in Visit 03	980 Secs *[==>]*	 ***[2]***
21	g160m_sci_1589 (COS.sp.185599)	(3) SK-68155	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=1140; EXTENDED=NO	Prime + Parallel Group 21-23 in Visit 03	1250 Secs *[==>]*	 ***[2]***
22		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO	Prime + Parallel Group 21-23 in Visit 03	1180 Secs *[==>]*	 ***[2]***
23		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 21-23 in Visit 03	1100 Secs *[==>]*	 ***[2]***
24	g160m_sci_1589 (COS.sp.185599)	(3) SK-68155	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=1190; EXTENDED=NO	Prime + Parallel Group 24-27 in Visit 03	1300 Secs *[==>]*	 ***[2]***
25		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F475W	CR-SPLIT=NO	Prime + Parallel Group 24-27 in Visit 03	1230 Secs *[==>]*	 ***[2]***
26		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 24-27 in Visit 03	680 Secs *[==>]*	 ***[2]***
27		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 24-27 in Visit 03	1.5 Secs *[==>]*	 ***[2]***

28	g160m_sci_1600 (COS.sp.185599)	(3) SK-68155	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=690; EXTENDED=NO	Prime + Parallel Group 28-30 in Visit 03	800 Secs *[==>]*	***[3]***
29		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F475W	CR-SPLIT=NO	Prime + Parallel Group 28-30 in Visit 03	730 Secs *[==>]*	***[3]***
30		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 28-30 in Visit 03	680 Secs *[==>]*	***[3]***
31	g160m_sci_1600 (COS.sp.185599)	(3) SK-68155	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=910; EXTENDED=NO	Prime + Parallel Group 31-34 in Visit 03	1020 Secs *[==>]*	***[3]***
32		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=5; SAMP-SEQ=SPARS100	Prime + Parallel Group 31-34 in Visit 03	*[==>]*	***[3]***
33		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=7; SAMP-SEQ=SPARS100	Prime + Parallel Group 31-34 in Visit 03	*[==>]*	***[3]***
34		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 31-34 in Visit 03	850 Secs *[==>]*	***[3]***
35	g160m_sci_1600 (COS.sp.185599)	(3) SK-68155	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=790; EXTENDED=NO	Prime + Parallel Group 35-38 in Visit 03	900 Secs *[==>]*	***[3]***
36		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=5; SAMP-SEQ=SPARS100	Prime + Parallel Group 35-38 in Visit 03	*[==>]*	***[3]***
37		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=5; SAMP-SEQ=SPARS100	Prime + Parallel Group 35-38 in Visit 03	*[==>]*	***[3]***
38		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 35-38 in Visit 03	800 Secs *[==>]*	***[3]***
39	g160m_sci_1600 (COS.sp.185599)	(3) SK-68155	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=520; EXTENDED=NO	Prime + Parallel Group 39-41 in Visit 03	630 Secs *[==>]*	***[3]***
40		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=4; SAMP-SEQ=SPARS100	Prime + Parallel Group 39-41 in Visit 03	*[==>]*	***[3]***

41		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=4; SAMP-SEQ=SPARS100	Prime + Parallel Group 39-41 in Visit 03	*[==>]*	***[3]***
42	g130m_sci_1327 (COS.sp.185600)	(3) SK-68155	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=220; EXTENDED=NO; FP-POS=1; FLASH=YES; SEGMENT=BOTH	Prime + Parallel Group 42-44 in Visit 03	330 Secs *[==>]*	***[3]***
43		ANY	WFC3/IR, MULTIACCUM, IR	F128N	SAMP-SEQ=SPARS50; NSAMP=3	Prime + Parallel Group 42-44 in Visit 03	*[==>]*	***[3]***
44		ANY	ACS/WFC, ACCUM, WFC1-1K	F814W		Prime + Parallel Group 42-44 in Visit 03	1 Secs *[==>]*	***[3]***

Orbit Structure

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Exp. 18
Exp. 21
Exp. 24
Occultation
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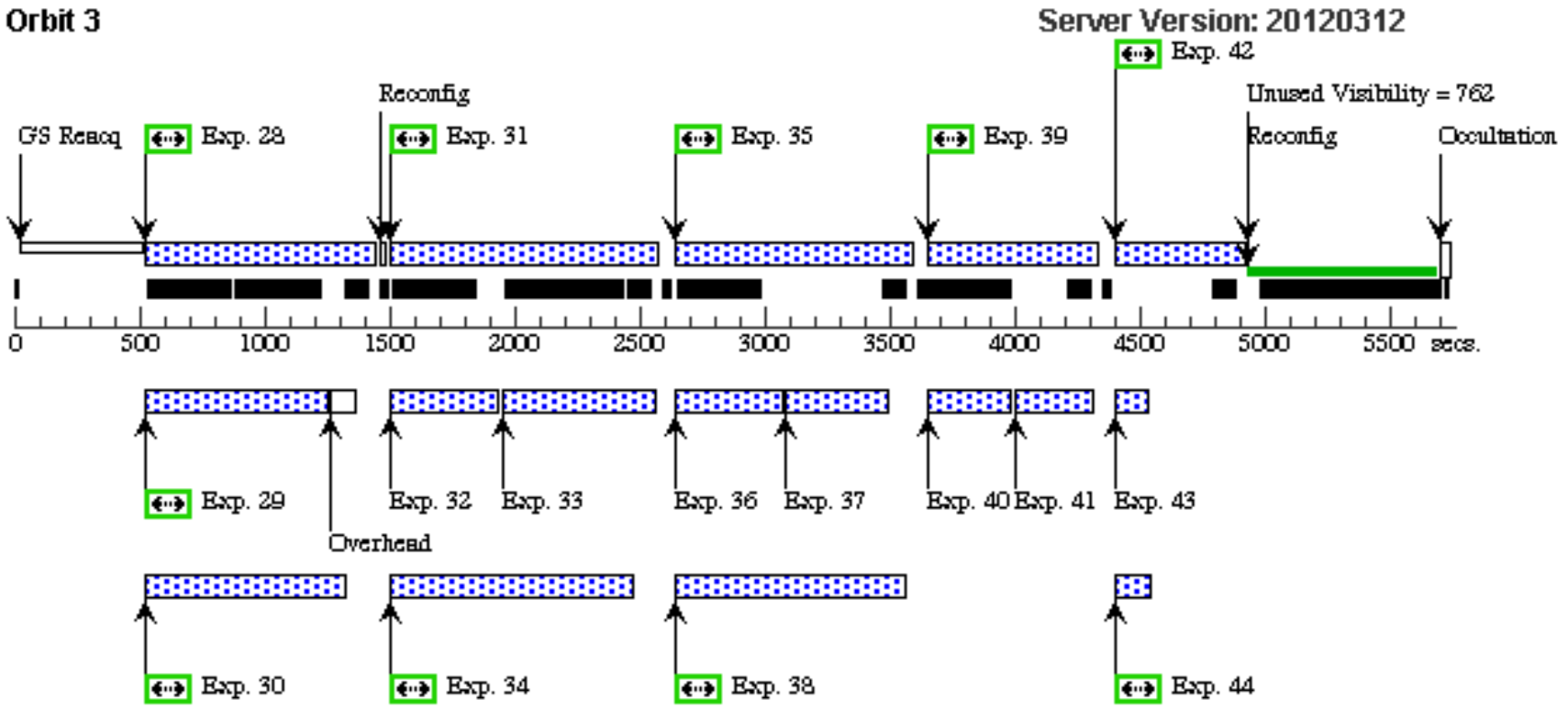
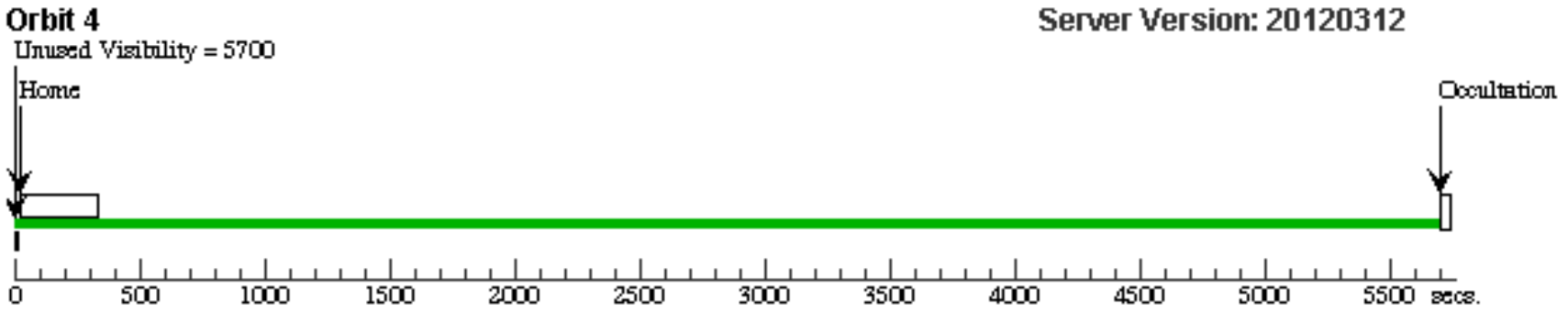
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.
Exp. 16
Overhead
Exp. 19
Overhead
Exp. 22
Overhead
Exp. 25
Overhead
Exp. 17
Exp. 20
Exp. 23
Exp. 26
Exp. 27


Orbit 3
Server Version: 20120312
GS Reacq
Exp. 28
Reconfig
Exp. 31
Exp. 35
Exp. 39
Exp. 42
Unused Visibility = 762
Reconfig
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.
Exp. 29
Overhead
Exp. 32
Exp. 33
Exp. 36
Exp. 37
Exp. 40
Exp. 41
Exp. 43
Exp. 30
Exp. 34
Exp. 38
Exp. 44


Orbit 4
Server Version: 20120312
Unused Visibility = 5700
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.

Visit

Proposal 12581, Visit 04, scheduling Sat Jun 02 01:19:49 GMT 2012

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, COS/NUV, COS/FUV, WFC3/UVIS, ACS/WFC

Special Requirements: ORIENT 280D TO 360 D

Diagnostics

(Visit 04) Warning (Form): If the target coordinates are not known to 0.4" (or better) an ACQ/SEARCH should precede the ACQ/IMAGE.

(Visit 04) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	SK-68129	RA: 05 36 26.7680 (84.1115333d) Dec: -68 57 31.90 (-68.95886d) Equinox: J2000		V=12.77 Flux at 1300-1700A (IUE): 1.5e-13 ergs/cm2/s/A; Flux at 2500A = 1.1e-13	Reference Frame: ICRS

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

Coordinates are from the 2MASS archive, which an absolute astrometric precision of 0.1 arcsec:

http://vizier.u-strasbg.fr/viz-bin/VizieR-S?2MASS%20J05362676-6857319

The BOP was cleared for science and target acquisition, and the exposure time estimated using IUE spectra over the same wavelength range as COS FUV and NUV:

http://archive.stsci.edu/xcorr.php?target=sk-68129&max_records=10&action=Search&resolver=SIMBAD&missions%5B%5D=FUSE&missions%5B%5D=IMAPS&missions%5B%5D=BEFS&missions%5B%5D=TUES&missions%5B%5D=IUE&missions%5B%5D=COPERNICUS&missions%5B%5D=HUT&missions%5B%5D=WUPPE&missions%5B%5D=GHRS&missions%5B%5D=STIS-SPECTRUM&missions%5B%5D=COS-SPECTRUM&missions%5B%5D=WFC3-SPECTRUM&missions%5B%5D=ACS-SPECTRUM&missions%5B%5D=FOS&missions%5B%5D=HPOL

Exposures

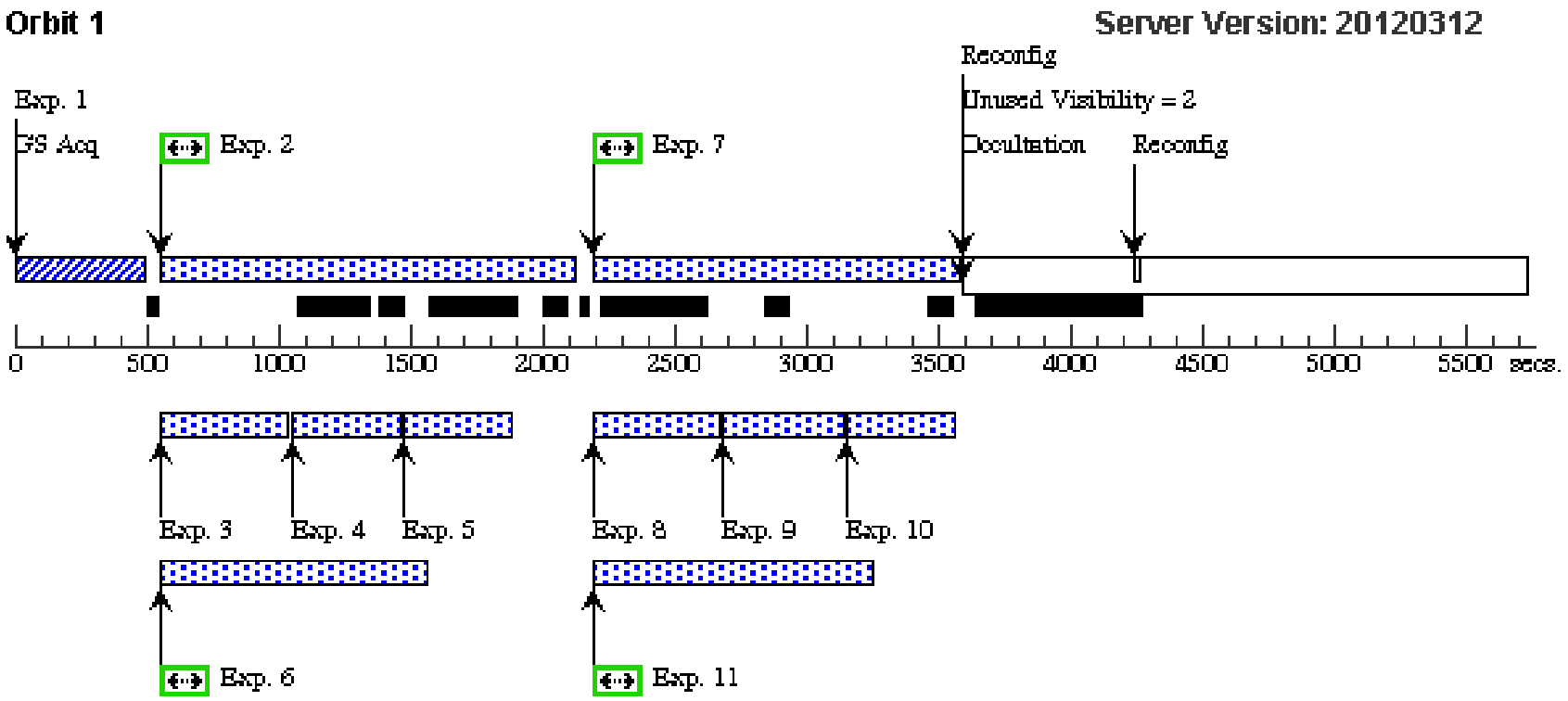
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	acq_sk68129 (COS.ta.177813)	(4) SK-68129	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				40 Secs *[==>]*	*[1]*
2	g160m_sci_1577 (COS.sp.178270)	(4) SK-68129	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=620; EXTENDED=NO		Prime + Parallel Group 2-6 in Visit 04	1348 Secs *[==>]*	*[1]*
3		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=10; SAMP-SEQ=SPARS50		Prime + Parallel Group 2-6 in Visit 04	*[==>]*	*[1]*
4		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=9; SAMP-SEQ=SPARS50		Prime + Parallel Group 2-6 in Visit 04	*[==>]*	*[1]*
5		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=9; SAMP-SEQ=SPARS50		Prime + Parallel Group 2-6 in Visit 04	*[==>]*	*[1]*
6		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Group 2-6 in Visit 04	800 Secs *[==>]*	*[1]*
7	g160m_sci_1577 (COS.sp.178270)	(4) SK-68129	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=620; EXTENDED=NO		Prime + Parallel Group 7-11 in Visit 04	1340 Secs *[==>]*	*[1]*
8		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=10; SAMP-SEQ=SPARS50		Prime + Parallel Group 7-11 in Visit 04	*[==>]*	*[1]*
9		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=10; SAMP-SEQ=SPARS50		Prime + Parallel Group 7-11 in Visit 04	*[==>]*	*[1]*
10		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=9; SAMP-SEQ=SPARS50		Prime + Parallel Group 7-11 in Visit 04	*[==>]*	*[1]*
11		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 7-11 in Visit 04	900 Secs *[==>]*	*[1]*
12	g160m_sci_1577 (COS.sp.178270)	(4) SK-68129	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=620; EXTENDED=NO		Prime + Parallel Group 12-14 in Visit 04	1100 Secs *[==>]*	*[2]*
13		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO		Prime + Parallel Group 12-14 in Visit 04	900 Secs *[==>]*	*[2]*

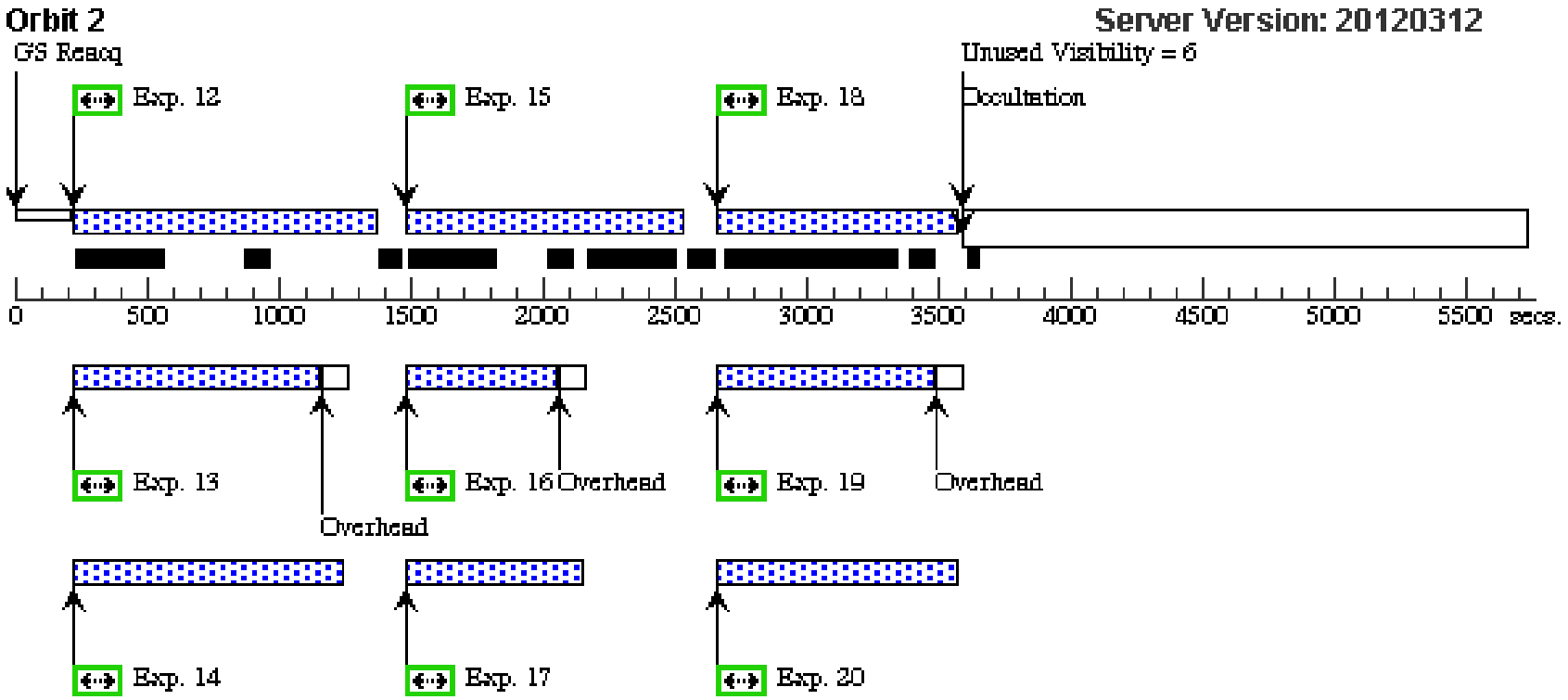
14		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 12-14 in Visit 04	900 Secs *[==>]*	 ***[2]***
15	g160m_sci_1577 (COS.sp.178270)	(4) SK-68129	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=500; EXTENDED=NO	Prime + Parallel Group 15-17 in Visit 04	1000 Secs *[==>]*	 ***[2]***
16		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F475W	CR-SPLIT=NO	Prime + Parallel Group 15-17 in Visit 04	550 Secs *[==>]*	 ***[2]***
17		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 15-17 in Visit 04	550 Secs *[==>]*	 ***[2]***
18	g160m_sci_1589 (COS.sp.178271)	(4) SK-68129	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=620; EXTENDED=NO	Prime + Parallel Group 18-20 in Visit 04	790 Secs *[==>]*	 ***[2]***
19		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO	Prime + Parallel Group 18-20 in Visit 04	800 Secs *[==>]*	 ***[2]***
20		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 18-20 in Visit 04	750 Secs *[==>]*	 ***[2]***
21	g160m_sci_1589 (COS.sp.178271)	(4) SK-68129	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=500; EXTENDED=NO	Prime + Parallel Group 21-23 in Visit 04	1020 Secs *[==>]*	 ***[3]***
22		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO	Prime + Parallel Group 21-23 in Visit 04	800 Secs *[==>]*	 ***[3]***
23		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 21-23 in Visit 04	550 Secs *[==>]*	 ***[3]***
24	g160m_sci_1589 (COS.sp.178271)	(4) SK-68129	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=670; EXTENDED=NO	Prime + Parallel Group 24-26 in Visit 04	1000 Secs *[==>]*	 ***[3]***
25		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F475W	CR-SPLIT=NO	Prime + Parallel Group 24-26 in Visit 04	800 Secs *[==>]*	 ***[3]***
26		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 24-26 in Visit 04	690 Secs *[==>]*	 ***[3]***

27	g160m_sci_1589 (COS.sp.178271)	(4) SK-68129	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=620; EXTENDED=NO	Prime + Parallel Group 27-29 in Visit 04	930 Secs *[==>]*	***[3]***
28		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO	Prime + Parallel Group 27-29 in Visit 04	780 Secs *[==>]*	***[3]***
29		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 27-29 in Visit 04	800 Secs *[==>]*	***[3]***
30	g160m_sci_1600 (COS.sp.178272)	(4) SK-68129	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=500; EXTENDED=NO	Prime + Parallel Group 30-32 in Visit 04	1020 Secs *[==>]*	***[4]***
31		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO	Prime + Parallel Group 30-32 in Visit 04	900 Secs *[==>]*	***[4]***
32		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 30-32 in Visit 04	550 Secs *[==>]*	***[4]***
33	g160m_sci_1600 (COS.sp.178272)	(4) SK-68129	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=500; EXTENDED=NO	Prime + Parallel Group 33-35 in Visit 04	1020 Secs *[==>]*	***[4]***
34		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F475W	CR-SPLIT=NO	Prime + Parallel Group 33-35 in Visit 04	900 Secs *[==>]*	***[4]***
35		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 33-35 in Visit 04	450 Secs *[==>]*	***[4]***
36	g160m_sci_1600 (COS.sp.178272)	(4) SK-68129	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=620; EXTENDED=NO	Prime + Parallel Group 36-38 in Visit 04	790 Secs *[==>]*	***[4]***
37		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO	Prime + Parallel Group 36-38 in Visit 04	700 Secs *[==>]*	***[4]***
38		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 36-38 in Visit 04	700 Secs *[==>]*	***[4]***
39	g160m_sci_1600 (COS.sp.178272)	(4) SK-68129	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=500; EXTENDED=NO	Prime + Parallel Group 39-41 in Visit 04	1500 Secs *[==>]*	***[5]***

	40		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO	Prime + Parallel Group 39-41 in Visit 04	500 Secs *[==>]*	 ***[5]***
	41		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 39-41 in Visit 04	1.5 Secs *[==>]*	 ***[5]***
	42	g130m_sci_1327 (COS.sp.180048)	(4) SK-68129	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=670; EXTENDED=NO; FP-POS=1; FLASH=YES; SEGMENT=BOTH	Prime + Parallel Group 42-43 in Visit 04	800 Secs *[==>]*	 ***[5]***
	43		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F475W	CR-SPLIT=NO	Prime + Parallel Group 42-43 in Visit 04	1.5 Secs *[==>]*	 ***[5]***
	44	g130m_sci_1327 (COS.sp.180048)	(4) SK-68129	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=190; EXTENDED=NO; FP-POS=2; FLASH=YES; SEGMENT=BOTH	Prime + Parallel Group 44-46 in Visit 04	550 Secs *[==>]*	 ***[5]***
	45		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO	Prime + Parallel Group 44-46 in Visit 04	1.5 Secs *[==>]*	 ***[5]***
	46		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 44-46 in Visit 04	1.5 Secs *[==>]*	 ***[5]***

