12600 - Carbon and Nitrogen Enrichment Patterns in Planetary Nebulae

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) IC-3568-OFFSETSTAR (11) IC-3568-NEBOFFSET CCDFLAT	STIS/CCD	1	07-Mar-2012 02:09:40.0	yes
02	(1) IC-3568-OFFSETSTAR (11) IC-3568-NEBOFFSET	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	2	07-Mar-2012 02:09:48.0	yes
04	(2) NGC-3242-CSTAR (12) NGC-3242-NEBOFFSET CCDFLAT	STIS/CCD	1	07-Mar-2012 02:09:58.0	yes
05	(2) NGC-3242-CSTAR (12) NGC-3242-NEBOFFSET	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	2	07-Mar-2012 02:10:09.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
07	(3) NGC-7662-CSTAR (13) NGC-7662-NEBOFFSET CCDFLAT	STIS/CCD	1	07-Mar-2012 02:10:17.0	yes
08	(3) NGC-7662-CSTAR (13) NGC-7662-NEBOFFSET	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	2	07-Mar-2012 02:10:26.0	yes
10	(4) NGC-5882-CSTAR (14) NGC-5882-NEBOFFSET CCDFLAT	STIS/CCD	1	07-Mar-2012 02:10:33.0	yes
11	(4) NGC-5882-CSTAR (14) NGC-5882-NEBOFFSET	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	2	07-Mar-2012 02:10:40.0	yes
13	(5) IC-2165-CSTAR (15) IC-2165-NEBOFFSET CCDFLAT	STIS/CCD	1	07-Mar-2012 02:10:47.0	yes
14	(5) IC-2165-CSTAR (15) IC-2165-NEBOFFSET	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	2	07-Mar-2012 02:10:54.0	yes
16	(6) NGC-5315-OFFSETSTAR (16) NGC-5315-NEBOFFSET CCDFLAT	STIS/CCD	1	07-Mar-2012 02:11:03.0	yes
17	(6) NGC-5315-OFFSETSTAR (16) NGC-5315-NEBOFFSET	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	2	07-Mar-2012 02:11:09.0	yes
19	(7) NGC-6778-OFFSETSTAR (17) NGC-6778-NEBOFFSET CCDFLAT	STIS/CCD	1	07-Mar-2012 02:11:16.0	yes
20	(7) NGC-6778-OFFSETSTAR (17) NGC-6778-NEBOFFSET	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	2	07-Mar-2012 02:11:24.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
22	(8) ESO-213-7-PB6-OFFSETSTAR (18) ESO-213-7-PB6-NEBULA CCDFLAT	STIS/CCD	1	07-Mar-2012 02:11:34.0	yes
23	(8) ESO-213-7-PB6-OFFSETSTAR (18) ESO-213-7-PB6-NEBULA	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	3	07-Mar-2012 02:11:43.0	yes
26	(9) NGC-2440-CSTAR (19) NGC-2440-NEBOFFSET CCDFLAT	STIS/CCD	1	07-Mar-2012 02:11:51.0	yes
27	(9) NGC-2440-CSTAR (19) NGC-2440-NEBOFFSET	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	3	07-Mar-2012 02:12:00.0	yes
30	(10) NGC-6537-OFFSETSTAR (20) NGC-6537-NEBOFFSET CCDFLAT	STIS/CCD	1	07-Mar-2012 02:12:08.0	yes
31	(10) NGC-6537-OFFSETSTAR (20) NGC-6537-NEBOFFSET	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	2	07-Mar-2012 02:12:14.0	yes
32	(10) NGC-6537-OFFSETSTAR (20) NGC-6537-NEBOFFSET	STIS/CCD STIS/NUV-MAMA	1	07-Mar-2012 02:12:18.0	yes

33 Total Orbits Used

ABSTRACT

The goal of this project is to assess the role played in carbon production by low and intermediate mass stars (LIMS), i.e. the progenitors of planetary nebulae (PNe). One of the most pressing problems in galactic chemical evolution today is understanding the relative roles of LIMS (1-8 M_sun) versus massive stars (8-120 M_sun) in affecting the cosmic level of the element C. We are launching a fresh, ambitious project whose purpose is to employ STIS to obtain UV spectra of unprecedented-quality of 10 carefully chosen, bright solar metallicity PNe spanning a broad range in progenitor mass. Line strength measurements of important emission lines of C, N, and O such as OIII] 1660-6, NIII] 1747-54, CIII] 1907-9, and (when He++ is strong) CIV] 1550 and OIV] 1400 in each object will be used along with our own in-house abundance software to determine ion and element

abundances for these three species. In turn, these results will be used to assess stellar yields (productivity rates) available in the literature. Favored yield sets will be used to calculate our own chemical evolution models in order to assess directly the importance of intermediate-mass stars in the cosmic evolution of C.

OBSERVING DESCRIPTION

SPECIAL GO 12600 APT PHASE II TEMPLATE UPDATE ON 24 JANUARY 2012
(FROM PREV TEMPLATE 10/10/11)

It was discovered there were some inconsistances between the CCD visit ACQ's and the connected UV-MAMA visit ACQ's due to changes in the objects and slit positions of the 10 October 2011 resubmitted template (due to safety issues). This submission corrects these such that the offset star ACQ's are identical between the CCD spectra and UV-MAMA spectra visits.
All coordinates for the offset stars and slit positions and ORIENTS are not changed from the 10/10/11 template, nor are slit widths (some minor exposure changes in the UV-MAMA first orbit visits due to offset star ACQ exposures (< 10 sec) so no review of previous UV-MAMA safety issues seem warranted.

To reiterate: No coordinate or slit offsets and position angles from previous template were made.

SCIENCE REQUIREMENTS -- Our major science goals are predicated on obtaining accurate CNO abundances in the PNe from UV lines of ions not observable from the ground: C:N:O (C^+ + C^2+ + C^3+): (N^+ + N^2+ + N^3+): (O^+ + O^2+ + O^3+) where most of the ions of C & N have only strong lines in the UV. Therefore, the determination of accurate CNO abundances in PNe requires UV and optical spectrophotometry obtained using ratios of emission lines from identical spatial sampling of locations in the nebulae. Specifically, the most important UV lines are: carbon – C II] 2323–2329Å multiplet, C III] 1907+1909Å (density sensitive) doublet, & C IV 1548+1550Å doublet; nitrogen – N III] 1747–1750Å multiplet; N IV] 1483+1486Å doublet; NV 1239+1243Å doublet; oxygen – [O II] 2470Å, O III] 1661+1666Å doublet & O IV 1398+1407Å doublet.

The ~20 necessary optical lines are standard and not listed here. The ensemble of these lines not only provides information on their corresponding ionic abundances, but also provides new electron temperature and density diagnostics {e.g., [O III] (1661+6)/(4959+ 5007)Å, [Ne III] 1815/3869Å, [O II] 2470/3727Å, C III] 1907/1909Å, [Ne V] 1575/3426Å, [Ar III] 3109/7136Å, etc.}. Note that many of these temperature and density diagnostic ratios require cospatial UV and optical spectra, which our observation plan gives special attention to ensuring. Note also that these would be the first precisely co-spatial UV-optical longslit spectra of Galactic PNe ever made. This will permit new science such as investigating spatial variations in CN abundances from UV-optical lines derived using traditional techniques for varying ionization regions across the slit.

Our target list consists of ten PNe spanning a large range of N/O abundances, but all with near-solar O/H (N/O varies by two orders of magnitude in our sample: from 0.026 for IC 3568 to 7.2 for NGC 6537). They are among the largest and brightest PNe that satisfy these abundance criteria (among ~100 considered). Most have some IUE observations, and all but PB6 (due to its small apparent size) and NGC 6778 have HST WFPC2 imagery, which is important for determining slit placement to maximize data quality.

OBSERVATIONAL AND PLANNING CONSIDERATIONS -- STIS Configurations and Visits -- majority of our target PNe are quite extended in size, for which the longslit capability of STIS (up to 25 long for the UVMAMAs and 52 long for the optical-CCD spectra) can be used to great advantage. For most nebulae, we propose observations across three orbits in two visits. The first one-orbit visit will consist of observations with the CCD for offset star acquisition (in most cases the central star of the PN) and then slit placement, followed by (triple) spectra with the G430L, G430M/4451, G750L, & G750M/6581 configurations. The second visit of (usually) two orbits consists of a "duplicate" CCD star ACQ and then offset to the (identical!) slit placement with the CCD visit and maximum (paired) exposures with the FUV/MAMA detector using the G140L grating. The next orbit will be a simple reacquisition followed by NUV/MAMA (paired) spectra taken with the G230L & G230M/1884 gratings. The G…M spectra are intended to resolve important diagnostic lines: 1907/9 C III], H /4363[O III], & H/[ ] triplet, which are blended with the low dispersion (L-grating) spectra. In order to have the desired spectral coverage and resolution with a co-spatial slit we choose the 0.2 wide slit for the G…L spectra but with the 0.5" wide slit for the G...M spectra to increase throughput.

Using archival IUE UV spectra and (mostly our own) optical spectra, we did S/N calculations of emission lines in several of the PNe with the STIS ETC (two examples, PB6 & NGC 3242 are given in detail in the Phase I proposal) and we found that we can get good S/N and adequate spectral resolution (particularly in the UV) using the 0.2 slit (as compared to the 0.5 or 2.0) with the G…L gratings. We also found that, when higher spectral resolution is needed to separate important emission line groups, using a wider 0.5 slit with the G…M gratings is optimal given the tradeoff between increased photon input and spectral resolution degradation by the slit width without sacrificing significant spatial resolution. Specifically, we calculate that the average emission line resolution (FWHM) with the 0.2 wide slit will be ~5Å with G140L, ~12Å with G230L, ~21Å with G430L, and ~39Å with G750L for an extended source which fills the slit. Similarly, for our M grating settings with the 0.5 wide slit, the corresponding line FWHM are ~1.8Å for G230M/1884 (just resolving the C III] 1907/9Å doublet), ~5.6Å for G430M/4451 (resolving H 4340Å from [O III] 4363Å),

and ~11Å for G750M/6581 (resolving the H-[N II] triplet and density-sensitive [S II] doublet).

For the development of the Phase II observation template here, we studied WFPC2 imagery of eight of the PNe with HLA, Aladin, and SIMBAD to determine accurate ICRS coordinates of the relatively bright (V ~ 10-13 mag in most cases) central stars and determined CCD ACQ exposure times using the STIS ETC (in all cases the ETC# is given for reference). For several cases, the central stars were so bright as to necessitate using the F25ND3 filter to attenuate the light for an optimum CCD/ACQ exposure of ~1-10 seconds. For four of the PNe: NGC 5315, NGC 6778, PB6, & NGC 6537, the central stars are faint and we used a nearby V ~14 star to do the initial CCD/ACQ then offset to the nebula position. The ORIENT values (or ranges) were determined from WFPC2 or ground-based images of the nebulae within the observational windows for each nebula revealed by the Phase II APT. In most cases, we adjusted the ORIENTs such that at least one, and sometimes more, 7-10 day observation windows were schedulable during the Cycle 19 period. In all cases we avoid the central stars of the PNe to be safe with the MAMA detectors. Moreover, in addition to our inspection of previous STIS-MAMA spectra of PNe (particularly for NGC 7009, which is a high surface brightness PN), we ran STIS ETC calculations (based on the NGC 7009 UV-optical spectrum in the ETC) for the strongest lines expected in each of the grating passbands to check MAMA safety issues (the "generic" ETC#'s are given for each configuration for the approximate exposure times used). We think we are well within the MAMA safety limits in our exposures.

UPDATE 10/10/2011 -- Due to the STIS "5 arc second rule" we have had to replace IC 4593, IC 418, and NGC 6572 with IC 3568, NGC 7662, and NGC 5315, respectively, due to their small size making it impossible to get quality spectra with the slit > 5" from the central stars. For all ten PNe, IUE SWP and LWP/R large aperture spectra of the central stars were combined and inputted into the STIS spectroscopic ETC to check G140L and G230L UV-MAMA count rates. As noted previously IC 4593, IC 418, and NGC 6572 had central stars with strong UV continua that exceeded the safe limits and had to be replaced. Two other PNe, NGC 3242 and NGC 7662 had central stars with UV continua too bright for the G230L bandpass but the large size of the nebulae enabled useful scientific data to be taken with the STIS slit > 5 arc sec from the central star. For the record, the STIS spectroscopic ETC run numbers are:

IC 3568: 242112/3 NGC 3242: 240547/8* NGC 7662: 242135/8* NGC 5882: 240533/4 IC 2165: 240549/50

NGC 5315: 242175/6 NGC 6778: 240553/4 PB6: 24195/6 NGC 2440: 242025/6 NGC 6537: 240472/3

*Count rate for G230L spectra exceeded safe limits so (all parts of) the slit was placed > 5" from central star.

We further looked at HLA WFPC2 images of all but two (PB6 & NGC 6778) of the PNe and there were no stars brighter than V~14 within 10 arcsec

of any part of the slit even with the range of ORIENTS.

Finally, running the BOT for GSC2 & GALEX, the only red flags that came up were for visits 14 (GSC2) and 5(Galex). Visit 5 is NGC 3242 which has a UV bright star and the slit location is > 5" away. Visit 14 is IC 2165 which has been shown safe based on IUE spectra inputted into the STIS spectroscopic ETC.

REAL TIME JUSTIFICATION

None are requested.

CALIBRATION JUSTIFICATION

No special calibration requirements are anticipated.

ADDITIONAL COMMENTS

The key observational issue for which our science is based on is to have EXACT identical CCD and MAMA slit placements during the two visits for each PN. To facilitate this with the guide stars, as well as noting the science requires a complete set of UV-optical STIS spectra of each nebula to be in hand before analysis can begin, we request that the two visits be scheduled close in time (also assures that the same HST guide stars will be identically place in the FGS detectors).

Visit

Proposal 12600, Visit 01, scheduling Wed Mar 07 02:12:24 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 55.0D TO 75.0 D; ORIENT 235.D TO 255. D; GROUP 01,02 WITHIN 10D

Comments: SLIT PA = 180 +/- 10 deg

Fixed Targets

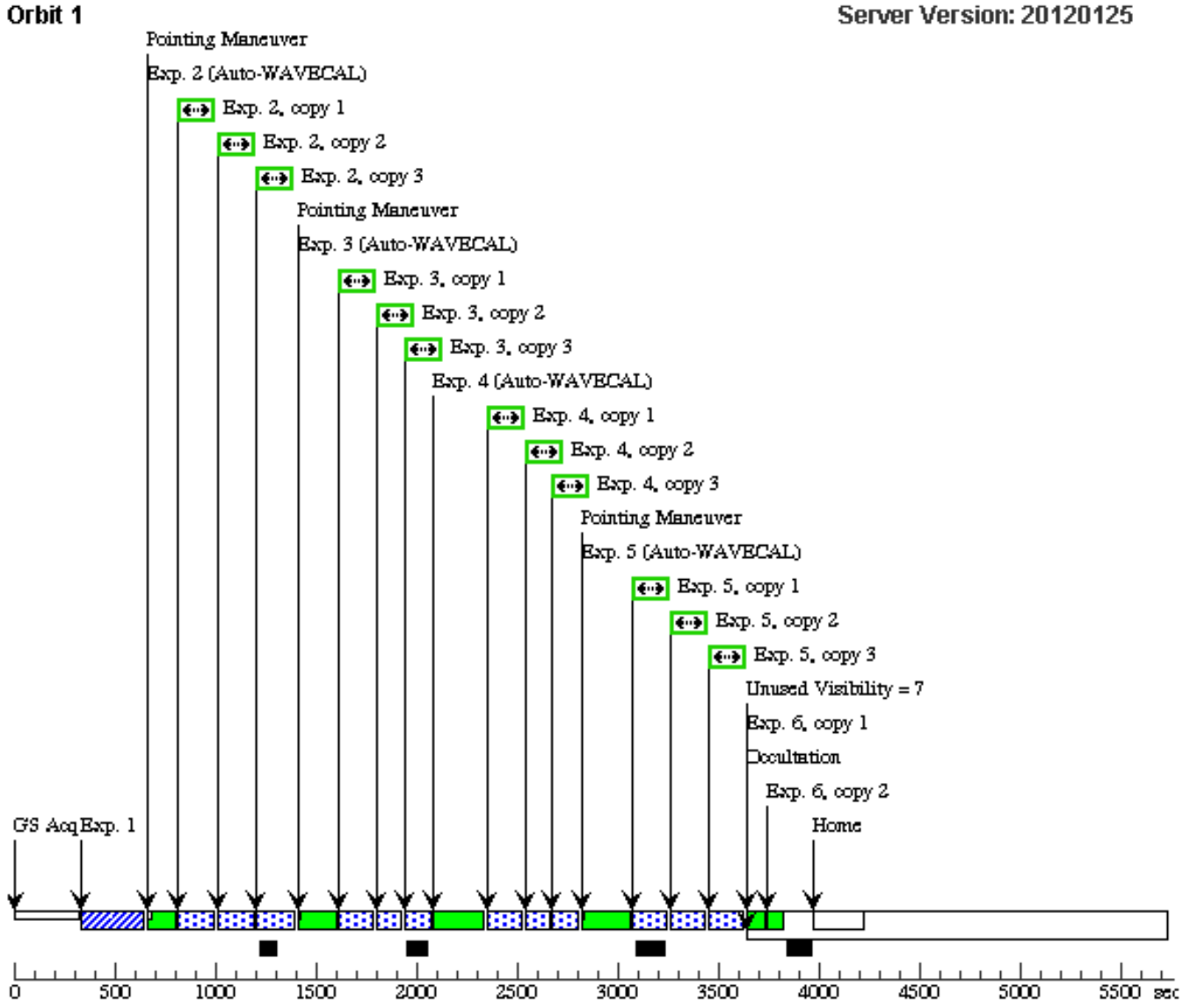
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	IC-3568-OFFSETSTAR Alt Name1: GSC2-N3YX000276	RA: 12 32 59.1300 (188.2463750d) Dec: +82 33 48.00 (82.56333d) Equinox: J2000	Proper Motion RA: +27.07 mas/yr Proper Motion Dec: +16.43 mas/yr Epoch of Position: 2000	V=12.5+/-0.2 J=13.9	Reference Frame: ICRS
(11)	IC-3568-NEBOFFSET	RA: 12 33 7.3400 (188.2805833d) Dec: +82 33 50.40 (82.56400d) Equinox: J2000	Radial Velocity: 39.9 km/sec	V=20.0+/-5.0	Reference Frame: ICRS

Comments: This offset position is 0.50 sec east of central star (target 1); slit oriented PA = 20 deg (+/- 10)

