ENGINEERING CHANGE ORDER

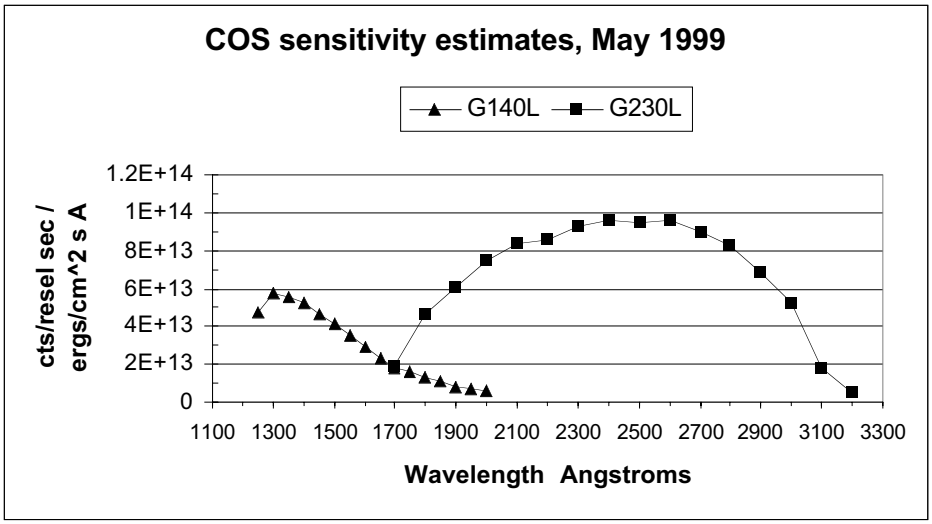
Center for Astrophysics & Space Astronomy
University of Colorado, Boulder

ECO No. **COS-047**
Date 22 December 2000
Sheet 1 **of** 3

Drawing Title	Drawing No.	Revision Letter		Special Distribution
		Current	New	
OP-01	COS-01-0001	2	3	
				Stop Production Now
				❑ Yes
				❑ No

Description of changes:

1. Sec. 1.3.5, p. 20: The following plot should be inserted as the lower panel of Figure 1.3-9, so that the upper plot shows curves for the M gratings and the lower plot shows curves for the L gratings.



Reason for Change:	**Disposition/Effectivity**					
Updates to COS operations.	To Comply With ECO					
	Use As Is					
	Rework To ECO					
	Scrap And Rebuild					
	Record change Only					
	Other (See Above)					

Prepared By:	Jon Morse	Date	22 Dec 2000	CCB Required ❑Yes ❑No	❑Approved ❑Not Approved
Design Engr		Date			
Project Engr (EE)		Date		❑Class I ❑Class II	Immediate Incorporation ❑Yes ❑No
Project Engr (ME)		Date			
QA Mgr		Date		Completion	
Project Mgr		Date		Date	
Sponsor		Date			

2. Sec. 4.1.3.2, p.80: Replace Table 4.1-1 with the following updated table. Also, change the title for the table to “Table 4.1-1: FUV Detector DCE Command & Parameter List”.

DCE Command	Parameters	Parameter Range	Nominal Value			
LFGBWK	SETTING	0 – 255 COUNTS	96	96	100	96
	SEGMENT	0 = A, 1 = B	0	0	1	1
	DIR	0 = DISP, 1 = XDISP	0	1	0	1
LFGEWK	SETTING	0 – 255 COUNTS	100	96	100	96
	SEGMENT	0 = A, 1 = B	0	0	1	1
	DIR	0 = DISP, 1 = XDISP	0	1	0	1
LFGSHF	SETTING	0 – 255 COUNTS	136	52	174	144
	SEGMENT	0 = A, 1 = B	0	0	1	1
	DIR	0 = DISP, 1 = XDISP	0	1	0	1
LFGSTR	SETTING	0 – 255 COUNTS	32	128	68	120
	SEGMENT	0 = A, 1 = B	0	0	1	1
	DIR	0 = DISP, 1 = XDISP	0	1	0	1
LFGTT	SETTING	0 – 255 COUNTS	208	208	208	208
	SEGMENT	0 = A, 1 = B	0	0	1	1
	DIR	0 = DISP, 1 = XDISP	0	1	0	1
LFGUQT	SETTING	0 – 255 COUNTS	255		255	
	SEGMENT	0 = A, 1 = B	0		1	
LFGLQT	SETTING	0 – 255 COUNTS	11		11	
	SEGMENT	0 = A, 1 = B	0		1	
LFGSTIM	SETTING	0, 1, 2, or 3	OD		OD	
	SEGMENT	0 = A, 1 = B	0		1	
LFHVENA	HIVOLT	0 = DISABLE 1 = ENABLE	OD			
LFHQPWR	QE GRID POWER	0 = OFF, 1 = ON	OD			
LFHVPWR	POWER	0 = OFF, 1 = ON	OD			
LFHSTATE	STATE	1 = NOMA 2 = NOMB 3 = NOMAB 4 = LOW	OD			
LFHRAMPT	RAMPRATE	0.1 – 6553.5 SECONDS	OD (Nom. = 1)			
LFHVLOW	VOLTAGE	TBD – TBD VOLTS	-4096		-4096	
	SEGMENT	0 = A, 1 = B	0		1	
LFHVMAX	VOLTAGE	-6500.95 – -2500VOLTS	-4775.05		-4712.29	
	SEGMENT	0 = A, 1 = B	0		1	
LFHVNOM	VOLTAGE	-6500.95 – -2500VOLTS	-4775.05		-4712.29	
	SEGMENT	0 = A, 1 = B	0		1	
LFHVSET	VOLTAGE	-6500.95 to -2500VOLTS	OD		OD	
	SEGMENT	0 = A, 1 = B	0		1	
LFHVILIM	HV I LIMIT	MICROAMPS 0 = DISABLE	150			
LFRILIM	AUX POWER I LIMIT	MICROAMPS 0 = DISABLE	150			
LFPCRP	INTERVAL	0 = DISABLE 1 – 255 SECONDS	10		10	
	SEGMENT	0 = A, 1 = B	0		1	
	COUNT RATE	0 – 65535 COUNT/SEC	20000			

Notes: The values in this table are initial values as of 12/18/00 and will be updated during instrument integration and after COS is installed and operational in HST. “OD” stands for Operationally Determined, where values for these parameters are determined based on the operational configuration of the COS instrument.

3. Sec. 5.3.4, p. 120, first paragraph: Replace the last three sentences with the following: “Short duration exposures (3-100 s) should use the 30 Hz rate. The highest rate of 2000 Hz will be used during ground calibration, and may also be used as a diagnostic tool on orbit. Very short exposures (0.1-3 s) could use the 2000 Hz rate, however this high rate may add significantly to the deadtime correction of a science exposure. The stim pulses may be turned off by setting a rate of 0 Hz. The 0 Hz setting should be used during all phases of target acquisition with the FUV detector, as well as during BOP check exposures. (In fact, the 2000 Hz setting could trigger a local rate violation if it were left on during a BOP check exposure.) The stim pulses should be turned back on to an appropriate setting for all science exposures.”