14858 - NUV Spectroscopic Sensitivity Monitoring

Cycle: 24, Proposal Category: CAL/COS

(Availability Mode: RESTRICTED)

INVESTIGATORS

Name	*Institution*	*E-Mail*
Joanna Taylor (PI) (Contact)	**Space Telescope Science Institute**	**jotaylor@stsci.edu**

VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
L1	(1) WD1057+719	COS/NUV	1	05-Dec-2016 21:00:13.0	yes
L2	(1) WD1057+719	COS/NUV	1	05-Dec-2016 21:00:14.0	yes
M1	(2) G191B2B	COS/NUV	2	05-Dec-2016 21:00:16.0	yes
M2	(2) G191B2B	COS/NUV	2	05-Dec-2016 21:00:18.0	yes

6 Total Orbits Used

ABSTRACT

We will monitor the sensitivity of each NUV grating mode to detect any change due to contamination or other causes. Observations execute twice a year (July and January). Iin Cycle 24, additional cenwaves were added for the medium-resolution gratings (G185M/2010, G285M/2850, G225M/2306 and G225M/2410).

OBSERVING DESCRIPTION

Obtain exposures in all NUV gratings -- G230L, G185M, G225M, and G285M -- 2 times a year. The first two gratings have stable behavior, while the last two are experiencing steady sensitivity declines. L visits are one orbit each, while M visits are 2 orbits each for a total of 6 orbits. This is an increase from cycle 23 because we added 4 extra cenwaves to the M gratings. Relaxed date constraints for all

visits for ease of scheduling.

Visit

Proposal 14858, Visit L1, implementation Tue Dec 06 02:00:19 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: SCHED 100%; BETWEEN 20-JAN-2017:00:00:00 AND 20-FEB-2017:00:00:00

Diagnostics

(Visit L1) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD1057+719	RA: 11 00 34.2200 (165.1425833d) Dec: +71 38 2.99 (71.63416d) Equinox: J2000	Proper Motion RA: -0.00973 sec of time/yr Proper Motion Dec: -0.02 arcsec/yr Epoch of Position: 2000.0	V=14.68	Reference Frame: ICRS

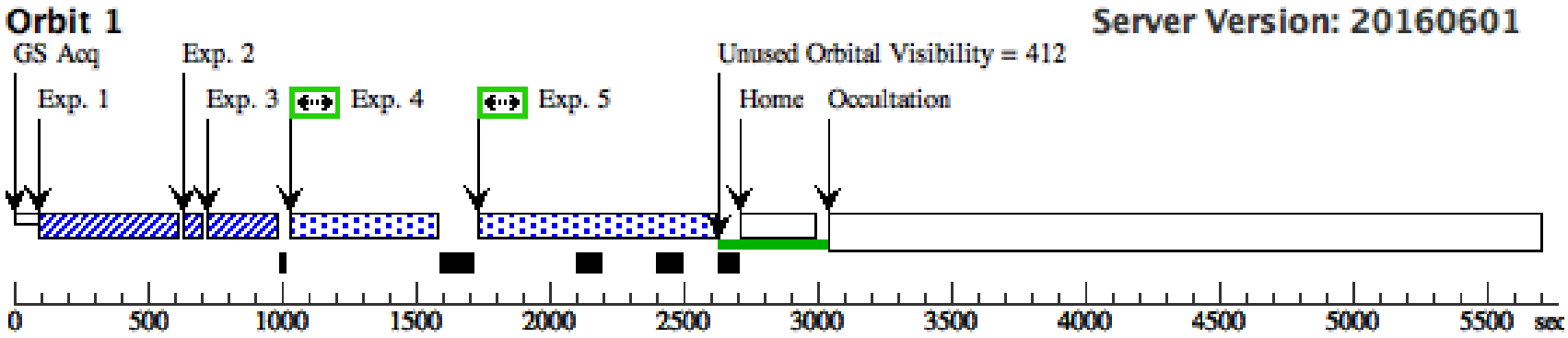
Comments: HST FASTEX standard PM, coords from USNOB

GSC2 coords are 11:00:34.25, 71:38:02.97, 1997.19 epoch Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	G230L - ACQ/SEARCH (COS.sa.748002)	(1) WD1057+719	COS/NUV, ACQ/SEARCH, PSA	G230L 2635 A	SCAN-SIZE=3; STEP-SIZE=1.767			0.7 Secs (0.7 Secs) *[==>]*	*[1]*
2	G230L - ACQ/PEAKXD (COS.sa.748003)	(1) WD1057+719	COS/NUV, ACQ/PEAKXD, PSA	G230L 2635 A				0.7 Secs (0.7 Secs) *[==>]*	*[1]*
3	G230L - ACQ/PEAKD (COS.sa.748002)	(1) WD1057+719	COS/NUV, ACQ/PEAKD, PSA	G230L 2635 A	CENTER=FLUX-WT-FLR; NUM-POS=9.0; STEP-SIZE=0.6			0.7 Secs (0.7 Secs) *[==>]*	*[1]*
4	G230L - 2635 A (COS.sp.834041)	(1) WD1057+719	COS/NUV, TIME-TAG, PSA	G230L 2635 A	BUFFER-TIME=4800; FP-POS=3			540.0 Secs (540 Secs) *[==>]*	*[1]*
5	G230L - 2950 A (COS.sp.834042)	(1) WD1057+719	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=300; FP-POS=3			800.0 Secs (800 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 14858, Visit L2, implementation Tue Dec 06 02:00:19 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: SCHED 100%; BETWEEN 26-JUL-2017:00:00:00 AND 26-AUG-2017:00:00:00

Diagnostics

(Visit L2) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD1057+719	RA: 11 00 34.2200 (165.1425833d) Dec: +71 38 2.99 (71.63416d) Equinox: J2000	Proper Motion RA: -0.00973 sec of time/yr Proper Motion Dec: -0.02 arcsec/yr Epoch of Position: 2000.0	V=14.68	Reference Frame: ICRS

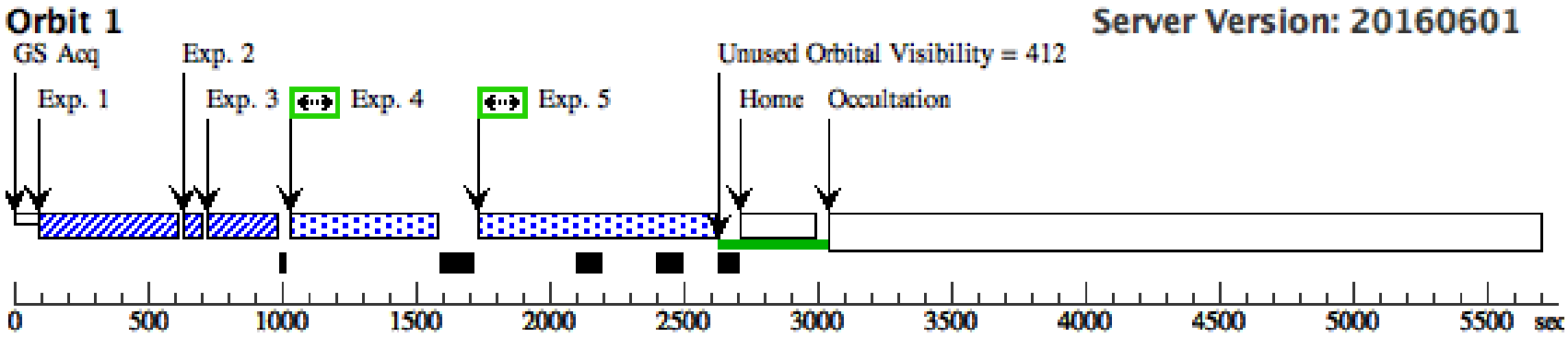
Comments: HST FASTEX standard PM, coords from USNOB

