16650 - Connecting Galaxy Black Hole Mass with the State of the Circumgalactic Medium

Cycle: 29, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

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?*
01	(1) SDSS-J110139.76+142953.4	COS/FUV COS/NUV	3	25-Jul-2022 10:00:25.0	yes
02	(1) SDSS-J110139.76+142953.4	COS/FUV COS/NUV	5	25-Jul-2022 10:00:26.0	yes
03	(2) 2MASS-J11590172+5106308	COS/FUV COS/NUV	3	25-Jul-2022 10:00:27.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
04	(2) 2MASS-J11590172+5106308	COS/FUV COS/NUV	2	25-Jul-2022 10:00:28.0	yes
05	(3) 2MASS-J12204664+4643478	COS/FUV COS/NUV	3	25-Jul-2022 10:00:29.0	yes
06	(3) 2MASS-J12204664+4643478	COS/FUV COS/NUV	2	25-Jul-2022 10:00:30.0	yes
07	(3) 2MASS-J12204664+4643478	COS/FUV COS/NUV	2	25-Jul-2022 10:00:31.0	yes
08	(4) UVQSJ122208.10+461250.1	COS/FUV COS/NUV	2	25-Jul-2022 10:00:32.0	yes
09	(4) UVQSJ122208.10+461250.1	COS/FUV COS/NUV	2	25-Jul-2022 10:00:33.0	yes
10	(5) 2MASS-J12493903+4122440	COS/FUV COS/NUV	3	25-Jul-2022 10:00:34.0	yes
11	(5) 2MASS-J12493903+4122440	COS/FUV COS/NUV	2	25-Jul-2022 10:00:34.0	yes
12	(5) 2MASS-J12493903+4122440	COS/FUV COS/NUV	2	25-Jul-2022 10:00:35.0	yes
13	(6) 2MASS-J10511576+2805271	COS/FUV COS/NUV	2	25-Jul-2022 10:00:36.0	yes
14	(6) 2MASS-J10511576+2805271	COS/FUV COS/NUV	2	25-Jul-2022 10:00:38.0	yes
15	(7) 2MASS-J11230490+1257482	COS/FUV COS/NUV	3	25-Jul-2022 10:00:38.0	yes
16	(7) 2MASS-J11230490+1257482	COS/FUV COS/NUV	2	25-Jul-2022 10:00:39.0	yes
17	(7) 2MASS-J11230490+1257482	COS/FUV COS/NUV	2	25-Jul-2022 10:00:40.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
18	(8) UVQSJ024649.87-300741.5	COS/FUV COS/NUV	3	25-Jul-2022 10:00:41.0	yes
19	(8) UVQSJ024649.87-300741.5	COS/FUV COS/NUV	2	25-Jul-2022 10:00:42.0	yes
Z9	(8) UVQSJ024649.87-300741.5	COS/FUV COS/NUV	2	25-Jul-2022 10:00:43.0	yes
20	(9) LBQS-1235+1123	COS/FUV COS/NUV	3	25-Jul-2022 10:00:44.0	yes
21	(9) LBQS-1235+1123	COS/FUV COS/NUV	3	25-Jul-2022 10:00:45.0	yes
22	(9) LBQS-1235+1123	COS/FUV COS/NUV	2	25-Jul-2022 10:00:46.0	yes
Z2	(9) LBQS-1235+1123	COS/FUV COS/NUV	2	25-Jul-2022 10:00:46.0	yes
Z6	(3) 2MASS-J12204664+4643478	COS/FUV COS/NUV	2	25-Jul-2022 10:00:47.0	yes

61 Total Orbits Used

ABSTRACT

This proposal directly addresses a missing link in the story of galaxy formation: the physical connection between feedback from a galaxy's supermassive black hole and the kiloparsec-scale gas flows that comprise the circumgalactic medium (CGM). Now well-established, the relationship between the properties of the highly-ionized CGM and a galaxy's star formation history is one of the most surprising and informative results from the last decade of HST/COS observations. Similar to the black hole (BH) M-sigma relation, such a global relationship likely reflects multi-scale feedback processes. We have assembled a novel sample of eight nearby ~L* galaxies for which the SMBHs have dynamically resolved mass measurements, and which have nine FUV-bright background QSOs close on the sky (Rproj < 130 kpc). The sample galaxies span a narrow range in stellar mass, but host SMBHs that vary in mass by nearly two orders of magnitude. COS spectroscopy of the background QSOs will establish the relationship between the cumulative feedback energy associated with long-term BH growth (as traced by the BH mass) and the content and kinematics of the gaseous halos around these systems. Specifically, we will measure CIV column densities and kinematics to test two predictions: (1) that galaxies with

more massive BHs have more evacuated CGMs; and (2) that more massive BHs drive more extreme halo gas kinematics. The HST/COS/G160M observations we propose will be the first and only empirical test to constrain the existence of any such connection between long-term SMBH growth and the physical state of the surrounding halo gas.

OBSERVING DESCRIPTION

Description of Observations:

We are targeting 9 FUV-bright QSOs (GALEX FUV < 19) within 130 kpc of 8 nearby, low-z (v < 700 km s^-1), isolated galaxies that have dynamically-resolved mass measurements for their central black holes. The sample galaxies span a narrow range in stellar mass, but host SMBHs that vary in mass by nearly two orders of magnitude. We checked the GALEX NUV magnitudes of our targets for large NUV - FUV colors, which would potentially indicate the presence of a strong Lyman Limit system (NHI > 10^17 cm^-2; LLS) along the line of sight that may contaminate our transitions of interest. One line of sight raised a potential red flag, but upon further examination of its SDSS spectrum and a very fortunate archival G140L spectrum, we determined this line of sight was free of such LLS contamination. All of the QSOs themselves have z < 1.

Our primary science goal is to examine a range of metal ion transitions out to 130 kpc in the CGM. CIV is the highest ionization state transition available at these low redshifts, and tracks the overall baryonic content of the gaseous halo well in the cosmological simulations. Based on predictions from the simulations, and previous observations we would ideally be able to detect CIV down to a column density limit of log NCIV = 13.3 cm^-2, which requires us to be able to detect a 40mA feature at 2 sigma. Thus, we require a S/N of 10 - 12 at the wavelengths of CIV in our COS spectra (1548, 1550).

In order to adequately model the absorption features and detect their component structure, we choose the highest spectral resolution of COS (G160M) with a central wavelength of 1577 Angstroms. In addition to detecting CIV (1548, 1550), other key transitions we probe will be SiII (1526), FeII (1608, 1611), AlII (1670), SiIV (1393, 1402), and CI (1656). The metal ion transitions will be separated from the MW features. The range of transitions and ionization potential energies (10 eV - 65 eV) probed by our observations will allow us to determine the ionization state of the gas using, e.g., CLOUDY.

Phase II Observing Strategy:

We are taking COS/FUV spectra of QSOs with GALEX FUV magnitudes that range from 18.2 - 19.0. We are using the G160M grating centered at 1577 Angstroms. We require only one CENWAVE setting for this experiment since we are targeting specific absorption lines that will not fall near the gap between segments nor will they fall in the regions of siginficant gain sag with this set up in LP4. Because we have coordinates that are accurate to within 0.1", we skip the ACQ/SEARCH step, and acquire the targets with a NUV ACQ/IMAGE using MIRRORB to guard against QSO brightening. All of these objects are faint enough that this method of acquisition is safe. The Exposure times for these acquisitions are set by requiring a S/N of 20. For the acquisiton ETC, we modeled the QSOs as FOS-based QSOs which have broad spectral ranges that overlap entirely with the throughput of the detector.

Using the COS spectroscopic ETC, we model the QSOs as COS-based QSOs, adding in the appropriate extinction for each sightline, and normalizing the spectra to the QSO's GALEX FUV AB magnitude (e.g. COS.sp.1527029). Our targets each require between 4 and 8 orbits, and are generally split into 2-3 visits each of 3 orbits or fewer. One exception is for target 1, our faintest target, which requires 8 orbits and is split into 2 visits of 5 and 3 orbits. We have added an additional justification to visit 1 for this target, explaining that our total exposure time required can only be achieved in 2 visits rather than 3 separate visits, understanding that visits longer than 4 orbits can be challenging to schedule. None of these QSOs will pose a bright limit threat to COS and we have no timing or orientation constraints. In general, the buffer times are quite long, and we thus set the buffer time in the exposure manually to be ~100 seconds shorter than the target's exposure time. We proceed by attempting to maximize exposure times and spread all four FP-POS over multiple visits when possible.

In our final set-up we achieve S/N of between 10-12 across our full wavelength range for all of our targets, which is in line with the requirements we outlined in the science case of Phase 1.

Visit

Proposal 16650, Target1 (3 orb) (01), completed Mon Jul 25 14:00:48 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: trying NUV/ACQ/IMAGE instead of PEAKD and PEAKXD

Diagnostics

(Target1 (3 orb) (01)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M.

Fixed Targets

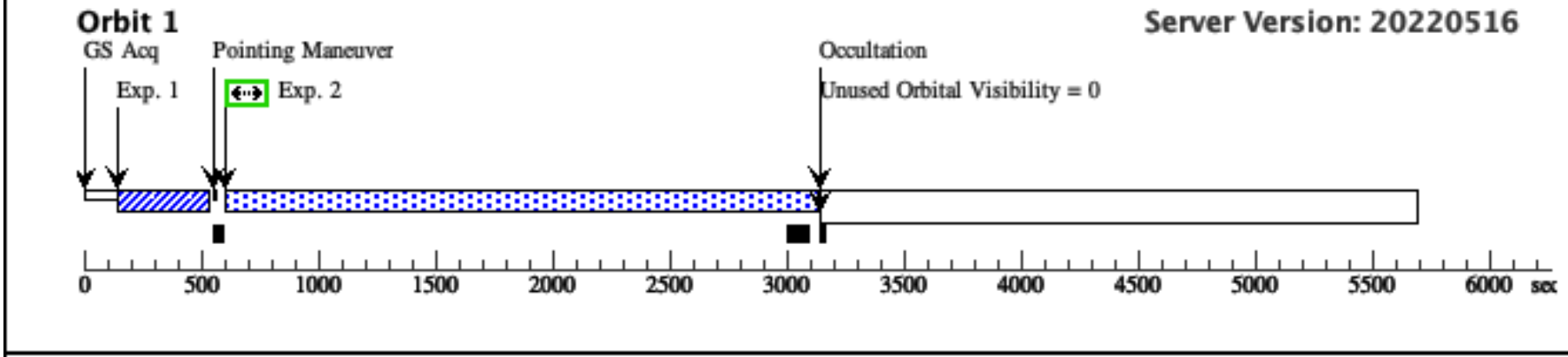
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SDSS-J110139.76+142953.4	RA: 11 01 39.7654 (165.4156892d) Dec: +14 29 53.42 (14.49817d) Equinox: J2000		V=18.86 GALEX FUV = 18.99, z =0.635	Reference Frame: ICRS

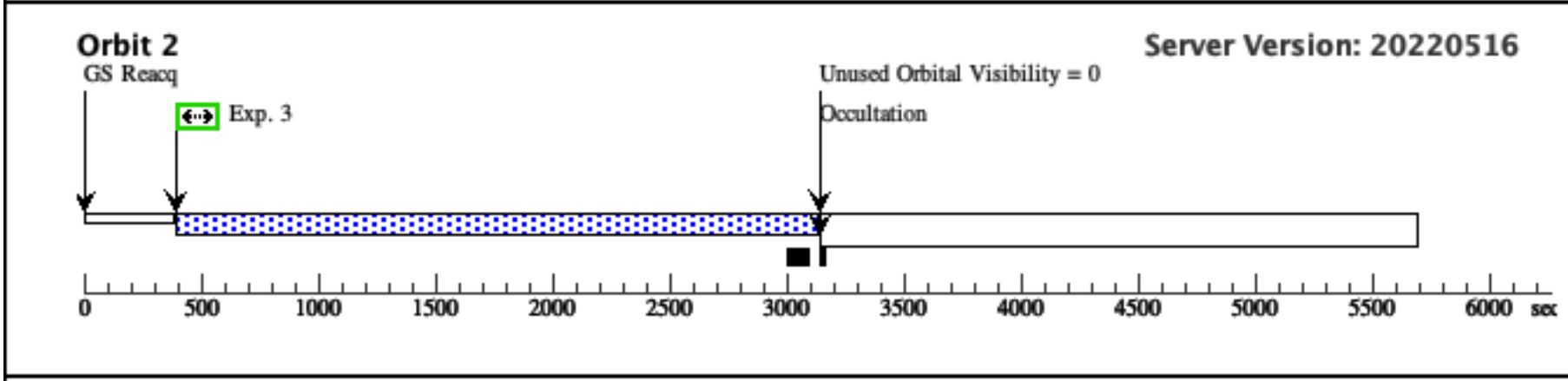
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=GALAXY
Description=[QSO]
Extended=NO

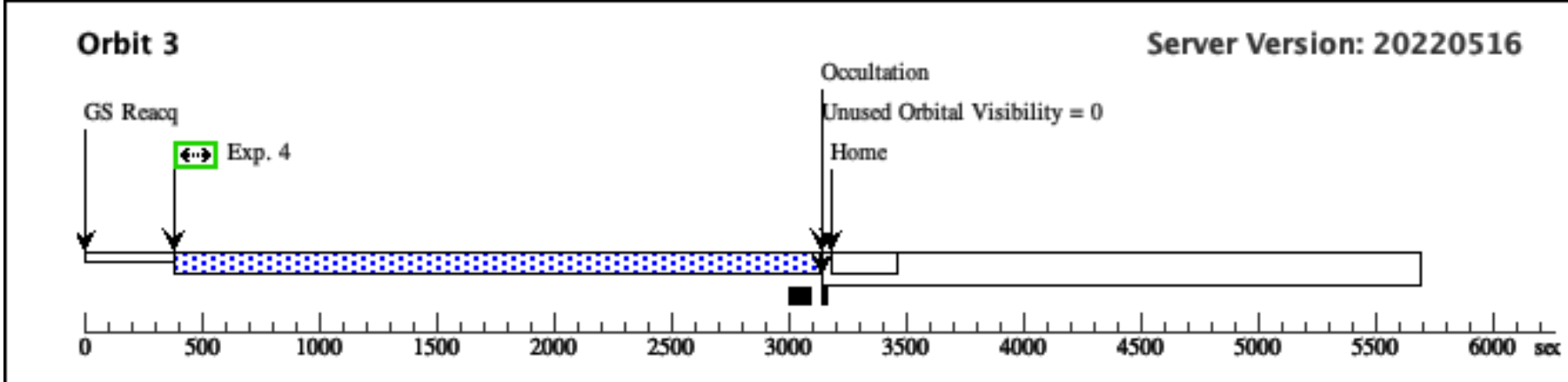
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530430)	(1) SDSS-J110139.76+142953.4	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				43 Secs (43 Secs) *[==>]*	***[1]***
2	FP1 (COS.sp.1526679)	(1) SDSS-J110139.76+142953.4	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2200; FP-POS=1; SEGMENT=BOTH			2000 Secs (2317 Secs) *[==>2317.0 Secs]*	***[1]***
	Comments: other FP-POS will be in subsequent 3 orbits.								
3	FP1 (COS.sp.1527029)	(1) SDSS-J110139.76+142953.4	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2580; FP-POS=1; SEGMENT=BOTH			2600 Secs (2693 Secs) *[==>2693.0 Secs]*	***[2]***
	Comments: other FP-POS will be in subsequent 2 orbits.								
4	FP2 (COS.sp.1527029)	(1) SDSS-J110139.76+142953.4	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2583; SEGMENT=BOTH; FP-POS=2			2600 Secs (2693 Secs) *[==>2693.0 Secs]*	***[3]***
	Comments: other FP-POS will be in subsequent 2 orbits.								

Orbit Structure







Visit

Proposal 16650, Target1 (5 orb) (02), completed Mon Jul 25 14:00:48 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: trying NUV/ACQ/IMAGE instead of PEAKD and PEAKXD

Diagnostics

(Target1 (5 orb) (02)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M.

Fixed Targets

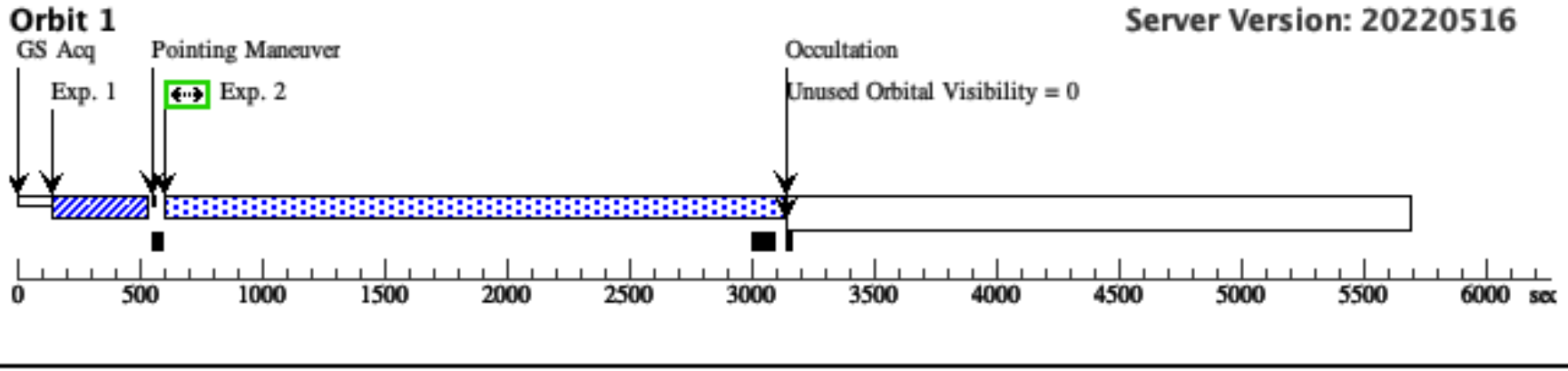
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SDSS-J110139.76+142953.4	RA: 11 01 39.7654 (165.4156892d) Dec: +14 29 53.42 (14.49817d) Equinox: J2000		V=18.86 GALEX FUV = 18.99, z =0.635	Reference Frame: ICRS

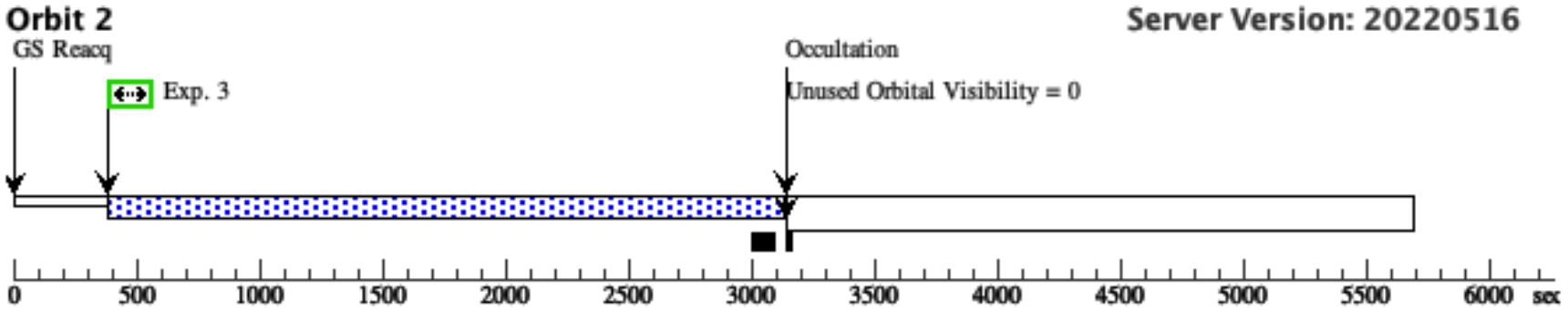
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=GALAXY
Description=[QSO]
Extended=NO