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(242911)	(1) IC-3568-OFFSETSTAR	STIS/CCD, ACQ, F25ND3	MIRROR	ACQTYPE=POINT			5.3 Secs *[==>]*	*[1]*
2	(186135)	(11) IC-3568-NEBOFFSET	STIS/CCD, ACCUM, 52X0.2	G430L 4300 A	CR-SPLIT=NO			120 Secs X 3 *[==>152.0 Secs (Copy 1)]* *[==>152.0 Secs (Copy 2)]* *[==>152.0 Secs (Copy 3)]*	*[1]*
3	(186146)	(11) IC-3568-NEBOFFSET	STIS/CCD, ACCUM, 52X0.5	G430M 4451 A	CR-SPLIT=NO			60 Secs X 3 *[==>92.0 Secs (Copy 1)]* *[==>92.0 Secs (Copy 2)]* *[==>92.0 Secs (Copy 3)]*	*[1]*
4	(186140)	(11) IC-3568-NEBOFFSET	STIS/CCD, ACCUM, 52X0.5	G750M 6581 A	CR-SPLIT=NO			60 Secs X 3 *[==>92.0 Secs (Copy 1)]* *[==>92.0 Secs (Copy 2)]* *[==>92.0 Secs (Copy 3)]*	*[1]*
5	(186137)	(11) IC-3568-NEBOFFSET	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A	CR-SPLIT=NO			110 Secs X 3 *[==>142.0 Secs (Copy 1)]* *[==>142.0 Secs (Copy 2)]* *[==>142.0 Secs (Copy 3)]*	*[1]*
6		CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*

Orbit Structure



Visit

Proposal 12600, Visit 02, implementation Wed Mar 07 02:12:26 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA, STIS/NUV-MAMA

Special Requirements: SAME ORIENT AS 01; GROUP 02,01 WITHIN 10D; SEQ 01,02 WITHIN 10 D

Fixed Targets

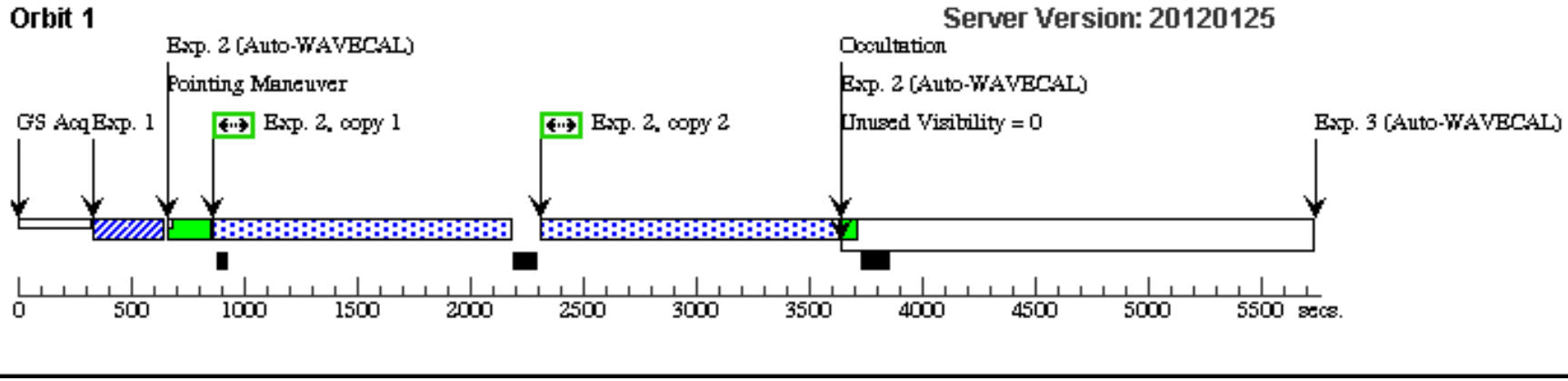
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	IC-3568-OFFSETSTAR Alt Name1: GSC2-N3YX000276	RA: 12 32 59.1300 (188.2463750d) Dec: +82 33 48.00 (82.56333d) Equinox: J2000	Proper Motion RA: +27.07 mas/yr Proper Motion Dec: +16.43 mas/yr Epoch of Position: 2000	V=12.5+/-0.2 J=13.9	Reference Frame: ICRS
(11)	IC-3568-NEBOFFSET	RA: 12 33 7.3400 (188.2805833d) Dec: +82 33 50.40 (82.56400d) Equinox: J2000	Radial Velocity: 39.9 km/sec	V=20.0+/-5.0	Reference Frame: ICRS

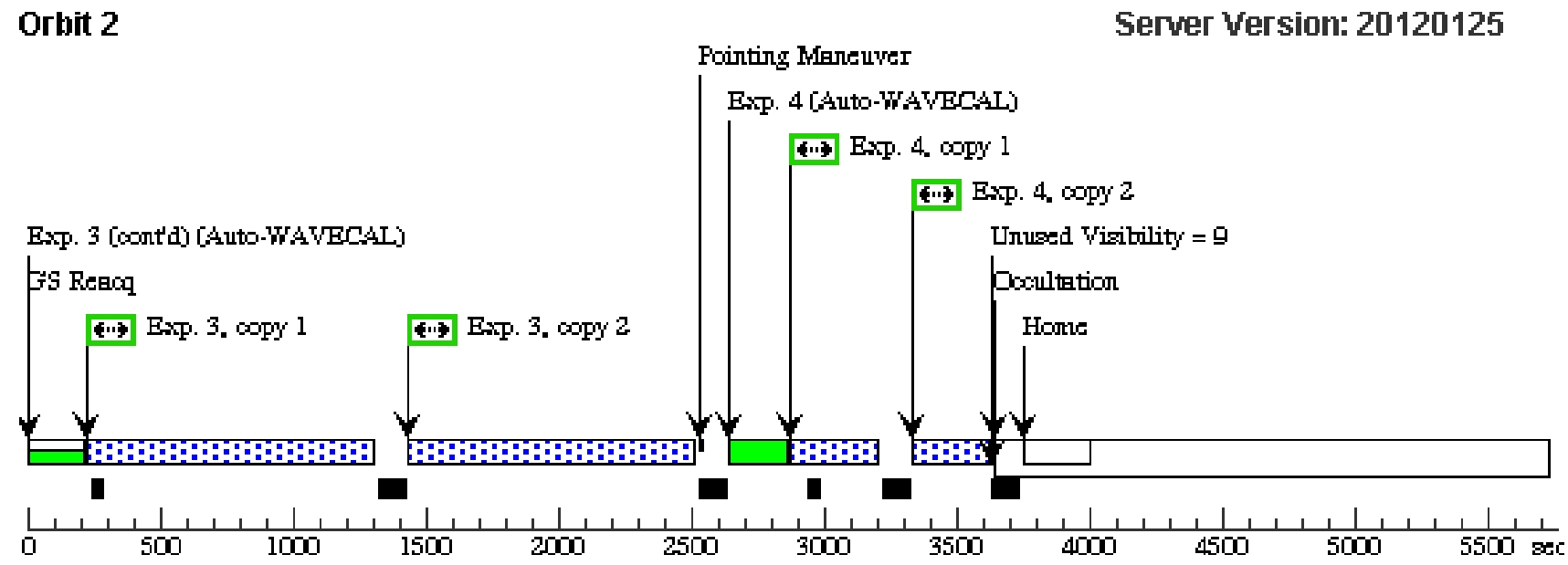
Comments: This offset position is 0.50 sec east of central star (target 1); slit oriented PA = 20 deg (+/- 10)

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(242911)	(1) IC-3568-OFFSETSTAR	STIS/CCD, ACQ, F25ND3	MIRROR	ACQTYPE=POINT			5.3 Secs *[==>]*	 ***[1]***
2	(186127)	(11) IC-3568-NEBOFFSET	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				1100 Secs X 2 *[==>1312.0 Secs (Copy 1)]* *[==>1312.0 Secs (Copy 2)]*	 ***[1]***
3	(186131)	(11) IC-3568-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1000 Secs X 2 *[==>1073.0 Secs (Copy 1)]* *[==>1073.0 Secs (Copy 2)]*	 ***[2]***
4	(186133)	(11) IC-3568-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.5	G230M 1884 A				200 Secs X 2 *[==>273.0 Secs (Copy 1)]* *[==>273.0 Secs (Copy 2)]*	 ***[2]***

Orbit Structure





Visit

Proposal 12600, Visit 04, completed Wed Mar 07 02:12:27 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 147D TO 157 D; ORIENT 327D TO 337 D

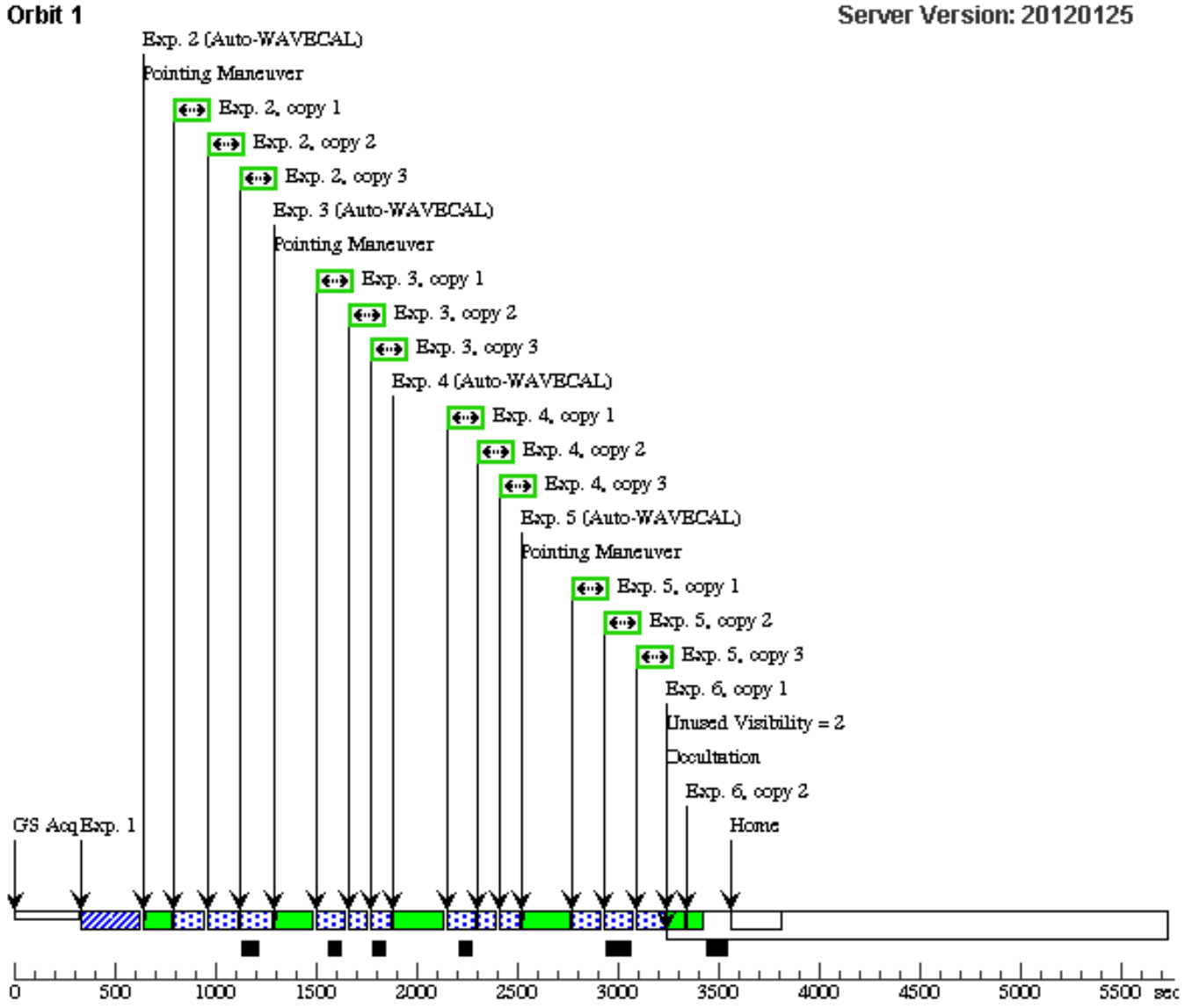
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	NGC-3242-CSTAR	RA: 10 24 46.1070 (156.1921125d) Dec: -18 38 32.64 (-18.64240d) Equinox: J2000	Proper Motion RA: -17.1 mas/yr Proper Motion Dec: 4.0 mas/yr Epoch of Position: 2000 Radial Velocity: 4.7 km/sec	V=10.3	Reference Frame: ICRS
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
(12)	NGC-3242-NEBOFFSET	RA: 10 24 46.1070 (156.1921125d) Dec: -18 38 37.14 (-18.64365d) Equinox: J2000	Radial Velocity: 4.7 km/sec	V=20.0+/-5.0	Reference Frame: ICRS
Comments: Slit position venter is 5.5 arc seconds south of central star; slit PA=107+/-5 deg.					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(184906)	(2) NGC-3242-CSTAR	STIS/CCD, ACQ, F25ND3	MIRROR				0.8 Secs *[==>]*	***[1]***
2	(186135)	(12) NGC-3242-NEBOFFSET	STIS/CCD, ACCUM, 52X0.2	G430L 4300 A	CR-SPLIT=NO			120 Secs X 3 *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]*	***[1]***
3	(186146)	(12) NGC-3242-NEBOFFSET	STIS/CCD, ACCUM, 52X0.5	G430M 4451 A	CR-SPLIT=NO			63 Secs X 3 *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]*	***[1]***
4	(186140)	(12) NGC-3242-NEBOFFSET	STIS/CCD, ACCUM, 52X0.5	G750M 6581 A	CR-SPLIT=NO			60 Secs X 3 *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]*	***[1]***
5	(186137)	(12) NGC-3242-NEBOFFSET	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A	CR-SPLIT=NO			110 Secs X 3 *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]*	***[1]***
6		CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***

Orbit Structure



Visit

Proposal 12600, Visit 05, completed Wed Mar 07 02:12:27 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA, STIS/NUV-MAMA

Special Requirements: SAME ORIENT AS 04

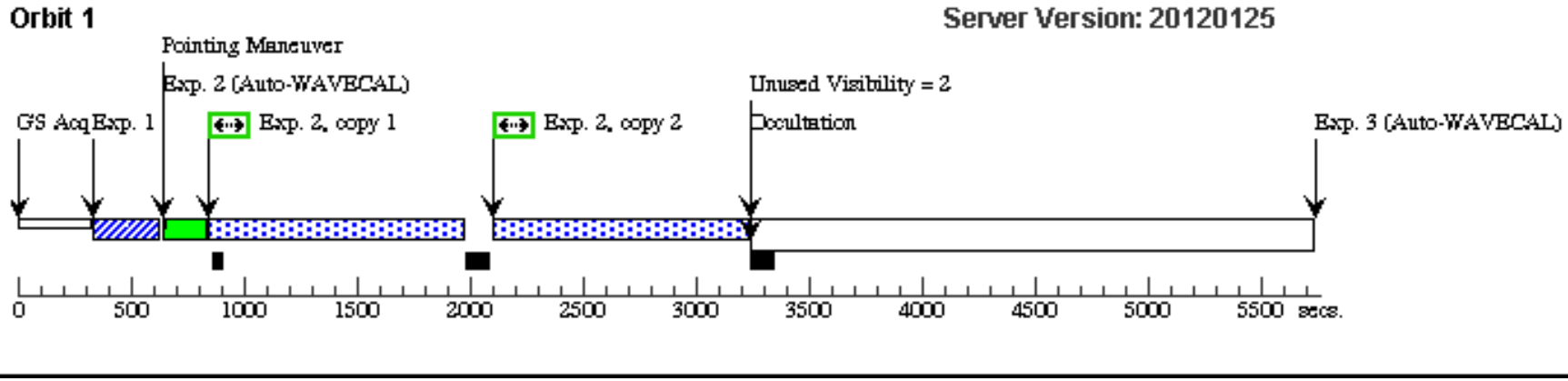
Fixed Targets

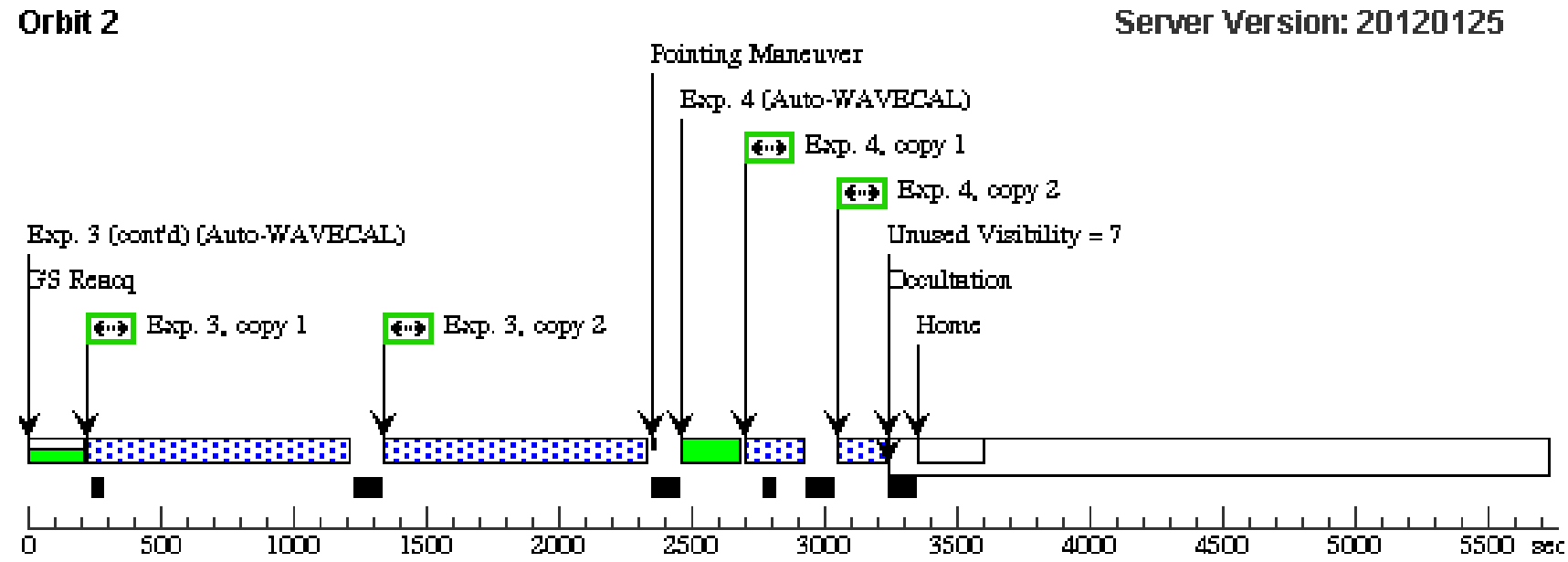
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	NGC-3242-CSTAR	RA: 10 24 46.1070 (156.1921125d) Dec: -18 38 32.64 (-18.64240d) Equinox: J2000	Proper Motion RA: -17.1 mas/yr Proper Motion Dec: 4.0 mas/yr Epoch of Position: 2000 Radial Velocity: 4.7 km/sec	V=10.3	Reference Frame: ICRS
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
(12)	NGC-3242-NEBOFFSET	RA: 10 24 46.1070 (156.1921125d) Dec: -18 38 37.14 (-18.64365d) Equinox: J2000	Radial Velocity: 4.7 km/sec	V=20.0+/-5.0	Reference Frame: ICRS
Comments: Slit position venter is 5.5 arc seconds south of central star; slit PA=107+/-5 deg.					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(184906)	(2) NGC-3242-CSTAR	STIS/CCD, ACQ, F25ND3	MIRROR				0.8 Secs *[==>]*	***[1]***
2	(186127)	(12) NGC-3242-NEBOFFSET	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				1100 Secs X 2 *[==>1121.0 Secs (Copy 1)]* *[==>1121.0 Secs (Copy 2)]*	***[1]***
3	(186131)	(12) NGC-3242-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1000 Secs X 2 *[==>984.0 Secs (Copy 1)]* *[==>984.0 Secs (Copy 2)]*	***[2]***
4	(186133)	(12) NGC-3242-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.5	G230M 1884 A				180 Secs X 2 *[==>164.0 Secs (Copy 1)]* *[==>164.0 Secs (Copy 2)]*	***[2]***

Orbit Structure





Visit

Proposal 12600, Visit 07, implementation Wed Mar 07 02:12:28 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 147.D TO 157. D; ORIENT 327.D TO 337. D; GROUP 07,08 WITHIN 10D

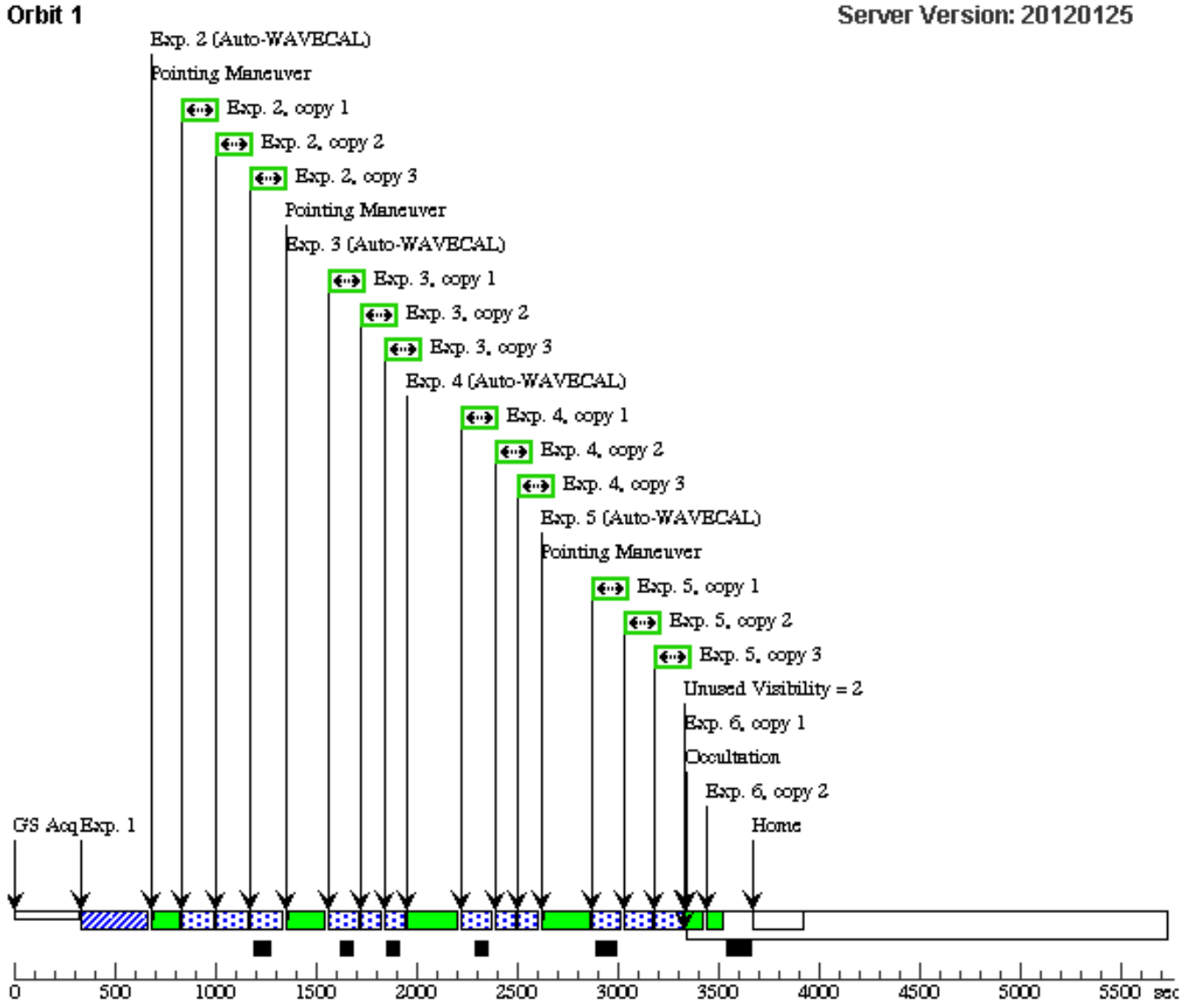
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	NGC-7662-CSTAR Alt Name1: HD220733	RA: 23 25 54.0100 (351.4750417d) Dec: +42 32 6.10 (42.53503d) Equinox: J2000	Proper Motion RA: 12.2 mas/yr Proper Motion Dec: -1.0 mas/yr Epoch of Position: 2000 Radial Velocity: -12.2 km/sec	V=13.2+/-0.1	Reference Frame: ICRS
Comments: Central Star of NGC 7662; HD 220733; V = 13.2, B-V =+0.4 (12/12/2011 -- Coordinates revised slightly to reflect GSC2 values rather than ICRS; star is GSC2 N2T3032629)					
(13)	NGC-7662-NEBOFFSET	RA: 23 25 53.6000 (351.4733333d) Dec: +42 32 0.50 (42.53347d) Equinox: J2000	Radial Velocity: -12.2 km/sec	V=20.0+/-5.0	Reference Frame: ICRS
Comments: Position is 5.5" south of central star; slit PA = 107 +/- 5 deg.					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(242945)	(3) NGC-7662-CSTAR	STIS/CCD, ACQ, F25ND3	MIRROR				10.1 Secs *[==>]*	***[1]***
2	(186135)	(13) NGC-7662-NEBOFFSET	STIS/CCD, ACCUM, 52X0.2	G430L 4300 A	CR-SPLIT=NO			119 Secs X 3 *[==>127.0 Secs (Copy 1)]* *[==>127.0 Secs (Copy 2)]* *[==>127.0 Secs (Copy 3)]*	***[1]***
3	(186146)	(13) NGC-7662-NEBOFFSET	STIS/CCD, ACCUM, 52X0.5	G430M 4451 A	CR-SPLIT=NO			60 Secs X 3 *[==>68.0 Secs (Copy 1)]* *[==>68.0 Secs (Copy 2)]* *[==>68.0 Secs (Copy 3)]*	***[1]***
4	(186140)	(13) NGC-7662-NEBOFFSET	STIS/CCD, ACCUM, 52X0.5	G750M 6581 A	CR-SPLIT=NO			60 Secs X 3 *[==>68.0 Secs (Copy 1)]* *[==>68.0 Secs (Copy 2)]* *[==>68.0 Secs (Copy 3)]*	***[1]***
5	(186137)	(13) NGC-7662-NEBOFFSET	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A	CR-SPLIT=NO			100 Secs X 3 *[==>108.0 Secs (Copy 1)]* *[==>108.0 Secs (Copy 2)]* *[==>108.0 Secs (Copy 3)]*	***[1]***
6		CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***

Orbit Structure



Visit

Proposal 12600, Visit 08, implementation Wed Mar 07 02:12:28 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA, STIS/NUV-MAMA

Special Requirements: SAME ORIENT AS 07; GROUP 08,07 WITHIN 10D

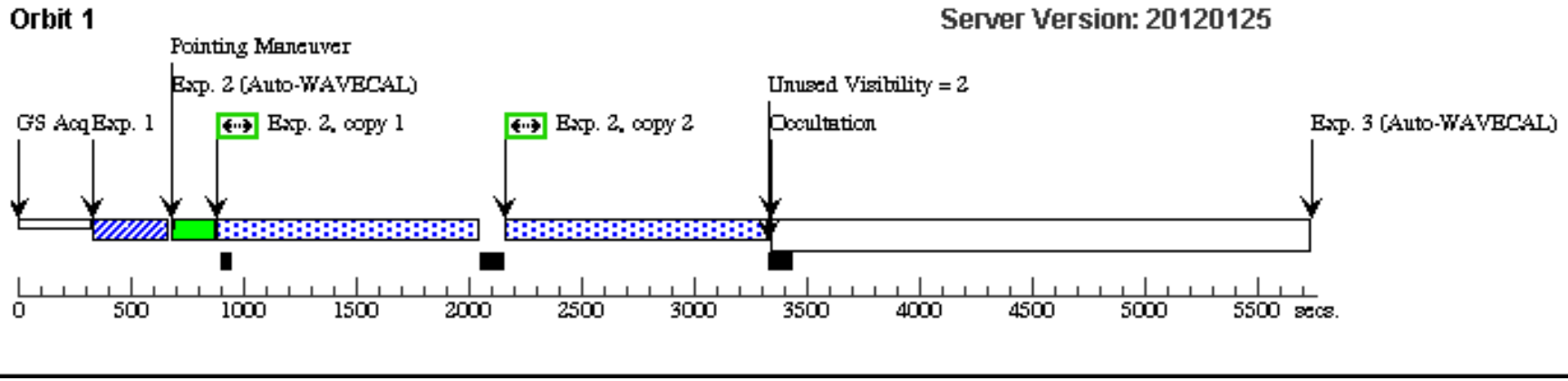
Fixed Targets

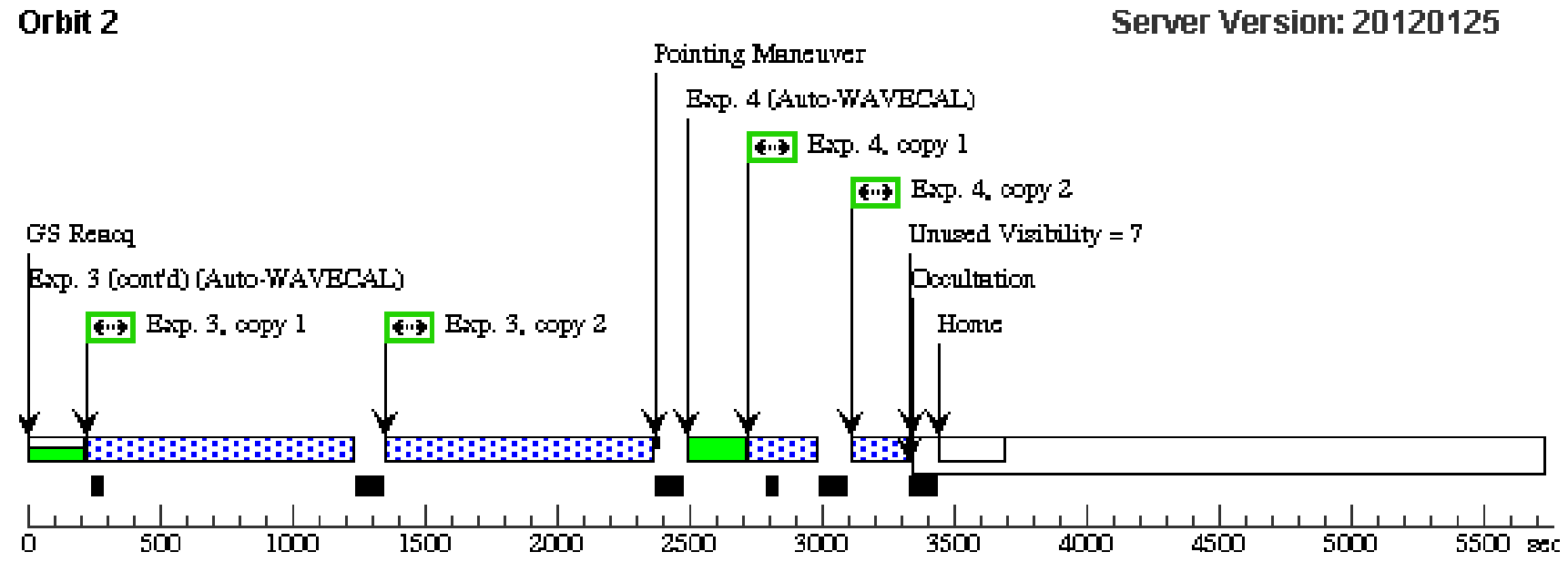
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	NGC-7662-CSTAR Alt Name1: HD220733	RA: 23 25 54.0100 (351.4750417d) Dec: +42 32 6.10 (42.53503d) Equinox: J2000	Proper Motion RA: 12.2 mas/yr Proper Motion Dec: -1.0 mas/yr Epoch of Position: 2000 Radial Velocity: -12.2 km/sec	V=13.2+/-0.1	Reference Frame: ICRS
Comments: Central Star of NGC 7662; HD 220733; V = 13.2, B-V =+0.4 (12/12/2011 -- Coordinates revised slightly to reflect GSC2 values rather than ICRS; star is GSC2 N2T3032629)					
(13)	NGC-7662-NEBOFFSET	RA: 23 25 53.6000 (351.4733333d) Dec: +42 32 0.50 (42.53347d) Equinox: J2000	Radial Velocity: -12.2 km/sec	V=20.0+/-5.0	Reference Frame: ICRS
Comments: Position is 5.5" south of central star; slit PA = 107 +/- 5 deg.					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(242945)	(3) NGC-7662-CSTAR	STIS/CCD, ACQ, F25ND3	MIRROR				10.1 Secs *[==>]*	 ***[1]***
2	(186127)	(13) NGC-7662-NEBOFFSET	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				1100 Secs X 2 *[==>1148.0 Secs (Copy 1)]* *[==>1148.0 Secs (Copy 2)]*	 ***[1]***
3	(186131)	(13) NGC-7662-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1000 Secs X 2 *[==>997.0 Secs (Copy 1)]* *[==>997.0 Secs (Copy 2)]*	 ***[2]***
4	(186133)	(13) NGC-7662-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.5	G230M 1884 A				200 Secs X 2 *[==>197.0 Secs (Copy 1)]* *[==>197.0 Secs (Copy 2)]*	 ***[2]***

Orbit Structure





Visit

Proposal 12600, Visit 10, implementation Wed Mar 07 02:12:29 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 315.0D TO 315.0 D; ORIENT 135.D TO 135. D; GROUP 10,11 WITHIN 10D

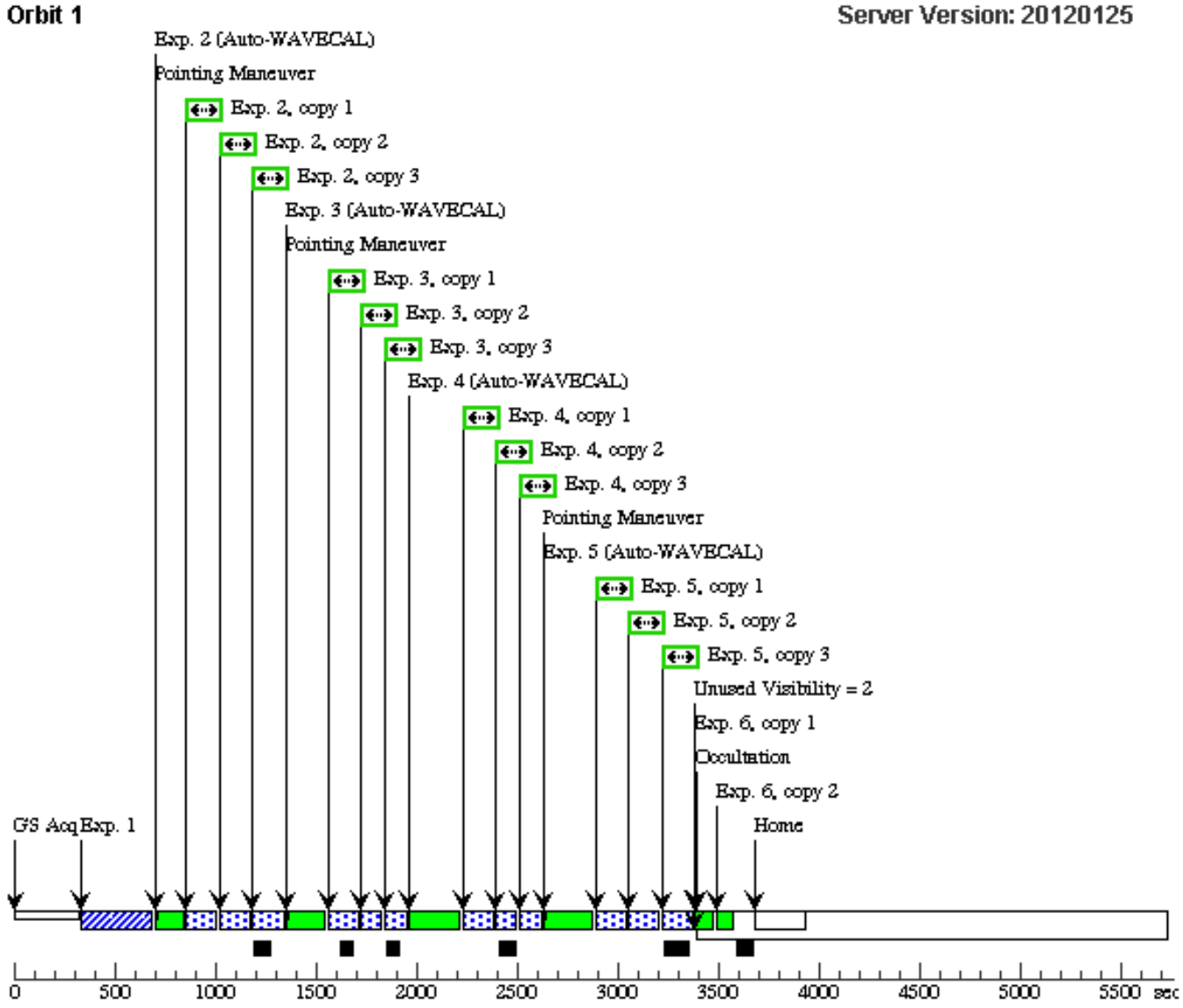
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	NGC-5882-CSTAR	RA: 15 16 49.9377 (229.2080738d) Dec: -45 38 58.45 (-45.64957d) Equinox: J2000	Proper Motion RA: -9.4 mas/yr Proper Motion Dec: -1.80 mas/yr Epoch of Position: 2000 Radial Velocity: 7.7 km/sec	V=13.43+/-0.1 B=13.30	Reference Frame: ICRS
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
(14)	NGC-5882-NEBOFFSET	RA: 15 16 49.9377 (229.2080738d) Dec: -45 38 57.19 (-45.64922d) Equinox: J2000	Radial Velocity: +7.7 km/sec	V=20.0+/-5.0	Reference Frame: ICRS

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(243093)	(4) NGC-5882-CSTAR	STIS/CCD, ACQ, F25ND3	MIRROR				15.3 Secs *[==>]*	***[1]***
2	(186135)	(14) NGC-5882-NEBOFFSET	STIS/CCD, ACCUM, 52X0.2	G430L 4300 A	CR-SPLIT=NO			120 Secs X 3 *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]*	***[1]***
3	(186146)	(14) NGC-5882-NEBOFFSET	STIS/CCD, ACCUM, 52X0.5	G430M 4451 A	CR-SPLIT=NO			70 Secs X 3 *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]*	***[1]***
4	(186140)	(14) NGC-5882-NEBOFFSET	STIS/CCD, ACCUM, 52X0.5	G750M 6581 A	CR-SPLIT=NO			71 Secs X 3 *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]*	***[1]***
5	(186137)	(14) NGC-5882-NEBOFFSET	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A	CR-SPLIT=NO			120 Secs X 3 *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]*	***[1]***
6		CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***

Orbit Structure



Visit

Proposal 12600, Visit 11, implementation Wed Mar 07 02:12:29 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA, STIS/NUV-MAMA

Special Requirements: SAME ORIENT AS 10; GROUP 11,10 WITHIN 10D

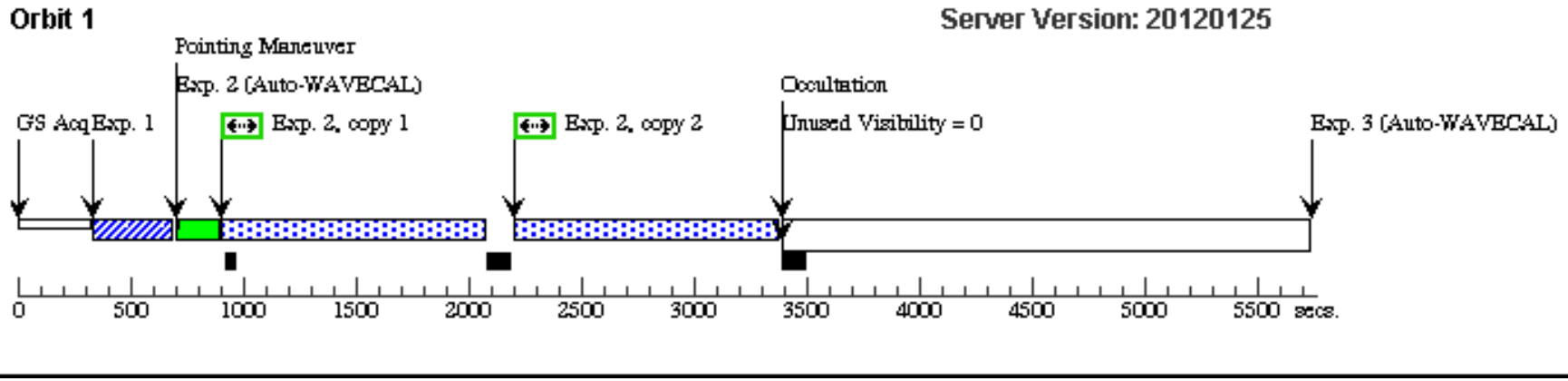
Fixed Targets

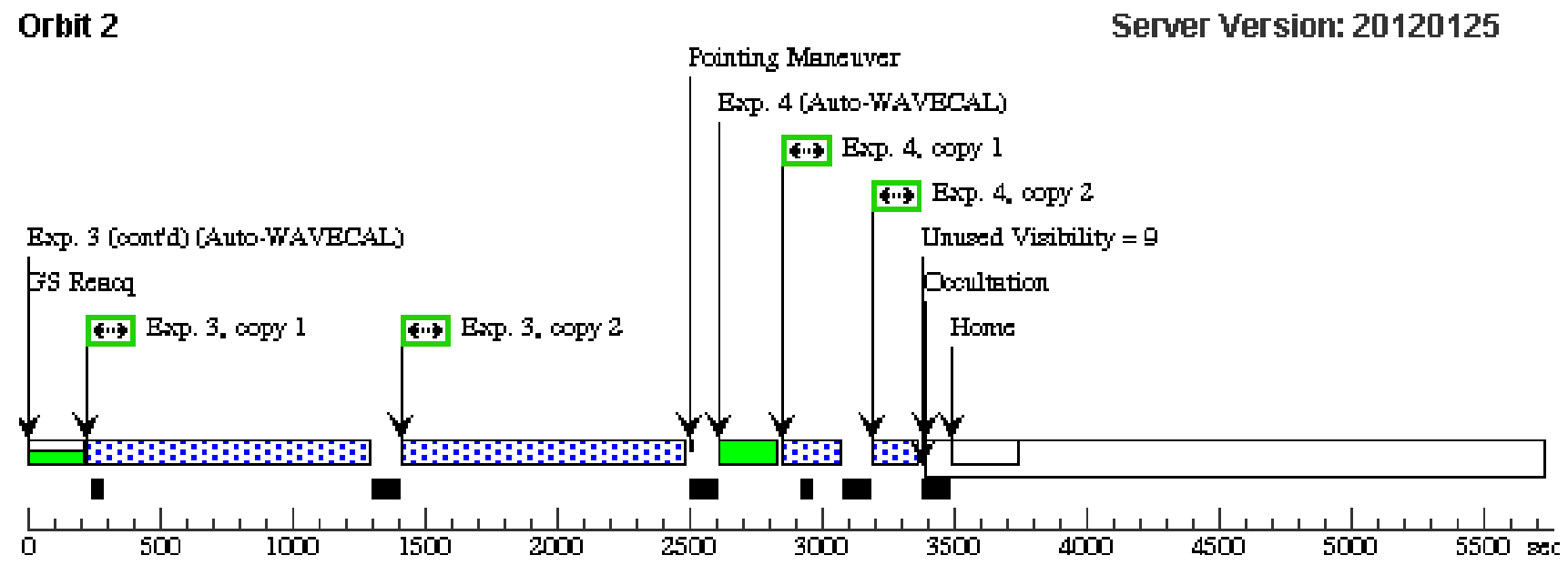
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	NGC-5882-CSTAR	RA: 15 16 49.9377 (229.2080738d) Dec: -45 38 58.45 (-45.64957d) Equinox: J2000	Proper Motion RA: -9.4 mas/yr Proper Motion Dec: -1.80 mas/yr Epoch of Position: 2000 Radial Velocity: 7.7 km/sec	V=13.43+/-0.1 B=13.30	Reference Frame: ICRS
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
(14)	NGC-5882-NEBOFFSET	RA: 15 16 49.9377 (229.2080738d) Dec: -45 38 57.19 (-45.64922d) Equinox: J2000	Radial Velocity: +7.7 km/sec	V=20.0+/-5.0	Reference Frame: ICRS

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(243093)	(4) NGC-5882-CSTAR	STIS/CCD, ACQ, F25ND3	MIRROR				15.3 Secs *[==>]*	***[1]***
2	(186127)	(14) NGC-5882-NEBOFFSET	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				1200 Secs X 2 *[==>1164.0 Secs (Copy 1)]* *[==>1164.0 Secs (Copy 2)]*	***[1]***
3	(186131)	(14) NGC-5882-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1100 Secs X 2 *[==>1059.0 Secs (Copy 1)]* *[==>1059.0 Secs (Copy 2)]*	***[2]***
4	(186133)	(14) NGC-5882-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.5	G230M 1884 A				200 Secs X 2 *[==>159.0 Secs (Copy 1)]* *[==>159.0 Secs (Copy 2)]*	***[2]***

Orbit Structure





Visit

Proposal 12600, Visit 13, scheduling Wed Mar 07 02:12:30 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 290.0D TO 310.00 D; ORIENT 110.D TO 130. D; GROUP 13,14 WITHIN 10D

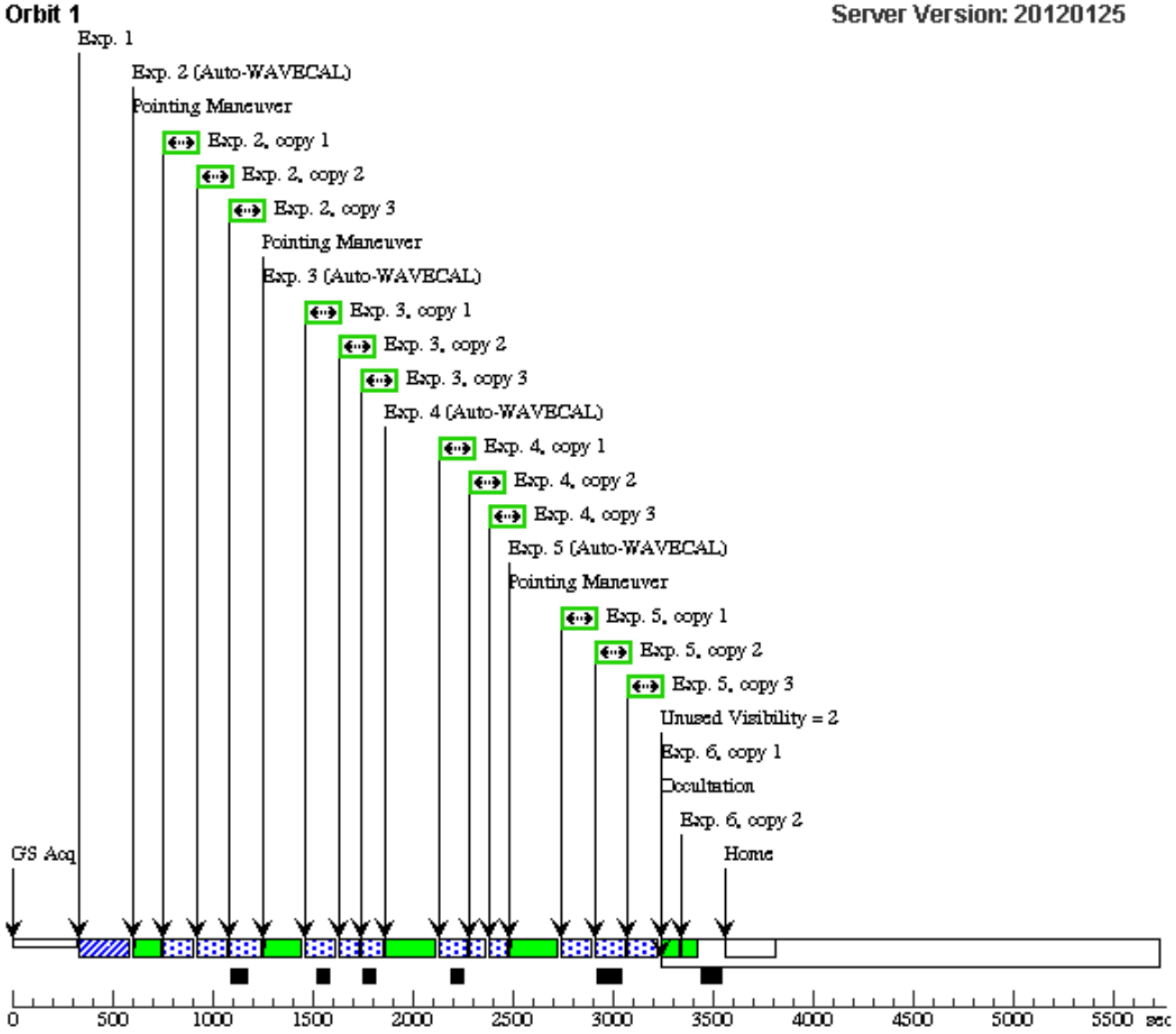
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	IC-2165-CSTAR	RA: 06 21 42.7750 (95.4282292d) Dec: -12 59 13.96 (-12.98721d) Equinox: J2000	Radial Velocity: 52.6 km/sec	V=17.9+/-0.2	Reference Frame: ICRS
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
(15)	IC-2165-NEBOFFSET	RA: 06 21 42.7750 (95.4282292d) Dec: -12 59 12.96 (-12.98693d) Equinox: J2000	Radial Velocity: 52.6 km/sec	V=20.0+/-5.	Reference Frame: ICRS

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(243096)	(5) IC-2165-CSTAR	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			7.4 Secs *[==>]*	*[1]*
2	(186135)	(15) IC-2165-NEBOFFSET	STIS/CCD, ACCUM, 52X0.2	G430L 4300 A	CR-SPLIT=NO			120 Secs X 3 *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]*	*[1]*
3	(186146)	(15) IC-2165-NEBOFFSET	STIS/CCD, ACCUM, 52X0.5	G430M 4451 A	CR-SPLIT=NO			70 Secs X 3 *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]*	*[1]*
4	(186140)	(15) IC-2165-NEBOFFSET	STIS/CCD, ACCUM, 52X0.5	G750M 6581 A	CR-SPLIT=NO			55 Secs X 3 *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]*	*[1]*
5	(186137)	(15) IC-2165-NEBOFFSET	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A	CR-SPLIT=NO			120 Secs X 3 *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]*	*[1]*
6		CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*

Orbit Structure



Visit

Proposal 12600, Visit 14, implementation Wed Mar 07 02:12:30 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA, STIS/NUV-MAMA

Special Requirements: SAME ORIENT AS 13; GROUP 14,13 WITHIN 10D

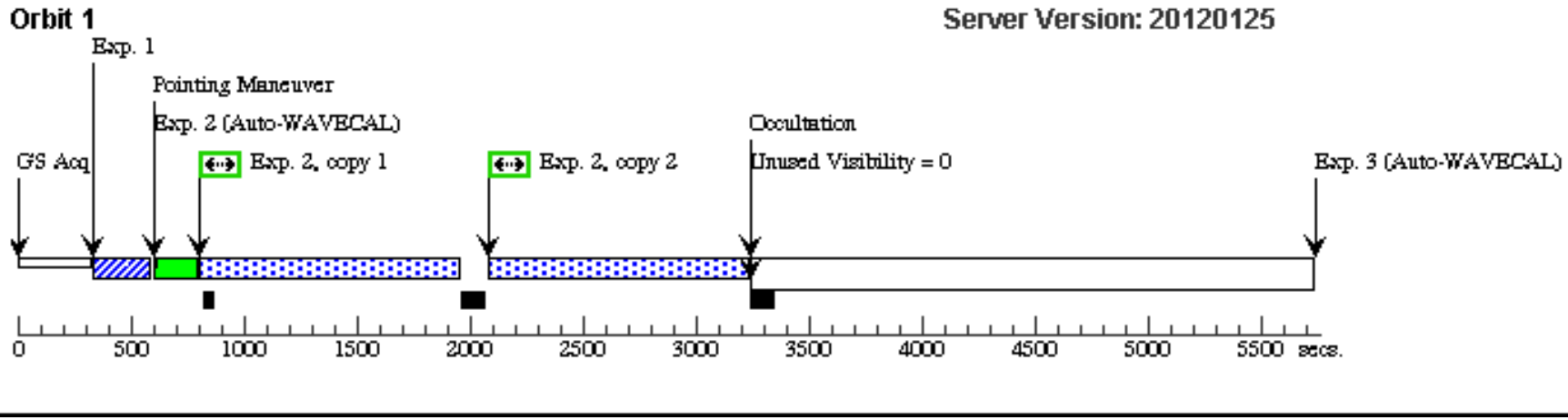
Fixed Targets

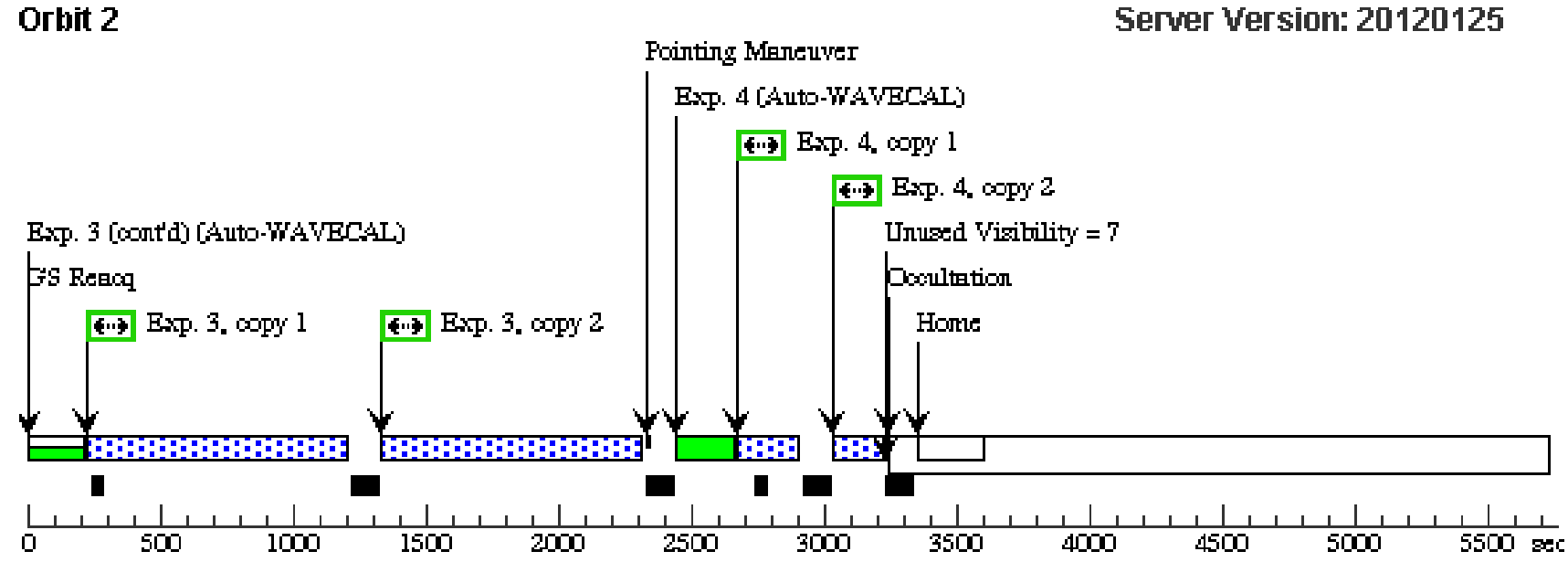
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	IC-2165-CSTAR	RA: 06 21 42.7750 (95.4282292d) Dec: -12 59 13.96 (-12.98721d) Equinox: J2000	Radial Velocity: 52.6 km/sec	V=17.9+/-0.2	Reference Frame: ICRS
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
(15)	IC-2165-NEBOFFSET	RA: 06 21 42.7750 (95.4282292d) Dec: -12 59 12.96 (-12.98693d) Equinox: J2000	Radial Velocity: 52.6 km/sec	V=20.0+/-5.	Reference Frame: ICRS

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(243096)	(5) IC-2165-CSTAR	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			7.4 Secs *[==>]*	***[1]***
2	(186127)	(15) IC-2165-NEBOFFSET	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				1200 Secs X 2 *[==>1140.0 Secs (Copy 1)]* *[==>1140.0 Secs (Copy 2)]*	***[1]***
3	(186131)	(15) IC-2165-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1000 Secs X 2 *[==>973.0 Secs (Copy 1)]* *[==>973.0 Secs (Copy 2)]*	***[2]***
4	(186133)	(15) IC-2165-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.5	G230M 1884 A				200 Secs X 2 *[==>173.0 Secs (Copy 1)]* *[==>173.0 Secs (Copy 2)]*	***[2]***

Orbit Structure





Visit

Proposal 12600, Visit 16, completed Wed Mar 07 02:12:31 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 320.D TO 330. D; ORIENT 140.D TO 150. D; GROUP 16,17 WITHIN 10D

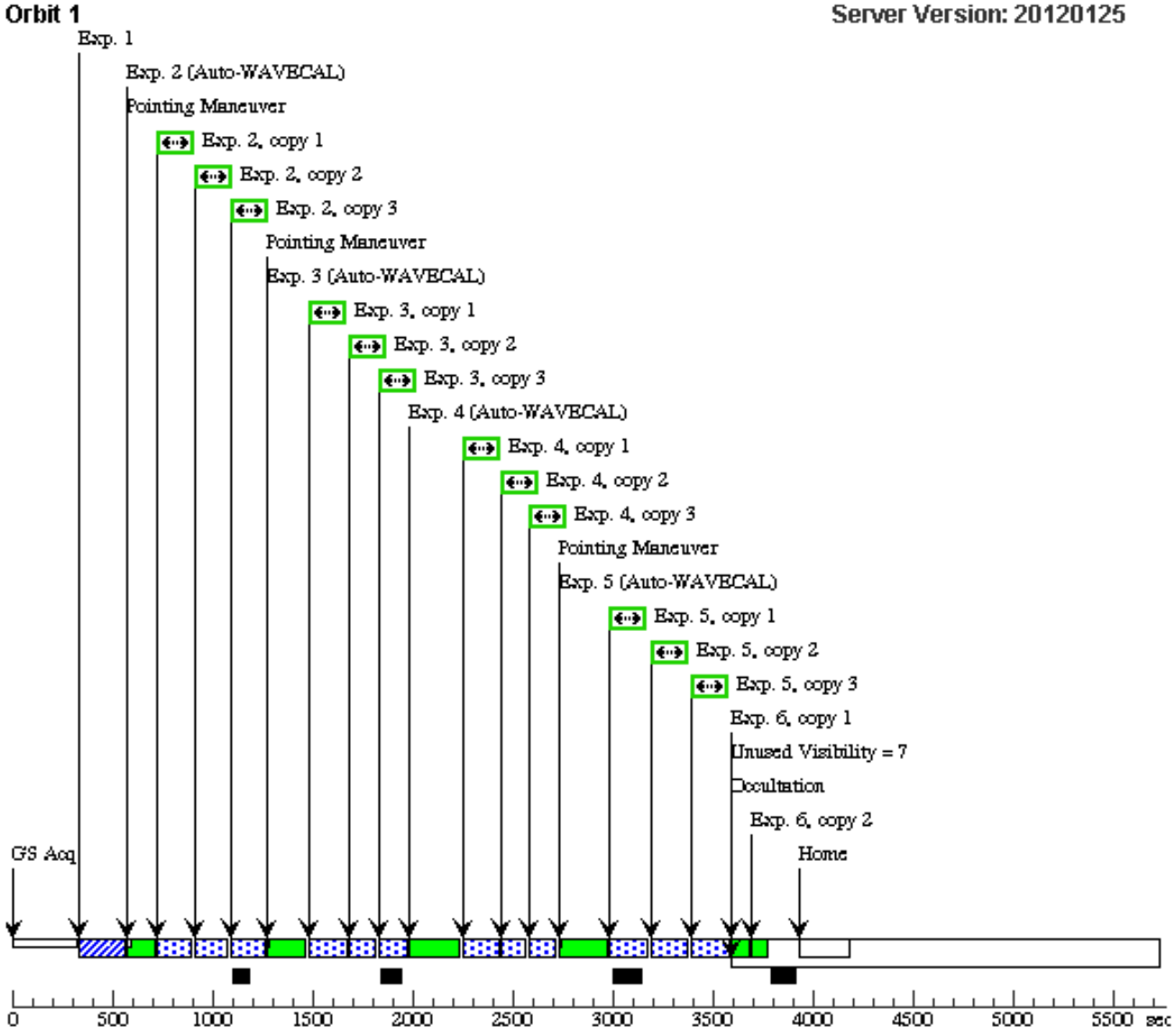
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	NGC-5315-OFFSETSTAR	RA: 13 53 58.2800 (208.4928333d) Dec: -66 31 0.10 (-66.51669d) Equinox: J2000	Proper Motion RA: -22.17 mas/yr Proper Motion Dec: -0.04 mas/yr Epoch of Position: 2000	V=16.1+/-0.5	Reference Frame: ICRS
Comments: This is GSC2 star S7S9168836					
(16)	NGC-5315-NEBOFFSET	RA: 13 53 56.9800 (208.4874167d) Dec: -66 30 50.60 (-66.51406d) Equinox: J2000	Radial Velocity: -8.7 km/sec	V=20.0+/-5.	Reference Frame: ICRS
Comments: The slit position is centered 0.4" N of central star (V =14, 4, B-V = 0.16); slit PA = 100 deg.					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(242908)	(6) NGC-5315-OFFSETSTAR	STIS/CCD, ACQ, F28X50LP	MIRROR				0.6 Secs *[==>]*	***[1]***
2	(186135)	(16) NGC-5315-NEBOFFSET	STIS/CCD, ACCUM, 52X0.2	G430L 4300 A	CR-SPLIT=NO			100. Secs X 3 *[==>135.0 Secs (Copy 1)]* *[==>135.0 Secs (Copy 2)]* *[==>135.0 Secs (Copy 3)]*	***[1]***
3	(186146)	(16) NGC-5315-NEBOFFSET	STIS/CCD, ACCUM, 52X0.5	G430M 4451 A	CR-SPLIT=NO			70 Secs X 3 *[==>105.0 Secs (Copy 1)]* *[==>105.0 Secs (Copy 2)]* *[==>105.0 Secs (Copy 3)]*	***[1]***
4	(186140)	(16) NGC-5315-NEBOFFSET	STIS/CCD, ACCUM, 52X0.5	G750M 6581 A	CR-SPLIT=NO			60 Secs X 3 *[==>95.0 Secs (Copy 1)]* *[==>95.0 Secs (Copy 2)]* *[==>95.0 Secs (Copy 3)]*	***[1]***
5	(186137)	(16) NGC-5315-NEBOFFSET	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A	CR-SPLIT=NO			120 Secs X 3 *[==>155.0 Secs (Copy 1)]* *[==>155.0 Secs (Copy 2)]* *[==>155.0 Secs (Copy 3)]*	***[1]***
6		CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***

Orbit Structure



Proposal 12600 - Visit 17 - Carbon and Nitrogen Enrichment Patterns in Planetary Nebulae

Visit

Proposal 12600, Visit 17, completed Wed Mar 07 02:12:31 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA, STIS/NUV-MAMA

Special Requirements: SAME ORIENT AS 16; GROUP 17,16 WITHIN 10D

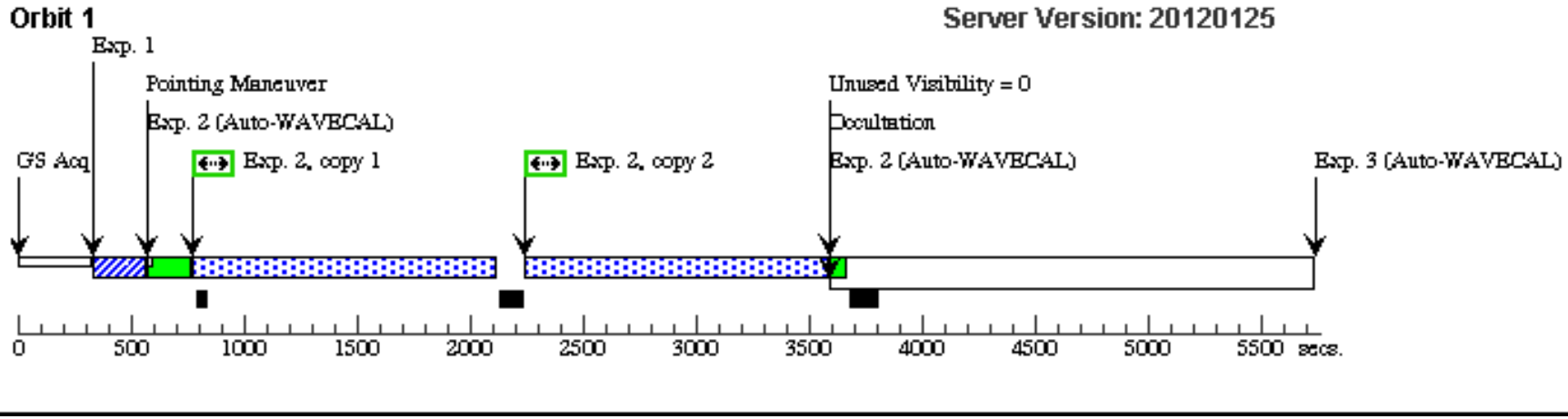
Fixed Targets

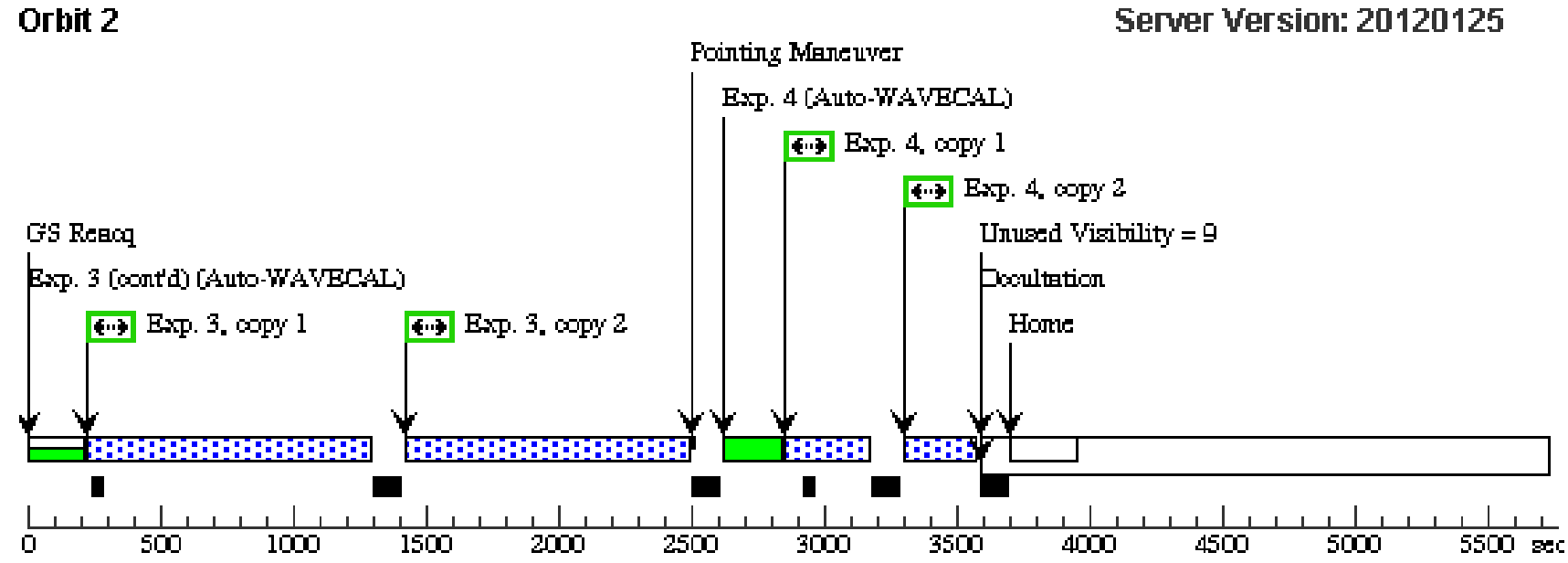
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	NGC-5315-OFFSETSTAR	RA: 13 53 58.2800 (208.4928333d) Dec: -66 31 0.10 (-66.51669d) Equinox: J2000	Proper Motion RA: -22.17 mas/yr Proper Motion Dec: -0.04 mas/yr Epoch of Position: 2000	V=16.1+/-0.5	Reference Frame: ICRS
Comments: This is GSC2 star S7S9168836					
(16)	NGC-5315-NEBOFFSET	RA: 13 53 56.9800 (208.4874167d) Dec: -66 30 50.60 (-66.51406d) Equinox: J2000	Radial Velocity: -8.7 km/sec	V=20.0+/-5.	Reference Frame: ICRS
Comments: The slit position is centered 0.4" N of central star (V =14, 4, B-V = 0.16); slit PA = 100 deg.					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(242908)	(6) NGC-5315-OFFSETSTAR	STIS/CCD, ACQ, F28X50LP	MIRROR				0.6 Secs *[==>]*	***[1]***
2	(186127)	(16) NGC-5315-NEBOFFSET	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				1100 Secs X 2 *[==>1330.0 Secs (Copy 1)]* *[==>1330.0 Secs (Copy 2)]*	***[1]***
3	(186131)	(16) NGC-5315-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1000 Secs X 2 *[==>1061.0 Secs (Copy 1)]* *[==>1061.0 Secs (Copy 2)]*	***[2]***
4	(186133)	(16) NGC-5315-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.5	G230M 1884 A				200 Secs X 2 *[==>261.0 Secs (Copy 1)]* *[==>261.0 Secs (Copy 2)]*	***[2]***

Orbit Structure





Visit

Proposal 12600, Visit 19, implementation Wed Mar 07 02:12:32 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 135.D TO 155. D; ORIENT 315.D TO 335. D; GROUP 19,20 WITHIN 10D

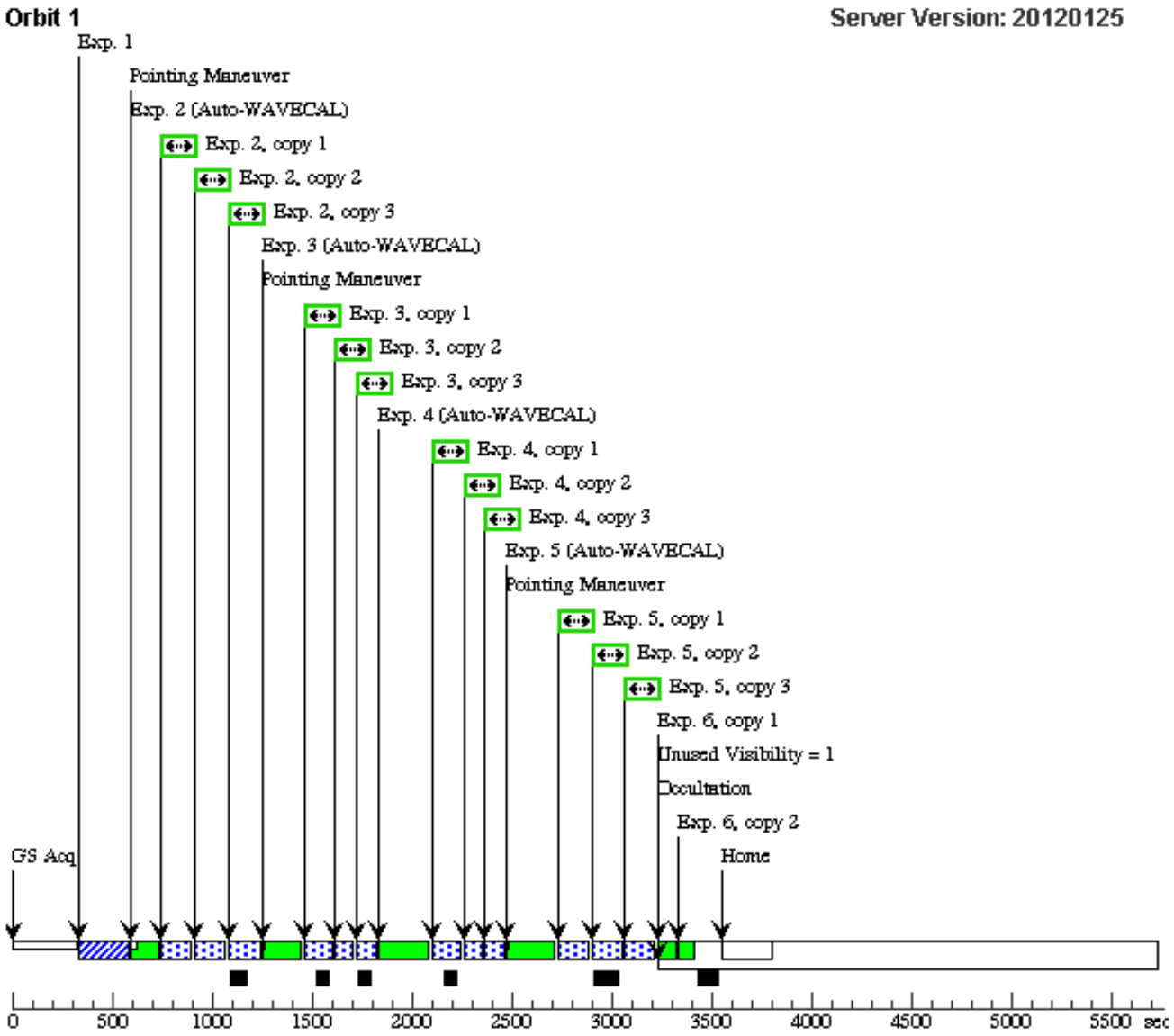
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	NGC-6778-OFFSETSTAR	RA: 19 18 27.6480 (289.6152000d) Dec: -01 35 55.48 (-1.59874d) Equinox: J2000		V=16.0+/-0.5	Reference Frame: ICRS
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
(17)	NGC-6778-NEBOFFSET	RA: 19 18 24.9390 (289.6039125d) Dec: -01 35 47.41 (-1.59650d) Equinox: J2000	Radial Velocity: 91.0 km/sec	V=20.0+/-5.	Reference Frame: ICRS

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(185322)	(7) NGC-6778-OFFSETSTAR	STIS/CCD, ACQ, 50CCD	MIRROR				1.0 Secs *[==>]*	***[1]***
2	(186135)	(17) NGC-6778-NEBOFFSET	STIS/CCD, ACCUM, 52X0.2	G430L 4300 A	CR-SPLIT=NO			120 Secs X 3 *[==>121.0 Secs (Copy 1)]* *[==>121.0 Secs (Copy 2)]* *[==>121.0 Secs (Copy 3)]*	***[1]***
3	(186146)	(17) NGC-6778-NEBOFFSET	STIS/CCD, ACCUM, 52X0.5	G430M 4451 A	CR-SPLIT=NO			60 Secs X 3 *[==>61.0 Secs (Copy 1)]* *[==>61.0 Secs (Copy 2)]* *[==>61.0 Secs (Copy 3)]*	***[1]***
4	(186140)	(17) NGC-6778-NEBOFFSET	STIS/CCD, ACCUM, 52X0.5	G750M 6581 A	CR-SPLIT=NO			60 Secs X 3 *[==>61.0 Secs (Copy 1)]* *[==>61.0 Secs (Copy 2)]* *[==>61.0 Secs (Copy 3)]*	***[1]***
5	(186137)	(17) NGC-6778-NEBOFFSET	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A	CR-SPLIT=NO			120 Secs X 3 *[==>121.0 Secs (Copy 1)]* *[==>121.0 Secs (Copy 2)]* *[==>121.0 Secs (Copy 3)]*	***[1]***
6		CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***

Orbit Structure



Proposal 12600 - Visit 20 - Carbon and Nitrogen Enrichment Patterns in Planetary Nebulae

Visit

Proposal 12600, Visit 20, implementation Wed Mar 07 02:12:32 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA, STIS/NUV-MAMA

Special Requirements: SAME ORIENT AS 19; GROUP 20,19 WITHIN 10D

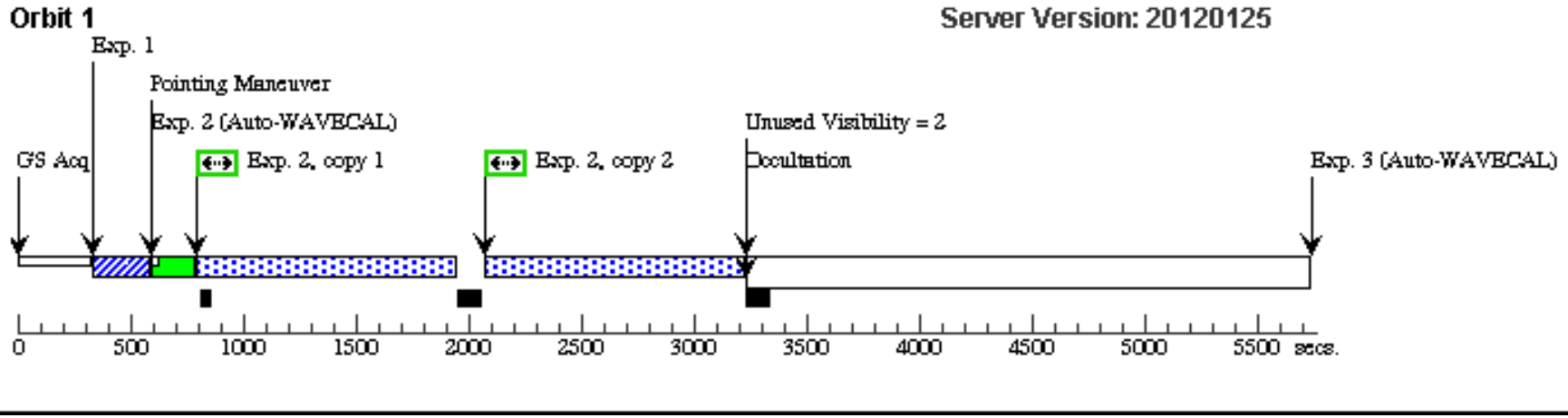
Fixed Targets

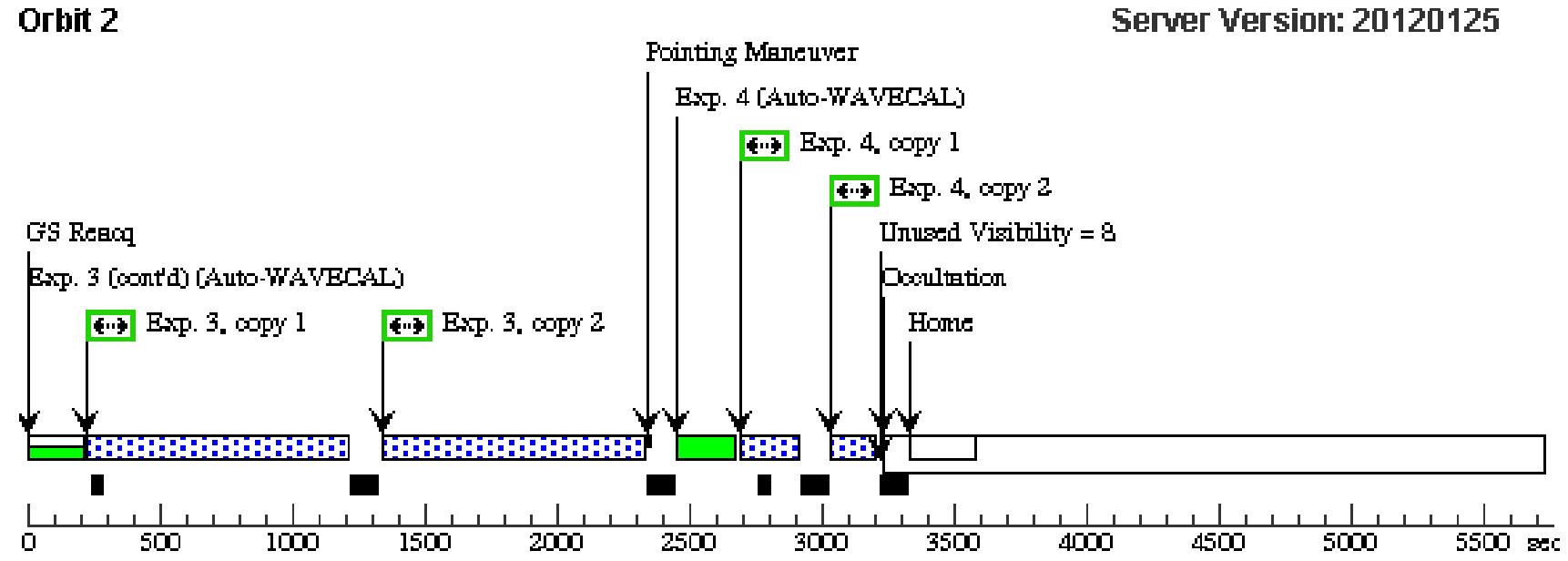
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	NGC-6778-OFFSETSTAR	RA: 19 18 27.6480 (289.6152000d) Dec: -01 35 55.48 (-1.59874d) Equinox: J2000		V=16.0+/-0.5	Reference Frame: ICRS
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
(17)	NGC-6778-NEBOFFSET	RA: 19 18 24.9390 (289.6039125d) Dec: -01 35 47.41 (-1.59650d) Equinox: J2000	Radial Velocity: 91.0 km/sec	V=20.0+/-5.	Reference Frame: ICRS

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(185322)	(7) NGC-6778-OFFSETSTAR	STIS/CCD, ACQ, 50CCD	MIRROR				1.0 Secs *[==>]*	***[1]***
2	(186127)	(17) NGC-6778-NEBOFFSET	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				1100 Secs X 2 *[==>1137.0 Secs (Copy 1)]* *[==>1137.0 Secs (Copy 2)]*	***[1]***
3	(186131)	(17) NGC-6778-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1000 Secs X 2 *[==>980.0 Secs (Copy 1)]* *[==>980.0 Secs (Copy 2)]*	***[2]***
4	(186133)	(17) NGC-6778-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.5	G230M 1884 A				180 Secs X 2 *[==>160.0 Secs (Copy 1)]* *[==>160.0 Secs (Copy 2)]*	***[2]***

Orbit Structure





Visit

Proposal 12600, Visit 22, scheduling Wed Mar 07 02:12:33 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 70.0D TO 90.0 D; ORIENT 250.D TO 270. D; GROUP 22,23 WITHIN 10D

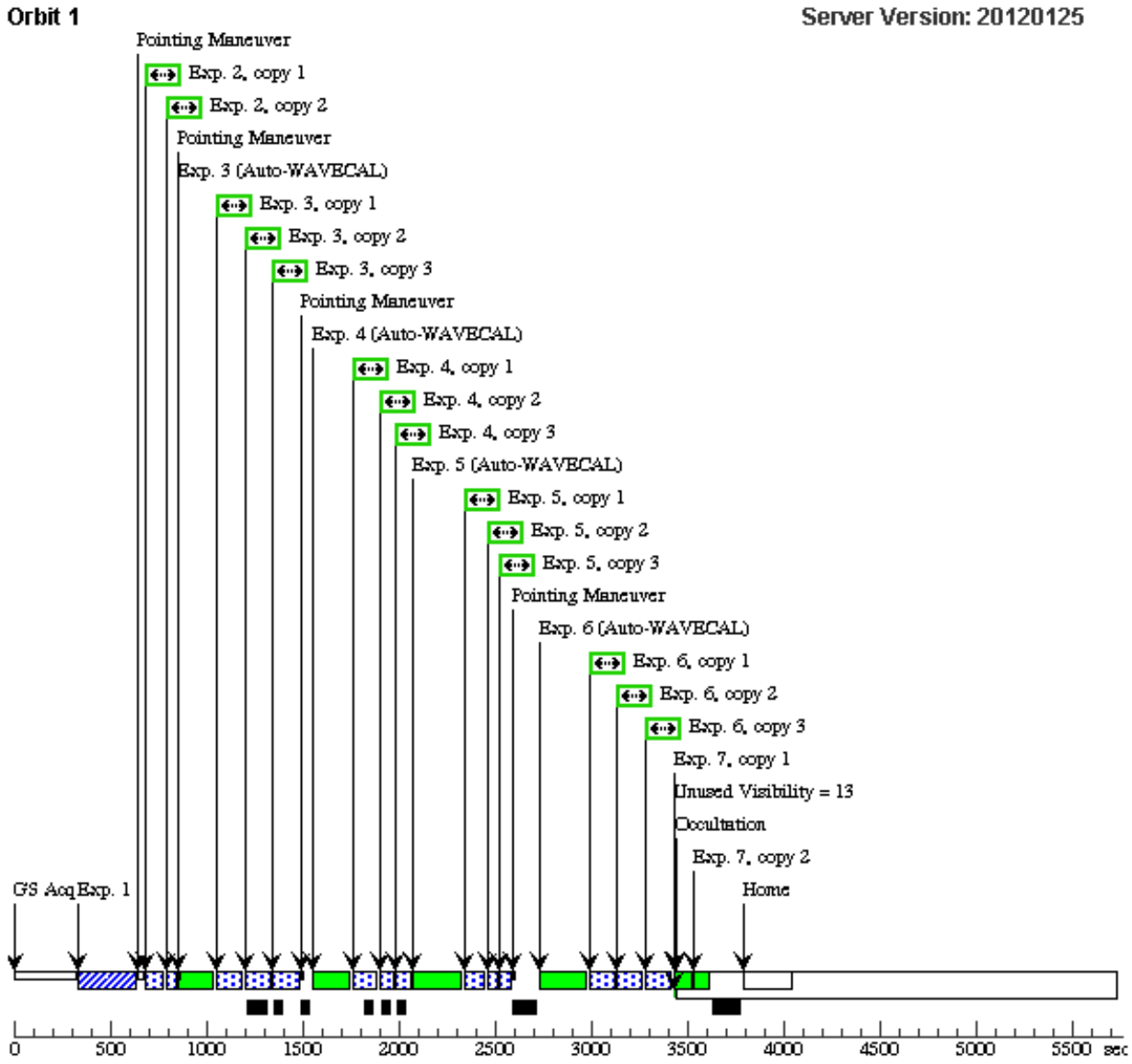
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	ESO-213-7-PB6-OFFSETSTAR	RA: 10 13 14.6300 (153.3109583d) Dec: -50 20 24.00 (-50.34000d) Equinox: J2000		V=11.8+/-0.5	Reference Frame: ICRS
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
(18)	ESO-213-7-PB6-NEBULA	RA: 10 13 15.9890 (153.3166208d) Dec: -50 19 59.13 (-50.33309d) Equinox: J2000	Radial Velocity: 58.7 km/sec	V=20.0+/-5.	Reference Frame: ICRS

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(185367)	(8) ESO-213-7-PB6-OFFSETSTAR	STIS/CCD, ACQ, F25ND3	MIRROR				3.0 Secs *[==>]*	***[1]***
2		(18) ESO-213-7-PB6-NEBULA	STIS/CCD, ACCUM, F28X50LP	MIRROR	CR-SPLIT=NO			30 Secs X 2 *[==>11.0 Secs (Copy 1)]* *[==>11.0 Secs (Copy 2)]*	***[1]***
3	(186135)	(18) ESO-213-7-PB6-NEBULA	STIS/CCD, ACCUM, 52X0.2	G430L 4300 A	CR-SPLIT=NO			120 Secs X 3 *[==>101.0 Secs (Copy 1)]* *[==>101.0 Secs (Copy 2)]* *[==>101.0 Secs (Copy 3)]*	***[1]***
4	(186146)	(18) ESO-213-7-PB6-NEBULA	STIS/CCD, ACCUM, 52X0.5	G430M 4451 A	CR-SPLIT=NO			60 Secs X 3 *[==>41.0 Secs (Copy 1)]* *[==>41.0 Secs (Copy 2)]* *[==>41.0 Secs (Copy 3)]*	***[1]***
5	(186140)	(18) ESO-213-7-PB6-NEBULA	STIS/CCD, ACCUM, 52X0.5	G750M 6581 A	CR-SPLIT=NO			40 Secs X 3 *[==>21.0 Secs (Copy 1)]* *[==>21.0 Secs (Copy 2)]* *[==>21.0 Secs (Copy 3)]*	***[1]***
6	(186137)	(18) ESO-213-7-PB6-NEBULA	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A	CR-SPLIT=NO			120 Secs X 3 *[==>101.0 Secs (Copy 1)]* *[==>101.0 Secs (Copy 2)]* *[==>101.0 Secs (Copy 3)]*	***[1]***
7		CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***

Orbit Structure



Visit

Proposal 12600, Visit 23, scheduling Wed Mar 07 02:12:33 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA, STIS/NUV-MAMA

Special Requirements: SAME ORIENT AS 22; GROUP 23,22 WITHIN 10D

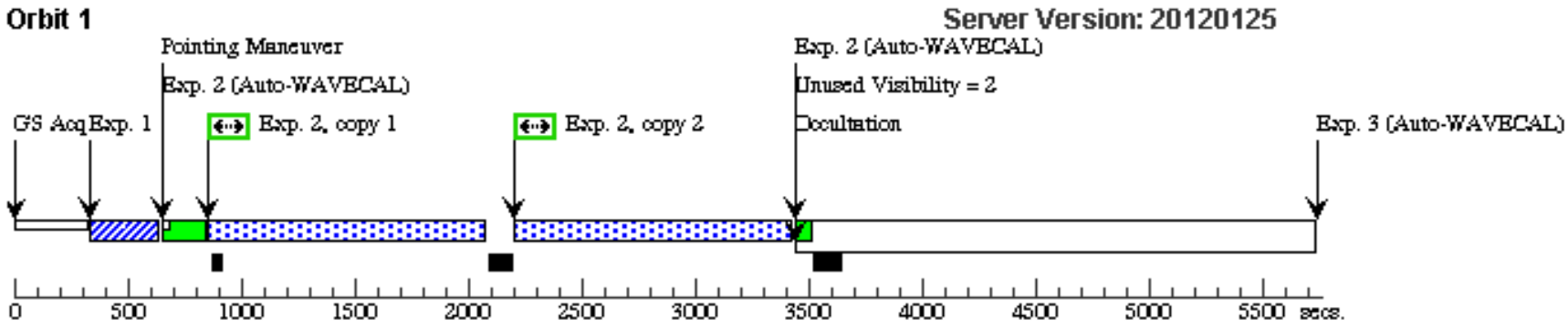
Fixed Targets

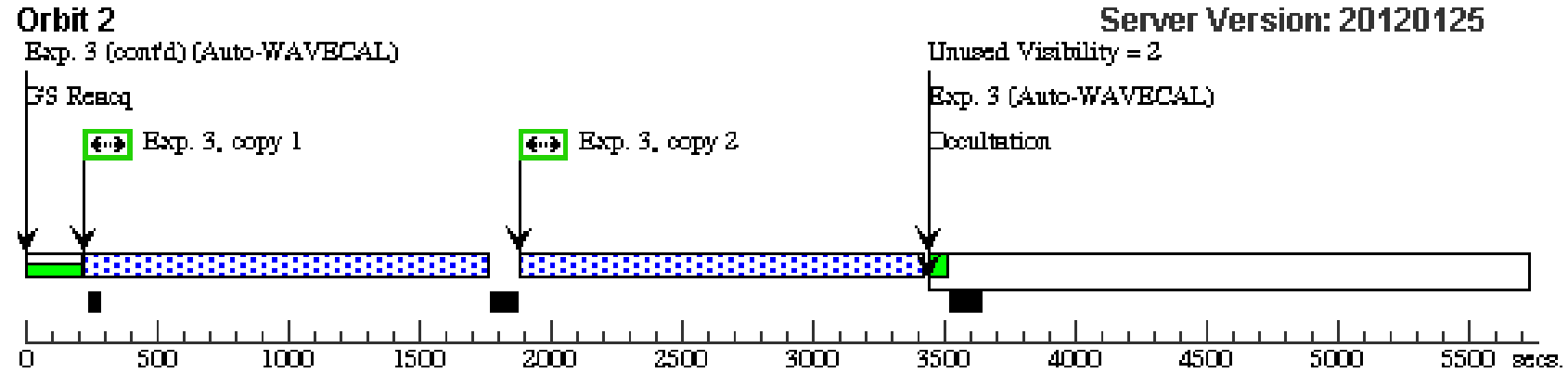
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	ESO-213-7-PB6-OFFSETSTAR	RA: 10 13 14.6300 (153.3109583d) Dec: -50 20 24.00 (-50.34000d) Equinox: J2000		V=11.8+/-0.5	Reference Frame: ICRS
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
(18)	ESO-213-7-PB6-NEBULA	RA: 10 13 15.9890 (153.3166208d) Dec: -50 19 59.13 (-50.33309d) Equinox: J2000	Radial Velocity: 58.7 km/sec	V=20.0+/-5.	Reference Frame: ICRS

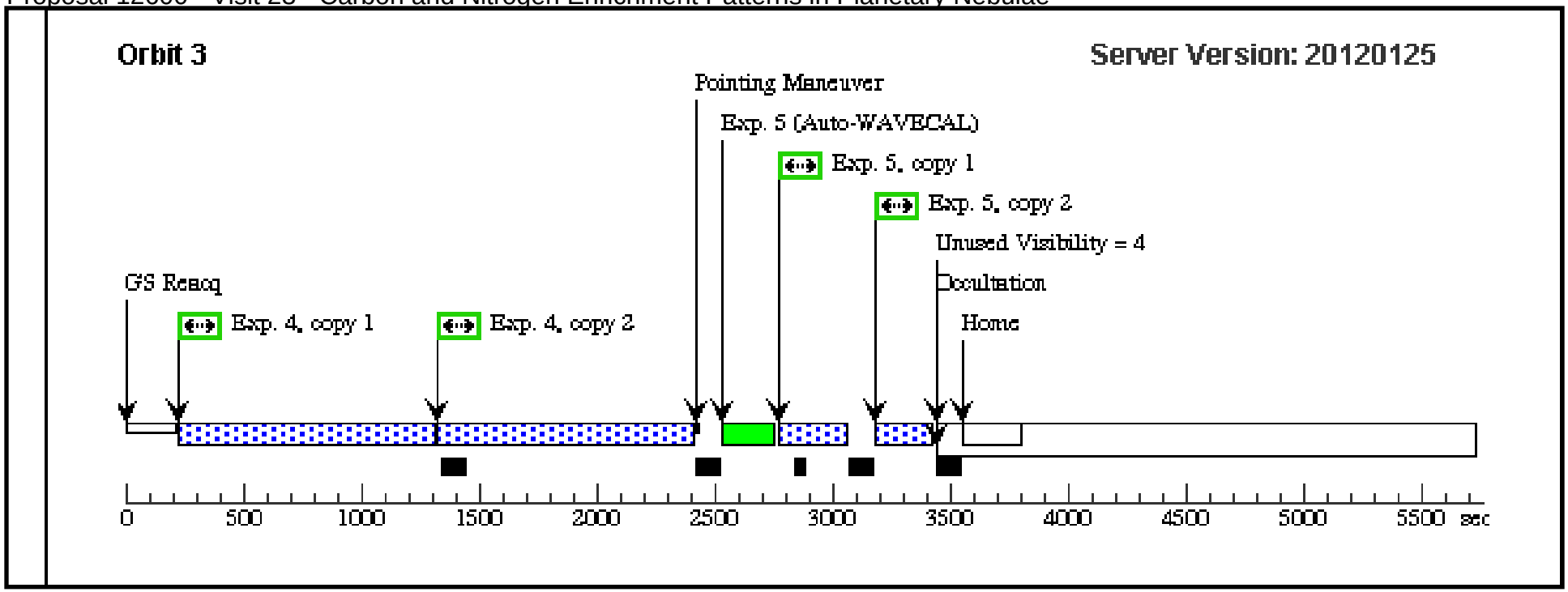
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(185367)	(8) ESO-213-7-PB6-OFFSETSTAR	STIS/CCD, ACQ, F25ND3	MIRROR				3.0 Secs *[==>]*	***[1]***
2	(186127)	(18) ESO-213-7-PB6-NEBULA	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				1200 Secs X 2 *[==>1214.0 Secs (Copy 1)]* *[==>1214.0 Secs (Copy 2)]*	***[1]***
3	(186131)	(18) ESO-213-7-PB6-NEBULA	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1500 Secs X 2 *[==>1529.0 Secs (Copy 1)]* *[==>1529.0 Secs (Copy 2)]*	***[2]***
4	(186131)	(18) ESO-213-7-PB6-NEBULA	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1100 Secs X 2 *[==>1077.0 Secs (Copy 1)]* *[==>1077.0 Secs (Copy 2)]*	***[3]***
5	(186133)	(18) ESO-213-7-PB6-NEBULA	STIS/NUV-MAMA, ACCUM, 52X0.5	G230M 1884 A				250 Secs X 2 *[==>227.0 Secs (Copy 1)]* *[==>227.0 Secs (Copy 2)]*	***[3]***

Orbit Structure






Orbit 3
Server Version: 20120125
Pointing Maneuver
Exp. 5 (Auto-WAVECAL)
Exp. 5, copy 1
Exp. 5, copy 2
Unused Visibility = 4
Occultation
GS Reacq
Exp. 4, copy 1
Exp. 4, copy 2
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 12600, Visit 26, scheduling Wed Mar 07 02:12:34 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 20.D TO 40. D; ORIENT 200.D TO 220. D; GROUP 26,27 WITHIN 10D

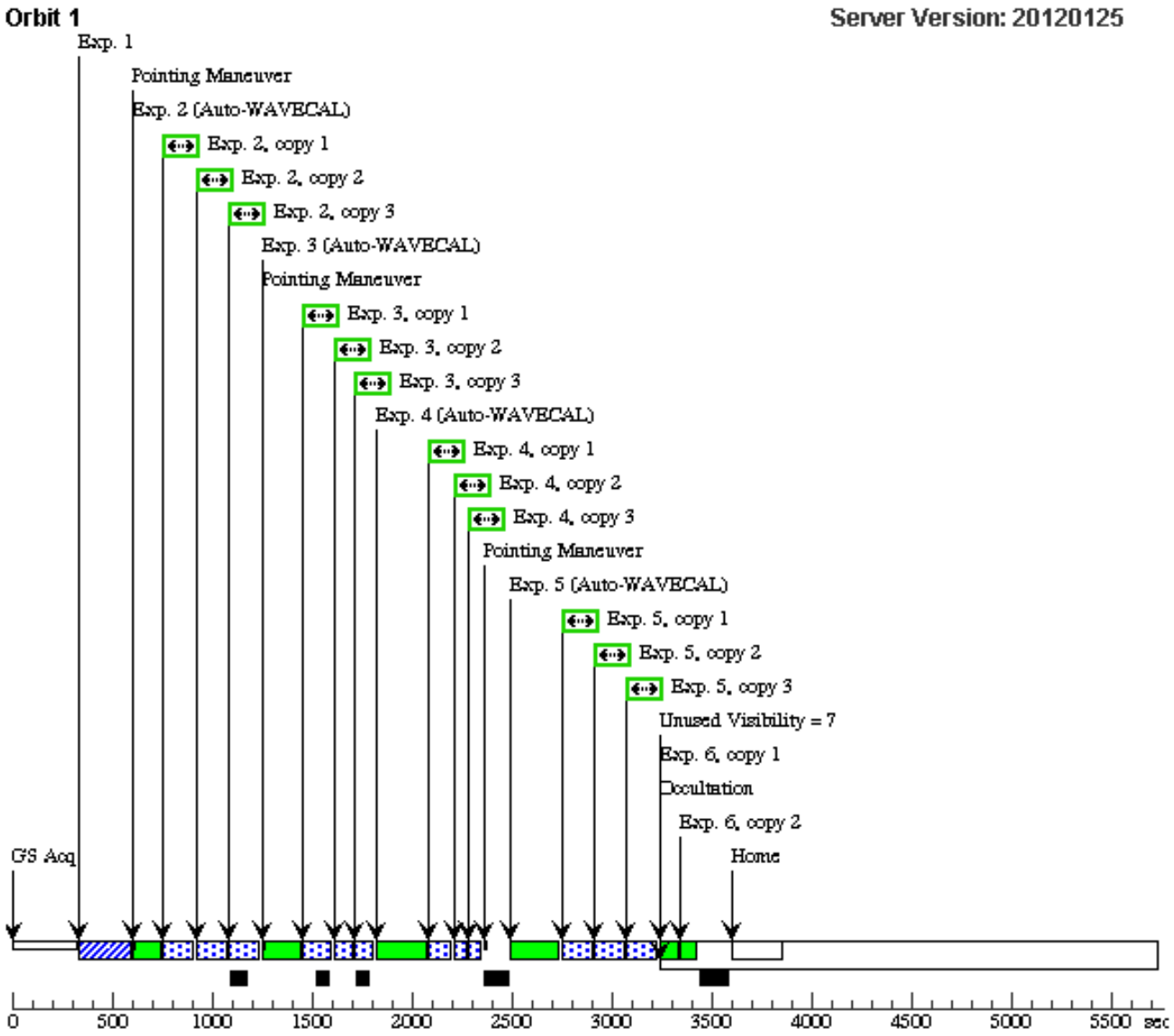
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	NGC-2440-CSTAR	RA: 07 41 54.9100 (115.4787917d) Dec: -18 12 29.70 (-18.20825d) Equinox: J2000	Radial Velocity: +62.7 km/sec	V=17.65+/-0.2	Reference Frame: ICRS
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
(19)	NGC-2440-NEBOFFSET	RA: 07 41 54.8750 (115.4786458d) Dec: -18 12 29.70 (-18.20825d) Equinox: J2000	Radial Velocity: 62.7 km/sec	V=20.0+/-5.	Reference Frame: ICRS

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(185166)	(9) NGC-2440-CSTAR	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=POINT			3.9 Secs *[==>]*	***[1]***
2	(186135)	(19) NGC-2440-NEBOFFSET	STIS/CCD, ACCUM, 52X0.2	G430L 4300 A	CR-SPLIT=NO			150 Secs X 3 *[==>117.0 Secs (Copy 1)]* *[==>117.0 Secs (Copy 2)]* *[==>117.0 Secs (Copy 3)]*	***[1]***
3	(186146)	(19) NGC-2440-NEBOFFSET	STIS/CCD, ACCUM, 52X0.5	G430M 4451 A	CR-SPLIT=NO			90 Secs X 3 *[==>57.0 Secs (Copy 1)]* *[==>57.0 Secs (Copy 2)]* *[==>57.0 Secs (Copy 3)]*	***[1]***
4	(186140)	(19) NGC-2440-NEBOFFSET	STIS/CCD, ACCUM, 52X0.5	G750M 6581 A	CR-SPLIT=NO			60 Secs X 3 *[==>27.0 Secs (Copy 1)]* *[==>27.0 Secs (Copy 2)]* *[==>27.0 Secs (Copy 3)]*	***[1]***
5	(186137)	(19) NGC-2440-NEBOFFSET	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A	CR-SPLIT=NO			150 Secs X 3 *[==>117.0 Secs (Copy 1)]* *[==>117.0 Secs (Copy 2)]* *[==>117.0 Secs (Copy 3)]*	***[1]***
6		CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***

Orbit Structure



Visit

Proposal 12600, Visit 27, scheduling Wed Mar 07 02:12:34 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA, STIS/NUV-MAMA

Special Requirements: SAME ORIENT AS 26; GROUP 27,26 WITHIN 10D

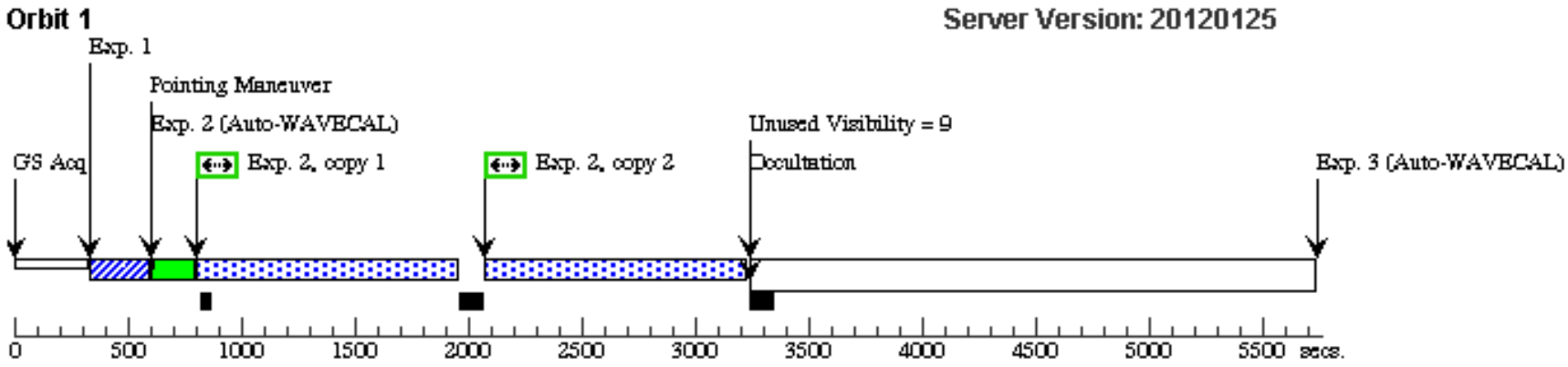
Fixed Targets

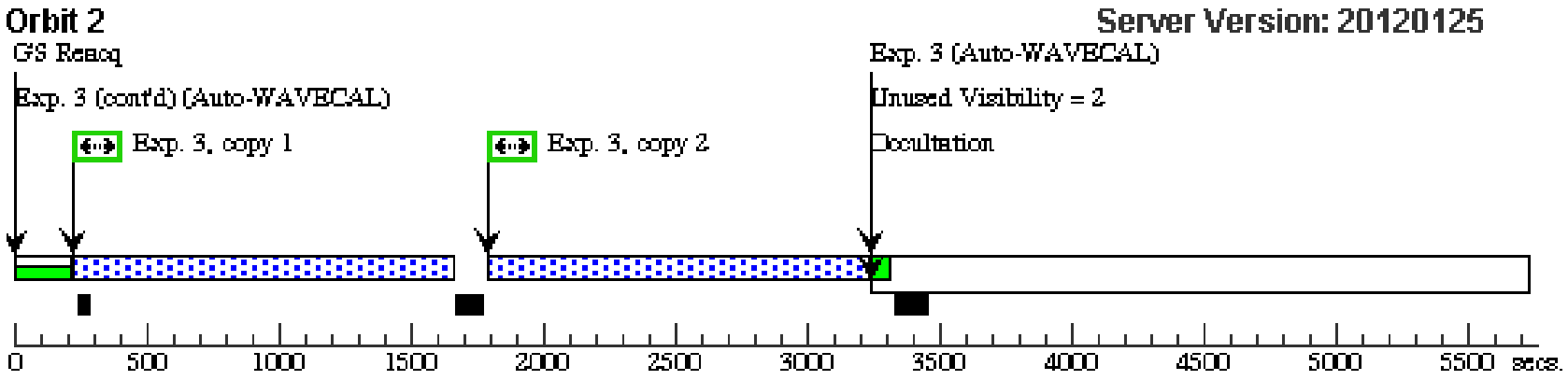
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	NGC-2440-CSTAR	RA: 07 41 54.9100 (115.4787917d) Dec: -18 12 29.70 (-18.20825d) Equinox: J2000	Radial Velocity: +62.7 km/sec	V=17.65+/-0.2	Reference Frame: ICRS
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
(19)	NGC-2440-NEBOFFSET	RA: 07 41 54.8750 (115.4786458d) Dec: -18 12 29.70 (-18.20825d) Equinox: J2000	Radial Velocity: 62.7 km/sec	V=20.0+/-5.	Reference Frame: ICRS

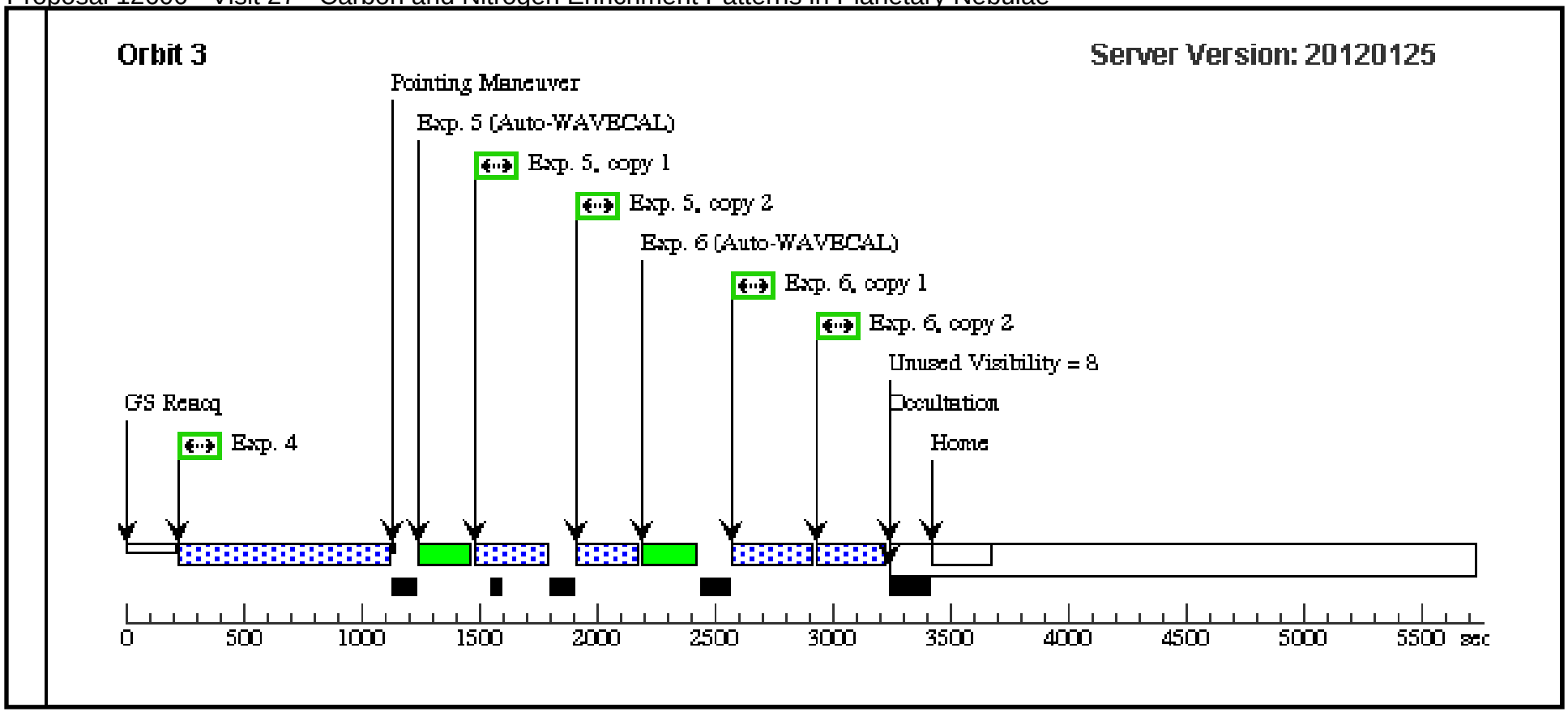
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(185166)	(9) NGC-2440-CSTAR	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=POINT			3.9 Secs *[==>]*	***[1]***
2	(186127)	(19) NGC-2440-NEBOFFSET	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				1200 Secs X 2 *[==>1136.0 Secs (Copy 1)]* *[==>1136.0 Secs (Copy 2)]*	***[1]***
3	(186131)	(19) NGC-2440-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1400 Secs X 2 *[==>1431.0 Secs (Copy 1)]* *[==>1431.0 Secs (Copy 2)]*	***[2]***
4	(186131)	(19) NGC-2440-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				900 Secs *[==>882.0 Secs]*	***[3]***
5	(186133)	(19) NGC-2440-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.5	G230M 1884 A				270 Secs X 2 *[==>252.0 Secs (Copy 1)]* *[==>252.0 Secs (Copy 2)]*	***[3]***
6	(186133)	(19) NGC-2440-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.5	G230M 2338 A				300 Secs X 2 *[==>282.0 Secs (Copy 1)]* *[==>282.0 Secs (Copy 2)]*	***[3]***

Orbit Structure






Orbit 3
Server Version: 20120125
Pointing Maneuver
Exp. 5 (Auto-WAVECAL)
Exp. 5, copy 1
Exp. 5, copy 2
Exp. 6 (Auto-WAVECAL)
Exp. 6, copy 1
Exp. 6, copy 2
Unused Visibility = 8
Occultation
Home
GS Reacq
Exp. 4
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Proposal 12600 - Visit 30 - Carbon and Nitrogen Enrichment Patterns in Planetary Nebulae

Visit

Proposal 12600, Visit 30, completed Wed Mar 07 02:12:35 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 260.0D TO 280.0 D; ORIENT 80.D TO 100. D; GROUP 30,31 WITHIN 10D

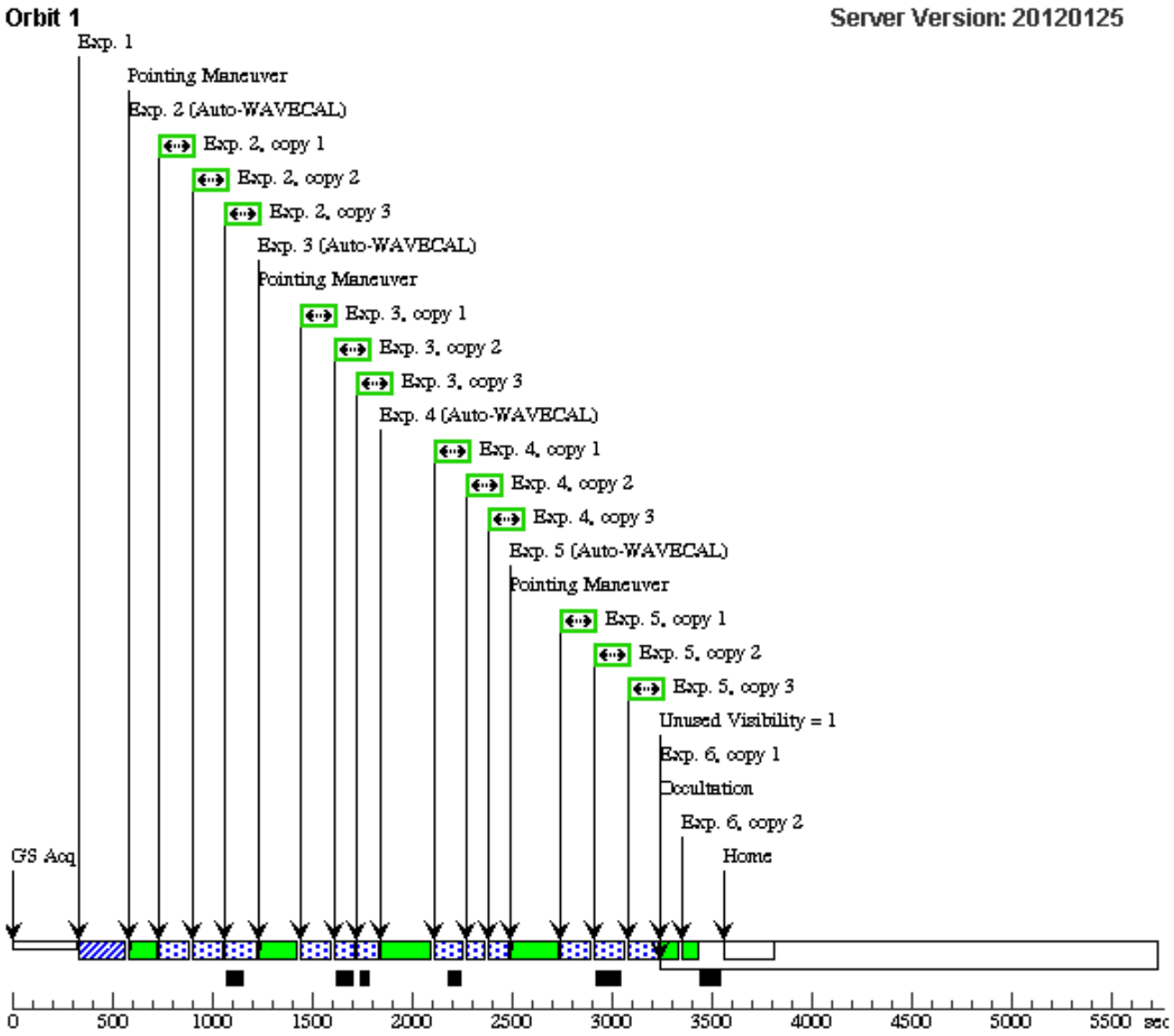
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	NGC-6537-OFFSETSTAR Alt Name1: GSC2-3MIRANG4G	RA: 18 05 13.1040 (271.3046000d) Dec: -19 50 34.88 (-19.84302d) Equinox: J2000		V=17.0+/-0.3	Reference Frame: ICRS
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
(20)	NGC-6537-NEBOFFSET	RA: 18 05 13.1290 (271.3047042d) Dec: -19 50 34.62 (-19.84295d) Equinox: J2000	Radial Velocity: -17.3 km/sec	V=20.0+/-5.	Reference Frame: ICRS

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(185230)	(10) NGC-6537-OFFSETSTAR	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			1.8 Secs *[==>]*	***[1]***
2	(186135)	(20) NGC-6537-NEBOFFSET	STIS/CCD, ACCUM, 52X0.2	G430L 4300 A	CR-SPLIT=NO			120 Secs X 3 *[==>121.0 Secs (Copy 1)]* *[==>121.0 Secs (Copy 2)]* *[==>121.0 Secs (Copy 3)]*	***[1]***
3	(186146)	(20) NGC-6537-NEBOFFSET	STIS/CCD, ACCUM, 52X0.5	G430M 4451 A	CR-SPLIT=NO			70 Secs X 3 *[==>71.0 Secs (Copy 1)]* *[==>71.0 Secs (Copy 2)]* *[==>71.0 Secs (Copy 3)]*	***[1]***
4	(186140)	(20) NGC-6537-NEBOFFSET	STIS/CCD, ACCUM, 52X0.5	G750M 6581 A	CR-SPLIT=NO			60 Secs X 3 *[==>61.0 Secs (Copy 1)]* *[==>61.0 Secs (Copy 2)]* *[==>61.0 Secs (Copy 3)]*	***[1]***
5	(186137)	(20) NGC-6537-NEBOFFSET	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A	CR-SPLIT=NO			120 Secs X 3 *[==>121.0 Secs (Copy 1)]* *[==>121.0 Secs (Copy 2)]* *[==>121.0 Secs (Copy 3)]*	***[1]***
6		CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750L 7751 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***

Orbit Structure



Visit

Proposal 12600, Visit 31, failed Wed Mar 07 02:12:35 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA, STIS/NUV-MAMA

Special Requirements: SAME ORIENT AS 30; GROUP 31,30 WITHIN 10D

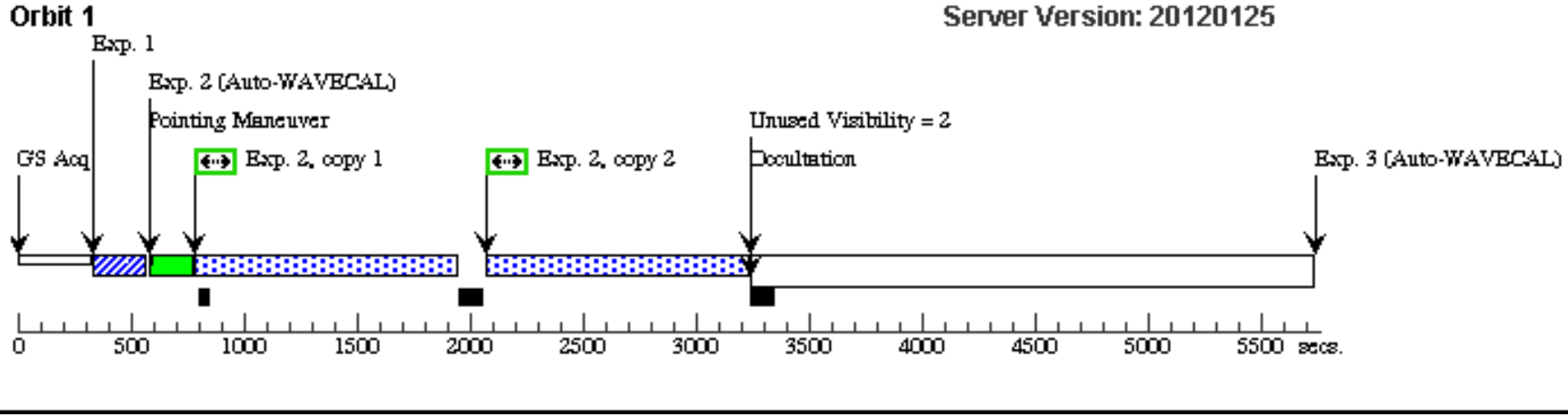
Fixed Targets

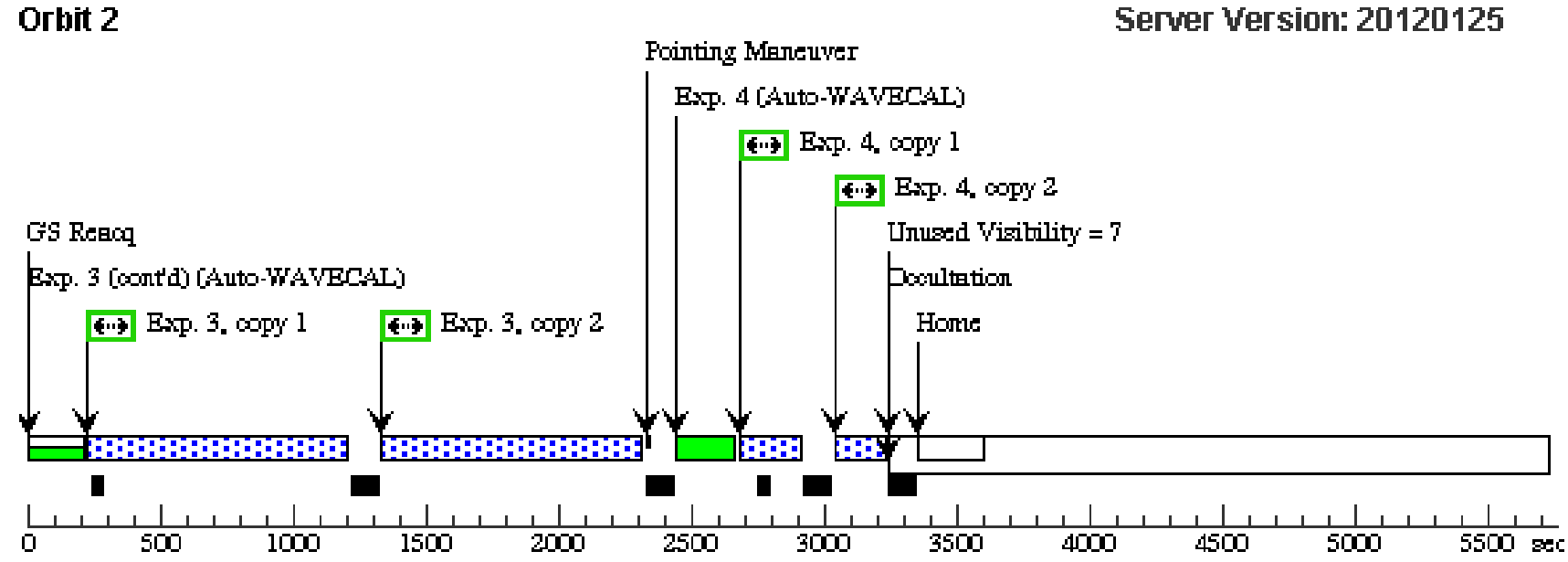
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	NGC-6537-OFFSETSTAR Alt Name1: GSC2-3MIRANG4G	RA: 18 05 13.1040 (271.3046000d) Dec: -19 50 34.88 (-19.84302d) Equinox: J2000		V=17.0+/-0.3	Reference Frame: ICRS
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
(20)	NGC-6537-NEBOFFSET	RA: 18 05 13.1290 (271.3047042d) Dec: -19 50 34.62 (-19.84295d) Equinox: J2000	Radial Velocity: -17.3 km/sec	V=20.0+/-5.	Reference Frame: ICRS

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(185230)	(10) NGC-6537-OFFSETSTAR	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			1.8 Secs *[==>]*	*[1]*
2	(186127)	(20) NGC-6537-NEBOFFSET	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				1200 Secs X 2 *[==>1152.0 Secs (Copy 1)]* *[==>1152.0 Secs (Copy 2)]*	*[1]*
3	(186131)	(20) NGC-6537-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1000 Secs X 2 *[==>974.0 Secs (Copy 1)]* *[==>974.0 Secs (Copy 2)]*	*[2]*
4	(186133)	(20) NGC-6537-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.5	G230M 1884 A				200 Secs X 2 *[==>174.0 Secs (Copy 1)]* *[==>174.0 Secs (Copy 2)]*	*[2]*

Orbit Structure





Visit

Proposal 12600, NGC 6537 HOPR Redo NUVMAMA orbit (32) Wed Mar 07 02:12:36 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/NUV-MAMA

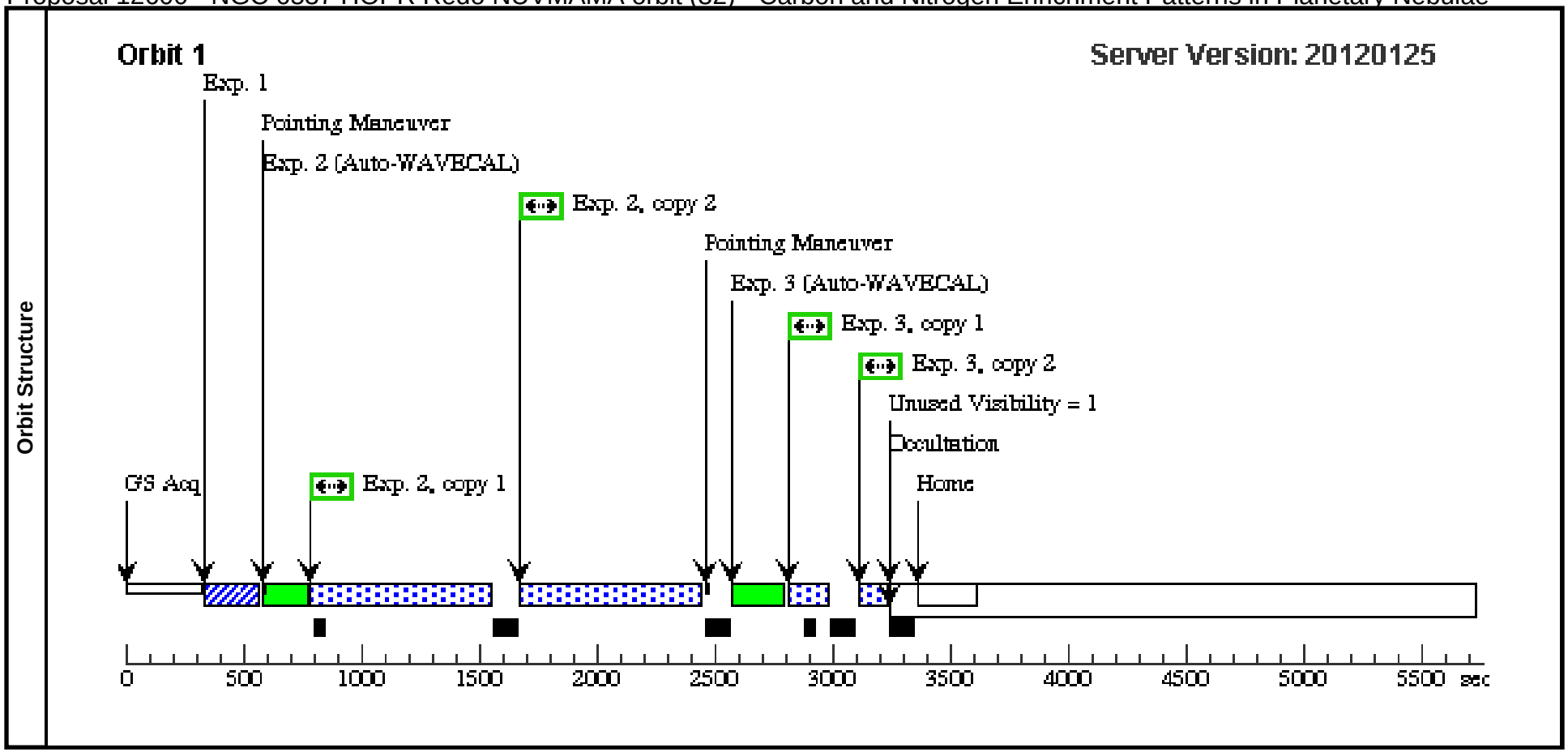
Special Requirements: SAME ORIENT AS 30

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	NGC-6537-OFFSETSTAR Alt Name1: GSC2-3MIRANG4G	RA: 18 05 13.1040 (271.3046000d) Dec: -19 50 34.88 (-19.84302d) Equinox: J2000		V=17.0+/-0.3	Reference Frame: ICRS
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
(20)	NGC-6537-NEBOFFSET	RA: 18 05 13.1290 (271.3047042d) Dec: -19 50 34.62 (-19.84295d) Equinox: J2000	Radial Velocity: -17.3 km/sec	V=20.0+/-5.	Reference Frame: ICRS

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	(185230)	(10) NGC-6537-OFFSETSTAR	STIS/CCD, ACQ, F28X50LP	MIRROR				1.8 Secs *[==>]*	*[1]*
2	(186131)	(20) NGC-6537-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				750 Secs X 2 *[==>761.0 Secs (Copy 1)]* *[==>761.0 Secs (Copy 2)]*	*[1]*
3	(186133)	(20) NGC-6537-NEBOFFSET	STIS/NUV-MAMA, ACCUM, 52X0.5	G230M 1884 A				100 Secs X 2 *[==>111.0 Secs (Copy 1)]* *[==>111.0 Secs (Copy 2)]*	*[1]*


Orbit Structure
Orbit 1
Server Version: 20120125
Exp. 1
Pointing Maneuver
Exp. 2 (Auto-WAVECAL)
Exp. 2, copy 2
Pointing Maneuver
Exp. 3 (Auto-WAVECAL)
Exp. 3, copy 1
Exp. 3, copy 2
Unused Visibility = 1
Occultation
GS Acq
Exp. 2, copy 1
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec