



13637 - COS FUV Detector Response to New HV Management System at LP3 (LENA4)

Cycle: 21, Proposal Category: CAL/COS

(Calibration)

(Availability Mode: RESTRICTED)

INVESTIGATORS

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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	DARK WAVE	COS/FUV S/C	1	17-Jun-2014 21:07:19.0	yes
02	DARK WAVE	COS/FUV S/C	1	17-Jun-2014 21:07:20.0	yes
03	DARK WAVE	COS/FUV S/C	1	17-Jun-2014 21:07:22.0	yes

3 Total Orbits Used

ABSTRACT

Proposal 13637 (STScI Edit Number: 3, Created: Tuesday, June 17, 2014 8:07:23 PM EST) - Overview

This program uses a series of 205s WAVECALs and 60s DCE dumps to exercise the new HV Management System. We first ramp to the Maximum HV for Both Segment FUVA/FUVB = 178/175, we then transition to the minimum HV (A/B = 167/163) using the new HV management system, then transition back to the Maximum HV. The WAVECAL exposures at the Maximum HV will be taken with G160M/1611 (C1611) and the minimums are taken with G160M/1623 (C1623). The CENWAVE change is required to allow time for the HV change. The sequence is repeated with FUVA ON (FUVB OFF), and then with FUVB ON (FUVA OFF). DCE Dumps are included before and after each WAVECAL.

All exposures in the program should execute at the LP3 position, using the ALTERNATE lifetime position.

This program will use a special HV Table with the following changes to the normal HV/Aperture table:

CENWAVE	Lifetime Position	HVA/HVB

1611	Alternate (LP3)	178/175
1623	Alternate (LP3)	167/163

LP3 FUV aperture positions and SIAF file updates are not absolutely required, as these are all internals, but they are desired.

OBSERVING DESCRIPTION

Alternating WAVECALs (205s) and DCE DUMPS (60s). The first sequence (three wavecal, four DCE dumps) is with BOTH segments ON, the second sequence is FUVA only, the third sequence is FUVB only. All WAVECAL exposures are 205s, we should get about 17000/41000 counts/min (A/B) for both the G160M/1611 (C1611) and G160M/1623 (C1623) exposures. Each sequence is non-interruptible, and has been placed in its own visit for maximum schedulability.

Each sequence will begin with a DCE dump at HVLOW, a C1611 WAVECAL exposure (PtNe#1, medium current) at the maximum expected LP3 HV value, a DCE dump with no HV requirement, a C1623 WAVECAL exposure at the minimum expected HV a DCE dump with no HV requirement, a second C1611 WAVECAL exposure back at the maximum LP3 HV, and finally a DCE dump with a HVNOM requirement. After the last DCE dump, the HV is ramped to HVLOW so that the next COS visit will ramp up using the existing ramp sequence, and not the new HV management system that we are testing in this program.

For the purposes of this test, the maximum HV values for FUVA/B are 178/175, the minimum HV values are 167/163.

This program will use a special HV Table with the following changes to the normal HV/Aperture table:

CENWAVE	Lifetime Position	HVA/HVB
1611	ALTERNATE (LP3)	178/175
1623	ALTERNATE (LP3)	167/163

Because the lamp exposures are short, the stim rate is set to the 30 counts/s/segment. 2,000 counts/s/segment would have caused the BUFFER TIMES to be too large (it would have limited the max exposure time to ~150s). 30 Hz STIMs still gets us 15 count/s/stim, which is sufficient for our needs, and allow us maximum thermal correction.

Per the "Good Neighbor" Policy, at the end of each visit, the HV is ramped back down to HVLOW.

This program has a timing constraint of 07-Jul-2014 to 13-Jul-2014, but we request that it go as early in the SMS as possible.

ADDITIONAL COMMENTS

No other ALTERNATE exposures using the G160M CENWAVES of 1611 (C1611) or 1623 (C1623) should be allowed during the week of this program. These exposures will use a special HV table with the minimum HVs (178/175) set in C1611 and the maximum HVs (167/163) set in C1623. This HV table should only be active for this SMS. After the execution of this program, the HV table will be reset to restore the proper HV values for these ALTERNATE CENWAVES.

LP3 aperture positions and SIAF file updates are not absolutely required, as these are all internals, but they are desired.

Specifically, we would like the following XDisp aperture locations patched into the FSW
(The FUV ALTERNATE (_A) values are now offset from _O(iginal) nt +53 steps = -2.52" (LP3)

```
const SHORT pcmech_ApMXDispPosition[TA_NUM_APERTURES][MIE_NUM_DETECTORS] =
{
  /* FUV  NUV  */
  /* ---  --- */
  { 53, 126 }, /* PSA_B, best primary science aperture position */
  {-226, -153 }, /* BOA_B, best bright object aperture position */
  {-226, -153 }, /* FCA_B, best flat-field cal aperture position */
  { 53, 126 }, /* WCA_B, best wavecal aperture position */
  { 179, 126 }, /* PSA_A, alternate primary science aperture position */ /**+53 steps from _Original **
  {-100, -153 }, /* BOA_A, alternate bright object aperture position */ /**+53 steps from _Original **
  {-100, -153 }, /* FCA_A, alternate flat-field cal aperture position */ /**+53 steps from _Original **
  { 179, 126 }, /* WCA_A, alternate wavecal aperture position */ /**+53 steps from _Original **
  { 126, 126 }, /* PSA_O, original primary science aperture position */
  {-153, -153 }, /* BOA_O, original bright object aperture position */
  {-153, -153 }, /* FCA_O, original flat-field cal aperture position */
  { 126, 126 } /* WCA_O, original wavecal aperture position */
};
```

For FUVB, we expect 17000 counts/minute. One of the requirements for TAGFLASH is that the flash contains 1000 counts. Therefore, for FUVB, we should be able to track changes using ~3.5s intervals. For FUVB, the count rate is 40,000 counts/minute, so should be able to track changes using ~1.5s intervals. However, our requirement is only to track changes on the timescale of the TAGFLASH time, which is 12s.

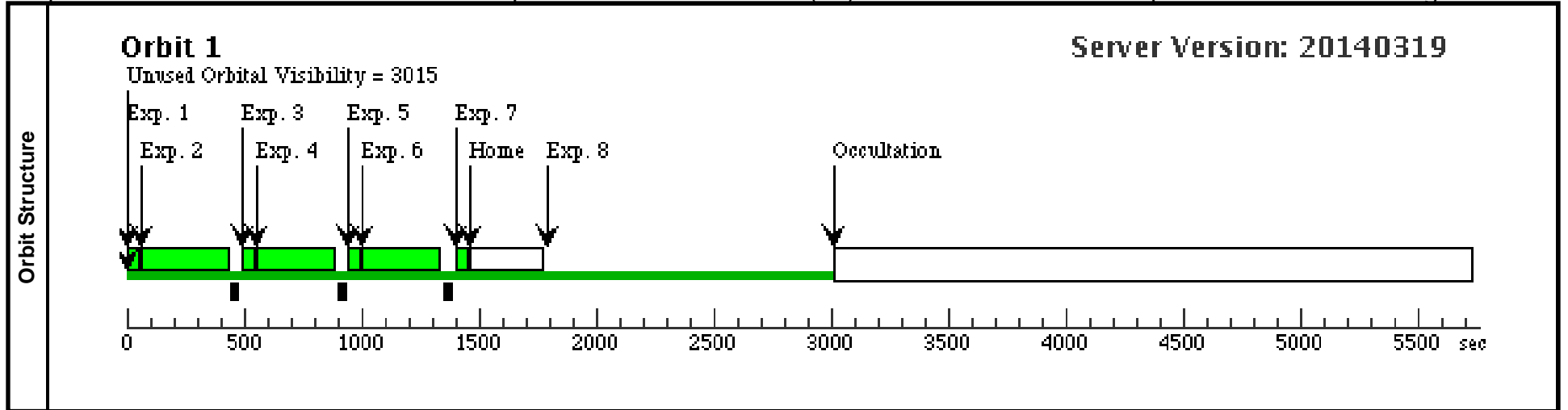
Visit	Proposal 13637, DCE-WAVECAL-DCE Sequence-BOTH-205s-30Hz (01), implementation
	Diagnostic Status: No Diagnostics
	Scientific Instruments: S/C, COS/FUV
	Special Requirements: SCHED 100%; PARALLEL
	<i>Comments: Alternating WAVECALs and DCE DUMPS. This sequence is with BOTH segments.</i>
	<i>All WAVECAL exposures are 205s, with a 100% duty cycle. We should get about 17000/41000 counts/min (A/B) for both the C1611 and C1623 exposures.</i>
	<i>Each sequence will begin with a DCE dump at HVLOW, a C1611 wavecal exposure (PtNe#1, medium current) at the maximum expected LP3 HV value, a DCE dump with no HV requirement, a C1623 wavecal exposure at the minimum expected HV a DCE dump with no HV requirement, a second C1611 Wavecal exposure back at the maximum LP3 HV, and finally a DCE dump with a HVNOM requirement, By the good neighbor policy, the HV is ramped back to HVLow at the end of the visit.</i>
	<i>Note that these exposures will use a special HV table that will be delivered well in advance that will only be used for the LENA1, LENA2, & LENA3 projects. A new HV table will be delivered that will be used for the remainder of the LENA3 and FCAL programs.</i>
	<i>All exposures in the program should execute at the LP3 position, using the ALTERNATE lifetime position.</i>
	<i>Because the lamp exposures are short, the stim rate is set to the 30 counts/s/segment.</i>

Proposal 13637 - DCE-WAVECAL-DCE Sequence-BOTH-205s-30Hz (01) - COS FUV Detector Response to New HV Management S...

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
Exposures	1	DCE RAM dump LOW	DARK	S/C, DATA, NONE		SAA CONTOUR 31; SPEC COM INSTR ELCOPYDCE; QASISTATES COS SI OBSERVE OBSE RVE; QASISTATES COS FUV HVLOW HVL OW	Sequence 1-7 Non-Int in DCE-WAVECAL-DCE Sequence-BOTH-205s-30Hz (01)	60.0 Secs (60 Secs) [==>]	[1]	
	<i>Comments: Copy and dump DCE RAM.</i>									
	<i>SQL: setup readout entry for the DCE dump (qalignment, qexposure, qreadout), tag as COS (si_used and si_intrlv)</i>									
	2	C1611/HVmax/205s/BO TH/ALT	WAVE	COS/FUV, TIME-TAG, WCA	G160M 1611 A	WAVECAL=YES; BUFFER-TIME=1100; FP-POS=1; EXTENDED=NO; LIFETIME-POS=ALTERNATE; STIM-RATE=30	NEW ALIGNMENT	Sequence 1-7 Non-Int in DCE-WAVECAL-DCE Sequence-BOTH-205s-30Hz (01)	205 Secs (205 Secs) [==>]	[1]
<i>Comments: We expect 40000 cts/min for FUVB and 17000 counts/min. for FUV A, thats 1,010 per second including the stims. This puts the buffer time as $2.36E6/1010 = 2300$. To play in safe, and to maximize exposure time we use 1100s. We use FP-POS=1 to place the WAVECAL spectrum as close to the C1623/FP-POS=4 exposure that follows.</i>										
Exposures	3	DCE RAM dump NOM	DARK	S/C, DATA, NONE		SAA CONTOUR 31; SPEC COM INSTR ELCOPYDCE; NEW ALIGNMENT ; QASISTATES COS SI OBSERVE OBSE RVE; QASISTATES COS FUV HVNOM HVNOM	Sequence 1-7 Non-Int in DCE-WAVECAL-DCE Sequence-BOTH-205s-30Hz (01)	60.0 Secs (60 Secs) [==>]	[1]	
	<i>Comments: Copy and dump DCE RAM. Uses HV settings of prior exposure (i.e. HV for G160M/1611).</i>									
	<i>SQL: setup readout entry for the DCE dump (qalignment, qexposure, qreadout), tag as COS (si_used and si_intrlv)</i>									
	4	C1623/HVmin/205s/BO TH/ALT	WAVE	COS/FUV, TIME-TAG, WCA	G160M 1623 A	WAVECAL=YES; BUFFER-TIME=1100; FP-POS=4; EXTENDED=NO; LIFETIME-POS=ALTERNATE; STIM-RATE=30	NEW ALIGNMENT	Sequence 1-7 Non-Int in DCE-WAVECAL-DCE Sequence-BOTH-205s-30Hz (01)	205 Secs (205 Secs) [==>]	[1]
<i>Comments: FP-POS = 4 to be as close to 1611 as possible</i>										

Proposal 13637 - DCE-WAVECAL-DCE Sequence-BOTH-205s-30Hz (01) - COS FUV Detector Response to New HV Management S...

5	DCE RAM DARK dump NOM	S/C, DATA, NONE	SAA CONTOUR 31; SPEC COM INSTR ELCOPYDCE; NEW ALIGNMENT) ; QASISTATES COS SI OBSERVE OBSE RVE; QASISTATES COS FUV HVNOM HVN OM	Sequence 1-7 Non-In t in DCE-WAVECA L-DCE Sequence-B OTH-205s-30Hz (01)	60.0 Secs (60 Secs)	[==>]	[1]	
<p>Comments: Copy and dump DCE RAM. Uses HV settings of prior exposure (i.e. HV for G160M/1623).</p>								
<p>SQL: setup readout entry for the DCE dump (qalignment, qexposure, qreadout), tag as COS (si_used and si_intrlv)</p>								
6	C1611/HVm WAVE ax/205s/BO TH/ALT	COS/FUV, TIME-TAG, WCA	G160M 1611 A	WAVECAL=YES; BUFFER-TIME=11 00; FP-POS=1; EXTENDED=NO; LIFETIME-POS=A LTERNATE; STIM-RATE=30	NEW ALIGNMENT Sequence 1-7 Non-In t in DCE-WAVECA L-DCE Sequence-B OTH-205s-30Hz (01)	205 Secs (205 Secs)	[==>]	[1]
<p>Comments: We use FP-POS=1 to place the WAVECAL spectrum as close to the preceeding C1623/FP-POS=4 exposure.</p>								
7	DCE RAM DARK dump NOM	S/C, DATA, NONE	SAA CONTOUR 31; SPEC COM INSTR ELCOPYDCE; NEW ALIGNMENT) ; QASISTATES COS SI OBSERVE OBSE RVE; QASISTATES COS FUV HVNOM HVN OM	Sequence 1-7 Non-In t in DCE-WAVECA L-DCE Sequence-B OTH-205s-30Hz (01)	60.0 Secs (60 Secs)	[==>]	[1]	
<p>Comments: Copy and dump DCE RAM. Uses HV settings of prior exposure (i.e. HV for G160M/1611).</p>								
<p>SQL: setup readout entry for the DCE dump (qalignment, qexposure, qreadout), tag as COS (si_used and si_intrlv)</p>								
8	Ramp Down DARK to HVLOW	S/C, DATA, NONE	NEW OBSET; QASISTATES COS SI OPERATE OPER ATE; QASISTATES COS FUV HVLOW HVL OW	1 Secs (1 Secs)	[==>]	[1]		
<p>Comments: Use this S/C to force a ramp down to HVLOW</p>								



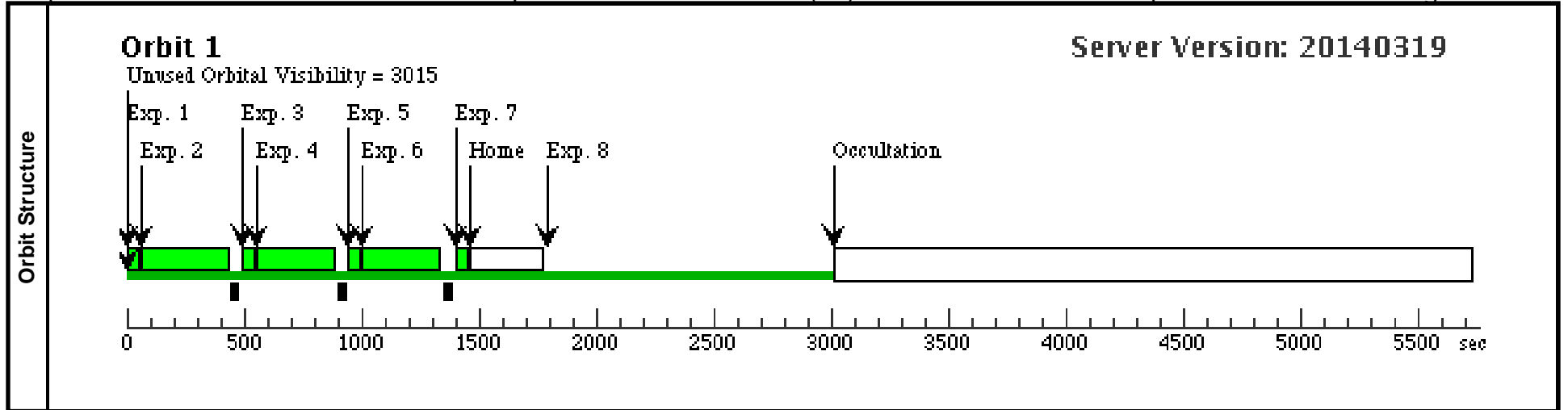
Visit	<p>Proposal 13637, DCE-WAVECAL-DCE Sequence-SEGA-205s-30Hz (02), implementation Wed Jun 18 01:07:24 GMT 2014</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: S/C, COS/FUV</p> <p>Special Requirements: SCHED 100%; PARALLEL</p> <p><i>Comments: Alternating WAVECALs and DCE DUMPS. This sequence is FUVA only. All WAVECAL exposures are 205s, we should get about 17000 counts/min (A) for both the C1611 and C1623 exposures.</i></p> <p><i>Note that these exposures will use a special HV table that will be delivered well in advance that will only be used for this project, and will only be active for this SMS. A second HV table will be delivered that will be used for the remainder of the LENA and FCAL programs.</i></p> <p><i>All exposures in the program should execute at the LP3 position, but using the ALTERNATE lifetime position.</i></p> <p><i>Because the lamp exposures are short, the stim rate is set to the 30 counts/s. (15 counts/stim/sec).</i></p> <p><i>By the good neighbor policy, the HV is ramped back to HVLow at the end of the visit.</i></p>
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Proposal 13637 - DCE-WAVECAL-DCE Sequence-SEGA-205s-30Hz (02) - COS FUV Detector Response to New HV Management S...

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
Exposures	1	DCE RAM dump LOW	DARK	S/C, DATA, NONE		SAA CONTOUR 31; SPEC COM INSTR ELCOPYDCE; QASISTATES COS SI OBSERVE OBSE RVE; QASISTATES COS FUV HVLOW HVL OW	Sequence 1-7 Non-Int in DCE-WAVECAL-DCE Sequence-SEGA-205s-30Hz (02)	60.0 Secs (60 Secs) [==>]	[1]	
	<i>Comments: Copy and dump DCE RAM.</i>									
	<i>SQL: setup readout entry for the DCE dump (qalignment, qexposure, qreadout), tag as COS (si_used and si_intrlv)</i>									
	2	C1611/HVmax/205s/SEGA/ALT	WAVE	COS/FUV, TIME-TAG, WCA	G160M 1611 A	WAVECAL=YES; BUFFER-TIME=1500; FP-POS=1; EXTENDED=NO; LIFETIME-POS=ALTERNATE; STIM-RATE=30; SEGMENT=A	NEW ALIGNMENT	Sequence 1-7 Non-Int in DCE-WAVECAL-DCE Sequence-SEGA-205s-30Hz (02)	205 Secs (205 Secs) [==>]	[1]
<i>Comments: We expect 17000 counts/min. for FUVa, thats 1,010 per second including the stims. This puts the buffer time as 2.36E6/313 = 7500. To play in safe, and to maximize exposure time we use 1500s. We use FP-POS=1 to place the WAVECAL spectrum as close to the C1623/FP-POS=4 exposure that follows.</i>										
Exposures	3	DCE RAM dump NOM	DARK	S/C, DATA, NONE		SAA CONTOUR 31; SPEC COM INSTR ELCOPYDCE; NEW ALIGNMENT ; QASISTATES COS SI OBSERVE OBSE RVE; QASISTATES COS FUV HVSEGA HVSEGA	Sequence 1-7 Non-Int in DCE-WAVECAL-DCE Sequence-SEGA-205s-30Hz (02)	60.0 Secs (60 Secs) [==>]	[1]	
	<i>Comments: Copy and dump DCE RAM. Uses HV settings of prior exposure (i.e. HV for G160M/1611).</i>									
	<i>SQL: setup readout entry for the DCE dump (qalignment, qexposure, qreadout), tag as COS (si_used and si_intrlv)</i>									
	4	C1623/HVmin/205s/SEGA/ALT	WAVE	COS/FUV, TIME-TAG, WCA	G160M 1623 A	WAVECAL=YES; BUFFER-TIME=1500; FP-POS=4; EXTENDED=NO; LIFETIME-POS=ALTERNATE; STIM-RATE=30; SEGMENT=A	NEW ALIGNMENT	Sequence 1-7 Non-Int in DCE-WAVECAL-DCE Sequence-SEGA-205s-30Hz (02)	205 Secs (205 Secs) [==>]	[1]
<i>Comments: FP-POS = 4 to be as close to C1611/1 as possible</i>										

Proposal 13637 - DCE-WAVECAL-DCE Sequence-SEGA-205s-30Hz (02) - COS FUV Detector Response to New HV Management S...

5	DCE RAM DARK dump NOM	S/C, DATA, NONE	SAA CONTOUR 31; Sequence 1-7 Non-Int in DCE-WAVECAL-DCE Sequence-SEGA-205s-30Hz (02) SPEC COM INSTR ELCOPYDCE; NEW ALIGNMENT ; QASISTATES COS SI OBSERVE OBSE RVE; QASISTATES COS FUV HVSEGA HVS EGA	60.0 Secs (60 Secs)	[==>]	[1]		
<p>Comments: Copy and dump DCE RAM. Uses HV settings of prior exposure (i.e. HV for G160M/1623).</p>								
<p>SQL: setup readout entry for the DCE dump (qalignment, qexposure, qreadout), tag as COS (si_used and si_intrlv)</p>								
6	C1611/HVmax/210s/SEGA/ALT	COS/FUV, TIME-TAG, WCA	G160M 1611 A	WAVECAL=YES; NEW ALIGNMENT BUFFER-TIME=1500; FP-POS=1; EXTENDED=NO; LIFETIME-POS=ALTERNATE; STIM-RATE=30; SEGMENT=A	Sequence 1-7 Non-Int in DCE-WAVECAL-DCE Sequence-SEGA-205s-30Hz (02)	205 Secs (205 Secs)	[==>]	[1]
<p>Comments: We use FP-POS=1 to place the WAVECAL spectrum as close to the preceeding C1623/FP-POS=4 exposure.</p>								
7	DCE RAM DARK dump NOM	S/C, DATA, NONE	SAA CONTOUR 31; Sequence 1-7 Non-Int in DCE-WAVECAL-DCE Sequence-SEGA-205s-30Hz (02) SPEC COM INSTR ELCOPYDCE; NEW ALIGNMENT ; QASISTATES COS SI OBSERVE OBSE RVE; QASISTATES COS FUV HVSEGA HVS EGA	60.0 Secs (60 Secs)	[==>]	[1]		
<p>Comments: Copy and dump DCE RAM. Uses HV settings of prior exposure (i.e. HV for G160M/1611).</p>								
<p>SQL: setup readout entry for the DCE dump (qalignment, qexposure, qreadout), tag as COS (si_used and si_intrlv)</p>								
8	Ramp Down DARK to HVLOW	S/C, DATA, NONE	NEW OBSET; QASISTATES COS SI OPERATE OPERATE; QASISTATES COS FUV HVLOW HVLOW	1 Secs (1 Secs)	[==>]	[1]		
<p>Comments: Use this S/C to force a ramp down to HVLOW</p>								



Visit	<p>Proposal 13637, DCE-WAVECAL-DCE Sequence-SEGB-205s-30Hz (03), implementation</p>	<p>Wed Jun 18 01:07:24 GMT 2014</p>
	<p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: S/C, COS/FUV</p> <p>Special Requirements: SCHED 100%; PARALLEL</p> <p><i>Comments: Alternating WAVECALs and DCE DUMPS. This sequence is FUVB only. All WAVECAL exposures are 205s, we should get about 41000 (B) counts/min for both the C1611 and C1623 exposures.</i></p> <p><i>Note that these exposures will use a special HV table that will be delivered well in advance that will only be used for this project, and will only be active for this SMS. A second HV table will be delivered that will be used for the remainder of the LENA and FCAL programs.</i></p> <p><i>All exposures in the program should execute at the LP3 position, but using the ALTERNATE lifetime position.</i></p> <p><i>Because the lamp exposures are short, the stim rate is set to the 30 counts/s. (15 counts/stim/sec).</i></p> <p><i>By the good neighbor policy, the HV is ramped back to HVLow at the end of the visit.</i></p>	

Proposal 13637 - DCE-WAVECAL-DCE Sequence-SEGB-205s-30Hz (03) - COS FUV Detector Response to New HV Management S...

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
Exposures	1	DCE RAM dump LOW	DARK	S/C, DATA, NONE		SAA CONTOUR 31; SPEC COM INSTR ELCOPYDCE; QASISTATES COS SI OBSERVE OBSE RVE; QASISTATES COS FUV HVLOW HVL OW	Sequence 1-7 Non-Int in DCE-WAVECAL-DCE Sequence-SEGB-205s-30Hz (03)	60.0 Secs (60 Secs) [==>]	[1]	
	<i>Comments: Copy and dump DCE RAM.</i>									
	<i>SQL: setup readout entry for the DCE dump (qalignment, qexposure, qreadout), tag as COS (si_used and si_intrlv)</i>									
	2	C1611/HVmax/205s/SEGB/ALT	WAVE	COS/FUV, TIME-TAG, WCA	G160M 1611 A	WAVECAL=YES; BUFFER-TIME=1200; FP-POS=1; EXTENDED=NO; LIFETIME-POS=ALTERNATE; STIM-RATE=30; SEGMENT=B	NEW ALIGNMENT	Sequence 1-7 Non-Int in DCE-WAVECAL-DCE Sequence-SEGB-205s-30Hz (03)	205 Secs (205 Secs) [==>]	[1]
<i>Comments: We expect 40000 cts/min for FUVB, thats 1,010 per second including the stims. This puts the buffer time as 2.36E6/697 = 3300. To play in safe, and to maximize exposure time we use 1200s. We use FP-POS=1 to place the WAVECAL spectrum as close to the C1623/FP-POS=4 exposure that follows.</i>										
Exposures	3	DCE RAM dump NOM	DARK	S/C, DATA, NONE		SAA CONTOUR 31; SPEC COM INSTR ELCOPYDCE; NEW ALIGNMENT ; QASISTATES COS SI OBSERVE OBSE RVE; QASISTATES COS FUV HVSEGB HVS EGB	Sequence 1-7 Non-Int in DCE-WAVECAL-DCE Sequence-SEGB-205s-30Hz (03)	60 Secs (60 Secs) [==>]	[1]	
	<i>Comments: Copy and dump DCE RAM. Uses HV settings of prior exposure (i.e. HV for G160M/1611).</i>									
	<i>SQL: setup readout entry for the DCE dump (qalignment, qexposure, qreadout), tag as COS (si_used and si_intrlv)</i>									
	4	C1623/HVmin/205s/SEGB/ALT	WAVE	COS/FUV, TIME-TAG, WCA	G160M 1623 A	WAVECAL=YES; BUFFER-TIME=1200; FP-POS=4; EXTENDED=NO; LIFETIME-POS=ALTERNATE; STIM-RATE=30; SEGMENT=B	NEW ALIGNMENT	Sequence 1-7 Non-Int in DCE-WAVECAL-DCE Sequence-SEGB-205s-30Hz (03)	205 Secs (205 Secs) [==>]	[1]
<i>Comments: FP-POS = 4 to be as close to C1611/1 as possible</i>										

Proposal 13637 - DCE-WAVECAL-DCE Sequence-SEGB-205s-30Hz (03) - COS FUV Detector Response to New HV Management S...

5	DCE RAM DARK dump NOM	S/C, DATA, NONE	SAA CONTOUR 31; Sequence 1-7 Non-Int in DCE-WAVECAL-DCE Sequence-SEGB-205s-30Hz (03) SPEC COM INSTR ELCOPYDCE; NEW ALIGNMENT ; QASISTATES COS SI OBSERVE OBSE RVE; QASISTATES COS FUV HVSEGB HVS EGB	60 Secs (60 Secs)	[==>]	[1]		
<p>Comments: Copy and dump DCE RAM. Uses HV settings of prior exposure (i.e. HV for G160M/1623).</p>								
<p>SQL: setup readout entry for the DCE dump (qalignment, qexposure, qreadout), tag as COS (si_used and si_intrlv)</p>								
6	C1611/HVmax/205s/SE GB/ALT	COS/FUV, TIME-TAG, WCA	G160M 1611 A	WAVECAL=YES; NEW ALIGNMENT BUFFER-TIME=1200; FP-POS=1; EXTENDED=NO; LIFETIME-POS=ALTERNATE; STIM-RATE=30; SEGMENT=B	Sequence 1-7 Non-Int in DCE-WAVECAL-DCE Sequence-SEGB-205s-30Hz (03)	205 Secs (205 Secs)	[==>]	[1]
<p>Comments: We use FP-POS=1 to place the WAVECAL spectrum as close to the preceeding C1623/FP-POS=4 exposure.</p>								
7	DCE RAM DARK dump NOM	S/C, DATA, NONE	SAA CONTOUR 31; Sequence 1-7 Non-Int in DCE-WAVECAL-DCE Sequence-SEGB-205s-30Hz (03) SPEC COM INSTR ELCOPYDCE; NEW ALIGNMENT ; QASISTATES COS SI OBSERVE OBSE RVE; QASISTATES COS FUV HVSEGB HVS EGB	60 Secs (60 Secs)	[==>]	[1]		
<p>Comments: Copy and dump DCE RAM. Uses HV settings of prior exposure (i.e. HV for G160M/1611).</p>								
<p>SQL: setup readout entry for the DCE dump (qalignment, qexposure, qreadout), tag as COS (si_used and si_intrlv)</p>								
8	Ramp Down DARK to HVLOW	S/C, DATA, NONE	NEW OBSET; QASISTATES COS SI OPERATE OPERATE; QASISTATES COS FUV HVLOW HVLOW	1 Secs (1 Secs)	[==>]	[1]		
<p>Comments: Use this S/C to force a ramp down to HVLOW</p>								

