12938 - Probing Fundamental Stellar Parameters with HST/STIS Spectroscopy of M Dwarf Binaries

Cycle: 20, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

Name	*Institution*	*E-Mail*
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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) GJ22AC CCDFLAT	STIS/CCD	2	11-Jul-2012 22:34:50.0	yes
02	(2) G250-29AB CCDFLAT	STIS/CCD	2	11-Jul-2012 22:35:25.0	yes
03	(5) GJ234AB CCDFLAT	STIS/CCD	2	11-Jul-2012 22:36:03.0	yes
04	(6) GJ1245AC CCDFLAT	STIS/CCD	2	11-Jul-2012 22:36:34.0	yes
05	(3) GJ1081AB CCDFLAT	STIS/CCD	2	11-Jul-2012 22:37:03.0	yes
06	(4) GJ469AB CCDFLAT	STIS/CCD	2	11-Jul-2012 22:37:36.0	yes

12 Total Orbits Used

ABSTRACT

We propose to obtain spatially resolved intermediate resolution HST/STIS spectra of six M dwarf binaries ranging in spectral type from M2V to M8V and in mass from 0.40 to 0.074 Solar Masses. All binaries have previously had their orbits mapped by HST/FGS, leading to individual dynamical masses with a precision < 5%. The last fifteen years have seen the development of sophisticated theoretical models for the interior structure, evolution, and atmospheric properties of low mass stars. These models have thus far been difficult to test in a holistic manner due to the complex interplay of the variables effective temperature, mass, age, surface gravity, and metallicity. Fortunately these parameters are now measurable directly via comparisons with synthetically generated spectra, as has been successfully demonstrated by various studies. By assuming co-evolution and equal metallicity for the components of a binary system with known masses, we will be able to test model spectra and constrain the modeling of fundamental structural, evolutionary, and atmospheric parameters throughout most of the M dwarf spectral class. The proposed observations are part of the PI's thesis effort to better characterize M dwarfs and objects near the hydrogen burning mass limit.

OBSERVING DESCRIPTION

We propose to obtain intermediate resolution (R~6,000) optical spectroscopy of point source binaries with separations ranging from 0.2" to 1.0" using the STIS CCD, the G750M grating, and the 0.2" long slit. The observational goal is to obtain spatially resolved spectra with a resolution sufficient to measure the equivalent widths of several indicators of temperature, gravity, and metallicity occurring throughout the red optical range. The next highest resolution red optical grating, G750L, has a dispersion of 4.92 Ang/pixel, and is therefore not suitable to

measure the equivalent width of fine features such as absorption lines due to alkali metals and H emission. We plan on observing both components simultaneously by orienting HST so as to align the slit with the binary axis. All primary targets are bright enough that they can be acquired through the standard STIS acquisition procedure, without requiring an offset from a brighter nearby star. Based on the FGS measurements used to calculate the orbits, our orbital solutions can predict position angles with residuals <1.0D. If we assure that the primary star is centered in the 0.2" slit by performing a peakup after coarse acquisition, requiring that a secondary 1.0" away from the primary be placed within the central 2/4 of the slit yields a position angle tolerance of 3D, which is much larger than the residuals of our orbital solutions. Also, because 1.0" is an upper limit for separations, the alignment tolerance will be greater than 3.0D in most cases. Upon acquisition we will take an image of the binary as viewed through the slit without the grating to measure the precise centering of both components. This image will allow us to estimate what fraction of the flux from each component is going through the slit, and thus allow us to establish a relative flux calibration for the spectra. The G750M grating has a narrow spectral range of only 570 Angstroms, and therefore several standard tilt positions have been configured in order to increase spectral coverage. We propose to use the seven reddest tilt positions, providing continuous coverage from 6,482 Ang. to 10,137 Ang. On the blue end, this range covers the important Halpha 6563 and Li 6708 lines. On the red end, the region around 1 micron contains several gravity sensitive FeH bands that are difficult to study from Earth due to telluric H2O absorption. In order to save time while assuring

uniform quality, we will optimize the exposure time in each grating tilt to provide a signal-to-noise of at least 20 for that spectral region. For our faintest target, GJ1245C, the ETC predicts a total exposure time of ~19min, with the longest (bluest) exposure lasting ~7 minutes and the shortest (reddest) exposure lasting ~45s. Because the overheads are the same regardless of target brightness and because each target must use an integer number of orbits, brighter targets will be exposed to a signal-to-noise significantly higher than 20 at no additional time cost to the program. The standard tilt positions have a small coverage overlap that will provide spectrum continuity and facilitate flux calibration. Because we are observing in red optical wavelengths, it will be necessary to obtain fringe flats at each tilt position. The need to tilt the grating to seven different positions during the observation makes the overheads for this program relatively high. According to the STIS Instrument Handbook, Chapter 9, tables 9.1 and 9.2, each tilt will require a 7 minute overhead, including the time necessary to obtain fringe flats. Adding up the time required for guide star acquisition, STIS acquisition, peakup, slit imaging, and grating tilts results in 74 minutes of overhead per visit. Therefore each visit will have to be carried out over two orbits. By performing the overheads associated with three of the grating tilts during occultation, and considering the time required for re-acquisition, each orbit is left with ~15 min of exposure time, which is slightly more than what is needed to obtain the minimum desired signal-to-noise on the faintest target. The overhead time required for this program may seem high, however it is important to consider that each visit is effectively observing two independent astrophysical sources, therefore making it a one orbit per

source program.

Visit

Proposal 12938, GJ22AC (01) Thu Jul 12 02:37:48 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: PCS MODE FINE; SCHED 100%; ORIENT 47D TO 49 D; BETWEEN 07-JAN-2013:00:00:00 AND 20-FEB-2013:00:00:00

Comments: Note from PI (Sergio Dieterich, dieterich@chara.gsu.edu)

The purpose of this observation is to obtain simultaneous long slit spectroscopy for both components of a binary star by aligning the binary's separation axis to the STIS long slit. The binary's position angle moves 25 degrees during cycle 20. I have used the visit planer to select the ORIENT/date combination that seems easier to schedule, but any combination meeting the following table will acheieve the science.
Feel free to change ORIENT and date to any other match in the table if it makes life easier.
In the table, ORIENT1 and ORIENT2 are different by 180 degrees.

PLEASE MAKE SURE THE ORIENT AT THE TIME OF OBSERVATION IS WITHIN THE +- TOLERANCE LISTED IN THE LAST COLUMN.

# YEAR	MONTH	DAY	SEPARATION	ORIENT1	ORIENT2	ORIENT_TOLERANCE
2012	AUG	10	0.523	220.5	40.5	5.45
2012	AUG	22	0.522	221.0	41.0	5.46
2012	SEP	2	0.521	221.5	41.5	5.47
2012	SEP	14	0.520	222.0	42.0	5.48
2012	SEP	26	0.519	222.5	42.5	5.50
2012	OCT	7	0.518	223.0	43.0	5.51
2012	OCT	19	0.516	223.5	43.5	5.52
2012	OCT	30	0.515	224.0	44.0	5.53
2012	NOV	11	0.514	224.5	44.5	5.54
2012	NOV	22	0.513	225.0	45.0	5.56
2012	DEC	4	0.512	225.5	45.5	5.57
2012	DEC	15	0.510	226.0	46.0	5.59
2012	DEC	27	0.509	226.5	46.5	5.60
2013	JAN	7	0.507	227.0	47.0	5.62
2013	JAN	18	0.506	227.5	47.5	5.63
2013	JAN	30	0.504	228.1	48.1	5.65
2013	FEB	10	0.503	228.6	48.6	5.67
2013	FEB	22	0.501	229.1	49.1	5.68
2013	MAR	6	0.500	229.6	49.6	5.70
2013	MAR	17	0.498	230.2	50.2	5.72
2013	MAR	29	0.496	230.7	50.7	5.74
2013	APR	9	0.495	231.3	51.3	5.76
2013	APR	21	0.493	231.8	51.8	5.78
2013	MAY	2	0.491	232.3	52.3	5.80
2013	MAY	14	0.489	232.9	52.9	5.82
2013	MAY	25	0.487	233.5	53.5	5.85
2013	JUN	6	0.485	234.0	54.0	5.87
2013	JUN	17	0.484	234.6	54.6	5.89
2013	JUN	29	0.482	235.2	55.2	5.92
2013	JUL	10	0.480	235.7	55.7	5.94
2013	JUL	22	0.477	236.3	56.3	5.97
2013	AUG	2	0.475	236.9	56.9	5.99
2013	AUG	14	0.473	237.5	57.5	6.02
2013	AUG	25	0.471	238.1	58.1	6.05
2013	SEP	6	0.469	238.7	58.7	6.08
2013	SEP	17	0.467	239.3	59.3	6.11
2013	SEP	29	0.464	239.9	59.9	6.13
2013	OCT	10	0.462	240.5	60.5	6.17
2013	OCT	22	0.460	241.2	61.2	6.20
2013	NOV	2	0.457	241.8	61.8	6.23
2013	NOV	14	0.455	242.4	62.4	6.26
2013	NOV	25	0.452	243.1	63.1	6.29
2013	DEC	7	0.450	243.7	63.7	6.33
2013	DEC	18	0.447	244.4	64.4	6.36
2013	DEC	30	0.445	245.0	65.0	6.40