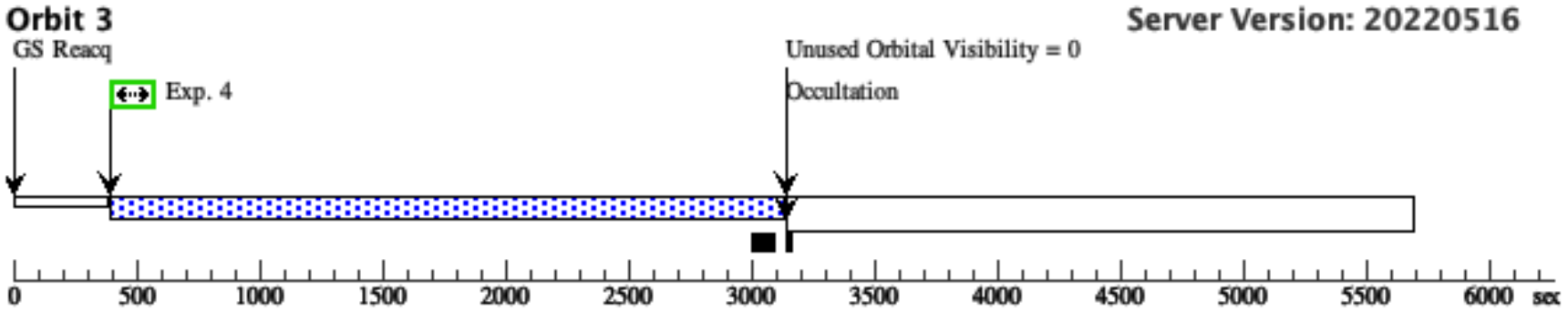
Exposures

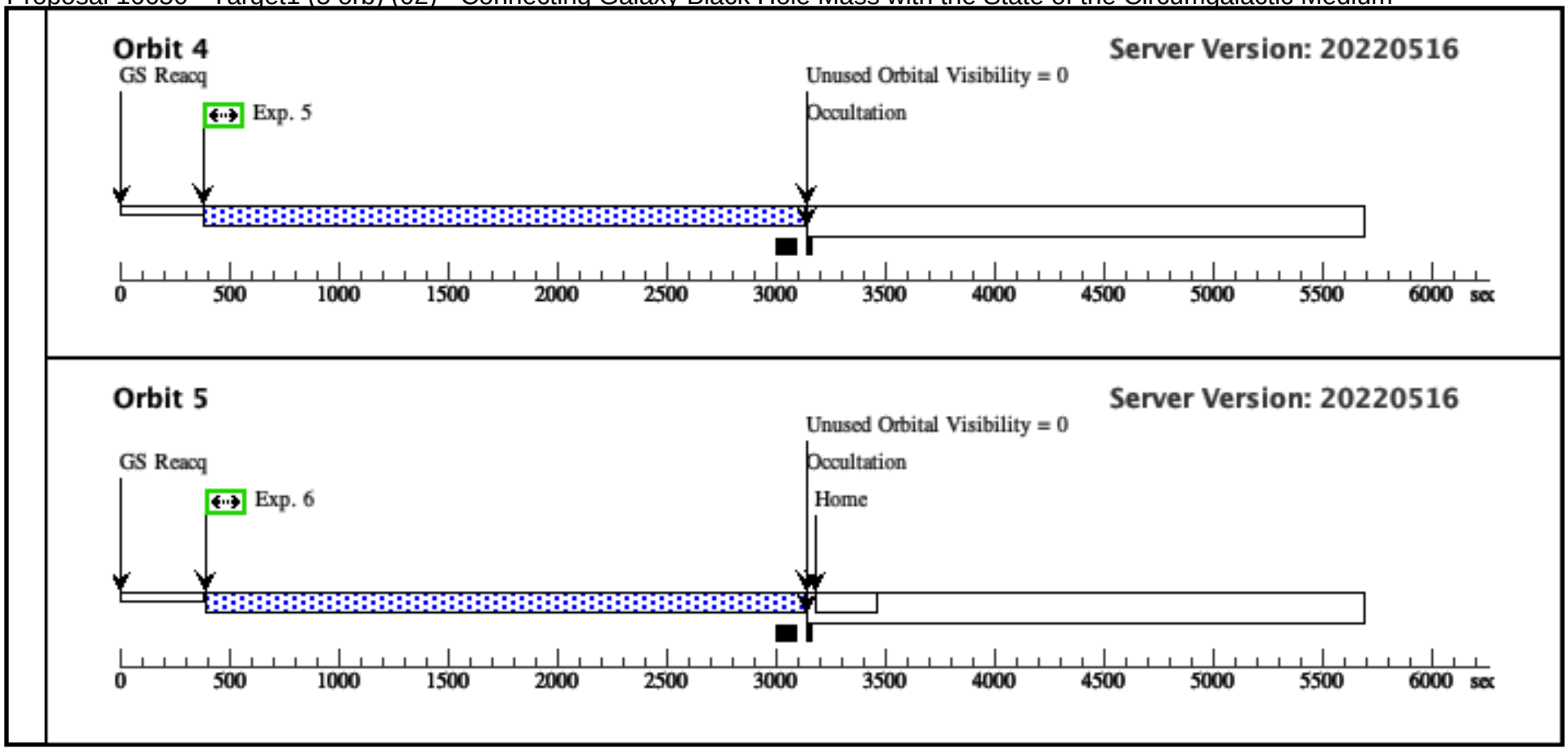
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530430)	(1) SDSS-J110139.76+142953.4	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				43 Secs (43 Secs) *[==>]*	*[1]*
2	FP2 (COS.sp.1526679)	(1) SDSS-J110139.76+142953.4	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2200; FP-POS=2; SEGMENT=BOTH			2300 Secs (2317 Secs) *[==>2317.0 Secs]*	*[1]*
Comments: other FP-POS will be in subsequent 3 orbits.									
3	FP3 (COS.sp.1527029)	(1) SDSS-J110139.76+142953.4	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2583; FP-POS=3; SEGMENT=BOTH			2600 Secs (2693 Secs) *[==>2693.0 Secs]*	*[2]*
Comments: other FP-POS will be in subsequent 2 orbits.									
4	FP3 (COS.sp.1527029)	(1) SDSS-J110139.76+142953.4	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2583; SEGMENT=BOTH; FP-POS=3			2600 Secs (2693 Secs) *[==>2693.0 Secs]*	*[3]*
Comments: other FP-POS will be in subsequent 2 orbits.									
5	FP4 (COS.sp.1527029)	(1) SDSS-J110139.76+142953.4	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2583; SEGMENT=BOTH; FP-POS=4			2600 Secs (2693 Secs) *[==>2693.0 Secs]*	*[4]*
Comments: other FP-POS will be in subsequent 2 orbits.									
6	FP4 (COS.sp.1527029)	(1) SDSS-J110139.76+142953.4	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2583; SEGMENT=BOTH; FP-POS=4			2600 Secs (2693 Secs) *[==>2693.0 Secs]*	*[5]*
Comments: other FP-POS will be in subsequent 2 orbits.									

Orbit Structure





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sec

Visit

Proposal 16650, Target2 (3 orb) (03), completed Mon Jul 25 14:00:48 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

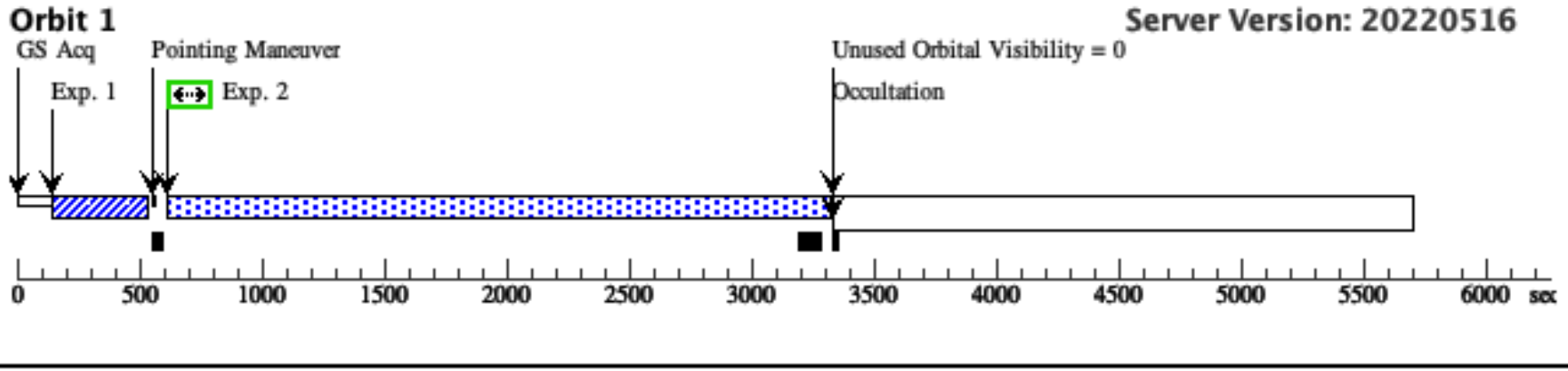
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	2MASS-J11590172+5106308	RA: 11 59 1.7232 (179.7571800d) Dec: +51 06 30.82 (51.10856d) Equinox: J2000		V=17.6 GALEX FUV = 18.72, z = 0.295	Reference Frame: ICRS

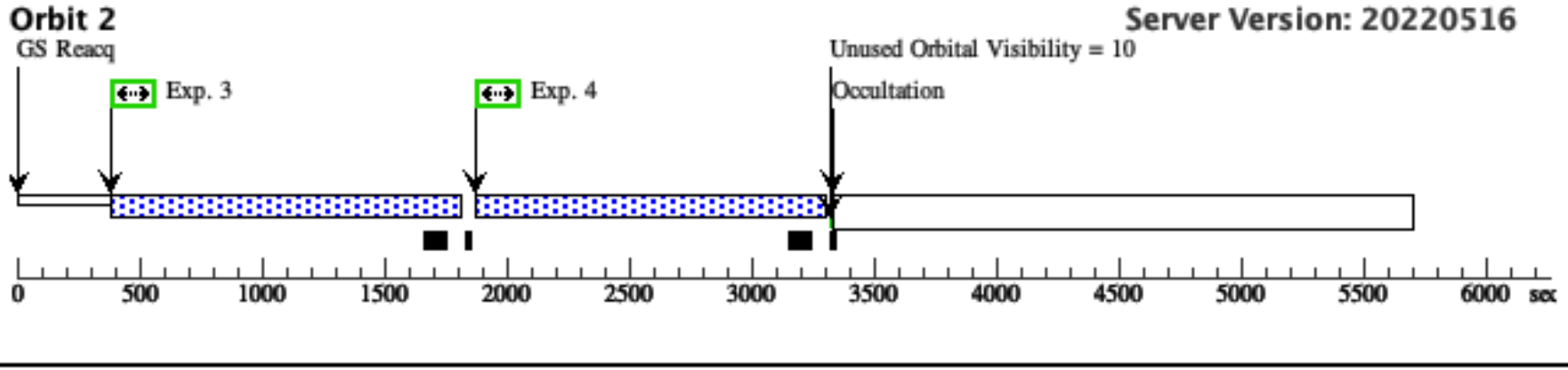
Comments: This object was generated by the targetselector and retrieved from the NED database.
NUV image/acq ETC: COS.ta.1530525 (44 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

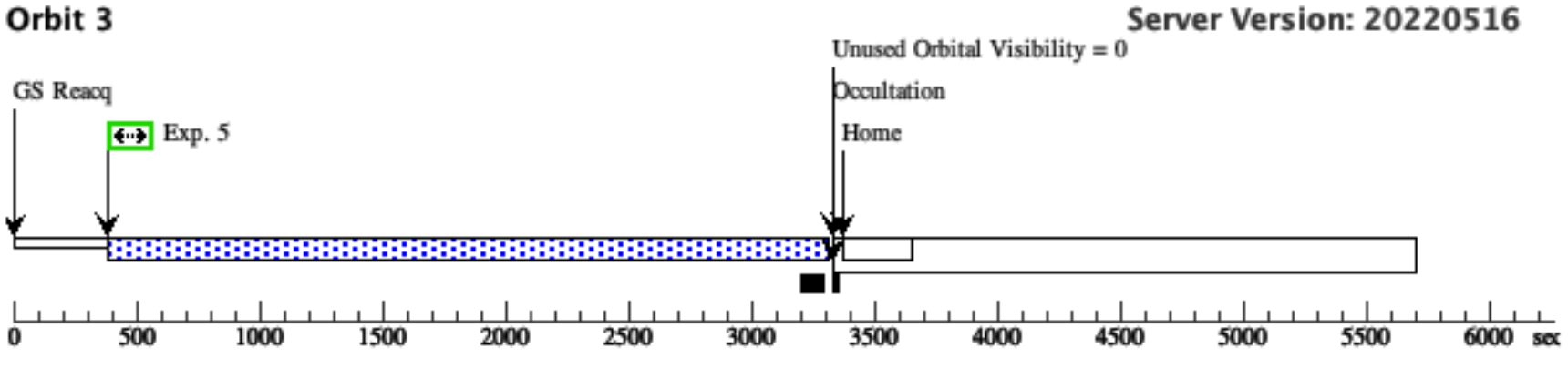
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530525)	(2) 2MASS-J11590172+5106308	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				44 Secs (44 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527038)	(2) 2MASS-J11590172+5106308	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2390; FP-POS=1; SEGMENT=BOTH			1500 Secs (2499 Secs) *[==>2499.0 Secs]*	***[1]***
	Comments: other FP-POS will be in subsequent 3 orbits.								
3	fp2 (COS.sp.1527038)	(2) 2MASS-J11590172+5106308	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1243; FP-POS=2; SEGMENT=BOTH			1300 Secs (1381 Secs) *[==>1381.0 Secs]*	***[2]***
	Comments: other FP-POS will be in subsequent 2 orbits.								
4	fp3 (COS.sp.1527038)	(2) 2MASS-J11590172+5106308	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1243; SEGMENT=BOTH; FP-POS=3			1300 Secs (1381 Secs) *[==>1381.0 Secs]*	***[2]***
	Comments: other FP-POS will be in subsequent 2 orbits.								
5	fp4 (COS.sp.1527038)	(2) 2MASS-J11590172+5106308	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2777; SEGMENT=BOTH; FP-POS=4			2400 Secs (2877 Secs) *[==>2877.0 Secs]*	***[3]***
	Comments: other FP-POS will be in subsequent 2 orbits.								

Orbit Structure







Visit

Proposal 16650, Target2 (2 orb) (04), completed Mon Jul 25 14:00:48 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

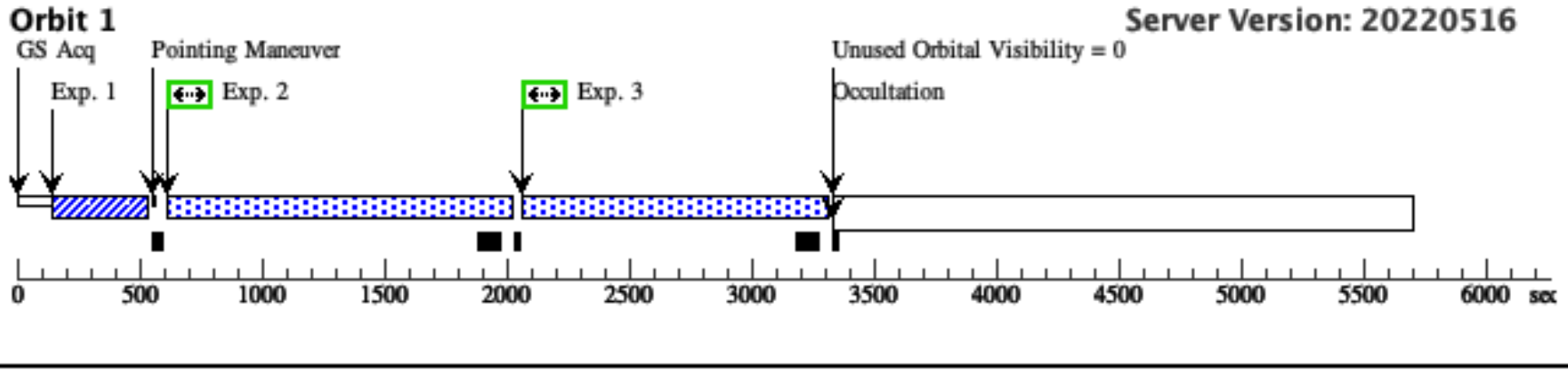
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	2MASS-J11590172+5106308	RA: 11 59 1.7232 (179.7571800d) Dec: +51 06 30.82 (51.10856d) Equinox: J2000		V=17.6 GALEX FUV = 18.72, z = 0.295	Reference Frame: ICRS

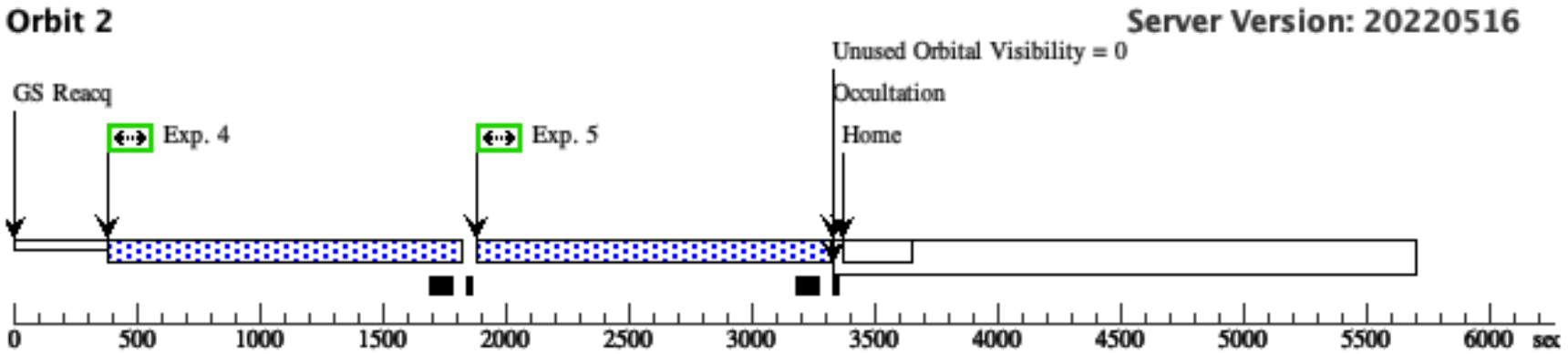
Comments: This object was generated by the targetselector and retrieved from the NED database.
NUV image/acq ETC: COS.ta.1530525 (44 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530525)	(2) 2MASS-J11590172+5106308	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				44 Secs (44 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527038)	(2) 2MASS-J11590172+5106308	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1080; FP-POS=1; SEGMENT=BOTH			800 Secs (1197 Secs) *[==>1197.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 3 orbits.									
3	fp2 (COS.sp.1527038)	(2) 2MASS-J11590172+5106308	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1080; FP-POS=2; SEGMENT=BOTH			800 Secs (1197 Secs) *[==>1197.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 2 orbits.									
4	fp3 (COS.sp.1527038)	(2) 2MASS-J11590172+5106308	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1270; SEGMENT=BOTH; FP-POS=3			1100 Secs (1386 Secs) *[==>1386.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
5	fp4 (COS.sp.1527038)	(2) 2MASS-J11590172+5106308	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1270; SEGMENT=BOTH; FP-POS=4			1100 Secs (1386 Secs) *[==>1386.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									

Orbit Structure





Visit

Proposal 16650, Target3 (3 orb) (05), scheduling Mon Jul 25 14:00:48 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