Orbit Structure

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GS Reacq
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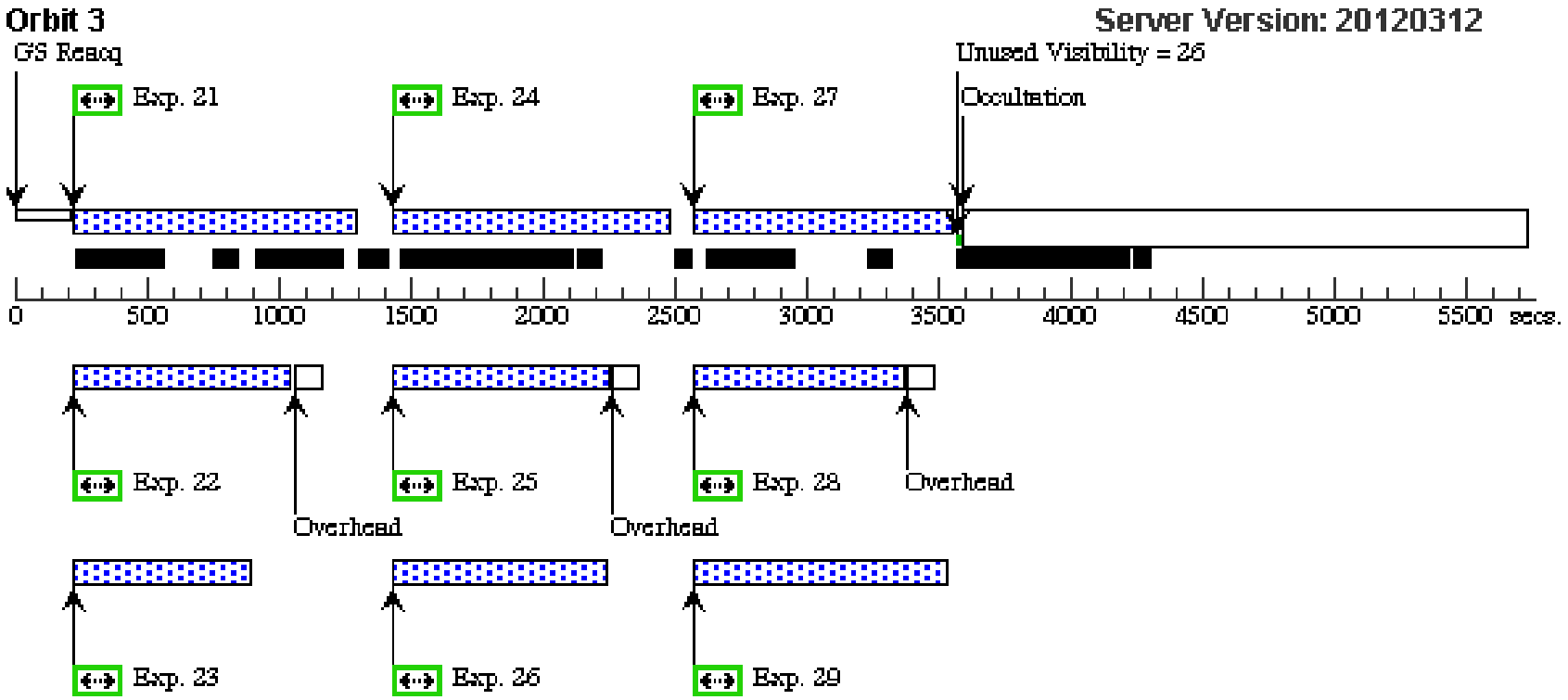
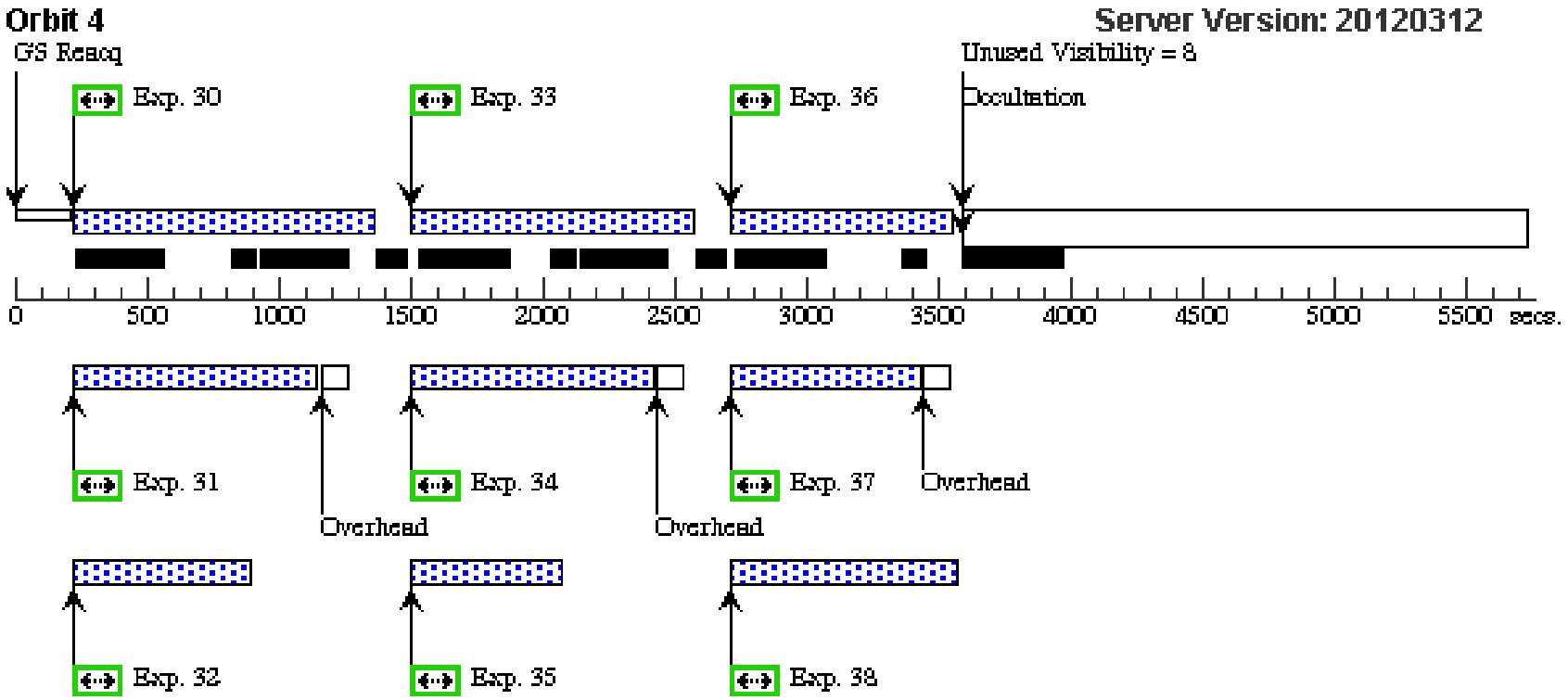
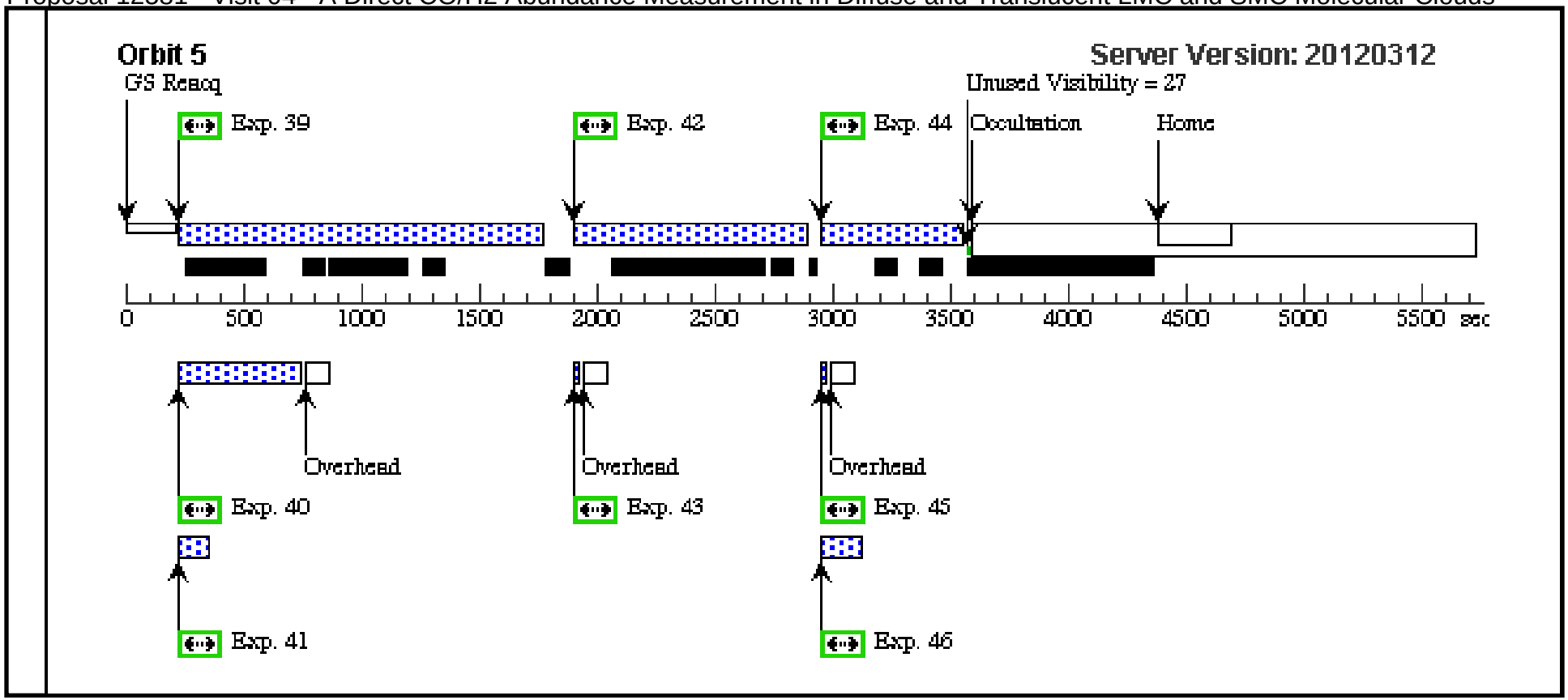
Exp. 15
Exp. 18
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.
Exp. 13
Overhead
Exp. 16
Overhead
Exp. 19
Overhead
Exp. 14
Exp. 17
Exp. 20


Orbit 3
Server Version: 20120312
GS Reacq
Unused Visibility = 26
Exp. 21
Exp. 24
Exp. 27
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.
Exp. 22
Exp. 25
Exp. 28
Overhead
Overhead
Overhead
Exp. 23
Exp. 26
Exp. 29


Orbit 4
Server Version: 20120312
GS Reacq
Unused Visibility = 8
Exp. 30
Exp. 33
Exp. 36
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.
Exp. 31
Overhead
Exp. 34
Overhead
Exp. 37
Overhead
Exp. 32
Exp. 35
Exp. 38


Orbit 5
Server Version: 20120312
GS Reacq
Unused Visibility = 27
Exp. 39
Exp. 42
Exp. 44
Occultation
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec
Overhead
Overhead
Overhead
Exp. 40
Exp. 43
Exp. 45
Exp. 41
Exp. 46

Visit

Proposal 12581, Visit 05, completed Sat Jun 02 01:19:52 GMT 2012

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, COS/NUV, COS/FUV, WFC3/UVIS, ACS/WFC

Special Requirements: ORIENT 0D TO 100 D; ORIENT 330D TO 359.999 D; VISIBILITY INTERVAL 95 M

Diagnostics

(Visit 05) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

(Visit 05) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 05) Warning (Form): If the target coordinates are not known to 0.4" (or better) an ACQ/SEARCH should precede the ACQ/IMAGE.

(Visit 05) Warning (Orbit Planner): VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	SK-68140	RA: 05 38 57.1830 (84.7382625d) Dec: -68 56 53.07 (-68.94808d) Equinox: J2000		V=12.74 Flux at 1300-1700 A (IUE): 1.5e -13 ergs/cm2/s/A;Flux at 2500A = 1e-13	Reference Frame: ICRS

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

Coordinates are from the 2MASS archive, which an absolute astrometric precision of 0.1 arcsec:

http://vizier.u-strasbg.fr/viz-bin/VizieR-S?2MASS%20J05385718-6856530

The BOP was cleared for science and target acquisition, and the exposure time estimated using IUE spectra over the same wavelength range as COS FUV and NUV:

http://archive.stsci.edu/xcorr.php?target=sk-68140&max_records=10&action=Search&resolver=SIMBAD&missions%5B%5D=FUSE&missions%5B%5D=IMAPS&missions%5B%5D=BEFS&missions%5B%5D=TUES&missions%5B%5D=IUE&missions%5B%5D=COPERNICUS&missions%5B%5D=HUT&missions%5B%5D=WUPPE&missions%5B%5D=GHRS&missions%5B%5D=STIS-SPECTRUM&missions%5B%5D=COS-SPECTRUM&missions%5B%5D=WFC3-SPECTRUM&missions%5B%5D=ACS-SPECTRUM&missions%5B%5D=FOS&missions%5B%5D=HPOL

Exposures

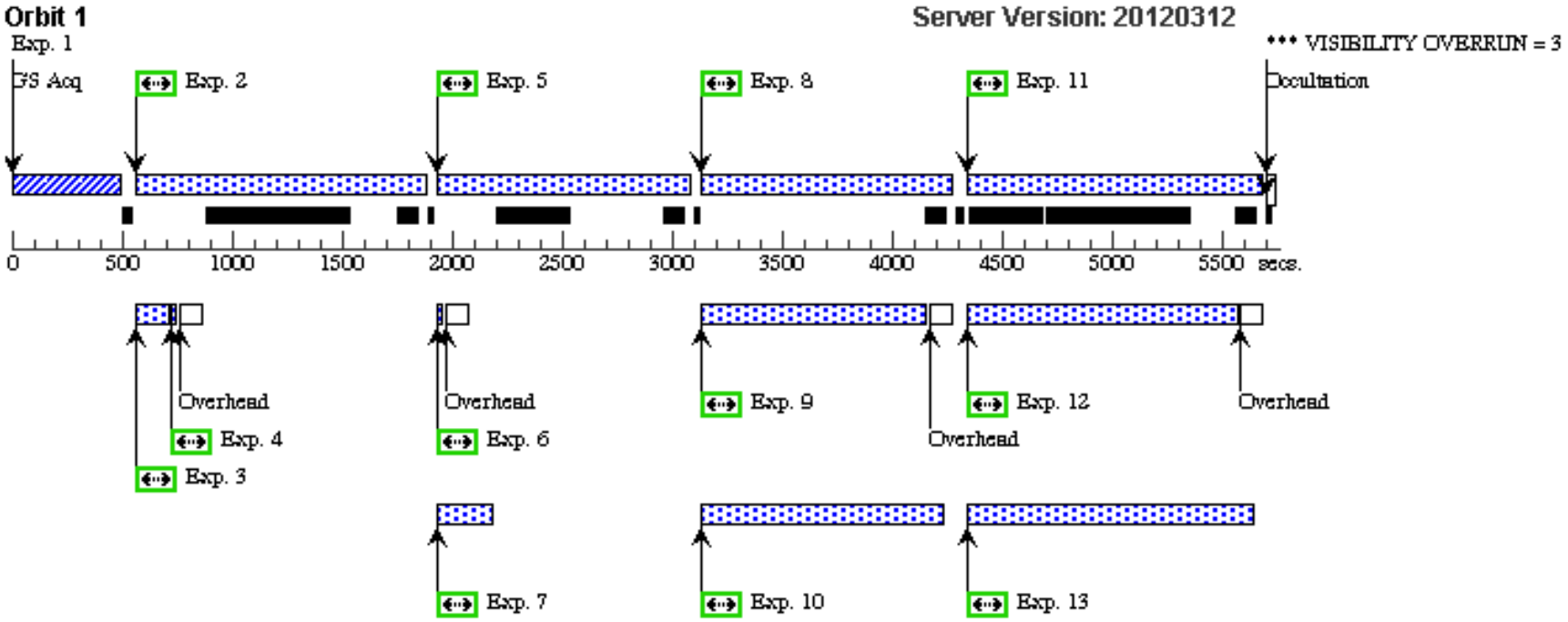
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	acq_av456 (COS.ta.177814)	(5) SK-68140	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				41 Secs *[==>]*	*[1]*
2	g160m_sci_1577 (COS.sp.185601)	(5) SK-68140	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=9900; EXTENDED=NO		Prime + Parallel Group 2-4 in Visit 05	1100 Secs *[==>]*	*[1]*
3		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO		Prime + Parallel Group 2-4 in Visit 05	2 Secs *[==>]*	*[1]*
4		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F475W	CR-SPLIT=NO		Prime + Parallel Group 2-4 in Visit 05	1.5 Secs *[==>]*	*[1]*
5	g160m_sci_1577 (COS.sp.185601)	(5) SK-68140	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=9900; EXTENDED=NO		Prime + Parallel Group 5-7 in Visit 05	1100 Secs *[==>]*	*[1]*
6		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO		Prime + Parallel Group 5-7 in Visit 05	1.5 Secs *[==>]*	*[1]*
7		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-7 in Visit 05	1.5 Secs *[==>]*	*[1]*
8	g160m_sci_1577 (COS.sp.185601)	(5) SK-68140	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=982; EXTENDED=NO		Prime + Parallel Group 8-10 in Visit 05	1092 Secs *[==>]*	*[1]*
9		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO		Prime + Parallel Group 8-10 in Visit 05	1000 Secs *[==>]*	*[1]*
10		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 8-10 in Visit 05	980 Secs *[==>]*	*[1]*
11	g160m_sci_1577 (COS.sp.185601)	(5) SK-68140	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=1180; EXTENDED=NO		Prime + Parallel Group 11-13 in Visit 05	1290 Secs *[==>]*	*[1]*
12		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO		Prime + Parallel Group 11-13 in Visit 05	1210 Secs *[==>]*	*[1]*
13		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 11-13 in Visit 05	1180 Secs *[==>]*	*[1]*