orient1 range 220 to 245
orient2 range 40 to 65

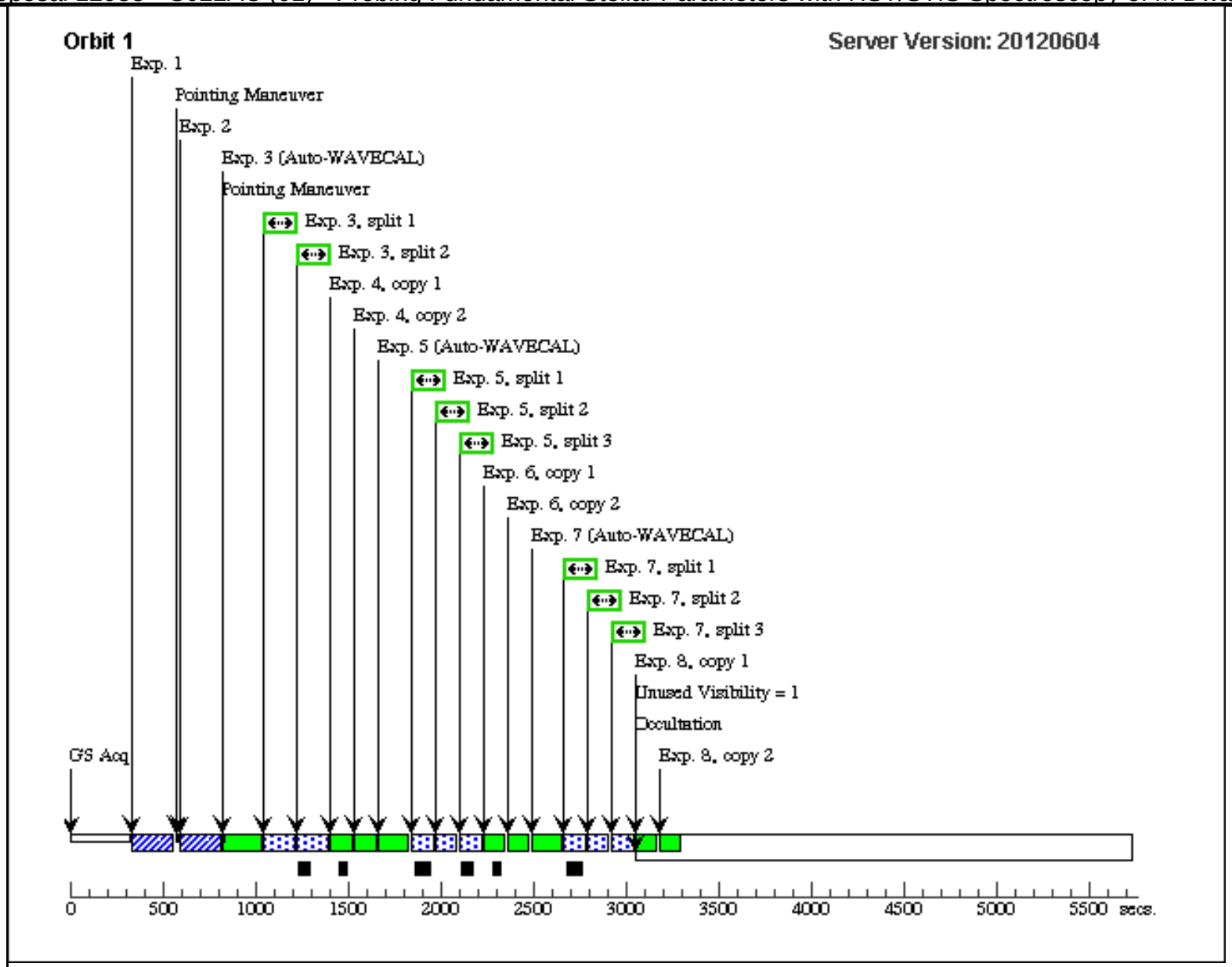
Fixed Targets

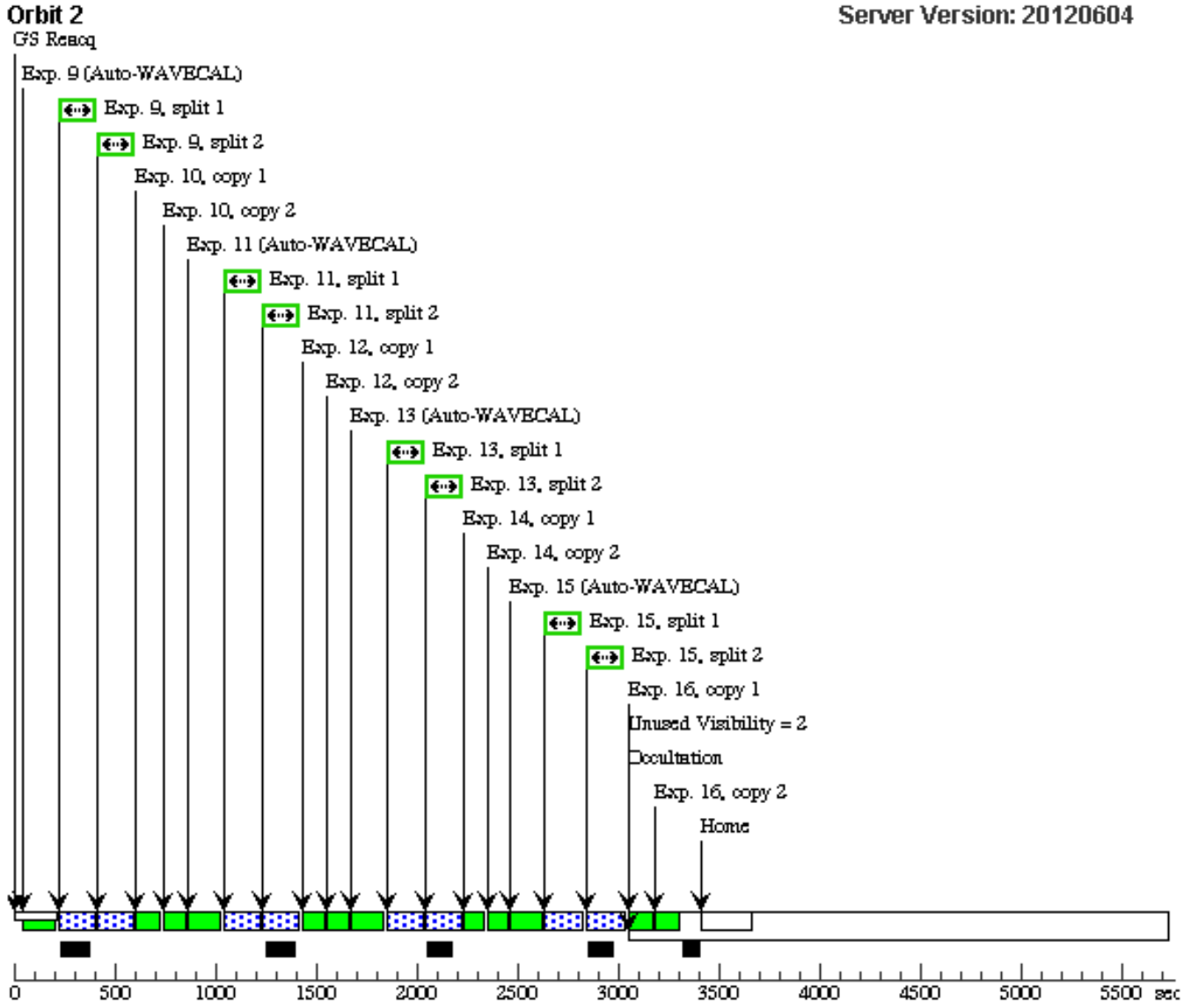
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	GJ22AC	RA: 00 32 29.4330 (8.1226375d) Dec: +67 14 8.41 (67.23567d) Equinox: J2000	Proper Motion RA: 1738.21 mas/yr Proper Motion Dec: -224.11 mas/yr Parallax: 0.09935" Epoch of Position: 2000	V=10.5+/-0.04 R~9.6	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	GJ22AC acquisition	(1) GJ22AC	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			0.1 Secs *[==>]*	***[1]***
2	peakup	(1) GJ22AC	STIS/CCD, ACQ/PEAK, 52X0.1	MIRROR				0.1 Secs *[==>]*	***[1]***
3	GJ22AC tilt 1	(1) GJ22AC	STIS/CCD, ACCUM, 52X0.2	G750M 6768 A	CR-SPLIT=2			45 Secs *[==>133.0 Secs (Split 1)]* *[==>133.0 Secs (Split 2)]*	***[1]***
4	tilt 1 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 6768 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
5	GJ22AC tilt 2	(1) GJ22AC	STIS/CCD, ACCUM, 52X0.2	G750M 7283 A	CR-SPLIT=3			45 Secs *[==>84.0 Secs (Split 1)]* *[==>84.0 Secs (Split 2)]* *[==>84.0 Secs (Split 3)]*	***[1]***
6	tilt 2 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 7283 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
7	GJ22AC tilt 3	(1) GJ22AC	STIS/CCD, ACCUM, 52X0.2	G750M 7795 A	CR-SPLIT=3			45 Secs *[==>84.0 Secs (Split 1)]* *[==>84.0 Secs (Split 2)]* *[==>84.0 Secs (Split 3)]*	***[1]***
8	tilt 3 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 7795 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
9	GJ22AC tilt 4	(1) GJ22AC	STIS/CCD, ACCUM, 52X0.2	G750M 8311 A	CR-SPLIT=2			45 Secs *[==>145.5 Secs (Split 1)]* *[==>145.5 Secs (Split 2)]*	***[2]***
10	tilt 4 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 8311 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
11	GJ22AC tilt 5	(1) GJ22AC	STIS/CCD, ACCUM, 52X0.2	G750M 8825 A	CR-SPLIT=2			45 Secs *[==>145.5 Secs (Split 1)]* *[==>145.5 Secs (Split 2)]*	***[2]***
12	tilt 5 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 8825 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
13	GJ22AC tilt 6	(1) GJ22AC	STIS/CCD, ACCUM, 52X0.2	G750M 9336 A	CR-SPLIT=2			45 Secs *[==>145.5 Secs (Split 1)]* *[==>145.5 Secs (Split 2)]*	***[2]***
14	tilt 6 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 9336 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
15	GJ22AC tilt 7	(1) GJ22AC	STIS/CCD, ACCUM, 52X0.2	G750M 9851 A	CR-SPLIT=2			75 Secs *[==>160.5 Secs (Split 1)]* *[==>160.5 Secs (Split 2)]*	***[2]***
16	tilt 7 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 9851 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20120604
GS Reacq
Exp. 9 (Auto-WAVECAL)
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Exp. 9, split 2
Exp. 10, copy 1
Exp. 10, copy 2
Exp. 11 (Auto-WAVECAL)
Exp. 11, split 1
Exp. 11, split 2
Exp. 12, copy 1
Exp. 12, copy 2
Exp. 13 (Auto-WAVECAL)
Exp. 13, split 1
Exp. 13, split 2
Exp. 14, copy 1
Exp. 14, copy 2
Exp. 15 (Auto-WAVECAL)
Exp. 15, split 1
Exp. 15, split 2
Exp. 16, copy 1
Unused Visibility = 2
Occultation
Exp. 16, copy 2
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 12938, G250-29AB (02) Thu Jul 12 02:37:52 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 139D TO 141 D; BETWEEN 01-JAN-2013:00:00:00 AND 01-FEB-2013:00:00:00

Comments: Note from PI (Sergio Dieterich, dieterich@chara.gsu.edu)

The purpose of this observation is to obtain simultaneous long slit spectroscopy for both components of a binary star by aligning the binary's separation axis to the STIS long slit. The binary's position angle moves ~9 degrees during cycle 20. I have used the visit planer to select the ORIENT/date combination that seems easier to schedule, but any combination meeting the following table will acheieve the science.
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In the table, ORIENT1 and ORIENT2 are different by 180 degrees.

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# YEAR	MONTH	DAY	SEPARATION	ORIENT1	ORIENT2	ORIENT_TOLERANCE
2012	AUG	9	0.517	323.4	143.4	5.5
2012	AUG	19	0.517	323.2	143.2	5.5
2012	AUG	29	0.517	323.1	143.1	5.5
2012	SEP	8	0.517	322.9	142.9	5.5
2012	SEP	18	0.517	322.8	142.8	5.5
2012	SEP	28	0.517	322.6	142.6	5.5
2012	OCT	8	0.517	322.5	142.5	5.5
2012	OCT	18	0.517	322.3	142.3	5.5
2012	OCT	28	0.517	322.2	142.2	5.5
2012	NOV	7	0.517	322.0	142.0	5.5
2012	NOV	17	0.516	321.8	141.8	5.5
2012	NOV	27	0.516	321.7	141.7	5.5
2012	DEC	7	0.516	321.5	141.5	5.5
2012	DEC	16	0.515	321.4	141.4	5.5
2012	DEC	26	0.515	321.2	141.2	5.5
2013	JAN	6	0.515	321.1	141.1	5.5
2013	JAN	16	0.514	320.9	140.9	5.5
2013	JAN	25	0.514	320.7	140.7	5.5
2013	FEB	4	0.513	320.6	140.6	5.5
2013	FEB	14	0.513	320.4	140.4	5.5
2013	FEB	24	0.512	320.3	140.3	5.5
2013	MAR	6	0.512	320.1	140.1	5.5
2013	MAR	16	0.511	320.0	140.0	5.5
2013	MAR	26	0.511	319.8	139.8	5.5
2013	APR	5	0.510	319.6	139.6	5.5
2013	APR	15	0.509	319.5	139.5	5.6
2013	APR	25	0.509	319.3	139.3	5.6
2013	MAY	5	0.508	319.2	139.2	5.6
2013	MAY	15	0.507	319.0	139.0	5.6
2013	MAY	25	0.506	318.8	138.8	5.6
2013	JUN	4	0.506	318.7	138.7	5.6
2013	JUN	13	0.505	318.5	138.5	5.6
2013	JUN	23	0.504	318.3	138.3	5.6
2013	JUL	3	0.503	318.2	138.2	5.6
2013	JUL	13	0.502	318.0	138.0	5.6
2013	JUL	23	0.501	317.8	137.8	5.6
2013	AUG	2	0.500	317.7	137.7	5.7
2013	AUG	12	0.499	317.5	137.5	5.7
2013	AUG	22	0.498	317.3	137.3	5.7
2013	SEP	1	0.497	317.2	137.2	5.7
2013	SEP	11	0.496	317.0	137.0	5.7
2013	SEP	21	0.495	316.8	136.8	5.7
2013	OCT	1	0.494	316.7	136.7	5.7
2013	OCT	11	0.493	316.5	136.5	5.7
2013	OCT	21	0.492	316.3	136.3	5.8
2013	OCT	31	0.490	316.2	136.2	5.8
2013	NOV	9	0.489	316.0	136.0	5.8
2013	NOV	19	0.488	315.8	135.8	5.8
2013	NOV	30	0.487	315.6	135.6	5.8
2013	DEC	9	0.485	315.5	135.5	5.8
2013	DEC	19	0.484	315.3	135.3	5.8
2013	DEC	29	0.483	315.1	135.1	5.9