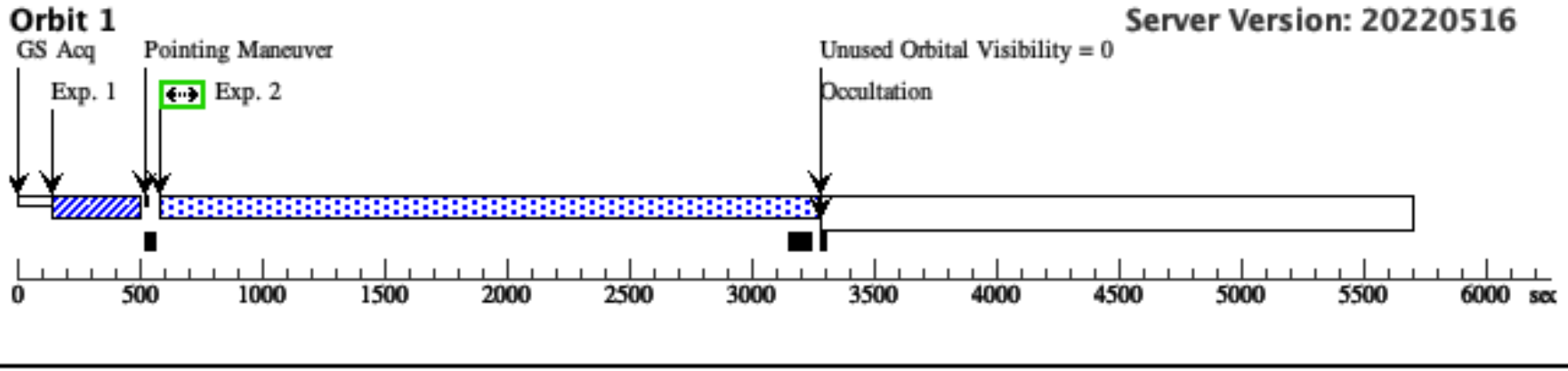
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	2MASS-J12204664+4643478	RA: 12 20 46.6176 (185.1942400d) Dec: +46 43 47.46 (46.72985d) Equinox: J2000		V=17.70 GALEX FUV = 18.82, z = 0.707	Reference Frame: ICRS

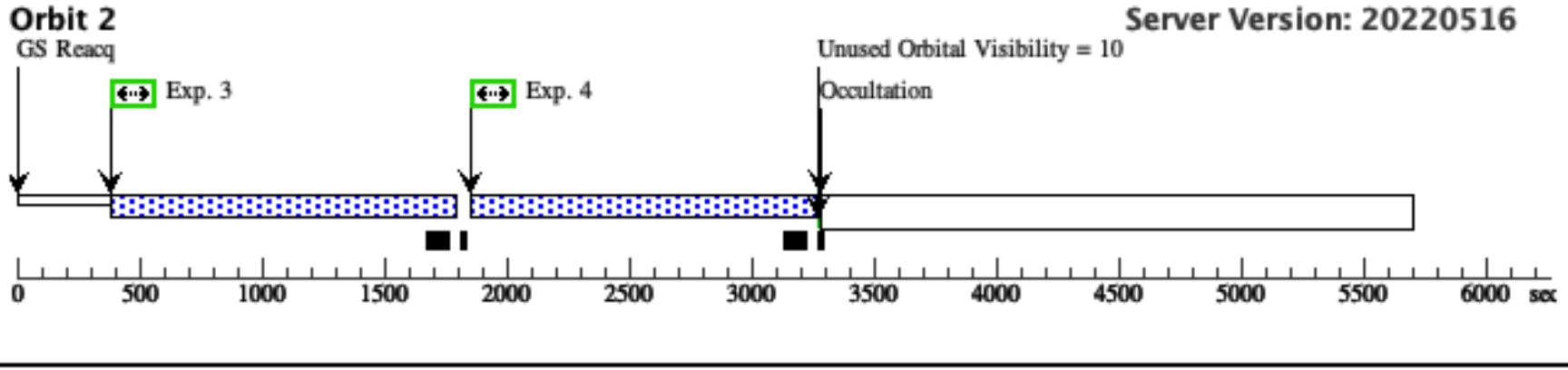
Comments: This object was generated by the targetselector and retrieved from the NED database.
acq/image ETC: COS.ta.1530528 (29 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

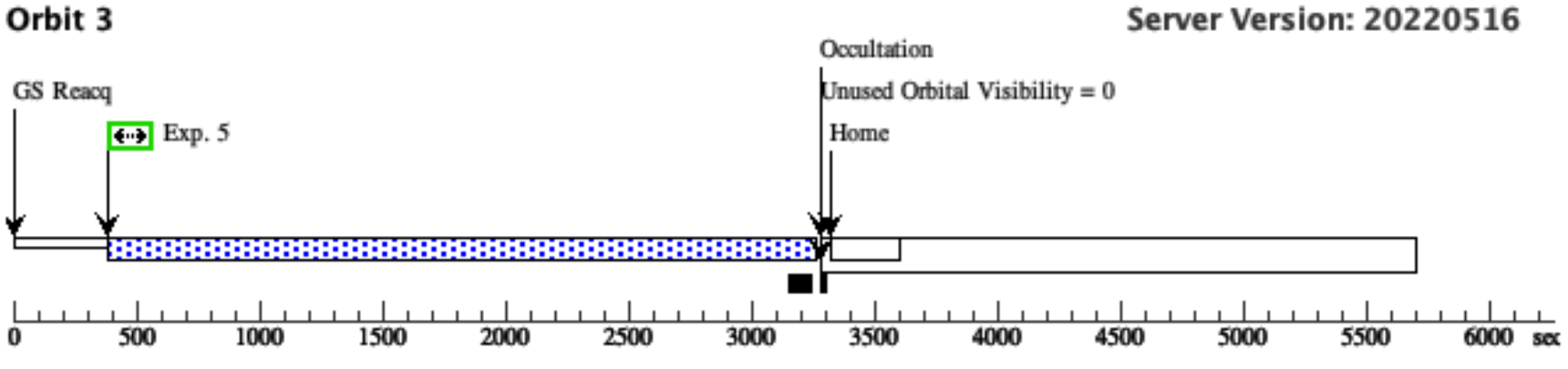
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530528)	(3) 2MASS-J12204664+4643478	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				29 Secs (29 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527131)	(3) 2MASS-J12204664+4643478	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2381; FP-POS=1; SEGMENT=BOTH			1500 Secs (2481 Secs) *[==>2481.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 3 orbits.									
3	fp2 (COS.sp.1527131)	(3) 2MASS-J12204664+4643478	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1250; FP-POS=2; SEGMENT=BOTH			1300 Secs (1357 Secs) *[==>1357.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
4	fp3 (COS.sp.1527131)	(3) 2MASS-J12204664+4643478	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1250; SEGMENT=BOTH; FP-POS=3			1300 Secs (1357 Secs) *[==>1357.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
5	fp4 (COS.sp.1527131)	(3) 2MASS-J12204664+4643478	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2729; SEGMENT=BOTH; FP-POS=4			2400 Secs (2829 Secs) *[==>2829.0 Secs]*	***[3]***
Comments: other FP-POS will be in subsequent 2 orbits.									

Orbit Structure







Visit

Proposal 16650, Target3 (2 orb) (06), completed Mon Jul 25 14:00:48 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

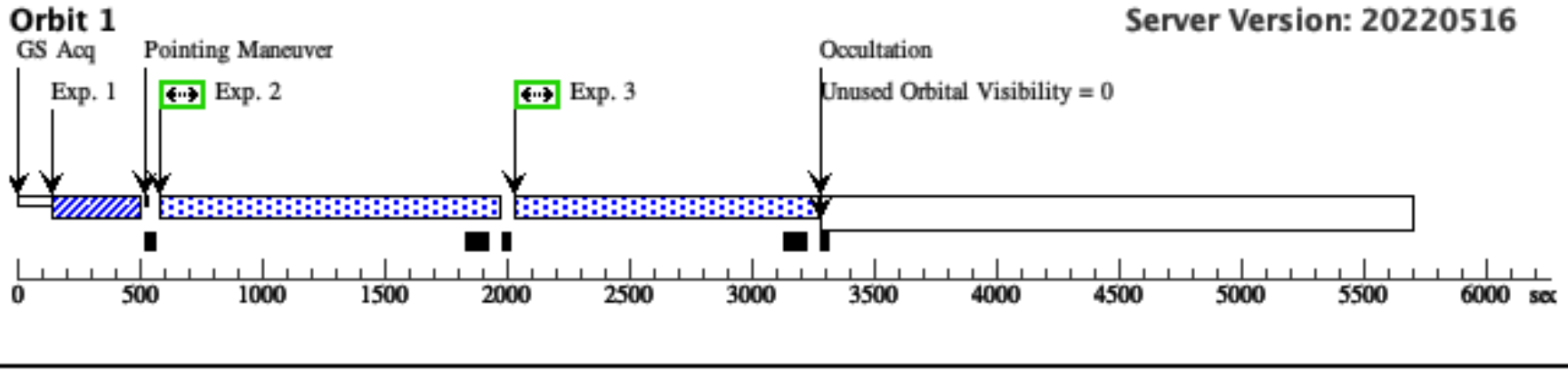
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	2MASS-J12204664+4643478	RA: 12 20 46.6176 (185.1942400d) Dec: +46 43 47.46 (46.72985d) Equinox: J2000		V=17.70 GALEX FUV = 18.82, z = 0.707	Reference Frame: ICRS

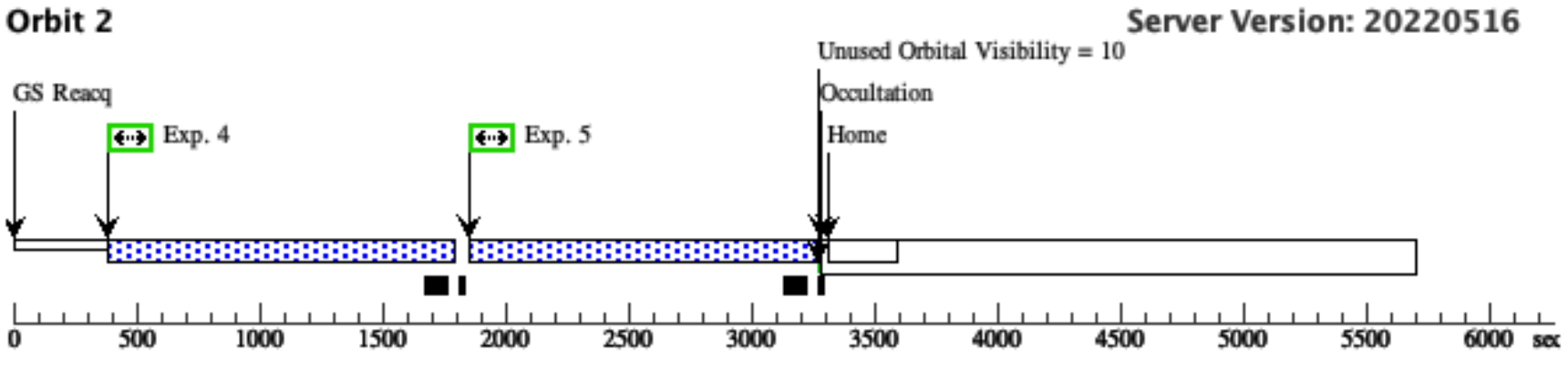
Comments: This object was generated by the targetselector and retrieved from the NED database.
acq/image ETC: COS.ta.1530528 (29 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530528)	(3) 2MASS-J12204664+4643478	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				29 Secs (29 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527131)	(3) 2MASS-J12204664+4643478	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1060; FP-POS=1; SEGMENT=BOTH			800 Secs (1183 Secs) *[==>1183.0 Secs]*	***[1]***
	Comments: other FP-POS will be in subsequent 3 orbits.								
3	fp2 (COS.sp.1527131)	(3) 2MASS-J12204664+4643478	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1060; FP-POS=2; SEGMENT=BOTH			800 Secs (1183 Secs) *[==>1183.0 Secs]*	***[1]***
	Comments: other FP-POS will be in subsequent 2 orbits.								
4	fp3 (COS.sp.1527131)	(3) 2MASS-J12204664+4643478	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1250; SEGMENT=BOTH; FP-POS=3			1100 Secs (1357 Secs) *[==>1357.0 Secs]*	***[2]***
	Comments: other FP-POS will be in subsequent 2 orbits.								
5	fp4 (COS.sp.1527131)	(3) 2MASS-J12204664+4643478	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1250; SEGMENT=BOTH; FP-POS=4			1100 Secs (1357 Secs) *[==>1357.0 Secs]*	***[2]***
	Comments: other FP-POS will be in subsequent 2 orbits.								

Orbit Structure





Visit

Proposal 16650, Target3 (2 orb) (07), scheduling Mon Jul 25 14:00:48 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

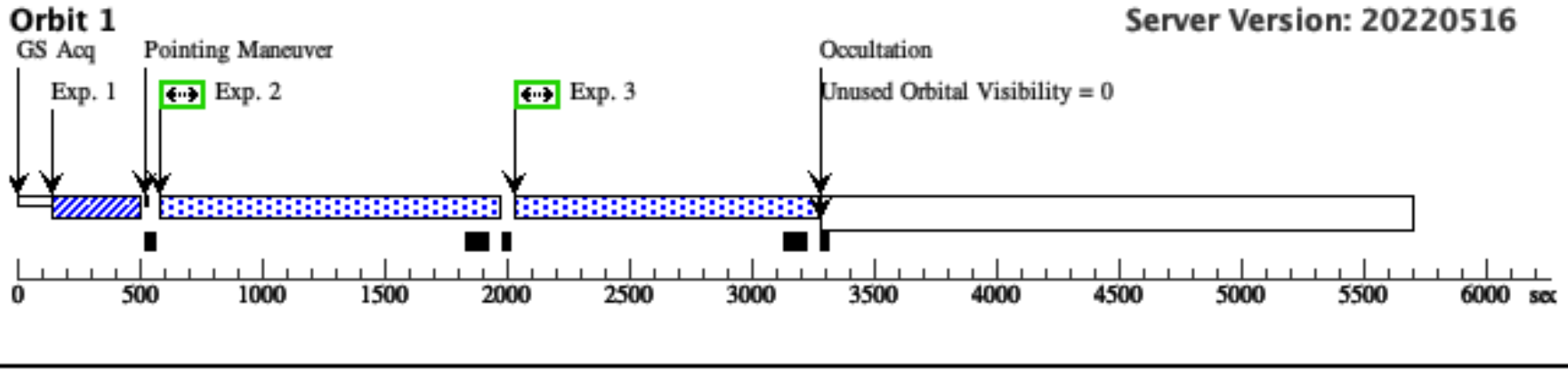
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	2MASS-J12204664+4643478	RA: 12 20 46.6176 (185.1942400d) Dec: +46 43 47.46 (46.72985d) Equinox: J2000		V=17.70 GALEX FUV = 18.82, z = 0.707	Reference Frame: ICRS

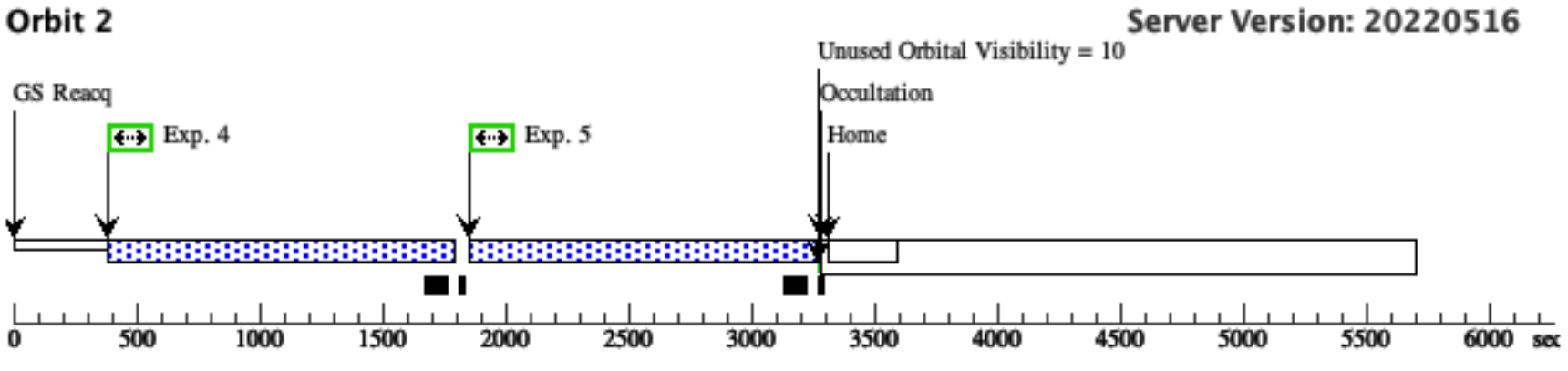
Comments: This object was generated by the targetselector and retrieved from the NED database.
acq/image ETC: COS.ta.1530528 (29 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530528)	(3) 2MASS-J12204664+4643478	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				29 Secs (29 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527131)	(3) 2MASS-J12204664+4643478	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1060; FP-POS=1; SEGMENT=BOTH			800 Secs (1183 Secs) *[==>1183.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 3 orbits.									
3	fp2 (COS.sp.1527131)	(3) 2MASS-J12204664+4643478	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1060; FP-POS=2; SEGMENT=BOTH			800 Secs (1183 Secs) *[==>1183.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 2 orbits.									
4	fp3 (COS.sp.1527131)	(3) 2MASS-J12204664+4643478	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1250; SEGMENT=BOTH; FP-POS=3			1100 Secs (1357 Secs) *[==>1357.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
5	fp4 (COS.sp.1527131)	(3) 2MASS-J12204664+4643478	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1250; SEGMENT=BOTH; FP-POS=4			1100 Secs (1357 Secs) *[==>1357.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									

Orbit Structure





Visit

Proposal 16650, Target4 (2 orb) (08), scheduling Mon Jul 25 14:00:48 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

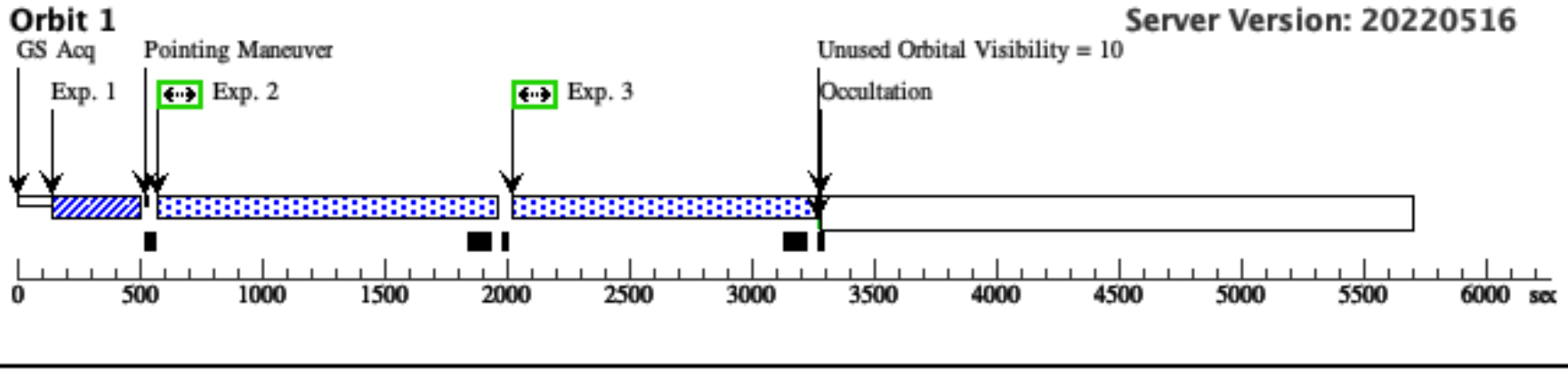
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	UVQSJ122208.10+461250.1	RA: 12 22 8.1000 (185.5337500d) Dec: +46 12 50.14 (46.21393d) Equinox: J2000	Redshift: 0.111	V=16.6 GALEX FUV = 18.30, z = 0.111	Reference Frame: ICRS

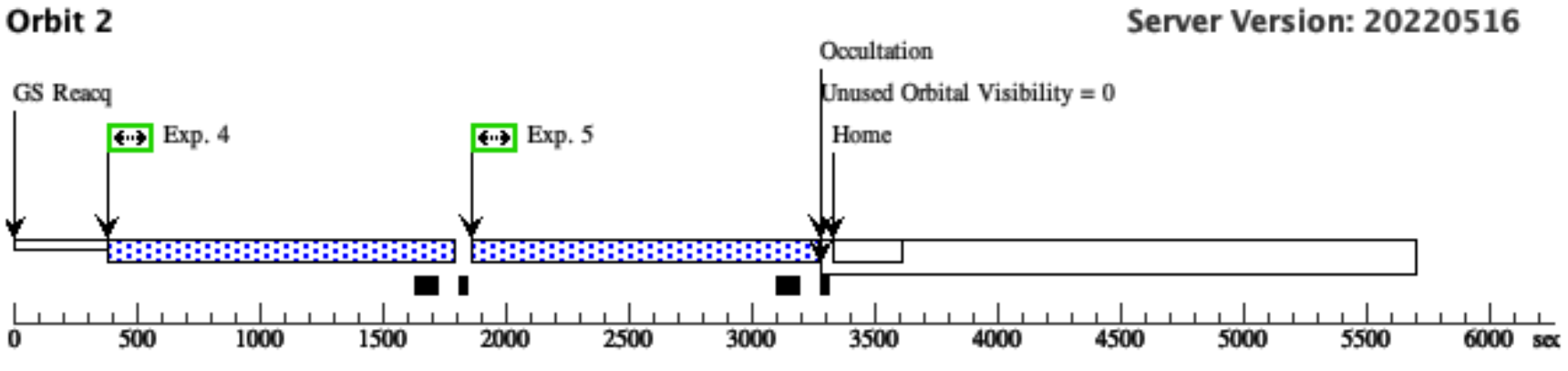
Comments: acq ETC: COS.ta.1530531 (28 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530531)	(4) UVQSJ122208.10+461250.1	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				28 Secs (28 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527136)	(4) UVQSJ122208.10+461250.1	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1070; FP-POS=1; SEGMENT=BOTH			800 Secs (1184 Secs) *[==>1184.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 3 orbits.									
3	fp2 (COS.sp.1527136)	(4) UVQSJ122208.10+461250.1	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1070; FP-POS=2; SEGMENT=BOTH			800 Secs (1184 Secs) *[==>1184.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 2 orbits.									
4	fp3 (COS.sp.1527136)	(4) UVQSJ122208.10+461250.1	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1210; SEGMENT=BOTH; FP-POS=3			1100 Secs (1357 Secs) *[==>1357.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
5	fp4 (COS.sp.1527136)	(4) UVQSJ122208.10+461250.1	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1210; SEGMENT=BOTH; FP-POS=4			1100 Secs (1357 Secs) *[==>1357.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									

Orbit Structure





Visit

Proposal 16650, Target4 (2 orb) (09), scheduling Mon Jul 25 14:00:49 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

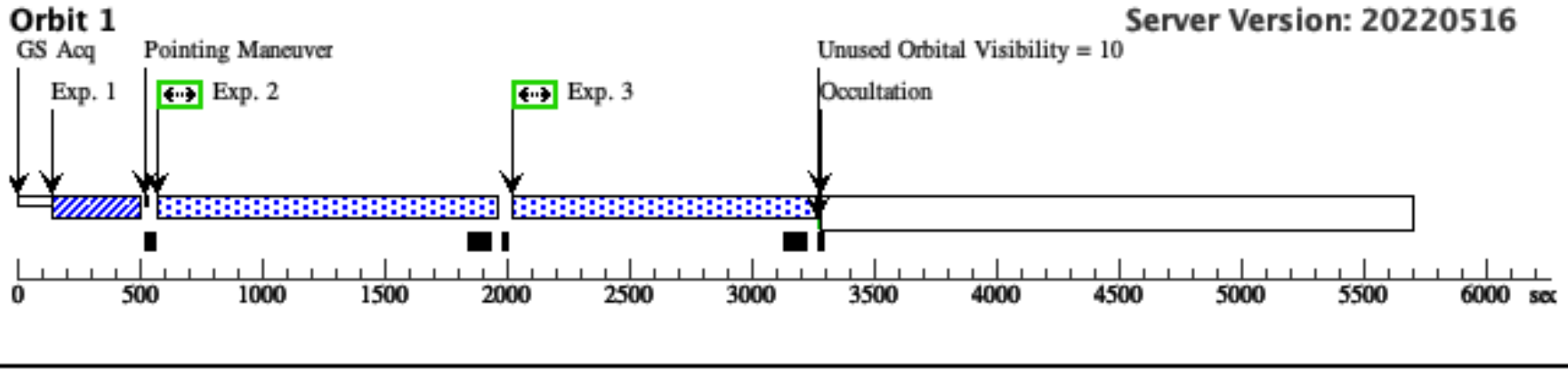
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	UVQSJ122208.10+461250.1	RA: 12 22 8.1000 (185.5337500d) Dec: +46 12 50.14 (46.21393d) Equinox: J2000	Redshift: 0.111	V=16.6 GALEX FUV = 18.30, z = 0.111	Reference Frame: ICRS

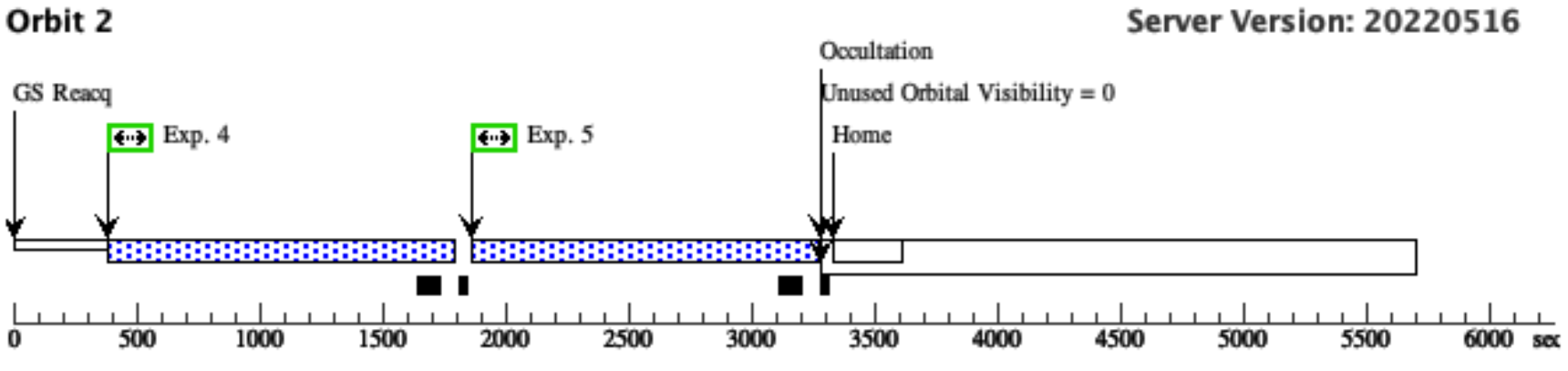
Comments: acq ETC: COS.ta.1530531 (28 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530531)	(4) UVQSJ122208.10+461250.1	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				28 Secs (28 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527136)	(4) UVQSJ122208.10+461250.1	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1070; FP-POS=1; SEGMENT=BOTH			800 Secs (1184 Secs) *[==>1184.0 Secs]*	***[1]***
	Comments: other FP-POS will be in subsequent 3 orbits.								
3	fp2 (COS.sp.1527136)	(4) UVQSJ122208.10+461250.1	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1070; FP-POS=2; SEGMENT=BOTH			800 Secs (1184 Secs) *[==>1184.0 Secs]*	***[1]***
	Comments: other FP-POS will be in subsequent 2 orbits.								
4	fp3 (COS.sp.1527136)	(4) UVQSJ122208.10+461250.1	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1219; SEGMENT=BOTH; FP-POS=3			1100 Secs (1357 Secs) *[==>1357.0 Secs]*	***[2]***
	Comments: other FP-POS will be in subsequent 2 orbits.								
5	fp4 (COS.sp.1527136)	(4) UVQSJ122208.10+461250.1	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1219; SEGMENT=BOTH; FP-POS=4			1100 Secs (1357 Secs) *[==>1357.0 Secs]*	***[2]***
	Comments: other FP-POS will be in subsequent 2 orbits.								

Orbit Structure





Visit

Proposal 16650, Target5 (3 orb) (10), scheduling Mon Jul 25 14:00:49 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

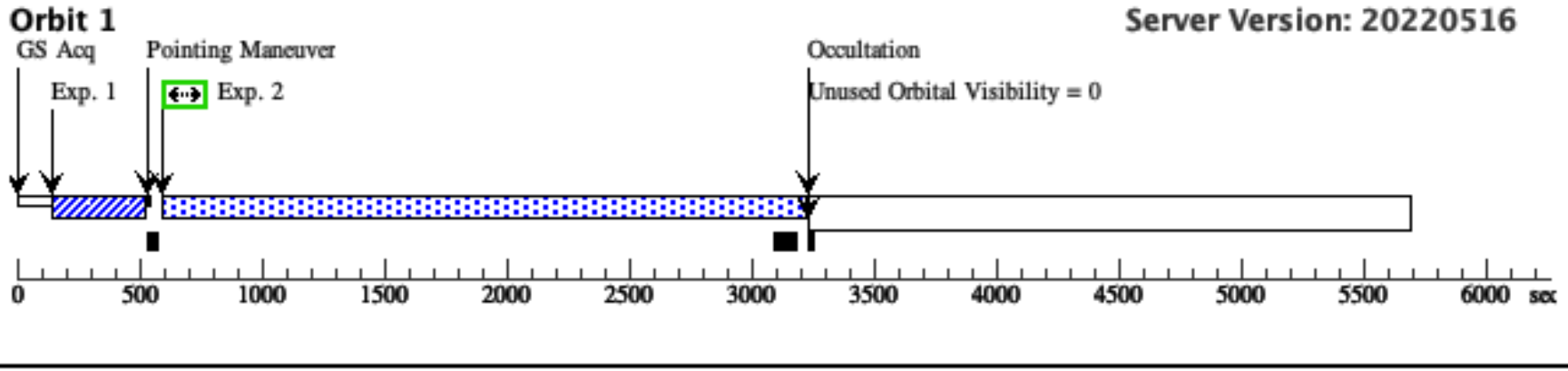
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	2MASS-J12493903+4122440	RA: 12 49 39.0648 (192.4127700d) Dec: +41 22 43.57 (41.37877d) Equinox: J2000		V=17.8 GALEX FUV = 18.62, z = 0.368	Reference Frame: ICRS

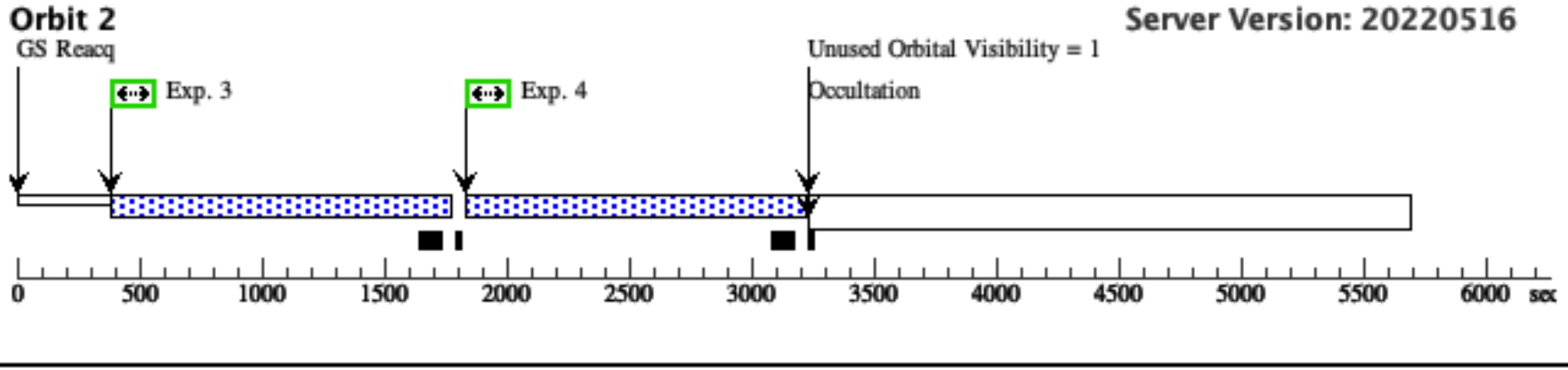
Comments: This object was generated by the targetselector and retrieved from the NED database.
acq ETC:COS.ta.1530532 (36 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

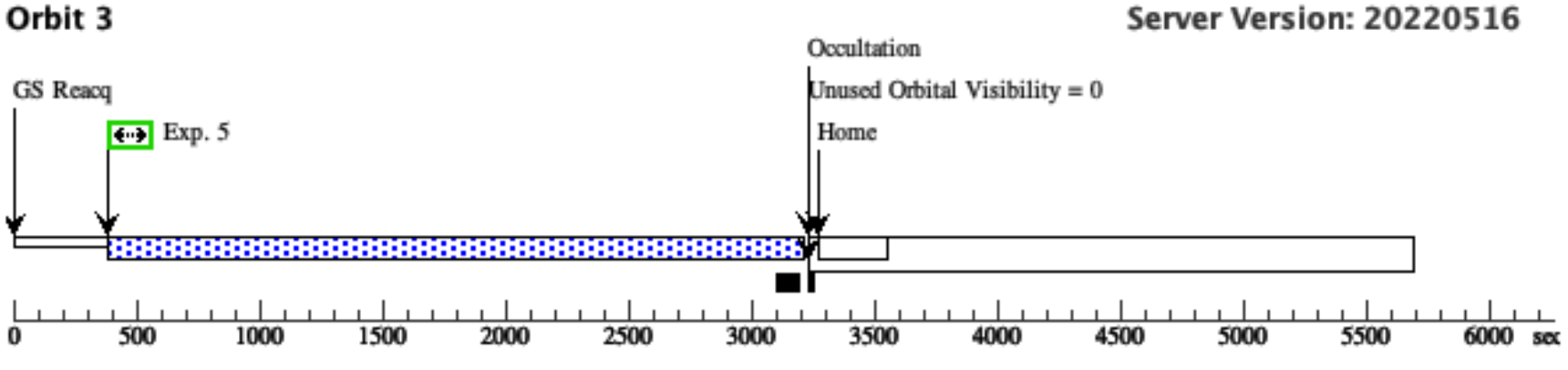
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530532)	(5) 2MASS-J12493903+4122440	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				36 Secs (36 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527306)	(5) 2MASS-J12493903+4122440	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2310; FP-POS=1; SEGMENT=BOTH			1400 Secs (2420 Secs) *[==>2420.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 3 orbits.									
3	fp2 (COS.sp.1527306)	(5) 2MASS-J12493903+4122440	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1220; FP-POS=2; SEGMENT=BOTH			1200 Secs (1338 Secs) *[==>1338.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
4	fp3 (COS.sp.1527306)	(5) 2MASS-J12493903+4122440	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1220; SEGMENT=BOTH; FP-POS=3			1200 Secs (1338 Secs) *[==>1338.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
5	fp4 (COS.sp.1527306)	(5) 2MASS-J12493903+4122440	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2682; SEGMENT=BOTH; FP-POS=4			2400 Secs (2782 Secs) *[==>2782.0 Secs]*	***[3]***
Comments: other FP-POS will be in subsequent 2 orbits.									

Orbit Structure







Visit

Proposal 16650, Target5 (2 orb) (11), scheduling Mon Jul 25 14:00:49 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

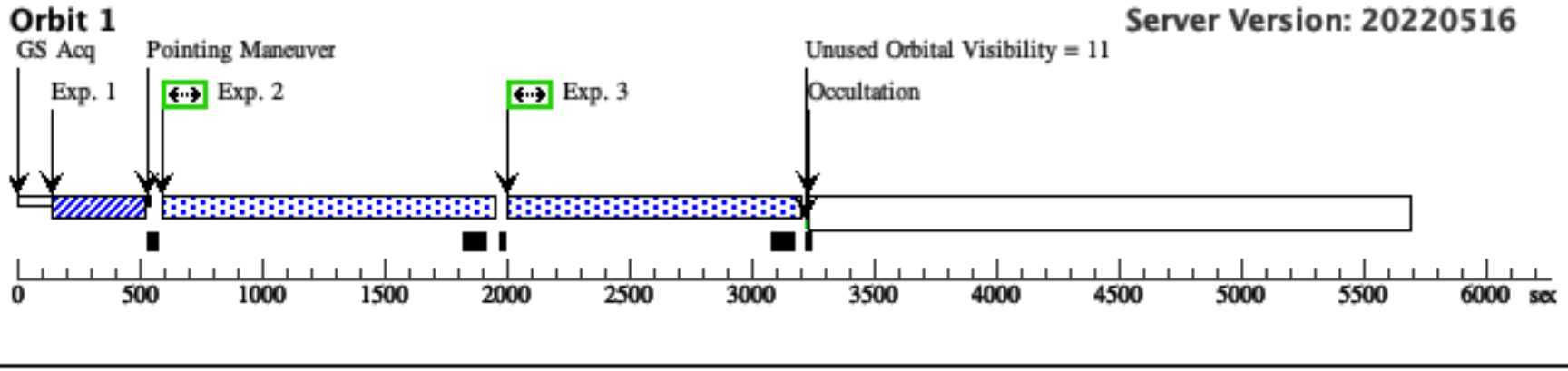
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	2MASS-J12493903+4122440	RA: 12 49 39.0648 (192.4127700d) Dec: +41 22 43.57 (41.37877d) Equinox: J2000		V=17.8 GALEX FUV = 18.62, z = 0.368	Reference Frame: ICRS

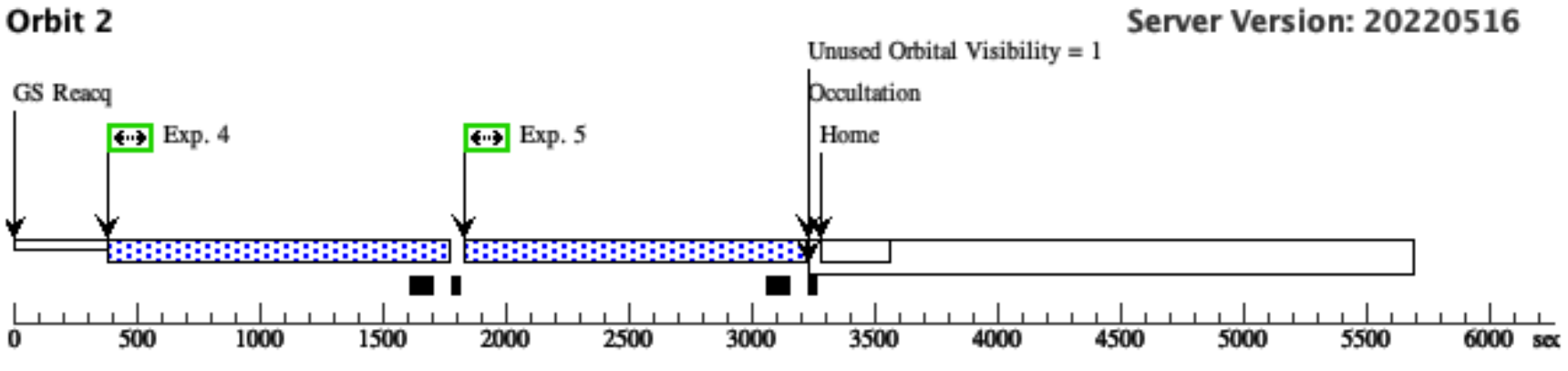
Comments: This object was generated by the targetselector and retrieved from the NED database.
acq ETC:COS.ta.1530532 (36 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530532)	(5) 2MASS-J12493903+4122440	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				36 Secs (36 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527306)	(5) 2MASS-J12493903+4122440	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1040; FP-POS=1; SEGMENT=BOTH			800 Secs (1152 Secs) *[==>1152.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 3 orbits.									
3	fp2 (COS.sp.1527306)	(5) 2MASS-J12493903+4122440	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1040; FP-POS=2; SEGMENT=BOTH			800 Secs (1152 Secs) *[==>1152.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 2 orbits.									
4	fp3 (COS.sp.1527306)	(5) 2MASS-J12493903+4122440	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1190; SEGMENT=BOTH; FP-POS=3			1100 Secs (1333 Secs) *[==>1333.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
5	fp4 (COS.sp.1527306)	(5) 2MASS-J12493903+4122440	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1190; SEGMENT=BOTH; FP-POS=4			1100 Secs (1333 Secs) *[==>1333.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									

Orbit Structure





Visit

Proposal 16650, Target5 (2 orb) (12), completed Mon Jul 25 14:00:49 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

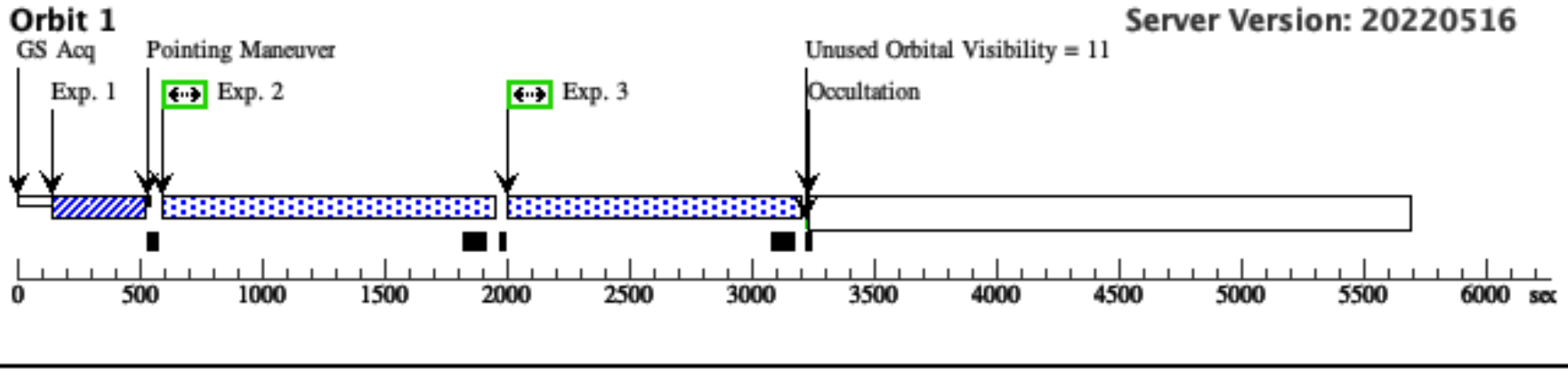
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	2MASS-J12493903+4122440	RA: 12 49 39.0648 (192.4127700d) Dec: +41 22 43.57 (41.37877d) Equinox: J2000		V=17.8 GALEX FUV = 18.62, z = 0.368	Reference Frame: ICRS

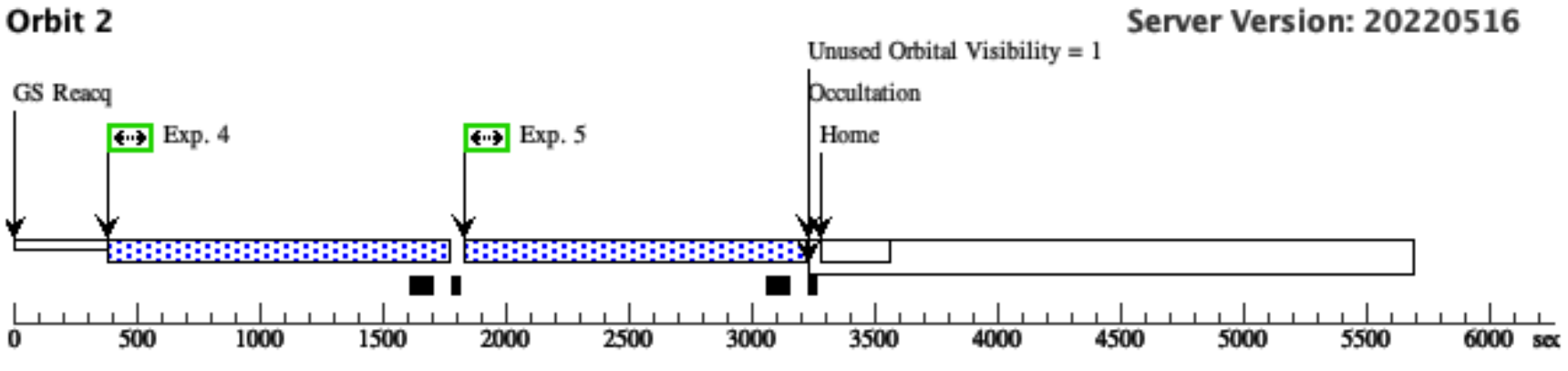
Comments: This object was generated by the targetselector and retrieved from the NED database.
acq ETC:COS.ta.1530532 (36 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530532)	(5) 2MASS-J12493903+4122440	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				36 Secs (36 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527306)	(5) 2MASS-J12493903+4122440	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1040; FP-POS=1; SEGMENT=BOTH			800 Secs (1152 Secs) *[==>1152.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 3 orbits.									
3	fp2 (COS.sp.1527306)	(5) 2MASS-J12493903+4122440	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1040; FP-POS=2; SEGMENT=BOTH			800 Secs (1152 Secs) *[==>1152.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 2 orbits.									
4	fp3 (COS.sp.1527306)	(5) 2MASS-J12493903+4122440	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1190; SEGMENT=BOTH; FP-POS=3			1100 Secs (1333 Secs) *[==>1333.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
5	fp4 (COS.sp.1527306)	(5) 2MASS-J12493903+4122440	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1190; SEGMENT=BOTH; FP-POS=4			1100 Secs (1333 Secs) *[==>1333.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									

Orbit Structure





Visit

Proposal 16650, Target6 (2 orb) (13), completed Mon Jul 25 14:00:49 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

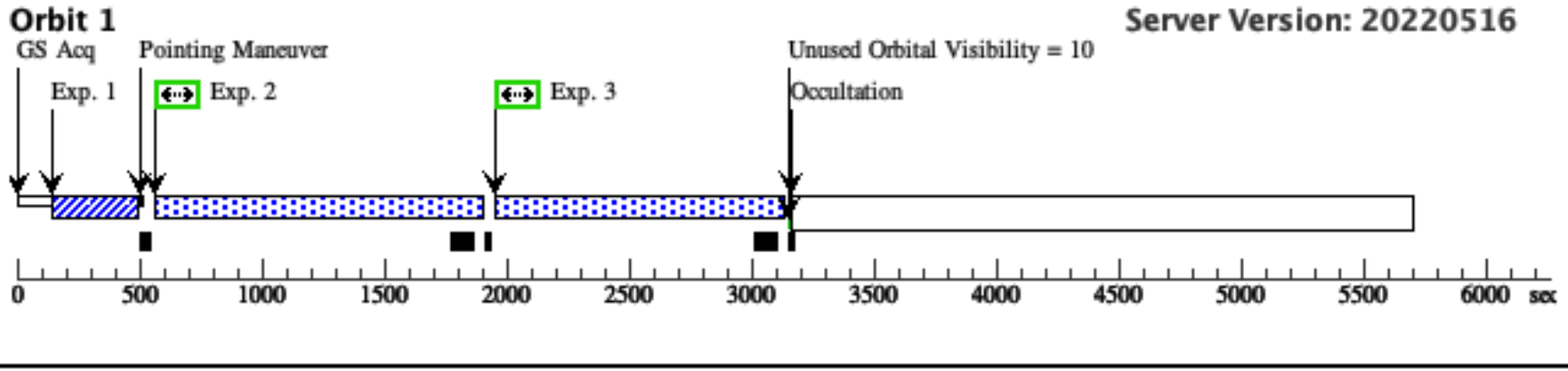
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	2MASS-J10511576+2805271	RA: 10 51 15.7548 (162.8156450d) Dec: +28 05 27.07 (28.09085d) Equinox: J2000	Redshift: 0.423	V=17.51 GALEX FUV = 18.20, z =0.423	Reference Frame: ICRS

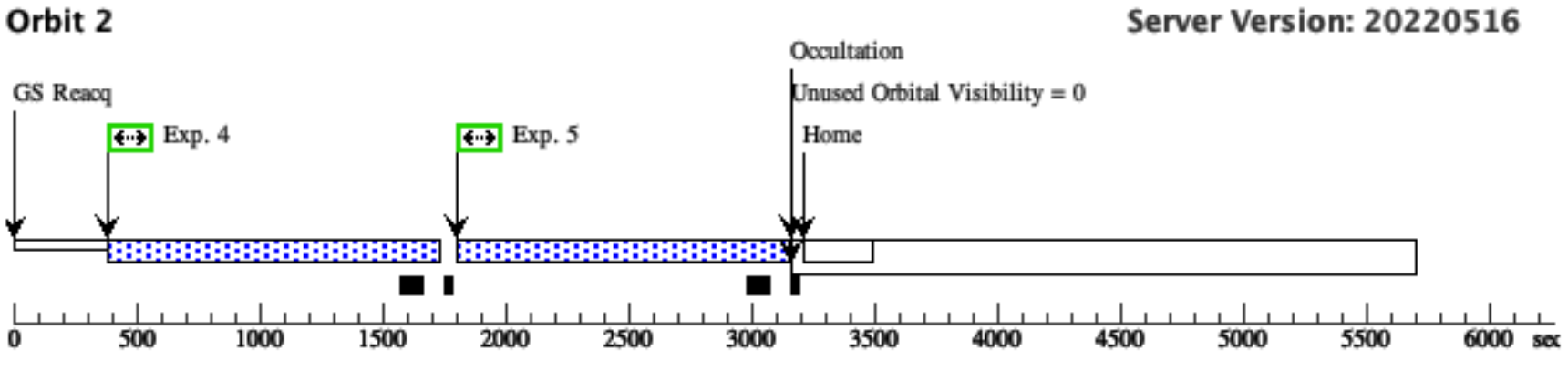
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
acq ETC: COS.ta.1530534 (21 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530534)	(6) 2MASS-J10511576+2805271	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				21 Secs (21 Secs) *[==>]*	 ***[1]***
2	fp1 (COS.sp.1527309)	(6) 2MASS-J10511576+2805271	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1020; FP-POS=1; SEGMENT=BOTH			800 Secs (1131 Secs) *[==>1131.0 Secs]*	 ***[1]***
Comments: other FP-POS will be in subsequent 3 orbits.									
3	fp2 (COS.sp.1527309)	(6) 2MASS-J10511576+2805271	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1020; FP-POS=2; SEGMENT=BOTH			800 Secs (1131 Secs) *[==>1131.0 Secs]*	 ***[1]***
Comments: other FP-POS will be in subsequent 2 orbits.									
4	fp3 (COS.sp.1527309)	(6) 2MASS-J10511576+2805271	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1150; SEGMENT=BOTH; FP-POS=3			1100 Secs (1297 Secs) *[==>1297.0 Secs]*	 ***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
5	fp4 (COS.sp.1527309)	(6) 2MASS-J10511576+2805271	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1150; SEGMENT=BOTH; FP-POS=4			1100 Secs (1297 Secs) *[==>1297.0 Secs]*	 ***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									

Orbit Structure





Visit

Proposal 16650, Target6 (2 orb) (14), completed Mon Jul 25 14:00:49 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

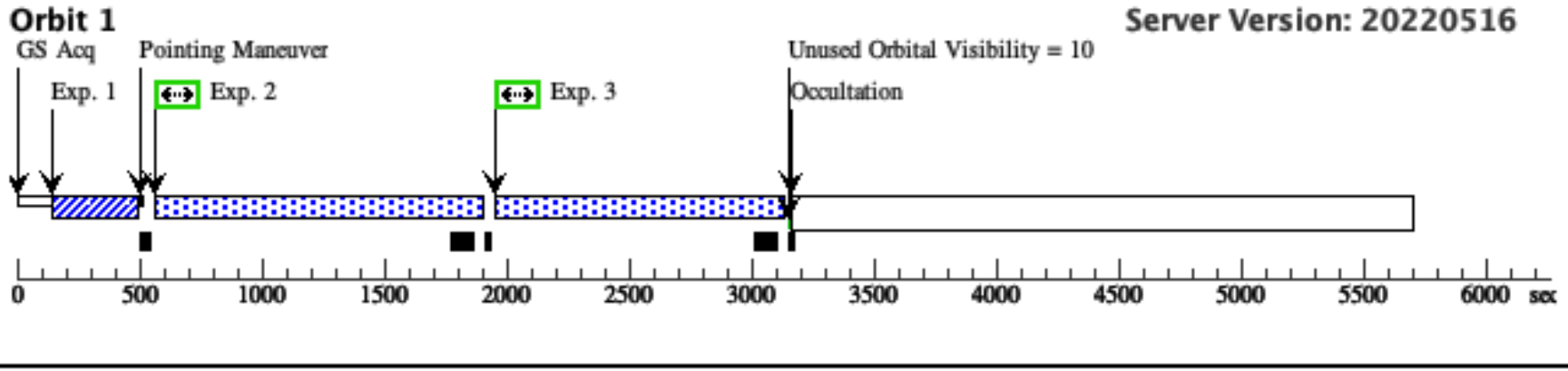
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	2MASS-J10511576+2805271	RA: 10 51 15.7548 (162.8156450d) Dec: +28 05 27.07 (28.09085d) Equinox: J2000	Redshift: 0.423	V=17.51 GALEX FUV = 18.20, z =0.423	Reference Frame: ICRS

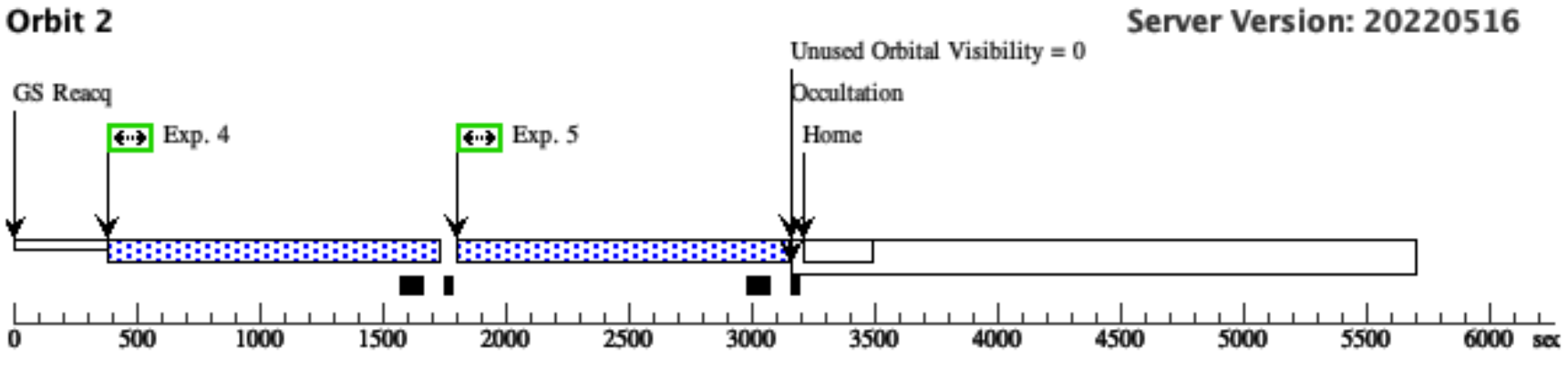
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
acq ETC: COS.ta.1530534 (21 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530534)	(6) 2MASS-J10511576+2805271	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				21 Secs (21 Secs) *[==>]*	 ***[1]***
2	fp1 (COS.sp.1527309)	(6) 2MASS-J10511576+2805271	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1020; FP-POS=1; SEGMENT=BOTH			800 Secs (1131 Secs) *[==>1131.0 Secs]*	 ***[1]***
Comments: other FP-POS will be in subsequent 3 orbits.									
3	fp2 (COS.sp.1527309)	(6) 2MASS-J10511576+2805271	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1020; FP-POS=2; SEGMENT=BOTH			800 Secs (1131 Secs) *[==>1131.0 Secs]*	 ***[1]***
Comments: other FP-POS will be in subsequent 2 orbits.									
4	fp3 (COS.sp.1527309)	(6) 2MASS-J10511576+2805271	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1150; SEGMENT=BOTH; FP-POS=3			1100 Secs (1297 Secs) *[==>1297.0 Secs]*	 ***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
5	fp4 (COS.sp.1527309)	(6) 2MASS-J10511576+2805271	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1150; SEGMENT=BOTH; FP-POS=4			1100 Secs (1297 Secs) *[==>1297.0 Secs]*	 ***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									

Orbit Structure





Visit

Proposal 16650, Target7 (3 orb) (15), completed Mon Jul 25 14:00:49 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

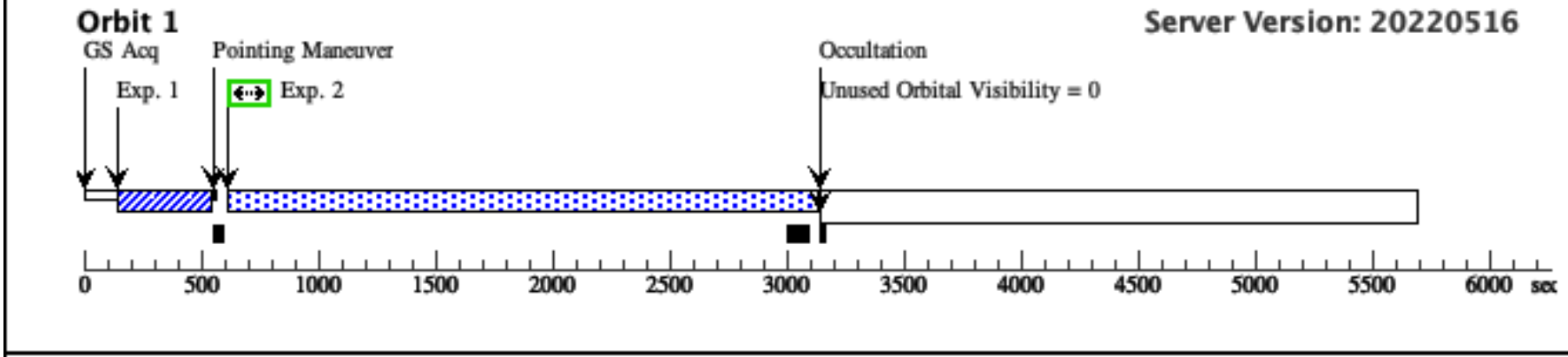
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	2MASS-J11230490+1257482	RA: 11 23 4.9176 (170.7704900d) Dec: +12 57 48.06 (12.96335d) Equinox: J2000	Redshift: 0.315	V=18.1 GALEX FUV = 18.76, z = 0.315	Reference Frame: ICRS

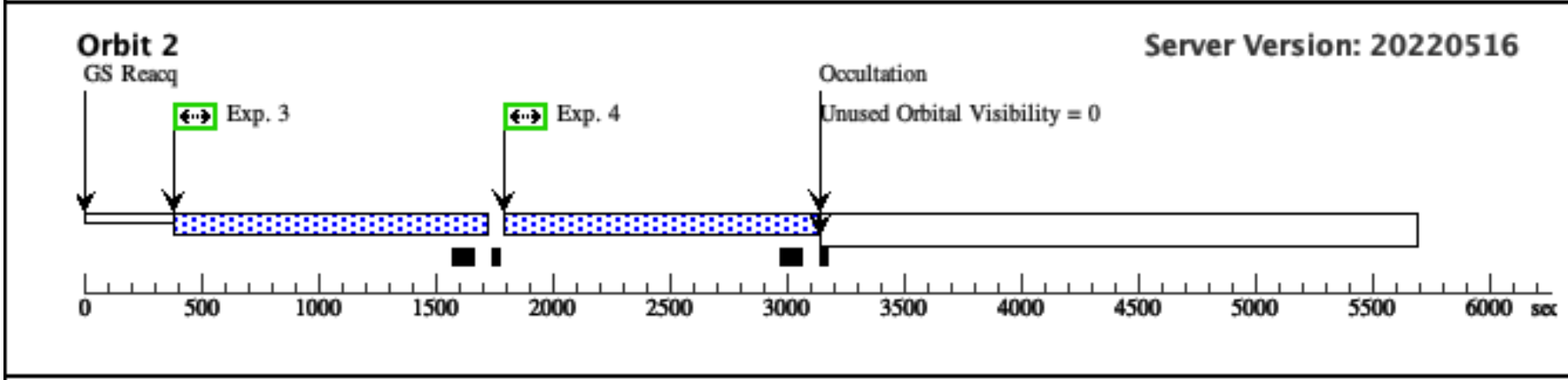
Comments: This object was generated by the targetselector and retrieved from the NED database.
acq ETC: COS.ta.1530535 (45 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

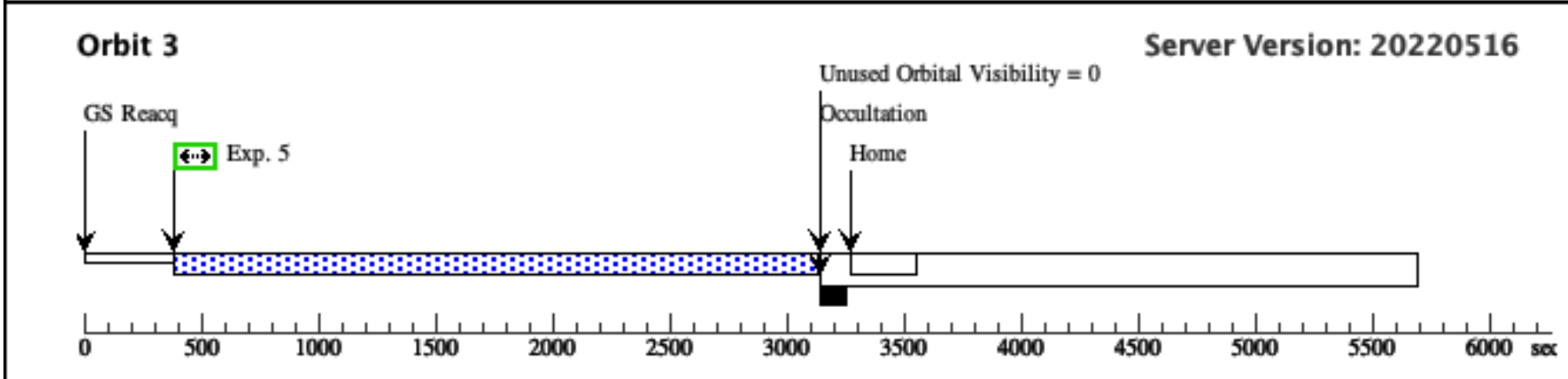
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530535)	(7) 2MASS-J11230490+1257482	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				45 Secs (45 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527314)	(7) 2MASS-J11230490+1257482	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2200; FP-POS=1; SEGMENT=BOTH			1400 Secs (2313 Secs) *[==>2313.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 3 orbits.									
3	fp2 (COS.sp.1527314)	(7) 2MASS-J11230490+1257482	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1150; FP-POS=2; SEGMENT=BOTH			1200 Secs (1289 Secs) *[==>1289.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
4	fp3 (COS.sp.1527314)	(7) 2MASS-J11230490+1257482	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1150; SEGMENT=BOTH; FP-POS=3			1200 Secs (1289 Secs) *[==>1289.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
5	fp4 (COS.sp.1527314)	(7) 2MASS-J11230490+1257482	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2682; SEGMENT=BOTH; FP-POS=4			2400 Secs (2693 Secs) *[==>2693.0 Secs]*	***[3]***
Comments: other FP-POS will be in subsequent 2 orbits.									

Orbit Structure







Visit

Proposal 16650, Target7 (2 orb) (16), completed Mon Jul 25 14:00:49 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

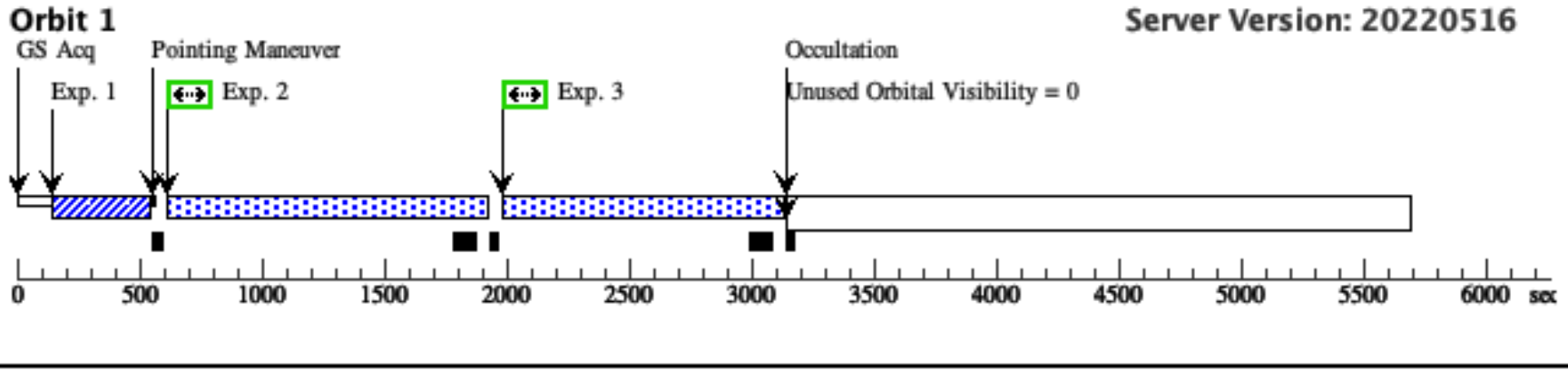
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	2MASS-J11230490+1257482	RA: 11 23 4.9176 (170.7704900d) Dec: +12 57 48.06 (12.96335d) Equinox: J2000	Redshift: 0.315	V=18.1 GALEX FUV = 18.76, z = 0.315	Reference Frame: ICRS

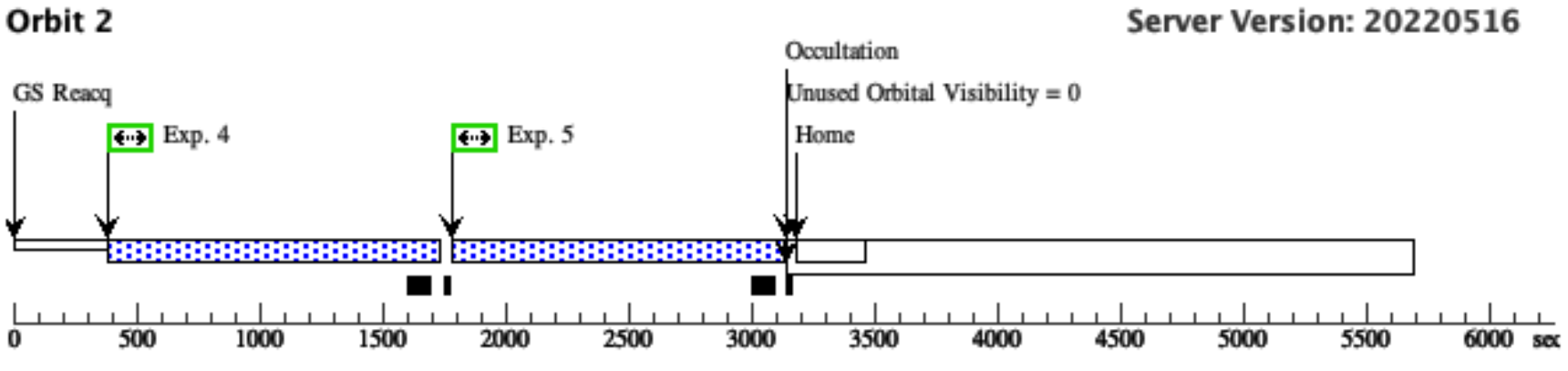
Comments: This object was generated by the targetselector and retrieved from the NED database.
acq ETC: COS.ta.1530535 (45 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530535)	(7) 2MASS-J11230490+1257482	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				45 Secs (45 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527314)	(7) 2MASS-J11230490+1257482	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=9800; FP-POS=1; SEGMENT=BOTH			800 Secs (1099 Secs) *[==>1099.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 3 orbits.									
3	fp2 (COS.sp.1527314)	(7) 2MASS-J11230490+1257482	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=9800; FP-POS=2; SEGMENT=BOTH			800 Secs (1099 Secs) *[==>1099.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 2 orbits.									
4	fp3 (COS.sp.1527314)	(7) 2MASS-J11230490+1257482	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1180; SEGMENT=BOTH; FP-POS=3			1100 Secs (1294 Secs) *[==>1294.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
5	fp4 (COS.sp.1527314)	(7) 2MASS-J11230490+1257482	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1180; SEGMENT=BOTH; FP-POS=4			1100 Secs (1294 Secs) *[==>1294.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									

Orbit Structure





Visit

Proposal 16650, Target7 (2 orb) (17), completed Mon Jul 25 14:00:49 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

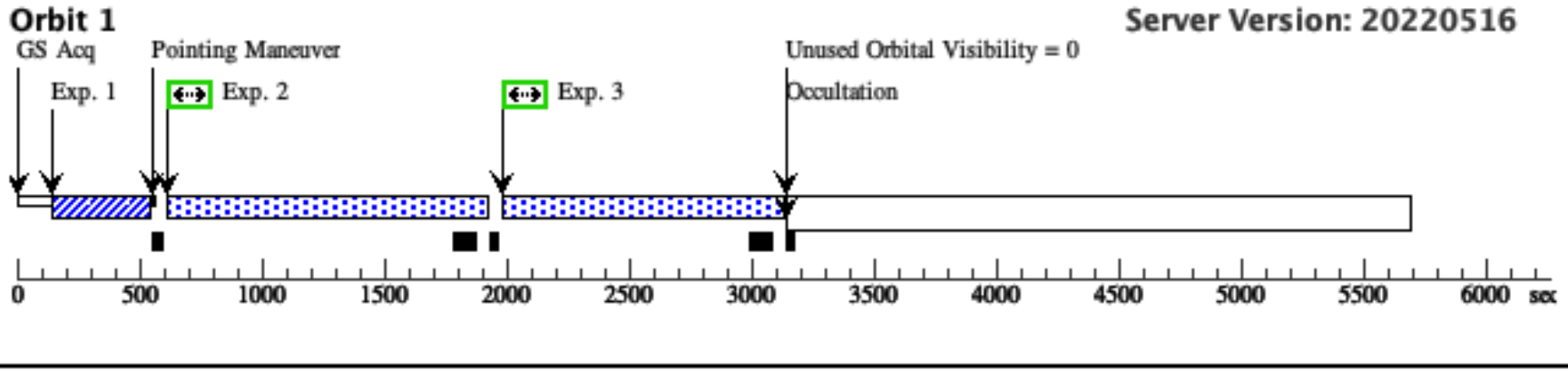
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	2MASS-J11230490+1257482	RA: 11 23 4.9176 (170.7704900d) Dec: +12 57 48.06 (12.96335d) Equinox: J2000	Redshift: 0.315	V=18.1 GALEX FUV = 18.76, z = 0.315	Reference Frame: ICRS

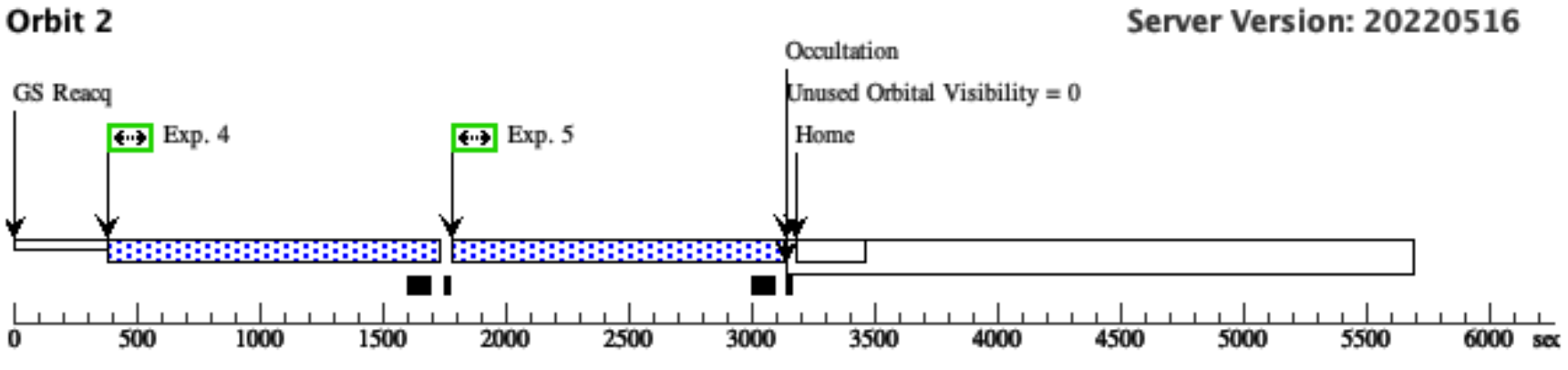
Comments: This object was generated by the targetselector and retrieved from the NED database.
acq ETC: COS.ta.1530535 (45 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530535)	(7) 2MASS-J11230490+1257482	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				45 Secs (45 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527314)	(7) 2MASS-J11230490+1257482	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=9800; FP-POS=1; SEGMENT=BOTH			800 Secs (1099 Secs) *[==>1099.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 3 orbits.									
3	fp2 (COS.sp.1527314)	(7) 2MASS-J11230490+1257482	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=9800; FP-POS=2; SEGMENT=BOTH			800 Secs (1099 Secs) *[==>1099.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 2 orbits.									
4	fp3 (COS.sp.1527314)	(7) 2MASS-J11230490+1257482	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1180; SEGMENT=BOTH; FP-POS=3			1100 Secs (1294 Secs) *[==>1294.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
5	fp4 (COS.sp.1527314)	(7) 2MASS-J11230490+1257482	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1180; SEGMENT=BOTH; FP-POS=4			1100 Secs (1294 Secs) *[==>1294.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									

Orbit Structure





Visit

Proposal 16650, Target8 (3 orb) (18), completed Mon Jul 25 14:00:49 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

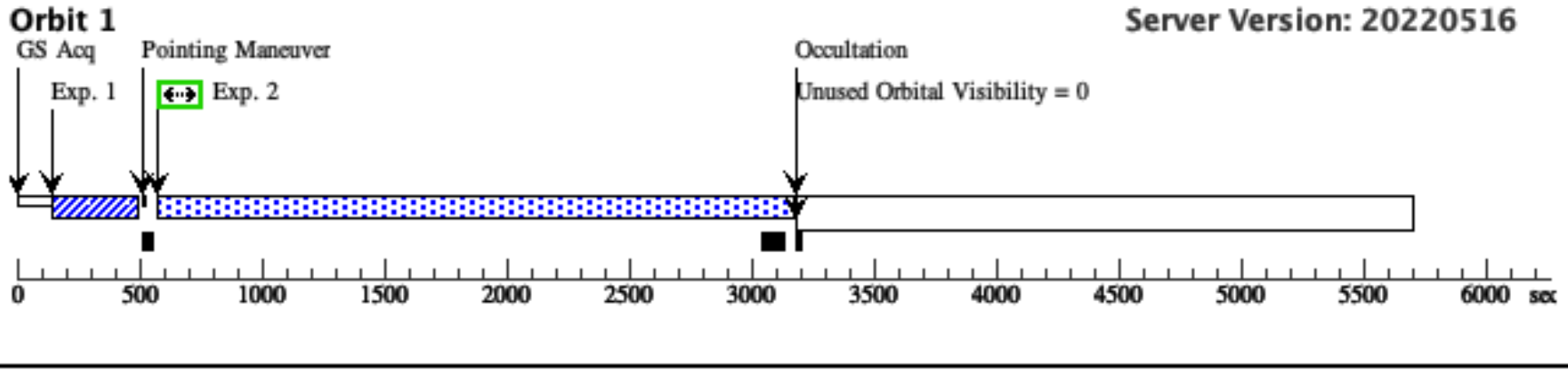
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	UVQSJ024649.87-300741.5	RA: 02 46 49.8700 (41.7077917d) Dec: -30 07 41.50 (-30.12819d) Equinox: J2000		V=18.3 GALEX FUV = 18.46, z = 0.524	Reference Frame: ICRS

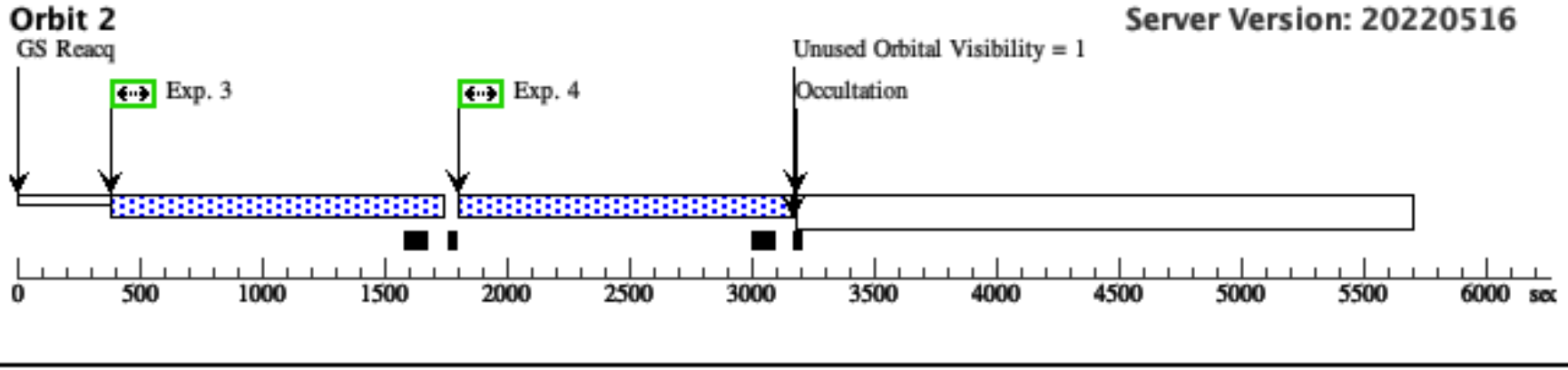
Comments: acq ETC: COS.ta.1530536 (24 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

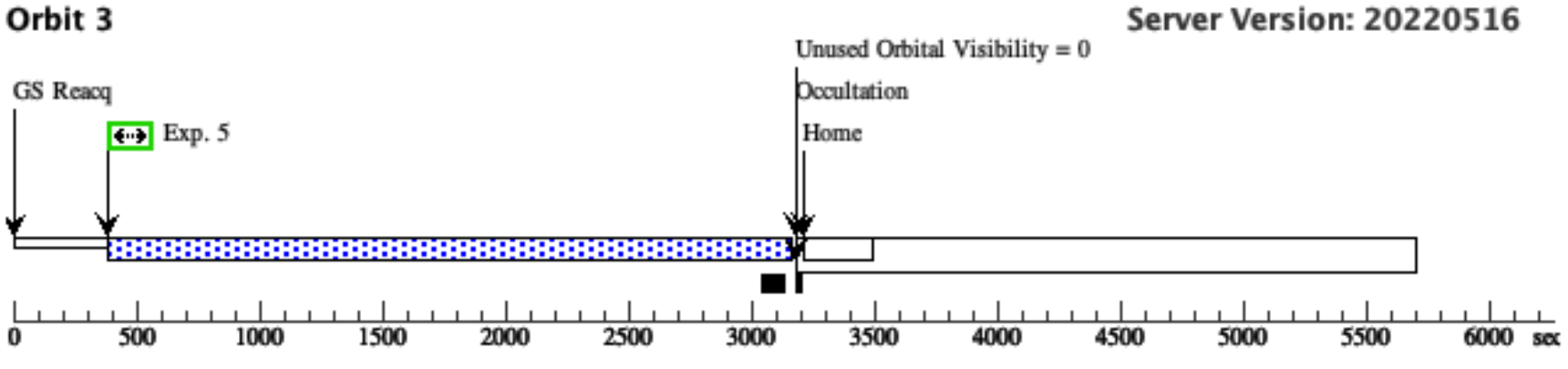
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530536)	(8) UVQSJ024649.87-300741.5	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				24 Secs (24 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527317)	(8) UVQSJ024649.87-300741.5	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2280; FP-POS=1; SEGMENT=BOTH			1400 Secs (2386 Secs) *[==>2386.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 3 orbits.									
3	fp2 (COS.sp.1527317)	(8) UVQSJ024649.87-300741.5	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1160; FP-POS=2; SEGMENT=BOTH			1200 Secs (1304 Secs) *[==>1304.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
4	fp3 (COS.sp.1527317)	(8) UVQSJ024649.87-300741.5	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1160; SEGMENT=BOTH; FP-POS=3			1200 Secs (1304 Secs) *[==>1304.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
5	fp4 (COS.sp.1527317)	(8) UVQSJ024649.87-300741.5	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2624; SEGMENT=BOTH; FP-POS=4			2400 Secs (2724 Secs) *[==>2724.0 Secs]*	***[3]***
Comments: other FP-POS will be in subsequent 2 orbits.									

Orbit Structure







Visit

Proposal 16650, Target8 (2 orb) (19), failed Mon Jul 25 14:00:49 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

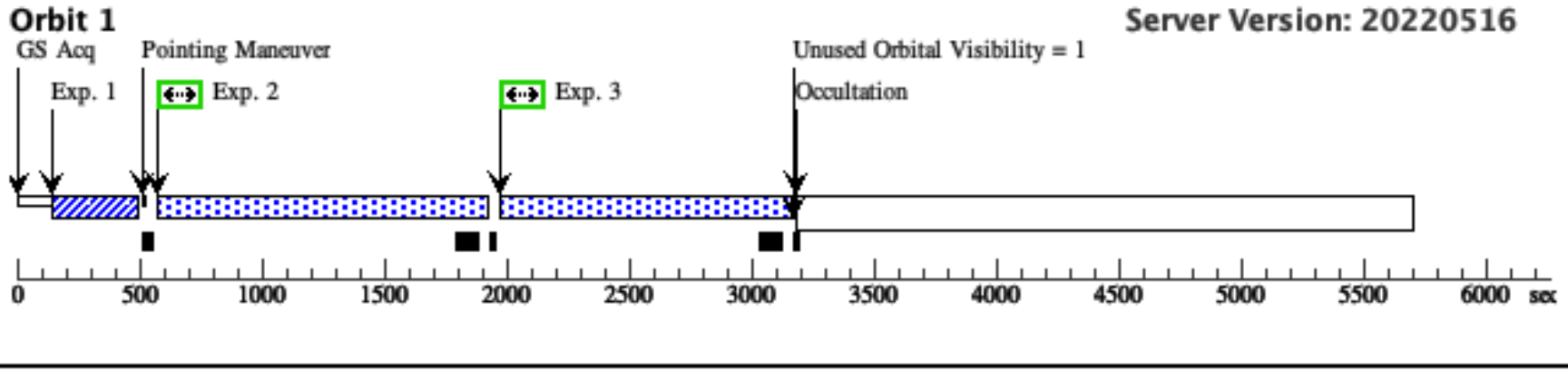
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	UVQSJ024649.87-300741.5	RA: 02 46 49.8700 (41.7077917d) Dec: -30 07 41.50 (-30.12819d) Equinox: J2000		V=18.3 GALEX FUV = 18.46, z = 0.524	Reference Frame: ICRS

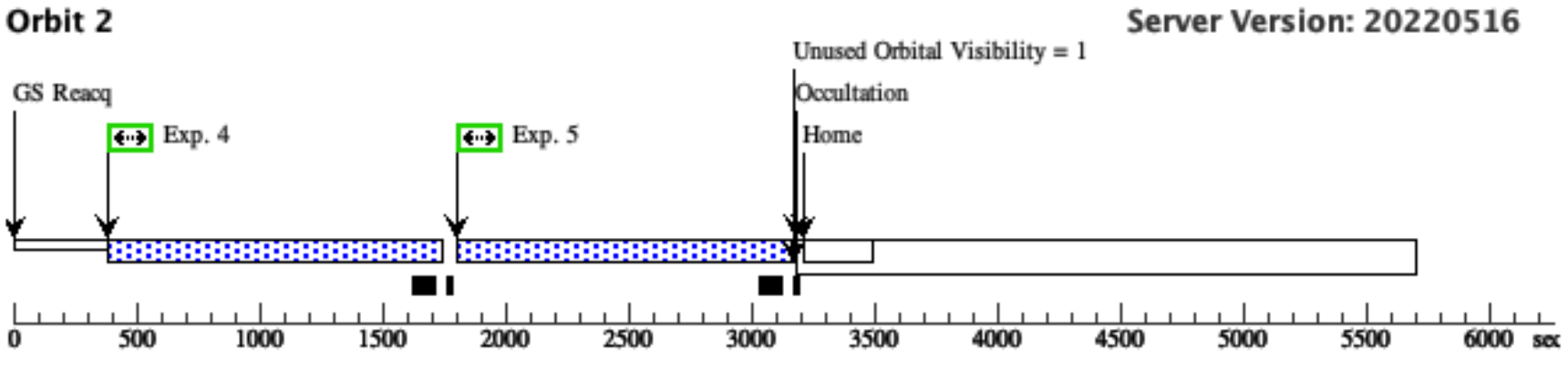
Comments: acq ETC: COS.ta.1530536 (24 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530536)	(8) UVQSJ024649.87-300741.5	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				24 Secs (24 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527317)	(8) UVQSJ024649.87-300741.5	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1030; FP-POS=1; SEGMENT=BOTH			800 Secs (1140 Secs) *[==>1140.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 3 orbits.									
3	fp2 (COS.sp.1527317)	(8) UVQSJ024649.87-300741.5	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1030; FP-POS=2; SEGMENT=BOTH			800 Secs (1140 Secs) *[==>1140.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 2 orbits.									
4	fp3 (COS.sp.1527317)	(8) UVQSJ024649.87-300741.5	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1200; SEGMENT=BOTH; FP-POS=3			1100 Secs (1309 Secs) *[==>1309.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
5	fp4 (COS.sp.1527317)	(8) UVQSJ024649.87-300741.5	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1200; SEGMENT=BOTH; FP-POS=4			1100 Secs (1309 Secs) *[==>1309.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									

Orbit Structure





Visit

Proposal 16650, Target8 (2 orb) (Z9), implementation Mon Jul 25 14:00:49 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: This is a HOPR repeat of failed visit 19

Fixed Targets

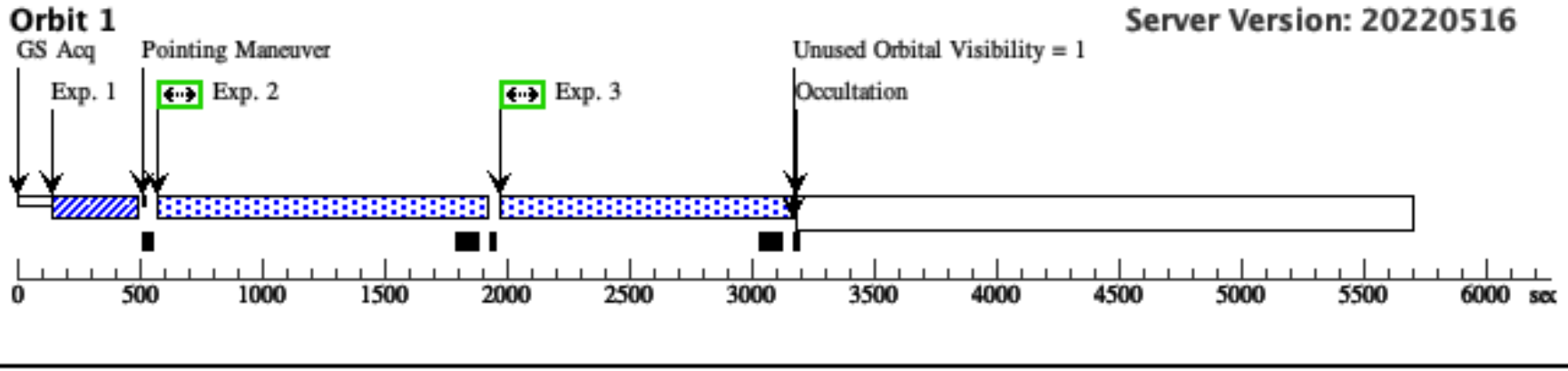
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	UVQSJ024649.87-300741.5	RA: 02 46 49.8700 (41.7077917d) Dec: -30 07 41.50 (-30.12819d) Equinox: J2000		V=18.3 GALEX FUV = 18.46, z = 0.524	Reference Frame: ICRS

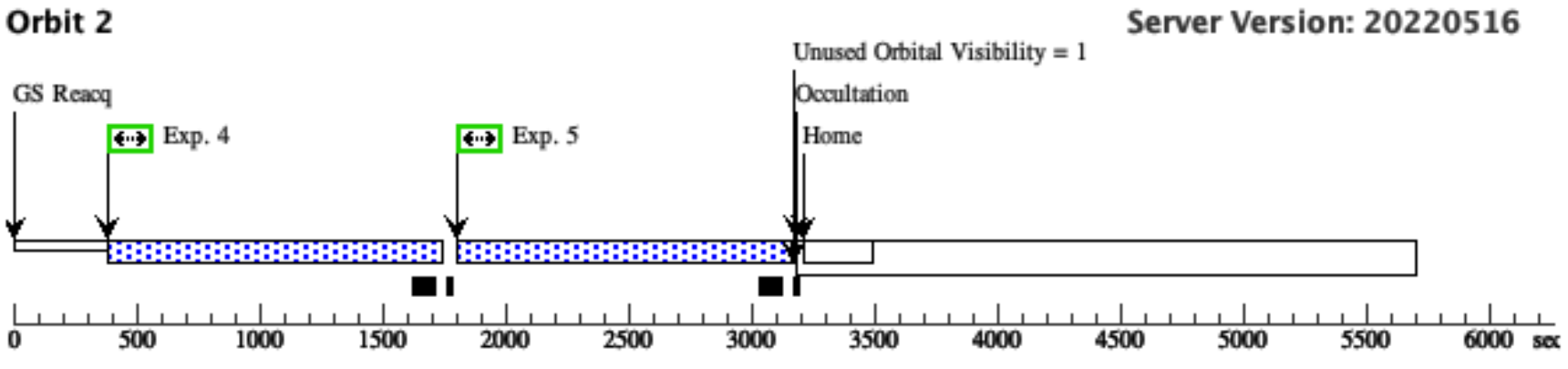
Comments: acq ETC: COS.ta.1530536 (24 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530536)	(8) UVQSJ024649.87-300741.5	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				24 Secs (24 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527317)	(8) UVQSJ024649.87-300741.5	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1030; FP-POS=1; SEGMENT=BOTH			800 Secs (1140 Secs) *[==>1140.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 3 orbits.									
3	fp2 (COS.sp.1527317)	(8) UVQSJ024649.87-300741.5	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1030; FP-POS=2; SEGMENT=BOTH			800 Secs (1140 Secs) *[==>1140.0 Secs]*	***[1]***
Comments: other FP-POS will be in subsequent 2 orbits.									
4	fp3 (COS.sp.1527317)	(8) UVQSJ024649.87-300741.5	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1200; SEGMENT=BOTH; FP-POS=3			1100 Secs (1309 Secs) *[==>1309.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									
5	fp4 (COS.sp.1527317)	(8) UVQSJ024649.87-300741.5	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1200; SEGMENT=BOTH; FP-POS=4			1100 Secs (1309 Secs) *[==>1309.0 Secs]*	***[2]***
Comments: other FP-POS will be in subsequent 2 orbits.									

Orbit Structure





Visit

Proposal 16650, Target9 (3 orb) (20), completed Mon Jul 25 14:00:49 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

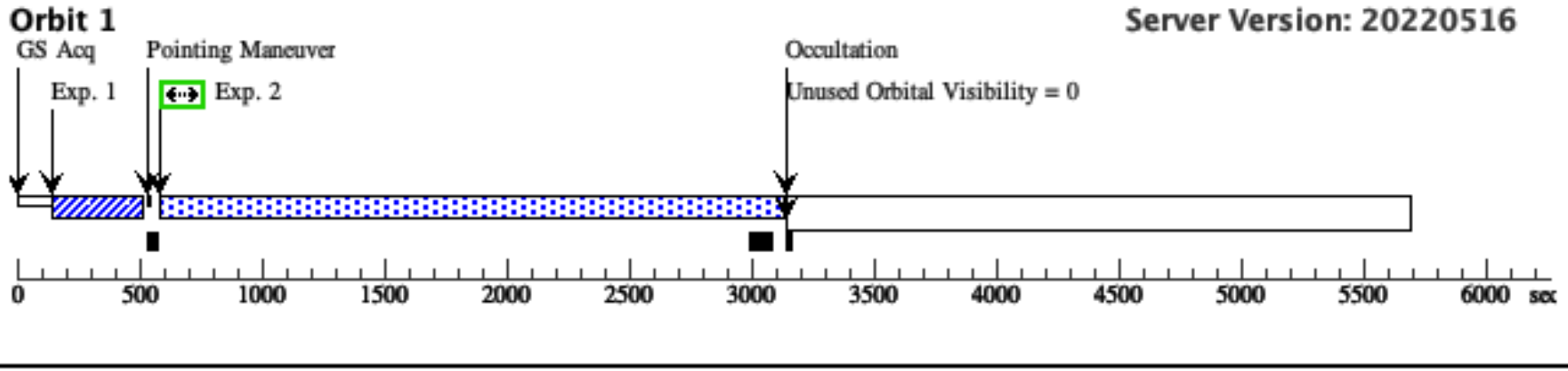
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	LBQS-1235+1123	RA: 12 37 44.5728 (189.4357200d) Dec: +11 06 58.14 (11.11615d) Equinox: J2000	Redshift: 0.945	V=17.7 GALEX FUV = 18.99, z = 0.945	Reference Frame: ICRS

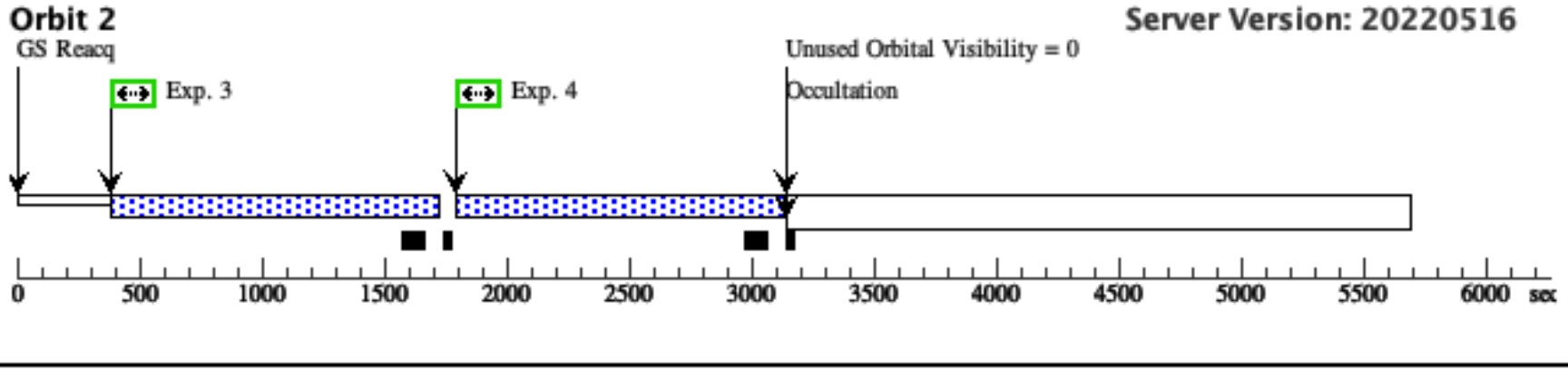
Comments: This object was generated by the targetselector and retrieved from the NED database.
COS.ta.1530537 (32 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

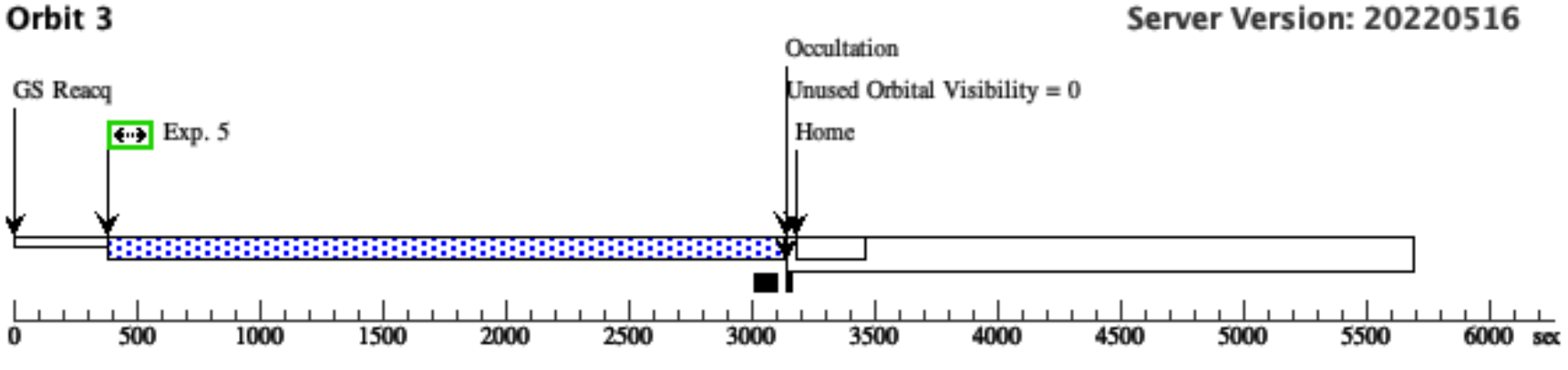
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530537)	(9) LBQS-1235+1123	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				32 Secs (32 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527320)	(9) LBQS-1235+1123	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2220; FP-POS=1; SEGMENT=BOTH			1400 Secs (2339 Secs) *[==>2339.0 Secs]*	***[1]***
	Comments: other FP-POS will be in subsequent 3 orbits.								
3	fp2 (COS.sp.1527320)	(9) LBQS-1235+1123	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1150; FP-POS=2; SEGMENT=BOTH			1200 Secs (1289 Secs) *[==>1289.0 Secs]*	***[2]***
	Comments: other FP-POS will be in subsequent 2 orbits.								
4	fp3 (COS.sp.1527320)	(9) LBQS-1235+1123	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1150; SEGMENT=BOTH; FP-POS=3			1200 Secs (1289 Secs) *[==>1289.0 Secs]*	***[2]***
	Comments: other FP-POS will be in subsequent 2 orbits.								
5	fp4 (COS.sp.1527320)	(9) LBQS-1235+1123	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2593; SEGMENT=BOTH; FP-POS=4			2400 Secs (2693 Secs) *[==>2693.0 Secs]*	***[3]***
	Comments: other FP-POS will be in subsequent 2 orbits.								

Orbit Structure







Visit

Proposal 16650, Target9 (3 orb) (21), scheduled Mon Jul 25 14:00:49 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

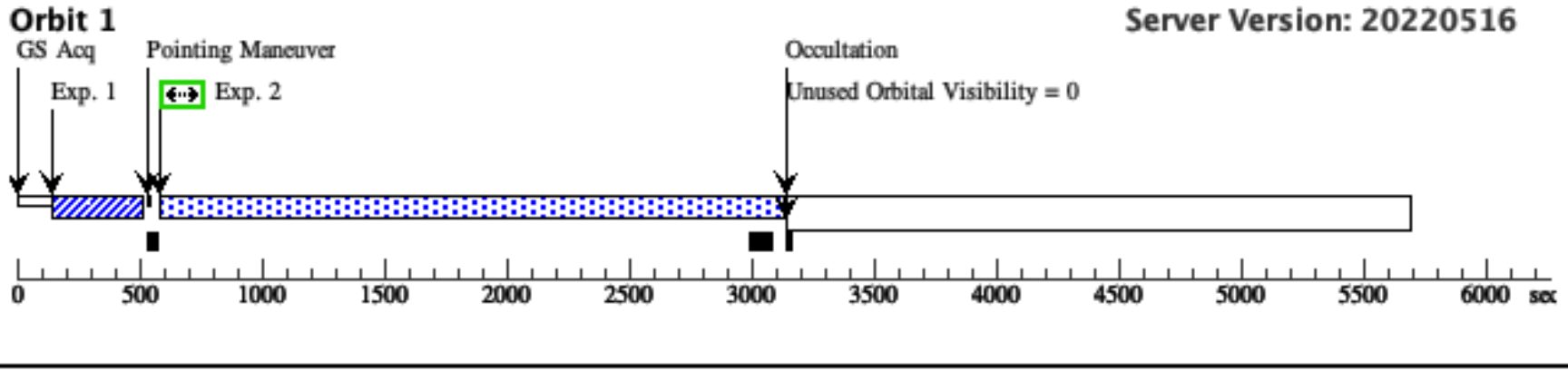
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	LBQS-1235+1123	RA: 12 37 44.5728 (189.4357200d) Dec: +11 06 58.14 (11.11615d) Equinox: J2000	Redshift: 0.945	V=17.7 GALEX FUV = 18.99, z = 0.945	Reference Frame: ICRS

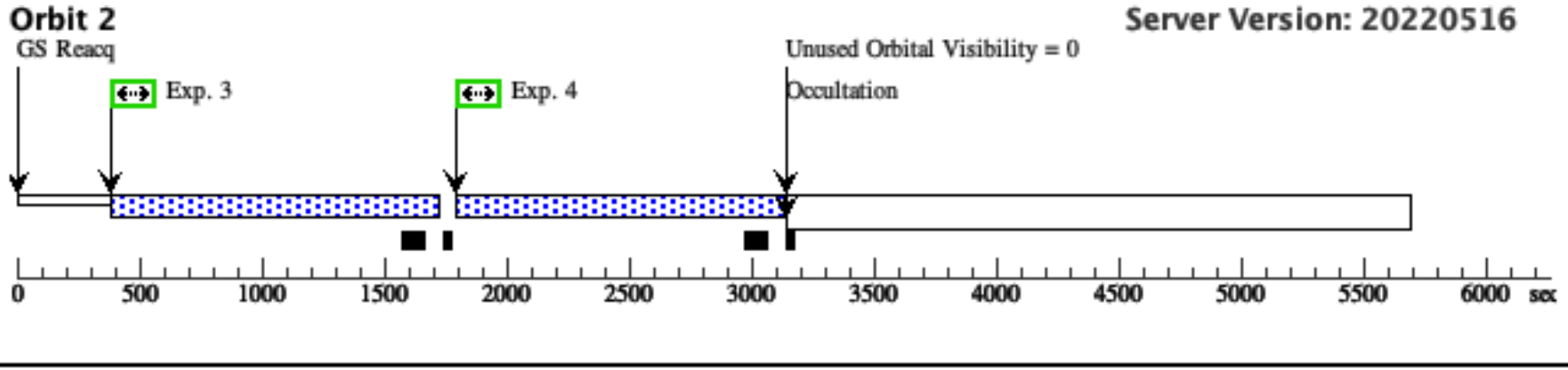
Comments: This object was generated by the targetselector and retrieved from the NED database.
COS.ta.1530537 (32 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

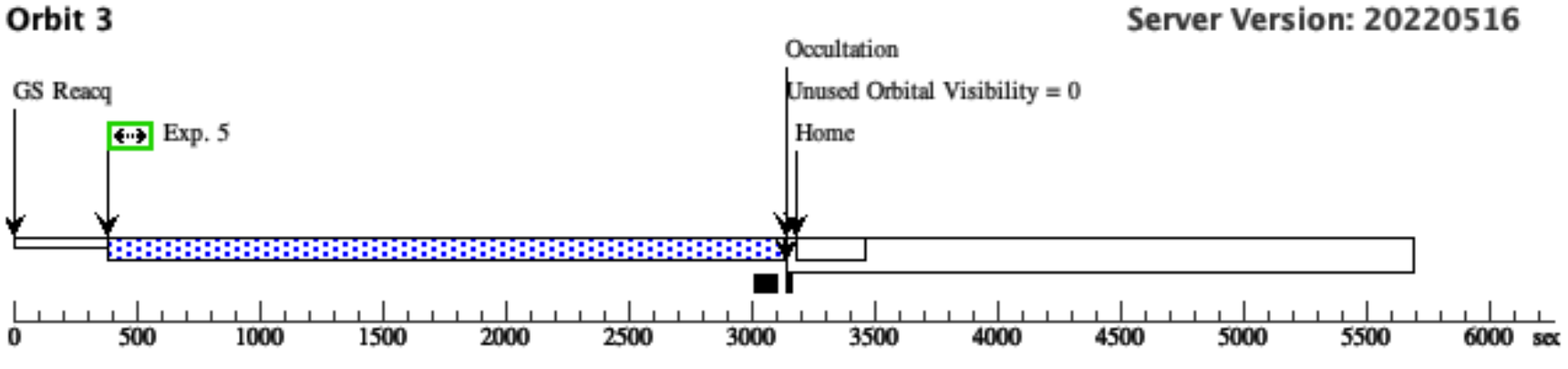
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530537)	(9) LBQS-1235+1123	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				32 Secs (32 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527320)	(9) LBQS-1235+1123	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2220; FP-POS=1; SEGMENT=BOTH			1400 Secs (2339 Secs) *[==>2339.0 Secs]*	***[1]***
	Comments: other FP-POS will be in subsequent 3 orbits.								
3	fp2 (COS.sp.1527320)	(9) LBQS-1235+1123	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1150; FP-POS=2; SEGMENT=BOTH			1200 Secs (1289 Secs) *[==>1289.0 Secs]*	***[2]***
	Comments: other FP-POS will be in subsequent 2 orbits.								
4	fp3 (COS.sp.1527320)	(9) LBQS-1235+1123	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1150; SEGMENT=BOTH; FP-POS=3			1200 Secs (1289 Secs) *[==>1289.0 Secs]*	***[2]***
	Comments: other FP-POS will be in subsequent 2 orbits.								
5	fp4 (COS.sp.1527320)	(9) LBQS-1235+1123	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=2593; SEGMENT=BOTH; FP-POS=4			2400 Secs (2693 Secs) *[==>2693.0 Secs]*	***[3]***
	Comments: other FP-POS will be in subsequent 2 orbits.								

Orbit Structure







Visit

Proposal 16650, Target9 (2 orb) (22), failed Mon Jul 25 14:00:49 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

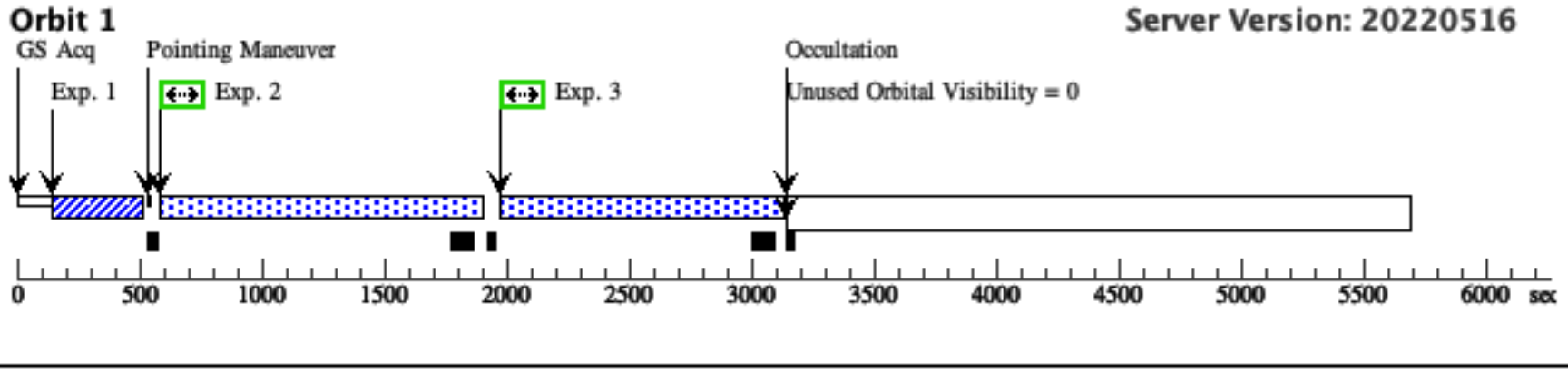
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	LBQS-1235+1123	RA: 12 37 44.5728 (189.4357200d) Dec: +11 06 58.14 (11.11615d) Equinox: J2000	Redshift: 0.945	V=17.7 GALEX FUV = 18.99, z = 0.945	Reference Frame: ICRS

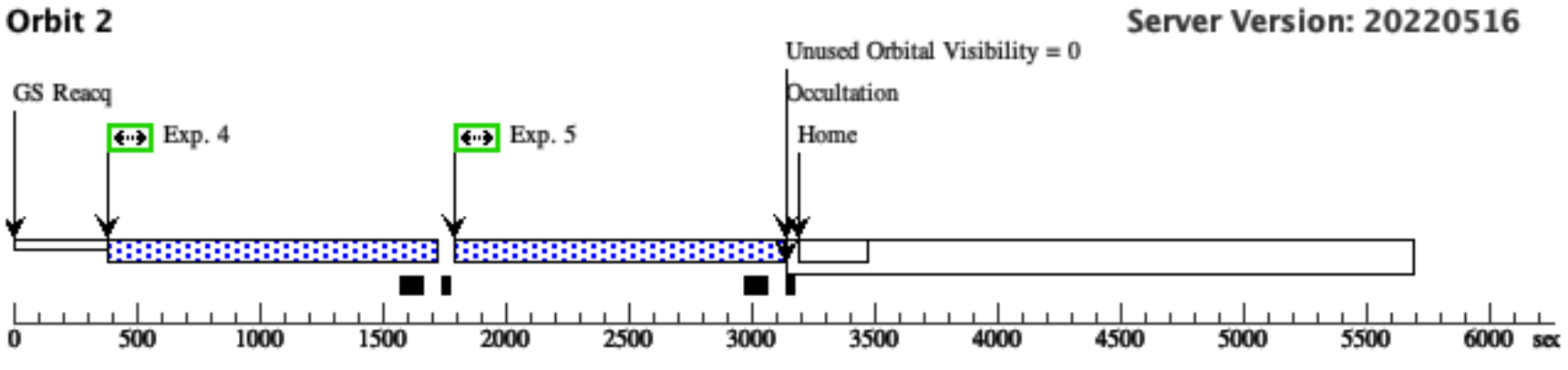
Comments: This object was generated by the targetselector and retrieved from the NED database.
COS.ta.1530537 (32 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530537)	(9) LBQS-1235+1123	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				32 Secs (32 Secs) *[==>]*	*[1]*
2	fp1 (COS.sp.1527320)	(9) LBQS-1235+1123	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=9988; FP-POS=1; SEGMENT=BOTH			900 Secs (1112 Secs) *[==>1112.0 Secs]*	*[1]*
	Comments: other FP-POS will be in subsequent 3 orbits.								
3	fp2 (COS.sp.1527320)	(9) LBQS-1235+1123	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=9988; FP-POS=2; SEGMENT=BOTH			900 Secs (1112 Secs) *[==>1112.0 Secs]*	*[1]*
	Comments: other FP-POS will be in subsequent 2 orbits.								
4	fp3 (COS.sp.1527320)	(9) LBQS-1235+1123	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1150; SEGMENT=BOTH; FP-POS=3			900 Secs (1289 Secs) *[==>1289.0 Secs]*	*[2]*
	Comments: other FP-POS will be in subsequent 2 orbits.								
5	fp4 (COS.sp.1527320)	(9) LBQS-1235+1123	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1150; SEGMENT=BOTH; FP-POS=4			900 Secs (1289 Secs) *[==>1289.0 Secs]*	*[2]*
	Comments: other FP-POS will be in subsequent 2 orbits.								

Orbit Structure





Visit

Proposal 16650, Target9 (2 orb) (Z2), implementation Mon Jul 25 14:00:49 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: This is a HOPR repeat for failed visit 22

Fixed Targets

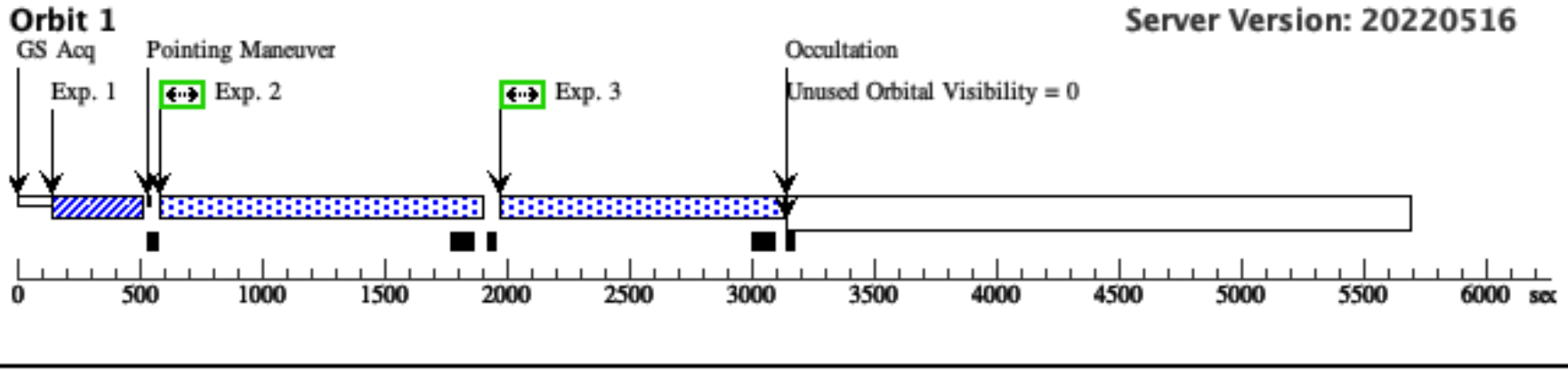
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	LBQS-1235+1123	RA: 12 37 44.5728 (189.4357200d) Dec: +11 06 58.14 (11.11615d) Equinox: J2000	Redshift: 0.945	V=17.7 GALEX FUV = 18.99, z = 0.945	Reference Frame: ICRS

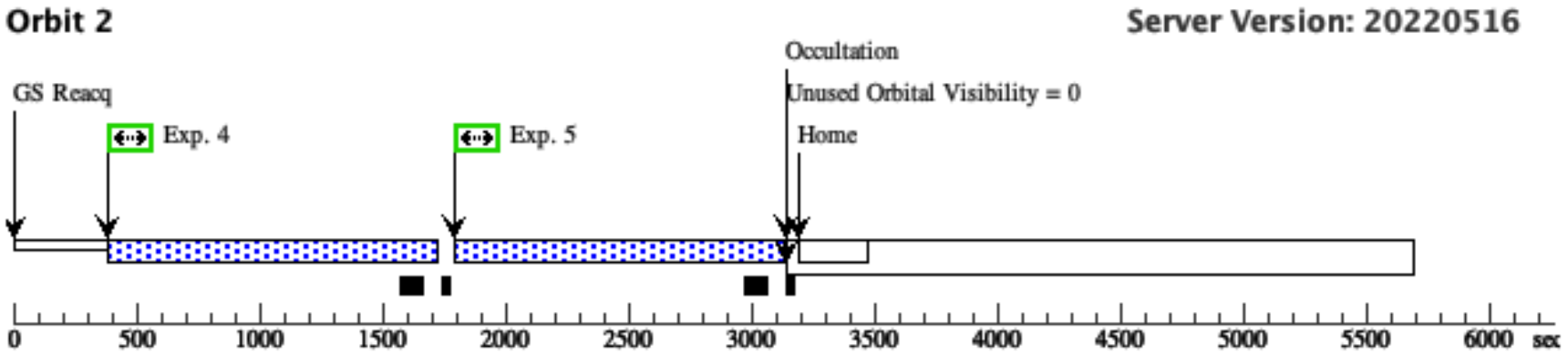
Comments: This object was generated by the targetselector and retrieved from the NED database.
COS.ta.1530537 (32 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530537)	(9) LBQS-1235+1123	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				32 Secs (32 Secs) *[==>]*	*[1]*
2	fp1 (COS.sp.1527320)	(9) LBQS-1235+1123	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=9988; FP-POS=1; SEGMENT=BOTH			900 Secs (1112 Secs) *[==>1112.0 Secs]*	*[1]*
	Comments: other FP-POS will be in subsequent 3 orbits.								
3	fp2 (COS.sp.1527320)	(9) LBQS-1235+1123	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=9988; FP-POS=2; SEGMENT=BOTH			900 Secs (1112 Secs) *[==>1112.0 Secs]*	*[1]*
	Comments: other FP-POS will be in subsequent 2 orbits.								
4	fp3 (COS.sp.1527320)	(9) LBQS-1235+1123	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1150; SEGMENT=BOTH; FP-POS=3			900 Secs (1289 Secs) *[==>1289.0 Secs]*	*[2]*
	Comments: other FP-POS will be in subsequent 2 orbits.								
5	fp4 (COS.sp.1527320)	(9) LBQS-1235+1123	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1150; SEGMENT=BOTH; FP-POS=4			900 Secs (1289 Secs) *[==>1289.0 Secs]*	*[2]*
	Comments: other FP-POS will be in subsequent 2 orbits.								

Orbit Structure





Visit

Proposal 16650, Target3 (2 orb) (Z6) Mon Jul 25 14:00:49 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: This is a repeat of failed visit 6, as per HOPR 92274, approved for a repeat on 7/18/2022.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	2MASS-J12204664+4643478	RA: 12 20 46.6176 (185.1942400d) Dec: +46 43 47.46 (46.72985d) Equinox: J2000		V=17.70 GALEX FUV = 18.82, z = 0.707	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the NED database.
acq/image ETC: COS.ta.1530528 (29 seconds)
Category=GALAXY
Description=[QSO]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acq (COS.ta.1530528)	(3) 2MASS-J12204664+4643478	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				29 Secs (29 Secs) *[==>]*	***[1]***
2	fp1 (COS.sp.1527131)	(3) 2MASS-J12204664+4643478	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1060; FP-POS=1; SEGMENT=BOTH			800 Secs (1183 Secs) *[==>1183.0 Secs]*	***[1]***
	Comments: other FP-POS will be in subsequent 3 orbits.								
3	fp2 (COS.sp.1527131)	(3) 2MASS-J12204664+4643478	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1060; FP-POS=2; SEGMENT=BOTH			800 Secs (1183 Secs) *[==>1183.0 Secs]*	***[1]***
	Comments: other FP-POS will be in subsequent 2 orbits.								
4	fp3 (COS.sp.1527131)	(3) 2MASS-J12204664+4643478	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1250; SEGMENT=BOTH; FP-POS=3			1100 Secs (1357 Secs) *[==>1357.0 Secs]*	***[2]***
	Comments: other FP-POS will be in subsequent 2 orbits.								
5	fp4 (COS.sp.1527131)	(3) 2MASS-J12204664+4643478	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1250; SEGMENT=BOTH; FP-POS=4			1100 Secs (1357 Secs) *[==>1357.0 Secs]*	***[2]***
	Comments: other FP-POS will be in subsequent 2 orbits.								

Orbit Structure