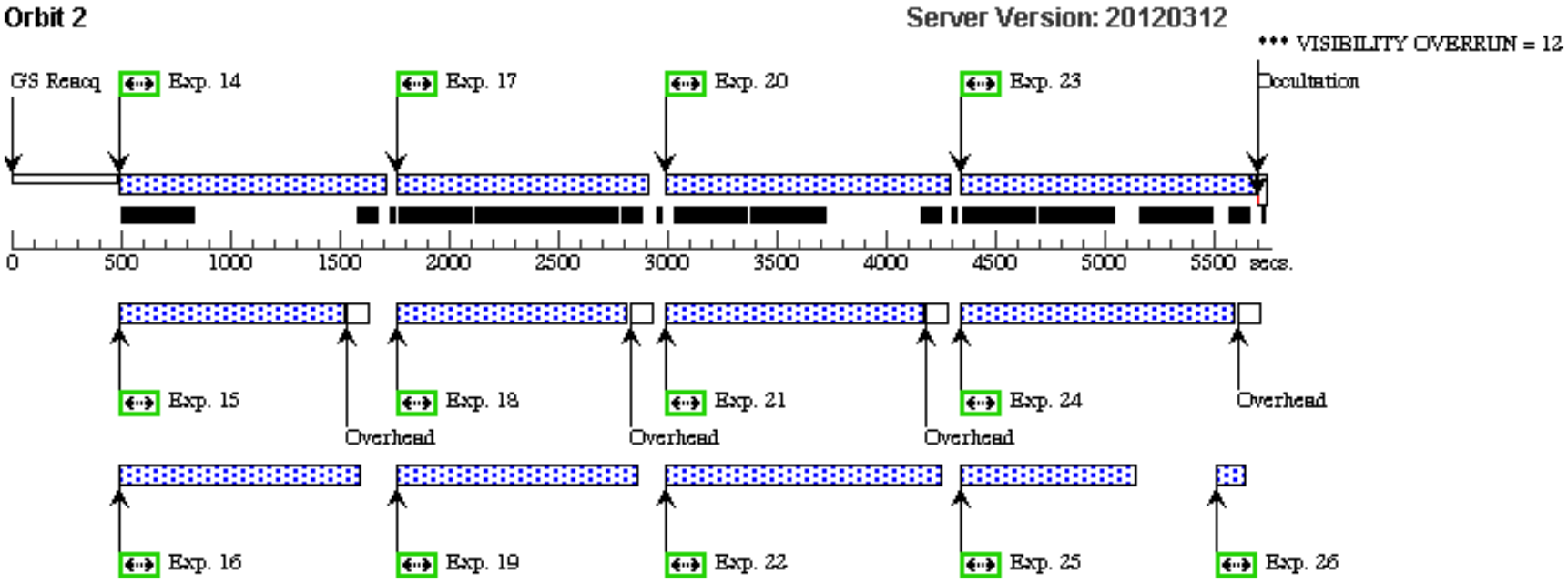
14	g160m_sci_1589 (COS.sp.185601)	(5) SK-68140	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=990; EXTENDED=NO	Prime + Parallel Group 14-16 in Visit 05	1100 Secs *[==>]*	***[2]***
15		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO	Prime + Parallel Group 14-16 in Visit 05	1030 Secs *[==>]*	***[2]***
16		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 14-16 in Visit 05	980 Secs *[==>]*	***[2]***
17	g160m_sci_1589 (COS.sp.185601)	(5) SK-68140	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=990; EXTENDED=NO	Prime + Parallel Group 17-19 in Visit 05	1100 Secs *[==>]*	***[2]***
18		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO	Prime + Parallel Group 17-19 in Visit 05	1030 Secs *[==>]*	***[2]***
19		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 17-19 in Visit 05	980 Secs *[==>]*	***[2]***
20	g160m_sci_1589 (COS.sp.185601)	(5) SK-68140	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=1140; EXTENDED=NO	Prime + Parallel Group 20-22 in Visit 05	1250 Secs *[==>]*	***[2]***
21		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO	Prime + Parallel Group 20-22 in Visit 05	1180 Secs *[==>]*	***[2]***
22		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 20-22 in Visit 05	1100 Secs *[==>]*	***[2]***
23	g160m_sci_1589 (COS.sp.185601)	(5) SK-68140	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=1190; EXTENDED=NO	Prime + Parallel Group 23-26 in Visit 05	1300 Secs *[==>]*	***[2]***
24		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F475W	CR-SPLIT=NO	Prime + Parallel Group 23-26 in Visit 05	1230 Secs *[==>]*	***[2]***
25		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 23-26 in Visit 05	680 Secs *[==>]*	***[2]***
26		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 23-26 in Visit 05	1.5 Secs *[==>]*	***[2]***

27	g160m_sci_1600 (COS.sp.185601)	(5) SK-68140	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=690; EXTENDED=NO	Prime + Parallel Group 27-29 in Visit 05	800 Secs *[==>]*	***[3]***
28		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F475W	CR-SPLIT=NO	Prime + Parallel Group 27-29 in Visit 05	730 Secs *[==>]*	***[3]***
29		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 27-29 in Visit 05	680 Secs *[==>]*	***[3]***
30	g160m_sci_1600 (COS.sp.185601)	(5) SK-68140	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=910; EXTENDED=NO	Prime + Parallel Group 30-33 in Visit 05	1020 Secs *[==>]*	***[3]***
31		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=5; SAMP-SEQ=SPARS100	Prime + Parallel Group 30-33 in Visit 05	*[==>]*	***[3]***
32		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=7; SAMP-SEQ=SPARS100	Prime + Parallel Group 30-33 in Visit 05	*[==>]*	***[3]***
33		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 30-33 in Visit 05	850 Secs *[==>]*	***[3]***
34	g160m_sci_1600 (COS.sp.185601)	(5) SK-68140	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=790; EXTENDED=NO	Prime + Parallel Group 34-37 in Visit 05	900 Secs *[==>]*	***[3]***
35		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=5; SAMP-SEQ=SPARS100	Prime + Parallel Group 34-37 in Visit 05	*[==>]*	***[3]***
36		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=5; SAMP-SEQ=SPARS100	Prime + Parallel Group 34-37 in Visit 05	*[==>]*	***[3]***
37		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 34-37 in Visit 05	800 Secs *[==>]*	***[3]***
38	g160m_sci_1600 (COS.sp.185601)	(5) SK-68140	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=520; EXTENDED=NO	Prime + Parallel Group 38-40 in Visit 05	630 Secs *[==>]*	***[3]***
39		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=4; SAMP-SEQ=SPARS100	Prime + Parallel Group 38-40 in Visit 05	*[==>]*	***[3]***

40		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=4; SAMP-SEQ=SPARS100	Prime + Parallel Group 38-40 in Visit 05	*[==>]*	***[3]***
41	g130m_sci_1327 (COS.sp.185602)	(5) SK-68140	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=220; EXTENDED=NO; FP-POS=1; FLASH=YES; SEGMENT=BOTH	Prime + Parallel Group 41-43 in Visit 05	330 Secs *[==>]*	 ***[3]***
42		ANY	WFC3/IR, MULTIACCUM, IR	F128N	SAMP-SEQ=SPARS50; NSAMP=3	Prime + Parallel Group 41-43 in Visit 05	*[==>]*	***[3]***
43		ANY	ACS/WFC, ACCUM, WFC1-1K	F814W		Prime + Parallel Group 41-43 in Visit 05	1 Secs *[==>]*	 ***[3]***

Orbit Structure

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Exp. 23
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3500
4000
4500
5000
5500
secs.
Exp. 15
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Overhead
Overhead
Overhead
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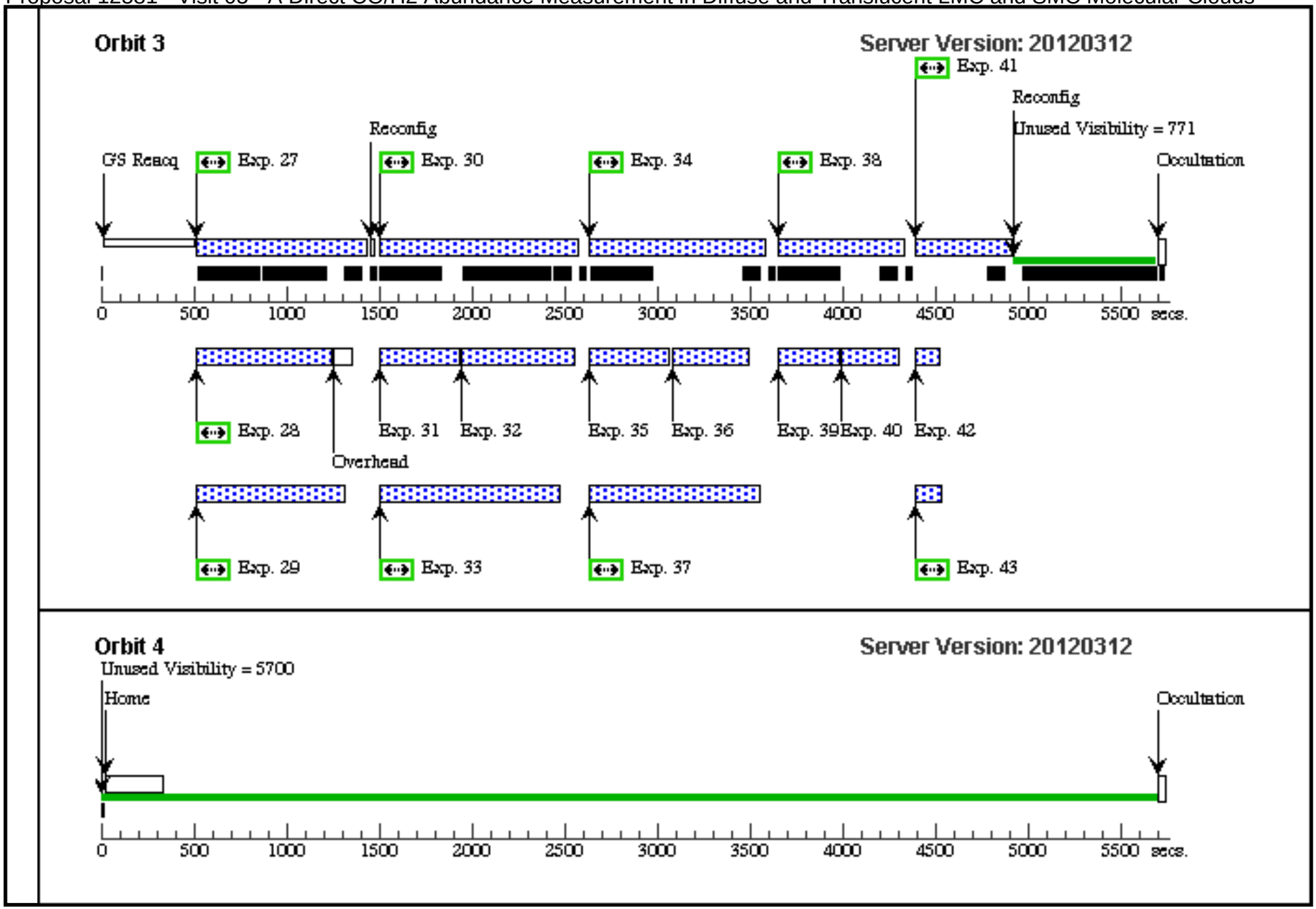
Exp. 16
Exp. 19
Exp. 22
Exp. 25
Exp. 26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GS Reacq
Exp. 27
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Exp. 30
Exp. 34
Exp. 38
Exp. 41
Reconfig
Unused Visibility = 771
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.
Exp. 28
Overhead
Exp. 31
Exp. 32
Exp. 35
Exp. 36
Exp. 39
Exp. 40
Exp. 42
Exp. 29
Exp. 33
Exp. 37
Exp. 43
Orbit 4
Server Version: 20120312
Unused Visibility = 5700
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.

Visit

Proposal 12581, Visit 06, scheduling Sat Jun 02 01:19:54 GMT 2012

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, COS/NUV, COS/FUV

Special Requirements: ORIENT 160D TO 175 D; VISIBILITY INTERVAL 54.5 M

Diagnostics

(Visit 06) Warning (Form): If the target coordinates are not known to 0.4" (or better) an ACQ/SEARCH should precede the ACQ/IMAGE.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	HD269445	RA: 05 22 59.7830 (80.7490958d) Dec: -68 01 46.65 (-68.02963d) Equinox: J2000		V=11.45 Flux at 1300-1700A (IUE): 3.5e-13 ergs/cm2/s/A;Flux at 2500A = 2.5e-13	Reference Frame: ICRS

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

Coordinates are from the 2MASS archive, which an absolute astrometric precision of 0.1 arcsec:

http://vizier.u-strasbg.fr/viz-bin/VizieR-S?2MASS%20J05225978-6801466

The BOP was cleared for science and target acquisition, and the exposure time estimated using IUE spectra over the same wavelength range as COS FUV and NUV:

http://archive.stsci.edu/xcorr.php?target=hd269445&max_records=10&action=Search&resolver=SIMBAD&missions%5B%5D=FUSE&missions%5B%5D=IMAPS&missions%5B%5D=BEFS&missions%5B%5D=TUES&missions%5B%5D=IUE&missions%5B%5D=COPERNICUS&missions%5B%5D=HUT&missions%5B%5D=WUPPE&missions%5B%5D=GHRS&missions%5B%5D=STIS-SPECTRUM&missions%5B%5D=COS-SPECTRUM&missions%5B%5D=WFC3-SPECTRUM&missions%5B%5D=ACS-SPECTRUM&missions%5B%5D=FOS&missions%5B%5D=HPOL