GSC2 coords are 11:00:34.25, 71:38:02.97, 1997.19 epoch Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	G230L - ACQ/SEARCH (COS.sa.748002)	(1) WD1057+719	COS/NUV, ACQ/SEARCH, PSA	G230L 2635 A	SCAN-SIZE=3; STEP-SIZE=1.767			0.7 Secs (0.7 Secs) *[==>]*	*[1]*
2	G230L - ACQ/PEAKXD (COS.sa.748003)	(1) WD1057+719	COS/NUV, ACQ/PEAKXD, PSA	G230L 2635 A				1.0 Secs (1 Secs) *[==>]*	*[1]*
3	G230L - ACQ/PEAKD (COS.sa.748002)	(1) WD1057+719	COS/NUV, ACQ/PEAKD, PSA	G230L 2635 A	CENTER=FLUX-WT-FLR; NUM-POS=9.0; STEP-SIZE=0.6			0.7 Secs (0.7 Secs) *[==>]*	*[1]*
4	G230L - 2635 A (COS.sp.834041)	(1) WD1057+719	COS/NUV, TIME-TAG, PSA	G230L 2635 A	BUFFER-TIME=4800; FP-POS=3			540.0 Secs (540 Secs) *[==>]*	*[1]*
5	G230L - 2950 A (COS.sp.834042)	(1) WD1057+719	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=300; FP-POS=3			800.0 Secs (800 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 14858, Visit M1, implementation Tue Dec 06 02:00:19 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: SCHED 100%; BETWEEN 20-JAN-2017:00:00:00 AND 20-FEB-2017:00:00:00

Diagnostics

(Visit M1) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	G191B2B	RA: 05 05 30.6060 (76.3775250d) Dec: +52 49 52.74 (52.83132d) Equinox: J2000	Proper Motion RA: 0.00071 sec of time/yr Proper Motion Dec: -0.0907 arcsec/yr Epoch of Position: 1991.25	V=11.79	Reference Frame: ICRS

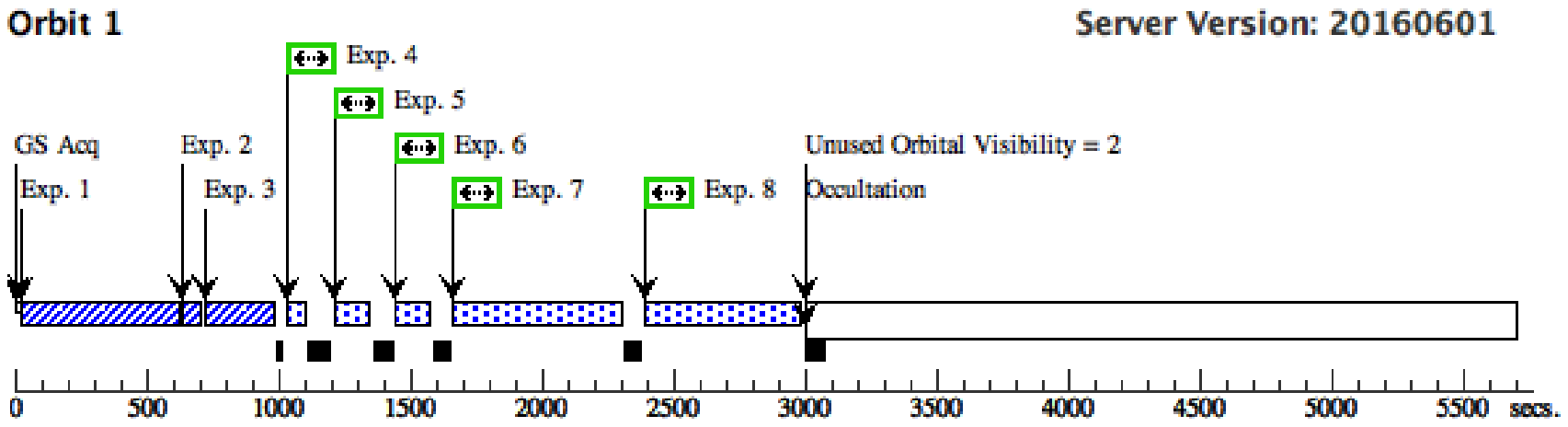
Comments: coords, PM from Hipparcos
Extended=NO

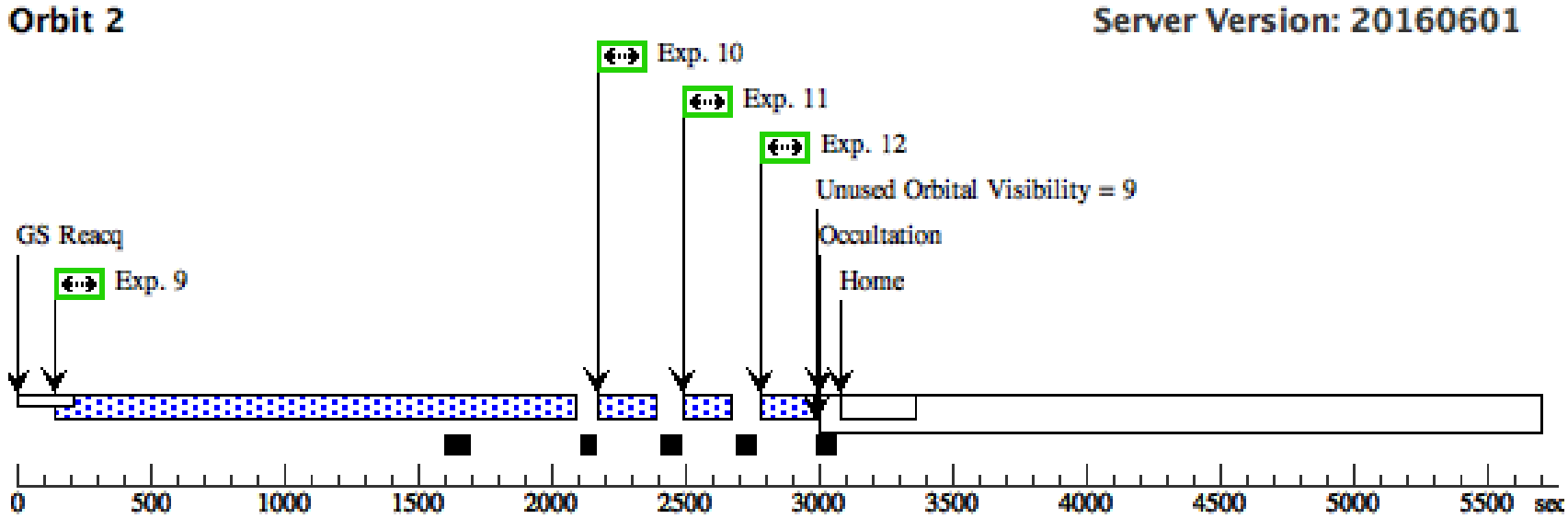
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	G185M - ACQ/SEARCH (COS.sa.846509)	(2) G191B2B	COS/NUV, ACQ/SEARCH, PSA	G185M 2010 A	STEP-SIZE=1.767; SCAN-SIZE=3			1.0 Secs (1 Secs) *[==>]*	*[1]*
2	G185M - ACQ/PEAKXD (COS.sa.846511)	(2) G191B2B	COS/NUV, ACQ/PEAKXD, PSA	G185M 2010 A				1.0 Secs (1 Secs) *[==>]*	*[1]*
3	G185M - ACQ/PEAKD (COS.sa.846509)	(2) G191B2B	COS/NUV, ACQ/PEAKD, PSA	G185M 2010 A	STEP-SIZE=0.6; NUM-POS=9.0			1.0 Secs (1 Secs) *[==>]*	*[1]*
4	G185M - 2010A (COS.sp.834349)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G185M 2010 A	BUFFER-TIME=80; FP-POS=3			56 Secs (56 Secs) *[==>]*	*[1]*
5	G185M - 1921 A (COS.sp.834718)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G185M 1921 A	BUFFER-TIME=80; FP-POS=3			47.0 Secs (47 Secs) *[==>]*	*[1]*
6	G185M - 1786A (COS.sp.834719)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G185M 1786 A	BUFFER-TIME=80; FP-POS=3			41 Secs (41 Secs) *[==>]*	*[1]*
7	G285M - 2850 A (COS.sp.834721)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G285M 2850 A	BUFFER-TIME=1030; FP-POS=3			520 Secs (520 Secs) *[==>]*	*[1]*
	Comments: 1086s for SN26 COS.sp.834386 *520s for SN18 COS.sp.834389*								
8	G285M - 2617 A (COS.sp.834720)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G285M 2617 A	BUFFER-TIME=892; FP-POS=3			505 Secs (505 Secs) *[==>]*	*[1]*
	Comments: 776s for SN26 COS.sp.834384 *371s for SN18 COS.sp.834387* *526s for SN21 COS.sp.834397*								
9	G285M - 3094 A (COS.sp.834724)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G285M 3094 A	BUFFER-TIME=1378; FP-POS=3			1862 Secs (1862 Secs) *[==>]*	*[2]*
	Comments: 3062s for SN26 COS.sp.834385 *1467s for SN18 COS.sp.834388* *1019s for SN15 COS.sp.834391* *1819s for SN20 COS.sp.834400*								
10	G225M - 2410 A (COS.sp.834355)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G225M 2410 A	BUFFER-TIME=157; FP-POS=3			101.0 Secs (101 Secs) *[==>]*	*[2]*
11	G225M - 2306A (COS.sp.834350)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G225M 2306 A	BUFFER-TIME=156; FP-POS=3			96 Secs (96 Secs) *[==>]*	*[2]*

12	G225M - 21 86 A (COS.sp.834 723)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G225M 2186 A	BUFFER-TIME=178; FP-POS=3	112.0 Secs (112 Secs) [==>] [2]

Orbit Structure





Proposal 14858 - Visit M2 - NUV Spectroscopic Sensitivity Monitoring

Visit

Proposal 14858, Visit M2, implementation Tue Dec 06 02:00:19 GMT 2016

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Comments: coords, PM from Hipparcos
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Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	G185M - ACQ/SEARCH (COS.sa.846509)	(2) G191B2B	COS/NUV, ACQ/SEARCH, PSA	G185M 2010 A	STEP-SIZE=1.767; SCAN-SIZE=3			1.0 Secs (1 Secs) *[==>]*	***[1]***
2	G185M - ACQ/PEAKXD (COS.sa.846511)	(2) G191B2B	COS/NUV, ACQ/PEAKXD, PSA	G185M 2010 A				1.0 Secs (1 Secs) *[==>]*	***[1]***
3	G185M - ACQ/PEAKD (COS.sa.846509)	(2) G191B2B	COS/NUV, ACQ/PEAKD, PSA	G185M 2010 A	STEP-SIZE=0.6; NUM-POS=9.0			1.0 Secs (1 Secs) *[==>]*	***[1]***
4	G185M - 2010A (COS.sp.834349)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G185M 2010 A	BUFFER-TIME=80; FP-POS=3			56 Secs (56 Secs) *[==>]*	***[1]***
5	G185M - 1921 A (COS.sp.834718)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G185M 1921 A	BUFFER-TIME=80; FP-POS=3			47.0 Secs (47 Secs) *[==>]*	***[1]***
6	G185M - 1786A (COS.sp.834719)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G185M 1786 A	BUFFER-TIME=80; FP-POS=3			41 Secs (41 Secs) *[==>]*	***[1]***
7	G285M - 2850 A (COS.sp.834721)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G285M 2850 A	BUFFER-TIME=1030; FP-POS=3			520 Secs (520 Secs) *[==>]*	***[1]***
	Comments: 1086s for SN26 COS.sp.834386 *520s for SN18 COS.sp.834389*								
8	G285M - 2617 A (COS.sp.834720)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G285M 2617 A	BUFFER-TIME=892; FP-POS=3			505 Secs (505 Secs) *[==>]*	***[1]***
	Comments: 776s for SN26 COS.sp.834384 *371s for SN18 COS.sp.834387* *526s for SN21 COS.sp.834397*								
9	G285M - 3094 A (COS.sp.834724)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G285M 3094 A	BUFFER-TIME=1378; FP-POS=3			1862 Secs (1862 Secs) *[==>]*	***[2]***
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11	G225M - 2306A (COS.sp.834350)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G225M 2306 A	BUFFER-TIME=156; FP-POS=3			96 Secs (96 Secs) *[==>]*	***[2]***

12	G225M - 21 86 A (COS.sp.834 723)	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G225M 2186 A	BUFFER-TIME=178; FP-POS=3	112.0 Secs (112 Secs) [==>] [2]

Orbit Structure