orient1 range 315 to 323
orient2 range 135 to 143

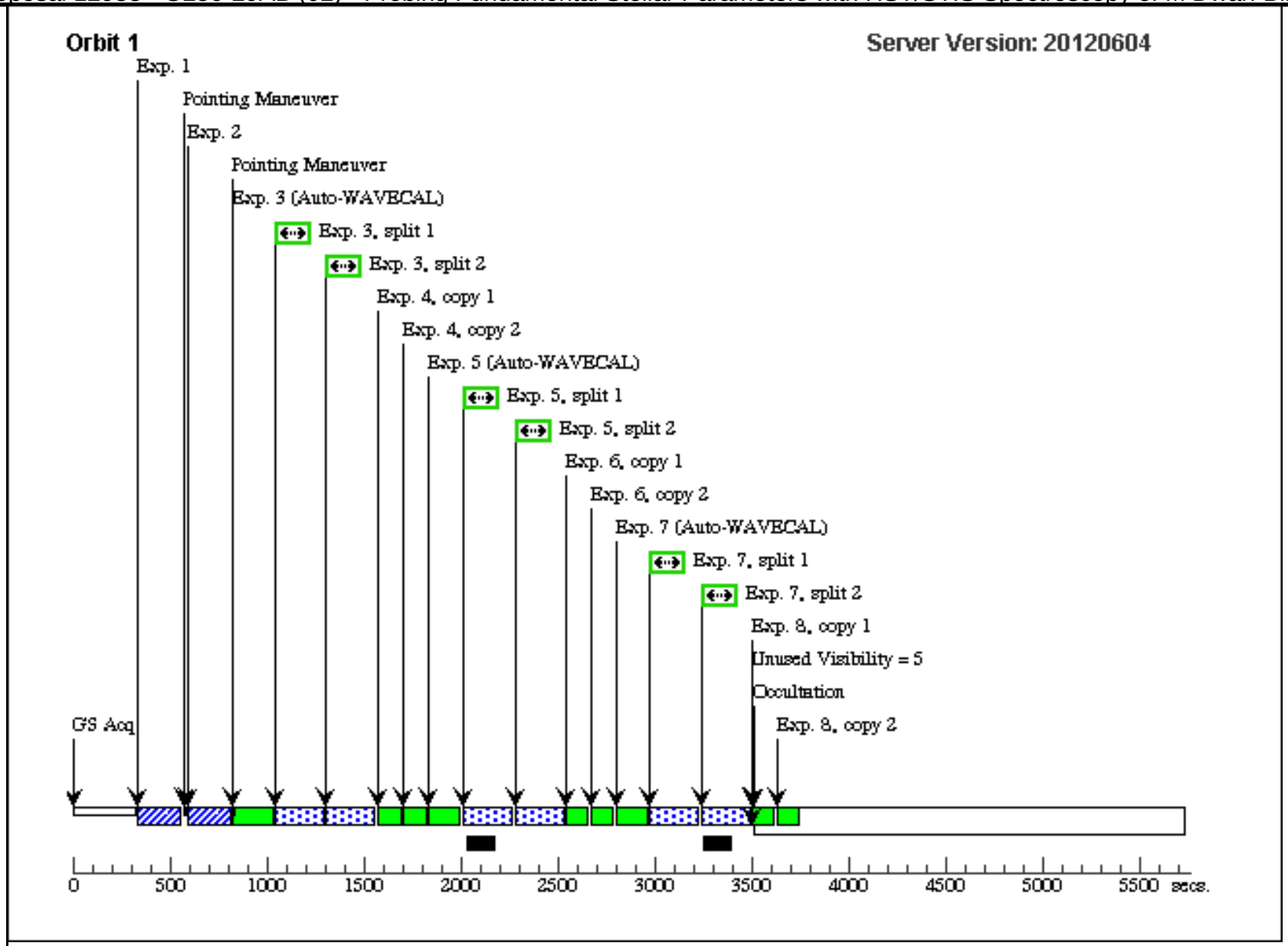
Fixed Targets

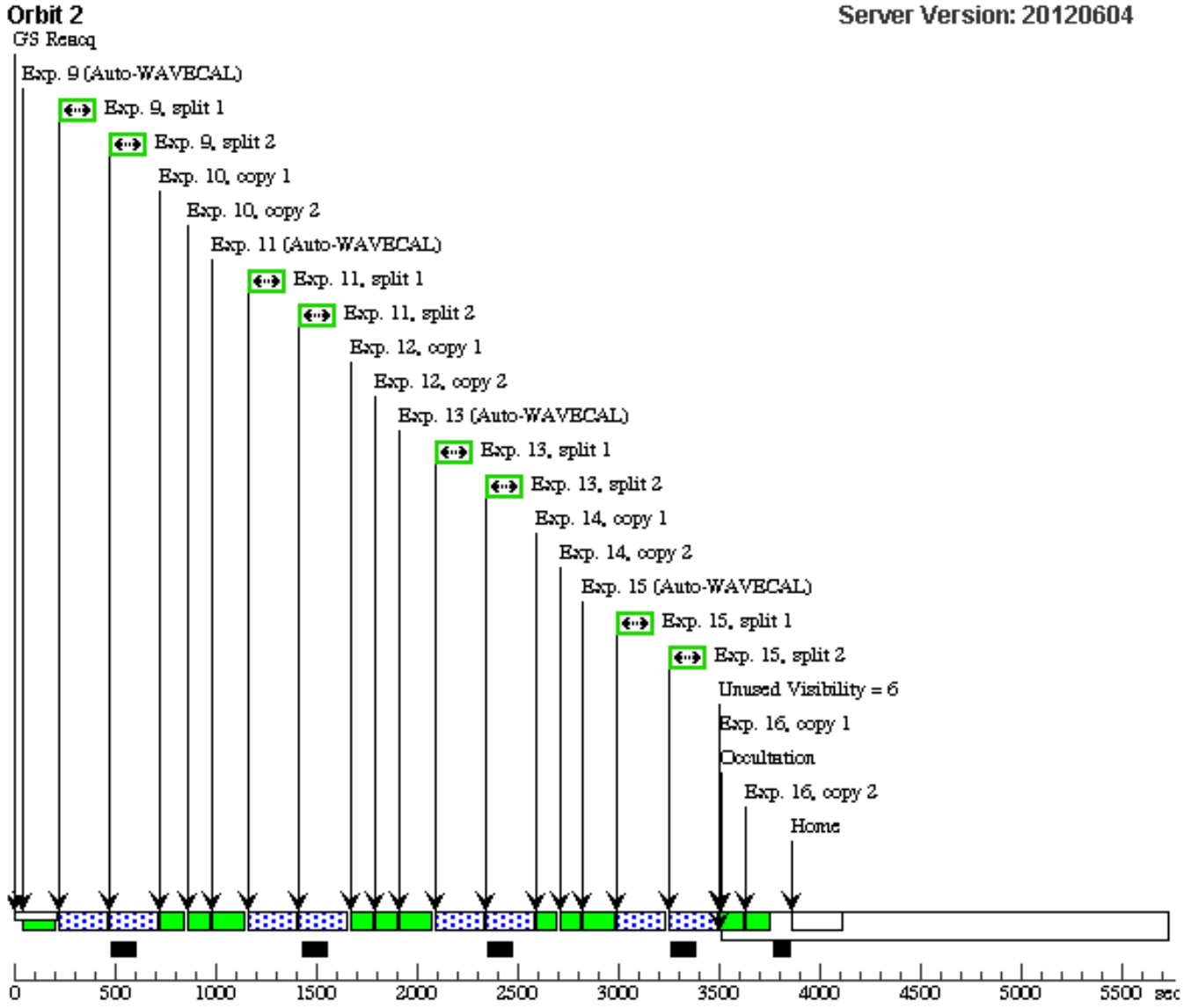
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	G250-29AB	RA: 06 54 4.2374 (103.5176558d)	Proper Motion RA: 495.89 mas/yr	V=10.95+/-0.03	Reference Frame: ICRS
	Alt Name1: LHS221	Dec: +60 52 18.36 (60.87177d)	Proper Motion Dec: -989.85 mas/yr	R = 10.0,	
		Equinox: J2000	Parallax: 0.09589"	I = 9.2	
			Epoch of Position: 2000		

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	G250-29AB acquisition	(2) G250-29AB	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			0.4 Secs *[==>]*	***[1]***
2	G250-29AB peakup	(2) G250-29AB	STIS/CCD, ACQ/PEAK, 52X0.1	MIRROR				0.1 Secs *[==>]*	***[1]***
3	G250-29AB tilt 1	(2) G250-29AB	STIS/CCD, ACCUM, 52X0.2	G750M 6768 A	CR-SPLIT=2			45 Secs *[==>217.5 Secs (Split 1)]* *[==>217.5 Secs (Split 2)]*	***[1]***
4	tilt 1 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 6768 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
5	G250-29AB tilt 2	(2) G250-29AB	STIS/CCD, ACCUM, 52X0.2	G750M 7283 A	CR-SPLIT=2			45 Secs *[==>217.5 Secs (Split 1)]* *[==>217.5 Secs (Split 2)]*	***[1]***
6	tilt 2 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 7283 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
7	G250-29AB tilt 3	(2) G250-29AB	STIS/CCD, ACCUM, 52X0.2	G750M 7795 A	CR-SPLIT=2			45 Secs *[==>217.5 Secs (Split 1)]* *[==>217.5 Secs (Split 2)]*	***[1]***
8	tilt 3 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 7795 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
9	G250-29AB tilt 4	(2) G250-29AB	STIS/CCD, ACCUM, 52X0.2	G750M 8311 A	CR-SPLIT=2			60 Secs *[==>206.0 Secs (Split 1)]* *[==>206.0 Secs (Split 2)]*	***[2]***
10	tilt 4 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 8311 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
11	G250-29AB tilt 5	(2) G250-29AB	STIS/CCD, ACCUM, 52X0.2	G750M 8825 A	CR-SPLIT=2			60 Secs *[==>206.0 Secs (Split 1)]* *[==>206.0 Secs (Split 2)]*	***[2]***
12	tilt 5 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 8825 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
13	G250-29AB tilt 6	(2) G250-29AB	STIS/CCD, ACCUM, 52X0.2	G750M 9336 A	CR-SPLIT=2			60 Secs *[==>206.0 Secs (Split 1)]* *[==>206.0 Secs (Split 2)]*	***[2]***
14	tilt 6 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 9336 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
15	G250-29AB tilt 7	(2) G250-29AB	STIS/CCD, ACCUM, 52X0.2	G750M 9851 A	CR-SPLIT=2			60 Secs *[==>206.0 Secs (Split 1)]* *[==>206.0 Secs (Split 2)]*	***[2]***
16	tilt 7 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 9851 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20120604
GS Reacq
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Exp. 9, split 2
Exp. 10, copy 1
Exp. 10, copy 2
Exp. 11 (Auto-WAVECAL)
Exp. 11, split 1
Exp. 11, split 2
Exp. 12, copy 1
Exp. 12, copy 2
Exp. 13 (Auto-WAVECAL)
Exp. 13, split 1
Exp. 13, split 2
Exp. 14, copy 1
Exp. 14, copy 2
Exp. 15 (Auto-WAVECAL)
Exp. 15, split 1
Exp. 15, split 2
Unused Visibility = 6
Exp. 16, copy 1
Occultation
Exp. 16, copy 2
Home
0
500
1000
1500
2000
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Visit

Proposal 12938, GJ234AB (03) Thu Jul 12 02:37:55 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 38D TO 40 D; BETWEEN 01-JAN-2013:00:00:00 AND 01-FEB-2013:00:00:00

Comments: Note from PI (Sergio Dieterich, dieterich@chara.gsu.edu)

The purpose of this observation is to obtain simultaneous long slit spectroscopy for both components of a binary star by aligning the binary's separation axis to the STIS long slit. The binary's position angle moves ~9 degrees during cycle 20. I have used the visit planer to select the ORIENT/date combination that seems easier to schedule, but any combination meeting the following table will acheieve the science.
Feel free to change ORIENT and date to any other match in the table if it makes life easier.
In the table, ORIENT1 and ORIENT2 are different by 180 degrees.