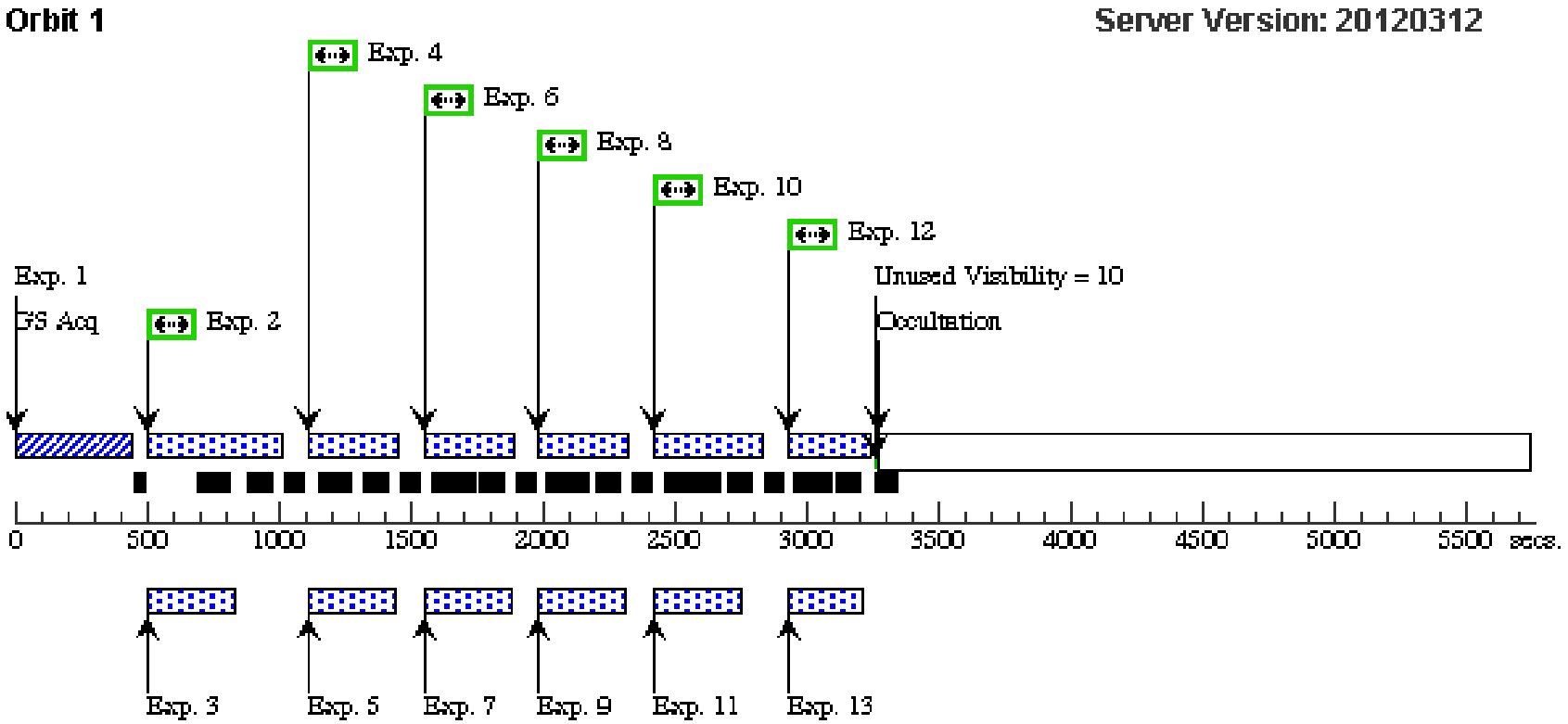
Exposures

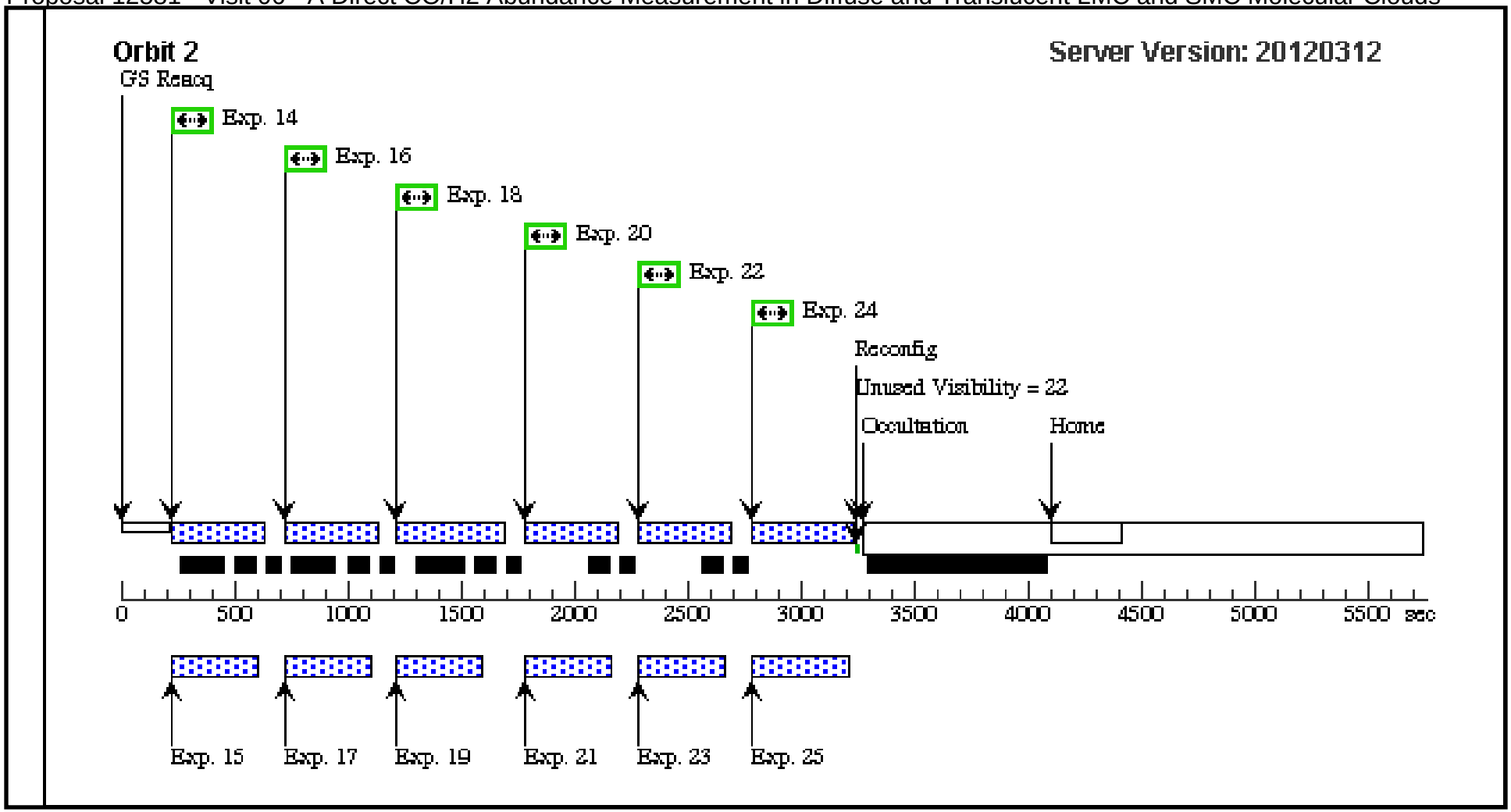
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	acq_hd269445 (COS.ta.177815)	(6) HD269445	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				14 Secs *[==>]*	***[1]***
2	g160m_sci_1577 (COS.sp.180077)	(6) HD269445	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=175; EXTENDED=NO		Prime + Parallel Group 2-3 in Visit 06	285 Secs *[==>]*	***[1]***
3		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=7; SAMP-SEQ=SPARS50		Prime + Parallel Group 2-3 in Visit 06	*[==>]*	***[1]***
4	g160m_sci_1577 (COS.sp.180077)	(6) HD269445	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=175; EXTENDED=NO		Prime + Parallel Group 4-5 in Visit 06	285 Secs *[==>]*	***[1]***
5		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=7; SAMP-SEQ=SPARS50		Prime + Parallel Group 4-5 in Visit 06	*[==>]*	***[1]***
6	g160m_sci_1577 (COS.sp.180077)	(6) HD269445	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=175; EXTENDED=NO		Prime + Parallel Group 6-7 in Visit 06	285 Secs *[==>]*	***[1]***
7		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=7; SAMP-SEQ=SPARS50		Prime + Parallel Group 6-7 in Visit 06	*[==>]*	***[1]***
8	g160m_sci_1577 (COS.sp.180077)	(6) HD269445	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=175; EXTENDED=NO		Prime + Parallel Group 8-9 in Visit 06	285 Secs *[==>]*	***[1]***
9		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=7; SAMP-SEQ=SPARS50		Prime + Parallel Group 8-9 in Visit 06	*[==>]*	***[1]***
10	g160m_sci_1589 (COS.sp.180077)	(6) HD269445	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=175; EXTENDED=NO		Prime + Parallel Group 10-11 in Visit 06	285 Secs *[==>]*	***[1]***

11		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=7; SAMP-SEQ=SPARS50	Prime + Parallel Group 10-11 in Visit 06	*[==>]*	***[1]***
12	g160m_sci_1589 (COS.sp.180077)	(6) HD269445	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=149; EXTENDED=NO	Prime + Parallel Group 12-13 in Visit 06	259 Secs *[==>]*	***[1]***
13		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=6; SAMP-SEQ=SPARS50	Prime + Parallel Group 12-13 in Visit 06	*[==>]*	***[1]***
14	g160m_sci_1589 (COS.sp.180073)	(6) HD269445	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=245; EXTENDED=NO	Prime + Parallel Group 14-15 in Visit 06	355 Secs *[==>]*	***[2]***
15		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=8; SAMP-SEQ=SPARS50	Prime + Parallel Group 14-15 in Visit 06	*[==>]*	***[2]***
16	g160m_sci_1589 (COS.sp.180073)	(6) HD269445	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=245; EXTENDED=NO	Prime + Parallel Group 16-17 in Visit 06	355 Secs *[==>]*	***[2]***
17		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=8; SAMP-SEQ=SPARS50	Prime + Parallel Group 16-17 in Visit 06	*[==>]*	***[2]***
18	g160m_sci_1600 (COS.sp.180073)	(6) HD269445	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=245; EXTENDED=NO	Prime + Parallel Group 18-19 in Visit 06	355 Secs *[==>]*	***[2]***
19		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=8; SAMP-SEQ=SPARS50	Prime + Parallel Group 18-19 in Visit 06	*[==>]*	***[2]***
20	g160m_sci_1600 (COS.sp.180073)	(6) HD269445	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=245; EXTENDED=NO	Prime + Parallel Group 20-21 in Visit 06	355 Secs *[==>]*	***[2]***
21		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=8; SAMP-SEQ=SPARS50	Prime + Parallel Group 20-21 in Visit 06	*[==>]*	***[2]***

	22	g160m_sci_1600 (COS.sp.180073)	(6) HD269445	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=245; EXTENDED=NO	Prime + Parallel Group 22-23 in Visit 06	355 Secs *[==>]*
								[2]
	23		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F128N	NSAMP=8; SAMP-SEQ=SPARS50	Prime + Parallel Group 22-23 in Visit 06	*[==>]*
								[2]
	24	g160m_sci_1600 (COS.sp.180073)	(6) HD269445	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=390; EXTENDED=NO	Prime + Parallel Group 24-25 in Visit 06	400 Secs *[==>]*
								[2]
	25		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F128N	NSAMP=9; SAMP-SEQ=SPARS50	Prime + Parallel Group 24-25 in Visit 06	*[==>]*
								[2]

Orbit Structure

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Exp. 24
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Occultation
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1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec
Exp. 15
Exp. 17
Exp. 19
Exp. 21
Exp. 23
Exp. 25

Visit

Proposal 12581, Visit 07, scheduling Sat Jun 02 01:19:55 GMT 2012

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, COS/NUV, COS/FUV, WFC3/UVIS, ACS/WFC

Special Requirements: ORIENT 60D TO 65 D; ORIENT 170D TO 170 D; ORIENT 270D TO 295 D; VISIBILITY INTERVAL 95 M

Diagnostics

(Visit 07) Warning (Form): If the target coordinates are not known to 0.4" (or better) an ACQ/SEARCH should precede the ACQ/IMAGE.

(Visit 07) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	AV456	RA: 01 10 55.7690 (17.7323708d) Dec: -72 42 56.32 (-72.71564d) Equinox: J2000	Radial Velocity: 167 km/sec	V=12.9 Flux at 1300-1700A (IUE): 1.5e-13 ergs/cm2/s/A; Flux at 2500A = 1e-13	Reference Frame: ICRS

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

Coordinates are from the 2MASS archive, which an absolute astrometric precision of 0.1 arcsec:

http://vizier.u-strasbg.fr/viz-bin/VizieR-S?2MASS%20J01105576-7242563

The BOP was cleared for science and target acquisition, and the exposure time estimated using IUE spectra over the same wavelength range as COS FUV and NUV:

http://archive.stsci.edu/xcorr.php?target=av456&max_records=10&action=Search&resolver=SIMBAD&missions%5B%5D=FUSE&missions%5B%5D=IMAPS&missions%5B%5D=BEFS&missions%5B%5D=TUES&missions%5B%5D=IUE&missions%5B%5D=COPERNICUS&missions%5B%5D=HUT&missions%5B%5D=WUPPE&missions%5B%5D=GHRS&missions%5B%5D=STIS-SPECTRUM&missions%5B%5D=COS-SPECTRUM&missions%5B%5D=WFC3-SPECTRUM&missions%5B%5D=ACS-SPECTRUM&missions%5B%5D=FOS&missions%5B%5D=HPOL

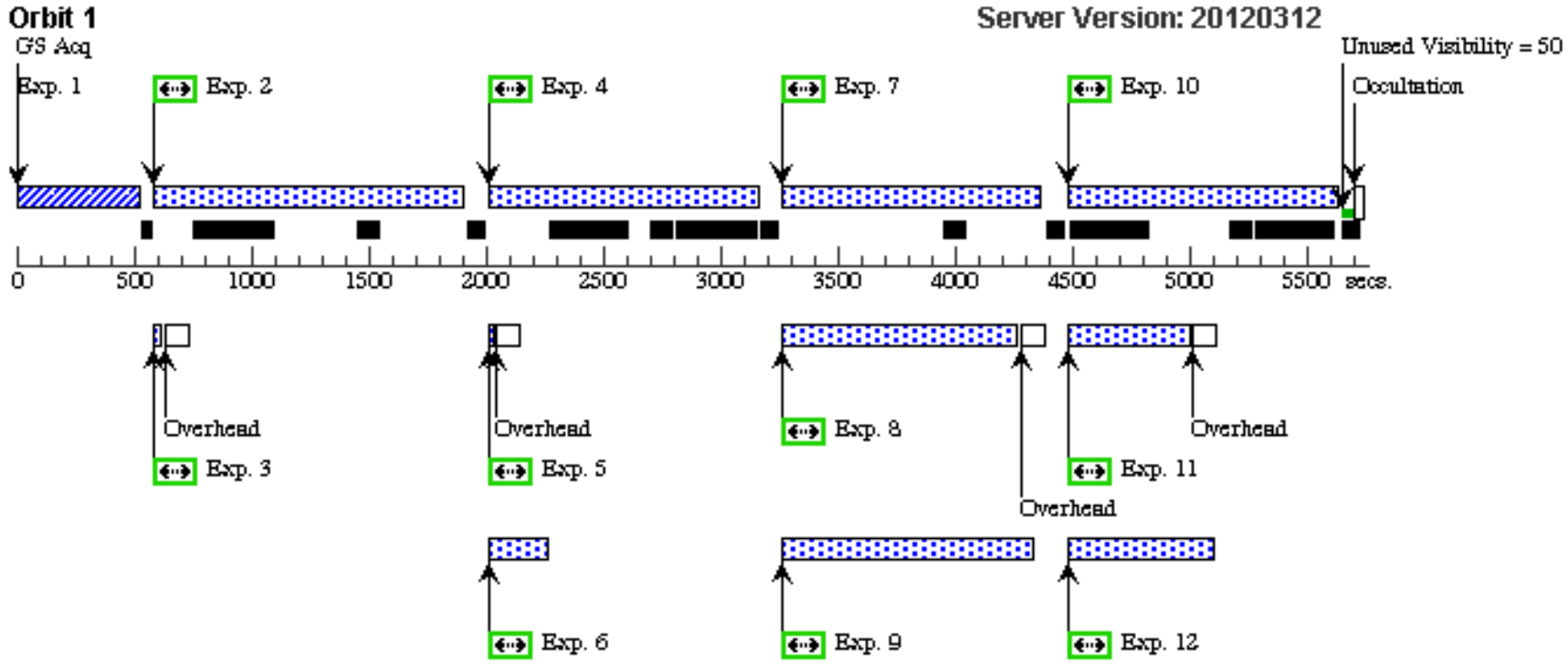
Exposures

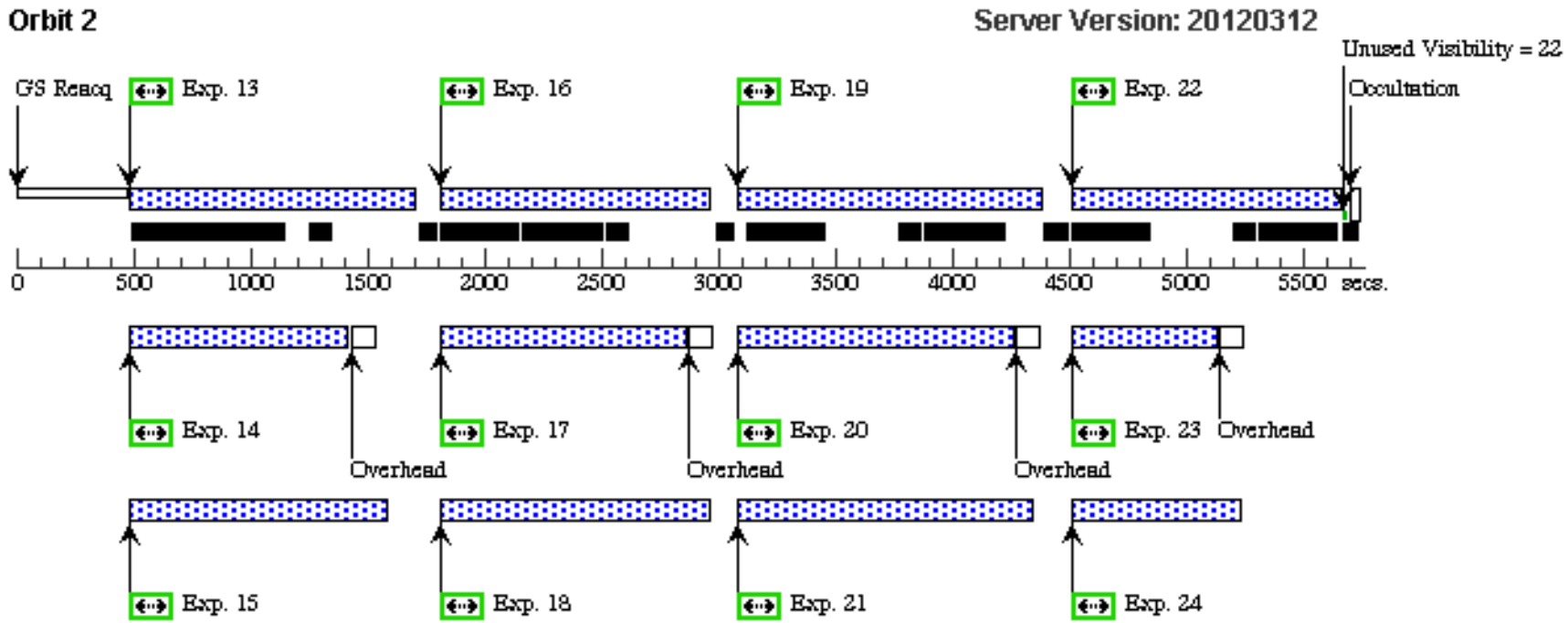
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	acq_av456 (COS.ta.177816)	(7) AV456	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				55 Secs *[==>]*	*[1]*
2	g160m_sci_1577 (.sp.180089)	(7) AV456	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=6600; EXTENDED=NO		Prime + Parallel Group 2-3 in Visit 07	1100 Secs *[==>]*	*[1]*
3		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO		Prime + Parallel Group 2-3 in Visit 07	2 Secs *[==>]*	*[1]*
4	g160m_sci_1577 (.sp.180089)	(7) AV456	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=6600; EXTENDED=NO		Prime + Parallel Group 4-6 in Visit 07	1100 Secs *[==>]*	*[1]*
5		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO		Prime + Parallel Group 4-6 in Visit 07	1.5 Secs *[==>]*	*[1]*
6		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 4-6 in Visit 07	1.5 Secs *[==>]*	*[1]*
7	g160m_sci_1577 (.sp.180089)	(7) AV456	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=6600; EXTENDED=NO		Prime + Parallel Group 7-9 in Visit 07	1050 Secs *[==>]*	*[1]*
8		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO		Prime + Parallel Group 7-9 in Visit 07	980 Secs *[==>]*	*[1]*
9		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 7-9 in Visit 07	950 Secs *[==>]*	*[1]*
10	g160m_sci_1577 (.sp.180089)	(7) AV456	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=6600; EXTENDED=NO		Prime + Parallel Group 10-12 in Visit 07	1100 Secs *[==>]*	*[1]*
11		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO		Prime + Parallel Group 10-12 in Visit 07	500 Secs *[==>]*	*[1]*
12		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 10-12 in Visit 07	500 Secs *[==>]*	*[1]*

13	g160m_sci_1589 (.sp.180089)	(7) AV456	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=660; EXTENDED=NO	Prime + Parallel Group 13-15 in Visit 07	1100 Secs *[==>]*	***[2]***
14		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO	Prime + Parallel Group 13-15 in Visit 07	930 Secs *[==>]*	***[2]***
15		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 13-15 in Visit 07	980 Secs *[==>]*	***[2]***
16	g160m_sci_1589 (.sp.180089)	(7) AV456	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=680; EXTENDED=NO	Prime + Parallel Group 16-18 in Visit 07	1100 Secs *[==>]*	***[2]***
17		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO	Prime + Parallel Group 16-18 in Visit 07	1030 Secs *[==>]*	***[2]***
18		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 16-18 in Visit 07	1030 Secs *[==>]*	***[2]***
19	g160m_sci_1589 (.sp.180089)	(7) AV456	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=660; EXTENDED=NO	Prime + Parallel Group 19-21 in Visit 07	1250 Secs *[==>]*	***[2]***
20		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO	Prime + Parallel Group 19-21 in Visit 07	1180 Secs *[==>]*	***[2]***
21		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 19-21 in Visit 07	1100 Secs *[==>]*	***[2]***
22	g160m_sci_1589 (.sp.180089)	(7) AV456	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=660; EXTENDED=NO	Prime + Parallel Group 22-24 in Visit 07	1100 Secs *[==>]*	***[2]***
23		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F475W	CR-SPLIT=NO	Prime + Parallel Group 22-24 in Visit 07	600 Secs *[==>]*	***[2]***
24		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 22-24 in Visit 07	600 Secs *[==>]*	***[2]***
25	g160m_sci_1600 (.sp.180089)	(7) AV456	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=660; EXTENDED=NO	Prime + Parallel Group 25-27 in Visit 07	800 Secs *[==>]*	***[3]***

26		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F475W	CR-SPLIT=NO	Prime + Parallel Group 25-27 in Visit 07	730 Secs *[==>]*	 ***[3]***
27		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 25-27 in Visit 07	680 Secs *[==>]*	 ***[3]***
28	g160m_sci_1600 (.sp.180089)	(7) AV456	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=560; EXTENDED=NO	Prime + Parallel Group 28-30 in Visit 07	1020 Secs *[==>]*	 ***[3]***
29		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=8; SAMP-SEQ=SPARS100	Prime + Parallel Group 28-30 in Visit 07	*[==>]*	***[3]***
30		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 28-30 in Visit 07	600 Secs *[==>]*	 ***[3]***
31	g160m_sci_1600 (.sp.180089)	(7) AV456	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=680; EXTENDED=NO	Prime + Parallel Group 31-33 in Visit 07	900 Secs *[==>]*	 ***[3]***
32		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=7; SAMP-SEQ=SPARS100	Prime + Parallel Group 31-33 in Visit 07	*[==>]*	***[3]***
33		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 31-33 in Visit 07	600 Secs *[==>]*	 ***[3]***
34	g160m_sci_1600 (.sp.180089)	(7) AV456	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=520; EXTENDED=NO	Prime + Parallel Group 34-35 in Visit 07	630 Secs *[==>]*	 ***[3]***
35		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=4; SAMP-SEQ=SPARS100	Prime + Parallel Group 34-35 in Visit 07	*[==>]*	***[3]***
36	g130m_sci_1327 (COS.sp.180082)	(7) AV456	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=220; EXTENDED=NO; FP-POS=1; FLASH=YES; SEGMENT=BOTH	Prime + Parallel Group 36-38 in Visit 07	330 Secs *[==>]*	 ***[3]***
37		ANY	WFC3/IR, MULTIACCUM, IR	F128N	SAMP-SEQ=SPARS50; NSAMP=3	Prime + Parallel Group 36-38 in Visit 07	*[==>]*	***[3]***
38		ANY	ACS/WFC, ACCUM, WFC1-1K	F814W		Prime + Parallel Group 36-38 in Visit 07	1 Secs *[==>]*	 ***[3]***

Orbit Structure

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1500
2000
2500
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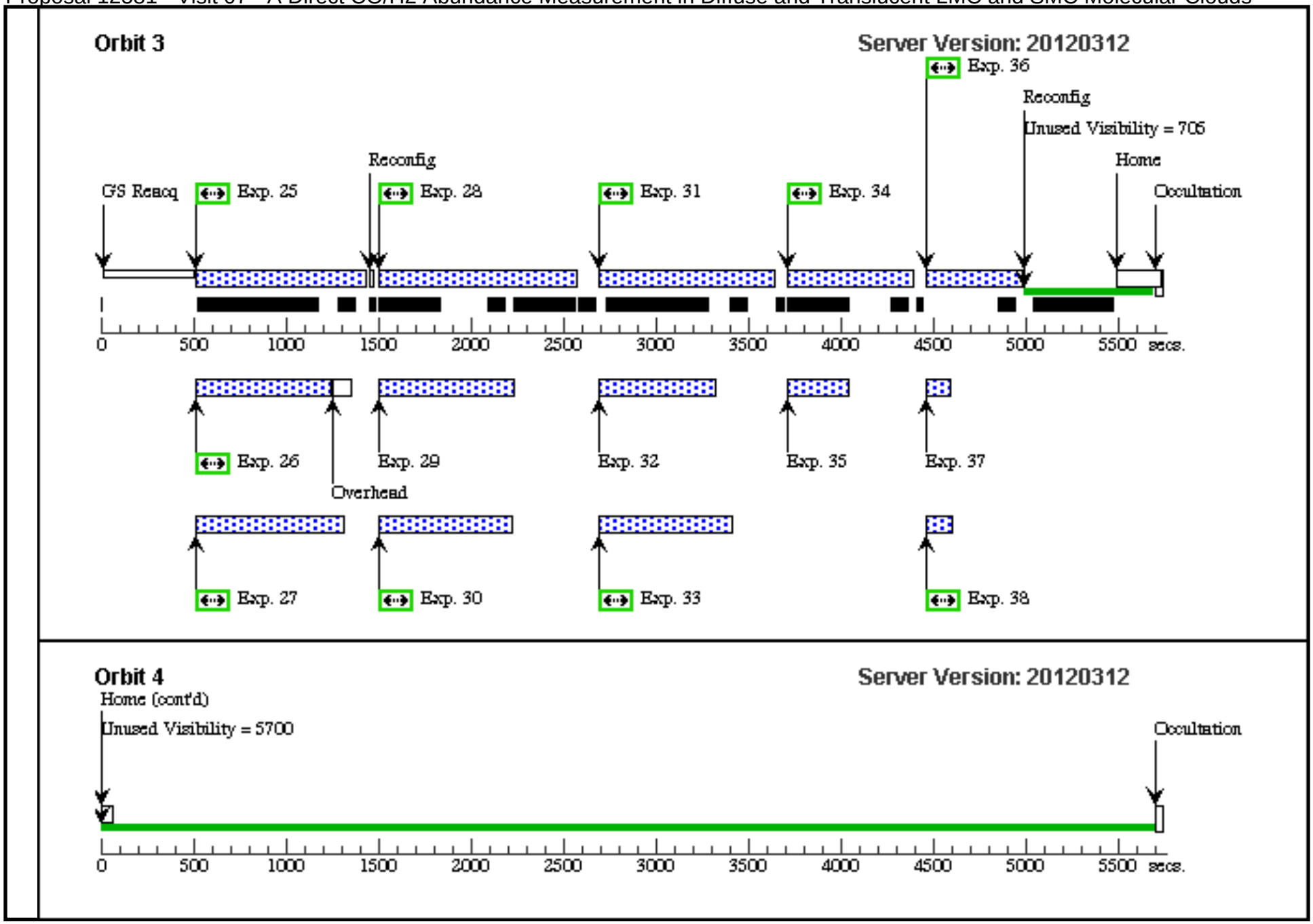
3500
4000
4500
5000
5500
secs.
Exp. 14
Exp. 17
Exp. 20
Exp. 23
Overhead
Overhead
Overhead
Overhead
Exp. 15
Exp. 18
Exp. 21
Exp. 24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Reconfig
Unused Visibility = 705
Home
Occultation
Reconfig
GS Reacq
Exp. 25
Exp. 28
Exp. 31
Exp. 34
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.
Exp. 26
Exp. 29
Exp. 32
Exp. 35
Exp. 37
Overhead
Exp. 27
Exp. 30
Exp. 33
Exp. 38
Orbit 4
Server Version: 20120312
Home (cont'd)
Unused Visibility = 5700
Occultation
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500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.

Visit

Proposal 12581, Visit 08, scheduling Sat Jun 02 01:19:57 GMT 2012

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, COS/FUV

Special Requirements: (none)

Diagnostics

(Visit 08) Warning (Form): If the target coordinates are not known to 0.4" (or better) an ACQ/SEARCH should precede the ACQ/PEAKXD.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	AV6	RA: 00 45 18.2200 (11.3259167d) Dec: -73 15 24.30 (-73.25675d) Equinox: J2000	Radial Velocity: 192 km/sec	V=13.46 Flux at 1300-1700A (IUE): 3.6e -13 ergs/cm2/s/A; Flux at 2500 A = 1e-13	Reference Frame: ICRS

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

Coordinates are from the 2MASS archive, which an absolute astrometric precision of 0.1 arcsec:

The BOP was cleared for science and target acquisition, and the exposure time estimated using IUE spectra over the same wavelength range as COS FUV and NUV:

http://archive.stsci.edu/xcorr.php?target=av6&max_records=10&action=Search&resolver=SIMBAD&missions%5B%5D=FUSE&missions%5B%5D=IMAPS&missions%5B%5D=BEFS&missions%5B%5D=TUES&missions%5B%5D=IUE&missions%5B%5D=COPERNICUS&missions%5B%5D=HUT&missions%5B%5D=WUPPE&missions%5B%5D=GHRS&missions%5B%5D=STIS-SPECTRUM&missions%5B%5D=COS-SPECTRUM&missions%5B%5D=WFC3-SPECTRUM&missions%5B%5D=ACS-SPECTRUM&missions%5B%5D=FOS&missions%5B%5D=HPOL

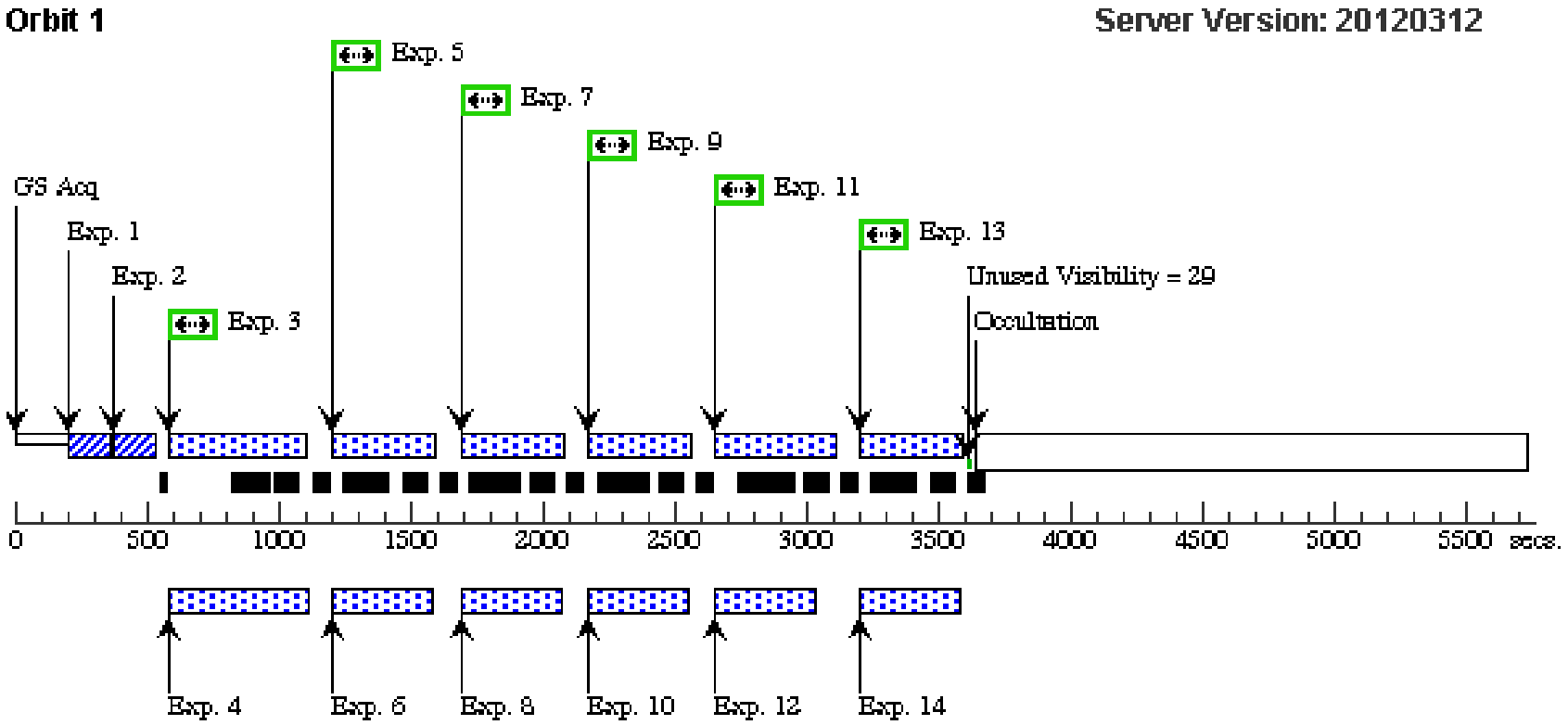
Exposures

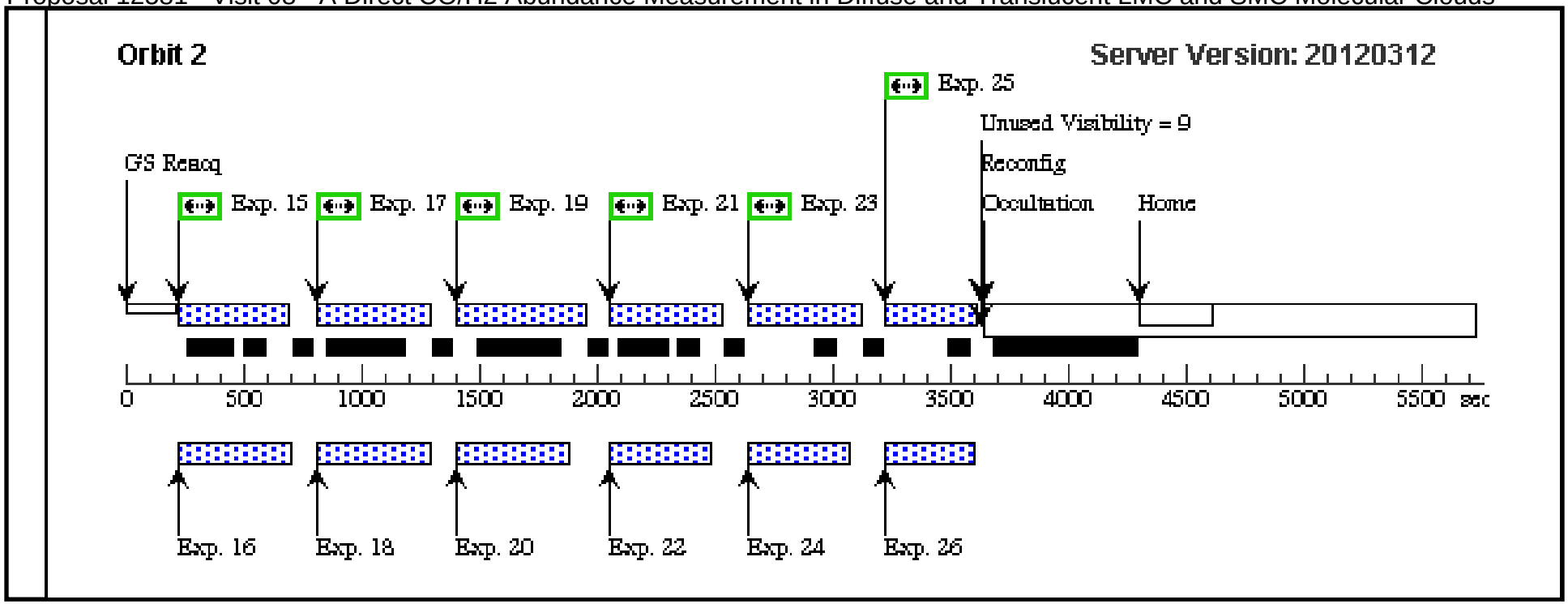
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	acq_av6 (COS.ta.177817)	(8) AV6	COS/FUV, ACQ/PEAKXD, PSA	G130M 1327 A				1 Secs *[==>]*	*[1]*
2	acq_av6 (COS.ta.177817)	(8) AV6	COS/FUV, ACQ/PEAKD, PSA	G130M 1327 A	NUM-POS=5; STEP-SIZE=0.9			1 Secs *[==>]*	*[1]*
3	g160m_sci_1577 (COS.sp.180094)	(8) AV6	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=2300; EXTENDED=NO		Prime + Parallel Group 3-4 in Visit 08	340 Secs *[==>]*	*[1]*
4		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=11; SAMP-SEQ=SPARS50		Prime + Parallel Group 3-4 in Visit 08	*[==>]*	*[1]*
5	g160m_sci_1577 (COS.sp.180094)	(8) AV6	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=2300; EXTENDED=NO		Prime + Parallel Group 5-6 in Visit 08	340 Secs *[==>]*	*[1]*
6		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=8; SAMP-SEQ=SPARS50		Prime + Parallel Group 5-6 in Visit 08	*[==>]*	*[1]*
7	g160m_sci_1577 (COS.sp.180094)	(8) AV6	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=2300; EXTENDED=NO		Prime + Parallel Group 7-8 in Visit 08	340 Secs *[==>]*	*[1]*
8		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=8; SAMP-SEQ=SPARS50		Prime + Parallel Group 7-8 in Visit 08	*[==>]*	*[1]*
9	g160m_sci_1577 (COS.sp.180094)	(8) AV6	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=2300; EXTENDED=NO		Prime + Parallel Group 9-10 in Visit 08	340 Secs *[==>]*	*[1]*
10		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=8; SAMP-SEQ=SPARS50		Prime + Parallel Group 9-10 in Visit 08	*[==>]*	*[1]*

11	g160m_sci_1589 (COS.sp.180094)	(8) AV6	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=2300; EXTENDED=NO	Prime + Parallel Group 11-12 in Visit 08	340 Secs *[==>]*	***[1]***
12		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=8; SAMP-SEQ=SPARS50	Prime + Parallel Group 11-12 in Visit 08	*[==>]*	***[1]***
13	g160m_sci_1589 (COS.sp.180094)	(8) AV6	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=2300; EXTENDED=NO	Prime + Parallel Group 13-14 in Visit 08	340 Secs *[==>]*	***[1]***
14		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=8; SAMP-SEQ=SPARS50	Prime + Parallel Group 13-14 in Visit 08	*[==>]*	***[1]***
15	g160m_sci_1589 (COS.sp.180119)	(8) AV6	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=2500; EXTENDED=NO	Prime + Parallel Group 15-16 in Visit 08	420 Secs *[==>]*	***[2]***
16		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=10; SAMP-SEQ=SPARS50	Prime + Parallel Group 15-16 in Visit 08	*[==>]*	***[2]***
17	g160m_sci_1589 (COS.sp.180119)	(8) AV6	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=2500; EXTENDED=NO	Prime + Parallel Group 17-18 in Visit 08	424 Secs *[==>]*	***[2]***
18		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=10; SAMP-SEQ=SPARS50	Prime + Parallel Group 17-18 in Visit 08	*[==>]*	***[2]***
19	g160m_sci_1600 (COS.sp.180119)	(8) AV6	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=2500; EXTENDED=NO	Prime + Parallel Group 19-20 in Visit 08	424 Secs *[==>]*	***[2]***
20		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=10; SAMP-SEQ=SPARS50	Prime + Parallel Group 19-20 in Visit 08	*[==>]*	***[2]***

21	g160m_sci_1600 (COS.sp.180119)	(8) AV6	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=2500; EXTENDED=NO	Prime + Parallel Group 21-22 in Visit 08	424 Secs *[==>]*	***[2]***
22		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=9; SAMP-SEQ=SPARS50	Prime + Parallel Group 21-22 in Visit 08	*[==>]*	***[2]***
23	g160m_sci_1600 (COS.sp.180119)	(8) AV6	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=2500; EXTENDED=NO	Prime + Parallel Group 23-24 in Visit 08	424 Secs *[==>]*	***[2]***
24		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F128N	NSAMP=9; SAMP-SEQ=SPARS50	Prime + Parallel Group 23-24 in Visit 08	*[==>]*	***[2]***
25	g160m_sci_1600 (COS.sp.180119)	(8) AV6	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=2300; EXTENDED=NO	Prime + Parallel Group 25-26 in Visit 08	340 Secs *[==>]*	***[2]***
26		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F128N	NSAMP=8; SAMP-SEQ=SPARS50	Prime + Parallel Group 25-26 in Visit 08	*[==>]*	***[2]***

Orbit Structure

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3500
4000
4500
5000
5500
sec
Exp. 16
Exp. 18
Exp. 20
Exp. 22
Exp. 24
Exp. 26

Visit

Proposal 12581, Visit 09, implementation Sat Jun 02 01:19:58 GMT 2012

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, COS/NUV, COS/FUV, WFC3/UVIS, ACS/WFC

Special Requirements: ORIENT 0D TO 359.99 D; VISIBILITY INTERVAL 95 M

Diagnostics

(Visit 09) Warning (Form): If the target coordinates are not known to 0.4" (or better) an ACQ/SEARCH should precede the ACQ/IMAGE.

(Visit 09) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	AV476	RA: 01 13 42.4420 (18.4268417d) Dec: -73 17 29.44 (-73.29151d) Equinox: J2000		V=13.55 Flux at 1300-1700A (IUE): 1.5e-13 ergs/cm2/s/A; Flux at 2500A = 1e-13	Reference Frame: ICRS

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

Coordinates are from the 2MASS archive, which an absolute astrometric precision of 0.1 arcsec:

http://vizier.u-strasbg.fr/viz-bin/VizieR-S?2MASS%20J01134244-7317294

The BOP was cleared for science and target acquisition, and the exposure time estimated using IUE spectra over the same wavelength range as COS FUV and NUV:

http://archive.stsci.edu/xcorr.php?target=av476&max_records=10&action=Search&resolver=SIMBAD&missions%5B%5D=FUSE&missions%5B%5D=IMAPS&missions%5B%5D=BEFS&missions%5B%5D=TUES&missions%5B%5D=IUE&missions%5B%5D=COPERNICUS&missions%5B%5D=HUT&missions%5B%5D=WUPPE&missions%5B%5D=GHRS&missions%5B%5D=STIS-SPECTRUM&missions%5B%5D=COS-SPECTRUM&missions%5B%5D=WFC3-SPECTRUM&missions%5B%5D=ACS-SPECTRUM&missions%5B%5D=FOS&missions%5B%5D=HPOL

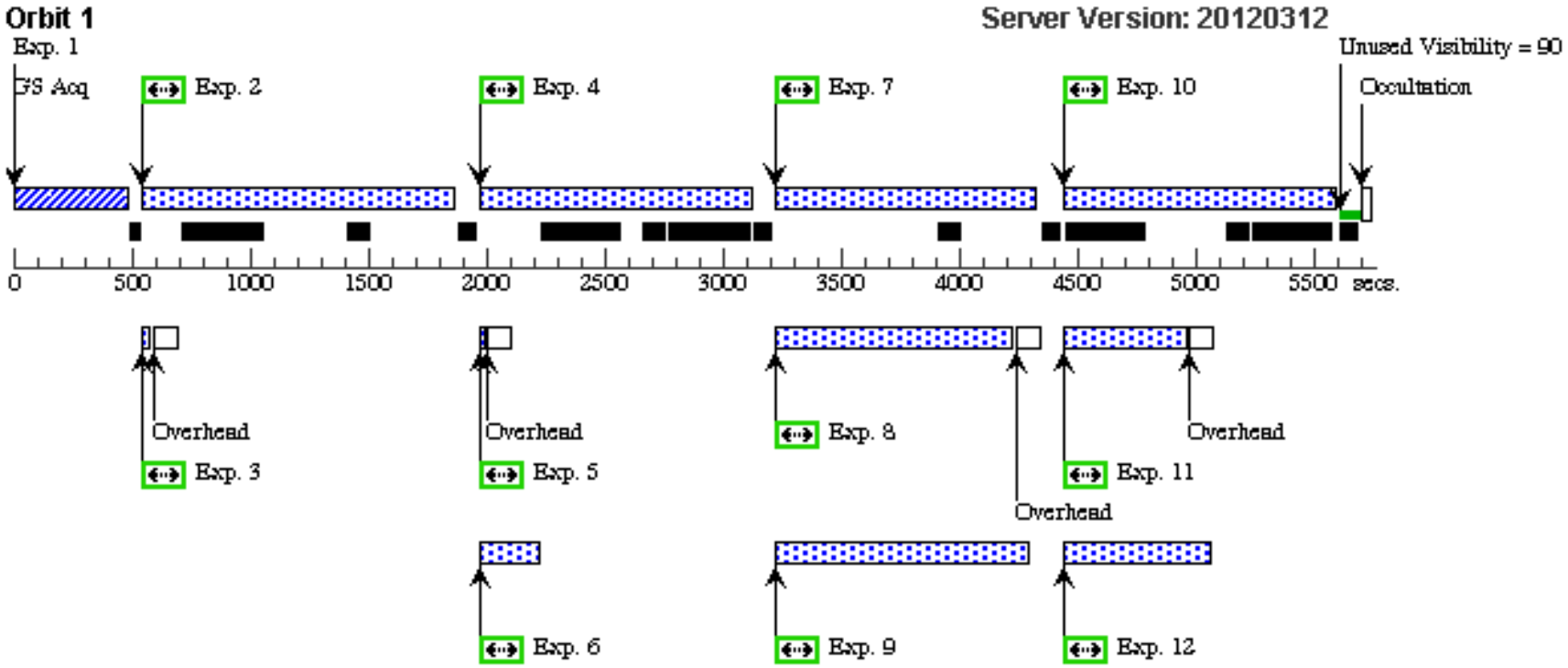
Exposures

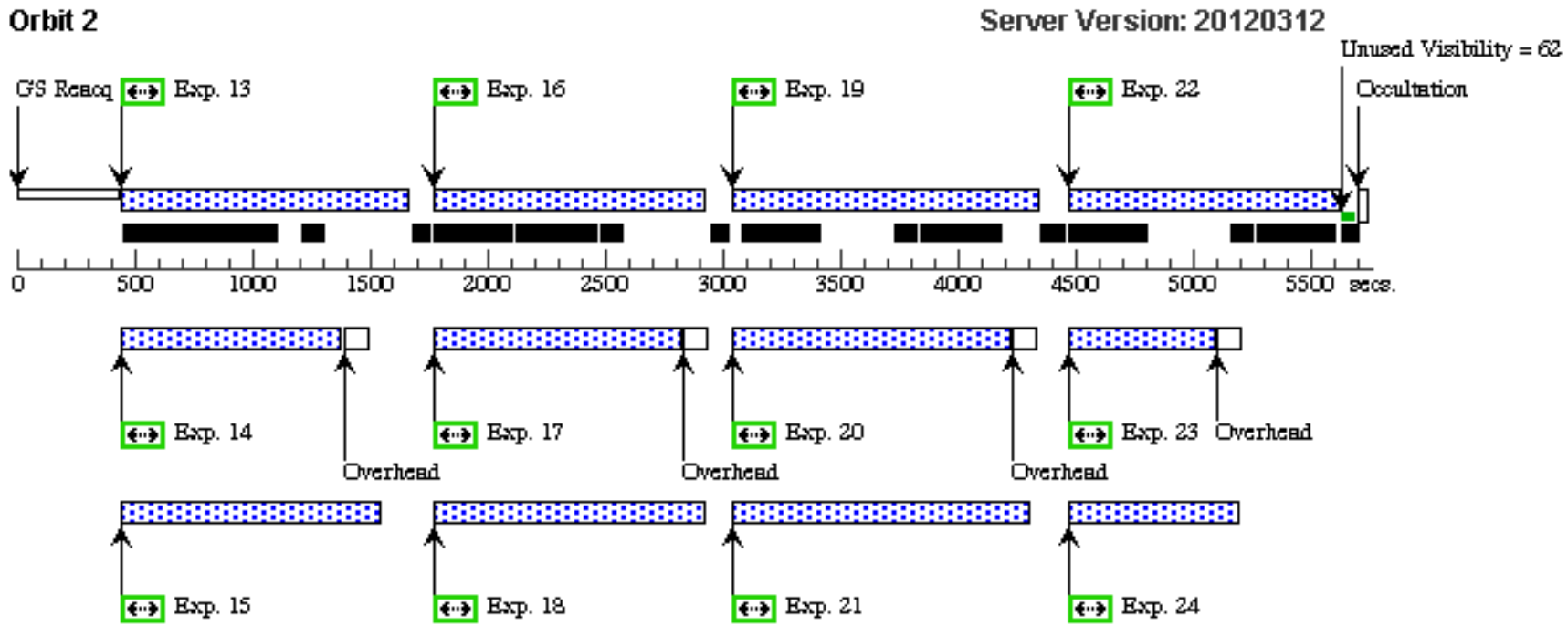
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	acq_av456 (COS.ta.177819)	(9) AV476	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				35 Secs *[==>]*	*[1]*
2	g160m_sci_1577 (COS.sp.185603)	(9) AV476	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=6600; EXTENDED=NO		Prime + Parallel Group 2-3 in Visit 09	1100 Secs *[==>]*	*[1]*
3		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO		Prime + Parallel Group 2-3 in Visit 09	2 Secs *[==>]*	*[1]*
4	g160m_sci_1577 (COS.sp.185603)	(9) AV476	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=6600; EXTENDED=NO		Prime + Parallel Group 4-6 in Visit 09	1100 Secs *[==>]*	*[1]*
5		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO		Prime + Parallel Group 4-6 in Visit 09	1.5 Secs *[==>]*	*[1]*
6		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 4-6 in Visit 09	1.5 Secs *[==>]*	*[1]*
7	g160m_sci_1577 (COS.sp.185603)	(9) AV476	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=6600; EXTENDED=NO		Prime + Parallel Group 7-9 in Visit 09	1050 Secs *[==>]*	*[1]*
8		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO		Prime + Parallel Group 7-9 in Visit 09	980 Secs *[==>]*	*[1]*
9		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 7-9 in Visit 09	950 Secs *[==>]*	*[1]*
10	g160m_sci_1577 (COS.sp.185603)	(9) AV476	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=6600; EXTENDED=NO		Prime + Parallel Group 10-12 in Visit 09	1100 Secs *[==>]*	*[1]*
11		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO		Prime + Parallel Group 10-12 in Visit 09	500 Secs *[==>]*	*[1]*
12		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 10-12 in Visit 09	500 Secs *[==>]*	*[1]*

13	g160m_sci_1589 (COS.sp.185603)	(9) AV476	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=660; EXTENDED=NO	Prime + Parallel Group 13-15 in Visit 09	1100 Secs *[==>]*	***[2]***
14		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	CR-SPLIT=NO	Prime + Parallel Group 13-15 in Visit 09	930 Secs *[==>]*	***[2]***
15		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 13-15 in Visit 09	980 Secs *[==>]*	***[2]***
16	g160m_sci_1589 (COS.sp.185603)	(9) AV476	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=680; EXTENDED=NO	Prime + Parallel Group 16-18 in Visit 09	1100 Secs *[==>]*	***[2]***
17		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO	Prime + Parallel Group 16-18 in Visit 09	1030 Secs *[==>]*	***[2]***
18		ANY	ACS/WFC, ACCUM, WFC	F814W		Prime + Parallel Group 16-18 in Visit 09	1030 Secs *[==>]*	***[2]***
19	g160m_sci_1589 (COS.sp.185603)	(9) AV476	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=660; EXTENDED=NO	Prime + Parallel Group 19-21 in Visit 09	1250 Secs *[==>]*	***[2]***
20		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F336W	CR-SPLIT=NO	Prime + Parallel Group 19-21 in Visit 09	1180 Secs *[==>]*	***[2]***
21		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 19-21 in Visit 09	1100 Secs *[==>]*	***[2]***
22	g160m_sci_1589 (COS.sp.185603)	(9) AV476	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=660; EXTENDED=NO	Prime + Parallel Group 22-24 in Visit 09	1100 Secs *[==>]*	***[2]***
23		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F475W	CR-SPLIT=NO	Prime + Parallel Group 22-24 in Visit 09	600 Secs *[==>]*	***[2]***
24		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 22-24 in Visit 09	600 Secs *[==>]*	***[2]***
25	g160m_sci_1600 (COS.sp.185603)	(9) AV476	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=1; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=660; EXTENDED=NO	Prime + Parallel Group 25-27 in Visit 09	800 Secs *[==>]*	***[3]***

26		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F475W	CR-SPLIT=NO	Prime + Parallel Group 25-27 in Visit 09	730 Secs *[==>]*	 ***[3]***
27		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 25-27 in Visit 09	680 Secs *[==>]*	 ***[3]***
28	g160m_sci_1600 (COS.sp.185603)	(9) AV476	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=2; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=560; EXTENDED=NO	Prime + Parallel Group 28-30 in Visit 09	1020 Secs *[==>]*	 ***[3]***
29		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F110W	NSAMP=8; SAMP-SEQ=SPARS100	Prime + Parallel Group 28-30 in Visit 09	*[==>]*	***[3]***
30		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 28-30 in Visit 09	600 Secs *[==>]*	 ***[3]***
31	g160m_sci_1600 (COS.sp.185603)	(9) AV476	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=680; EXTENDED=NO	Prime + Parallel Group 31-33 in Visit 09	900 Secs *[==>]*	 ***[3]***
32		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=7; SAMP-SEQ=SPARS100	Prime + Parallel Group 31-33 in Visit 09	*[==>]*	***[3]***
33		ANY	ACS/WFC, ACCUM, WFC	F475W		Prime + Parallel Group 31-33 in Visit 09	600 Secs *[==>]*	 ***[3]***
34	g160m_sci_1600 (COS.sp.185603)	(9) AV476	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=4; FLASH=YES; SEGMENT=BOTH; BUFFER-TIME=520; EXTENDED=NO	Prime + Parallel Group 34-35 in Visit 09	630 Secs *[==>]*	 ***[3]***
35		ANY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=4; SAMP-SEQ=SPARS100	Prime + Parallel Group 34-35 in Visit 09	*[==>]*	***[3]***
36	g130m_sci_1327 (COS.sp.185604)	(9) AV476	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=220; EXTENDED=NO; FP-POS=1; FLASH=YES; SEGMENT=BOTH	Prime + Parallel Group 36-38 in Visit 09	330 Secs *[==>]*	 ***[3]***
37		ANY	WFC3/IR, MULTIACCUM, IR	F128N	SAMP-SEQ=SPARS50; NSAMP=3	Prime + Parallel Group 36-38 in Visit 09	*[==>]*	***[3]***
38		ANY	ACS/WFC, ACCUM, WFC1-1K	F814W		Prime + Parallel Group 36-38 in Visit 09	1 Secs *[==>]*	 ***[3]***

Orbit Structure

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5000
5500
secs.
Exp. 14
Overhead
Exp. 17
Overhead
Exp. 20
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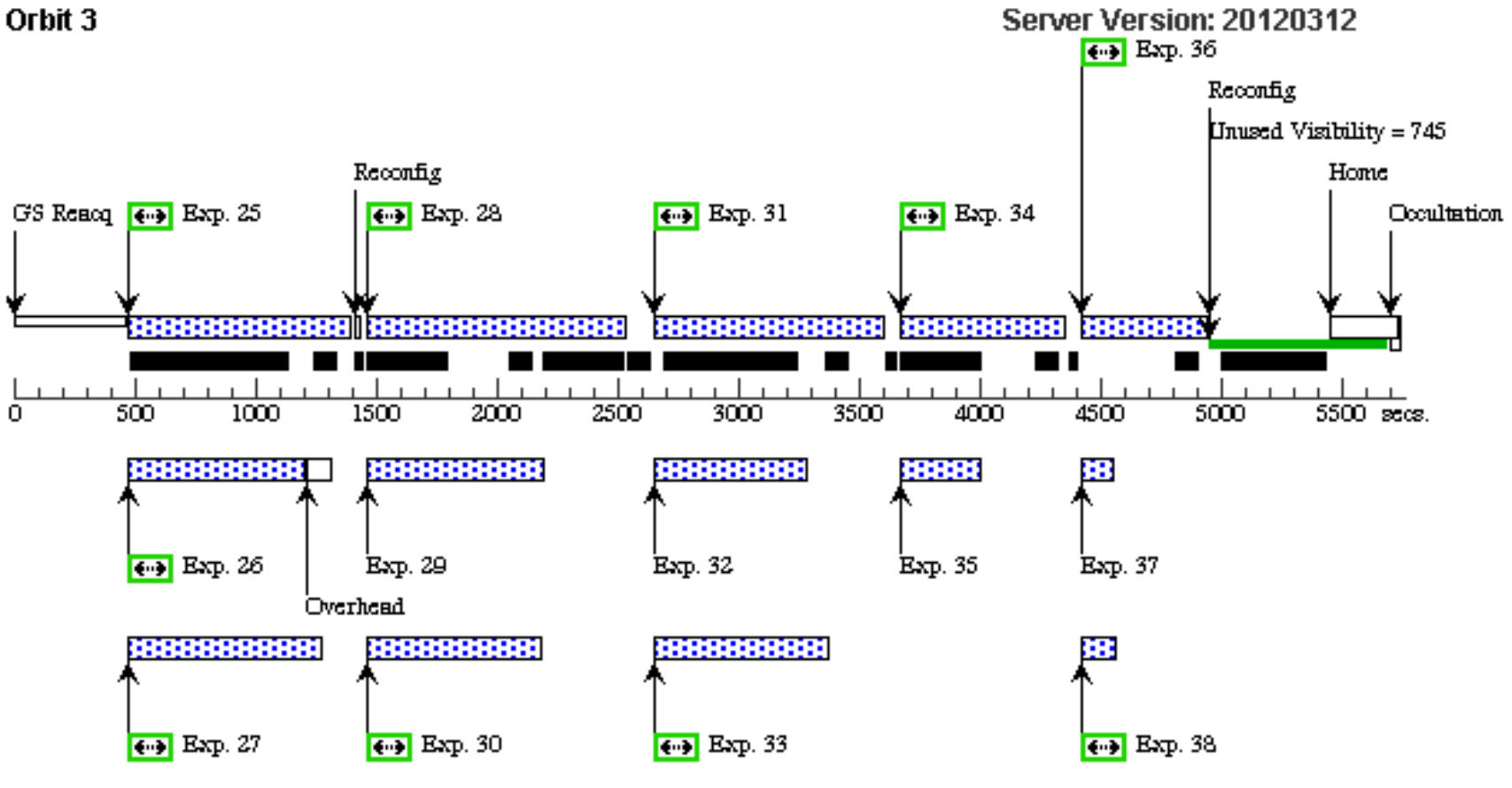
Exp. 23
Overhead
Exp. 15
Exp. 18
Exp. 21
Exp. 24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Overhead
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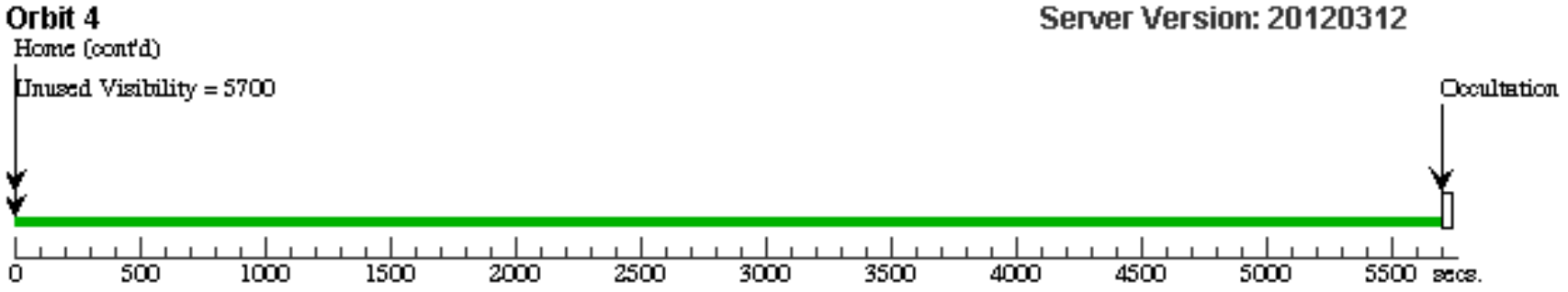
Exp. 37
Exp. 27
Exp. 30
Exp. 33
Exp. 38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secs.