Proposal 17252 (STScI Edit Number: 0, Created: Monday, October 3, 2022 at 1:01:04 PM Eastern Standard Time) - Overview



17252 - Cycle 30 COS FUV Characterization of Modal Gain When Changing HIgh

Voltage

Cycle: 30, 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?
2A	DARK DEUTERIUM NONE	COS COS/FUV S/C	1	03-Oct-2022 14:00:53.0	yes
2C	DARK DEUTERIUM NONE	COS COS/FUV S/C	1	03-Oct-2022 14:00:55.0	yes
3A	DARK DEUTERIUM NONE	COS COS/FUV S/C	1	03-Oct-2022 14:00:56.0	yes

Visit	Targets used in Visit	Configurations used in Visit	Orbits Used	Last Orbit Planner Run	OP Current with Visit?
3C	DARK DEUTERIUM NONE	COS COS/FUV S/C	1	03-Oct-2022 14:00:58.0	yes
4A	DARK DEUTERIUM NONE	COS COS/FUV S/C	1	03-Oct-2022 14:00:59.0	yes
4C	DARK DEUTERIUM NONE	COS COS/FUV S/C	1	03-Oct-2022 14:01:00.0	yes
5A	DARK DEUTERIUM NONE	COS COS/FUV S/C	1	03-Oct-2022 14:01:02.0	yes
5C	DARK DEUTERIUM NONE	COS COS/FUV S/C	1	03-Oct-2022 14:01:03.0	yes

8 Total Orbits Used

ABSTRACT

This program uses the deuterium lamp to illuminate the regions of the detector being used to collect spectra during Cycle 30. The data obtained will be used to create gain maps of the detector. Because of the strongly varying intensity of the lamp as a function of wavelength, G130M/1309 data will be obtained for Segment A, and G160M/1600 will be used for Segment B.

Gain map data will be obtained both before and after any change is made to any nominal high voltage value on either segment, and before and after any lifetime move. Obtaining a gain map at these times will help to improve the modeling of the modal gain as a function of time and extracted charge, since it will provide data that cover the full time span of each high voltage at each LP. Improving these models will allow better predictions of the future lifetime of the detector.

Proposal 17252 (STScI Edit Number: 0, Created: Monday, October 3, 2022 at 1:01:04 PM Eastern Standard Time) - Overview **OBSERVING DESCRIPTION**

This program will obtain spectra from the deuterium lamp with enough counts to permit the construction of a gain map covering the region where the spectra fall. In order to efficiently illuminate the two segments, the G130M/1309 setting will be used for Segment A, and G160M/1600 will be used for Segment B. Both segments can safely remain on with either setting.

Gain maps should be taken before and after any high voltage change, and before and after any change in Lifetime Position. They should be obtained at the appropriate HV levels and detector locations.

The plan for Cycle 30 includes 2 one-orbit contingency visits for each HV change. These two visits will be used if a HV change is made during the cycle. One will be taken immediately before the change using the current HV values (visits 2A, 3A, 4A, or 5A), and one will be taken after at the new values (visits 2C, 3C, 4C, or 5C).

The procedure for collecting this data in each visit is given below.

* Take an exposure at LP1 to set up the aperture position and HV. This can also be used to measure the gain at LP1. These exposures will use G130M/1309 for visits 2A, 2C, 3A, and 3C; and G160M/1600 for visits 4A, 4C, 5A, and 5C.

* Adjust the HV values

* Adjust the aperture in the cross dispersion direction so that the deuterium lamp will illuminate the appropriate region on Segment A when using G130M/1309.

* Take a 440 second deuterium lamp exposure using both detector segments.

* Adjust the aperture to a second cross-dispersion location to obtain additional coverage on Segment A and take another 440 second deuterium lamp exposure.

* Adjust the aperture in the cross dispersion direction so that the deuterium lamp will illuminate the appropriate region on Segment B when using

Proposal 17252 (STScI Edit Number: 0, Created: Monday, October 3, 2022 at 1:01:04 PM Eastern Standard Time) - Overview G160M/1600.

* Take a 440 second deuterium lamp exposure using both detector segments.

* Adjust the aperture to a second cross-dispersion location to obtain additional coverage on Segment B and take another 440 second deuterium lamp exposure.

* Return the aperture to the HOME position

Note that because TRANS resets its aperture zero point when FCA exposures are taken, the aperture is explicitly moved using "QESIPARM XSTEPS", as was done in Program 13970, 14439, 14519, 14941, 15534, 15772, etc.

For reference, the soft and hard stops for the apertures are listed below. All aperture moves are within these ranges. MEB1: SOFT STOPS = -275 to 275 HARD STOPS = -282 to 285

MEB2: SOFT STOPS = -275 to 275 HARD STOPS = -284 to 283

The initial exposure of each visit uses the FCA_LP1 aperture position, LAPXSTP = -153. Thus all XAPER values are relative to that position.

Summary table:

Visit LP Grating/Segment Y Position LAPXSTP XAPER HV

Proposal 17	7252 (ST	Scl Edit Number:	0, Created	d: Monday,	October	3, 2022 at 1:01:04 PM Eastern Standard Time) - Overview
2A/2C	2	G130M/A	1	-213	-60	173/175
2A/2C	2	G130M/A	2	-267*	-114	173/175
2A/2C	2	G160M/B	1	-225	-72	173/175
2A/2C	2	G160M/B	2	-267*	-114	173/175
3A/3C	3	G130M/A	1	-72	+81	173/175
3A/3C	3	G130M/A	2	-128	+25	173/175
3A/3C	3	G160M/B	1	-84	+69	173/175
3A/3C	3	G160M/B	2	-140	+13	173/175
4A/4C	4	G130M/A	1	-32	+121	173/175
4A/4C	4	G130M/A	2	-86	+67	173/175
4A/4C	4	G160M/B	1	-41	+112	173/175
4A/4C	4	G160M/B	2	-95	+58	173/175
5A/5C	5	G130M/A	1	-213	-60	167/169
5A/5C	5	G130M/A	2	-267*	-114	167/169
5A/5C	5	G160M/B	1	-225	-72	167/169
5A/5C	5	G160M/B	2	-267*	-114	167/169

* Limited to be within the soft stops

The LP2 and LP5 aperture positions are identical, but the Y extent of the spectra on the detector is large enough to cover the detector region used for both LPs. The LP6 positions are also the same, and since the LP5 and LP6 HV values are identical, no separate LP6 visits have been created.

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The HVs in the table above are the current HV values. They should be modified to reflect any HV adjustments.

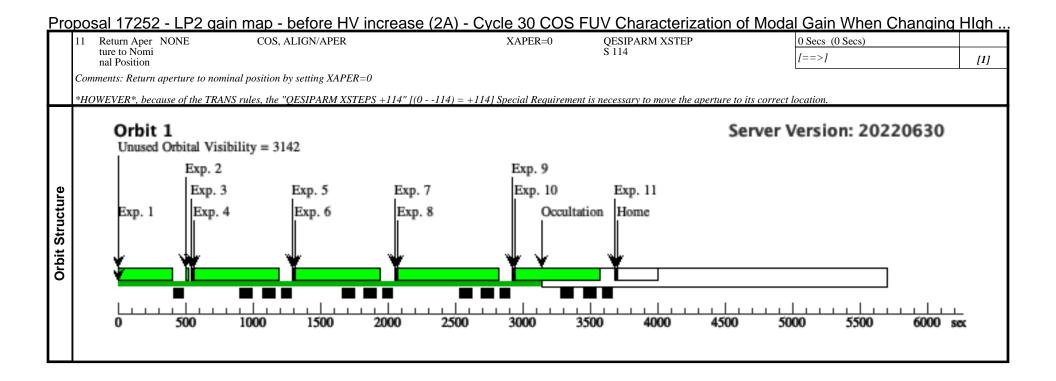
Proposal 17252 - LP2 gain map - before HV increase (2A) - Cycle 30 COS FUV Characterization of Modal Gain When Changing High ...

	Proposal 17252, LP2 gain map - before HV increase (2A), implementation	Mon Oct 03 18:01:04 GMT 2022
	Diagnostic Status: Warning	
Ξ	Scientific Instruments: S/C, COS, COS/FUV	
Vis	Special Requirements: ON HOLD ; PARALLEL	
	Comments: This visit collects data at LP2. It uses the HV values appropriate for LP2 (173/175).	
	On Hold Comments: Only needed if HV changed during Cycle 30 HV Values will have to be updated before execution!	
ostics	(LP2 gain map - before HV increase (2A)) Warning (Orbit Planner): MAXIMUM DURATION EXCEEDED FOR INTERNAL OR EARTH CALIB SU	
lost		
Diagn		
ã		

1	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Or		
		DEUTERIUM	COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU			125 Secs (125 Secs)			
	9 Deuterium Exposure - S			1309 A	M;			[==>]			
	et up at LP1				BUFFER-TIME=19 6;						
					FP-POS=1;						
					SEGMENT=BOTH;				[
					LIFETIME-POS=L						
					P1						
<u>Con</u> 2			ture to LP1, which is near the center of S/C, DATA, NONE	the aperture range	used in this program. It a			20 Sags (20 Sags)			
2	Adjust HV t o LP2 value	DAKK	S/C, DATA, NONE			SAA CONTOUR 31 SPEC COM INSTR	·	39 Secs (39 Secs)			
	S					ELHVADJPROP;		[==>]			
						QASISTATES COS					
						FUV HVNOM HVN OM;	N				
						QESIPARM ENDC			[
						TSA 173;					
						QESIPARM ENDC TSB 175:					
						OESIPARM SEGM					
						ENT AB					
Con	Comments: Adjust the HV to the LP2 values.										
Sinc	e the HV is no	t increasing, exposu	tre time = 39 seconds								
3	Aperture Ad justment 1 f	NONE	COS, ALIGN/APER		XAPER=-60			0.0 Secs (0 Secs)			
	or Segment							[==>]	[
_	A										
Con	nments: Put the	e aperture in the app	propriate position to illuminate a portion	on of the LP2 region	of the detector when illu	minating Segment A w	vith G130M/1309.				
na.		lue at LP1 is -153									
	· 114DV070			at Position 1 for LP	2 15 -215						
Des		0	luminate Segment A with G130M/1309								
Des	refore, XAPER	is set to -213153	B = -60	v				440 Soos (440 Soos)			
Des	refore, XAPER	0	, i i i i i i i i i i i i i i i i i i i	G130M	CURRENT=MEDIU M;			440 Secs (440 Secs)			
Des	<u>refore, XAPER</u> G130M/130	is set to -213153	B = -60	v				$\frac{440 \text{ Secs } (440 \text{ Secs})}{I = => J}$			
Des	<i>refore, XAPER</i> G130M/130 9 Deuterium	is set to -213153	B = -60	G130M	M; BUFFER-TIME=16 5;			, , ,, , ,, , ,, , ,, , ,, , ,, , , , , , , , , , , , , , , , , , , ,			
Des	<i>refore, XAPER</i> G130M/130 9 Deuterium	is set to -213153	B = -60	G130M	M; BUFFER-TIME=16 5; FP-POS=1;			, , ,, , ,, , ,, , ,, , ,, , ,, , , , , , , , , , , , , , , , , , , ,	[
Des	<i>refore, XAPER</i> G130M/130 9 Deuterium	is set to -213153	B = -60	G130M	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH;			, , ,, , ,, , ,, , ,, , ,, , ,, , , , , , , , , , , , , , , , , , , ,	[
Des	<i>refore, XAPER</i> G130M/130 9 Deuterium	is set to -213153	B = -60	G130M	M; BUFFER-TIME=16 5; FP-POS=1;			· · · · · · · · · · · · · · · · · · ·	[
Des <u>The</u> 4	<i>refore, XAPER</i> G130M/130 9 Deuterium Exposure 1	<u>is set to -213153</u> DEUTERIUM	B = -60	G130M 1309 A	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1		e counts than the o	[==>]	[
Des <u>The</u> 4	refore, XAPER G130M/130 9 Deuterium Exposure 1 mments: Deuten Aperture Ad	tis set to -213153 DEUTERIUM	B = -60 COS/FUV, TIME-TAG, FCA	G130M 1309 A	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1	<u>at it has slightly more</u> QESIPARM XSTEF		[==>]	[
Des <u>The</u> 4	refore, XAPER G130M/130 9 Deuterium Exposure 1 mments: Deuter Aperture Ad justment 2 f	tis set to -213153 DEUTERIUM	3 = -60 COS/FUV, TIME-TAG, FCA vized for Segment A. FP-POS=1 was c	G130M 1309 A	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th	at it has slightly more		[==>] her FP-POS values.			
Des <u>The</u> 4	refore, XAPER G130M/130 9 Deuterium Exposure 1 mments: Deuten Aperture Ad	tis set to -213153 DEUTERIUM	3 = -60 COS/FUV, TIME-TAG, FCA vized for Segment A. FP-POS=1 was c	G130M 1309 A	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th	<u>at it has slightly more</u> QESIPARM XSTEF		[==>] ther FP-POS values. 0.0 Secs (0 Secs)			
Des <u>The</u> 4 5	nements: Deuterium Aperture Ad justment 2 f or Segment A	<u>tis set to -213153</u> DEUTERIUM <u>rium exposure optim</u> NONE	3 = -60 COS/FUV, TIME-TAG, FCA vized for Segment A. FP-POS=1 was c	G130M 1309 A hosen because previe	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th XAPER=-114	<u>at it has slightly more</u> QESIPARM XSTEF S -54	2	[==>] ther FP-POS values. 0.0 Secs (0 Secs)			
Des <u>The</u> 4 <u>Com</u> 5 <i>Com</i>	nements: Deuterium Aperture Ad justment 2 f or Segment Amments: Put the ALAPXSTP va	tis set to -213153 DEUTERIUM ium exposure optim NONE e aperture in the app lue at LP1 is -153	<u>B = -60</u> COS/FUV, TIME-TAG, FCA <u>nized for Segment A. FP-POS=1 was ch</u> COS, ALIGN/APER	G130M 1309 A hosen because previo	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th XAPER=-114	<u>at it has slightly more</u> QESIPARM XSTEF S -54	2	[==>] ther FP-POS values. 0.0 Secs (0 Secs)			
Des <u>The</u> 4 <u>Com</u> 5 Com FCA Des	nments: Deuteri Aperture Ad justment 2 f or Segment A uments: Put the ALAPXSTP va ired LAPXSTP	tis set to -213153 DEUTERIUM <u>rium exposure optim</u> NONE e aperture in the app lue at LP1 is -153 value for FCA to ill	<u>B = -60</u> COS/FUV, TIME-TAG, FCA <i>ized for Segment A. FP-POS=1 was c.</i> COS, ALIGN/APER propriate position to illuminate a portion luminate Segment A with G130M/1309	G130M 1309 A hosen because previo on of the LP2 region at Position 2 for LP	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th XAPER=-114 of the detector when illus	<u>at it has slightly more</u> QESIPARM XSTEF S -54 minating Segment A w	e vith G130M/1309.	[==>] ther FP-POS values. 0.0 Secs (0 Secs)			

Proposal 17252 - LP2 gain map - before HV increase (2A) - Cycle 30 COS FUV Characterization of Modal Gain When Changing High .

6							
0	G130M/130 DEUTERIUM	COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU		440 Secs (440 Secs)	
	9 Deuterium Exposure 2		1309 A	M; BUFFER-TIME=16		[==>]	
				5;			
				FP-POS=1;			[1]
				SEGMENT=BOTH; LIFETIME-POS=L			
				P1			
Con		ed for Segment A. FP-POS=1 was ci	hosen because pre	vious observations show th	at it has slightly more counts than the	other FP-POS values.	
7	Aperture Ad NONE justment 1 f	COS, ALIGN/APER		XAPER=-62	QESIPARM XSTEP S 52	0.0 Secs (0 Secs)	
	or Segment B				5.52	[==>]	[1]
Con	nments: Put the aperture in the appro	opriate position to illuminate a portic	n of the LP2 regio	n of the detector when illu	minating Segment B with G160M/160	0.	
	A LAPXSTP value at LP1 is -153						
Des	ired LAPXSTP value for FCA to illu	ninate Segment B with G160M/1600	at Position 1 for L	.P2 is -215			
		-62. *HOWEVER*, because of the	TRANS rules, the "	QESIPARM XSTEPS 52"	[(-62114) = +52] Special Requirem	nent is necessary to move the aperture to	o the correct locat
ion. 8	G160M/160 DEUTERIUM	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU		440 Secs (440 Secs)	
Ĩ	0 Deuterium		1600 A	М;		[==>]	
	Exposure 1			BUFFER-TIME=16 5;			
				FP-POS=4;			[1]
				SEGMENT=BOTH;			
				LIFETIME-POS=L			
~				P1			
Con			chosen because pro		hat it has slightly more counts than th		
9	Aperture Ad NONE justment 2 f	COS, ALIGN/APER		XAPER=-114	QESIPARM XSTEP S -52	$\frac{0.0 \text{ Secs } (0 \text{ Secs})}{[==>]}$	
	or Segment B					[>]	[1]
Con	nments: Put the aperture in the appro	opriate position to illuminate a portio	n of the LP2 regio	n of the detector when illu	minating Segment B with G160M/160	0.	
	A LAPXSTP value at LP1 is -153						
Des ot. 1	ired LAPXSTP value for FCA to illu To leave some pad, I will set it to mat	ninate Segment B with G160M/1600 ch the G130M exposure (-267).	at Position 2 for L	P2 is -280, but the apertur.	e soft stop is at -275 and we don't war	nt to exceed that value when including th	he 5 step oversho
	*	• • •	TRANS welco the	"OFSIDADM VSTEDS 52	"[(114 - 62) - 52] Special Province	ment is necessary to move the aperture	to the convect los
		114. "HOWEVER", because of the	TRANS rules, the	QESITARM ASTELS -52	[(-11402) = -52] Special Require	ment is necessary to move the uperture	io ine correct ioc
atio	G160M/160 DEUTERIUM	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU		440 Secs (440 Secs)	
			1600 A	M;		[==>]	
atio	0 Deuterium Exposure 2		1000 11	DIJECED TIME_16			
atio	0 Deuterium Exposure 2		1000 11	BUFFER-TIME=16 5;			
atio			1000 11				[1]
atio			1000 11	5;			[1]
atio			1000 11	5; FP-POS=4; SEGMENT=BOTH; LIFETIME-POS=L			[1]
<i>atio</i> 10	Exposure 2	ized for Segment R_FP-POS=4 was		5; FP-POS=4; SEGMENT=BOTH; LIFETIME-POS=L Pl		e other FP-POS values	[1]
<i>atio</i> 10	Exposure 2	ized for Segment B. FP-POS=4 was a		5; FP-POS=4; SEGMENT=BOTH; LIFETIME-POS=L Pl		e other FP-POS values.	[1]
<i>atio</i> 10	Exposure 2	ized for Segment B. FP-POS=4 was		5; FP-POS=4; SEGMENT=BOTH; LIFETIME-POS=L Pl		e other FP-POS values.	[1]
<i>atio</i> 10	Exposure 2	ized for Segment B. FP-POS=4 was		5; FP-POS=4; SEGMENT=BOTH; LIFETIME-POS=L Pl		e other FP-POS values.	[1]
<i>atio</i> 10	Exposure 2	ized for Segment B. FP-POS=4 was a		5; FP-POS=4; SEGMENT=BOTH; LIFETIME-POS=L Pl		e other FP-POS values.	[1]



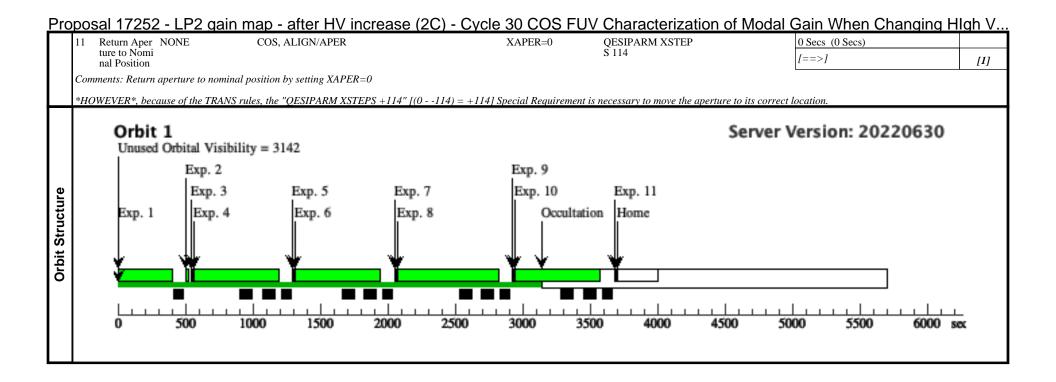
Proposal 17252 - LP2 gain map - after HV increase (2C) - Cycle 30 COS FUV Characterization of Modal Gain When Changing High V...

	Proposal 17252, LP2 gain map - after HV increase (2C), implementation	Mon Oct 03 18:01:04 GMT 2022
	Diagnostic Status: Warning	
μ	Scientific Instruments: S/C, COS, COS/FUV	
Vis	Special Requirements: ON HOLD ; PARALLEL	
	Comments: This visit collects data at LP2. It uses the HV values appropriate for LP2 (173/175).	
	On Hold Comments: Only needed if HV changed during Cycle 30 HV Values will have to be updated before execution!	
cs	(LP2 gain map - after HV increase (2C)) Warning (Orbit Planner): MAXIMUM DURATION EXCEEDED FOR INTERNAL OR EARTH CALIB SU	
ostics		
Ĭŭ		
Diagn		

1	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Or
		DEUTERIUM	COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU			125 Secs (125 Secs)	
	9 Deuterium Exposure - S			1309 A	M;			[==>]	
	et up at LP1				BUFFER-TIME=19 6;				
					FP-POS=1;				
					SEGMENT=BOTH;				[]
					LIFETIME-POS=L				
					P1				
<u>Con</u> 2			ture to LP1, which is near the center of S/C, DATA, NONE	the aperture range	used in this program. It a			20 Saga (20 Saga)	
2	Adjust HV t o LP2 value	DAKK	S/C, DATA, NONE			SAA CONTOUR 31 SPEC COM INSTR	·	39 Secs (39 Secs) $I = > I$	
	S					ELHVADJPROP;		[==>]	
						QASISTATES COS			
						FUV HVNOM HVN OM;	1		
						QESIPARM ENDC			[
						TSA 173;			
						QESIPARM ENDC TSB 175:			
						OESIPARM SEGM			
						ENT AB			
Con	ıments: Adjust	the HV to the LP2 v	alues.						
Sinc	e the HV is no	t increasing, exposu	$re\ time = 39\ seconds$						
3	Aperture Ad	NONE	COS, ALIGN/APER		XAPER=-60			0.0 Secs (0 Secs)	
	justment 1 f or Segment							[==>]	[
	A								
Con	iments: Put the	e aperture in the app	propriate position to illuminate a portion	on of the LP2 region	of the detector when illu	ninating Segment A w	ith G130M/1309.		
	LADVETD	lue at LP1 is -153							
				. D 10 ID					
Des	ired LAPXSTP	value for FCA to ill	luminate Segment A with G130M/1309	at Position 1 for LP	2 is -213				
Des	ired LAPXSTP refore, XAPER	value for FCA to ill is set to -213153	e = -60	v				440 Sara (440 Sara)	
Des	ired LAPXSTP refore, XAPER	value for FCA to ill is set to -213153 DEUTERIUM	Ũ	G130M	CURRENT=MEDIU M;			440 Secs (440 Secs)	
Des	ired LAPXSTP <u>refore, XAPER</u> G130M/130	value for FCA to ill is set to -213153 DEUTERIUM	e = -60	v	CURRENT=MEDIU			440 Secs (440 Secs) [==>]	
Des	<i>ired LAPXSTP</i> refore, XAPER G130M/130 9 Deuterium	value for FCA to ill is set to -213153 DEUTERIUM	e = -60	G130M	CURRENT=MEDIU M; BUFFER-TIME=16 5;			· · · · · · · · · · · · · · · · · · ·	
Des	<i>ired LAPXSTP</i> refore, XAPER G130M/130 9 Deuterium	value for FCA to ill is set to -213153 DEUTERIUM	e = -60	G130M	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1;			· · · · · · · · · · · · · · · · · · ·	
Des	<i>ired LAPXSTP</i> refore, XAPER G130M/130 9 Deuterium	value for FCA to ill is set to -213153 DEUTERIUM	e = -60	G130M	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH;			· · · · · · · · · · · · · · · · · · ·	[
Des	<i>ired LAPXSTP</i> refore, XAPER G130M/130 9 Deuterium	value for FCA to ill is set to -213153 DEUTERIUM	e = -60	G130M	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L			· · · · · · · · · · · · · · · · · · ·	[
Desi <u>Thei</u> 4	<i>ired LAPXSTF</i> refore, XAPER G130M/130 9 Deuterium Exposure 1	2 value for FCA to ill 2 <u>is set to -213153</u> DEUTERIUM	e = -60	G130M 1309 A	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1	at it has slightly more	counts than the oti	[==>]	[
Desi <u>Thei</u> 4	ired LAPXSTF refore, XAPER G130M/130 9 Deuterium Exposure 1 <u>uments: Deuter</u> Aperture Ad	value for FCA to ill <u>e is set to -213153</u> DEUTERIUM <u>rium exposure optim</u>	2 = -60 COS/FUV, TIME-TAG, FCA	G130M 1309 A	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1	QESIPARM XSTEP		[==>]	[]
Desi <u>Thei</u> 4	ired LAPXSTF refore, XAPER G130M/130 9 Deuterium Exposure 1 ments: Deuter Aperture Ad justment 2 f	value for FCA to ill <u>e is set to -213153</u> DEUTERIUM <u>rium exposure optim</u>	ized for Segment A. FP-POS=1 was ch	G130M 1309 A	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th			[==>] her FP-POS values.	
Desi <u>Thei</u> 4	ired LAPXSTF refore, XAPER G130M/130 9 Deuterium Exposure 1 <u>uments: Deuter</u> Aperture Ad	value for FCA to ill <u>e is set to -213153</u> DEUTERIUM <u>rium exposure optim</u>	ized for Segment A. FP-POS=1 was ch	G130M 1309 A	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th	QESIPARM XSTEP		[==>] her FP-POS values. 0.0 Secs (0 Secs)	
Dess <u>Ther</u> 4 5	ired LAPXSTF refore, XAPER G130M/130 9 Deuterium Exposure 1 mments: Deuter Aperture Ad justment 2 f or Segment A	² value for FCA to ill 2 <u>is set to -213153</u> DEUTERIUM <u>rium exposure optima</u> NONE	ized for Segment A. FP-POS=1 was ch	G130M 1309 A hosen because previ	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th XAPER=-114	QESIPARM XSTEP S -54	,	[==>] her FP-POS values. 0.0 Secs (0 Secs)	
Dest <u>Ther</u> 4 <u>Con</u> 5 <i>Con</i>	ired LAPXSTF G130M/130 9 Deuterium Exposure 1 Ments: Deuter Aperture Ad justment 2 f or Segment A ments: Put the ALAPXSTP va	value for FCA to ill <u>e is set to -213153</u> DEUTERIUM <u>rium exposure optima</u> NONE e aperture in the app lue at LP1 is -153	2 = -60 COS/FUV, TIME-TAG, FCA <i>ized for Segment A. FP-POS=1 was cl</i> COS, ALIGN/APER	G130M 1309 A hosen because previ	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th XAPER=-114	QESIPARM XSTEP S -54	,	[==>] her FP-POS values. 0.0 Secs (0 Secs)	
Dess <u>Ther</u> 4 5 <i>Con</i> <i>FCA</i>	ired LAPXSTF G130M/130 9 Deuterium Exposure 1 Ments: Deuter Aperture Ad justment 2 f or Segment A ments: Put the ALAPXSTP va	value for FCA to ill <u>e is set to -213153</u> DEUTERIUM <u>rium exposure optima</u> NONE e aperture in the app lue at LP1 is -153	ized for Segment A. FP-POS=1 was ch COS, ALIGN/APER	G130M 1309 A hosen because previ	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th XAPER=-114	QESIPARM XSTEP S -54	,	[==>] her FP-POS values. 0.0 Secs (0 Secs)	

Proposal 17252 - LP2 gain map - after HV increase (2C) - Cycle 30 COS FUV Characterization of Modal Gain When Changing High V..

$\frac{1}{1}$	<u>ai 17252 - Li 2</u>	gann	<u>iap - anei i i i increas</u>				<u>Jai Gain When Changi</u>	IG HIGH V.
6	G130M/130 DEUTER	IUM	COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU	J	440 Secs (440 Secs)	
	9 Deuterium Exposure 2			1309 A	M; BUFFER-TIME=16	;	[==>]	
					5; ED DOS 1:			
					FP-POS=1; SEGMENT=BOTH			[1]
					LIFETIME-POS=L	,		
					P1			
Con		ire optimize		chosen because prev		hat it has slightly more counts than the o		
7	Aperture Ad NONE justment 1 f		COS, ALIGN/APER		XAPER=-62	QESIPARM XSTEP S 52	$\frac{0.0 \text{ Secs } (0 \text{ Secs})}{(1-1)^{1/2}}$	
	or Segment B						[==>]	[1]
Con	ments: Put the aperture is	n the appro	priate position to illuminate a port	ion of the LP2 regio	n of the detector when illu	uminating Segment B with G160M/1600.		
	LAPXSTP value at LP1 i							
Desi	red LAPXSTP value for F	FCA to illur	ninate Segment B with G160M/1600	0 at Position 1 for L	P2 is -215			
Ther ion.	efore, XAPER is set to -2.	15153 =	-62. *HOWEVER*, because of the	TRANS rules, the "	QESIPARM XSTEPS 52"	[(-62114) = +52] Special Requirement	nt is necessary to move the aperture to	o the correct locat
8	G160M/160 DEUTER	IUM	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU	J	440 Secs (440 Secs)	
	0 Deuterium Exposure 1			1600 A	M;		[==>]	
	Liposule I				BUFFER-TIME=16 5;			
					FP-POS=4;			[1]
					SEGMENT=BOTH	;		
					LIFETIME-POS=L P1			
Con	ments: Deuterium exposu	ure optimmi	zed for Segment B. FP-POS=4 was	chosen because pre		that it has slightly more counts than the	other FP-POS values.	
9	Aperture Ad NONE		COS, ALIGN/APER		XAPER=-114	QESIPARM XSTEP	0.0 Secs (0 Secs)	
	justment 2 f or Segment B					S -52	[==>]	[1]
Con	ments: Put the aperture is	n the appro	priate position to illuminate a port	ion of the LP2 regio	n of the detector when illu	uminating Segment B with G160M/1600.		
Desi	LAPXSTP value at LP1 i red LAPXSTP value for F o leave some pad, I will s	FCA to illun	ninate Segment B with G160M/1600 ch the G130M exposure (-267).) at Position 2 for L	P2 is -280, but the apertur	re soft stop is at -275 and we don't want	to exceed that value when including th	he 5 step oversho
Ther ation		67153 =	-114. *HOWEVER*, because of th	e TRANS rules, the	"QESIPARM XSTEPS -52	2" [(-11462) = -52] Special Requirem	ent is necessary to move the aperture	to the correct loc
10	G160M/160 DEUTER	IUM	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU M;	l	440 Secs (440 Secs)	
	Exposure 2			1600 A	BUFFER-TIME=16	i i i i i i i i i i i i i i i i i i i	[==>]	
					5;			
					FP-POS=4;			[1]
					SEGMENT=BOTH	;		
					LIFETIME-POS=L P1			
Con	ments: Deuterium exposu	ire optimmi	zed for Segment B. FP-POS=4 was	chosen because pre	evious observations show	that it has slightly more counts than the	other FP-POS values.	
1								



Proposal 17252 - LP3 gain map - before HV increase (3A) - Cycle 30 COS FUV Characterization of Modal Gain When Changing High ...

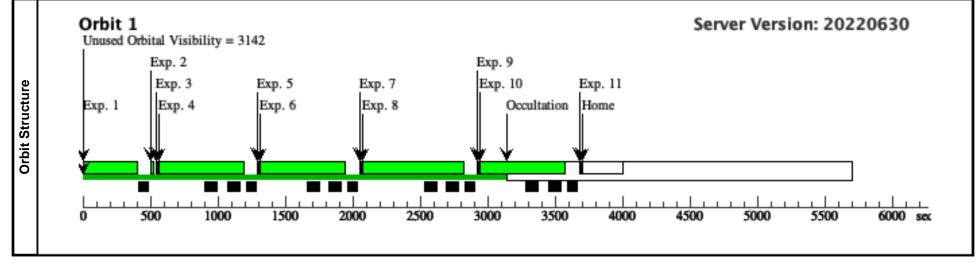
	Proposal 17252, LP3 gain map - before HV increase (3A), implementation	Mon Oct 03 18:01:04 GMT 2022
	Diagnostic Status: Warning	
<u>∺</u>	Scientific Instruments: S/C, COS, COS/FUV	
Vis	Special Requirements: ON HOLD ; PARALLEL	
	Comments: This visit collects data at LP3. It uses the HV values appropriate for LP3 (173/175).	
	On Hold Comments: Only needed if HV changed during Cycle 30 HV Values will have to be updated before execution!	
ostics	(LP3 gain map - before HV increase (3A)) Warning (Orbit Planner): MAXIMUM DURATION EXCEEDED FOR INTERNAL OR EARTH CALIB SU	
lost		
Diagn		
õ		

1	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Or		
		DEUTERIUM	COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU			125 Secs (125 Secs)			
	9 Deuterium Exposure - S			1309 A	M;			[==>]			
	et up at LP1	,			BUFFER-TIME=19 6;						
					FP-POS=1;						
					SEGMENT=BOTH;				[
					LIFETIME-POS=L						
					P1						
<u>Con</u> 2			ure to LP1, which is near the center of S/C. DATA. NONE	f the aperture range	used in this program. It a			20 Saga (20 Saga)			
2	Adjust HV t o LP3 value		S/C, DATA, NONE			SAA CONTOUR 3 SPEC COM INSTR		$\frac{39 \text{ Secs } (39 \text{ Secs})}{[==>]}$			
	S					ELHVADJPROP;	L	[==>]			
						QASISTATES COS					
						FUV HVNOM HVI OM;	N				
						QESIPARM ENDC			[
						TSA 173;					
						QESIPARM ENDC TSB 175;	2				
						QESIPARM SEGM	r				
						ENT AB	L				
Comments: Adjust the HV to LP3 values.											
Sinc	e the HV is no	t increasing, exposu	re time = 39 seconds								
3	Aperture Ad		COS, ALIGN/APER		XAPER=81			0.0 Secs (0 Secs)	_		
	justment 1 f or Segment							[==>]	[
	A										
Con	iments: Put the	e aperture in the app	ropriate position to illuminate a portion	on of the LP3 region	of the detector when illu	minating Segment A v	vith G130M/1309.				
FCA		lue at LP1 is -153									
	ired LAPXSIP	' value for FCA to ill	uminate Segment A with G130M/1309	at Position 1 for LP	3 15 - 12						
Des											
Des	refore, XAPER	R is set to -72153 =		C120M	CUDDENT MEDIL			440 5 (440 5)			
Des	refore, XAPER	DEUTERIUM	= +81 COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU M;			440 Secs (440 Secs)			
Des	<u>refore, XAPER</u> G130M/130	DEUTERIUM		G130M 1309 A				440 Secs (440 Secs) [==>]			
Des	<i>refore, XAPER</i> G130M/130 9 Deuterium	DEUTERIUM			M; BUFFER-TIME=16 5;						
Des	<i>refore, XAPER</i> G130M/130 9 Deuterium	DEUTERIUM			M; BUFFER-TIME=16 5; FP-POS=1;				[
Des	<i>refore, XAPER</i> G130M/130 9 Deuterium	DEUTERIUM			M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH;				[
Des	<i>refore, XAPER</i> G130M/130 9 Deuterium	DEUTERIUM			M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L				[
Des <u>The</u> 4	refore, XAPER G130M/130 9 Deuterium Exposure 1	DEUTERIUM		1309 A	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1		e counts than the o	[==>]	[
Des <u>The</u> 4	refore, XAPER G130M/130 9 Deuterium Exposure 1 <u>uments: Deuter</u> Aperture Ad	DEUTERIUM rium exposure optimi NONE	COS/FUV, TIME-TAG, FCA	1309 A	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1	at it has slightly more QESIPARM XSTEI		[==>]	[
Des <u>The</u> 4	nefore, XAPER G130M/130 9 Deuterium Exposure 1 <u>ments: Deuter</u> Aperture Ad justment 2 f	DEUTERIUM rium exposure optimi NONE	COS/FUV, TIME-TAG, FCA ized for Segment A. FP-POS=1 was c	1309 A	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th	at it has slightly more		[==>] ther FP-POS values.			
Des <u>The</u> 4	refore, XAPER G130M/130 9 Deuterium Exposure 1 <u>uments: Deuter</u> Aperture Ad	DEUTERIUM rium exposure optimi NONE	COS/FUV, TIME-TAG, FCA ized for Segment A. FP-POS=1 was c	1309 A	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th	at it has slightly more QESIPARM XSTEI		[==>] ther FP-POS values. 0.0 Secs (0 Secs)			
Des: <u>The</u> 4 5	nefore, XAPER G130M/130 9 Deuterium Exposure 1 ments: Deuter Aperture Ad justment 2 f or Segment A	DEUTERIUM rium exposure optimu NONE	COS/FUV, TIME-TAG, FCA ized for Segment A. FP-POS=1 was c	1309 A hosen because previ	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th XAPER=25	aat it has slightly more QESIPARM XSTEI S -56	Р	[==>] ther FP-POS values. $0.0 Secs (0 Secs)$ $[==>]$			
Des <u>The</u> 4 5 Con FCA	tefore, XAPER G130M/130 9 Deuterium Exposure 1 ments: Deuter Aperture Ad justment 2 f or Segment A ments: Put the ALAPXSTP va	DEUTERIUM <u>rium exposure optimu</u> NONE e aperture in the app clue at LP1 is -153	COS/FUV, TIME-TAG, FCA ized for Segment A. FP-POS=1 was c COS, ALIGN/APER ropriate position to illuminate a portio	1309 A hosen because previ	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th XAPER=25	aat it has slightly more QESIPARM XSTEI S -56	Р	[==>] ther FP-POS values. $0.0 Secs (0 Secs)$ $[==>]$			
Des <u>The</u> 4 5 Con FCA	tefore, XAPER G130M/130 9 Deuterium Exposure 1 ments: Deuter Aperture Ad justment 2 f or Segment A ments: Put the ALAPXSTP va	DEUTERIUM <u>rium exposure optimu</u> NONE e aperture in the app clue at LP1 is -153	COS/FUV, TIME-TAG, FCA ized for Segment A. FP-POS=1 was c COS, ALIGN/APER	1309 A hosen because previ	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th XAPER=25	aat it has slightly more QESIPARM XSTEI S -56	Р	[==>] ther FP-POS values. $0.0 Secs (0 Secs)$ $[==>]$			

Proposal 17252 - LP3 gain map - before HV increase (3A) - Cycle 30 COS FUV Characterization of Modal Gain When Changing High .

p0	501 17252	Li o gain n		30(37) 0				<u>ging rugn .</u>
6	G130M/130 D	DEUTERIUM	COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU	ſ	440 Secs (440 Secs)	
	9 Deuterium Exposure 2			1309 A	M; BUFFER-TIME=16		[==>]	
					5;			
					FP-POS=1;			[1]
					SEGMENT=BOTH;	;		
					LIFETIME-POS=L			
Con	mmants. Doutariu	m arnasura antimiza	ad for Segment A EP POS-1 was ak	osan hacausa pravi	P1	nat it has slightly more counts than the o	other FP POS values	
7	Aperture Ad N		COS, ALIGN/APER	osen because previ	XAPER=69	QESIPARM XSTEP	0.0 Secs (0 Secs)	
,	justment 1 f or Segment B				nin Liteo)	S 44	[==>]	[1]
Con	nments: Put the a	perture in the appro	priate position to illuminate a portio	n of the LP3 region	n of the detector when illu	minating Segment B with G160M/1600.		I
FC	A LAPXSTP value	at IP1 is _153	· · ·		•			
			ninate Segment B with G160M/1600	at Position 1 for LF	P3 is -84			
The	refore, XAPER is	set to -84153 = +	+69. *HOWEVER*, because of the T	RANS rules, the "Q	ESIPARM XSTEPS 44" [(+69 - +25) = +44] Special Requireme	ent is necessary to move the aperture t	to the correct locat
ion.	-							
8	G160M/160 D 0 Deuterium	DEUTERIUM	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU M;	ſ	440 Secs (440 Secs)	
	Exposure 1			1600 A	BUFFER-TIME=16 5;		[==>]	
					FP-POS=4;			[1]
					SEGMENT=BOTH;	;		[1]
					LIFETIME-POS=L			
~					P1			
Con				hosen because prev		that it has slightly more counts than the		
9	Aperture Ad N justment 2 f	IONE	COS, ALIGN/APER		XAPER=13	QESIPARM XSTEP S -56	0.0 Secs (0 Secs)	
	or Segment B						[>]	[1]
Con	_	perture in the appro	priate position to illuminate a portio	n of the LP3 region	ı of the detector when illu	minating Segment B with G160M/1600		
	A LAPXSTP value			5 0	5	0 0		
Des	ired LAPXSTP value	lue for FCA to illun	ninate Segment B with G160M/1600	at Position 2 for LF	P3 is -140.			
The atio		set to -140153 =	+13. *HOWEVER*, because of the	TRANS rules, the "9	QESIPARM XSTEPS -56'	" [(+13 - +69) = -56] Special Requiren	nent is necessary to move the aperture	to the correct loc
10	G160M/160 D	DEUTERIUM	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU	ſ	440 Secs (440 Secs)	
	0 Deuterium Exposure 2			1600 A	М;		[==>]	
	Exposure 2				BUFFER-TIME=16 5;			
					FP-POS=4;			[1]
					SEGMENT=BOTH;	,		
					LIFETIME-POS=L			
					P1			
				hosen because prev		that it has slightly more counts than the		
11	Return Aper N ture to Nomi	IONE	COS, ALIGN/APER		XAPER=0	QESIPARM XSTEP S -13	0 Secs (0 Secs)	
1	nal Position						[==>]	[1]
Con	nments: Return ap	perture to nominal p	position by setting XAPER=0					
H(OWEVER, becau	use of the TRANS rul	les, the "QESIPARM XSTEPS -13" [(0 - 13) = -13] Spec	cial Requirement is necess	sary to move the aperture to its correct	location.	





Proposal 17252 - LP3 gain map - after HV increase (3C) - Cycle 30 COS FUV Characterization of Modal Gain When Changing High V...

	Proposal 17252, LP3 gain map - after HV increase (3C), implementation	Mon Oct 03 18:01:04 GMT 2022
	Diagnostic Status: Warning	
μ	Scientific Instruments: S/C, COS, COS/FUV	
Vis	Special Requirements: ON HOLD ; PARALLEL	
	Comments: This visit collects data at LP3. It uses the HV values appropriate for LP3 (173/175).	
	On Hold Comments: Only needed if HV changed during Cycle 30 HV Values will have to be updated before execution!	
ics	(LP3 gain map - after HV increase (3C)) Warning (Orbit Planner): MAXIMUM DURATION EXCEEDED FOR INTERNAL OR EARTH CALIB SU	
ostics		
ľĝ		
Diagn		

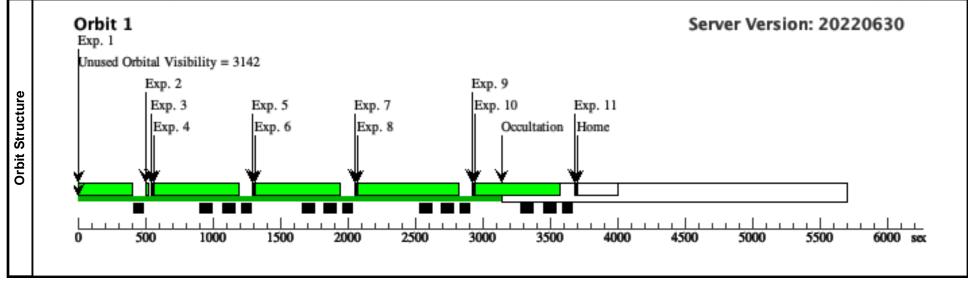
1	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbi
		DEUTERIUM	COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU			125 Secs (125 Secs)	
	9 Deuterium Exposure - S			1309 A	M;			[==>]	
	et up at LP1				BUFFER-TIME=19 6;				
					FP-POS=1;				
					SEGMENT=BOTH;				[1]
					LIFETIME-POS=L P1				
Con	nments: Short e	xposure to set aperti	ure to LP1, which is near the center of	f the aperture rang	e used in this program. It a	ulso sets the HV to the	LP1 values.		
2	Adjust HV t		S/C. DATA. NONE			SAA CONTOUR 31		39 Secs (39 Secs)	
-	o LP3 value		5, 6, 21111, 1 (01 (2			SPEC COM INSTR ELHVADJPROP;	,	[==>]	
						QASISTATES COS FUV HVNOM HVN OM:	1		
						QESIPARM ENDC TSA 173;			[1]
						QESIPARM ENDC TSB 175;			
						QESIPARM SEGM			
						ENT AB			
Com	iments: Adjust	the HV to LP3 value.	<i>s</i> .						
Sinc	e the HV is not	increasing, exposur	$e \ time = 39 \ seconds$						
3	Aperture Ad	NONE	COS, ALIGN/APER		XAPER=81			0.0 Secs (0 Secs)	
	justment 1 f or Segment							[==>]	
								1>1	
	A								[1]
Com	A	aperture in the appr	ropriate position to illuminate a porti	on of the LP3 regio	on of the detector when illu	minating Segment A w	ith G130M/1309.		[1]
FCA	A nments: Put the A LAPXSTP val	ue at LP1 is -153		, ,	U U	minating Segment A w	ith G130M/1309.		[1]
FCA Desi	A nments: Put the A LAPXSTP val ired LAPXSTP	ue at LP1 is -153 value for FCA to illi	uminate Segment A with G130M/1309	, ,	U U	minating Segment A w	ith G130M/1309.		[1]
FCA Desi	A nments: Put the A LAPXSTP val ired LAPXSTP <u>refore, XAPER</u>	ue at LP1 is -153 value for FCA to illu is set to -72153 =	minate Segment A with G130M/1309	at Position 1 for I	LP3 is -72		ith G130M/1309.		[1]
FCA Desi	A nments: Put the A LAPXSTP val ired LAPXSTP <u>refore, XAPER</u> G130M/130	ue at LP1 is -153 value for FCA to illi	uminate Segment A with G130M/1309	at Position 1 for L	U U		ith G130M/1309.	440 Secs (440 Secs)	
FCA Desi	A nments: Put the A LAPXSTP val ired LAPXSTP <u>refore, XAPER</u>	ue at LP1 is -153 value for FCA to illu is set to -72153 =	minate Segment A with G130M/1309	at Position 1 for I	CURRENT=MEDIU M;		ith G130M/1309.		
FCA Desi	A nments: Put the A LAPXSTP val ired LAPXSTP refore, XAPER G130M/130 9 Deuterium	ue at LP1 is -153 value for FCA to illu is set to -72153 =	minate Segment A with G130M/1309	at Position 1 for L	CURRENT=MEDIU		ith G130M/1309.	440 Secs (440 Secs)	[1]
FCA Desi	A nments: Put the A LAPXSTP val ired LAPXSTP refore, XAPER G130M/130 9 Deuterium	ue at LP1 is -153 value for FCA to illu is set to -72153 =	minate Segment A with G130M/1309	at Position 1 for L	CURRENT=MEDIU M; BUFFER-TIME=16		ith G130M/1309.	440 Secs (440 Secs)	
FCA Desi	A nments: Put the A LAPXSTP val ired LAPXSTP refore, XAPER G130M/130 9 Deuterium	ue at LP1 is -153 value for FCA to illu is set to -72153 =	minate Segment A with G130M/1309	at Position 1 for L	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1;		ith G130M/1309.	440 Secs (440 Secs)	
FCA Desi	A nments: Put the A LAPXSTP val ired LAPXSTP refore, XAPER G130M/130 9 Deuterium	ue at LP1 is -153 value for FCA to illu is set to -72153 =	minate Segment A with G130M/1309	at Position 1 for L	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH;		ith G130M/1309.	440 Secs (440 Secs)	
FCA Desi	A nments: Put the A LAPXSTP val ired LAPXSTP refore, XAPER G130M/130 9 Deuterium	ue at LP1 is -153 value for FCA to illu is set to -72153 =	minate Segment A with G130M/1309	at Position 1 for L	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1;		ith G130M/1309.	440 Secs (440 Secs)	
FCA Desi <u>Ther</u> 4	A nments: Put the A LAPXSTP val ired LAPXSTP refore, XAPER G130M/130 9 Deuterium Exposure 1	ue at LP1 is -153 value for FCA to illu <u>is set to -72153 =</u> DEUTERIUM	minate Segment A with G130M/1309	G130M 1309 A	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1			440 Secs (440 Secs) [==>]	[1]
FCA Desi <u>Ther</u> 4	A nments: Put the A LAPXSTP val ired LAPXSTP refore, XAPER G130M/130 9 Deuterium Exposure 1	ue at LP1 is -153 value for FCA to illu <u>is set to -72153 =</u> DEUTERIUM	uminate Segment A with G130M/1309 <u>+81</u> COS/FUV, TIME-TAG, FCA	G130M 1309 A	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1	at it has slightly more QESIPARM XSTEF	counts than the oth	440 Secs (440 Secs) [==>]	
FCA Desi <u>Ther</u> 4	A mments: Put the A LAPXSTP val ired LAPXSTP refore, XAPER G130M/130 9 Deuterium Exposure 1 mments: Deutern Aperture Ad justment 2 f or Segment	ue at LP1 is -153 value for FCA to illu <u>is set to -72153 =</u> DEUTERIUM	uminate Segment A with G130M/1309 : +81 COS/FUV, TIME-TAG, FCA zed for Segment A. FP-POS=1 was c	G130M 1309 A	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 vious observations show th	at it has slightly more	counts than the oth	440 Secs (440 Secs) [==>] [==>] [==>]	
FCA Desi <u>Ther</u> 4 <u>Com</u> 5	A mments: Put the A LAPXSTP val ired LAPXSTP refore, XAPER G130M/130 9 Deuterium Exposure 1 mments: Deuteri Aperture Ad justment 2 f or Segment A	iue at LP1 is -153 value for FCA to illu <u>is set to -72153 =</u> DEUTERIUM <u>ium exposure optimi</u> . NONE	uminate Segment A with G130M/1309 <u>+ +81</u> COS/FUV, TIME-TAG, FCA <u>zed for Segment A. FP-POS=1 was c</u> COS, ALIGN/APER	at Position 1 for I G130M 1309 A	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 <u>vious observations show th</u> XAPER=25	<u>at it has slightly more</u> QESIPARM XSTEF S -56	<u>counts than the oth</u>	440 Secs (440 Secs) [==>] eer FP-POS values. 0.0 Secs (0 Secs)	[1]
FCA Desi <u>Ther</u> 4 <u>Com</u> 5	A mments: Put the A LAPXSTP val ired LAPXSTP val ired LAPXSTP G130M/130 9 Deuterium Exposure 1 mments: Deuteri Aperture Ad justment 2 f or Segment A mments: Put the	ue at LP1 is -153 value for FCA to illu <u>is set to -72153 =</u> DEUTERIUM <u>ium exposure optimi</u> NONE aperture in the appr	uminate Segment A with G130M/1309 : +81 COS/FUV, TIME-TAG, FCA zed for Segment A. FP-POS=1 was c	at Position 1 for I G130M 1309 A	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 <u>vious observations show th</u> XAPER=25	<u>at it has slightly more</u> QESIPARM XSTEF S -56	<u>counts than the oth</u>	440 Secs (440 Secs) [==>] eer FP-POS values. 0.0 Secs (0 Secs)	[1
FCA Desi <u>Ther</u> 4 <u>Com</u> 5 Com	A mments: Put the A LAPXSTP val ired LAPXSTP G130M/130 9 Deuterium Exposure 1 mments: Deuteri Aperture Ad justment 2 f or Segment A mments: Put the A LAPXSTP val	ue at LP1 is -153 value for FCA to illu <u>is set to -72153 =</u> DEUTERIUM ium exposure optimit NONE aperture in the appr ue at LP1 is -153	aminate Segment A with G130M/1309 <u>++81</u> COS/FUV, TIME-TAG, FCA <u>zed for Segment A. FP-POS=1 was c</u> COS, ALIGN/APER	at Position 1 for L G130M 1309 A hosen because pre	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 vious observations show th XAPER=25	<u>at it has slightly more</u> QESIPARM XSTEF S -56	<u>counts than the oth</u>	440 Secs (440 Secs) [==>] eer FP-POS values. 0.0 Secs (0 Secs)	
FCA Desi <u>Ther</u> 4 <u>Com</u> 5 Com FCA Desi	A mments: Put the A LAPXSTP val ired LAPXSTP val G130M/130 9 Deuterium Exposure 1 Aperture Ad justment 2 f or Segment A mments: Put the A LAPXSTP val ired LAPXSTP val	iue at LP1 is -153 value for FCA to illu is set to -72153 = DEUTERIUM DEUTERIUM ium exposure optimit NONE aperture in the appr ue at LP1 is -153 value for FCA to illu	uminate Segment A with G130M/1309 <u>+ +81</u> COS/FUV, TIME-TAG, FCA <u>zed for Segment A. FP-POS=1 was c</u> COS, ALIGN/APER ropriate position to illuminate a portion uminate Segment A with G130M/1309	at Position 1 for L G130M 1309 A hosen because pre on of the LP3 regio	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 vious observations show th XAPER=25 on of the detector when illu	at it has slightly more QESIPARM XSTEF S -56 minating Segment A w	<u>counts than the oth</u>	440 Secs (440 Secs) [==>] eer FP-POS values. 0.0 Secs (0 Secs)	

Proposal 17252 - LP3 gain map - after HV increase (3C) - Cycle 30 COS FUV Characterization of Modal Gain When Changing High V.

Proposal 17252 - LP3 gain map - after HV increase (3C) - Cycle 30 COS FUV Characterization of Modal Gain When Changing High V..

					Onuradionzation of	Modul Oun When Onungi	Ig i ligit v
6	G130M/130 DEUTERIU	M COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU		440 Secs (440 Secs)	
	9 Deuterium Exposure 2		1309 A	M;		[==>]	
	I			BUFFER-TIME=16 5;			
				FP-POS=1;			[1]
				SEGMENT=BOTH;			[-]
				LIFETIME-POS=L			
G				P1			
Con 7	Aperture Ad NONE	optimized for Segment A. FP-POS=1 was c. COS, ALIGN/APER	hosen because pre	vious observations show th XAPER=69	QESIPARM XSTEP	0.0 Secs (0 Secs)	
/	justment 1 f	COS, ALION/AFER		AAFEK=09	S 44	[==>]	
	or Segment B					1	[1]
Con	-	he appropriate position to illuminate a portio	on of the LP3 regio	on of the detector when illu	minating Segment B with G160M	/1600.	
	A LAPXSTP value at LP1 is -		, ,	5	0 0		
		A to illuminate Segment B with G160M/1600	at Position 1 for L	.P3 is -84			
The	refore, XAPER is set to -84 -	-153 = +69. *HOWEVER*, because of the T	TRANS rules, the "	OESIPARM XSTEPS 44" [(+69 - +25) = +44] Special Regi	uirement is necessary to move the aperture to	o the correct locat
ion.		··· ··· · · · · · · · · · · · · · · ·			() JI	· · · · · · · · · · · · · · · · · · ·	
8	G160M/160 DEUTERIU 0 Deuterium	M COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU M;		440 Secs (440 Secs)	
	Exposure 1		1600 A	BUFFER-TIME=16		[==>]	
				5;			
				FP-POS=4;			[1]
				SEGMENT=BOTH;			
				LIFETIME-POS=L P1			
Con	nments: Deuterium exposure	optimmized for Segment B. FP-POS=4 was	chosen because pro		hat it has slightly more counts the	an the other FP-POS values.	
9	Aperture Ad NONE	COS, ALIGN/APER		XAPER=13	QESIPARM XSTEP	0.0 Secs (0 Secs)	
	justment 2 f or Segment				S -56	[==>]	
	B						[1]
Con	nments: Put the aperture in t	he appropriate position to illuminate a portion	on of the LP3 regio	on of the detector when illu	minating Segment B with G160M	/1600.	
	A LAPXSTP value at LP1 is -						
Des	ired LAPXSTP value for FC	A to illuminate Segment B with G160M/1600	at Position 2 for L	.P3 is -140.			
The atio		-153 = +13. *HOWEVER*, because of the	TRANS rules, the	"QESIPARM XSTEPS -56"	" [(+13 - +69) = -56] Special Reg	quirement is necessary to move the aperture	to the correct loc
10	G160M/160 DEUTERIU	M COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU		440 Secs (440 Secs)	
	0 Deuterium Exposure 2		1600 A	М;		[==>]	
	Exposure 2			BUFFER-TIME=16 5;			
				5, FP-POS=4;			[1]
				SEGMENT=BOTH;			[1]
				LIFETIME-POS=L			
				P1			
Con		optimmized for Segment B. FP-POS=4 was	chosen because pro				
11	Return Aper NONE ture to Nomi	COS, ALIGN/APER		XAPER=0	QESIPARM XSTEP S -13	0 Secs (0 Secs)	
	nal Position				5 10	[==>]	[1]
Con	nments: Return aperture to n	ominal position by setting XAPER=0					
H(OWEVER, because of the Th	RANS rules, the "QESIPARM XSTEPS -13" [(0 - 13) = -13] Spe	ecial Requirement is necess	sary to move the aperture to its co	prrect location.	
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Proposal 17252 - LP4 gain map - before HV increase (4A) - Cycle 30 COS FUV Characterization of Modal Gain When Changing High ...

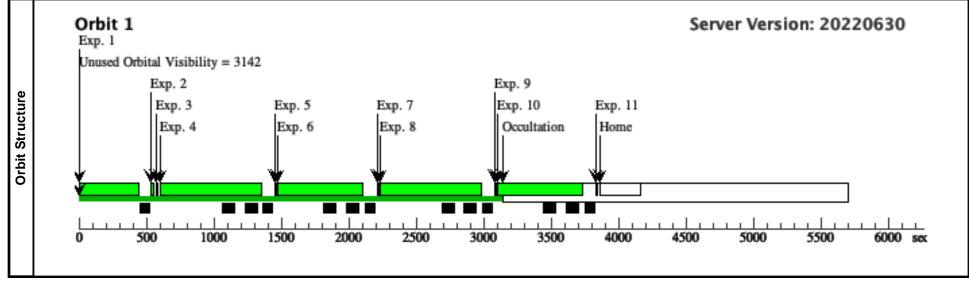
	Proposal 17252, LP4 gain map - before HV increase (4A), implementation	Mon Oct 03 18:01:04 GMT 2022
	Diagnostic Status: Warning	
Ξ	Scientific Instruments: S/C, COS, COS/FUV	
Vis	Special Requirements: ON HOLD ; PARALLEL	
	Comments: This visit collects data at LP4. It uses the HV values appropriate for LP4 (173/175).	
	On Hold Comments: Only needed if HV changed during Cycle 30 HV Values will have to be updated before execution!	
ostics	(LP4 gain map - before HV increase (4A)) Warning (Orbit Planner): MAXIMUM DURATION EXCEEDED FOR INTERNAL OR EARTH CALIB SU	
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	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orb		
1		DEUTERIUM	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU			125 Secs (125 Secs)			
	0 Deuterium Exposure - S			1600 A	М;			[==>]			
	et up at LP1				BUFFER-TIME=19 6;						
					FP-POS=1;				[]		
					SEGMENT=BOTH;				11		
					LIFETIME-POS=L						
					P1						
			ure to LP1, which is near the center o	f the aperture range	used in this program. It a			20.5 (20.5)			
2	Adjust HV t o LP4 value	DARK	S/C, DATA, NONE			SAA CONTOUR 31		39 Secs (39 Secs)			
	S					SPEC COM INSTR ELHVADJPROP;		[==>]			
						QASISTATES COS					
						FUV HVNOM HVN OM;	1				
						QESIPARM ENDC			[1]		
						TSA 173;			1-1		
						QESIPARM ENDC TSB 175;					
						QESIPARM SEGM					
						ENT AB					
Comments: Adjust the HV to LP4 values.											
Sinc	e the HV is no	t increasing, exposu	re time = 39 seconds								
3	Aperture Ad	NONE	COS, ALIGN/APER		XAPER=121			0.0 Secs (0 Secs)			
	justment 1 f or Segment							[==>]	[1		
	A								[1]		
Con	ments: Put the	e aperture in the app	ropriate position to illuminate a porti	on of the LP3 region	of the detector when illu	minating Segment A w	rith G130M/1309.				
		lue at LP1 is -153									
Des	ired LAPXSTP	value for FCA to ill	uminate Segment A with G130M/1309	at Position 1 for LF	P4 is -32						
The	refore, XAPER	is set to -32153 =	= +121								
4		DEUTERIUM	COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU	ī		440 Secs (440 Secs)			
	9 Deuterium Exposure 1			1309 A	M; BUFFER-TIME=16			[==>]			
	1				5;						
					FP-POS=1;				[1]		
					SEGMENT=BOTH;				1-1		
					LIFETIME-POS=L						
~					P1						
Con 5			ized for Segment A. FP-POS=1 was c	hosen because previ							
3	Aperture Ad justment 2 f	NUNE	COS, ALIGN/APER		XAPER=67	QESIPARM XSTER S -54	-	0.0 Secs (0 Secs)			
	or Segment A							[==>]	[1]		
		anartura in the ann	ropriate position to illuminate a porti	on of the IP3 region	of the detector when illu	minating Segment A w	ith G130M/1300				
Cor	unenus. 1 ui litte	aperiare in me app		Sh oj ine 🖬 5 region	of the detector when till	папанту зеутені А ч	· 01501/1509.				
FCA	LAPXSTP va ired LAPXSTP	lue at LP1 is -153 value for FCA to ill	uminate Segment A with G130M/1309	at Position 2 for LF	P4 is -86						
FCA Des	ired LAPXSTP	value for FCA to ill	uminate Segment A with G130M/1309	•				nent is necessary to move the aperture to the			

Proposal 17252 - LP4 gain map - before HV increase (4A) - Cycle 30 COS FUV Characterization of Modal Gain When Changing High .

p_{0} sai $17252 - Li + gai$						<u>ing rugu .</u>
6 G130M/130 DEUTERIUM	COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU	l	440 Secs (440 Secs)	
9 Deuterium Exposure 2		1309 A	M; BUFFER-TIME=16		[==>]	
			5;			
			FP-POS=1;			[1]
			SEGMENT=BOTH;	;		
			LIFETIME-POS=L P1			
Comments: Deuterium exposure optiv	nized for Segment A. FP-POS=1 was c	hosen because pro		nat it has slightly more counts the	an the other FP-POS values.	
7 Aperture Ad NONE	COS, ALIGN/APER		XAPER=112	QESIPARM XSTEP	0.0 Secs (0 Secs)	
justment 1 f or Segment B				S 45	[==>]	[1]
Comments: Put the aperture in the ap	ppropriate position to illuminate a portion	on of the LP3 regi	on of the detector when illu	minating Segment B with G160M	М/1600.	
FCA LAPXSTP value at LP1 is -153 Desired LAPXSTP value for FCA to i	lluminate Segment B with G160M/1600	at Position 1 for .	LP4 is -41			
Therefore, XAPER is set to -41153 cation.	P = +112. *HOWEVER*, because of the	TRANS rules, the	"QESIPARM XSTEPS 45"	[(+112 - +67) = +45] Special I	Requirement is necessary to move the aperture	to the correct lo
8 G160M/160 DEUTERIUM	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU	1	440 Secs (440 Secs)	
0 Deuterium Exposure 1		1600 A	M;		[==>]	
1			BUFFER-TIME=16 5;			
			FP-POS=4;			[1]
			SEGMENT=BOTH;	;		
			LIFETIME-POS=L P1			
Comments: Deuterium exposure optir	nmized for Segment B. FP-POS=4 was	chosen because p		that it has slightly more counts th	han the other FP-POS values.	
9 Aperture Ad NONE	COS, ALIGN/APER	_	XAPER=58	QESIPARM XSTEP	0.0 Secs (0 Secs)	
justment 2 f or Segment B				S -54	[==>]	[1]
Comments: Put the aperture in the ap	ppropriate position to illuminate a portion	on of the LP3 regi	on of the detector when illu	minating Segment B with G160M	М/1600.	
FCA LAPXSTP value at LP1 is -153 Desired LAPXSTP value for FCA to i	illuminate Segment B with G160M/1600	at Position 2 for	LP3 is -95.			
Therefore, XAPER is set to -95153 ation.	P = +58. *HOWEVER*, because of the 2	TRANS rules, the	"QESIPARM XSTEPS -54"	[(+58 - +112) = -54] Special Re	equirement is necessary to move the aperture to	o the correct loc
10 G160M/160 DEUTERIUM 0 Deuterium	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU M;	I	440 Secs (440 Secs)	
Exposure 2		1600 A	BUFFER-TIME=16		[==>]	
			5;			
			FP-POS=4;			[1]
			SEGMENT=BOTH;	· ,		
			LIFETIME-POS=L P1			
Comments: Deuterium exposure optir	nmized for Segment B. FP-POS=4 was	chosen because p		that it has slightly more counts th	han the other FP-POS values.	
11 Return Aper NONE	COS, ALIGN/APER		XAPER=0	QESIPARM XSTEP	0 Secs (0 Secs)	
ture to Nomi nal Position				S -58	[==>]	[1]
Comments: Return aperture to nomin	al position by setting XAPER=0				L	1
1	S rules, the "OESIPARM XSTEPS -58"	70 59) - 591 5-	anial Province and in a second	came to move the mention to the	accurace location	
"HOWEVER", because of the TRANS	Tutes, the QESIFAKM ASTEPS -38"	(0 - 30) = -30/3p	ecial Requirement is necess	sary to move the aperture to its c		





Proposal 17252 - LP4 gain map - after HV increase (4C) - Cycle 30 COS FUV Characterization of Modal Gain When Changing High V...

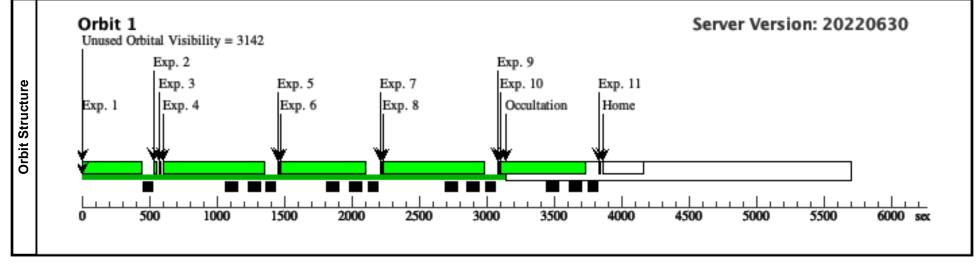
Г	Proposal 17252, LP4 gain map - after HV increase (4C), implementation	Mon Oct 03 18:01:04 GMT 2022
	Diagnostic Status: Warning	
<u>∺</u>	Scientific Instruments: S/C, COS, COS/FUV	
Vis	Special Requirements: ON HOLD ; PARALLEL	
	Comments: This visit collects data at LP4. It uses the HV values appropriate for LP4 (173/175).	
	On Hold Comments: Only needed if HV changed during Cycle 30 HV Values will have to be updated before execution!	
stics	(LP4 gain map - after HV increase (4C)) Warning (Orbit Planner): MAXIMUM DURATION EXCEEDED FOR INTERNAL OR EARTH CALIB SU	
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1	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Or		
		DEUTERIUM	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU			125 Secs (125 Secs)			
	0 Deuterium Exposure - S			1600 A	M;			[==>]			
	et up at LP1				BUFFER-TIME=19 6;						
					FP-POS=1;						
					SEGMENT=BOTH;				[]		
					LIFETIME-POS=L						
					P1						
<u>Con</u> 2	<u>iments: Short e</u> Adjust HV t		ure to LP1, which is near the center of S/C. DATA. NONE	the aperture range	used in this program. It a			20 Saga (20 Saga)			
2	o LP4 value	DAKK	S/C, DATA, NONE			SAA CONTOUR 31 SPEC COM INSTR	* 	39 Secs (39 Secs) I = > I			
	S					ELHVADJPROP;		[==>]			
						QASISTATES COS					
						FUV HVNOM HVN OM;	1				
						QESIPARM ENDC			[
						TSA 173;					
						QESIPARM ENDC TSB 175:					
						OESIPARM SEGM					
						ENT AB					
Comments: Adjust the HV to LP4 values.											
Sinc	e the HV is no	t increasing, exposur	e time = 39 seconds								
3	Aperture Ad	NONE	COS, ALIGN/APER		XAPER=121			0.0 Secs (0 Secs)			
	justment 1 f or Segment							[==>]	[
	A								1		
Con	iments: Put the	e aperture in the appr	ropriate position to illuminate a portio	on of the LP4 region	of the detector when illu	minating Segment A w	vith G130M/1309.				
	LAPXSTP va	lue at LP1 is -153									
Des	ired LAPXSTP	value for FCA to illi	uminate Segment A with G130M/1309	at Position 1 for LF	24 is -32						
Des	ired LAPXSTP refore, XAPER	value for FCA to illu is set to -32153 =	= +121	v				440 5 (440 5)			
Des	ired LAPXSTP refore, XAPER	value for FCA to illi	C C	G130M	CURRENT=MEDIU M;			440 Secs (440 Secs)			
Des	ired LAPXSTP <u>refore, XAPER</u> G130M/130	value for FCA to illu is set to -32153 =	= +121	v	CURRENT=MEDIU			440 Secs (440 Secs) [==>]			
Des	ired LAPXSTP r <u>efore, XAPER</u> G130M/130 9 Deuterium	value for FCA to illu is set to -32153 =	= +121	G130M	CURRENT=MEDIU M; BUFFER-TIME=16 5;			· · · · · · · · · · · · · · · · · · ·			
Des	ired LAPXSTP r <u>efore, XAPER</u> G130M/130 9 Deuterium	value for FCA to illu is set to -32153 =	= +121	G130M	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1;			· · · · · · · · · · · · · · · · · · ·	[.		
Des	ired LAPXSTP r <u>efore, XAPER</u> G130M/130 9 Deuterium	value for FCA to illu is set to -32153 =	= +121	G130M	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH;			· · · · · · · · · · · · · · · · · · ·	[
Des	ired LAPXSTP r <u>efore, XAPER</u> G130M/130 9 Deuterium	value for FCA to illu is set to -32153 =	= +121	G130M	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L			· · · · · · · · · · · · · · · · · · ·	[
Desi <u>Thei</u> 4	<i>ired LAPXSTP</i> r <u>efore, XAPER</u> G130M/130 9 Deuterium Exposure 1	value for FCA to illi is set to -32153 = DEUTERIUM	= +121	G130M 1309 A	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1		counts than the oth	[==>]	[
Desi <u>Thei</u> 4	ired LAPXSTP refore, XAPER G130M/130 9 Deuterium Exposure 1 ments: Deuter Aperture Ad	value for FCA to illi is set to -32153 = DEUTERIUM	= +121 COS/FUV, TIME-TAG, FCA	G130M 1309 A	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1	<u>at it has slightly more</u> QESIPARM XSTEF		[==>]	[1		
Desi <u>Thei</u> 4	ired LAPXSTP refore, XAPER G130M/130 9 Deuterium Exposure 1 ments: Deuter Aperture Ad justment 2 f	value for FCA to illi is set to -32153 = DEUTERIUM	= +121 COS/FUV, TIME-TAG, FCA ized for Segment A. FP-POS=1 was cl	G130M 1309 A	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th	at it has slightly more		[==>] her FP-POS values.			
Desi <u>Thei</u> 4	ired LAPXSTP refore, XAPER G130M/130 9 Deuterium Exposure 1 ments: Deuter Aperture Ad	value for FCA to illi is set to -32153 = DEUTERIUM	= +121 COS/FUV, TIME-TAG, FCA ized for Segment A. FP-POS=1 was cl	G130M 1309 A	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th	<u>at it has slightly more</u> QESIPARM XSTEF		[==>] her FP-POS values. 0.0 Secs (0 Secs)			
Dess <u>Ther</u> 4 5	ired LAPXSTP G130M/130 9 Deuterium Exposure 1 <u>uments: Deuter</u> Aperture Ad justment 2 f or Segment A	value for FCA to illi <u>is set to -32153 =</u> DEUTERIUM ^{cium} exposure optimi. NONE	= +121 COS/FUV, TIME-TAG, FCA ized for Segment A. FP-POS=1 was cl	G130M 1309 A hosen because previe	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th XAPER=67	<u>at it has slightly more</u> QESIPARM XSTEF S -54	2	[==>] her FP-POS values. 0.0 Secs (0 Secs)			
Dest <u>Ther</u> 4 <u>Con</u> 5 <i>Con</i>	ments: Deuteri Aperture Ad justment 2 f or Segment A uments: Put the ALAPXSTP va	value for FCA to illu is set to -32153 = DEUTERIUM ium exposure optimi NONE e aperture in the appu lue at LP1 is -153	<u>= +121</u> COS/FUV, TIME-TAG, FCA <u>ized for Segment A. FP-POS=1 was cl</u> COS, ALIGN/APER ropriate position to illuminate a portic	G130M 1309 A hosen because previo	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th XAPER=67 of the detector when illus	<u>at it has slightly more</u> QESIPARM XSTEF S -54	2	[==>] her FP-POS values. 0.0 Secs (0 Secs)			
Dess <u>Ther</u> 4 5 <i>Con</i> <i>FCA</i>	ments: Deuteri Aperture Ad justment 2 f or Segment A uments: Put the ALAPXSTP va	value for FCA to illu is set to -32153 = DEUTERIUM ium exposure optimi NONE e aperture in the appu lue at LP1 is -153	<u>= +121</u> COS/FUV, TIME-TAG, FCA <u>ized for Segment A. FP-POS=1 was ch</u> COS, ALIGN/APER	G130M 1309 A hosen because previo	CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th XAPER=67 of the detector when illus	<u>at it has slightly more</u> QESIPARM XSTEF S -54	2	[==>] her FP-POS values. 0.0 Secs (0 Secs)			

Proposal 17252 - LP4 gain map - after HV increase (4C) - Cycle 30 COS FUV Characterization of Modal Gain When Changing High V..

0000							g i light th
6	G130M/130 DEUTERIU	M COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU		440 Secs (440 Secs)	
	9 Deuterium Exposure 2		1309 A	M; DUEEED TIME-16		[==>]	
				BUFFER-TIME=16 5;			
				FP-POS=1;			[1]
				SEGMENT=BOTH;			
				LIFETIME-POS=L			
G			, .	P1			
Com	Aperture Ad NONE	optimized for Segment A. FP-POS=1 was cl COS, ALIGN/APER	iosen because previ	ous observations show th XAPER=112	QESIPARM XSTEP	0.0 Secs (0 Secs)	
<i>'</i>	justment 1 f	COS, ALION/AFEK		AAFEK-112	S 45	[==>]	
	or Segment B					[>]	[1]
Com	-	he appropriate position to illuminate a portio	n of the LP4 region	of the detector when illu	minating Segment B with G160M/160	0.	
	LAPXSTP value at LP1 is -		, C	•	0 0		
		A to illuminate Segment B with G160M/1600	at Position 1 for LP	24 is -41			
Ther	efore, XAPER is set to -41 -	-153 = +112. *HOWEVER*, because of the	TRANS rules, the "(QESIPARM XSTEPS 45"	[(+112 - +67) = +45] Special Requi	rement is necessary to move the aperture	to the correct lo
catic	on.					· _	
8	G160M/160 DEUTERIU	M COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU M;		440 Secs (440 Secs)	
	Exposure 1		1600 A	BUFFER-TIME=16		[==>]	
				5;			
				FP-POS=4;			[1]
				SEGMENT=BOTH;			
				LIFETIME-POS=L P1			
Com	ments: Deuterium exposure	optimmized for Segment B. FP-POS=4 was a	chosen because prev	vious observations show t	hat it has slightly more counts than th	ne other FP-POS values.	
9	Aperture Ad NONE	COS, ALIGN/APER		XAPER=58	QESIPARM XSTEP	0.0 Secs (0 Secs)	
	justment 2 f or Segment B				S -54	[==>]	[1]
Com	ments: Put the aperture in the	he appropriate position to illuminate a portio	n of the LP4 region	of the detector when illu	minating Segment B with G160M/160	0.	
	LAPXSTP value at LP1 is - red LAPXSTP value for FC4	153 A to illuminate Segment B with G160M/1600	at Position 2 for LP	24 is -95.			
Ther atior		-153 = +58. *HOWEVER*, because of the T	RANS rules, the "Q	ESIPARM XSTEPS -54"	[(+58 - +112) = -54] Special Require	ement is necessary to move the aperture to	o the correct loc
10	G160M/160 DEUTERIU	M COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU		440 Secs (440 Secs)	
	0 Deuterium Exposure 2		1600 A	M;		[==>]	
	I			BUFFER-TIME=16 5;			
1				FP-POS=4;			[1]
				SEGMENT=BOTH;			[-]
				LIFETIME-POS=L			
6				P1			
		optimmized for Segment B. FP-POS=4 was a	chosen because prev				
11	Return Aper NONE ture to Nomi	COS, ALIGN/APER		XAPER=0	QESIPARM XSTEP S -58	$\frac{0 \text{ Secs } (0 \text{ Secs})}{[==>]}$	
	nal Position					[>]	[1]
Com	ments: Return aperture to n	ominal position by setting XAPER=0					
H0	WEVER, because of the Th	RANS rules, the "QESIPARM XSTEPS -58" [((0 - 58) = -58] Spec	ial Requirement is necess	sary to move the aperture to its correc	et location.	





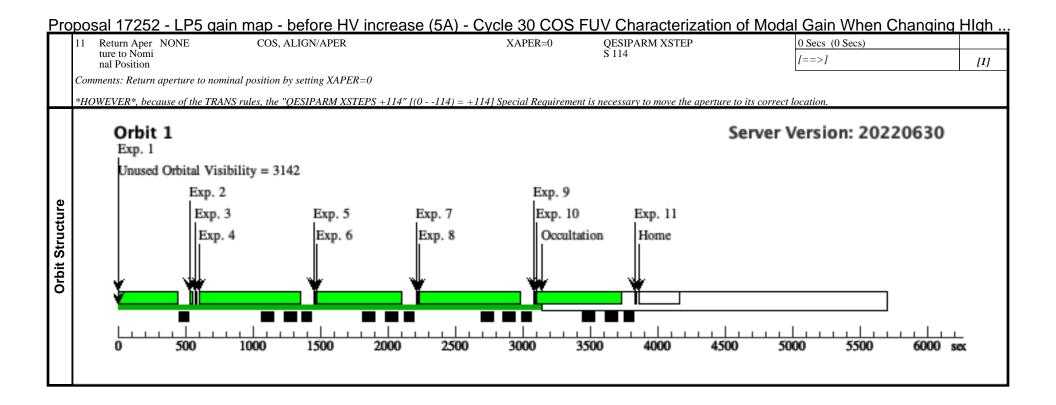
Proposal 17252 - LP5 gain map - before HV increase (5A) - Cycle 30 COS FUV Characterization of Modal Gain When Changing High ...

	Proposal 17252, LP5 gain map - before HV increase (5A), implementation	Mon Oct 03 18:01:04 GMT 2022
	Diagnostic Status: Warning	
Ξ	Scientific Instruments: S/C, COS, COS/FUV	
Vis	Special Requirements: ON HOLD ; PARALLEL	
	Comments: This visit collects data at LP5. It uses the HV values appropriate for LP5 (167/169).	
	On Hold Comments: Only needed if HV changed during Cycle 30 HV Values will have to be updated before execution!	
ostics	(LP5 gain map - before HV increase (5A)) Warning (Orbit Planner): MAXIMUM DURATION EXCEEDED FOR INTERNAL OR EARTH CALIB SU	
lost		
Diagn		
ã		

1	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Or
		DEUTERIUM	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU			125 Secs (125 Secs)	
	0 Deuterium Exposure - S			1600 A	M;			[==>]	
	et up at LP1				BUFFER-TIME=19 6;				
					FP-POS=1;				[.
					SEGMENT=BOTH;				1-
					LIFETIME-POS=L				
C				C .1	P1	1 1			
<u>Con</u> 2	Adjust HV t		ture to LP1, which is near the center of S/C, DATA, NONE	the aperture range	used in this program. It a	SAA CONTOUR 31		39 Secs (39 Secs)	
2	o LP5 value	DAKK	S/C, DATA, NONE			SPEC COM INSTR	·	[==>]	
	S					ELHVADJPROP;		1>}	
						QASISTATES COS			
						FUV HVNOM HVN OM;	N		
						QESIPARM ENDC			[
						TSA 167;			
						QESIPARM ENDC TSB 169:			
						QESIPARM SEGM			
						ENT AB			
Con	nments: Adjust	the HV to LP5 value	28.						
Sinc		0, 1	re time = 39 seconds						
3	Aperture Ad justment 1 f		COS, ALIGN/APER		XAPER=-60			0.0 Secs (0 Secs)	_
	or Segment							[==>]	[
C	A		· , ·,· , · // · , //	(1 105 -			·1 G1201/1200		
Con	nments: Put the	e aperture in the app	propriate position to illuminate a portion	on of the LPS region	of the detector when illu	minating Segment A w	vith G130M/1309.		
50	A LAPXSTP va	lue at LP1 is -153		at Position 1 for IF	25 is -213				
	irad IADYSTD	value for ECA to ill		u = 0 $u = 0 $ $u = 0$ $u = 1$	5 15 -215				
Des		0	luminate Segment A with G130M/1309	5					
Des	refore, XAPER	e is set to -213153	e = -60	v	CURRENT-MEDIU			110 Secs (110 Secs)	
Des	<i>refore, XAPER</i> G130M/130 9 Deuterium	<i>is set to -213153</i> DEUTERIUM	Ũ	G130M	CURRENT=MEDIU M;			440 Secs (440 Secs)	
Des	<u>refore, XAPER</u> G130M/130	<i>is set to -213153</i> DEUTERIUM	e = -60	v	M; BUFFER-TIME=16			440 Secs (440 Secs) [==>]	
Des	<i>refore, XAPER</i> G130M/130 9 Deuterium	<i>is set to -213153</i> DEUTERIUM	e = -60	G130M	M; BUFFER-TIME=16 5;				
Des	<i>refore, XAPER</i> G130M/130 9 Deuterium	<i>is set to -213153</i> DEUTERIUM	e = -60	G130M	M; BUFFER-TIME=16 5; FP-POS=1;				[.
Des	<i>refore, XAPER</i> G130M/130 9 Deuterium	<i>is set to -213153</i> DEUTERIUM	e = -60	G130M	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH;				[
Des	<i>refore, XAPER</i> G130M/130 9 Deuterium	<i>is set to -213153</i> DEUTERIUM	e = -60	G130M	M; BUFFER-TIME=16 5; FP-POS=1;				[
Des <u>The</u> 4	<i>refore, XAPER</i> G130M/130 9 Deuterium Exposure 1	<u>e is set to -213153</u> DEUTERIUM	e = -60	G130M 1309 A	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1		e counts than the o	[==>]	[
Des <u>The</u> 4	refore, XAPER G130M/130 9 Deuterium Exposure 1 <u>mments: Deuter</u> Aperture Ad	<u>e is set to -213153</u> DEUTERIUM	e = -60 COS/FUV, TIME-TAG, FCA	G130M 1309 A	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1	<u>at it has slightly more</u> QESIPARM XSTEF		[==>]	[1
Des <u>The</u> 4	refore, XAPER G130M/130 9 Deuterium Exposure 1 <u>mments: Deuter</u> Aperture Ad justment 2 f	<u>e is set to -213153</u> DEUTERIUM	ized for Segment A. FP-POS=1 was ch	G130M 1309 A	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th	at it has slightly more		[==>] ther FP-POS values.	
Des <u>The</u> 4	refore, XAPER G130M/130 9 Deuterium Exposure 1 <u>mments: Deuter</u> Aperture Ad	<u>e is set to -213153</u> DEUTERIUM	ized for Segment A. FP-POS=1 was ch	G130M 1309 A	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th	<u>at it has slightly more</u> QESIPARM XSTEF		[==>] ther FP-POS values. 0.0 Secs (0 Secs)	
Des <u>The</u> 4 <u>Con</u> 5	net fore, XAPER G130M/130 9 Deuterium Exposure 1 Exposure 1 Aperture Ad justment 2 f or Segment A	<u>e is set to -213153</u> DEUTERIUM <u>rium exposure optimu</u> NONE	ized for Segment A. FP-POS=1 was ch	G130M 1309 A hosen because previe	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th XAPER=-114	<u>at it has slightly more</u> QESIPARM XSTEF S -54	2	[==>] ther FP-POS values. 0.0 Secs (0 Secs)	
Dess <u>The</u> 4 <u>Con</u> 5 <i>Con</i> <i>FC</i>	nments: Deuteri Aperture Ad justment 2 f or Segment Amments: Put the ALAPXSTP va	tis set to -213153 DEUTERIUM NONE e aperture in the app lue at LP1 is -153	2 = -60 COS/FUV, TIME-TAG, FCA <i>ized for Segment A. FP-POS=1 was cl</i> COS, ALIGN/APER	G130M 1309 A hosen because previo	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th XAPER=-114	<u>at it has slightly more</u> QESIPARM XSTEF S -54	2	[==>] ther FP-POS values. 0.0 Secs (0 Secs)	
Dess The 4 Com 5 Com FC4	nments: Deuteri Aperture Ad justment 2 f or Segment Amments: Put the ALAPXSTP va	tis set to -213153 DEUTERIUM NONE e aperture in the app lue at LP1 is -153	ized for Segment A. FP-POS=1 was ch COS, ALIGN/APER	G130M 1309 A hosen because previo	M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 ous observations show th XAPER=-114	<u>at it has slightly more</u> QESIPARM XSTEF S -54	2	[==>] ther FP-POS values. 0.0 Secs (0 Secs)	

Proposal 17252 - LP5 gain map - before HV increase (5A) - Cycle 30 COS FUV Characterization of Modal Gain When Changing High .

	30M/130 DEUTERIUM	COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU	ſ	440 Secs (440 Secs)	
	Deuterium posure 2		1309 A	M; BUFFER-TIME=16		[==>]	
				5; FP-POS=1;			
				SEGMENT=BOTH;			[1]
				LIFETIME-POS=L	,		
				P1			
		ed for Segment A. FP-POS=1 was c	hosen because pre				
	erture Ad NONE tment 1 f	COS, ALIGN/APER		XAPER=-62	QESIPARM XSTEP S 52	0.0 Secs (0 Secs)	
or B	Segment					1>1	[1]
	ts: Put the aperture in the appr	opriate position to illuminate a portion	on of the LP5 regio	on of the detector when illu	minating Segment B with G160M/1	600.	
	PXSTP value at LP1 is -153	minate Segment B with G160M/1600	at Position 1 for 1	P5 is -215			
	Ū.	0	0		(()) 114) .5019 .1D .		.1 .1 .
Therefor ion.	e, XAPER is set to -215153	= -62. *HOWEVER*, because of the	TRANS rules, the '	'QESIPARM XSTEPS 52" [[(-62114) = +52] Special Requir	rement is necessary to move the aperture to	the correct locat
	60M/160 DEUTERIUM	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU	ſ	440 Secs (440 Secs)	
	Deuterium posure 1		1600 A	M; BUFFER-TIME=16		[==>]	
				5;			
				FP-POS=4;			[1]
				SEGMENT=BOTH;	;		
				LIFETIME-POS=L P1			
Commen	ts: Deuterium exposure optimn	nized for Segment B. FP-POS=4 was	chosen because pr		that it has slightly more counts than	the other FP-POS values.	
	erture Ad NONE	COS, ALIGN/APER		XAPER=-114	QESIPARM XSTEP	0.0 Secs (0 Secs)	
	tment 2 f Segment				S -52	[==>]	[1]
Commen	ts: Put the aperture in the appr	opriate position to illuminate a portion	on of the LP5 regio	on of the detector when illu	minating Segment B with G160M/1	600.	
Desired	PXSTP value at LP1 is -153 LAPXSTP value for FCA to illu ive some pad. I will set it to ma	minate Segment B with G160M/1600 tch the G130M exposure (-267).	at Position 2 for I	LP5 is -280, but the apertur	re soft stop is at -275 and we don't w	vant to exceed that value when including th	e 5 step oversho
	*	· · ·	TRANS rules, the	"QESIPARM XSTEPS -52	" [(-11462) = -52] Special Requ	irement is necessary to move the aperture t	to the correct loc
10 G1	60M/160 DEUTERIUM	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU	1	440 Secs (440 Secs)	
	0 Deuterium Exposure 2		1600 A	M;		[==>]	
LA				BUFFER-TIME=16 5;			
				FP-POS=4;			[1]
				SEGMENT=BOTH;	;		1-1
				LIFETIME-POS=L			
1					that it has slightly more counts than		
				LIFETIME-POS=L P1			



Proposal 17252 - LP5 gain map - after HV increase (5C) - Cycle 30 COS FUV Characterization of Modal Gain When Changing High V...

	Proposal 17252, LP5 gain map - after HV increase (5C), implementation	Mon Oct 03 18:01:04 GMT 2022
	Diagnostic Status: Warning	
Ξ	Scientific Instruments: S/C, COS, COS/FUV	
Vis	Special Requirements: ON HOLD ; PARALLEL	
	Comments: This visit collects data at LP5. It uses the HV values appropriate for LP5 (167/169).	
	On Hold Comments: Only needed if HV changed during Cycle 30 HV Values will have to be updated before execution!	
Diagnostics	(LP5 gain map - after HV increase (5C)) Warning (Orbit Planner): MAXIMUM DURATION EXCEEDED FOR INTERNAL OR EARTH CALIB SU	

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orb
1	G160M/160 0 Deuterium	DEUTERIUM	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU M;	I		125 Secs (125 Secs)	
	Exposure - S			1600 A	BUFFER-TIME=19			[==>]	
	et up at LP1				6;				
					FP-POS=1;				[1
					SEGMENT=BOTH;	;			
					LIFETIME-POS=L P1				
Com	ments: Short e	xposure to set apert	ure to LP1, which is near the center o	f the aperture rang		also sets the HV to th	e LP1 values		
2	Adjust HV t		S/C. DATA, NONE	fine apertare rang	e used in mis program. It e	SAA CONTOUR 3		39 Secs (39 Secs)	
_	o LP5 value s					SPEC COM INSTR ELHVADJPROP;		[==>]	
						QASISTATES CO	S		
						FUV HVNOM HV	N		
						OM; OESIDADM ENDO	7		
						QESIPARM ENDO TSA 167;	~		[1
						QESIPARM ENDO TSB 169;	2		
						QESIPARM SEGM ENT AB	1		
Com	ments: Adjust	the HV to LP5 value	25.						
Since	e the HV is not	increasing, exposu	$re\ time = 39\ seconds$						
Since the HV is not increasing, exposure time = 39 seconds 3 Aperture Ad NONE COS, ALIGN/APER justment 1 f or Segment A A				XAPER=-60					
3	Aperture Ad	NONE	COS, ALIGN/APER		XAPER=-60			0.0 Secs (0 Secs)	
3	justment 1 f	NONE	COS, ALIGN/APER		XAPER=-60			$\frac{0.0 \text{ Secs } (0 \text{ Secs})}{[==>]}$	
3	Aperture Ad justment 1 f or Segment A	NONE	COS, ALIGN/APER		XAPER=-60				[1
3 Com	justment 1 f or Segment A		COS, ALIGN/APER	on of the LP5 regio		minating Segment A	with G130M/1309.		[1
FCA	justment 1 f or Segment A ments: Put the LAPXSTP val	aperture in the app ue at LP1 is -153	propriate position to illuminate a portion		on of the detector when illu	minating Segment A	with G130M/1309.		[1
FCA	justment 1 f or Segment A ments: Put the LAPXSTP val	aperture in the app ue at LP1 is -153			on of the detector when illu	minating Segment A	with G130M/1309.		[1
FCA Desi	justment 1 f or Segment A ments: Put the LAPXSTP val red LAPXSTP	aperture in the app ue at LP1 is -153	ropriate position to illuminate a portio uminate Segment A with G130M/1309		on of the detector when illu	minating Segment A	with G130M/1309.		[1
FCA Desi	justment 1 f or Segment A ments: Put the LAPXSTP val red LAPXSTP refore, XAPER G130M/130	aperture in the app ue at LP1 is -153 value for FCA to ill	ropriate position to illuminate a portio uminate Segment A with G130M/1309		m of the detector when illu. P5 is -213 CURRENT=MEDIU		with G130M/1309.		[1
FCA Desi	justment 1 f or Segment A ments: Put the LAPXSTP val red LAPXSTP efore, XAPER G130M/130 9 Deuterium	aperture in the app ue at LP1 is -153 value for FCA to ill is set to -213153	propriate position to illuminate a portion numinate Segment A with G130M/1309 = -60	at Position 1 for L	on of the detector when illu LP5 is -213 CURRENT=MEDIU M;	1	with G130M/1309.	[==>]	
FCA Desi	justment 1 f or Segment A ments: Put the LAPXSTP val red LAPXSTP refore, XAPER G130M/130	aperture in the app ue at LP1 is -153 value for FCA to ill is set to -213153	propriate position to illuminate a portion numinate Segment A with G130M/1309 = -60	at Position 1 for L G130M	on of the detector when illu LP5 is -213 CURRENT=MEDIU M; BUFFER-TIME=16	1	with G130M/1309.	[==>] 440 Secs (440 Secs)	
FCA Desi	justment 1 f or Segment A ments: Put the LAPXSTP val red LAPXSTP efore, XAPER G130M/130 9 Deuterium	aperture in the app ue at LP1 is -153 value for FCA to ill is set to -213153	propriate position to illuminate a portion numinate Segment A with G130M/1309 = -60	at Position 1 for L G130M	on of the detector when illu LP5 is -213 CURRENT=MEDIU M; BUFFER-TIME=16 5;	1	with G130M/1309.	[==>] 440 Secs (440 Secs)	
FCA Desi	justment 1 f or Segment A ments: Put the LAPXSTP val red LAPXSTP efore, XAPER G130M/130 9 Deuterium	aperture in the app ue at LP1 is -153 value for FCA to ill is set to -213153	propriate position to illuminate a portion numinate Segment A with G130M/1309 = -60	at Position 1 for L G130M	on of the detector when illu LP5 is -213 CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1;	1	with G130M/1309.	[==>] 440 Secs (440 Secs)	
FCA Desi	justment 1 f or Segment A ments: Put the LAPXSTP val red LAPXSTP efore, XAPER G130M/130 9 Deuterium	aperture in the app ue at LP1 is -153 value for FCA to ill is set to -213153	propriate position to illuminate a portion numinate Segment A with G130M/1309 = -60	at Position 1 for L G130M	on of the detector when illu LP5 is -213 CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH;	1	with G130M/1309.	[==>] 440 Secs (440 Secs)	[1.
FCA Desi	justment 1 f or Segment A ments: Put the LAPXSTP val red LAPXSTP efore, XAPER G130M/130 9 Deuterium	aperture in the app ue at LP1 is -153 value for FCA to ill is set to -213153	propriate position to illuminate a portion numinate Segment A with G130M/1309 = -60	at Position 1 for L G130M	on of the detector when illu LP5 is -213 CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1;	1	with G130M/1309.	[==>] 440 Secs (440 Secs)	
FCA Desi <u>Ther</u> 4	justment 1 f or Segment A ments: Put the LAPXSTP val red LAPXSTP G130M/130 9 Deuterium Exposure 1	aperture in the app ue at LP1 is -153 value for FCA to ill <u>is set to -213153</u> DEUTERIUM	propriate position to illuminate a portion numinate Segment A with G130M/1309 = -60	G130M 1309 A	on of the detector when illu LP5 is -213 CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1	;		[==>] 440 Secs (440 Secs) [==>]	
FCA Desi <u>Ther</u> 4	justment 1 f or Segment A ments: Put the LAPXSTP val red LAPXSTP G130M/130 9 Deuterium Exposure 1	aperture in the app ue at LP1 is -153 value for FCA to ill is set to -213153 DEUTERIUM ium exposure optimi	oropriate position to illuminate a portion luminate Segment A with G130M/1309 <u>e = -60</u> COS/FUV, TIME-TAG, FCA	G130M 1309 A	on of the detector when illu LP5 is -213 CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1	; nat it has slightly more QESIPARM XSTE	e counts than the o	[==>] 440 Secs (440 Secs) [==>]	
FCA Desi <u>Ther</u> 4	justment 1 f or Segment A ments: Put the LAPXSTP val red LAPXSTP G130M/130 9 Deuterium Exposure 1	aperture in the app ue at LP1 is -153 value for FCA to ill is set to -213153 DEUTERIUM ium exposure optimi	veropriate position to illuminate a portion fuminate Segment A with G130M/1309 f = -60 COS/FUV, TIME-TAG, FCA ized for Segment A. FP-POS=1 was content	G130M 1309 A	on of the detector when illu LP5 is -213 CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 vious observations show th	; nat it has slightly more	e counts than the o	[==>] 440 Secs (440 Secs) [==>] ther FP-POS values.	
FCA Desi <u>Ther</u> 4 <u>Com</u> 5	justment 1 f or Segment A <i>iments: Put the</i> <i>LAPXSTP val</i> <i>red LAPXSTP</i> G130M/130 9 Deuterium Exposure 1 <i>ements: Deuter</i> Aperture Ad justment 2 f or Segment A	aperture in the app ue at LP1 is -153 value for FCA to ill <u>is set to -213153</u> DEUTERIUM JEUTERIUM	veropriate position to illuminate a portion fuminate Segment A with G130M/1309 f = -60 COS/FUV, TIME-TAG, FCA ized for Segment A. FP-POS=1 was content	at Position 1 for L G130M 1309 A	on of the detector when illu LP5 is -213 CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 vious observations show th XAPER=-114	; nat it has slightly mor QESIPARM XSTE S -54	<u>e counts than the o</u> P	[==>] 440 Secs (440 Secs) [==>] ther FP-POS values. 0.0 Secs (0 Secs)	
FCA Desi <u>Ther</u> 4 <u>Com</u> 5	justment 1 f or Segment A ments: Put the LAPXSTP val red LAPXSTP of ore, XAPER G130M/130 9 Deuterium Exposure 1 Aperture Ad justment 2 f or Segment A ments: Put the	aperture in the app ue at LP1 is -153 value for FCA to ill <u>is set to -213153</u> DEUTERIUM <u>ium exposure optimu</u> NONE aperture in the app	ropriate position to illuminate a portion fuminate Segment A with G130M/1309 <u>= -60</u> COS/FUV, TIME-TAG, FCA <u>ized for Segment A. FP-POS=1 was c</u> COS, ALIGN/APER	at Position 1 for L G130M 1309 A	on of the detector when illu LP5 is -213 CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 vious observations show th XAPER=-114	; nat it has slightly mor QESIPARM XSTE S -54	<u>e counts than the o</u> P	[==>] 440 Secs (440 Secs) [==>] ther FP-POS values. 0.0 Secs (0 Secs)	
FCA Desi <u>Ther</u> 4 <u>Com</u> 5 Com	justment 1 f or Segment A ments: Put the LAPXSTP val red LAPXSTP G130M/130 9 Deuterium Exposure 1 Aperture Ad justment 2 f or Segment A ments: Put the LAPXSTP val	aperture in the app ue at LP1 is -153 value for FCA to ill <u>is set to -213153</u> DEUTERIUM ium exposure optimu NONE aperture in the app ue at LP1 is -153	ropriate position to illuminate a portion fuminate Segment A with G130M/1309 <u>= -60</u> COS/FUV, TIME-TAG, FCA <u>ized for Segment A. FP-POS=1 was c</u> COS, ALIGN/APER	at Position 1 for L G130M 1309 A hosen because pre	on of the detector when illu LP5 is -213 CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 vious observations show th XAPER=-114 on of the detector when illu	; nat it has slightly mor QESIPARM XSTE S -54	<u>e counts than the o</u> P	[==>] 440 Secs (440 Secs) [==>] ther FP-POS values. 0.0 Secs (0 Secs)	
Com Com Com	justment 1 f or Segment A ments: Put the LAPXSTP val red LAPXSTP G130M/130 9 Deuterium Exposure 1 ments: Deuteri Aperture Ad justment 2 f or Segment A ments: Put the LAPXSTP val red LAPXSTP val	aperture in the app ue at LP1 is -153 value for FCA to ill is set to -213153 DEUTERIUM ium exposure optim NONE aperture in the app ue at LP1 is -153 value for FCA to ill	aropriate position to illuminate a portion fuminate Segment A with G130M/1309 d = -60 COS/FUV, TIME-TAG, FCA <u>ized for Segment A. FP-POS=1 was concerned</u> COS, ALIGN/APER propriate position to illuminate a portion fuminate Segment A with G130M/1309	at Position 1 for L G130M 1309 A hosen because pre on of the LP5 region at Position 2 for L	on of the detector when illu LP5 is -213 CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 vious observations show th XAPER=-114 on of the detector when illu LP5 is -267	nat it has slightly more QESIPARM XSTE S -54 pminating Segment A t	<u>e counts than the o</u> P with G130M/1309.	$[==>]$ $\frac{440 \text{ Secs } (440 \text{ Secs})}{[==>]}$ <i>ther FP-POS values.</i> $0.0 \text{ Secs } (0 \text{ Secs})$ $[==>]$	
CA besi <u>her</u> com	justment 1 f or Segment A ments: Put the LAPXSTP val red LAPXSTP G130M/130 9 Deuterium Exposure 1 ments: Deuteri Aperture Ad justment 2 f or Segment A ments: Put the LAPXSTP val red LAPXSTP val	aperture in the app ue at LP1 is -153 value for FCA to ill is set to -213153 DEUTERIUM ium exposure optim NONE aperture in the app ue at LP1 is -153 value for FCA to ill	aropriate position to illuminate a portion fuminate Segment A with G130M/1309 d = -60 COS/FUV, TIME-TAG, FCA <u>ized for Segment A. FP-POS=1 was concerned</u> COS, ALIGN/APER propriate position to illuminate a portion fuminate Segment A with G130M/1309	at Position 1 for L G130M 1309 A hosen because pre on of the LP5 region at Position 2 for L	on of the detector when illu LP5 is -213 CURRENT=MEDIU M; BUFFER-TIME=16 5; FP-POS=1; SEGMENT=BOTH; LIFETIME-POS=L P1 vious observations show th XAPER=-114 on of the detector when illu LP5 is -267	nat it has slightly more QESIPARM XSTE S -54 pminating Segment A t	<u>e counts than the o</u> P with G130M/1309.	[==>] 440 Secs (440 Secs) [==>] ther FP-POS values. 0.0 Secs (0 Secs)	

Proposal 17252 - LP5 gain map - after HV increase (5C) - Cycle 30 COS FUV Characterization of Modal Gain When Changing High V.

Proposal 17252 - LP5 gain map - after HV increase (5C) - Cycle 30 COS FUV Characterization of Modal Gain When Changing High V..

<u>100</u>	<u>sai 17232</u>	<u> LFJ yaii i i</u>	<u>nap - anei i iv increase</u>			Characterization of Moud		<u>, i ligit v</u>
6	G130M/130 9 Deuterium	DEUTERIUM	COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU	ſ	440 Secs (440 Secs)	
	Exposure 2			1309 A	M; BUFFER-TIME=16		[==>]	
					5; FP-POS=1:			
					SEGMENT=BOTH:			[1]
					LIFETIME-POS=L	,		
G				, .	P1			
Con 7	<i>iments: Deuteri</i> Aperture Ad		ed for Segment A. FP-POS=1 was ch COS, ALIGN/APER	osen because previo	ous observations show th XAPER=-62	aat it has slightly more counts than the othe QESIPARM XSTEP	0.0 Secs (0 Secs)	
/	justment 1 f or Segment B	NONE	COS, ALIOWAI LK		AAI EK=-02	S 52	[==>]	[1]
Con	ments: Put the	aperture in the appro	opriate position to illuminate a portion	n of the LP5 region of	of the detector when illu	minating Segment B with G160M/1600.		I
FCA	A LAPXSTP vali	ue at LP1 is -153						
Des	ired LAPXSTP	value for FCA to illu	minate Segment B with G160M/1600 a	at Position 1 for LP5	5 is -215			
	refore, XAPER	is set to -215153 =	= -62. *HOWEVER*, because of the T	RANS rules, the "QI	ESIPARM XSTEPS 52" [[(-62114) = +52] Special Requirement	is necessary to move the aperture to th	he correct locat
ion. 8	G160M/160	DEUTERIUM	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU	1	440 Secs (440 Secs)	
	0 Deuterium Exposure 1			1600 A	M;		[==>]	
	Exposure 1				BUFFER-TIME=16 5;			
					FP-POS=4;			[1]
					SEGMENT=BOTH;	;		
					LIFETIME-POS=L P1			
Con	ments: Deuteri	um exposure optimm	ized for Segment B_FP-POS=4 was c	hosen because previ		that it has slightly more counts than the oth	ner FP-POS values	
9	Aperture Ad		COS, ALIGN/APER		XAPER=-114	QESIPARM XSTEP	0.0 Secs (0 Secs)	
	justment 2 f or Segment B					S -52	[==>]	[1]
Con	ments: Put the	aperture in the appro	opriate position to illuminate a portion	n of the LP5 region of	of the detector when illu	minating Segment B with G160M/1600.		
Des	ired LAPXSTP	ue at LP1 is -153 value for FCA to illu ad, I will set it to mat	minate Segment B with G160M/1600 o tch the G130M exposure (-267).	at Position 2 for LPS	5 is -280, but the apertur	re soft stop is at -275 and we don't want to	exceed that value when including the .	5 step oversho
The atio		is set to -267153 =	-114. *HOWEVER*, because of the	TRANS rules, the "Q	2 DESIPARM XSTEPS	" [(-11462) = -52] Special Requirement	t is necessary to move the aperture to	the correct loc
10	G160M/160 0 Deuterium	DEUTERIUM	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU M;	ſ	440 Secs (440 Secs)	
	Exposure 2			1600 A	BUFFER-TIME=16		[==>]	
				5;				
					FP-POS=4;			[1]
					SEGMENT=BOTH;			
					LIFETIME-POS=L P1			
Con	ıments: Deuteri	um exposure optimm	ized for Segment B. FP-POS=4 was c	hosen because previ	ious observations show t	that it has slightly more counts than the oth	ner FP-POS values.	

