

13970 - COS FUV Detector Gain Maps

Cycle: 22, 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?
A1	DEUTERIUM NONE	COS COS/FUV	1	22-Jan-2015 21:18:21.0	yes
A2	DEUTERIUM NONE	COS COS/FUV	1	22-Jan-2015 21:18:23.0	yes
B1	DEUTERIUM NONE	COS COS/FUV	1	22-Jan-2015 21:18:24.0	yes
B2	DEUTERIUM NONE	COS COS/FUV	1	22-Jan-2015 21:18:25.0	yes
В3	DARK DEUTERIUM NONE	COS COS/FUV S/C	1	22-Jan-2015 21:18:28.0	yes

⁵ Total Orbits Used

Proposal 13970 (STScI Edit Number: 1, Created: Thursday, January 22, 2015 9:18:29 PM EST) - Overview

ABSTRACT

This program uses the deuterium lamp to illuminate the regions of the detector being used to collect spectra. 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 Lifetime Position move, or if a change is made to the nominal high voltage value on either segment.

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 at the current lifetime position. 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. At LP3, multiple nominal HV levels will be in use at the same time, and data should be taken at each of these voltages.

- * Visits A1 and A2 data will be taken before and after a change to the Nominal HV on Segment A.
- * Visit B1 data will be taken at the LIFE_ADJ=2 position at the end of LP2 operations.
- * Visit B2 data will be taken at the LIFE_ADJ=3 position using the nominal HV level (i.e. the value used at all except G130M/1055/1095/1222) at the beginning of LP3 operations
- * Visit B3 data will be taken at the LIFE_ADJ=3 position using the G130M/1222 HV levels at the beginning of LP3 operations (171/167).

The procedure for collecting this data in each visit is:

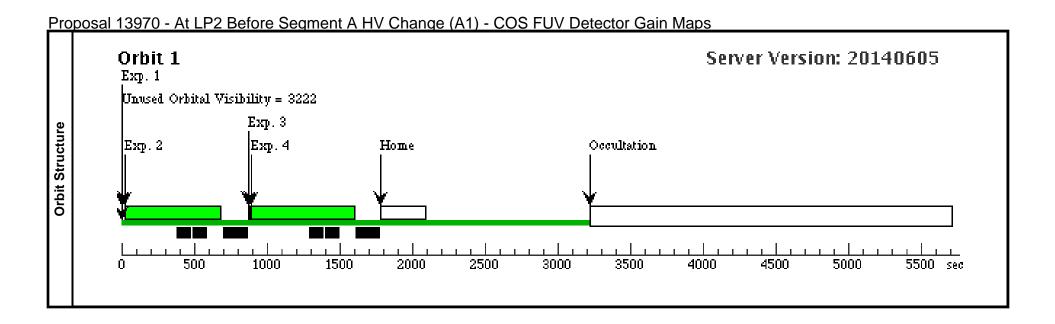
- * Adjust the HV values if necessary.
- * Adjust the aperture in the cross dispersion direction so that the deuterium lamp will illuminate the appropriate region on Segment A when using G130M/1309. At the LP2 position, LAPXSTP should be -235.

Proposal 13970 (STScI Edit Number: 1, Created: Thursday, January 22, 2015 9:18:29 PM EST) - Overview

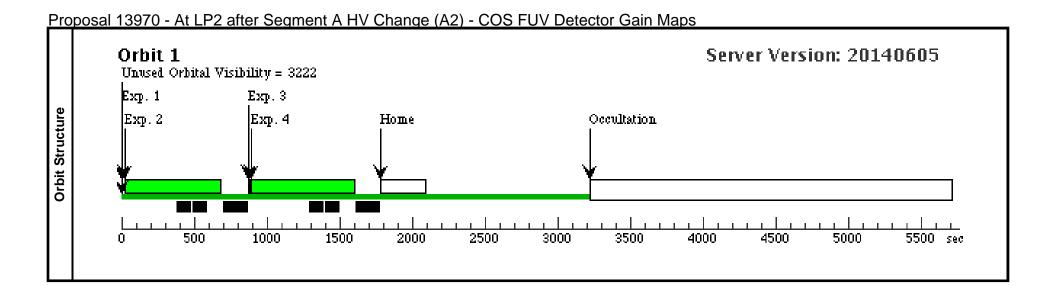
- * Take a 400 second deuterium lamp exposure using both detector segments.
- * For visits B2 & B3 (after the move to LP3), adjust the aperture to a second cross-dispersion location to obtain additional coverage on Segment A and take another 400 second deuterium lamp exposure.
- * Adjust the aperture in the cross dispersion direction so that the deuterium lamp will illuminate the appropriate region on Segment B when using G160M/1600. At the LP2 position, LAPXSTP should be -241. Since TRANS resets its aperture zero point when the previous FCA exposure is taken, the aperture is explicitly moved by -6 steps, as it was in Program 13494.
- * Take a 400 second deuterium lamp exposure using both detector segments.
- * For visits B2 & B3 (after the move to LP3), adjust the aperture to a second cross-dispersion location to obtain additional coverage on Segment B and take another 400 second deuterium lamp exposure.

Obtaining a gain map at all HV transitions 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 timespan of each high voltage at each LP. Improving these models will allow better predictions of the future lifetime of the detector.

Pro	posal 13970 - At LP2 B	Before Segment A HV C	hange (A1) -	COS FUV De	tector Gain M	1aps		
		ment A HV Change (A1), implement					Fri Jan 23 02:18:29	GMT 2015
	Diagnostic Status: Warning							
Visit	Scientific Instruments: COS/FUV, CO	OS						
Ν	Special Requirements: ON HOLD; P	PARALLEL						
	Comments: This visit collects data be	fore the HV is increased; it should be ti	he last COS visit exec	cuted before a Segment	A HV change while si	till operating at LP2		
	On Hold Comments: On hold until the							
SS	(At LP2 Before Segment A HV Chan	ige (A1)) Warning (Orbit Planner): MA	XIMUM DURATIO	N EXCEEDED FOR IN	NTERNAL OR EART	TH CALIB SU		
sti	(Aperture Adjustment for Segment A	(A1.001)) Warning (Form): This ALIC	SN/APER exposure s	should be preceded by a	science exposure to d	define the starting pos	sition for the scan.	
ĕ								
Diagnostics								
Ë								
	# Label Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1 Aperture Ad NONE	COS, ALIGN/APER		XAPER=-287			0.0 Secs (0 Secs)	
	justment for Segment A						[==>]	[1]
	· ·	opropriate position to illuminate the LP.	2 region of the detec	tor when illuminating S	eament A with G130N	A/1309		
	· · · · · · · · · · · · · · · · · · ·	propriate position to titiaminate the Ex-		ier miert tittamitteting S	egment it want Giben.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	PSA LAPXSTP value at LP2 is 52.1 Desired LAPXSTP value for FCA to i	illuminate Segment A with G130M/1309	at LP2 is -235					
		munuae segment 11 with G13011/1307	. a. B. 2 is 233					
	Therefore, XAPER is set to -287	000 TIN TO TO TO TO TO	G1202.6	arm berne væbr	••		100 0 (100 0)	Т
	2 G130M/130 DEUTERIUM 9 Deuterium	COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDI M:	U		400 Secs (400 Secs)	+
	Exposure		1309 A	BUFFER-TIME=1	1		[==>]	
S				1;	•			[1]
l a				FP-POS=1				
Exposures	Comments: Deuterium exposure optir	mized for Segment A. FP-POS=1 was o	chosen because previ	ious observations show	that it has slightly mo	re counts than the ot	her FP-POS values.	
Р	3 Aperture Ad NONE	COS, ALIGN/APER		XAPER=-293	QESIPARM XSTI	EP	0.0 Secs (0 Secs)	
Ш	justment for Segment B				S -6		[==>]	[1]
	-	opropriate position to illuminate the cor	rect region of the de	tector when illuminatin	g Segment R with G10	50M/1600		
		propriate position to illuminate the cor	reer region of the de		5 508 5 510	30.12, 1 000.		
	PSA LAPXSTP value at LP2 is 52.1 Desired LAPXSTP value for FCA to i	illuminate Segment B with G160M/1600) is -241					
	,	Ÿ		CH C				
	* ·	JT* because of the TRANS rules, the "Q			•	the aperture to the co		Т
	4 G160M/160 DEUTERIUM 0 Deuterium	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDI M:	U		400 Secs (400 Secs)	
	Exposure		1600 A	BUFFER-TIME=1	1		I==>J	
				1;	•			[1]
				FP-POS=4				
	Comments: Deuterium exposure optin	mmized for Segment B. FP-POS=4 was	chosen because prev	vious observations show	that it has slightly m	ore counts than the o	ther FP-POS values.	



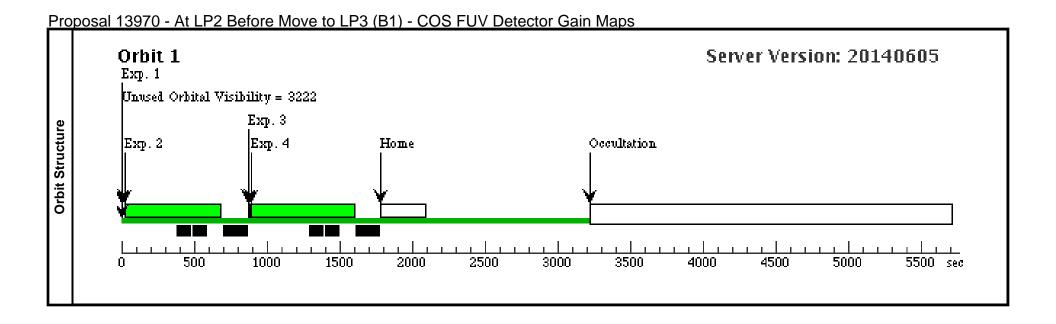
Pro	posal 1397	0 - At LP2 at	fter Segment A HV Cha	nge (A2) - C	OS FUV Detec	ctor Gain Ma	ps		
			ent A HV Change (A2), implementat					Fri Jan 23 02:18:29	GMT 2015
	Diagnostic Statu	s: Warning							
Visit	Scientific Instrum	nents: COS/FUV, CC	OS						
Ν	Special Requirem	ents: AFTER A1; C	ON HOLD ; PARALLEL						
	Comments: This v	visit collects data afte	er the HV is increased; it should be on	e of the first COS visi	its executed after a Segn	nent A HV change wh	iile still operating at I	LP2	
	On Hold Commer	its: On hold until the	e Segment A HV at LP2 is adjusted.						
so	(At LP2 after Seg	ment A HV Change	(A2)) Warning (Orbit Planner): MAX	IMUM DURATION	EXCEEDED FOR INT	ERNAL OR EARTH	CALIB SU		
Sti	(Aperture Adjusti	ment for Segment A	(A2.001)) Warning (Form): This ALIC	GN/APER exposure s	should be preceded by a	science exposure to	define the starting pos	ition for the scan.	
õ									
Diagnostics									
ΙQ									
	# Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1 Aperture Ac		COS, ALIGN/APER		XAPER=-287			0.0 Secs (0 Secs)	
	justment for Segment A							Exp. Time (Total)/[Actual Dur.] Orbit 0.0 Secs (0 Secs) $[l==>] $	
		ne aperture in the app	propriate position to illuminate the LP.	2 region of the detect	tor when illuminating Se	gment A with G130M	<i>1</i> /1309.		1
		ulue at LP2 is 52.1		0 ,	0	o .			
			lluminate Segment A with G130M/1309	at LP2 is -235					
	Therefore, XAPE	Discotto 297							
	<i>y</i> '	DEUTERIUM	COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU	IJ		400 Secs (400 Secs)	
	9 Deuteriun			1309 A	M;				
	Exposure				BUFFER-TIME=1	1			[1]
es					1;				[1]
ıns	G		i If G	, , .	FP-POS=1			ED DOG 1	
Exposures			nized for Segment A. FP-POS=1 was a	chosen because previ					
ΙÄ	3 Aperture Acquisite and Approximate		COS, ALIGN/APER		XAPER=-293	QESIPARM XSTI S -6	EP	` ′	
	Segment B							[==>]	[1]
	Comments: Put th	ne aperture in the app	propriate position to illuminate the cor	rect region of the de	tector when illuminating	g Segment B with G10	60M/1600.		
		alue at LP2 is 52.1							
	Desired LAPXST	P value for FCA to il	lluminate Segment B with G160M/1600) is -241					
	Therefore, XAPE	R is set to -293. *BU	T^* because of the TRANS rules, the "Q	ESIPARM XSTEPS -	-6" Special Requirement	t is required to move	the aperture to the co	rrect location.	
		DEUTERIUM	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDI	IJ		400 Secs (400 Secs)	
	0 Deuteriun Exposure	1		1600 A	M;			[==>]	
	Exposure				BUFFER-TIME=1:	1			[1]
					FP-POS=4				',
	Comments: Deute	erium exposure optin	unized for Segment B. FP-POS=4 was	chosen because pres		that it has slightly m	ore counts than the o	ther FP-POS values.	1



Pro	oposal 13970 - At LP2 B	efore Move to LP3 (R1)	- COS FUV	Detector Gain	Mans			
屵	Proposal 13970, At LP2 Before Mov		- COO 1 O V	Detector Gain	Ινιαρδ		Fri Jan 23 02:18:29	GMT 201
L	Diagnostic Status: Warning	to 220 (B1), implementation					111 Juli 23 02.10.2)	GW1 201.
Visit	Scientific Instruments: COS/FUV, CO	OS						
>	Special Requirements: BEFORE 09-F							
	1 * *	LP2 before the move to LP3; it should	be the last COS visit	executed before the Lifet	ime move.			
S		Varning (Orbit Planner): MAXIMUM D				SU		
Į∺	(Aperture Adjustment for Segment A	(B1.001)) Warning (Form): This ALIG					sition for the scan.	
Diagnostics		. , ,	•					
	# Label Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Regs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1 Aperture Ad NONE	COS, ALIGN/APER		XAPER=-287			0.0 Secs (0 Secs)	
	justment for Segment A						[==>]	[1]
	· ·	propriate position to illuminate the LP.	2 region of the detect	tor when illuminating Se	oment A with G130N	1/1309		
	Therefore, XAPER is set to -287	lluminate Segment A with G130M/1309						
	2 G130M/130 DEUTERIUM 9 Deuterium	COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU M:			400 Secs (400 Secs)	
	Exposure		1309 A	BUFFER-TIME=11			[==>]	
Sé				1;				[1]
=				FP-POS=1				
Exposures	Comments: Deuterium exposure optim	nized for Segment A. FP-POS=1 was c	hosen because previ	ous observations show th	at it has slightly mo	re counts than the o	ther FP-POS values.	
١×	3 Aperture Ad NONE	COS, ALIGN/APER		XAPER=-293	QESIPARM XST	EP	0.0 Secs (0 Secs)	
"	justment for Segment B				S -6		[==>]	[1]
	Comments: Put the aperture in the app	propriate position to illuminate the cor	rect region of the de	tector when illuminating	Segment B with G10	60M/1600.		•
	PSA LAPXSTP value at LP2 is 52.1 Desired LAPXSTP value for FCA to il	lluminate Segment B with G160M/1600) is -241					
	Therefore, XAPER is set to -293. *BU	T* because of the TRANS rules, the "Q	ESIPARM XSTEPS	-6" Special Requirement	is required to move	the aperture to the c	orrect location.	
	4 G160M/160 DEUTERIUM	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU		-	400 Secs (400 Secs)	
	0 Deuterium		1600 A	M;			[==>]	
	Exposure			BUFFER-TIME=11 1;				[1]

FP-POS=4

Comments: Deuterium exposure optimmized for Segment B. FP-POS=4 was chosen because previous observations show that it has slightly more counts than the other FP-POS values.



<u>Pro</u>	posal 13970 - At LP3 after Move to LP3 Using HV for most modes (B2) - COS FUV Detector Gain Maps	
	Proposal 13970, At LP3 after Move to LP3 Using HV for most modes (B2), implementation	Fri Jan 23 02:18:30 GMT 2015
l.,	Diagnostic Status: Warning	
<u>.is</u>	Scientific Instruments: COS/FUV, COS	
>	Special Requirements: AFTER B1; BETWEEN 09-FEB-2015:00:00:00 AND 16-FEB-2015:00:00:00; PARALLEL	
	Comments: This visit collects data at LP3 after the move to LP3. It uses the HV values appropriate for most modes at LP3. It should be one of the first COS visits executed after the move.	
SS	(At LP3 after Move to LP3 Using HV for most modes (B2)) Warning (Orbit Planner): MAXIMUM DURATION EXCEEDED FOR INTERNAL OR EARTH CALIB SU	
Sti	(Aperture Adjustment 1 for Segment A (B2.001)) Warning (Form): This ALIGN/APER exposure should be preceded by a science exposure to define the starting position for the scan.	
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Proposal 13970 - At LP3 after Move to LP3 Using HV for most modes (B2) - COS FUV Detector Gain Maps

1	Aperture Ad	NONE			Opt. Params.	Special Regs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
		NONE	COS, ALIGN/APER		XAPER=-253			0.0 Secs (0 Secs)	
	justment 1 f or Segment A							[==>]	[1]
Co	mments: Put the	aperture in the app	propriate position to illuminate a porti	on of the LP3 region	of the detector when illi	ıminating Segment A	with G130M/1309.		•
		ue at LP3 is 182.1 value for FCA to ili	luminate Segment A with G130M/1309	at Position 1 for LP	23 is -71				
Th	erefore, XAPER	is set to -71 - 182.1	= -253						T
2	G130M/130 9 Deuterium	DEUTERIUM	COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU M;	J		400 Secs (400 Secs)	
	Exposure 1			1309 A	BUFFER-TIME=11			[==>]	
					1;				[1]
					FP-POS=1				
Ca	mments: Deuter	ium exposure optim	nized for Segment A. FP-POS=1 was c	hosen because previ	ious observations show t	hat it has slightly mor	e counts than the ot	ther FP-POS values.	
3	Aperture Ad	NONE	COS, ALIGN/APER		XAPER=-310	QESIPARM XSTE	P.	0.0 Secs (0 Secs)	
	justment 2 f or Segment A					S -57		[==>]	[1]
Co		aperture in the app	propriate position to illuminate a porti	on of the LP3 region	of the detector when illi	ıminating Segment A	with G130M/1309.		
		ue at LP3 is 182.1	luminate Segment A with G130M/1309	at Position 2 for LP	23 is _128				
		•	Ŭ	v		57" [(-310253) =	57] Special Require	ment is necessary to move the aperture to	the correct i
3	ation.								
$5 \mid 4$	G130M/130 9 Deuterium	DEUTERIUM	COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU M;	J		400 Secs (400 Secs)	
<u>}</u>	Exposure 2			1309 A	BUFFER-TIME=11	=11		[==>]	
.					1;				[1]
					FP-POS=1				
Ca	mments: Deuter	ium exposure optim	sized for Segment A. FP-POS=1 was c	hosen because previ	ous observations show to				
5	Aperture Ad justment 1 f	NONE	COS, ALIGN/APER		XAPER=-256	QESIPARM XSTE S 54	P.	0.0 Secs (0 Secs)	
	or Segment B					3 34		[==>]	[1]
Co	mments: Put the	aperture in the app	propriate position to illuminate a porti	on of the LP3 region	of the detector when illi	ıminating Segment B	with G160M/1600.		
		ue at LP3 is 182.1 value for FCA to ili	luminate Segment B with G160M/1600	at Position 1 for LP	23 is -74				
	erefore, XAPER tion.	is set to -74 - 182.1	= -256. *HOWEVER*, because of the	TRANS rules, the "	QESIPARM XSTEPS 54	" [(-256310) = +54	4] Special Requiren	nent is necessary to move the aperture to th	ne correct la
6	G160M/160	DEUTERIUM	COS/FUV, TIME-TAG, FCA	G160M	CURRENT=MEDIU	J		400 Secs (400 Secs)	
	0 Deuterium Exposure 1			1600 A	M;			[==>]	
	Exposure 1				BUFFER-TIME=11 1;				[1]
					FP-POS=4				
C	mments: Deutes	ium ernosure ontim	mized for Segment R FP-POS-1 was	chosen hecause pres		that it has slightly me	ore counts than the	other FP-POS values	
Co	mments: Deuter	ium exposure optim	mized for Segment B. FP-POS=4 was	chosen because prev	vious observations show	that it has slightly mo	ere counts than the c	other FP-POS values.	

Proposal 13970 - At LP3 after Move to LP3 Using HV for most modes (B2) - COS FUV Detector Gain Maps COS, ALIGN/APER **QESIPARM XSTEP** 0.0 Secs (0 Secs) Aperture Ad NONE XAPER=-311 justment 2 f S -55 [==>] or Segment [1] Comments: Put the aperture in the appropriate position to illuminate a portion of the LP3 region of the detector when illuminating Segment B with G160M/1600. PSA LAPXSTP value at LP3 is 182.1 Desired LAPXSTP value for FCA to illuminate Segment B with G160M/1600 at Position 2 for LP3 is -129 Therefore, XAPER is set to -129 - 182.1 = -311. *HOWEVER*, because of the TRANS rules, the "QESIPARM XSTEPS -55" [(-311 - -256) = -55] Special Requirement is necessary to move the aperture to the correct 1 G160M/160 DEUTERIUM COS/FUV, TIME-TAG, FCA G160M CURRENT=MEDIU 400 Secs (400 Secs) 0 Deuterium 1600 A *[==>1* Exposure 2 BUFFER-TIME=11 [1] 1; FP-POS=4 Comments: Deuterium exposure optimmized for Segment B. FP-POS=4 was chosen because previous observations show that it has slightly more counts than the other FP-POS values. Orbit 1 Server Version: 20140605 Unused Orbital Visibility = 3222 Exp. 1 Exp. 3 Exp. 5 Exp. 7 Occultation **Orbit Structure** Exp. 8 Ехр. 4 Ехр. 6 Home Exp. 2 500 1000 1500 2000 2500 3500 4500 5000 5500 sec 3000 4000

<u>Pro</u>	pposal 13970 - At LP3 after Move to LP3 Using HV for G130M/1222 (B3) - COS FUV Detector Gain Maps	
	Proposal 13970, At LP3 after Move to LP3 Using HV for G130M/1222 (B3), implementation	Fri Jan 23 02:18:30 GMT 2015
1.	Diagnostic Status: Warning	
<u>.is</u>	Scientific Instruments: S/C, COS/FUV, COS	
>	Special Requirements: AFTER B1; BETWEEN 09-FEB-2015:00:00:00 AND 16-FEB-2015:00:00:00; PARALLEL	
	Comments: This visit collects data at LP3 after the move to LP3. It uses the HV values appropriate for G130M/1222. It should be one of the first COS visits executed after the move.	
ပ္ပ	(At LP3 after Move to LP3 Using HV for G130M/1222 (B3)) Warning (Orbit Planner): MAXIMUM DURATION EXCEEDED FOR INTERNAL OR EARTH CALIB SU	
sti	(Aperture Adjustment 1 for Segment A (B3.002)) Warning (Form): This ALIGN/APER exposure should be preceded by a science exposure to define the starting position for the scan.	
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Proposal 13970 - At LP3 after Move to LP3 Using HV for G130M/1222 (B3) - COS FUV Detector Gain Maps

1 Adjust HV to G130M/1: 22 values		Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Regs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	t DARK	S/C, DATA, NONE			SAA CONTOUR 31;		295 Secs (295 Secs)	
l	2				SPEC COM INSTR ELHLTHVF;		[==>]	
					QASISTATES COS FUV HVLOW HVN OM;			
					QESIPARM ENDC TSA 171;			[1]
					QESIPARM ENDC TSB 167;			
					QESIPARM SEGM ENT AB			
Comments: Adjus	st the HV to the LP3 G	G130M/1222 values.						
2 Aperture Ac		COS, ALIGN/APER		XAPER=-253			0.0 Secs (0 Secs)	
justment 1 f or Segment A							[==>]	[1]
Comments: Put tl	he aperture in the app	ropriate position to illuminate a portio	n of the LP3 region	of the detector when illu	minating Segment A wi	th G130M/1309.		
	alue at LP3 is 182.1		. D	2: 71				
	v	uminate Segment A with G130M/1309	at Position 1 for LP.	3 lS -/I				
	R is set to -71 - 182.1		G1207.f	arinneria renu			100 0 (100 0)	I
3 G130M/130 9 Deuteriun) DEUTERIUM	COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU M;			400 Secs (400 Secs)	
Exposure 1			1309 A	BUFFER-TIME=11			[==>]	
1				1;				[1]
1				FP-POS=1				
Comments: Deute	erium exposure optimi	ized for Segment A. FP-POS=1 was ch	nosen because previo	ous observations show th	at it has slightly more o	counts than the other	FP-POS values.	
4 Aperture Ac		COS, ALIGN/APER		XAPER=-310	QESIPARM XSTEP		0.0 Secs (0 Secs)	
justment 2 f or Segment A					S -57		[==>]	[1]
Comments: Put tl	he aperture in the app	ropriate position to illuminate a portio	n of the LP3 region	of the detector when illu	minating Segment A wi	th G130M/1309.		
	alue at LP3 is 182.1 P value for FCA to ill	uminate Segment A with G130M/1309	at Position 2 for LP.	3 is -128				
Therefore, XAPE. ocation.	R is set to -128 - 182.	1 = -310. *HOWEVER*, because of th	e TRANS rules, the '	"QESIPARM XSTEPS -5	7" [(-310253) = -57] Special Requiremen	t is necessary to move the aperture to t	the correc
) DEUTERIUM	COS/FUV, TIME-TAG, FCA	G130M	CURRENT=MEDIU	ſ		400 Secs (400 Secs)	
9 Deuteriun Exposure 2			1309 A	M;			[==>]	
Emposure 2				BUFFER-TIME=11 1;				[1]
				FP-POS=1				
	erium exposure optimi	ized for Segment A. FP-POS=1 was ci	nosen because previo		nat it has slightly more o	counts than the other	FP-POS values.	
Comments: Deute	•	•	Î					
Comments: Deute								
Comments: Deute								
Comments: Deute								
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Proposal 13970 - At LP3 after Move to LP3 Using HV for G130M/1222 (B3) - COS FUV Detector Gain Maps Aperture Ad NONE COS. ALIGN/APER XAPER=-256 **OESIPARM XSTEP** 0.0 Secs (0 Secs) justment 1 f S 54 f = = > 1or Segment [1] Comments: Put the aperture in the appropriate position to illuminate a portion of the LP3 region of the detector when illuminating Segment B with G160M/1600. PSA LAPXSTP value at LP3 is 182.1 Desired LAPXSTP value for FCA to illuminate Segment B with G160M/1600 at Position 1 for LP3 is -74 Therefore, XAPER is set to -74 - 182.1 = -256. *HOWEVER*, because of the TRANS rules, the "OESIPARM XSTEPS 54" [(-256 - -310) = +54] Special Requirement is necessary to move the aperture to the correct lo G160M/160 DEUTERIUM COS/FUV, TIME-TAG, FCA CURRENT=MEDIU 400 Secs (400 Secs) G160M 0 Deuterium 1600 A I = = > 1Exposure 1 BUFFER-TIME=11 [1] 1; FP-POS=4 Comments: Deuterium exposure optimmized for Segment B. FP-POS=4 was chosen because previous observations show that it has slightly more counts than the other FP-POS values. COS, ALIGN/APER XAPER=-311 **OESIPARM XSTEP** 0.0 Secs (0 Secs) Aperture Ad NONE S -55 justment 2 f I = = > 1or Segment [1] Comments: Put the aperture in the appropriate position to illuminate a portion of the LP3 region of the detector when illuminating Segment B with G160M/1600. PSA LAPXSTP value at LP3 is 182.1 Desired LAPXSTP value for FCA to illuminate Segment B with G160M/1600 at Position 2 for LP3 is -129 Therefore, XAPER is set to -129 - 182.1 = -311. *HOWEVER*, because of the TRANS rules, the "QESIPARM XSTEPS -55" [(-311 - -256) = -55] Special Requirement is necessary to move the aperture to the correct 1 G160M/160 DEUTERIUM COS/FUV, TIME-TAG, FCA G160M CURRENT=MEDIU 400 Secs (400 Secs) 0 Deuterium 1600 A f = = > 1Exposure 2 BUFFER-TIME=11 [1] 1: FP-POS=4 Comments: Deuterium exposure optimmized for Segment B. FP-POS=4 was chosen because previous observations show that it has slightly more counts than the other FP-POS values. Server Version: 20140605 Orbit 1 Unused Orbital Visibility = 3222 Exp. 2 Exp. 6 Exp. 8 Occultation Orbit Structure Ехр. 1 (Ехр. 3 Ехр. 9 Exp. 7 Home 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 sec