PLEASE MAKE SURE THE ORIENT AT THE TIME OF OBSERVATION IS WITHIN THE +- TOLERANCE LISTED IN THE LAST COLUMN.

# YEAR	MONTH	DAY	SEPARATION	ORIENT1	ORIENT2	ORIENT_TOLERANCE
2012	AUG	9	0.71	203.7	23.7	4.0
2012	AUG	20	0.71	204.6	24.6	4.0
2012	SEP	1	0.71	205.6	25.6	3.9
2012	SEP	13	0.71	206.5	26.5	3.9
2012	SEP	25	0.71	207.4	27.4	3.9
2012	OCT	6	0.71	208.3	28.3	3.9
2012	OCT	18	0.72	209.2	29.2	3.9
2012	OCT	30	0.72	210.1	30.1	3.9
2012	NOV	11	0.72	211.0	31.0	3.9
2012	NOV	23	0.72	211.9	31.9	3.9
2012	DEC	5	0.72	212.8	32.8	3.9
2012	DEC	16	0.72	213.6	33.6	3.9
2012	DEC	28	0.73	214.5	34.5	3.9
2013	JAN	9	0.73	215.4	35.4	3.9
2013	JAN	21	0.73	216.3	36.3	3.8
2013	FEB	2	0.73	217.1	37.1	3.8
2013	FEB	13	0.73	218.0	38.0	3.8
2013	FEB	25	0.74	218.8	38.8	3.8
2013	MAR	9	0.74	219.7	39.7	3.8
2013	MAR	21	0.74	220.5	40.5	3.8
2013	APR	2	0.74	221.4	41.4	3.8
2013	APR	13	0.74	222.2	42.2	3.8
2013	APR	25	0.74	223.1	43.1	3.8
2013	MAY	7	0.75	223.9	43.9	3.8
2013	MAY	19	0.75	224.7	44.7	3.8
2013	MAY	31	0.75	225.6	45.6	3.7
2013	JUN	12	0.75	226.4	46.4	3.7
2013	JUN	23	0.75	227.2	47.2	3.7
2013	JUL	5	0.75	228.0	48.0	3.7
2013	JUL	17	0.75	228.8	48.8	3.7
2013	JUL	29	0.76	229.6	49.6	3.7
2013	AUG	10	0.76	230.5	50.5	3.7
2013	AUG	21	0.76	231.3	51.3	3.7
2013	SEP	2	0.76	232.1	52.1	3.7
2013	SEP	14	0.76	232.9	52.9	3.7
2013	SEP	26	0.76	233.7	53.7	3.7
2013	OCT	7	0.76	234.5	54.5	3.7
2013	OCT	20	0.76	235.3	55.3	3.7
2013	OCT	31	0.76	236.1	56.1	3.7
2013	NOV	12	0.76	236.9	56.9	3.7
2013	NOV	24	0.76	237.7	57.7	3.7
2013	DEC	6	0.76	238.5	58.5	3.7
2013	DEC	17	0.76	239.3	59.3	3.7
2013	DEC	29	0.76	240.1	60.1	3.7

Fixed Targets

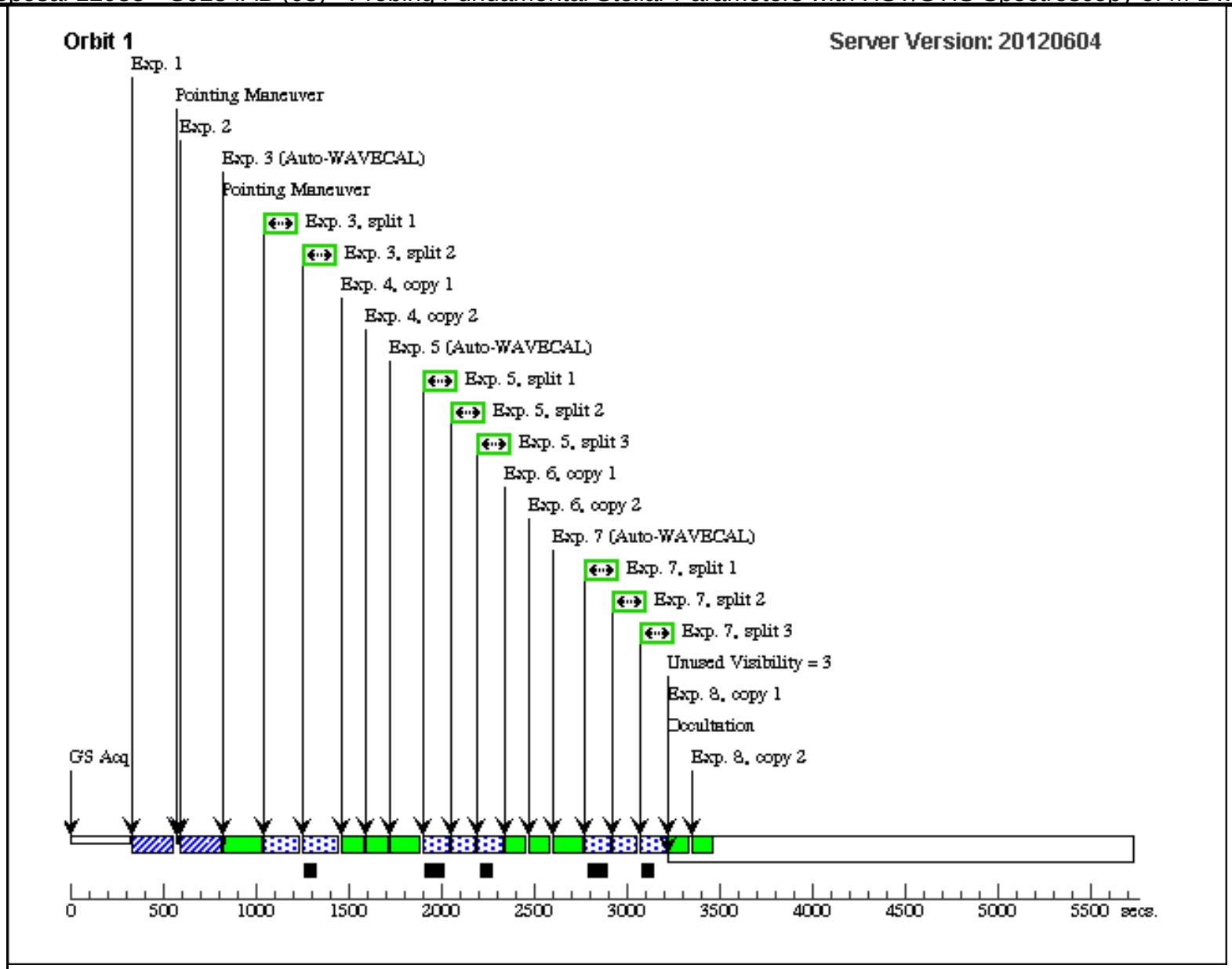
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	GJ234AB	RA: 06 29 23.4070 (97.3475292d) Dec: -02 48 50.27 (-2.81396d) Equinox: J2000	Proper Motion RA: 705.28 mas/yr Proper Motion Dec: -611.92 mas/yr Parallax: 0.24232" Epoch of Position: 2000	V=11.09+/-0.03 R=9.77, I=8.05	Reference Frame: ICRS

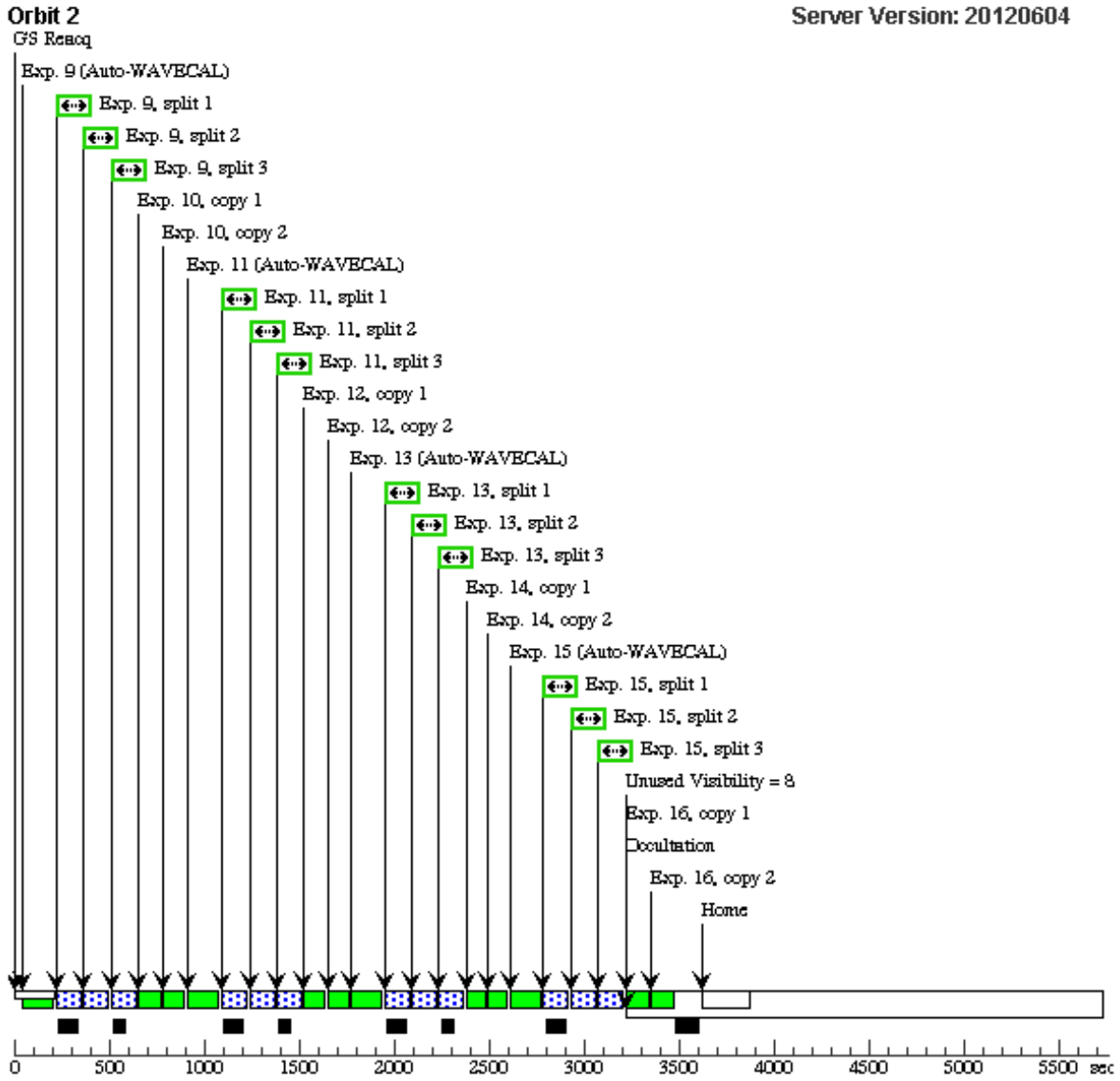
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	GJ234AB acquisition	(5) GJ234AB	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			0.4 Secs *[==>]*	***[1]***
2	GJ234AB peakup	(5) GJ234AB	STIS/CCD, ACQ/PEAK, 52X0.1	MIRROR				0.1 Secs *[==>]*	***[1]***
3	GJ234AB tilt 1	(5) GJ234AB	STIS/CCD, ACCUM, 52X0.2	G750M 6768 A	CR-SPLIT=2			45 Secs *[==>160.5 Secs (Split 1)]* *[==>160.5 Secs (Split 2)]*	***[1]***
4	tilt 1 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 6768 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
5	GJ234AB tilt 2	(5) GJ234AB	STIS/CCD, ACCUM, 52X0.2	G750M 7283 A	CR-SPLIT=3			45 Secs *[==>103.0 Secs (Split 1)]* *[==>103.0 Secs (Split 2)]* *[==>103.0 Secs (Split 3)]*	***[1]***
6	tilt 2 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 7283 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
7	GJ234AB tilt 3	(5) GJ234AB	STIS/CCD, ACCUM, 52X0.2	G750M 7795 A	CR-SPLIT=3			45 Secs *[==>103.0 Secs (Split 1)]* *[==>103.0 Secs (Split 2)]* *[==>103.0 Secs (Split 3)]*	***[1]***
8	tilt 3 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 7795 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
9	GJ234AB tilt 4	(5) GJ234AB	STIS/CCD, ACCUM, 52X0.2	G750M 8311 A	CR-SPLIT=3			60 Secs *[==>99.0 Secs (Split 1)]* *[==>99.0 Secs (Split 2)]* *[==>99.0 Secs (Split 3)]*	***[2]***
10	tilt 4 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 8311 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
11	GJ234AB tilt 5	(5) GJ234AB	STIS/CCD, ACCUM, 52X0.2	G750M 8825 A	CR-SPLIT=3			60 Secs *[==>99.0 Secs (Split 1)]* *[==>99.0 Secs (Split 2)]* *[==>99.0 Secs (Split 3)]*	***[2]***
12	tilt 5 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 8825 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
13	GJ234AB tilt 6	(5) GJ234AB	STIS/CCD, ACCUM, 52X0.2	G750M 9336 A	CR-SPLIT=3			60 Secs *[==>99.0 Secs (Split 1)]* *[==>99.0 Secs (Split 2)]* *[==>99.0 Secs (Split 3)]*	***[2]***
14	tilt 6 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 9336 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***

	15	GJ234AB til t 7	(5) GJ234AB	STIS/CCD, ACCUM, 52X0.2	G750M 9851 A	CR-SPLIT=3	60 Secs *[==>99.0 Secs (Split 1)]* *[==>99.0 Secs (Split 2)]* *[==>99.0 Secs (Split 3)]*	***[2]***
	16	tilt 7 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 9851 A		*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20120604
GS Reacq
Exp. 9 (Auto-WAVECAL)
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Exp. 9, split 2
Exp. 9, split 3
Exp. 10, copy 1
Exp. 10, copy 2
Exp. 11 (Auto-WAVECAL)
Exp. 11, split 1
Exp. 11, split 2
Exp. 11, split 3
Exp. 12, copy 1
Exp. 12, copy 2
Exp. 13 (Auto-WAVECAL)
Exp. 13, split 1
Exp. 13, split 2
Exp. 13, split 3
Exp. 14, copy 1
Exp. 14, copy 2
Exp. 15 (Auto-WAVECAL)
Exp. 15, split 1
Exp. 15, split 2
Exp. 15, split 3
Unused Visibility = 8
Exp. 16, copy 1
Occultation
Exp. 16, copy 2
Home
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Visit

Proposal 12938, GJ1245AC (04) Thu Jul 12 02:37:58 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 29D TO 33 D; ORIENT 199D TO 203 D; BETWEEN 13-DEC-2012:00:00:00 AND 24-DEC-2012:00:00:00; BETWEEN 30-MAY-2013:00:00:00 AND 20-JUL-2013:00:00:00

Comments: Note from PI (Sergio Dieterich, dieterich@chara.gsu.edu)

The purpose of this observation is to obtain simultaneous long slit spectroscopy for both components of a binary star by aligning the binary's separation axis to the STIS long slit. The binary's position angle moves ~34 degrees during cycle 20. I have used the visit planer to select the ORIENT/date combination that seems easier to schedule, but any combination meeting the following table will acheieve the science.
Feel free to change ORIENT and date to any other match in the table if it makes life easier.
In the table, ORIENT1 and ORIENT2 are different by 180 degrees.

PLEASE MAKE SURE THE ORIENT AT THE TIME OF OBSERVATION IS WITHIN THE +- TOLERANCE LISTED IN THE LAST COLUMN.

# YEAR	MONTH	DAY	SEPARATION	ORIENT1	ORIENT2	PA_TOLERANCE
2012	AUG	2	0.681	41.0	221.0	4.1
2012	AUG	14	0.678	40.3	220.3	4.2
2012	AUG	26	0.676	39.5	219.5	4.2
2012	SEP	8	0.673	38.8	218.8	4.2
2012	SEP	21	0.671	38.1	218.1	4.2
2012	OCT	3	0.669	37.3	217.3	4.2
2012	OCT	16	0.666	36.6	216.6	4.2
2012	OCT	28	0.664	35.8	215.8	4.3
2012	NOV	10	0.662	35.0	215.0	4.3
2012	NOV	23	0.660	34.3	214.3	4.3
2012	DEC	5	0.657	33.5	213.5	4.3
2012	DEC	18	0.655	32.7	212.7	4.3
2012	DEC	30	0.653	31.9	211.9	4.3
2013	JAN	12	0.651	31.1	211.1	4.3
2013	JAN	24	0.649	30.3	210.3	4.4
2013	FEB	6	0.647	29.5	209.5	4.4
2013	FEB	19	0.645	28.7	208.7	4.4
2013	MAR	3	0.643	27.9	207.9	4.4
2013	MAR	15	0.642	27.1	207.1	4.4
2013	MAR	28	0.640	26.3	206.3	4.4
2013	APR	10	0.638	25.5	205.5	4.4
2013	APR	22	0.636	24.7	204.7	4.4
2013	MAY	5	0.635	23.8	203.8	4.4
2013	MAY	17	0.633	23.0	203.0	4.5
2013	MAY	30	0.632	22.1	202.1	4.5
2013	JUN	12	0.630	21.3	201.3	4.5
2013	JUN	24	0.629	20.5	200.5	4.5
2013	JUL	7	0.627	19.6	199.6	4.5
2013	JUL	19	0.626	18.8	198.8	4.5
2013	AUG	1	0.625	17.9	197.9	4.5
2013	AUG	13	0.623	17.0	197.0	4.5
2013	AUG	26	0.622	16.2	196.2	4.5
2013	SEP	7	0.621	15.3	195.3	4.5
2013	SEP	20	0.620	14.4	194.4	4.6
2013	OCT	2	0.619	13.6	193.6	4.6
2013	OCT	15	0.618	12.7	192.7	4.6
2013	OCT	28	0.617	11.8	191.8	4.6
2013	NOV	9	0.616	10.9	190.9	4.6
2013	NOV	22	0.615	10.0	190.0	4.6
2013	DEC	4	0.614	9.18	189.1	4.6
2013	DEC	17	0.613	8.29	188.2	4.6
2013	DEC	30	0.613	7.40	187.4	4.6

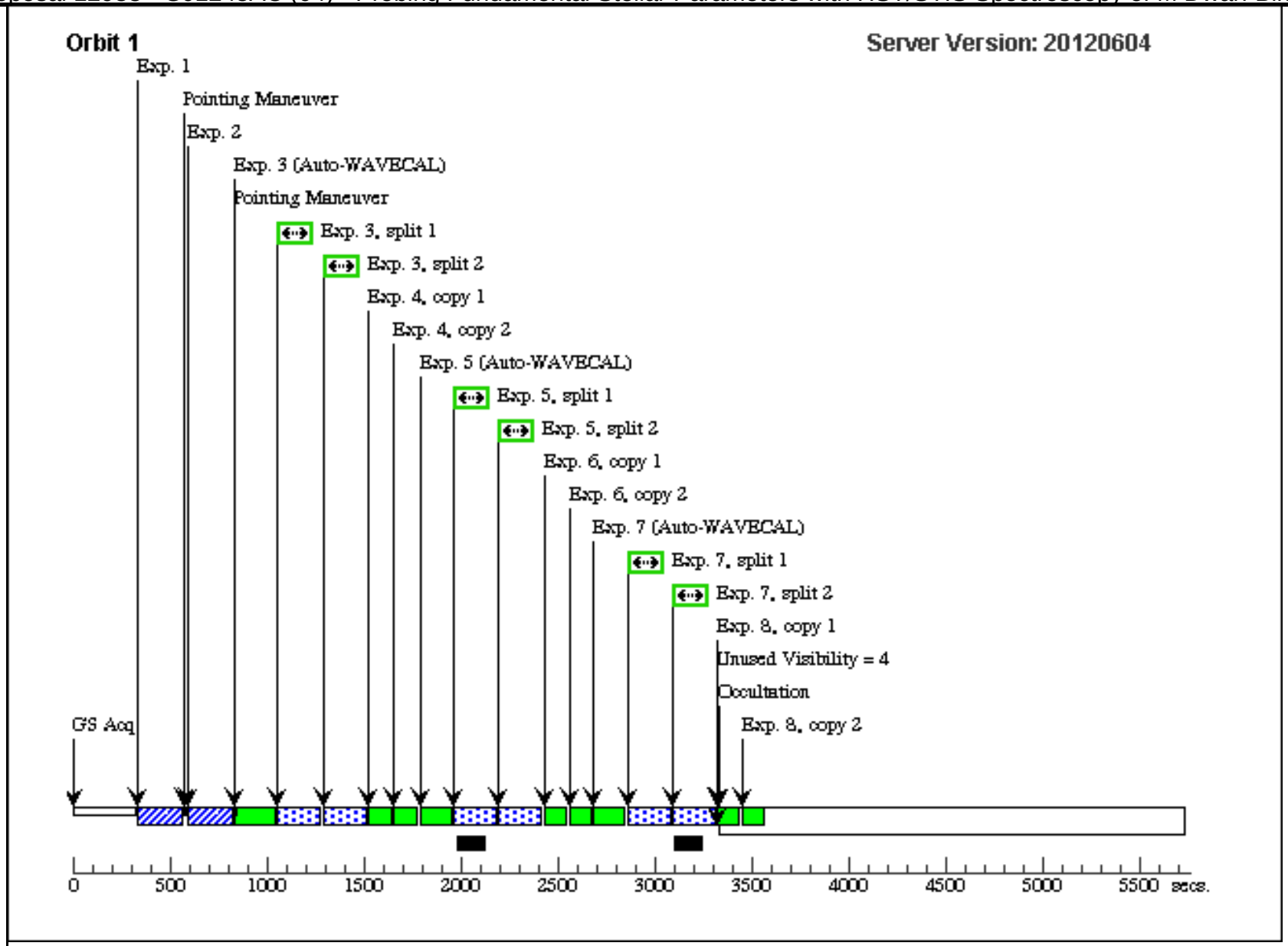
Fixed Targets

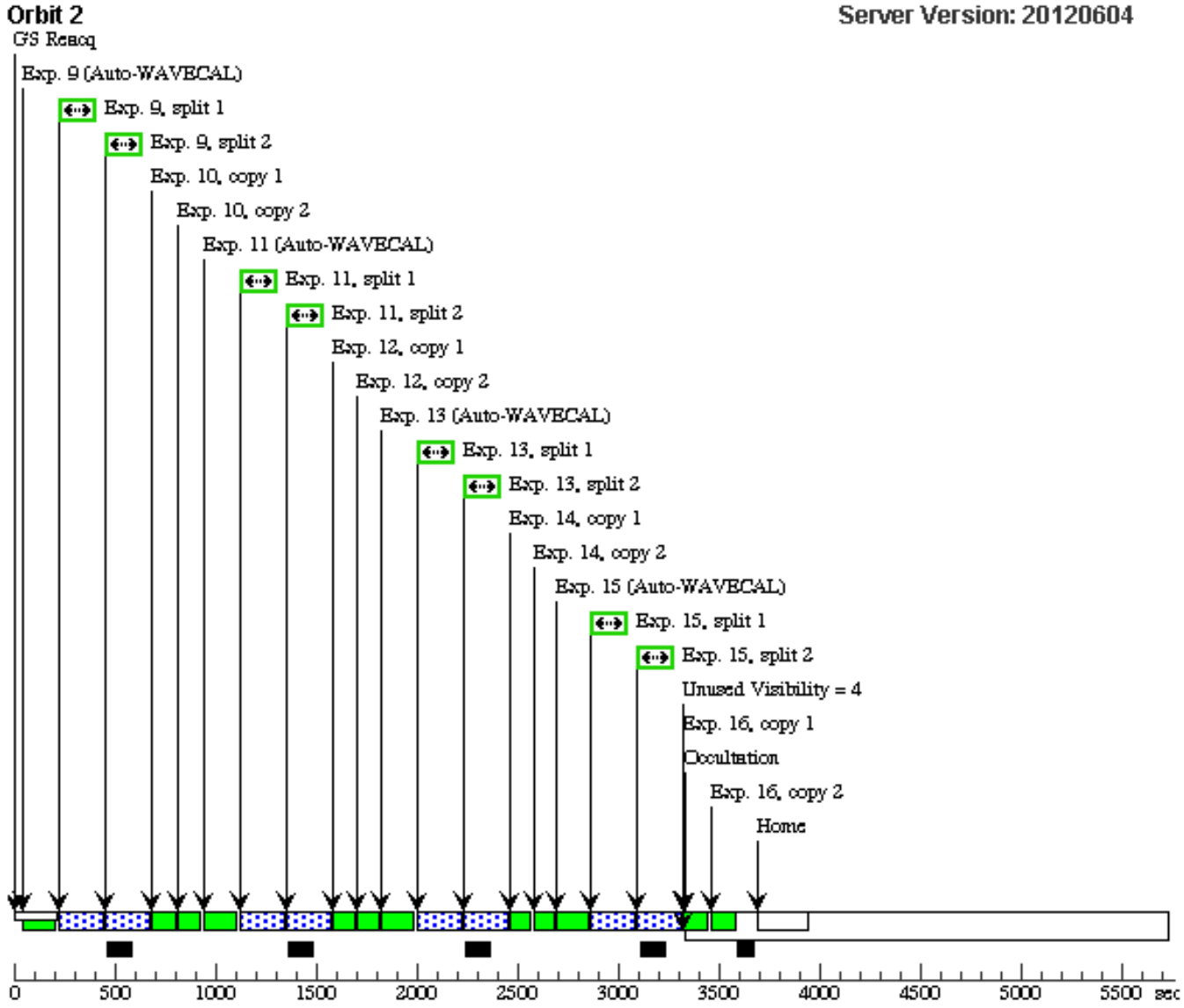
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	GJ1245AC	RA: 19 53 54.4320 (298.4768000d) Dec: +44 24 54.15 (44.41504d) Equinox: J2000	Proper Motion RA: 397 mas/yr Proper Motion Dec: -482 mas/yr Parallax: 0.220" Epoch of Position: 2000	V=13.41+/-0.03 R=11.1, I=9.78	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	GJ1245AC acquisition	(6) GJ1245AC	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			1 Secs *[==>]*	***[1]***
2	GJ1245AC peakup	(6) GJ1245AC	STIS/CCD, ACQ/PEAK, 52X0.1	MIRROR				1 Secs *[==>]*	***[1]***
3	GJ1245AC tilt 1	(6) GJ1245AC	STIS/CCD, ACCUM, 52X0.2	G750M 6768 A				240 Secs *[==>186.0 Secs (Split 1)]* *[==>186.0 Secs (Split 2)]*	***[1]***
4	tilt 1 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 6768 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
5	GJ1245AC tilt 2	(6) GJ1245AC	STIS/CCD, ACCUM, 52X0.2	G750M 7283 A				240 Secs *[==>186.0 Secs (Split 1)]* *[==>186.0 Secs (Split 2)]*	***[1]***
6	tilt 2 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 7283 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
7	GJ1245AC tilt 3	(6) GJ1245AC	STIS/CCD, ACCUM, 52X0.2	G750M 7795 A				240 Secs *[==>186.0 Secs (Split 1)]* *[==>186.0 Secs (Split 2)]*	***[1]***
8	tilt 3 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 7795 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
9	GJ1245AC tilt 4	(6) GJ1245AC	STIS/CCD, ACCUM, 52X0.2	G750M 8311 A				240 Secs *[==>184.0 Secs (Split 1)]* *[==>184.0 Secs (Split 2)]*	***[2]***
10	tilt 4 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 8311 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
11	GJ1245AC tilt 5	(6) GJ1245AC	STIS/CCD, ACCUM, 52X0.2	G750M 8825 A				240 Secs *[==>184.0 Secs (Split 1)]* *[==>184.0 Secs (Split 2)]*	***[2]***
12	tilt 5 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 8825 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
13	GJ1245AC tilt 6	(6) GJ1245AC	STIS/CCD, ACCUM, 52X0.2	G750M 9336 A				240 Secs *[==>184.0 Secs (Split 1)]* *[==>184.0 Secs (Split 2)]*	***[2]***
14	tilt 6 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 9336 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
15	GJ1245AC tilt 7	(6) GJ1245AC	STIS/CCD, ACCUM, 52X0.2	G750M 9851 A				240 Secs *[==>184.0 Secs (Split 1)]* *[==>184.0 Secs (Split 2)]*	***[2]***
16	tilt 7 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 9851 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20120604
GS Reacq
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Exp. 9, split 1
Exp. 9, split 2
Exp. 10, copy 1
Exp. 10, copy 2
Exp. 11 (Auto-WAVECAL)
Exp. 11, split 1
Exp. 11, split 2
Exp. 12, copy 1
Exp. 12, copy 2
Exp. 13 (Auto-WAVECAL)
Exp. 13, split 1
Exp. 13, split 2
Exp. 14, copy 1
Exp. 14, copy 2
Exp. 15 (Auto-WAVECAL)
Exp. 15, split 1
Exp. 15, split 2
Unused Visibility = 4
Exp. 16, copy 1
Occultation
Exp. 16, copy 2
Home
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Visit

Proposal 12938, GJ1081AB (05) Thu Jul 12 02:38:00 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 255D TO 257 D; BETWEEN 01-OCT-2012:00:00:00 AND 15-NOV-2012:00:00:00

Comments: Note from PI (Sergio Dieterich, dieterich@chara.gsu.edu)

The purpose of this observation is to obtain simultaneous long slit spectroscopy for both components of a binary star by aligning the binary's separation axis to the STIS long slit. The binary's position angle moves during cycle 20. I have used the visit planer to select the ORIENT/date combination that seems easier to schedule, but any combination meeting the following table will acheieve the science.
Feel free to change ORIENT and date to any other match in the table if it makes life easier.
In the table, ORIENT1 and ORIENT2 are different by 180 degrees.

PLEASE MAKE SURE THE ORIENT AT THE TIME OF OBSERVATION IS WITHIN THE +- TOLERANCE LISTED IN THE LAST COLUMN.

# YEAR	MONTH	DAY	SEPARATION	ORIENT1	ORIENT2	PA_TOLERANCE
2012	OCT	7	0.12	77.64	257.6	22.0
2012	OCT	15	0.12	77.43	257.4	22.3
2012	OCT	23	0.11	77.22	257.2	22.6
2012	OCT	31	0.11	76.99	256.9	23.0
2012	NOV	9	0.11	76.76	256.7	23.3
2012	NOV	17	0.11	76.53	256.5	23.7
2012	NOV	25	0.11	76.28	256.2	24.0
2012	DEC	3	0.10	76.03	256.0	24.4
2012	DEC	11	0.10	75.76	255.7	24.8
2012	DEC	19	0.10	75.49	255.4	25.2
2012	DEC	27	0.10	75.20	255.2	25.6
2013	JAN	4	0.10	74.91	254.9	26.0
2013	JAN	13	0.10	74.60	254.6	26.5
2013	JAN	21	0.098	74.28	254.2	26.9
2013	JAN	29	0.096	73.95	253.9	27.4
2013	FEB	6	0.094	73.61	253.6	27.9
2013	FEB	14	0.092	73.25	253.2	28.4
2013	FEB	22	0.090	72.87	252.8	28.9
2013	MAR	2	0.088	72.48	252.4	29.5
2013	MAR	10	0.086	72.07	252.0	30.0
2013	MAR	18	0.084	71.63	251.6	30.6
2013	MAR	26	0.082	71.18	251.1	31.2
2013	APR	3	0.080	70.70	250.7	31.9
2013	APR	12	0.078	70.20	250.2	32.5
2013	APR	20	0.076	69.68	249.6	33.2
2013	APR	28	0.074	69.12	249.1	33.9
2013	MAY	6	0.072	68.54	248.5	34.6
2013	MAY	14	0.070	67.92	247.9	35.4
2013	MAY	22	0.068	67.27	247.2	36.2
2013	MAY	30	0.066	66.57	246.5	37.0
2013	JUN	7	0.064	65.83	245.8	37.9
2013	JUN	15	0.062	65.05	245.0	38.8
2013	JUN	23	0.060	64.21	244.2	39.7
2013	JUL	1	0.058	63.31	243.3	40.6
2013	JUL	9	0.056	62.36	242.3	41.6
2013	JUL	18	0.054	61.32	241.3	42.7
2013	JUL	26	0.052	60.22	240.2	43.7
2013	AUG	3	0.050	59.02	239.0	44.8
2013	AUG	11	0.048	57.73	237.7	45.9
2013	AUG	19	0.046	56.33	236.3	47.1
2013	AUG	27	0.044	54.80	234.8	48.3
2013	SEP	4	0.042	53.16	233.1	49.5
2013	SEP	12	0.040	51.34	231.3	50.7
2013	SEP	21	0.038	49.38	229.3	52.0
2013	SEP	29	0.037	47.21	227.2	53.3
2013	OCT	7	0.035	44.83	224.8	54.6
2013	OCT	15	0.033	42.22	222.2	55.9
2013	OCT	23	0.032	39.36	219.3	57.1
2013	OCT	31	0.030	36.19	216.1	58.3
2013	NOV	8	0.029	32.71	212.7	59.5
2013	NOV	16	0.028	28.91	208.9	60.6
2013	NOV	24	0.026	24.76	204.7	61.7
2013	DEC	2	0.025	20.25	200.2	62.6
2013	DEC	11	0.025	15.40	195.4	63.3
2013	DEC	19	0.024	10.27	190.2	64.0
2013	DEC	27	0.023	4.884	184.8	64.4

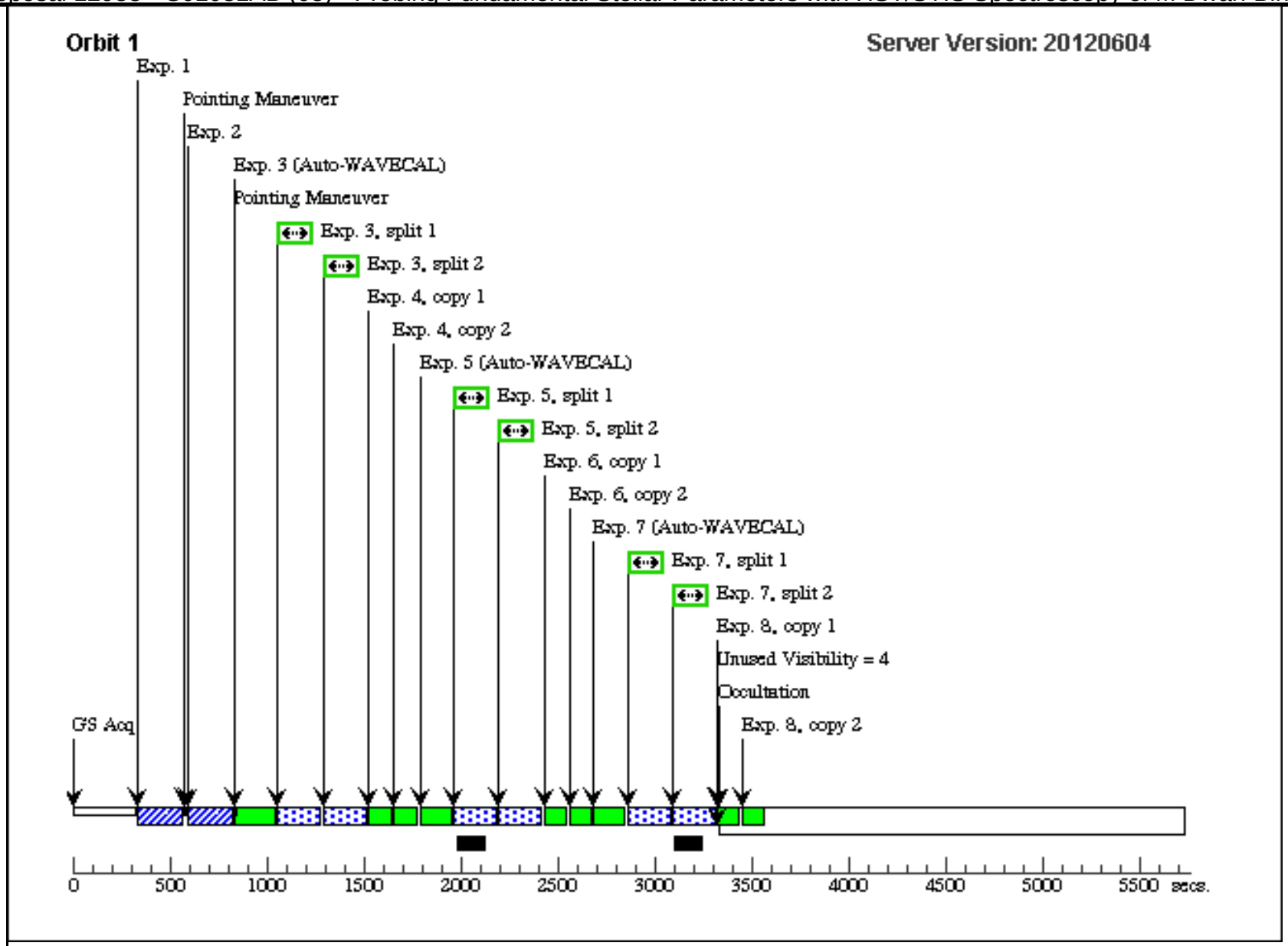
Fixed Targets

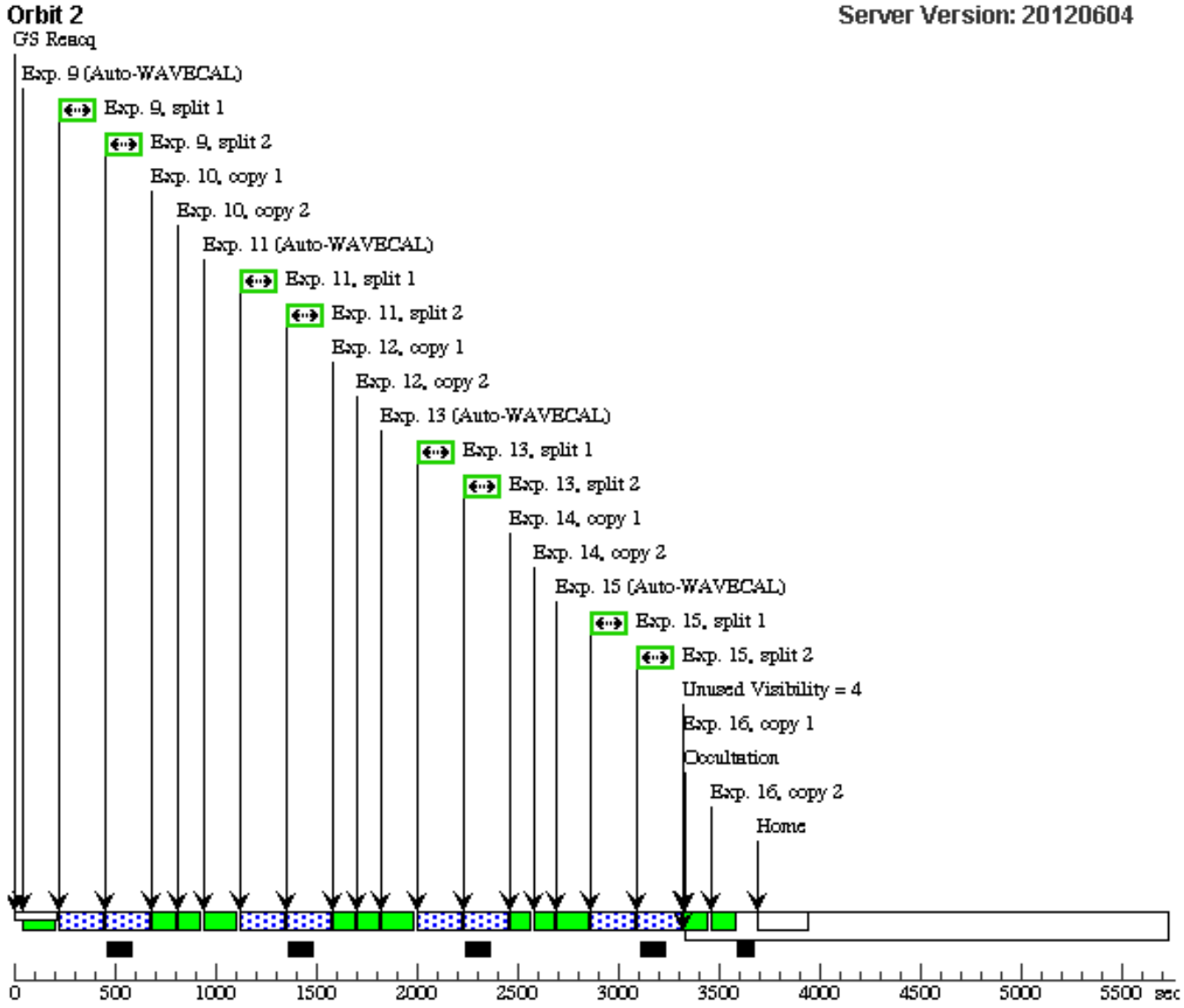
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	GJ1081AB	RA: 05 33 19.1300 (83.3297083d) Dec: +44 48 58.80 (44.81633d) Equinox: J2000	Proper Motion RA: 60 mas/yr Proper Motion Dec: -360 mas/yr Parallax: 0.0652" Epoch of Position: 2000	V=12.21+/-0.05 R=11.2, I=9.8	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	GJ1081AB Acquisition	(3) GJ1081AB	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			1 Secs *[==>]*	***[1]***
2	GJ1081AB peakup	(3) GJ1081AB	STIS/CCD, ACQ/PEAK, 52X0.1	MIRROR				1 Secs *[==>]*	***[1]***
3	GJ1081AB t ilt 1	(3) GJ1081AB	STIS/CCD, ACCUM, 52X0.2	G750M 6768 A				240 Secs *[==>186.0 Secs (Split 1)]* *[==>186.0 Secs (Split 2)]*	***[1]***
4	tilt 1 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 6768 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
5	GJ1081AB t ilt 2	(3) GJ1081AB	STIS/CCD, ACCUM, 52X0.2	G750M 7283 A				240 Secs *[==>186.0 Secs (Split 1)]* *[==>186.0 Secs (Split 2)]*	***[1]***
6	tilt 2 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 7283 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
7	GJ1081AB t ilt 3	(3) GJ1081AB	STIS/CCD, ACCUM, 52X0.2	G750M 7795 A				240 Secs *[==>186.0 Secs (Split 1)]* *[==>186.0 Secs (Split 2)]*	***[1]***
8	tilt 3 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 7795 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
9	GJ1081AB t ilt 4	(3) GJ1081AB	STIS/CCD, ACCUM, 52X0.2	G750M 8311 A				240 Secs *[==>184.0 Secs (Split 1)]* *[==>184.0 Secs (Split 2)]*	***[2]***
10	tilt 4 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 8311 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
11	GJ1081AB t ilt 5	(3) GJ1081AB	STIS/CCD, ACCUM, 52X0.2	G750M 8825 A				240 Secs *[==>184.0 Secs (Split 1)]* *[==>184.0 Secs (Split 2)]*	***[2]***
12	tilt 5 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 8825 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
13	GJ1081AB t ilt 6	(3) GJ1081AB	STIS/CCD, ACCUM, 52X0.2	G750M 9336 A				240 Secs *[==>184.0 Secs (Split 1)]* *[==>184.0 Secs (Split 2)]*	***[2]***
14	tilt 6 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 9336 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
15	GJ1081AB t ilt 7	(3) GJ1081AB	STIS/CCD, ACCUM, 52X0.2	G750M 9851 A				240 Secs *[==>184.0 Secs (Split 1)]* *[==>184.0 Secs (Split 2)]*	***[2]***
16	tilt 7 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 9851 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20120604
GS Reacq
Exp. 9 (Auto-WAVECAL)
Exp. 9, split 1
Exp. 9, split 2
Exp. 10, copy 1
Exp. 10, copy 2
Exp. 11 (Auto-WAVECAL)
Exp. 11, split 1
Exp. 11, split 2
Exp. 12, copy 1
Exp. 12, copy 2
Exp. 13 (Auto-WAVECAL)
Exp. 13, split 1
Exp. 13, split 2
Exp. 14, copy 1
Exp. 14, copy 2
Exp. 15 (Auto-WAVECAL)
Exp. 15, split 1
Exp. 15, split 2
Unused Visibility = 4
Exp. 16, copy 1
Occultation
Exp. 16, copy 2
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 12938, GJ469AB (06) Thu Jul 12 02:38:03 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: SCHED 100%; ORIENT 185D TO 189 D; BETWEEN 18-MAR-2013:00:00:00 AND 15-APR-2013:00:00:00

Comments: Note from PI (Sergio Dieterich, dieterich@chara.gsu.edu)

The purpose of this observation is to obtain simultaneous long slit spectroscopy for both components of a binary star by aligning the binary's separation axis to the STIS long slit. The binary's position angle moves during cycle 20. I have used the visit planer to select the ORIENT/date combination that seems easier to schedule, but any combination meeting the following table will acheieve the science.
Feel free to change ORIENT and date to any other match in the table if it makes life easier.
In the table, ORIENT1 and ORIENT2 are different by 180 degrees.

PLEASE MAKE SURE THE ORIENT AT THE TIME OF OBSERVATION IS WITHIN THE +- TOLERANCE LISTED IN THE LAST COLUMN.

# YEAR	MONTH	DAY	SEP"	ORIENT1	ORIENT2	ORIENT_TOLERANCE
2012	AUG	5	0.208	25.4	205.4	13.49
2012	AUG	14	0.206	24.9	204.9	13.60
2012	AUG	22	0.204	24.4	204.4	13.72
2012	AUG	31	0.202	24.0	204.0	13.84
2012	SEP	8	0.201	23.4	203.4	13.96
2012	SEP	17	0.199	22.9	202.9	14.08
2012	SEP	26	0.197	22.4	202.4	14.20
2012	OCT	4	0.195	21.9	201.9	14.33
2012	OCT	12	0.193	21.3	201.3	14.46
2012	OCT	21	0.191	20.8	200.8	14.59
2012	OCT	30	0.190	20.2	200.2	14.73
2012	NOV	7	0.188	19.6	199.6	14.86
2012	NOV	15	0.186	19.0	199.0	15.00
2012	NOV	24	0.184	18.5	198.5	15.14
2012	DEC	3	0.182	17.8	197.8	15.28
2012	DEC	11	0.181	17.2	197.2	15.43
2012	DEC	19	0.179	16.6	196.6	15.57
2012	DEC	28	0.177	15.9	195.9	15.72
2013	JAN	6	0.175	15.3	195.3	15.87
2013	JAN	14	0.174	14.6	194.6	16.02
2013	JAN	22	0.172	13.9	193.9	16.18
2013	JAN	31	0.170	13.2	193.2	16.33
2013	FEB	9	0.168	12.5	192.5	16.49
2013	FEB	17	0.167	11.8	191.8	16.65
2013	FEB	25	0.165	11.0	191.0	16.81
2013	MAR	6	0.163	10.3	190.3	16.97
2013	MAR	15	0.162	9.53	189.5	17.14
2013	MAR	23	0.160	8.74	188.7	17.30
2013	APR	1	0.158	7.93	187.9	17.47
2013	APR	9	0.157	7.11	187.1	17.63
2013	APR	18	0.155	6.26	186.2	17.80
2013	APR	26	0.154	5.40	185.4	17.97
2013	MAY	5	0.152	4.53	184.5	18.14
2013	MAY	13	0.151	3.63	183.6	18.31
2013	MAY	22	0.149	2.72	182.7	18.48
2013	MAY	30	0.148	1.79	181.7	18.65
2013	JUN	8	0.146	0.84	180.8	18.82
2013	JUN	16	0.145	359.87	179.8	18.98
2013	JUN	25	0.143	358.89	178.8	19.15
2013	JUL	3	0.142	357.88	177.8	19.32
2013	JUL	12	0.141	356.86	176.8	19.48
2013	JUL	20	0.140	355.82	175.8	19.64
2013	JUL	29	0.138	354.76	174.7	19.81
2013	AUG	6	0.137	353.68	173.6	19.96
2013	AUG	15	0.136	352.59	172.5	20.12
2013	AUG	23	0.135	351.47	171.4	20.27
2013	SEP	1	0.134	350.33	170.3	20.42
2013	SEP	9	0.133	349.18	169.1	20.56
2013	SEP	18	0.132	348.01	168.0	20.70
2013	SEP	27	0.131	346.83	166.8	20.83
2013	OCT	5	0.130	345.62	165.6	20.96
2013	OCT	13	0.129	344.40	164.4	21.09
2013	OCT	22	0.128	343.17	163.1	21.20
2013	OCT	31	0.128	341.92	161.9	21.32
2013	NOV	8	0.127	340.66	160.6	21.42
2013	NOV	16	0.126	339.38	159.3	21.52

2013	*NOV*	*25*	*0.126*	*338.09*	*158.0*	*21.61*
2013	*DEC*	*4*	*0.125*	*336.79*	*156.7*	*21.69*
2013	*DEC*	*12*	*0.125*	*335.48*	*155.4*	*21.76*
2013	*DEC*	*20*	*0.124*	*334.16*	*154.1*	*21.82*
2013	*DEC*	*29*	*0.124*	*332.83*	*152.8*	*21.88*

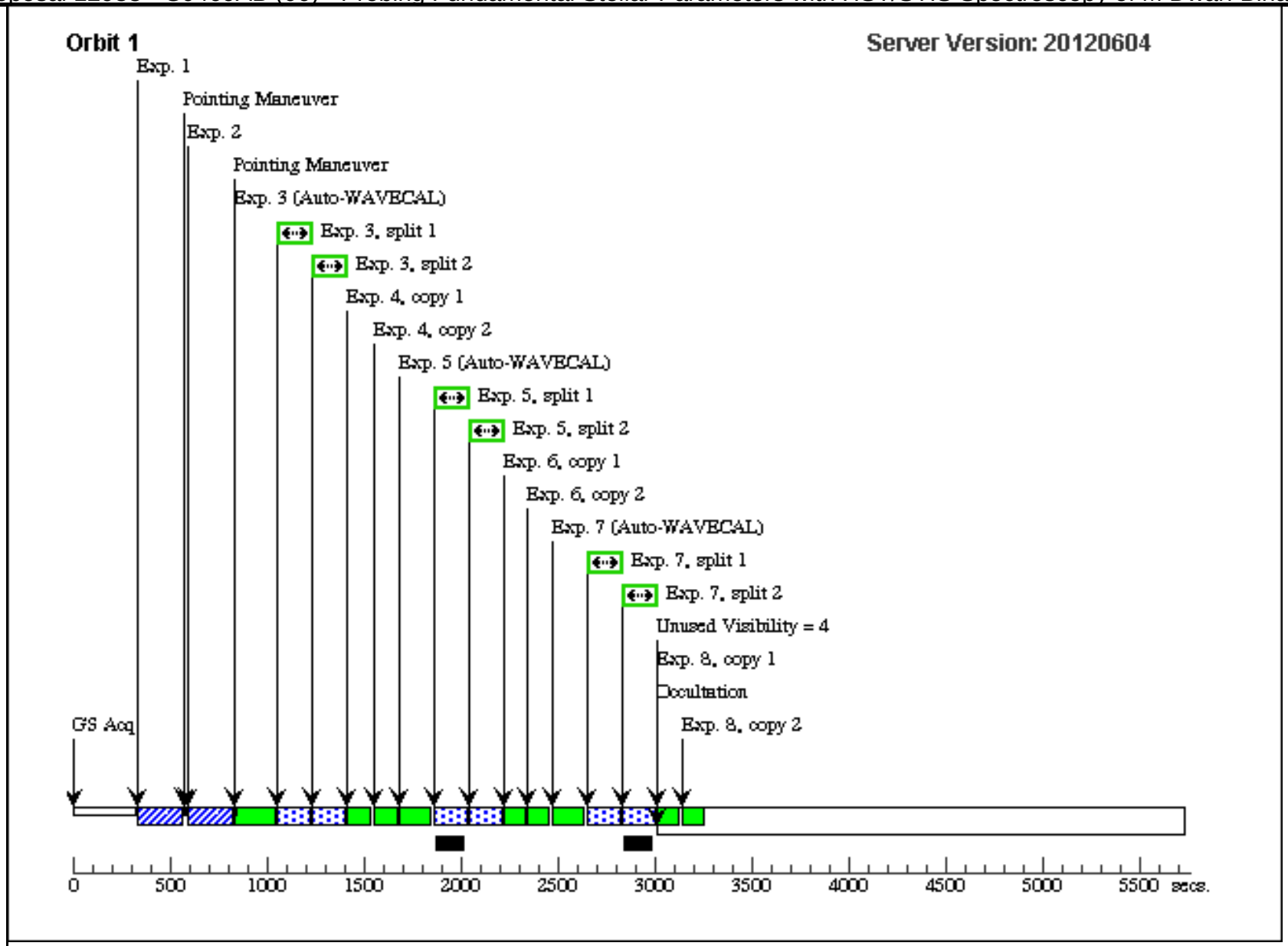
Fixed Targets

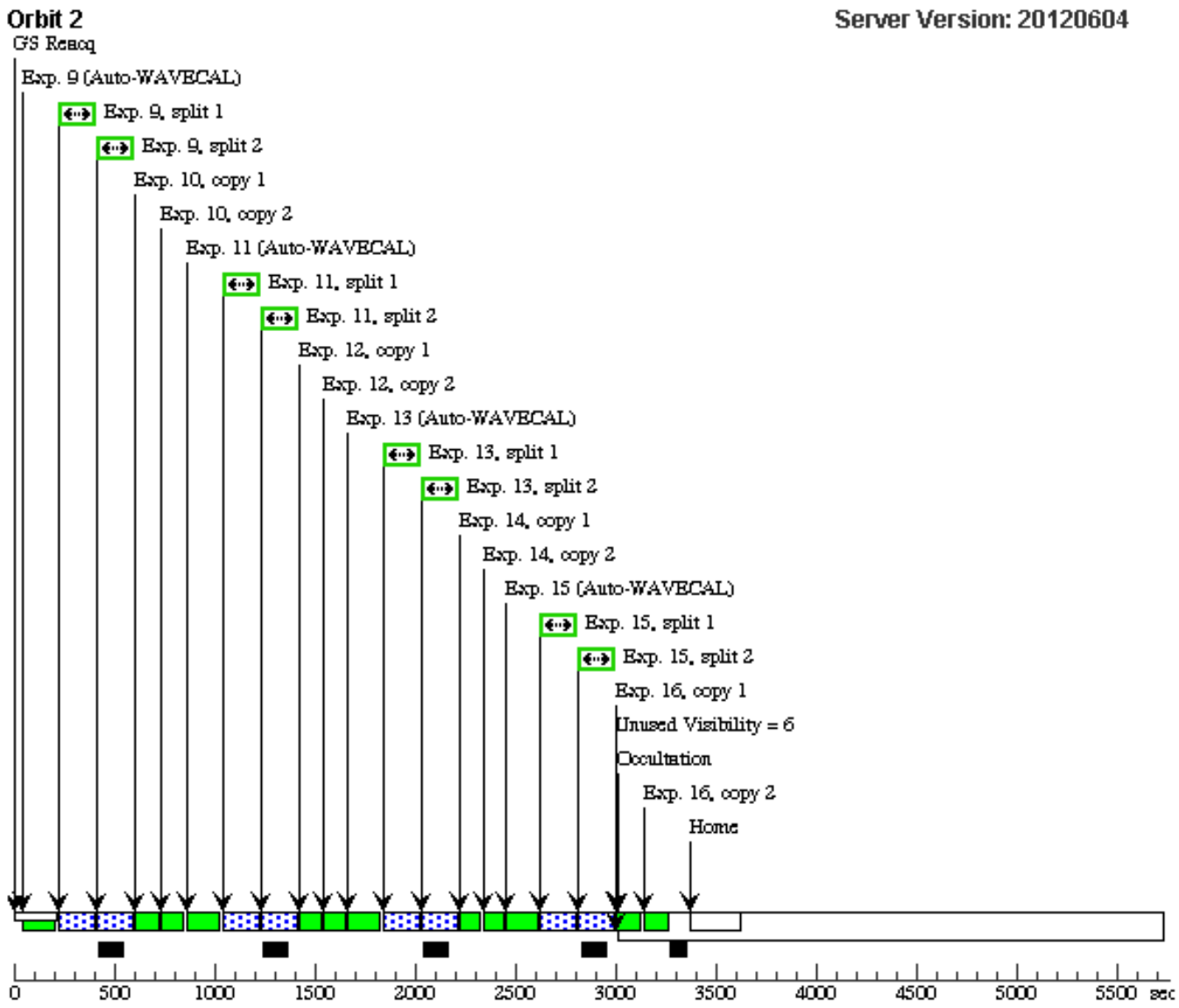
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	GJ469AB	RA: 12 28 57.5800 (187.2399167d) Dec: +08 25 31.87 (8.42552d) Equinox: J2000	Proper Motion RA: -632.02 mas/yr Proper Motion Dec: -257.34 mas/yr Parallax: 0.07585" Epoch of Position: 2000	V=12.06+/-0.05 R=10.86, I=9.32	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	GJ469AB Acquisition	(4) GJ469AB	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			1 Secs *[==>]*	*[1]*
2	GJ469AB peakup	(4) GJ469AB	STIS/CCD, ACQ/PEAK, 52X0.1	MIRROR				1 Secs *[==>]*	*[1]*
3	GJ469AB tilt 1	(4) GJ469AB	STIS/CCD, ACCUM, 52X0.2	G750M 6768 A				120 Secs *[==>133.0 Secs (Split 1)]* *[==>133.0 Secs (Split 2)]*	*[1]*
4	tilt 1 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 6768 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*
5	GJ469AB tilt 2	(4) GJ469AB	STIS/CCD, ACCUM, 52X0.2	G750M 7283 A				120 Secs *[==>133.0 Secs (Split 1)]* *[==>133.0 Secs (Split 2)]*	*[1]*
6	tilt 2 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 7283 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*
7	GJ469AB tilt 3	(4) GJ469AB	STIS/CCD, ACCUM, 52X0.2	G750M 7795 A				120 Secs *[==>133.0 Secs (Split 1)]* *[==>133.0 Secs (Split 2)]*	*[1]*
8	tilt 3 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 7795 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*
9	GJ469BC tilt 4	(4) GJ469AB	STIS/CCD, ACCUM, 52X0.2	G750M 8311 A				120 Secs *[==>144.0 Secs (Split 1)]* *[==>144.0 Secs (Split 2)]*	*[2]*
10	tilt 4 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 8311 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	*[2]*
11	GJ469AB tilt 5	(4) GJ469AB	STIS/CCD, ACCUM, 52X0.2	G750M 8825 A				120 Secs *[==>144.0 Secs (Split 1)]* *[==>144.0 Secs (Split 2)]*	*[2]*
12	tilt 5 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 8825 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	*[2]*
13	GJ469AB tilt 6	(4) GJ469AB	STIS/CCD, ACCUM, 52X0.2	G750M 9336 A				120 Secs *[==>144.0 Secs (Split 1)]* *[==>144.0 Secs (Split 2)]*	*[2]*
14	tilt 6 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 9336 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	*[2]*
15	GJ469AB tilt 7	(4) GJ469AB	STIS/CCD, ACCUM, 52X0.2	G750M 9851 A				120 Secs *[==>144.0 Secs (Split 1)]* *[==>144.0 Secs (Split 2)]*	*[2]*
16	tilt 7 flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2	G750M 9851 A				*[==>(Copy 1)]* *[==>(Copy 2)]*	*[2]*

Orbit Structure

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Exp. 9, split 2
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Exp. 11 (Auto-WAVECAL)
Exp. 11, split 1
Exp. 11, split 2
Exp. 12, copy 1
Exp. 12, copy 2
Exp. 13 (Auto-WAVECAL)
Exp. 13, split 1
Exp. 13, split 2
Exp. 14, copy 1
Exp. 14, copy 2
Exp. 15 (Auto-WAVECAL)
Exp. 15, split 1
Exp. 15, split 2
Exp. 16, copy 1
Unused Visibility = 6
Occultation
Exp. 16, copy 2
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec