16850 - FUV Focus Sweep for COS: LP6 Enabling

Cycle: 29, Proposal Category: CAL/COS

(Availability Mode: RESTRICTED)

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	(3) LIN-156 NONE	COS COS/FUV COS/NUV	3	19-Oct-2021 07:00:21.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
02	(3) LIN-156 NONE	COS COS/FUV COS/NUV	5	19-Oct-2021 07:00:26.0	yes
03	(4) FEIGE-48 NONE	COS COS/FUV COS/NUV	3	19-Oct-2021 07:00:36.0	yes
04	(4) FEIGE-48 NONE	COS COS/FUV COS/NUV	5	19-Oct-2021 07:00:43.0	yes

16 Total Orbits Used

ABSTRACT

This program is designed to search for the best focus for the G130M/1222 and G160M/1600 settings at Lifetime Position 6 (LP6) at +6.5" on the FUV detector. The focus sweeps are designed to determine the best focus position to within 100 steps, and will scan at 200 focus step increments from -1000 to +1000 relative to the predicted best focuses for the G130M/1222 and G160M/1600 settings which were determined by extrapolation from the adjacent exploratory sweep at +7". This strategy is based on several earlier programs (PIDs 13635, 14527, 15451, 16431, 16491), which all executed successfully. We will adjust the focus in steps of 200 as is typical for focus sweeps, with finer, 100 step increments between relative focus steps of [-200,+200]

The target for this program is AzV 75, as this star is visible with HST during the required operation window (Nov-Dec, 2021). This program also includes a backup target, Feige 48, with visits which would be observed in late Dec. 2021 - early Jan. 2022. The exposure times at each step are defined to provide spectra with S/N ~ 30 in the faintest portion of each spectrum.

OBSERVING DESCRIPTION

This program performs a focus sweep at LP6 with G130M/1222 (Visit 01) and G160M/1600 (Visit 02), with Visits 03 and 04 performing the same sweeps on a second star available at a later visit window should the observing window for Visits 01 and 02 have passed.

Sweep Visits 01 and 02 of AzV 75 are designed as follows:

1. Perform ACQ/SEARCH (Due to past GS acquisition issues e.g., Visit 01 of Cycle 23 program 14437; see HOPR 83980)
2. Perform two ACQ/IMAGEs to acquire target AzV 75 and to counter potential gyro issues.
3. Initial exposure at relative focus offset set to 0, allowing for set up of the correct instrument mode for the focus sweep. Absolute focus value is set by FSW patch.
4. ALIGN/OSM exposure: Move the focus to -1000 steps from the preliminary absolute focus values f =-951, +78 for G130M/1222 (V01) and G160M/1600 (V02), respectively.
5. Take a spectrum with a minimum S/N ~ 30
6. Repeat steps 3 and 4, sweeping over focus values of -1000 to +1000, in increments of 200 steps with finer, 100 step increments between [-200,+200].
7. Re-set the absolute focus offset to 0

THE FOLLOWING VISITS ARE ON HOLD AND ONLY REQUIRED IF OBSERVING WINDOW FOR VISITS 1&2 HAVE PASSED

Sweep Visit 03 of Feige 48 is designed as follows:

1. Perform two ACQ/IMAGEs to acquire target Feige 48.
2. Initial exposure at relative focus offset set to 0, allowing for set up of the correct instrument mode for the focus sweep.
3. ALIGN/OSM exposure: Move the focus to -1000 steps from the preliminary G130M/1222 absolute focus value, f =-951.
4. Take a spectrum with a minimum S/N ~ 30 using FUVA only.
   NOTE: FUVA and FUVB exposures must be done consecutively (not simultaneously) for health and safety (bright object) reasons.
5. Repeat steps 3 and 4, sweeping over focus values of -1000 to +1000, in increments of 200 steps with finer, 100 step increments between [-200,+200].
6. Take a spectrum with a minimum S/N ~ 30 using FUVB only.
7. ALIGN/OSM exposure: Move the focus to +1000 steps from the preliminary G130M/1222 absolute focus value, f = -951.
8. Repeat steps 6 and 7, sweeping over focus values of +1000 to -1000, in increments of 200 steps with finer, 100 step increments between [-200,+200].
9. Re-set the relataive focus offset to 0

NOTE ON OBSERVATIONS USING INDIVIDUAL SEGMENTS: As visible in the ETC calculations for Feige 48 in Visit 03, the global count rate

exceeds the acceptable 30K counts/s value. Exceeding this value results in a loss of data. To counter this, we only use one segment at a time, such that global rates are below the 30K counts/s threshold.

Sweep Visit 04 of Feige 48 is designed as follows:

1. Perform two ACQ/IMAGEs to acquire target Feige 48.
2. Initial exposure at relative focus offset set to 0, allowing for set up of the correct instrument mode for the focus sweep.
3. ALIGN/OSM exposure: Move the focus to -1000 steps from the preliminary G160M/1600 absolute focus value f =+78
4. Take a spectrum with a minimum S/N ~ 30
5. Repeat steps 3 and 4, sweeping over focus values of -1000 to +1000, in increments of 200 steps with finer, 100 step increments between [-200,+200].
6. Re-set the relative focus offset to 0

The soft stops for the OSM focus mechanism are at -2900 and +2505 absolute focus steps. The absolute focus step ranges for the two grating setups employed in this program are [-1951,+49] and [-922,+1078] for G130M/1222 and G160M/1600, respectively, and do not risk running into the soft stops.

The SIAF to be used includes the following LP6 positions:

AP	V2	V3
LFBOA6	230.9137	-239.2749
LFPSA6	237.3192	-232.9188
LAPTFBOAF6	227.9450	-242.2930
LAPTFPSAF6	240.2879	-229.9007

The FSW patchable constant table pcmech_ApMXDispPosition should use the following LP6 positions:

{ -11, 126 }, /* PSA_LP6 */

{-98, -153 }, /* BOA_LP6 */
{-98, -153 }, /* FCA_LP6 */
{ 22, 126 }, /* WCA_LP6 */

The FSW patchabale constant table pcmech_OSMTbl should use the following focus positions for the G130M/1222 and G160M/1600 settings:

G160M/1600 : 78
G130M/1222 : -951

The HV values for all modes at LP6 should be:
FUVA: 167
FUVB: 169

Wavecals are turned off to mitigate light-leak issues above +5.5" (i.e. WAVECAL=NO, FLASH=NO

----SPECIAL REQUESTS:-----
Please turn off calibration for the COS/FUV exposures. These data should not be used for scientific purposes due to non-finalized pointing and focus values.
Please disassociate all exposures. All data that is not calibrated must be disassociated to make it into the archive.
SQL is used to meet the above requests.
In case 1 qexposure.control_id is modified. In case 2 qeassociation records are deleted. Contact G. Chapman/M. Reinhart for further information about this process.

Visit

Proposal 16850, G130M/1222 AzV 75 (01), implementation Tue Oct 19 11:00:44 GMT 2021

Diagnostic Status: No Diagnostics

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

Special Requirements: ORIENT 275D TO 60 D; ORIENT 160D TO 165 D

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	LIN-156 Alt Name1: AZV75	RA: 00 50 32.4076 (12.6350317d) Dec: -72 52 36.46 (-72.87679d) Equinox: J2000	Proper Motion RA: 1.428761918512278E-4 sec of time/yr Proper Motion Dec: -0.0010469999779161299 arcsec/yr Epoch of Position: 2015.5	V=12.756	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[MAIN SEQUENCE O]
Extended=NO

Exposures

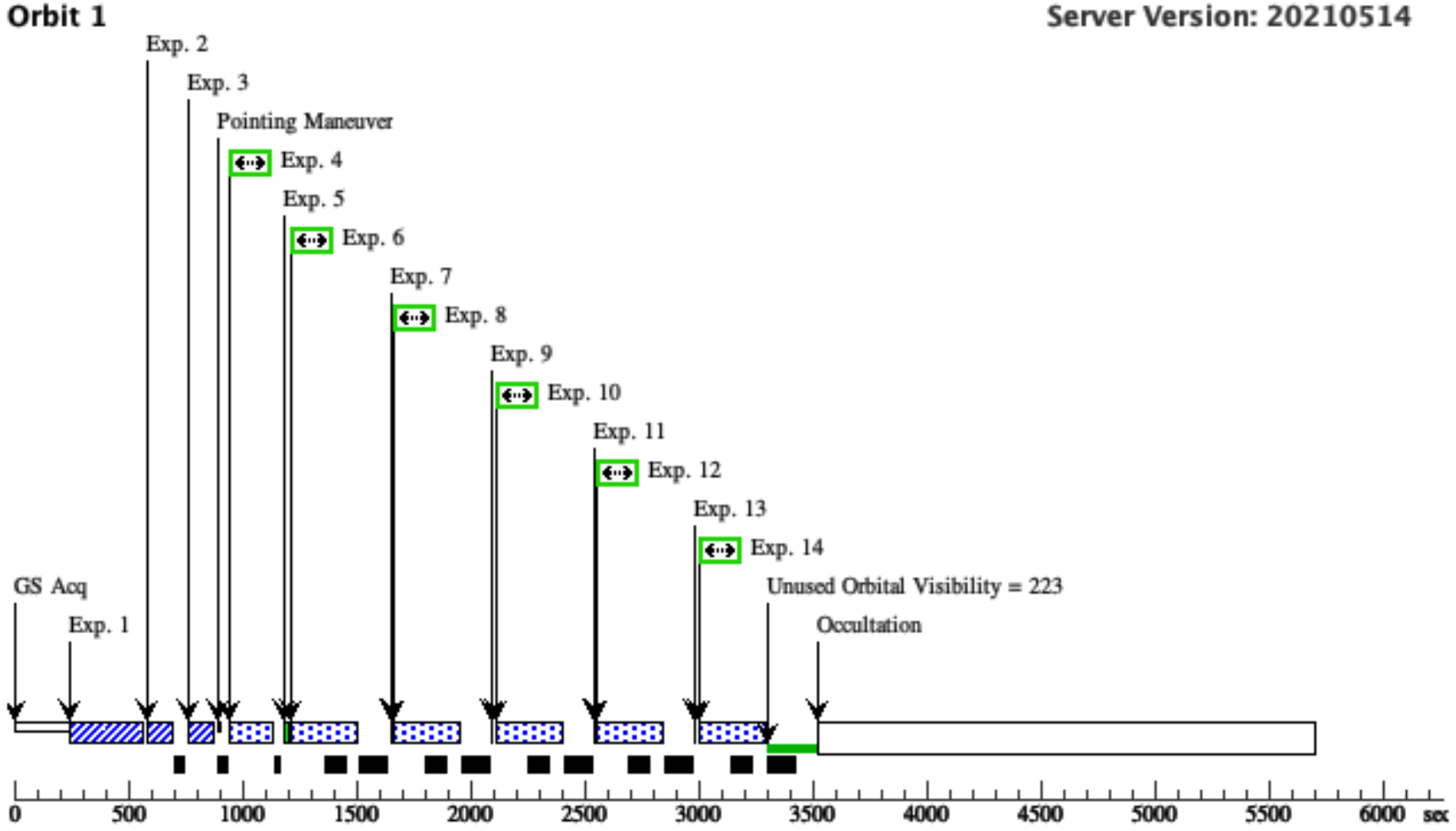
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/SEARCH (COS.ta.1541166)	(3) LIN-156	COS/NUV, ACQ/SEARCH, BOA	MIRRORA	SCAN-SIZE=2; STEP-SIZE=1.767; CENTER=FLUX-WT			7.6 Secs (7.6 Secs) *[==>]*	***[1]***
	Comments: Exp time for S/N = 40								
2	ACQ/IMAGE (COS.ta.1541167)	(3) LIN-156	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				3 Secs (3 Secs) *[==>]*	***[1]***
	Comments: Exp time for S/N = 30								
3	ACQ/IMAGE (COS.ta.1541167)	(3) LIN-156	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				3 Secs (3 Secs) *[==>]*	***[1]***
	Comments: Exp time for S/N = 30								
4	Initialize G130M/1222 at nominal aperture and focus position (COS.sp.1535470)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=111; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6			0.1 Secs (0.1 Secs) *[==>]*	***[1]***
	Comments: This exposure sets the correct instrument configuration before the aperture is moved. *Preliminary G130M/1222 absolute focus value, f = -951*								
5	Move to -1000	NONE	COS, ALIGN/OSM		FOCUS=-1000			0 Secs (0 Secs) *[==>]*	***[1]***
6	1222_f-1000 (COS.sp.1535470)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=111; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6			240 Secs (240 Secs) *[==>]*	***[1]***
	Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
7	Move to -800	NONE	COS, ALIGN/OSM		FOCUS=-800			0 Secs (0 Secs) *[==>]*	***[1]***
8	1222_f-800 (COS.sp.1535470)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=111; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6			240 Secs (240 Secs) *[==>]*	***[1]***
	Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								

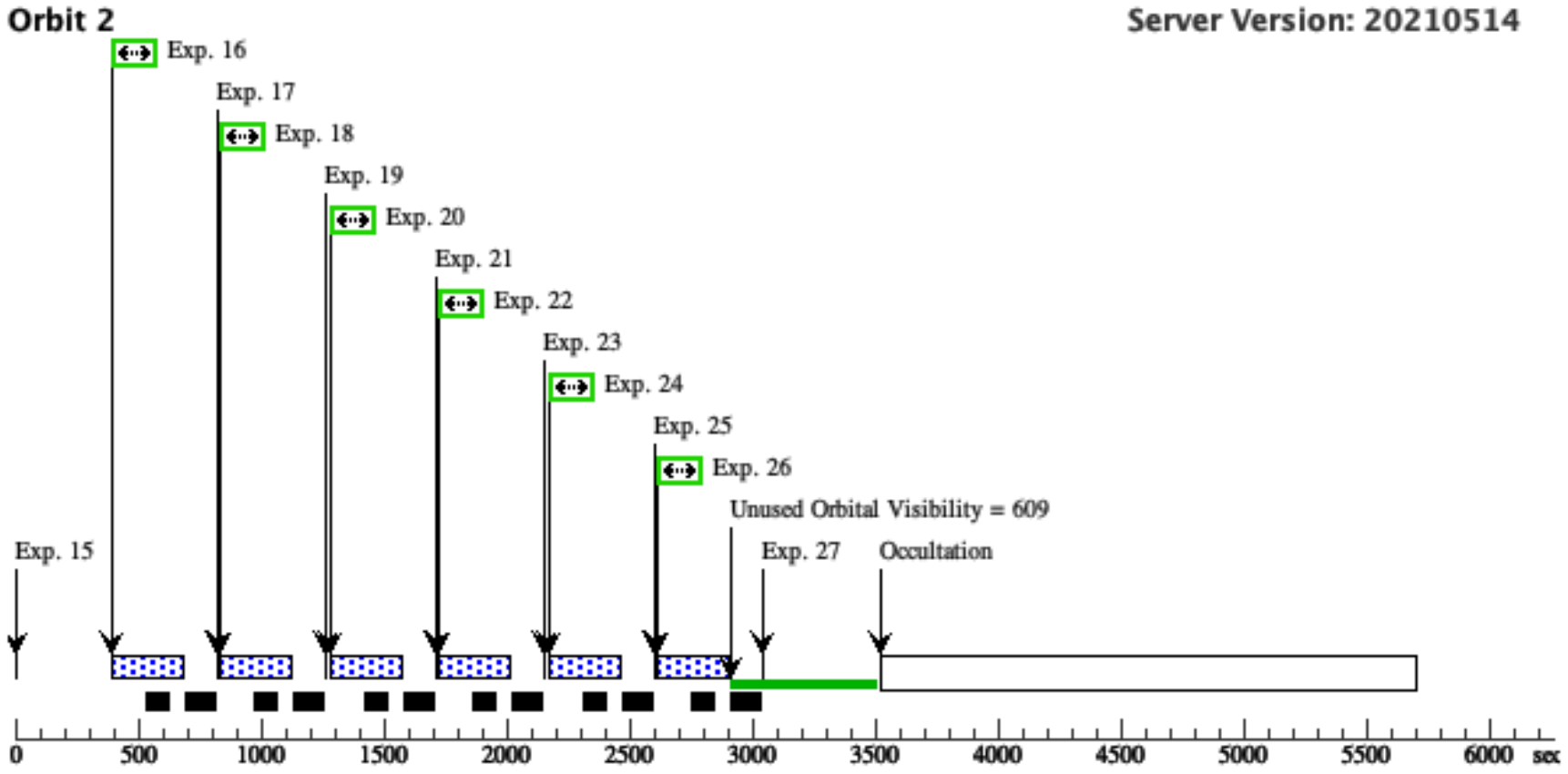
9	Move to -60 0	NONE	COS, ALIGN/OSM		FOCUS=-600	0 Secs (0 Secs) *[==>]*		**[1]**
10	1222_f-600 (COS.sp.153 5470)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=111; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6	240 Secs (240 Secs) *[==>]*		**[1]**
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
11	Move to -40 0	NONE	COS, ALIGN/OSM		FOCUS=-400	0 Secs (0 Secs) *[==>]*		**[1]**
12	1222_f-400 (COS.sp.153 5470)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=111; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6	240 Secs (240 Secs) *[==>]*		**[1]**
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
13	Move to -20 0	NONE	COS, ALIGN/OSM		FOCUS=-200	0 Secs (0 Secs) *[==>]*		**[1]**
14	1222_f-200 (COS.sp.153 5470)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=111; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6	240 Secs (240 Secs) *[==>]*		**[1]**
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
15	Move to -10 0	NONE	COS, ALIGN/OSM		FOCUS=-100	0 Secs (0 Secs) *[==>]*		**[2]**
16	1222_f-100 (COS.sp.153 5470)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=111; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6	240 Secs (240 Secs) *[==>]*		**[2]**
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
17	Move to 0	NONE	COS, ALIGN/OSM		FOCUS=0	0 Secs (0 Secs) *[==>]*		**[2]**

18	1222_f_0 (COS.sp.1535470)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=111; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6		240 Secs (240 Secs) *[==>]*	***[2]***
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
19	Move to +100	NONE	COS, ALIGN/OSM		FOCUS=+100		0 Secs (0 Secs) *[==>]*	***[2]***
20	1222_f+100 (COS.sp.1535470)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=111; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6		240 Secs (240 Secs) *[==>]*	***[2]***
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
21	Move to +200	NONE	COS, ALIGN/OSM		FOCUS=+200		0 Secs (0 Secs) *[==>]*	***[2]***
22	1222_f+200 (COS.sp.1535470)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=111; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6		240 Secs (240 Secs) *[==>]*	***[2]***
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
23	Move to +400	NONE	COS, ALIGN/OSM		FOCUS=+400		0 Secs (0 Secs) *[==>]*	***[2]***
24	1222_f+400 (COS.sp.1535470)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=111; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6	POS TARG 0.0,0.0	240 Secs (240 Secs) *[==>]*	***[2]***
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
25	Move to +600	NONE	COS, ALIGN/OSM		FOCUS=+600		0 Secs (0 Secs) *[==>]*	***[2]***

26	1222_f+600 (COS.sp.1535470)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=111; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6	POS TARG 0.0,0.0	240 Secs (240 Secs) *[==>]*	**[2]**
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*									
27	Move to +800	NONE	COS, ALIGN/OSM		FOCUS=+800		0 Secs (0 Secs) *[==>]*	**[2]**
28	1222_f+800 (COS.sp.1535470)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=111; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6	POS TARG 0.0,0.0	240 Secs (240 Secs) *[==>]*	**[3]**
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*									
29	Move to +1000	NONE	COS, ALIGN/OSM		FOCUS=+1000		0 Secs (0 Secs) *[==>]*	**[3]**
30	1222_f+1000 (COS.sp.1535470)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=111; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6	POS TARG 0.0,0.0	240 Secs (240 Secs) *[==>]*	**[3]**
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*									
31	Move to 0	NONE	COS, ALIGN/OSM		FOCUS=0		0 Secs (0 Secs) *[==>]*	**[3]**

Orbit Structure

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Exp. 17
Exp. 18
Exp. 19
Exp. 20
Exp. 21
Exp. 22
Exp. 23
Exp. 24
Exp. 25
Exp. 26
Unused Orbital Visibility = 609
Exp. 15
Exp. 27
Occultation
0
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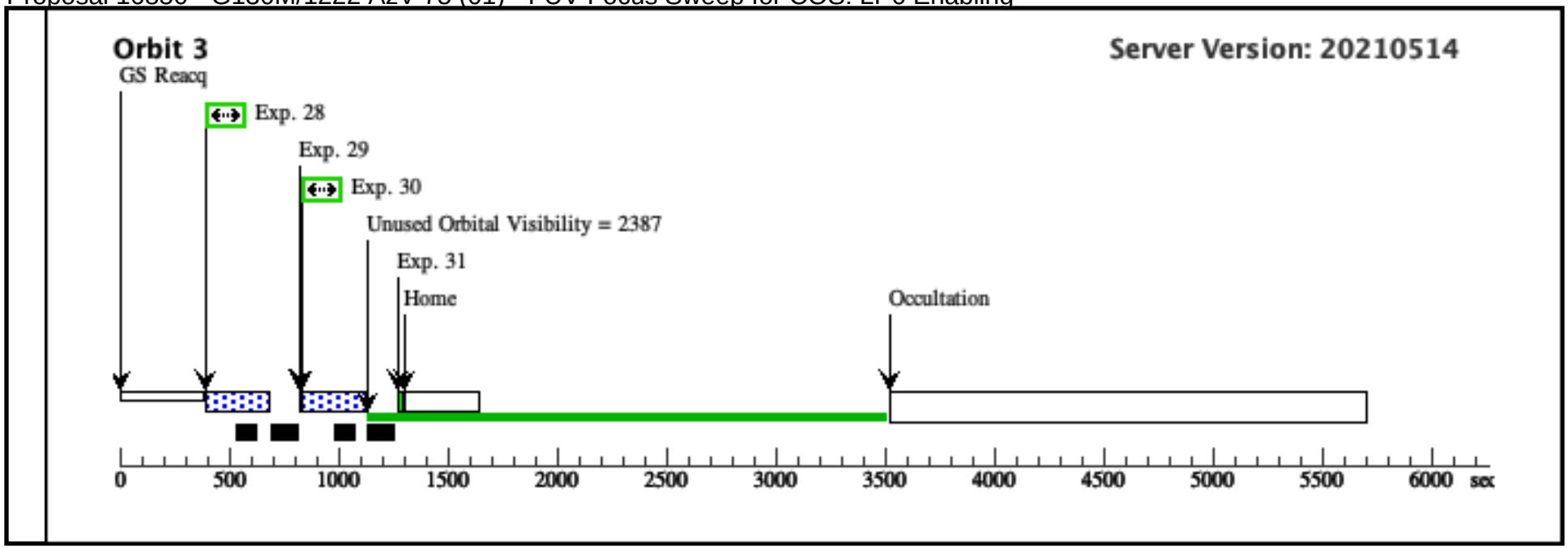
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 3
Server Version: 20210514
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Exp. 29
Exp. 30
Unused Orbital Visibility = 2387
Exp. 31
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16850, G160M/1600 AZV 75 (02), implementation Tue Oct 19 11:00:44 GMT 2021

Diagnostic Status: No Diagnostics

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

Special Requirements: ORIENT 275D TO 60 D; ORIENT 160D TO 165 D

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	LIN-156 Alt Name1: AZV75	RA: 00 50 32.4076 (12.6350317d) Dec: -72 52 36.46 (-72.87679d) Equinox: J2000	Proper Motion RA: 1.428761918512278E-4 sec of time/yr Proper Motion Dec: -0.0010469999779161299 arcsec/yr Epoch of Position: 2015.5	V=12.756	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[MAIN SEQUENCE O]
Extended=NO

Exposures

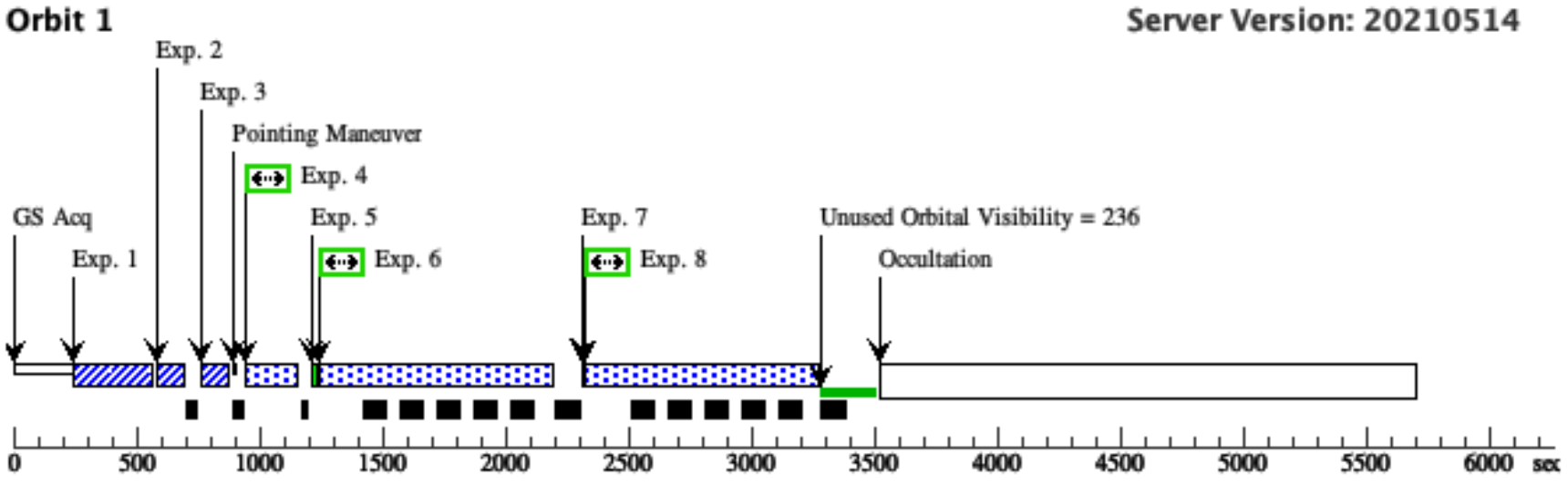
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/SEARCH (COS.ta.1541166)	(3) LIN-156	COS/NUV, ACQ/SEARCH, BOA	MIRRORA	SCAN-SIZE=2; STEP-SIZE=1.767; CENTER=FLUX-WT			7.6 Secs (7.6 Secs) *[==>]*	***[1]***
	Comments: Exposure time for S/N = 40								
2	ACQ/IMAGE (COS.ta.1541167)	(3) LIN-156	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				3 Secs (3 Secs) *[==>]*	***[1]***
	Comments: S/N=30								
3	ACQ/IMAGE (COS.ta.1541167)	(3) LIN-156	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				3 Secs (3 Secs) *[==>]*	***[1]***
	Comments: S/N=30								
4	Initialize G160M/1600 at nominal aperture and focus position (COS.sp.1535480)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=1100; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6			0.1 Secs (0.1 Secs) *[==>]*	***[1]***
	Comments: This exposure sets the correct instrument configuration before the aperture is moved. *Preliminary G160M/1600 absolute focus value f =+78*								
5	Move to -1000	NONE	COS, ALIGN/OSM		FOCUS=-1000			0 Secs (0 Secs) *[==>]*	***[1]***
6	1600_f-1000 (COS.sp.1535480)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=150; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3			900 Secs (900 Secs) *[==>]*	***[1]***
	Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
7	Move to -800	NONE	COS, ALIGN/OSM		FOCUS=-800			0 Secs (0 Secs) *[==>]*	***[1]***
8	1600_f-800 (COS.sp.1535480)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=150; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3			900 Secs (900 Secs) *[==>]*	***[1]***
	Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								

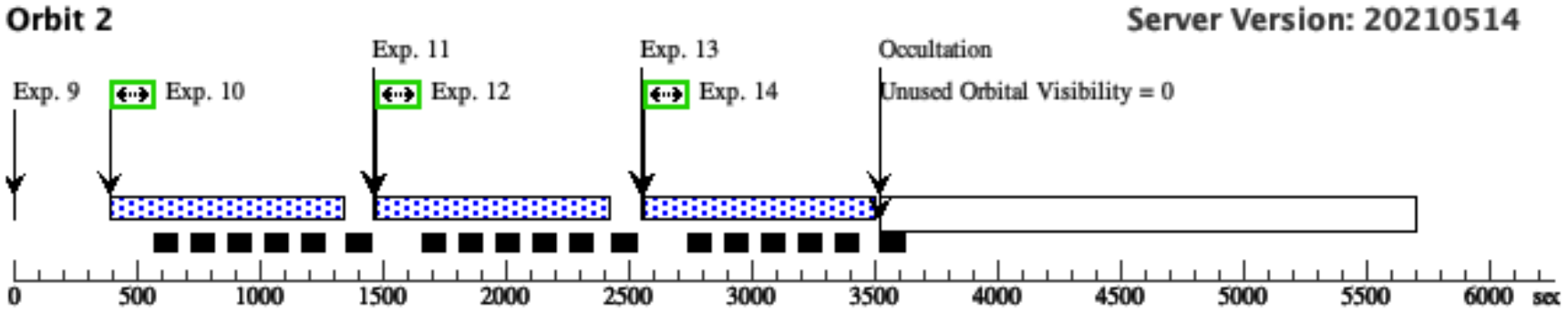
9	Move to -600	NONE	COS, ALIGN/OSM		FOCUS=-600	0 Secs (0 Secs) *[==>]*		**[2]**
10	1600_f-600 (COS.sp.1535480)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=150; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	900 Secs (900 Secs) *[==>]*		**[2]**
Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
11	Move to -400	NONE	COS, ALIGN/OSM		FOCUS=-400	0 Secs (0 Secs) *[==>]*		**[2]**
12	1600_f-400 (COS.sp.1535480)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=150; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	900 Secs (900 Secs) *[==>]*		**[2]**
Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
13	Move to -200	NONE	COS, ALIGN/OSM		FOCUS=-200	0 Secs (0 Secs) *[==>]*		**[2]**
14	1600_f-200 (COS.sp.1535480)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=150; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	899 Secs (899 Secs) *[==>]*		**[2]**
Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
15	Move to -100	NONE	COS, ALIGN/OSM		FOCUS=-100	0 Secs (0 Secs) *[==>]*		**[3]**
16	1600_f-100 (COS.sp.1535480)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=150; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	900 Secs (900 Secs) *[==>]*		**[3]**
Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
17	Move to 0	NONE	COS, ALIGN/OSM		FOCUS=0	0 Secs (0 Secs) *[==>]*		**[3]**

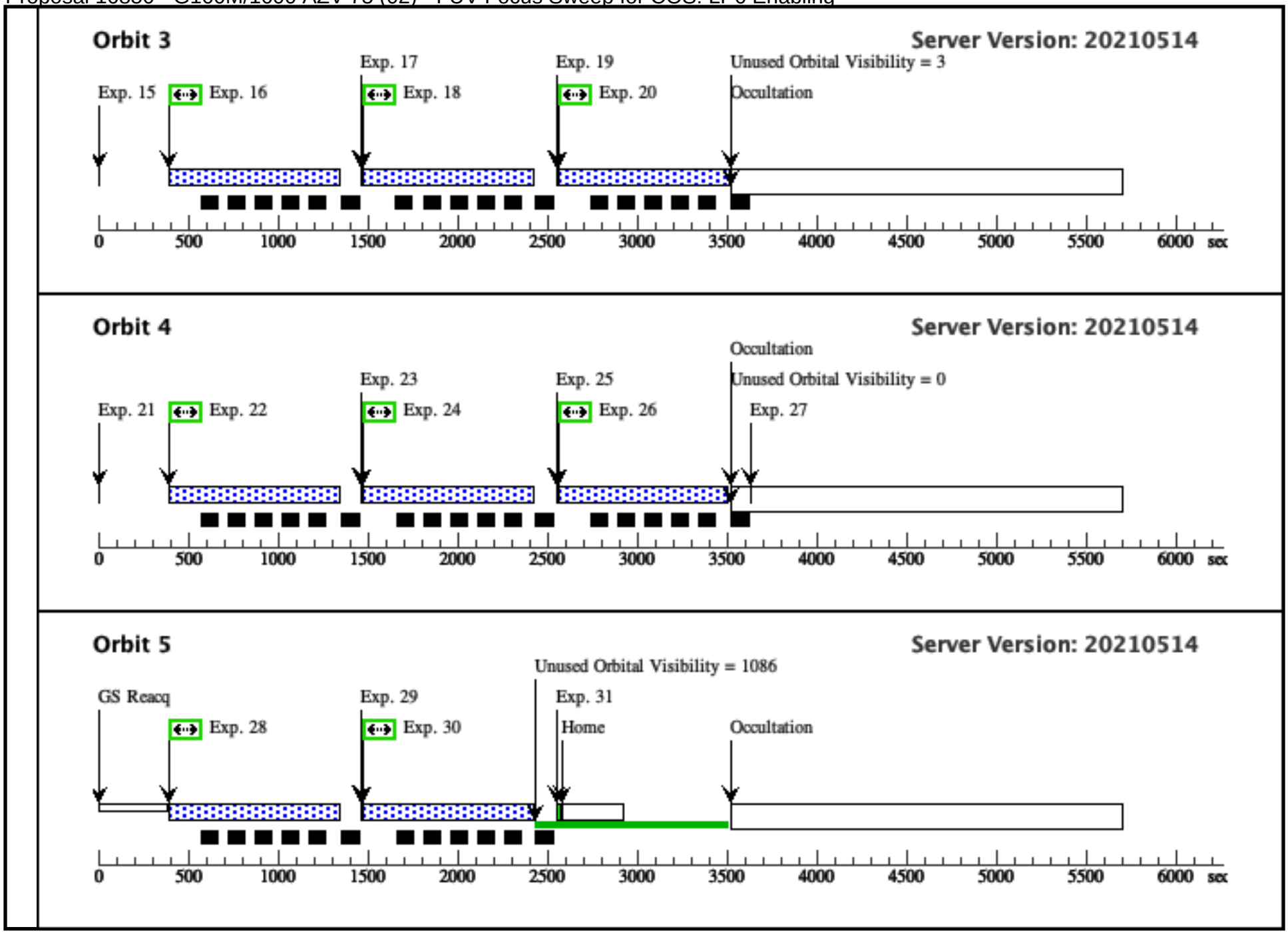
18	1600_f_0 (COS.sp.1535480)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	900 Secs (900 Secs) *[==>]*		***[3]***
	Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*							
19	Move to +100	NONE	COS, ALIGN/OSM		FOCUS=+100	0 Secs (0 Secs) *[==>]*		***[3]***
20	1600_f+100 (COS.sp.1535480)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	900 Secs (900 Secs) *[==>]*		***[3]***
	Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*							
21	Move to +200	NONE	COS, ALIGN/OSM		FOCUS=+200	0 Secs (0 Secs) *[==>]*		***[4]***
22	1600_f+200 (COS.sp.1535480)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	900 Secs (900 Secs) *[==>]*		***[4]***
	Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*							
23	Move to +400	NONE	COS, ALIGN/OSM		FOCUS=+400	0 Secs (0 Secs) *[==>]*		***[4]***
24	1600_f+400 (COS.sp.1535480)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	900 Secs (900 Secs) *[==>]*		***[4]***
	Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*							
25	Move to +600	NONE	COS, ALIGN/OSM		FOCUS=+600	0 Secs (0 Secs) *[==>]*		***[4]***

26	1600_f+600 (COS.sp.1535480)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	899 Secs (899 Secs) *[==>]*		***[4]***
	Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*							
27	Move to +800	NONE	COS, ALIGN/OSM		FOCUS=+800	0 Secs (0 Secs) *[==>]*		***[4]***
28	1600_f+800 (COS.sp.1535480)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	900 Secs (900 Secs) *[==>]*		***[5]***
	Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*							
29	Move to +1000	NONE	COS, ALIGN/OSM		FOCUS=+1000	0 Secs (0 Secs) *[==>]*		***[5]***
30	1600_f+1000 (COS.sp.1535480)	(3) LIN-156	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	900 Secs (900 Secs) *[==>]*		***[5]***
	Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*							
31	Move to 0	NONE	COS, ALIGN/OSM		FOCUS=0	0 Secs (0 Secs) *[==>]*		***[5]***

Orbit Structure






Orbit 3
Server Version: 20210514
Exp. 15
Exp. 16
Exp. 17
Exp. 18
Exp. 19
Exp. 20
Unused Orbital Visibility = 3
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec
Orbit 4
Server Version: 20210514
Exp. 21
Exp. 22
Exp. 23
Exp. 24
Exp. 25
Exp. 26
Occultation
Unused Orbital Visibility = 0
Exp. 27
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec
Orbit 5
Server Version: 20210514
GS Reacq
Exp. 28
Exp. 29
Exp. 30
Unused Orbital Visibility = 1086
Exp. 31
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16850, G130M/1222 Feige 48 (03), implementation Tue Oct 19 11:00:45 GMT 2021

Diagnostic Status: No Diagnostics

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

Special Requirements: ON HOLD

On Hold Comments: Feige 48 observations are supplementary in case the observing window for the initial visits to AzV 75 close.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	FEIGE-48	RA: 11 47 14.4421 (176.8101754d) Dec: +61 15 31.68 (61.25880d) Equinox: J2000	Proper Motion RA: -0.0035937440813851103 sec of time/yr Proper Motion Dec: -0.007394999965981697 arcsec/yr Epoch of Position: 2015.5	V=13.28	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=EXT-STAR
Description=[SDB]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1537872)	(4) FEIGE-48	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				4 Secs (4 Secs) *[==>]*	***[1]***
Comments: S/N = 30									
2	ACQ/IMAGE (COS.ta.1537872)	(4) FEIGE-48	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				4 Secs (4 Secs) *[==>]*	***[1]***
Comments: S/N = 30									
3	Initialize G130M/1222 at nominal aperture and focus position (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=88; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=A			0.1 Secs (0.1 Secs) *[==>]*	***[1]***
Comments: This exposure sets the correct instrument configuration before the aperture is moved. *Preliminary G130M/1222 absolute focus value, f = -951*									
4	Move to -1000	NONE	COS, ALIGN/OSM		FOCUS=-1000			0 Secs (0 Secs) *[==>]*	***[1]***
5	1222A_f-1000 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=88; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=A			100 Secs (100 Secs) *[==>]*	***[1]***
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*									
6	Move to -800	NONE	COS, ALIGN/OSM		FOCUS=-800			0 Secs (0 Secs) *[==>]*	***[1]***
7	1222A_f-800 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=88; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=A			100 Secs (100 Secs) *[==>]*	***[1]***
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*									
8	Move to -600	NONE	COS, ALIGN/OSM		FOCUS=-600			0 Secs (0 Secs) *[==>]*	***[1]***

9	1222A_f-600 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=88; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=A	100 Secs (100 Secs) *[==>]*		
	Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*							
10	Move to -400	NONE	COS, ALIGN/OSM		FOCUS=-400	0 Secs (0 Secs) *[==>]*		***[1]***
11	1222A_f-400 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=88; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=A	100 Secs (100 Secs) *[==>]*		***[1]***
	Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*							
12	Move to -200	NONE	COS, ALIGN/OSM		FOCUS=-200	0 Secs (0 Secs) *[==>]*		***[1]***
13	1222A_f-200 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=88; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=A	100 Secs (100 Secs) *[==>]*		***[1]***
	Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*							
14	Move to -100	NONE	COS, ALIGN/OSM		FOCUS=-100	0 Secs (0 Secs) *[==>]*		***[1]***
15	1222A_f-100 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=88; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=A	100 Secs (100 Secs) *[==>]*		***[1]***
	Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*							

16	Move to 0	NONE	COS, ALIGN/OSM		FOCUS=0	0 Secs (0 Secs) *[==>]*		
17	1222A_f_0 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=88; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=A	100 Secs (100 Secs) *[==>]*		***[1]***
	Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
18	Move to +100	NONE	COS, ALIGN/OSM		FOCUS=+100	0 Secs (0 Secs) *[==>]*		***[1]***
19	1222A_f+100 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=88; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=A	100 Secs (100 Secs) *[==>]*		***[1]***
	Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
20	Move to +200	NONE	COS, ALIGN/OSM		FOCUS=+200	0 Secs (0 Secs) *[==>]*		***[1]***
21	1222A_f+200 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=88; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=A	100 Secs (100 Secs) *[==>]*		***[2]***
	Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
22	Move to +400	NONE	COS, ALIGN/OSM		FOCUS=+400	0 Secs (0 Secs) *[==>]*		***[2]***

23	1222A_f+40 0 (COS.sp.153 6398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=88 ; WAVECAL=NO; FLASH=NO; LIFETIME-POS=L P6; SEGMENT=A	POS TARG 0.0,0.0	100 Secs (100 Secs) *[==>]*	 ***[2]***
	Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*							
24	Move to +60 0	NONE	COS, ALIGN/OSM		FOCUS=+600		0 Secs (0 Secs) *[==>]*	 ***[2]***
25	1222A_f+60 0 (COS.sp.153 6398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=88 ; WAVECAL=NO; FLASH=NO; LIFETIME-POS=L P6; SEGMENT=A	POS TARG 0.0,0.0	100 Secs (100 Secs) *[==>]*	 ***[2]***
	Comments: This exposure time gives S/N=42 at 1150A (wavelength of bluest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*							
26	Move to +80 0	NONE	COS, ALIGN/OSM		FOCUS=+800		0 Secs (0 Secs) *[==>]*	 ***[2]***
27	1222A_f+80 0 (COS.sp.153 6398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=88 ; WAVECAL=NO; FLASH=NO; LIFETIME-POS=L P6; SEGMENT=A	POS TARG 0.0,0.0	100 Secs (100 Secs) *[==>]*	 ***[2]***
	Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*							
28	Move to +10 00	NONE	COS, ALIGN/OSM		FOCUS=+1000		0 Secs (0 Secs) *[==>]*	 ***[2]***
29	1222A_f+10 00 (COS.sp.153 6398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=88 ; WAVECAL=NO; FLASH=NO; LIFETIME-POS=L P6; SEGMENT=A	POS TARG 0.0,0.0	100 Secs (100 Secs) *[==>]*	 ***[2]***
	Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*							

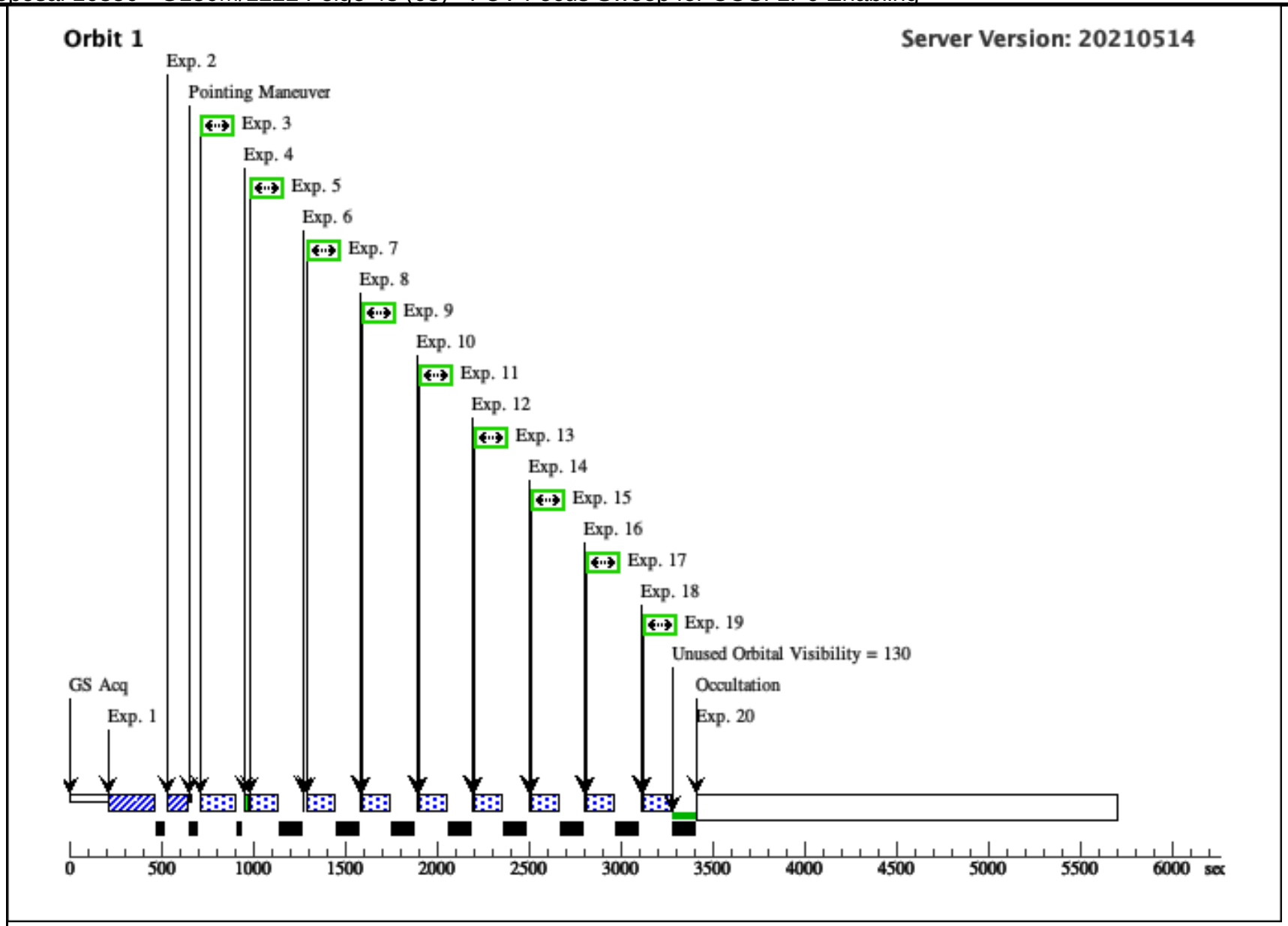
30	1222B_f+1000 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=200; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=B	POS TARG 0.0,0.0	100 Secs (100 Secs) *[==>]*	***[2]***
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
31	Move to +800	NONE	COS, ALIGN/OSM		FOCUS=+800		0 Secs (0 Secs) *[==>]*	***[2]***
32	1222B_f+800 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=200; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=B	POS TARG 0.0,0.0	100 Secs (100 Secs) *[==>]*	***[2]***
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
33	Move to +600	NONE	COS, ALIGN/OSM		FOCUS=+600		0 Secs (0 Secs) *[==>]*	***[2]***
34	1222B_f+600 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=200; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=B	POS TARG 0.0,0.0	100 Secs (100 Secs) *[==>]*	***[2]***
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
35	Move to +400	NONE	COS, ALIGN/OSM		FOCUS=+400		0 Secs (0 Secs) *[==>]*	***[2]***
36	1222B_f+400 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=200; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=B	POS TARG 0.0,0.0	100 Secs (100 Secs) *[==>]*	***[2]***
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								

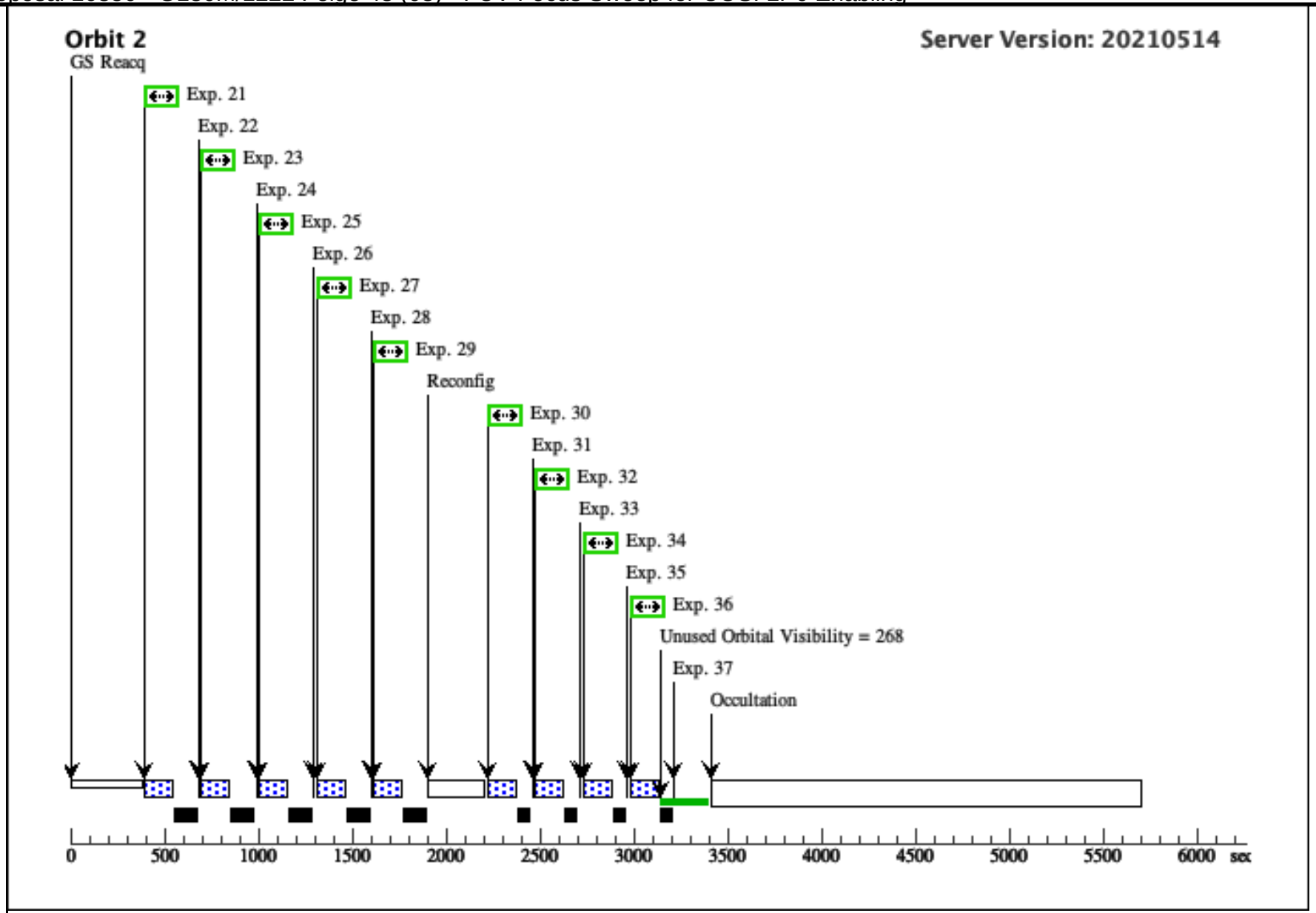
37	Move to +200	NONE	COS, ALIGN/OSM		FOCUS=+200		0 Secs (0 Secs) *[==>]*		**[2]**
38	1222B_f+200 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=200; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=B	POS TARG 0.0,0.0	100 Secs (100 Secs) *[==>]*		**[3]**
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*									
39	Move to +100	NONE	COS, ALIGN/OSM		FOCUS=+100		0 Secs (0 Secs) *[==>]*		**[3]**
40	1222B_f+100 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=200; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=B	POS TARG 0.0,0.0	100 Secs (100 Secs) *[==>]*		**[3]**
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*									
41	Move to 0	NONE	COS, ALIGN/OSM		FOCUS=0		0 Secs (0 Secs) *[==>]*		**[3]**
42	1222B_f_0 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=200; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=B	POS TARG 0.0,0.0	100 Secs (100 Secs) *[==>]*		**[3]**
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*									
43	Move to -100	NONE	COS, ALIGN/OSM		FOCUS=-100		0 Secs (0 Secs) *[==>]*		**[3]**

44	1222B_f-100 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=200; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=B	POS TARG 0.0,0.0	100 Secs (100 Secs) *[==>]*	***[3]***
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"	(i.e. WAVECAL=NO, FLASH=NO)*								
45	Move to -200	NONE	COS, ALIGN/OSM		FOCUS=-200		0 Secs (0 Secs) *[==>]*	***[3]***
46	1222B_f-200 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=200; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=B	POS TARG 0.0,0.0	100 Secs (100 Secs) *[==>]*	***[3]***
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"	(i.e. WAVECAL=NO, FLASH=NO)*								
47	Move to -400	NONE	COS, ALIGN/OSM		FOCUS=-400		0 Secs (0 Secs) *[==>]*	***[3]***
48	1222B_f-400 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=200; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=B	POS TARG 0.0,0.0	100 Secs (100 Secs) *[==>]*	***[3]***
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"	(i.e. WAVECAL=NO, FLASH=NO)*								
49	Move to -600	NONE	COS, ALIGN/OSM		FOCUS=-600		0 Secs (0 Secs) *[==>]*	***[3]***
50	1222B_f-600 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=200; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=B	POS TARG 0.0,0.0	100 Secs (100 Secs) *[==>]*	***[3]***
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"	(i.e. WAVECAL=NO, FLASH=NO)*								

51	Move to -800	NONE	COS, ALIGN/OSM		FOCUS=-800		0 Secs (0 Secs) *[==>]*		***[3]***
52	1222B_f-800 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=200; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=B	POS TARG 0.0,0.0	100 Secs (100 Secs) *[==>]*		***[3]***
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*									
53	Move to -1000	NONE	COS, ALIGN/OSM		FOCUS=-1000		0 Secs (0 Secs) *[==>]*		***[3]***
54	1222B_f-1000 (COS.sp.1536398)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=200; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6; SEGMENT=B	POS TARG 0.0,0.0	100 Secs (100 Secs) *[==>]*		***[3]***
Comments: This exposure time gives S/N=30 at 1300A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*									
55	Move to 0	NONE	COS, ALIGN/OSM		FOCUS=0		0 Secs (0 Secs) *[==>]*		***[3]***

Orbit Structure

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Exp. 22
Exp. 23
Exp. 24
Exp. 25
Exp. 26
Exp. 27
Exp. 28
Exp. 29
Reconfig
Exp. 30
Exp. 31
Exp. 32
Exp. 33
Exp. 34
Exp. 35
Exp. 36
Unused Orbital Visibility = 268
Exp. 37
Occultation
0
500
1000
1500
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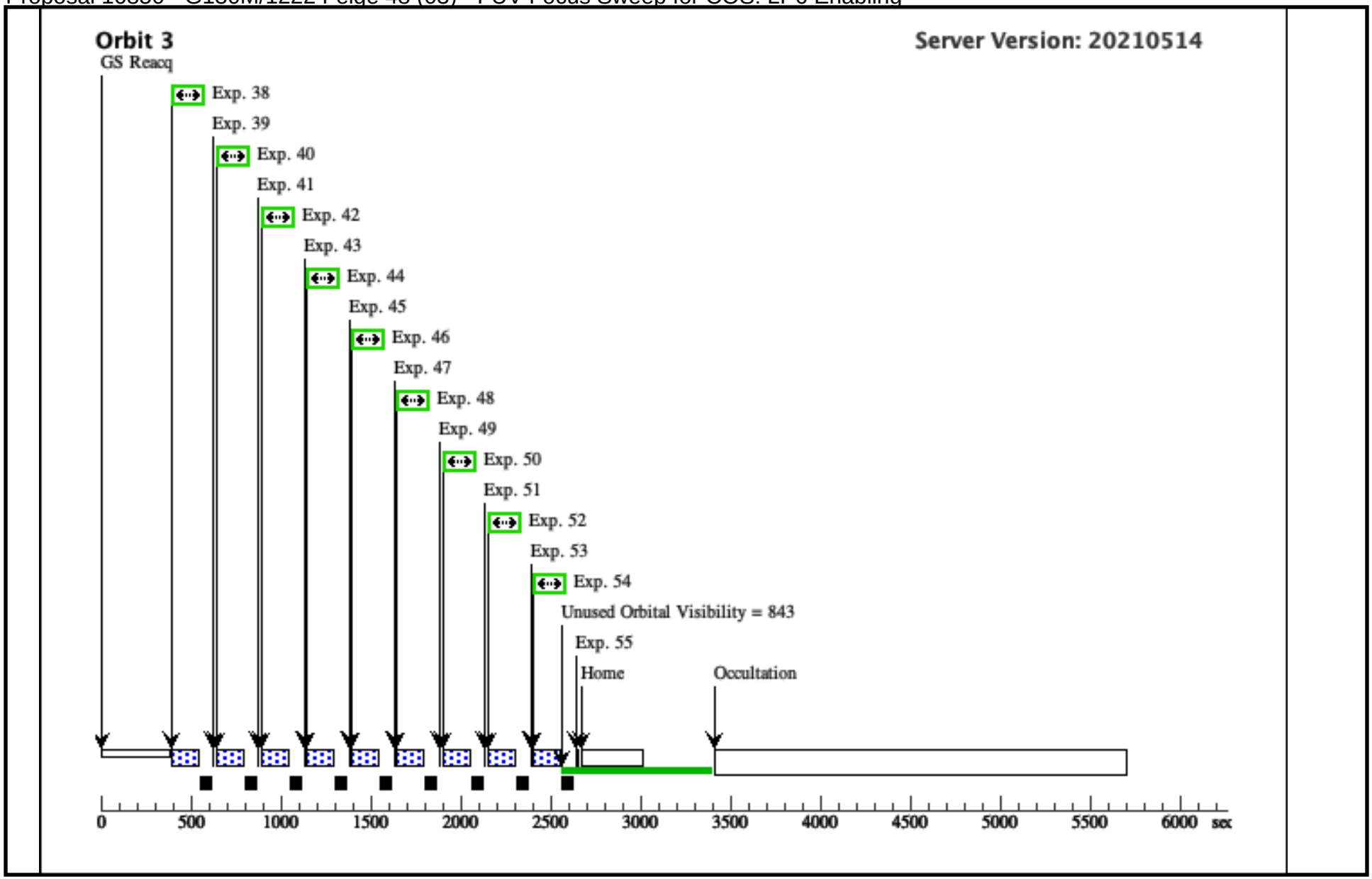
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 3
Server Version: 20210514
GS Reacq
Exp. 38
Exp. 39
Exp. 40
Exp. 41
Exp. 42
Exp. 43
Exp. 44
Exp. 45
Exp. 46
Exp. 47
Exp. 48
Exp. 49
Exp. 50
Exp. 51
Exp. 52
Exp. 53
Exp. 54
Unused Orbital Visibility = 843
Exp. 55
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16850, G160M/1600 Feige 48 (04), implementation Tue Oct 19 11:00:45 GMT 2021

Diagnostic Status: No Diagnostics

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

Special Requirements: ON HOLD

On Hold Comments: Feige 48 observations are supplementary in case the observing window for the initial visits to AzV 75 close.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	FEIGE-48	RA: 11 47 14.4421 (176.8101754d) Dec: +61 15 31.68 (61.25880d) Equinox: J2000	Proper Motion RA: -0.0035937440813851103 sec of time/yr Proper Motion Dec: -0.007394999965981697 arcsec/yr Epoch of Position: 2015.5	V=13.28	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=EXT-STAR
Description=[SDB]
Extended=NO

Exposures

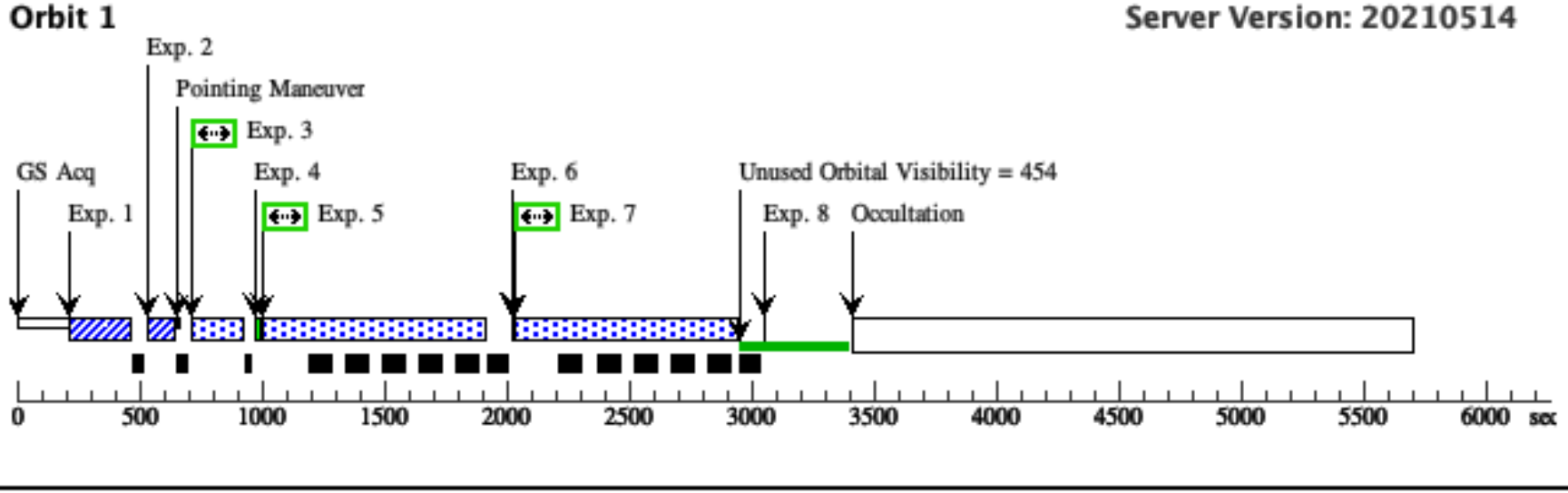
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1537872)	(4) FEIGE-48	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				4 Secs (4 Secs) *[==>]*	***[1]***
Comments: S/N=30									
2	ACQ/IMAGE (COS.ta.1537872)	(4) FEIGE-48	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				4 Secs (4 Secs) *[==>]*	***[1]***
Comments: S/N=30									
3	Initialize G160M/1600 at nominal aperture and focus position (COS.sp.1536397)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=1100; WAVECAL=NO; FLASH=NO; LIFETIME-POS=LP6			0.1 Secs (0.1 Secs) *[==>]*	***[1]***
Comments: This exposure sets the correct instrument configuration before the aperture is moved. *Preliminary G160M/1600 absolute focus value f =+78*									
4	Move to -1000	NONE	COS, ALIGN/OSM		FOCUS=-1000			0 Secs (0 Secs) *[==>]*	***[1]***
5	1600_f-1000 (COS.sp.1536397)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3			860 Secs (860 Secs) *[==>]*	***[1]***
Comments: This exposure time gives S/N=28 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*									
6	Move to -800	NONE	COS, ALIGN/OSM		FOCUS=-800			0 Secs (0 Secs) *[==>]*	***[1]***
7	1600_f-800 (COS.sp.1536397)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3			860 Secs (860 Secs) *[==>]*	***[1]***
Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*									
8	Move to -600	NONE	COS, ALIGN/OSM		FOCUS=-600			0 Secs (0 Secs) *[==>]*	***[1]***

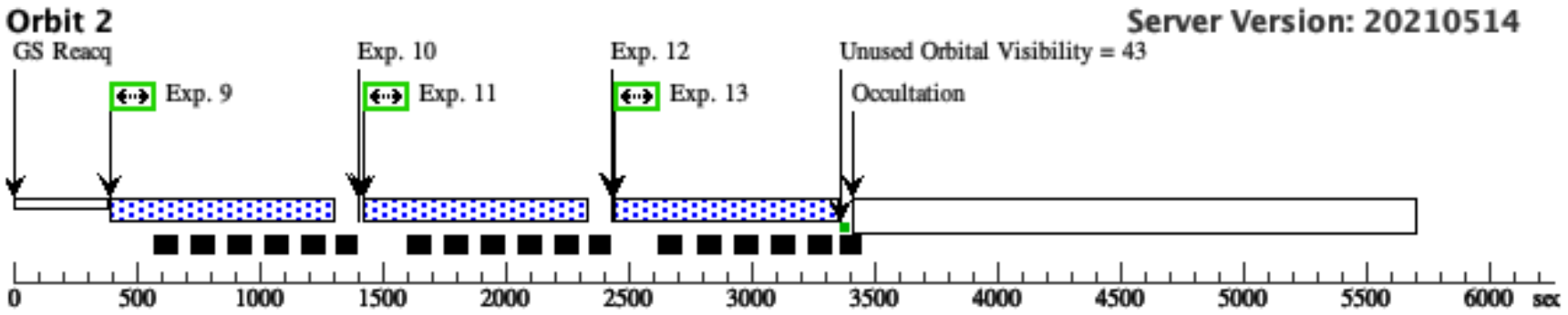
9	1600_f-600 (COS.sp.1536397)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	860 Secs (860 Secs) *[==>]*		***[2]***
Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
10	Move to -400	NONE	COS, ALIGN/OSM		FOCUS=-400	0 Secs (0 Secs) *[==>]*		***[2]***
11	1600_f-400 (COS.sp.1536397)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	860 Secs (860 Secs) *[==>]*		***[2]***
Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
12	Move to -200	NONE	COS, ALIGN/OSM		FOCUS=-200	0 Secs (0 Secs) *[==>]*		***[2]***
13	1600_f-200 (COS.sp.1536397)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	860 Secs (860 Secs) *[==>]*		***[2]***
Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
14	Move to -100	NONE	COS, ALIGN/OSM		FOCUS=-100	0 Secs (0 Secs) *[==>]*		***[3]***
15	1600_f-100 (COS.sp.1536397)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	860 Secs (860 Secs) *[==>]*		***[3]***
Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
16	Move to 0	NONE	COS, ALIGN/OSM		FOCUS=0	0 Secs (0 Secs) *[==>]*		***[3]***

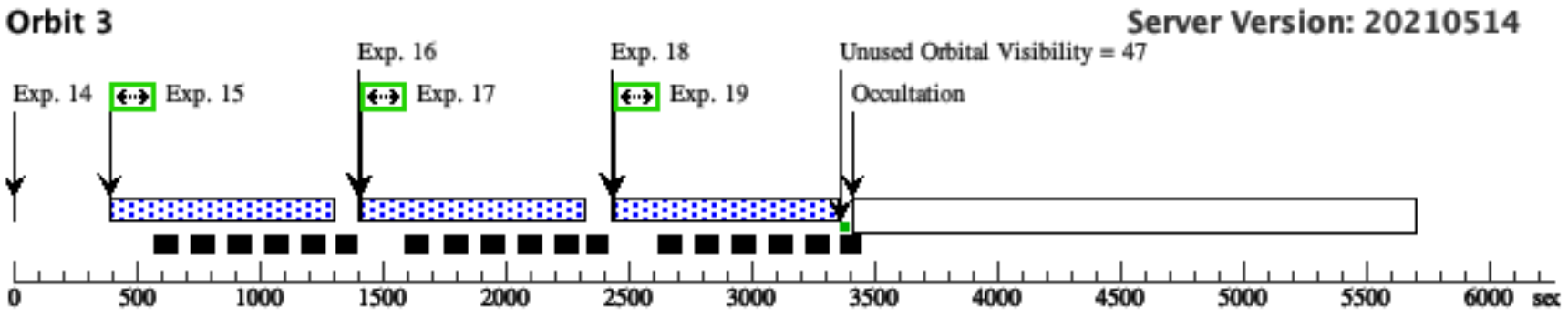
17	1600_f_0 (COS.sp.1536397)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	860 Secs (860 Secs) *[==>]*		***[3]***
Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
18	Move to +100	NONE	COS, ALIGN/OSM		FOCUS=+100	0 Secs (0 Secs) *[==>]*		***[3]***
19	1600_f+100 (COS.sp.1536397)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	860 Secs (860 Secs) *[==>]*		***[3]***
Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
20	Move to +200	NONE	COS, ALIGN/OSM		FOCUS=+200	0 Secs (0 Secs) *[==>]*		***[4]***
21	1600_f+200 (COS.sp.1536397)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	860 Secs (860 Secs) *[==>]*		***[4]***
Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
22	Move to +400	NONE	COS, ALIGN/OSM		FOCUS=+400	0 Secs (0 Secs) *[==>]*		***[4]***
23	1600_f+400 (COS.sp.1536397)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	860 Secs (860 Secs) *[==>]*		***[4]***
Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*								
24	Move to +600	NONE	COS, ALIGN/OSM		FOCUS=+600	0 Secs (0 Secs) *[==>]*		***[4]***

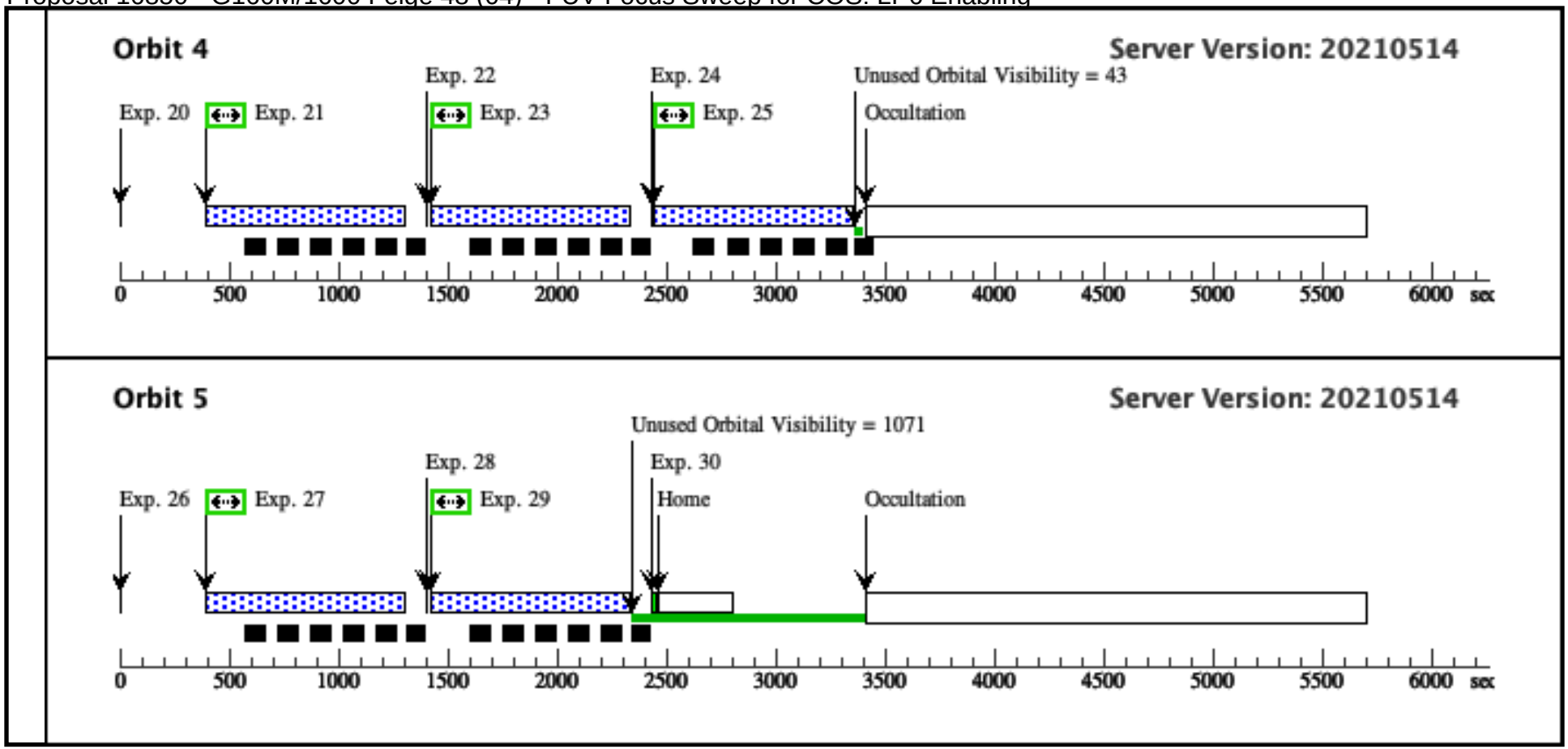
25	1600_f+600 (COS.sp.1536397)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	860 Secs (860 Secs) *[==>]*		***[4]***
	Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*							
26	Move to +800	NONE	COS, ALIGN/OSM		FOCUS=+800	0 Secs (0 Secs) *[==>]*		***[5]***
27	1600_f+800 (COS.sp.1536397)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	860 Secs (860 Secs) *[==>]*		***[5]***
	Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*							
28	Move to +1000	NONE	COS, ALIGN/OSM		FOCUS=+1000	0 Secs (0 Secs) *[==>]*		***[5]***
29	1600_f+1000 (COS.sp.1536397)	(4) FEIGE-48	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=1500; FLASH=NO; LIFETIME-POS=LP6; WAVECAL=NO; FP-POS=3	860 Secs (860 Secs) *[==>]*		***[5]***
	Comments: This exposure time gives S/N=30 at 1700A (wavelength of reddest, faintest window). *Wavecals are turned off to mitigate light-leak issues above +5.5"|(i.e. WAVECAL=NO, FLASH=NO)*							
30	Move to 0	NONE	COS, ALIGN/OSM		FOCUS=0	0 Secs (0 Secs) *[==>]*		***[5]***

Orbit Structure





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Exp. 22
Exp. 23
Exp. 24
Exp. 25
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Occultation
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2000
2500
3000
3500
4000
4500
5000
5500
6000
sec
Orbit 5
Server Version: 20210514
Exp. 26
Exp. 27
Exp. 28
Exp. 29
Unused Orbital Visibility = 1071
Exp. 30
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec