15983 - COS/FUV Mapping of PtNe1 medium current to PtNe2 low current with G160M/1577/4

Cycle: 26, Proposal Category: CAL/COS

(Availability Mode: RESTRICTED)

INVESTIGATORS

Name	*Institution*	*E-Mail*
Dr. Cristina Oliveira (PI) (Contact)	**Space Telescope Science Institute**	**oliveira@stsci.edu**
Dr. David J. Sahnow (CoI)	Space Telescope Science Institute	sahnow@stsci.edu

VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	WAVE	COS/FUV	1	17-Jul-2019 09:00:34.0	yes

1 Total Orbits Used

ABSTRACT

The goal of this proposal is to map the ratio of the flux of lamp PtNe1 at medium current to lamp PtNe2 at low current, for G160M/1577/FP-POS = 4.

The exact location of the FCA light leak when the aperture block is moved close to +6" has been mapped using PtNe2 at low current, and G160M/1577/FP-POS=4. However, because of the different usage characteristics of PtNe1 and PtNe2, it is likely that the lamps have aged differently with potentially different beam sizes, which together with different geometries could lead to the FCA light leak appearing at different locations.

In order to safely map the FCA light leak with PtNe1 at medium current, which is the default setting for lampflash used currently in operations, we need to understand how the flux of PtNe1 at medium current compares to that of PtNe2 at low current, which is the goal of the current program.

OBSERVING DESCRIPTION

The goal of this proposal is to map the ratio of the flux of lamp PtNe1 at medium current to lamp PtNe2 at low current, for G160M/1577/FP-POS = 4.

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The lamps are flashed on and off for 30 seconds each, to allow enough time for cooling between flashes.
For PtNe1/medium current the total lamp on exposure time is 240 sec, which is double the exposure time used to obtain lamp templates in SMOV.
For PtNe2/low current the total lamp on exposure time is 540 sec, to take into account that this setting is fainter.

All the data are taken at LP3 to avoid the gain sag in the WCA region (due to LP2 science spectra) when at LP4.

Proposal 15983 - Visit 01 - COS/FUV Mapping of PtNe1 medium current to PtNe2 low current with G160M/1577/4

Visit

Proposal 15983, Visit 01, implementation Wed Jul 17 13:00:34 GMT 2019

Diagnostic Status: Warning

Scientific Instruments: COS/FUV

Special Requirements: (none)

Diagnostics

(Visit 01) Warning (Orbit Planner): LAMP EXPOSURE EXCEEDS 300 SECONDS

(Visit 01) Warning (Orbit Planner): LAMP EXPOSURE EXCEEDS 300 SECONDS

(Visit 01) Warning (Orbit Planner): MAXIMUM DURATION EXCEEDED FOR INTERNAL OR EARTH CALIB SU

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	PtNe1_Med	WAVE	COS/FUV, TIME-TAG, WCA	G160M 1577 A	FP-POS=4; FLASH=S0060D030; CURRENT=MEDIUM; LIFETIME-POS=LP3			450 Secs (450 Secs) *[==>]*	*[1]*

Comments: This exposure obtains 240 sec of PtNe1 with medium current, with the lamp being flashed on and off for 30 sec.

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	PtNe2_low	WAVE	COS/FUV, TIME-TAG, WCA	G160M 1577 A	FP-POS=4; FLASH=S0060D030; CURRENT=LOW; LIFETIME-POS=LP3	QESIPARM USELAMP LINE2		1050 Secs (1050 Secs) *[==>]*	*[1]*

Comments: This exposure obtains 540 sec of PtNe2 with low current, with the lamp being flashed on and off for 30 sec.

Orbit Structure