



## 17623 - Cycle 32 COS FUV Target Acquisition Monitor

Cycle: 32, Proposal Category: CAL/COS

(Availability Mode: RESTRICTED)

### INVESTIGATORS

<i>Name</i>	<i>Institution</i>
<b>Nick Indriolo (PI) (Contact)</b>	<b>Space Telescope Science Institute</b>
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Dr. Svea S Hernandez (CoI) (ESA Member) (Contact)	Space Telescope Science Institute - ESA - JWST
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Dr. Leonardo Dos Santos (CoI) (Contact)	Space Telescope Science Institute

### VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	(1) WD-1657+343	COS/FUV COS/NUV	1	27-Jun-2024 07:00:50.0	yes
02	(1) WD-1657+343	COS/FUV COS/NUV	1	27-Jun-2024 07:00:52.0	yes
03	(1) WD-1657+343	COS/FUV COS/NUV	2	27-Jun-2024 07:00:54.0	yes

4 Total Orbits Used

### ABSTRACT

This program verifies that FUV spectroscopic target acquisitions are working nominally for the modes allowed in cycle 32: G130M at LP5, G140L at LP4, and G160M at LP4 and LP6. For each grating the cenwave with the widest cross dispersion profile in which acquisitions are done is used, yielding the combinations G130M/1291, G140L/1280, and G160M/1600. After the standard target WD 1657+343 is centered using ACQ/IMAGE

Proposal 17623 (STScI Edit Number: 1, Created: Thursday, June 27, 2024 at 6:00:55 AM Eastern Standard Time) - Overview

we take spectra at the NUM-POS positions used by the PEAKXD and PEAKD algorithms to inspect those regions of the detector and check the vignetted flux. We then perform a PEAKXD and/or PEAKD acquisition and take a spectrum to verify centering. We test PEAKXD with NUM-POS=3 (default) and 5, and PEAKD with NUM-POS=5 (default). A detailed description of the observations is given in the visit level comments. This program follows the prescription used in the last several cycles, and is most recently adapted from the cycle 31 program 17582.

Cycle 32

Exposure times for G160M and G140L modes have been increased to maintain previous S/N goals. The G130M times have NOT been updated, as there is no unused time in that orbit.

### **OBSERVING DESCRIPTION**

This program consists of four orbits, each with a non-interrupt sequence. The program is divided into three visits to allow the last three orbits to have schedulability 100, whereas the first orbit needs schedulability 80. The last three orbits are split into two visits to facilitate scheduling, and the two orbit visit can also be separated if necessary.

We request that this program execute between 01-Nov-2024 and 01-Mar-2025 (via a BETWEEN), and within 120 days of Visit PB of Program 17620 (via a visit-level comment).

The program is divided into 3 parts, one for each FUV grating. The central wavelengths tested are G130M/1291 at LP5, G140L/1280 at LP4, and G160M/1600 at LP4 and LP6. These cenwaves were chosen because they provide the widest cross-dispersion profile allowed for acquisitions.

For each grating, we first acquire the target using ACQ/IMAGE, take a spectrum to verify the ACQ/IMAGE centering, take off-centered spectra using POSTARG, and then run an acquisition sequence. The visit level comments contain a detailed description of the observations.

Comments for each exposure give the Buffer Time calculations. However, in most cases we use slightly shorter buffer times in case the targets are brighter than expected. The logic being that if any of the PEAKXDs are not exactly perfect, the followup POS-TARGs may be off and give different count rates than expected.

Proposal 17623 - PSA/MIRRORB ACQ/IMAGE then G130M FUV TA Monitoring (01) - Cycle 32 COS FUV Target Acquisition Monitor

Thu Jun 27 11:00:55 GMT 2024

<b>Visit</b>	<p><b>Proposal 17623, PSA/MIRRORB ACQ/IMAGE then G130M FUV TA Monitoring (01), implementation</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Scientific Instruments: COS/FUV, COS/NUV</p> <p>Special Requirements: SCHED 80%; BETWEEN 01-NOV-2024:00:00:00 AND 01-MAR-2025:00:00:00</p> <p><i>Comments: This visit is separated from visits 2 and 3 because this visit needs schedulability 80, whereas visits 2 and 3 can use 100. This visit has the following timing requirement:</i></p> <p><i>* It should execute between 01-Nov-2024 and 01-Mar-2025</i></p> <p><i>* It should execute within 120 days of visit PB of program 17620</i></p> <p><i>This visit tests spectroscopic target acquisition using FUV G130M/1291. The sequence of events is as follows</i></p> <p>01.001 - NUV ACQ/IMAGE</p> <p>01.002 - NUV Image with WCA lamps, to check alignment later on.</p> <p>01.003 - G130M/1291 spectrum to establish center position after ACQ/IMAGE</p> <p>01.004, 01.005 - +/-1.3" XD POSTARGS to simulate NUM-POS=3 PEAKXD</p> <p>01.006 - PEAKXD with NUM-POS=3</p> <p>01.007 - Verification spectrum</p> <p>01.008 to 01.011 - Simulates PEAKXD with NUM-POS=5, STEP-SIZE=0.9</p> <p>01.012 - PEAKXD with NUM-POS=5</p> <p>01.013 - Verification spectrum</p> <p>01.014 - PEAKD</p> <p>01.015 - Verification spectrum</p>																	
	<p>(PSA/MIRRORB ACQ/IMAGE then G130M FUV TA Monitoring (01)) Warning (Orbit Planner): POS TARG OUTSIDE OF APERTURE</p> <p>(PSA/MIRRORB ACQ/IMAGE then G130M FUV TA Monitoring (01)) Warning (Orbit Planner): POS TARG OUTSIDE OF APERTURE</p> <p>(PSA/MIRRORB ACQ/IMAGE then G130M FUV TA Monitoring (01)) Warning (Orbit Planner): POS TARG OUTSIDE OF APERTURE</p> <p>(PSA/MIRRORB ACQ/IMAGE then G130M FUV TA Monitoring (01)) Warning (Orbit Planner): POS TARG OUTSIDE OF APERTURE</p> <p>(PSA/MIRRORB ACQ/IMAGE then G130M FUV TA Monitoring (01)) Warning (Orbit Planner): POS TARG OUTSIDE OF APERTURE NO ORIENT</p> <p>(PSA/MIRRORB ACQ/IMAGE then G130M FUV TA Monitoring (01)) Warning (Orbit Planner): POS TARG OUTSIDE OF APERTURE NO ORIENT</p> <p>(PSA/MIRRORB ACQ/IMAGE then G130M FUV TA Monitoring (01)) Warning (Orbit Planner): POS TARG OUTSIDE OF APERTURE NO ORIENT</p> <p>(PSA/MIRRORB ACQ/IMAGE then G130M FUV TA Monitoring (01)) Warning (Orbit Planner): POS TARG OUTSIDE OF APERTURE NO ORIENT</p>																	
<b>Diagnosics</b>	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>WD-1657+343</td> <td>RA: 16 58 51.1202 (254.7130008d) Dec: +34 18 53.29 (34.31480d) Equinox: J2000</td> <td>Proper Motion RA: 11 mas/yr Proper Motion Dec: -31 mas/yr Epoch of Position: 2000 Radial Velocity: 78 km/sec</td> <td>V=16.1</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments: COS.ta.1032496 indicates S/N = 40 in 5.2s. SIMBAD coordinates are 16 58 51.1202 +34 18 53.293 Proper Motion from SIMBAD is Proper motions mas/yr : 11 -31 [3 3 133] C 2011MNRAS.417.1210G, RV=78</i></p> <p>B 16.12 [~] D ~ u (AB) 15.749 [0.005] B 2013yCat.5139....0A g (AB) 16.139 [0.003] B 2013yCat.5139....0A r (AB) 16.691 [0.004] B 2013yCat.5139....0A i (AB) 17.054 [0.005] B 2013yCat.5139....0A z (AB) 17.388 [0.015] C 2013yCat.5139....0A Category=STAR Description=[DA] Extended=NO</p>						#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(1)	WD-1657+343	RA: 16 58 51.1202 (254.7130008d) Dec: +34 18 53.29 (34.31480d) Equinox: J2000	Proper Motion RA: 11 mas/yr Proper Motion Dec: -31 mas/yr Epoch of Position: 2000 Radial Velocity: 78 km/sec	V=16.1	Reference Frame: ICRS
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<p><b>Fixed Targets</b></p>																		

Proposal 17623 - PSA/MIRRORB ACQ/IMAGE then G130M FUV TA Monitoring (01) - Cycle 32 COS FUV Target Acquisition Monitor

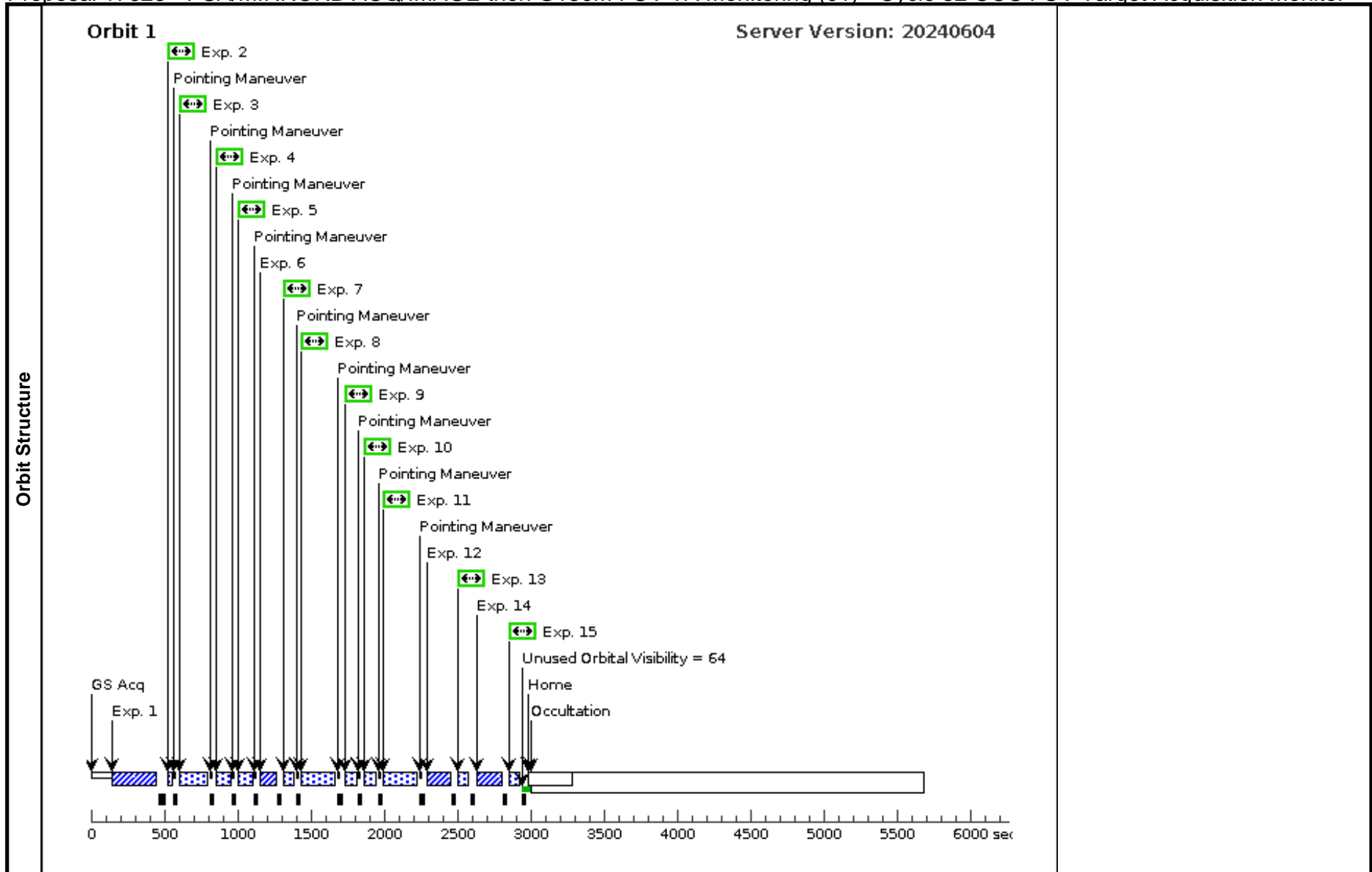
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	PSA/MIRRORB ACQ/IMAGE (COS.ta.1926450)	(1) WD-1657+343	COS/NUV, ACQ/IMAGE, PSA	MIRRORB		GS ACQ SCENARIO BASE103	Sequence 1-15 Non-Int in PSA/MIRRORB ACQ/IMAGE then G130M FUV TA Monitoring (01)	7 Secs (7 Secs) [==>]	[1]
2	PSA/MIRRORB LAMP+TARGET I MAGE (P2/MEDIUM) (COS.im.1926451)	(1) WD-1657+343	COS/NUV, TIME-TAG, PSA	MIRRORB	BUFFER-TIME=150; FLASH=S0060D015; CURRENT=MEDIUM	QESIPARM USELAMP LINE2; QESIPARM CURRENT MEDIUM	Sequence 1-15 Non-Int in PSA/MIRRORB ACQ/IMAGE then G130M FUV TA Monitoring (01)	15.0 Secs (15 Secs) [==>]	[1]
<p>Comments: PSA/MIRRORB/P2/MED current, see above for expected count rates. To get PtNe Lamp 2, there are 2 QESIPARMS set: USELAMP = LINE2 CURRENT = MEDIUM</p> <p>This target was used in Visit BA of 14857 (ldozbadhq). Bck subtracted counts in second image = 5430 ; S/N = 73.69, ET=13s</p> <p>For the Lamp, LAMP/CURRENT USED = P2/Medium, LAMP EXPTIME = 12.000 s Reported Lamp Events = 3316 counts : Rate = 276.33334 counts/s Lamp Background events in 50x300 TA BOX for lampflash time (12s) = 112 cts : Rate = 9.308 counts/s Actual Lamp Events = 3204 counts : Rate = 267.026 counts/s</p>									
3	PSA/C1291/3 - CENTER (COS.sp.1925564)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=300; LIFETIME-POS=DEF	QESIPARM USELAMP LINE2; QESIPARM CURRENT MEDIUM	Sequence 1-15 Non-Int in PSA/MIRRORB ACQ/IMAGE then G130M FUV TA Monitoring (01)	25 Secs (25 Secs) [==>]	[1]
<p>Comments: In cycle 31 and before the goal was listed as S/N ~ 5 in 25s New ETC runs in preparation for cycle 32 give: COS.sp.1925562 S/N = 4 in 21s COS.sp.1925563 S/N = 5 in 32s Because there is no unused time available in this orbit, the decision is to stick with 25 s for the centered exposures, which gives S/N = 4.4 (COS.sp.1925564)</p>									
4	PSA/C1291/3 +1.3arcsec onds in XD (COS.sp.1925564)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=500; LIFETIME-POS=DEF	POS TARG null,1.3; QESIPARM USELAMP LINE2; QESIPARM CURRENT MEDIUM	Sequence 1-15 Non-Int in PSA/MIRRORB ACQ/IMAGE then G130M FUV TA Monitoring (01)	50 Secs (50 Secs) [==>]	[1]
<p>Comments: At R=1.3", the throughput is ~45%. To get the same counts, we need to increase the exposure time to 55s. (exp time reduced from 55 to 50 due to overrun in cycle 31)</p>									
5	PSA/C1291/3 -1.3arcsec onds in XD (COS.sp.1925564)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=500; LIFETIME-POS=DEF	POS TARG null,-1.3; QESIPARM USELAMP LINE2; QESIPARM CURRENT MEDIUM	Sequence 1-15 Non-Int in PSA/MIRRORB ACQ/IMAGE then G130M FUV TA Monitoring (01)	50 Secs (50 Secs) [==>]	[1]
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Proposal 17623 - PSA/MIRRORB ACQ/IMAGE then G130M FUV TA Monitoring (01) - Cycle 32 COS FUV Target Acquisition Monitor

6	PSA/C1291/ PEAKXD/N P=3/DEF (COS.sa.192 5561)	(1) WD-1657+343	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	LIFETIME-POS=D EF	QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 1-15 Non-I nt in PSA/MIRROR B ACQ/IMAGE then G130M FUV TA Mo nitoring (01)	2 Secs (2 Secs) [==>]	[1]
<p>Comments: The NUM_POS and STEP_SIZE are not included to make sure that the correct DEFAULTS of NUM_POS=3 and STEP_SIZE=1.3", and CENTER = FLUX-WT are still inserted.</p> <p>Target is the HST Standard Star:WD-1657+343</p> <p>Requested Signal/Noise Ratio = 40.000 for Segment A and Segment B combined gives: Time = 0.4205 seconds Time Required for Requested SNR in Segment A only: 1.2676 Time Required for Requested SNR in Segment B only: 0.6292</p> <p>Requested Signal/Noise Ratio = 40.000 for Segment A and Segment B combined gives: Time = 0.4738 seconds Time Required for Requested SNR in Segment A only: 1.5514 Time Required for Requested SNR in Segment B only: 0.6821</p>									
7	PSA/C1291/ 3 - After NU M_POS=3 P EAKXD (COS.sp.192 5564)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=30 0; LIFETIME-POS=D EF	QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 1-15 Non-I nt in PSA/MIRROR B ACQ/IMAGE then G130M FUV TA Mo nitoring (01)	25 Secs (25 Secs) [==>]	[1]
8	PSA/C1291/ 3 +1.8arcsec onds in XD (COS.sp.192 5564)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=10 00; LIFETIME-POS=D EF	POS TARG null,1.8; QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 1-15 Non-I nt in PSA/MIRROR B ACQ/IMAGE then G130M FUV TA Mo nitoring (01)	180 Secs (180 Secs) [==>]	[1]
<p>Comments: At R=1.8", the throughput is ~13%. To get the same counts, we need to increase the exposure time. (exp time reduced from 192 to 180 due to overrun in cycle 31)</p>									
9	PSA/C1291/ 3 +0.9arcsec onds in XD (COS.sp.192 5564)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=40 0; LIFETIME-POS=D EF	POS TARG null,0.9; QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 1-15 Non-I nt in PSA/MIRROR B ACQ/IMAGE then G130M FUV TA Mo nitoring (01)	32 Secs (32 Secs) [==>]	[1]
<p>Comments: At R=0.9", the throughput is ~71%. To get the same counts, we need to increase the exposure time. (exp time reduced from 35 to 32 due to overrun in cycle 31)</p>									
10	PSA/C1291/ 3 -0.9arcsec onds in XD (COS.sp.192 5564)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=40 0; LIFETIME-POS=D EF	POS TARG null,-0.9 ; QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 1-15 Non-I nt in PSA/MIRROR B ACQ/IMAGE then G130M FUV TA Mo nitoring (01)	32 Secs (32 Secs) [==>]	[1]
<p>Comments: At R=0.9", the throughput is ~71%. To get the same counts, we need to increase the exposure time. (exp time reduced from 35 to 32 due to overrun in cycle 31)</p>									
11	PSA/C1291/ 3 -1.8arcsec onds in XD (COS.sp.192 5564)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=10 00; LIFETIME-POS=D EF	POS TARG null,-1.8 ; QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 1-15 Non-I nt in PSA/MIRROR B ACQ/IMAGE then G130M FUV TA Mo nitoring (01)	180 Secs (180 Secs) [==>]	[1]
<p>Comments: At R=1.8", the throughput is ~13%. To get the same counts, we need to increase the exposure time. (exp time reduced from 192 to 180 due to overrun in cycle 31)</p>									

Proposal 17623 - PSA/MIRRORB ACQ/IMAGE then G130M FUV TA Monitoring (01) - Cycle 32 COS FUV Target Acquisition Monitor

12	PSA/C1291/ PEAKXD/N P=5/DEF (COS.sa.192 5561)	(1) WD-1657+343	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	LIFETIME-POS=D EF; NUM-POS=5; STEP-SIZE=0.9	QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 1-15 Non-I nt in PSA/MIRROR B ACQ/IMAGE then G130M FUV TA Mo nitoring (01)	2 Secs (2 Secs) [==>]	[1]
<p><i>Comments: The default STEP-SIZE is 1.0", but at +/- 2", the POS_TARGs would not create enough counts to track the operation of the NUM_POS=5 PEAKXD. 5x0.9" is used instead. Double check that the DEFAULT CENTER=FLUX-WT-FLR is used. It is left unspecified to test that the default APT logic is still correctly choosing the correct CENTER algorithm.</i></p>									
13	PSA/C1291/ 3 - After NU M_POS=5 P EAKXD (COS.sp.192 5564)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=30 0; LIFETIME-POS=D EF	QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 1-15 Non-I nt in PSA/MIRROR B ACQ/IMAGE then G130M FUV TA Mo nitoring (01)	25 Secs (25 Secs) [==>]	[1]
<p><i>Comments: HST Standard Star, S/N ~ 5 in 25s</i></p>									
14	PSA/C1291/ PEAKD/NP =5/DEF (COS.sa.192 5561)	(1) WD-1657+343	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	LIFETIME-POS=D EF; NUM-POS=5; STEP-SIZE=0.9	QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 1-15 Non-I nt in PSA/MIRROR B ACQ/IMAGE then G130M FUV TA Mo nitoring (01)	3 Secs (3 Secs) [==>]	[1]
<p><i>Comments: We want to check the AD NUV to FUV SIAF alignment, so perform a good PEAKD. Double check that the DEFAULT CENTER=FLUX-WT-FLR is used. It is left unspecified to test that the default APT logic is still correctly choosing the correct CENTER algorithm.</i></p>									
15	PSA/C1291/ 3 - After PE AKD (COS.sp.192 5564)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=30 0; LIFETIME-POS=D EF	QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 1-15 Non-I nt in PSA/MIRROR B ACQ/IMAGE then G130M FUV TA Mo nitoring (01)	25 Secs (25 Secs) [==>]	[1]
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Proposal 17623 - PSA/MIRRORB ACQ/IMAGE then LP4 G160M FUV TA monitor (02) - Cycle 32 COS FUV Target Acquisition Monitor

Thu Jun 27 11:00:55 GMT 2024

<b>Visit</b>	<p><b>Proposal 17623, PSA/MIRRORB ACQ/IMAGE then LP4 G160M FUV TA monitor (02), implementation</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Scientific Instruments: COS/FUV, COS/NUV</p> <p>Special Requirements: SCHED 100%; BETWEEN 01-NOV-2024:00:00:00 AND 01-MAR-2025:00:00:00</p> <p><i>Comments: This orbit is separated from visit 01 because it can use schedulability 100. The orbit in visit 01 requires schedulability 80.</i></p> <p><i>This visit has the following timing requirement:</i></p> <ul style="list-style-type: none"> <li>* It should execute between 01-Nov-2024 and 01-Mar-2025</li> <li>* It should execute within 120 days of visit PB of program 17620</li> </ul> <p><i>This visit has one orbit, structured as follows</i></p> <p><i>Tests FUV G160M/1600 spectroscopic acquisition at LP4</i></p> <ul style="list-style-type: none"> <li>02.001 - ACQ/IMAGE</li> <li>02.002 - NUV image with WCA lamps to verify alignment</li> <li>02.003 - spectrum centered after ACQ/IMAGE, for comparison</li> <li>02.004, 02.005 - simulate PEAKXD with NUM-POS=3</li> <li>02.006 - PEAKXD with NUM-POS=3</li> <li>02.007 - verification spectrum</li> <li>02.008 - PEAKD with NUM-POS=5</li> <li>02.009 - verification spectrum</li> </ul>																	
	<b>Diagnostics</b>	<p>(PSA/MIRRORB ACQ/IMAGE then LP4 G160M FUV TA monitor (02)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.</p> <p>(PSA/MIRRORB ACQ/IMAGE then LP4 G160M FUV TA monitor (02)) Warning (Orbit Planner): POS TARG OUTSIDE OF APERTURE</p> <p>(PSA/MIRRORB ACQ/IMAGE then LP4 G160M FUV TA monitor (02)) Warning (Orbit Planner): POS TARG OUTSIDE OF APERTURE</p> <p>(PSA/MIRRORB ACQ/IMAGE then LP4 G160M FUV TA monitor (02)) Warning (Orbit Planner): POS TARG OUTSIDE OF APERTURE NO ORIENT</p> <p>(PSA/MIRRORB ACQ/IMAGE then LP4 G160M FUV TA monitor (02)) Warning (Orbit Planner): POS TARG OUTSIDE OF APERTURE NO ORIENT</p>																
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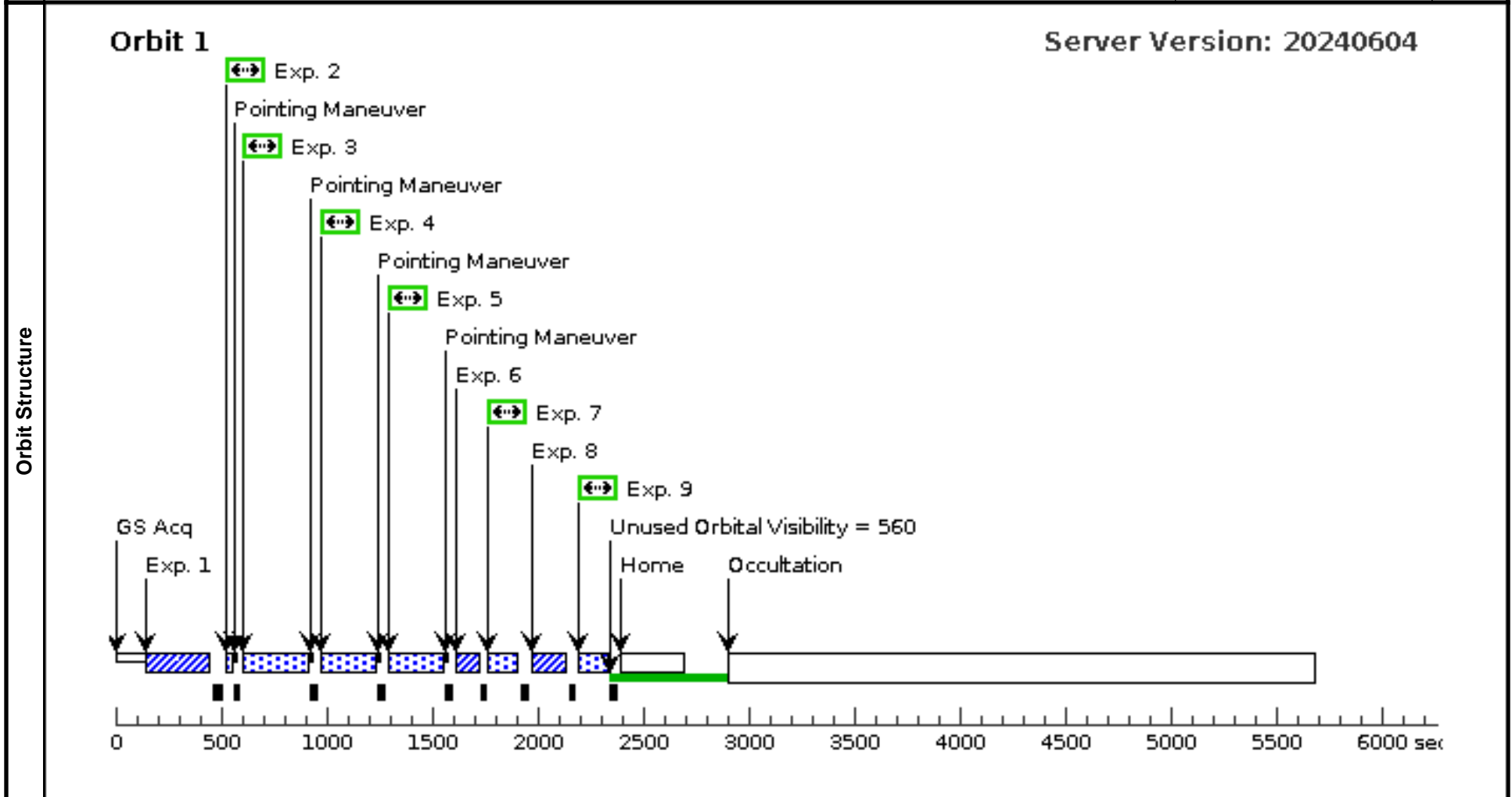
Proposal 17623 - PSA/MIRRORB ACQ/IMAGE then LP4 G160M FUV TA monitor (02) - Cycle 32 COS FUV Target Acquisition Monitor

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	PSA/MIRRORB ACQ/IMAGE (COS.ta.192 6450)	(1) WD-1657+343	COS/NUV, ACQ/IMAGE, PSA	MIRRORB		GS ACQ SCENARIO BASE103	Sequence 1-9 Non-Int in PSA/MIRRORB ACQ/IMAGE then LP4 G160M FUV TA monitor (02)	7 Secs (7 Secs) [==>]	[1]
2	PSA/MIRRORB LAMP +TARGET IMAGE (P2/MEDIUM) (COS.im.19 26451)	(1) WD-1657+343	COS/NUV, TIME-TAG, PSA	MIRRORB	BUFFER-TIME=150; FLASH=S0060D015; CURRENT=MEDIUM	QESIPARM USELAMP LINE2; QESIPARM CURRENT MEDIUM	Sequence 1-9 Non-Int in PSA/MIRRORB ACQ/IMAGE then LP4 G160M FUV TA monitor (02)	15.0 Secs (15 Secs) [==>]	[1]
<p><i>Comments: Identical to 01.002 PSA/MIRRORB/P2/MED current. To get PtNe Lamp 2, there are 2 QESIPARMs set: USELAMP = LINE2 CURRENT = MEDIUM</i></p>									
3	PSA/G160M/1600/3 - CENTER (COS.sp.192 5558)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=800; LIFETIME-POS=L P4	QESIPARM USELAMP LINE2; QESIPARM CURRENT MEDIUM	Sequence 1-9 Non-Int in PSA/MIRRORB ACQ/IMAGE then LP4 G160M FUV TA monitor (02)	93 Secs (93 Secs) [==>]	[1]
<p><i>Comments: Update for cycle 32 (17623) based on new ETC run to achieve S/N=4 per resel Exposure time = 93 s centered; (207 s off-center by 1.3 arcsec)</i></p> <p><i>Comments below applied to cycle 31 and earlier Exposure time (seconds) = 82.0000 at wavelength 1602.00 gives: SNR = 3.9389 (per resolution element)</i></p>									
4	PSA/G160M/1600/3 + 1.3arcseconds in XD (COS.sp.192 5558)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=1000; LIFETIME-POS=L P4	POS TARG null,1.3; QESIPARM USELAMP LINE2; QESIPARM CURRENT MEDIUM	Sequence 1-9 Non-Int in PSA/MIRRORB ACQ/IMAGE then LP4 G160M FUV TA monitor (02)	207 Secs (207 Secs) [==>]	[1]
<p><i>Comments: At R=1.3", the throughput is ~45%. To get the same counts, we need to increase the exposure time.</i></p>									
5	PSA/G160M/1600/3 -1.3arcseconds in XD (COS.sp.192 5558)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=1000; LIFETIME-POS=L P4	POS TARG null,-1.3; QESIPARM USELAMP LINE2; QESIPARM CURRENT MEDIUM	Sequence 1-9 Non-Int in PSA/MIRRORB ACQ/IMAGE then LP4 G160M FUV TA monitor (02)	207 Secs (207 Secs) [==>]	[1]
<p><i>Comments: At R=1.3", the throughput is ~45%. To get the same counts, we need to increase the exposure time.</i></p>									
6	PSA/G160M/PEAKXD/NP=3/DEF (COS.sa.192 5559)	(1) WD-1657+343	COS/FUV, ACQ/PEAKXD, PSA	G160M 1600 A	LIFETIME-POS=L P4; NUM-POS=3; STEP-SIZE=1.3	QESIPARM USELAMP LINE2; QESIPARM CURRENT MEDIUM	Sequence 1-9 Non-Int in PSA/MIRRORB ACQ/IMAGE then LP4 G160M FUV TA monitor (02)	3 Secs (3 Secs) [==>]	[1]
<p><i>Comments: Requested Signal/Noise Ratio = 40.000 for Segment A and Segment B combined gives: Time = 1.2097 seconds Time Required for Requested SNR in Segment A only: 7.3247 Time Required for Requested SNR in Segment B only: 1.4487</i></p>									
7	PSA/G160M/1600/3 (COS.sp.192 5558)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=800; LIFETIME-POS=L P4	QESIPARM USELAMP LINE2; QESIPARM CURRENT MEDIUM	Sequence 1-9 Non-Int in PSA/MIRRORB ACQ/IMAGE then LP4 G160M FUV TA monitor (02)	93 Secs (93 Secs) [==>]	[1]

Exposures

Proposal 17623 - PSA/MIRRORB ACQ/IMAGE then LP4 G160M FUV TA monitor (02) - Cycle 32 COS FUV Target Acquisition Monitor

8	PSA/G160 M/1600/PE AKD/NP=5/DEF (COS.sa.192 5559)	(1) WD-1657+343	COS/FUV, ACQ/PEAKD, PSA	G160M 1600 A	LIFETIME-POS=LP 4; NUM-POS=5; STEP-SIZE=0.9	Sequence 1-9 Non-Int in PSA/MIRRORB ACQ/IMAGE then LP4 G160M FUV TA monitor (02)	3 Secs (3 Secs) [==>]	[1]	
<i>Comments: Analogous to exposure 01.014 carried over from previous cycles, but this time to test PEAKD at LP4.</i>									
9	PSA/G160 M/1600/3 (COS.sp.192 5558)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=80 0; LIFETIME-POS=L P4	QESIPARM USELAMP LINE2; QESIPARM CURRENT MEDIUM	Sequence 1-9 Non-Int in PSA/MIRRORB ACQ/IMAGE then LP4 G160M FUV TA monitor (02)	93 Secs (93 Secs) [==>]	[1]



<b>Visit</b>	<p><b>Proposal 17623, PSA/MIRRORB ACQ/IMAGE then G140L and LP6 G160M FUV TA monitor (03), implementation</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Scientific Instruments: COS/FUV, COS/NUV</p> <p>Special Requirements: SCHED 100%; BETWEEN 01-NOV-2024:00:00:00 AND 01-MAR-2025:00:00:00</p> <p><i>Comments: These two orbits are in a different visit because they can use schedulability 100. The orbit in visit 01 requires schedulability 80. the 2 orbits in this visit may also be placed into individual visits if it helps with scheduling, so long as the non-interrupt sequences and the BETWEEN are respected.</i></p> <p><i>This visit has the following timing requirement:</i></p> <ul style="list-style-type: none"> <li>* It should execute between 01-Nov-2024 and 01-Mar-2025</li> <li>* It should execute within 120 days of visit PB of program 17620</li> </ul> <p><i>This visit has two orbits, each with a non-interrupt sequence. Each orbit is structured as follows</i></p> <p><i>First orbit, tests FUV G140L/1280 spectroscopic acquisition</i></p> <p>03.001 - ACQ/IMAGE</p> <p>03.002 - NUV image with WCA lamps to verify alignment</p> <p>03.003 - spectrum centered after ACQ/IMAGE, for comparison</p> <p>03.004, 02.005 - simulate PEAKXD with NUM-POS=3</p> <p>03.006 - PEAKXD with NUM-POS=3</p> <p>03.007 - Verification spectrum</p> <p>03.008 to 03.011 - Simulate PEAKXD with NUM-POS=5</p> <p>03.012 - PEAKXD with NUM-POS=5</p> <p>03.013 - Verification spectrum</p> <p><i>Orbit 2, tests FUV G160M/1600 spectroscopic acquisition at LP6</i></p> <p>03.014 - ACQ/IMAGE</p> <p>03.015 - NUV image with WCA lamps to verify alignment</p> <p>03.016 - spectrum centered after ACQ/IMAGE, for comparison</p> <p>03.017, 03.018 - simulate PEAKXD with NUM-POS=3</p> <p>03.019 - PEAKXD with NUM-POS=3</p> <p>03.020 - verification spectrum</p> <p>03.021 - PEAKD with NUM-POS=5</p> <p>03.022 - verification spectrum</p>
	<b>Diagnostics</b>

Proposal 17623 - PSA/MIRRORB ACQ/IMAGE then G140L and LP6 G160M FUV TA monitor (03) - Cycle 32 COS FUV Target Acquis...

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD-1657+343	RA: 16 58 51.1202 (254.7130008d) Dec: +34 18 53.29 (34.31480d) Equinox: J2000	Proper Motion RA: 11 mas/yr Proper Motion Dec: -31 mas/yr Epoch of Position: 2000 Radial Velocity: 78 km/sec	V=16.1	Reference Frame: ICRS
Fixed Targets	<i>Comments: COS.ta.1032496 indicates S/N = 40 in 5.2s. SIMBAD coordinates are 16 58 51.1202 +34 18 53.293 Proper Motion from SIMBAD is Proper motions mas/yr : 11 -31 [3 3 133] C 2011MNRAS.417.1210G, RV=78</i>				
	<i>B 16.12 [~] D ~</i>				
	<i>u (AB) 15.749 [0.005] B 2013yCat.5139....0A</i>				
	<i>g (AB) 16.139 [0.003] B 2013yCat.5139....0A</i>				
	<i>r (AB) 16.691 [0.004] B 2013yCat.5139....0A</i>				
	<i>i (AB) 17.054 [0.005] B 2013yCat.5139....0A</i>				
	<i>z (AB) 17.388 [0.015] C 2013yCat.5139....0A</i>				
	<i>Category=STAR</i>				
	<i>Description=[DA]</i>				
	<i>Extended=NO</i>				

Proposal 17623 - PSA/MIRRORB ACQ/IMAGE then G140L and LP6 G160M FUV TA monitor (03) - Cycle 32 COS FUV Target Acquis...

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	PSA/MIRRORB ACQ/IMAGE (COS.ta.1926450)	(1) WD-1657+343	COS/NUV, ACQ/IMAGE, PSA	MIRRORB		GS ACQ SCENARIO BASE103	Sequence 1-13 Non-Int in PSA/MIRRORB ACQ/IMAGE then G140L and LP6 G160M FUV TA monitor (03)	7 Secs (7 Secs) [==>]	[1]
2	PSA/MIRRORB LAMP+TARGET I MAGE (P2/MEDIUM) (COS.im.1926451)	(1) WD-1657+343	COS/NUV, TIME-TAG, PSA	MIRRORB	BUFFER-TIME=150; FLASH=S0060D015; CURRENT=MEDIUM	QESIPARM USELAMP LINE2; QESIPARM CURRENT MEDIUM	Sequence 1-13 Non-Int in PSA/MIRRORB ACQ/IMAGE then G140L and LP6 G160M FUV TA monitor (03)	15.0 Secs (15 Secs) [==>]	[1]
<p>Comments: Identical to 01.002 PSA/MIRRORB/P2/ME. To get PtNe Lamp 2, there are 2 QESIPARMS set: USELAMP = LINE2 CURRENT = MEDIUM</p>									
3	PSA/G140L/1280/3 - CENTER (COS.sp.192557)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G140L 1280 A	FP-POS=3; BUFFER-TIME=400; LIFETIME-POS=L P4	QESIPARM USELAMP LINE2; QESIPARM CURRENT MEDIUM	Sequence 1-13 Non-Int in PSA/MIRRORB ACQ/IMAGE then G140L and LP6 G160M FUV TA monitor (03)	24 Secs (24 Secs) [==>]	[1]
<p>Comments: Recalculated exposure times for cycle 32 COS.sp.192557 S/N Ratio = 10 at 1310 A per resel : Time = 24 sec</p>									
<p>In cycle 31 default G140L observing is at LP3, while default acquisition for G140L is at LP4. Specify all TIME-TAG exposures to be at LP4 so that acqs and test exposures are done at the same place.</p>									
4	PSA/G140L/1280/3 +1.3 arcseconds in XD (COS.sp.192557)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G140L 1280 A	FP-POS=3; BUFFER-TIME=800; LIFETIME-POS=L P4	POS TARG null,1.3; QESIPARM USELAMP LINE2; QESIPARM CURRENT MEDIUM	Sequence 1-13 Non-Int in PSA/MIRRORB ACQ/IMAGE then G140L and LP6 G160M FUV TA monitor (03)	53 Secs (53 Secs) [==>]	[1]
<p>Comments: At R=1.3", the throughput is ~45%. To get the same counts, we need to increase the exposure time.</p>									
<p>In cycle 31 default G140L observing is at LP3, while default acquisition for G140L is at LP4. Specify all TIME-TAG exposures to be at LP4 so that acqs and test exposures are done at the same place.</p>									
5	PSA/G140L/1280/3 -1.3 arcseconds in XD (COS.sp.192557)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G140L 1280 A	FP-POS=3; BUFFER-TIME=800; LIFETIME-POS=L P4	POS TARG null,-1.3; QESIPARM USELAMP LINE2; QESIPARM CURRENT MEDIUM	Sequence 1-13 Non-Int in PSA/MIRRORB ACQ/IMAGE then G140L and LP6 G160M FUV TA monitor (03)	53 Secs (53 Secs) [==>]	[1]
<p>Comments: At R=1.3", the throughput is ~45%. To get the same counts, we need to increase the exposure time.</p>									
<p>In cycle 31 default G140L observing is at LP3, while default acquisition for G140L is at LP4. Specify all TIME-TAG exposures to be at LP4 so that acqs and test exposures are done at the same place.</p>									
6	PSA/G140L/PEAKXD/NP=3/DEF (COS.sa.1925560)	(1) WD-1657+343	COS/FUV, ACQ/PEAKXD, PSA	G140L 1280 A	LIFETIME-POS=DEF; NUM-POS=3; STEP-SIZE=1.3	QESIPARM USELAMP LINE2; QESIPARM CURRENT MEDIUM	Sequence 1-13 Non-Int in PSA/MIRRORB ACQ/IMAGE then G140L and LP6 G160M FUV TA monitor (03)	3 Secs (3 Secs) [==>]	[1]
<p>Comments: COS.sa.1925560 Requested Signal/Noise Ratio = 40.000 for Segment A and Segment B combined gives: Time = 2.1339 seconds Time Required for Requested SNR in Segment A only: 2.133</p>									

Proposal 17623 - PSA/MIRRORB ACQ/IMAGE then G140L and LP6 G160M FUV TA monitor (03) - Cycle 32 COS FUV Target Acquis...

7	PSA/G140L /1280/3 (COS.sp.192 5557)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G140L 1280 A	FP-POS=3; BUFFER-TIME=40 0; LIFETIME-POS=L P4	QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 1-13 Non-I nt in PSA/MIRROR B ACQ/IMAGE then G140L and LP6 G16 0M FUV TA monito r (03)	24 Secs (24 Secs) [==>]	[1]
<p>Comments: In cycle 31 default G140L observing is at LP3, while default acquisition for G140L is at LP4. Specify all TIME-TAG exposures to be at LP4 so that acqs and test exposures are done at the same place.</p>									
8	PSA/G140L /1280/3 +1.8 arcseconds i n XD (COS.sp.192 5557)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G140L 1280 A	FP-POS=3; BUFFER-TIME=40 0; LIFETIME-POS=L P4	POS TARG null,1.8; QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 1-13 Non-I nt in PSA/MIRROR B ACQ/IMAGE then G140L and LP6 G16 0M FUV TA monito r (03)	185 Secs (185 Secs) [==>]	[1]
<p>Comments: 13% flux at 1.8". 24s/.13 = 185s</p> <p>In cycle 31 default G140L observing is at LP3, while default acquisition for G140L is at LP4. Specify all TIME-TAG exposures to be at LP4 so that acqs and test exposures are done at the same place.</p>									
9	PSA/G140L /1280/3 +0.9 arcseconds i n XD (COS.sp.192 5557)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G140L 1280 A	FP-POS=3; BUFFER-TIME=40 0; LIFETIME-POS=L P4	POS TARG null,0.9; QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 1-13 Non-I nt in PSA/MIRROR B ACQ/IMAGE then G140L and LP6 G16 0M FUV TA monito r (03)	34 Secs (34 Secs) [==>]	[1]
<p>Comments: 71% flux at 0.9". 24s/.71 ~ 34s</p> <p>In cycle 31 default G140L observing is at LP3, while default acquisition for G140L is at LP4. Specify all TIME-TAG exposures to be at LP4 so that acqs and test exposures are done at the same place.</p>									
10	PSA/G140L /1280/3 -0.9 arcseconds i n XD (COS.sp.192 5557)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G140L 1280 A	FP-POS=3; BUFFER-TIME=40 0; LIFETIME-POS=L P4	POS TARG null,-0.9 ; QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 1-13 Non-I nt in PSA/MIRROR B ACQ/IMAGE then G140L and LP6 G16 0M FUV TA monito r (03)	34 Secs (34 Secs) [==>]	[1]
<p>Comments: 71% flux at 0.9". 24s/.71 ~ 34s</p> <p>In cycle 31 default G140L observing is at LP3, while default acquisition for G140L is at LP4. Specify all TIME-TAG exposures to be at LP4 so that acqs and test exposures are done at the same place.</p>									
11	PSA/G140L /1280/3 -1.8 arcseconds i n XD (COS.sp.192 5557)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G140L 1280 A	FP-POS=3; BUFFER-TIME=40 0; LIFETIME-POS=L P4	POS TARG null,-1.8 ; QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 1-13 Non-I nt in PSA/MIRROR B ACQ/IMAGE then G140L and LP6 G16 0M FUV TA monito r (03)	185 Secs (185 Secs) [==>]	[1]
<p>Comments: 13% flux at 1.8". 24s/.13 = 185s</p> <p>In cycle 31 default G140L observing is at LP3, while default acquisition for G140L is at LP4. Specify all TIME-TAG exposures to be at LP4 so that acqs and test exposures are done at the same place.</p>									
12	PSA/G140L /PEAKXD/ NP=5/DEF (COS.sa.192 5560)	(1) WD-1657+343	COS/FUV, ACQ/PEAKXD, PSA	G140L 1280 A	LIFETIME-POS=D EF; NUM-POS=5; STEP-SIZE=0.9	QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 1-13 Non-I nt in PSA/MIRROR B ACQ/IMAGE then G140L and LP6 G16 0M FUV TA monito r (03)	3 Secs (3 Secs) [==>]	[1]
<p>Comments: COS.sa.1925560 Requested Signal/Noise Ratio = 40.000 for Segment A and Segment B combined gives: Time = 2.1339 seconds Time Required for Requested SNR in Segment A only: 2.133</p>									

Proposal 17623 - PSA/MIRRORB ACQ/IMAGE then G140L and LP6 G160M FUV TA monitor (03) - Cycle 32 COS FUV Target Acquis...

13	PSA/G140L /1280/3 (COS.sp.192 5557)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G140L 1280 A	FP-POS=3; BUFFER-TIME=40; LIFETIME-POS=L P4	QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 1-13 Non-Int in PSA/MIRRORB ACQ/IMAGE then G140L and LP6 G160M FUV TA monitor (03)	24 Secs (24 Secs) [==>]	[1]
<p><i>Comments: In cycle 31 default G140L observing is at LP3, while default acquisition for G140L is at LP4. Specify all TIME-TAG exposures to be at LP4 so that acqs and test exposures are done at the same place.</i></p>									
14	PSA/MIRRORB ACQ/IMAGE (COS.ta.192 6450)	(1) WD-1657+343	COS/NUV, ACQ/IMAGE, PSA	MIRRORB		GS ACQ SCENARIO BASE103	Sequence 14-22 Non-Int in PSA/MIRRORB ACQ/IMAGE then G140L and LP6 G160M FUV TA monitor (03)	7 Secs (7 Secs) [==>]	[2]
15	PSA/MIRRORB LAMP +TARGET IMAGE (P2/MEDIUM) (COS.im.1926451)	(1) WD-1657+343	COS/NUV, TIME-TAG, PSA	MIRRORB	BUFFER-TIME=150; FLASH=S0060D015; CURRENT=MEDIUM	QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 14-22 Non-Int in PSA/MIRRORB ACQ/IMAGE then G140L and LP6 G160M FUV TA monitor (03)	15.0 Secs (15 Secs) [==>]	[2]
<p><i>Comments: Identical to 01.002 PSA/MIRRORB/P2/MED current. To get PtNe Lamp 2, there are 2 QESIPARMS set: USELAMP = LINE2 CURRENT = MEDIUM</i></p>									
16	PSA/G160M/1600/3 - CENTER (COS.sp.192 5558)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=800; LIFETIME-POS=DEF; FLASH=NO; WAVECAL=NO	QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 14-22 Non-Int in PSA/MIRRORB ACQ/IMAGE then G140L and LP6 G160M FUV TA monitor (03)	93 Secs (93 Secs) [==>]	[2]
<p><i>Comments: Update for cycle 32 (17623) based on new ETC run to achieve S/N=4 per resel Exposure time = 93 s centered; (207 s off-center by 1.3 arcsec)</i></p> <p><i>Comments below applied to cycle 31 and earlier Exposure time (seconds) = 82.0000 at wavelength 1602.00 gives: SNR = 3.9389 (per resolution element)</i></p>									
17	PSA/G160M/1600/3 + 1.3arcseconds in XD (COS.sp.192 5558)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=1000; LIFETIME-POS=DEF; FLASH=NO; WAVECAL=NO	POS TARG null,1.3; QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 14-22 Non-Int in PSA/MIRRORB ACQ/IMAGE then G140L and LP6 G160M FUV TA monitor (03)	207 Secs (207 Secs) [==>]	[2]
<p><i>Comments: At R=1.3", the throughput is ~45%. To get the same counts, we need to increase the exposure time.</i></p>									
18	PSA/G160M/1600/3 -1.3arcseconds in XD (COS.sp.192 5558)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=1000; LIFETIME-POS=DEF; FLASH=NO; WAVECAL=NO	POS TARG null,-1.3; QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 14-22 Non-Int in PSA/MIRRORB ACQ/IMAGE then G140L and LP6 G160M FUV TA monitor (03)	207 Secs (207 Secs) [==>]	[2]
<p><i>Comments: At R=1.3", the throughput is ~45%. To get the same counts, we need to increase the exposure time.</i></p>									

Proposal 17623 - PSA/MIRRORB ACQ/IMAGE then G140L and LP6 G160M FUV TA monitor (03) - Cycle 32 COS FUV Target Acquis...

19	PSA/G160 M/PEAKX D/NP=3/DEF F (COS.sa.192 5559)	(1) WD-1657+343	COS/FUV, ACQ/PEAKXD, PSA	G160M 1600 A	LIFETIME-POS=D EF; NUM-POS=3; STEP-SIZE=1.3	QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 14-22 Non -Int in PSA/MIRRO RB ACQ/IMAGE th en G140L and LP6 G 160M FUV TA moni tor (03)	3 Secs (3 Secs) [==>]	[2]
<p><i>Comments: Requested Signal/Noise Ratio = 40.000 for Segment A and Segment B combined gives: Time = 1.2097 seconds Time Required for Requested SNR in Segment A only: 7.3247 Time Required for Requested SNR in Segment B only: 1.4487</i></p>									
20	PSA/G160 M/1600/3 (COS.sp.192 5558)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=80 0; LIFETIME-POS=D EF; FLASH=NO; WAVECAL=NO	QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 14-22 Non -Int in PSA/MIRRO RB ACQ/IMAGE th en G140L and LP6 G 160M FUV TA moni tor (03)	93 Secs (93 Secs) [==>]	[2]
21	PSA/G160 M/1600/PE AKD/NP=5/ DEF (COS.sa.192 5559)	(1) WD-1657+343	COS/FUV, ACQ/PEAKD, PSA	G160M 1600 A	LIFETIME-POS=D EF; NUM-POS=5; STEP-SIZE=0.9		Sequence 14-22 Non -Int in PSA/MIRRO RB ACQ/IMAGE th en G140L and LP6 G 160M FUV TA moni tor (03)	3 Secs (3 Secs) [==>]	[2]
<p><i>Comments: Analogous to exposure 01.014 carried over from previous cycles, but this time to test PEAKD at LP6.</i></p>									
22	PSA/G160 M/1600/3 (COS.sp.192 5558)	(1) WD-1657+343	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=80 0; LIFETIME-POS=D EF; FLASH=NO; WAVECAL=NO	QESIPARM USELA MP LINE2; QESIPARM CURR ENT MEDIUM	Sequence 14-22 Non -Int in PSA/MIRRO RB ACQ/IMAGE th en G140L and LP6 G 160M FUV TA moni tor (03)	93 Secs (93 Secs) [==>]	[2]

