15887 - The Nature and Origin of Compact High-Velocity Clouds

Cycle: 27, 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) MRK969	COS/FUV COS/NUV	3	12-Oct-2020 17:00:25.0	yes
02	(1) MRK969	COS/FUV COS/NUV	2	12-Oct-2020 17:00:26.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
03	(2) UVQSJ011054-154540	COS/FUV COS/NUV	4	12-Oct-2020 17:00:27.0	yes
04	(2) UVQSJ011054-154540	COS/FUV COS/NUV	4	12-Oct-2020 17:00:28.0	yes
54	(2) UVQSJ011054-154540	COS/FUV COS/NUV	4	12-Oct-2020 17:00:29.0	yes
05	(3) IRAS04596-2257	COS/FUV COS/NUV	3	12-Oct-2020 17:00:30.0	yes
06	(3) IRAS04596-2257	COS/FUV COS/NUV	3	12-Oct-2020 17:00:31.0	yes
07	(4) HE0027-3118	COS/FUV COS/NUV	4	12-Oct-2020 17:00:32.0	yes
08	(4) HE0027-3118	COS/FUV COS/NUV	3	12-Oct-2020 17:00:33.0	yes
09	(5) CTS47	COS/FUV COS/NUV	4	12-Oct-2020 17:00:34.0	yes
59	(5) CTS47	COS/FUV COS/NUV	1	12-Oct-2020 17:00:34.0	yes
10	(5) CTS47	COS/FUV COS/NUV	3	12-Oct-2020 17:00:35.0	yes

38 Total Orbits Used

ABSTRACT

Galaxy evolution is driven by the exchange of gas between disks and the surrounding circumgalactic medium. The physics governing this exchange depends on small-scale structure in the gas. This structure can be studied in detail in the Milky Way halo, which hosts a population of ~200 poorly understood compact high-velocity clouds (CHVCs) each spanning less than two degrees on the sky. Almost everything we know about CHVCs comes from 21 cm radio observations. To broaden our understanding and fully characterize their properties, we propose a UV absorption-line survey. We have selected a sample of 5 CHVCs from the Galactic All Sky Survey (GASS) and identified a UV-bright AGN that lies directly behind each

cloud. Using HST/COS observations we will study the CHVCs in absorption in a wide range of UV metal lines, allowing us to probe their metallicity, ionization level, dust content, and kinematics. Together, these measurements will provide key new constraints on the origin of CHVCs, allowing us to discriminate between extragalactic origins (low metallicities and simple kinematics), Galactic origins (high metallicities and complex kinematics) and Magellanic origins (intermediate metallicity). Finally, this proposal will establish empirical constraints on MW halo gas at cloud scales that are just being reached by state-of-the-art hydrodynamical simulations of the circumgalactic medium.

We also request Green Bank Telescope 21 cm pointings in each AGN direction under the joint HST/NRAO category to obtain the reference H I column densities at high spatial resolution and sensitivity.

OBSERVING DESCRIPTION

This is a straightforward COS/FUV program to observe 5 AGN with the G130M/1222 and G160M/1533 settings, in order to study Milky Way halo clouds in absorption. Each target will be observed with an NUV ACQ/IMAGE (all with MIRRORB) followed by the TIME-TAG science exposures. We use all four FP-POS positions per cenwave and one grating per visit. The visits are between 2 and 4 orbits long. For Visits 03 and 04 (target UVQSJ011054-154540), a 2x2 ACQ/SEARCH is included before the ACQ/IMAGE since the coordinates are less well known than for the other four targets.

Visit

Proposal 15887, Mrk969-G130M (01), completed Mon Oct 12 21:00:36 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Mrk969-G130M (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Mrk969-G130M (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

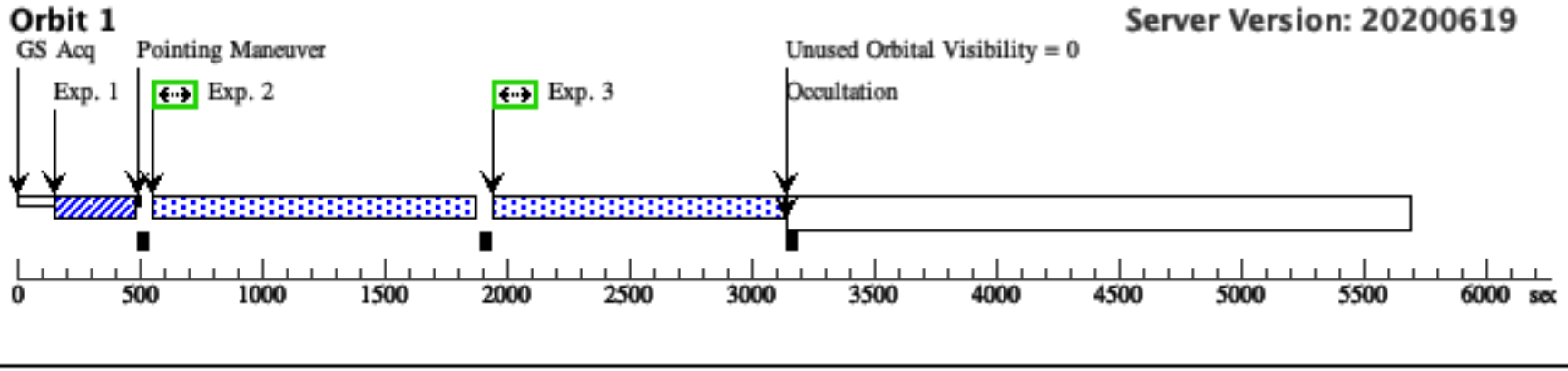
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	MRK969	RA: 01 02 40.2490 (15.6677042d) Dec: -12 50 57.45 (-12.84929d) Equinox: J2000		V=15.0 GALEX FUV=16.88 NUV=16.59	Reference Frame: ICRS

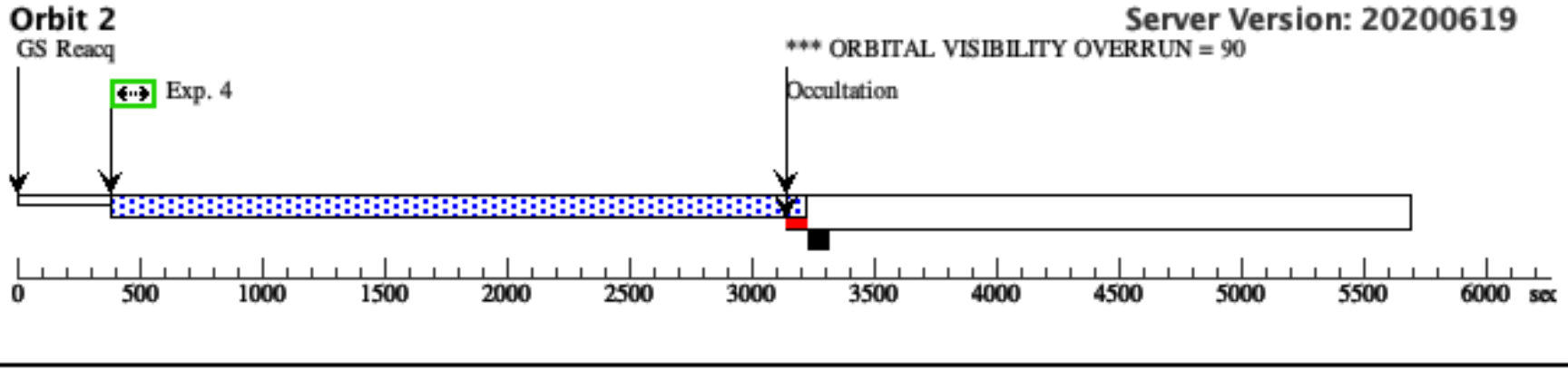
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=ISM
Description=[ABSORPTION LINE SYSTEM - GALACTIC, CORONAL GAS, HIGH VELOCITY CLOUD]
Extended=NO

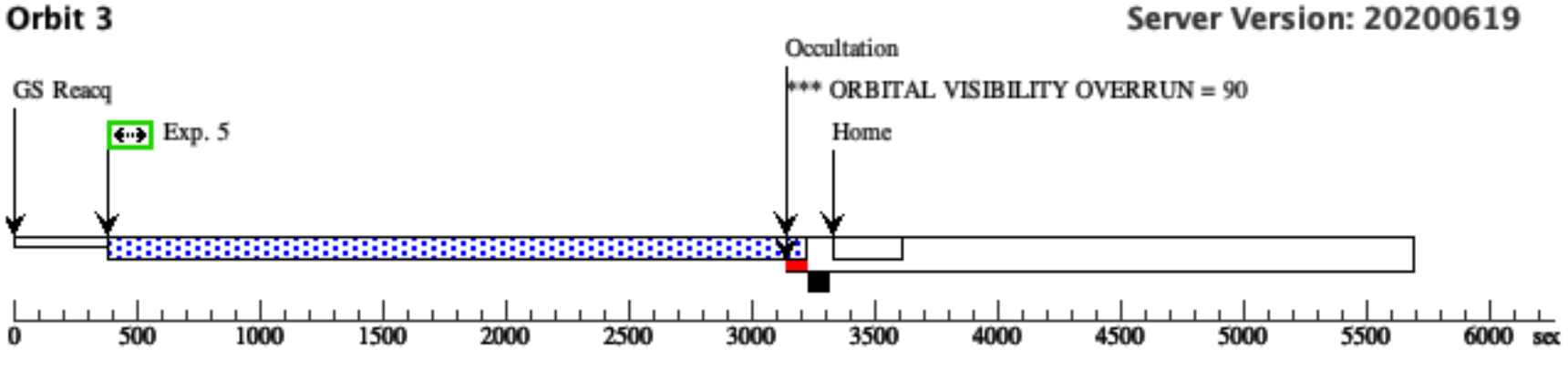
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (1367238)	(1) MRK969	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				16 Secs (16 Secs) *[==>]*	*[1]*
Comments: The TA exposure time is slightly longer than the ETC predicts to allow for the possibility that the target is slightly extended.									
2	G130M/FP-POS1 (1324263)	(1) MRK969	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=3872			1138 Secs (1138 Secs) *[==>]*	*[1]*
3	G130M/FP-POS2 (1324263)	(1) MRK969	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=3872			1135 Secs (1135 Secs) *[==>]*	*[1]*
4	G130M/FP-POS3 (1324263)	(1) MRK969	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=3872			2783 Secs (2783 Secs) *[==>]*	*[2]*
5	G130M/FP-POS4 (1324263)	(1) MRK969	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=3872			2783 Secs (2783 Secs) *[==>]*	*[3]*

Orbit Structure







Visit

Proposal 15887, Mrk969-G160M (02), completed Mon Oct 12 21:00:36 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Mrk969-G160M (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

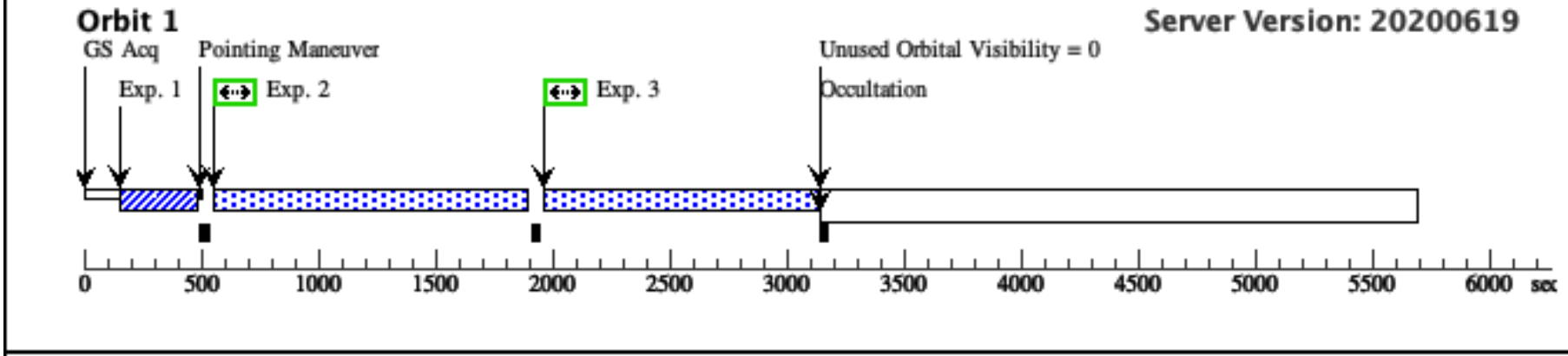
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	MRK969	RA: 01 02 40.2490 (15.6677042d) Dec: -12 50 57.45 (-12.84929d) Equinox: J2000		V=15.0 GALEX FUV=16.88 NUV=16.59	Reference Frame: ICRS

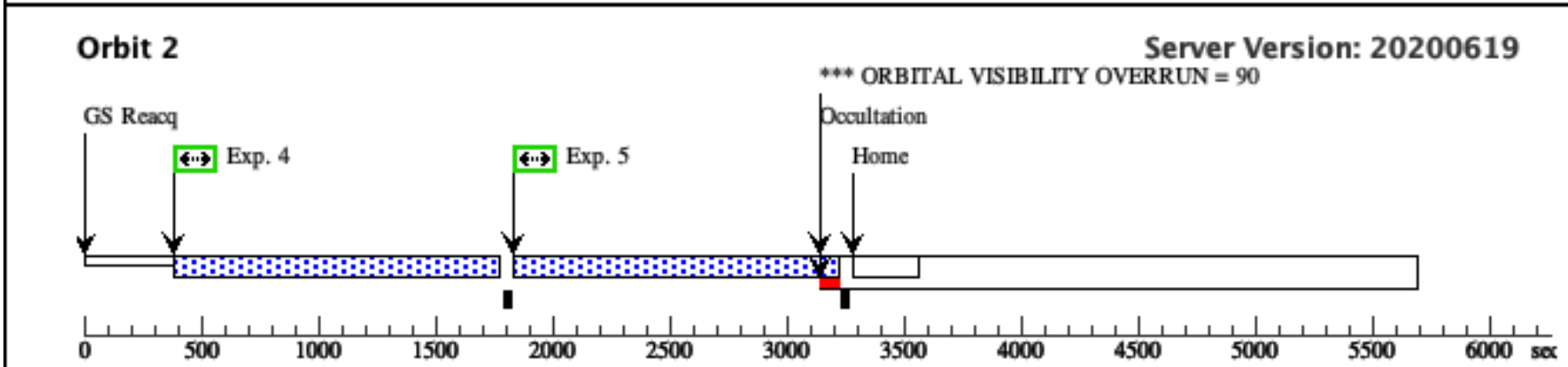
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=ISM
Description=[ABSORPTION LINE SYSTEM - GALACTIC, CORONAL GAS, HIGH VELOCITY CLOUD]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (1367238)	(1) MRK969	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				16 Secs (16 Secs) *[==>]*	***[1]***
Comments: The TA exposure time is slightly longer than the ETC predicts to allow for the possibility that the target is slightly extended.									
2	G160M/FP-POS1 (1324307)	(1) MRK969	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=1; BUFFER-TIME=6064			1122 Secs (1122 Secs) *[==>]*	***[1]***
3	G160M/FP-POS2 (1324307)	(1) MRK969	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=2; BUFFER-TIME=6064			1122 Secs (1122 Secs) *[==>]*	***[1]***
4	G160M/FP-POS3 (1324307)	(1) MRK969	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=6064			1334 Secs (1334 Secs) *[==>]*	***[2]***
5	G160M/FP-POS4 (1324307)	(1) MRK969	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=4; BUFFER-TIME=6064			1334 Secs (1334 Secs) *[==>]*	***[2]***

Orbit Structure





Visit

Proposal 15887, UVQSJ011054-154540-G130M (03), scheduling Mon Oct 12 21:00:36 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(UVQSJ011054-154540-G130M (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(UVQSJ011054-154540-G130M (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(UVQSJ011054-154540-G130M (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

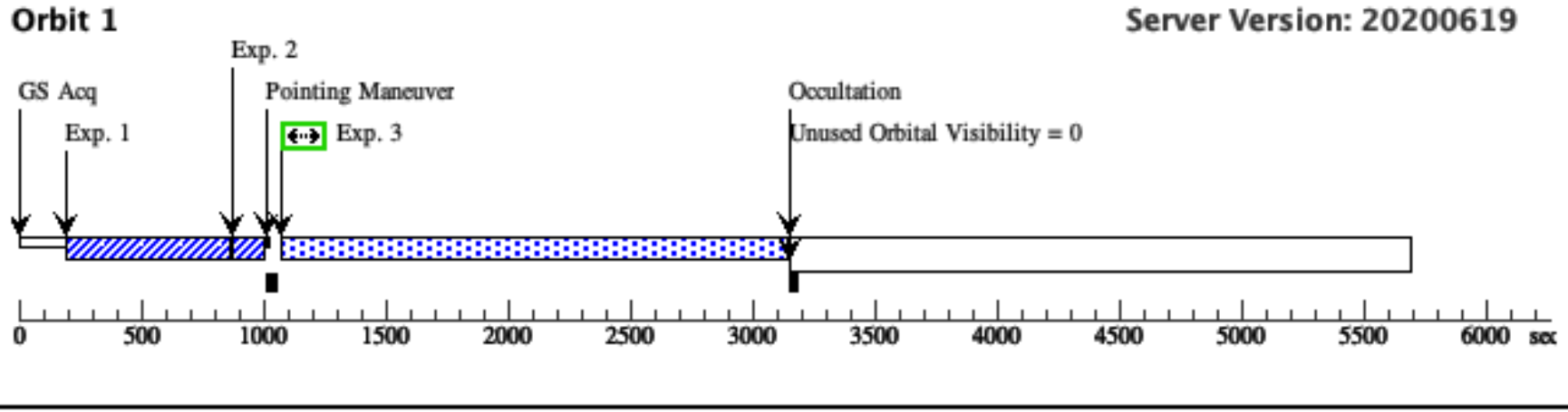
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	UVQSJ011054-154540	RA: 01 10 54.9900 (17.7291250d) Dec: -15 45 40.10 (-15.76114d) Equinox: J2000		V=15.0 GALEX FUV=17.94 NUV=17.38	Reference Frame: ICRS

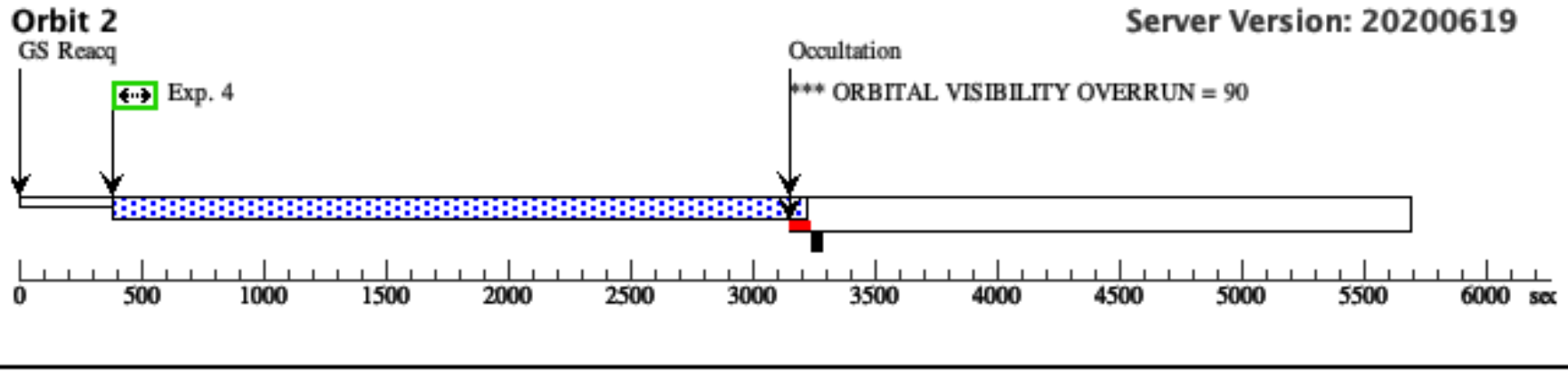
Comments:
Category=ISM
Description=[ABSORPTION LINE SYSTEM - GALACTIC, CORONAL GAS, HIGH VELOCITY CLOUD]
Extended=NO

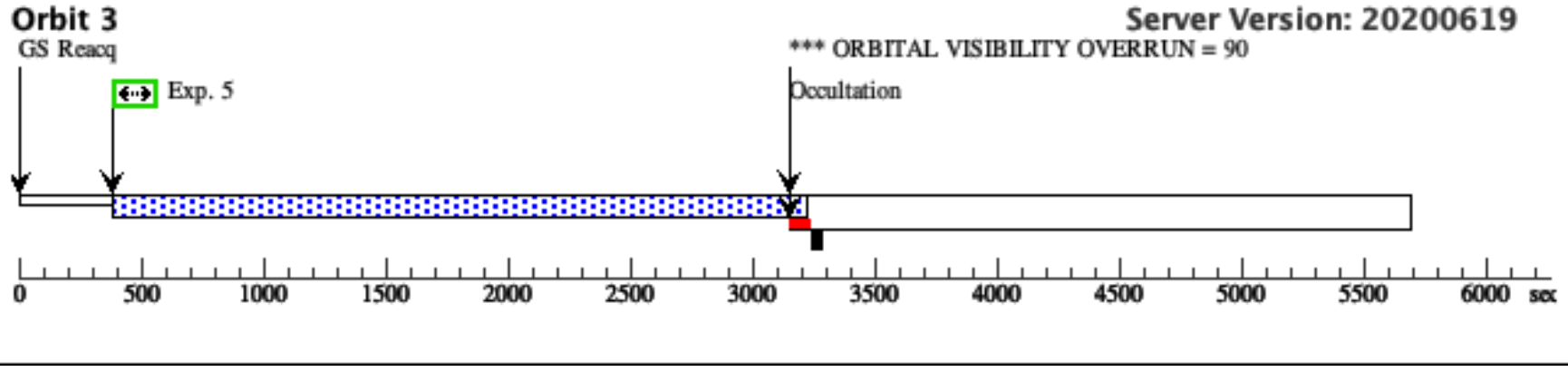
Exposures

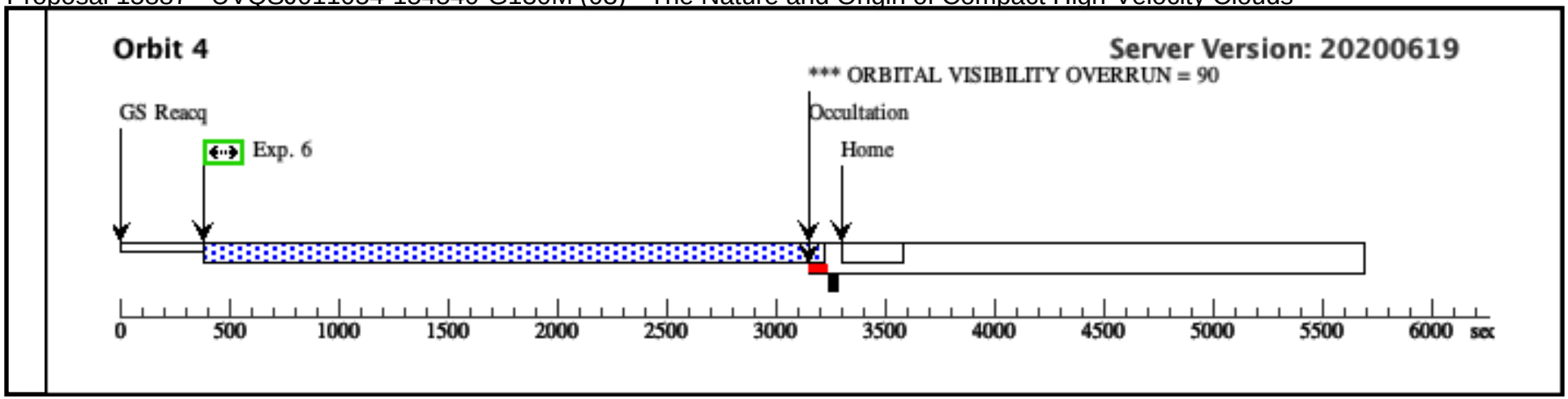
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/SEARCH (1382705)	(2) UVQSJ011054-154540	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	STEP-SIZE=1.767; SCAN-SIZE=2; CENTER=FLUX-WT			80 Secs (80 Secs) *[==>]*	 ***[1]***
2	ACQ/IMAGE (1367262)	(2) UVQSJ011054-154540	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				17 Secs (17 Secs) *[==>]*	 ***[1]***
3	G130M/FP-POS1 (1324274)	(2) UVQSJ011054-154540	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=9941			1887 Secs (1887 Secs) *[==>]*	 ***[1]***
4	G130M/FP-POS2 (1324274)	(2) UVQSJ011054-154540	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=9941			2790 Secs (2790 Secs) *[==>]*	 ***[2]***
5	G130M/FP-POS3 (1324274)	(2) UVQSJ011054-154540	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=9941			2790 Secs (2790 Secs) *[==>]*	 ***[3]***
6	G130M/FP-POS4 (1324274)	(2) UVQSJ011054-154540	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=9941			2790 Secs (2790 Secs) *[==>]*	 ***[4]***

Orbit Structure





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sec

Visit

Proposal 15887, UVQSJ011054-154540-G160M (04), failed Mon Oct 12 21:00:36 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(UVQSJ011054-154540-G160M (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(UVQSJ011054-154540-G160M (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(UVQSJ011054-154540-G160M (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

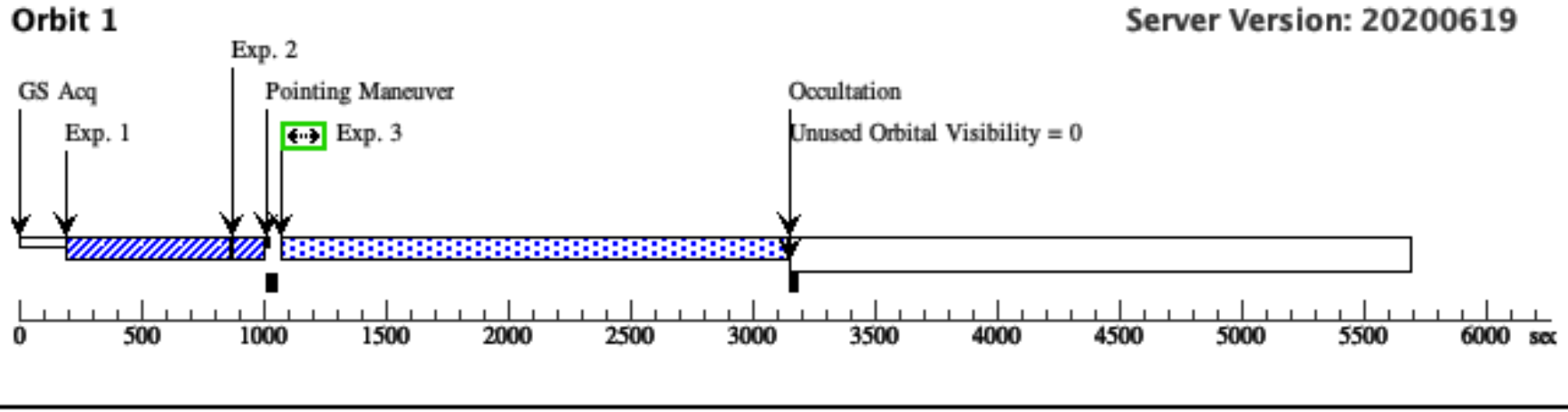
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	UVQSJ011054-154540	RA: 01 10 54.9900 (17.7291250d) Dec: -15 45 40.10 (-15.76114d) Equinox: J2000		V=15.0 GALEX FUV=17.94 NUV=17.38	Reference Frame: ICRS

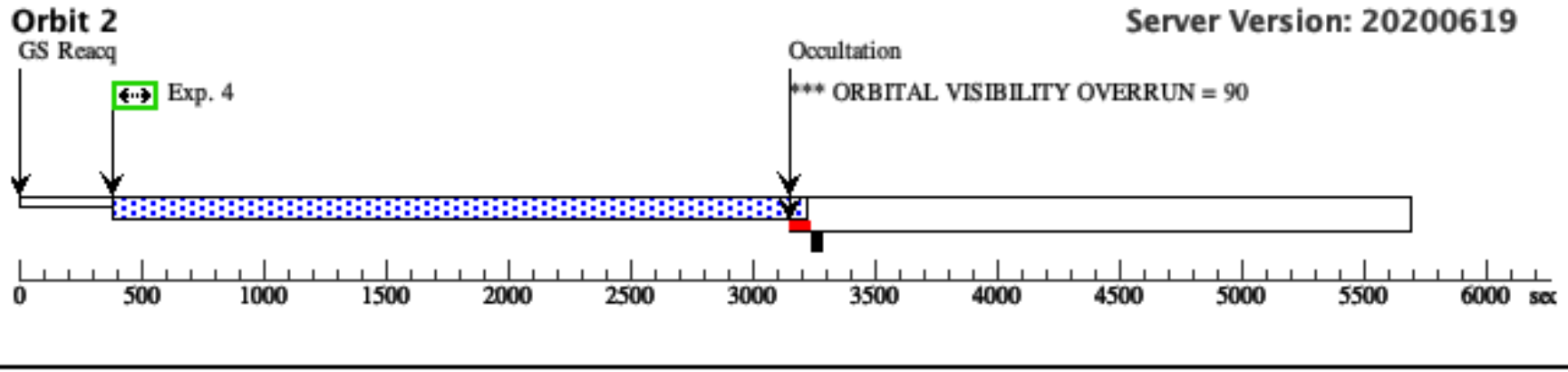
Comments:
Category=ISM
Description=[ABSORPTION LINE SYSTEM - GALACTIC, CORONAL GAS, HIGH VELOCITY CLOUD]
Extended=NO

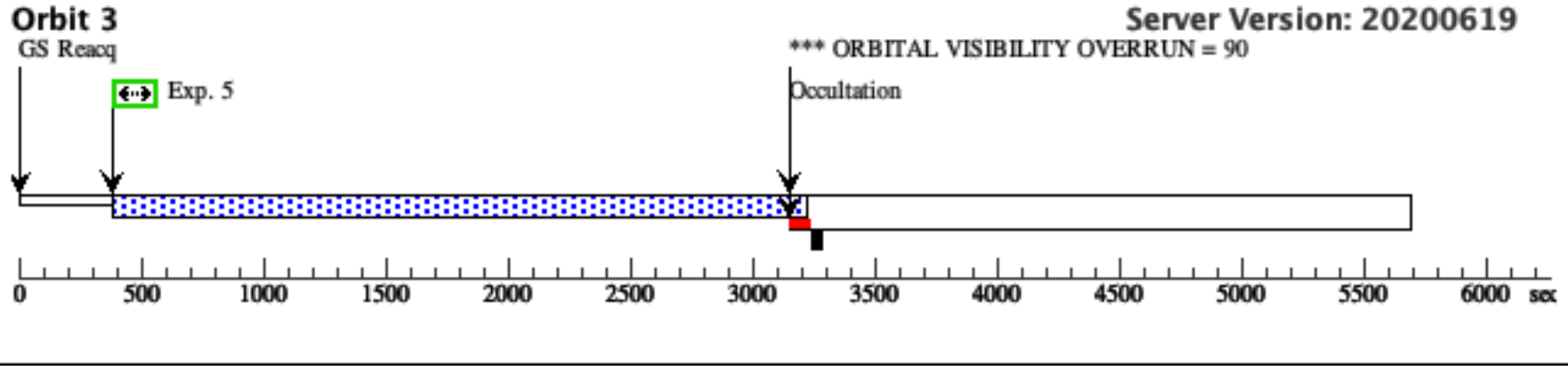
Exposures

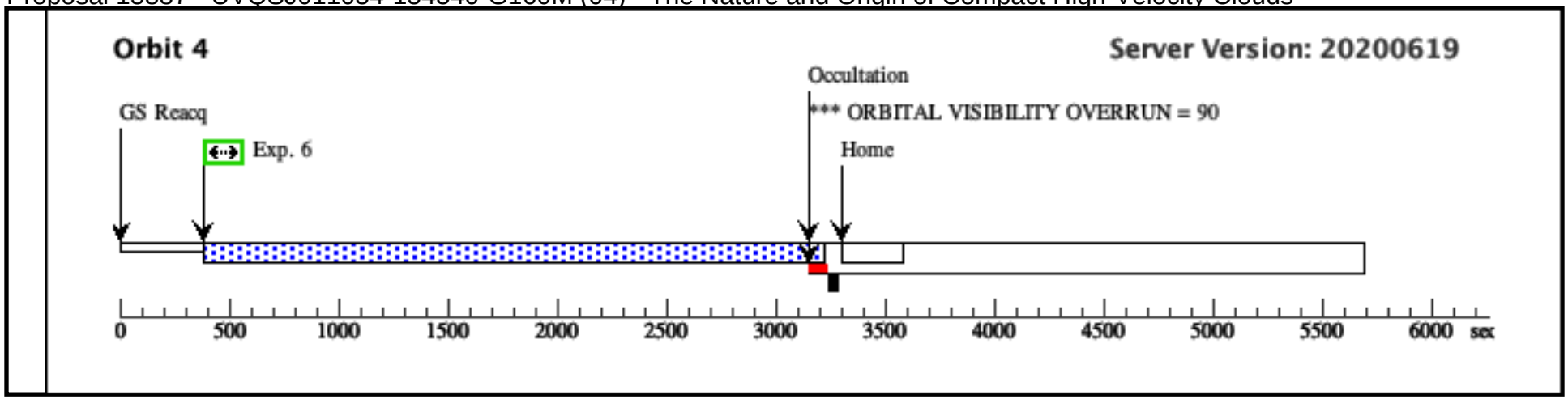
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/SEARCH (1382705)	(2) UVQSJ011054-154540	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	STEP-SIZE=1.767; SCAN-SIZE=2; CENTER=FLUX-WT			80 Secs (80 Secs) *[==>]*	*[1]*
2	ACQ/IMAGE (1367262)	(2) UVQSJ011054-154540	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				17 Secs (17 Secs) *[==>]*	*[1]*
3	G160M/FP-POS1 (1324310)	(2) UVQSJ011054-154540	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=1; BUFFER-TIME=11843			1849 Secs (1849 Secs) *[==>]*	*[1]*
4	G160M/FP-POS2 (1324310)	(2) UVQSJ011054-154540	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=2; BUFFER-TIME=11843			2790 Secs (2790 Secs) *[==>]*	*[2]*
5	G160M/FP-POS3 (1324310)	(2) UVQSJ011054-154540	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=11843			2790 Secs (2790 Secs) *[==>]*	*[3]*
6	G160M/FP-POS4 (1324310)	(2) UVQSJ011054-154540	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=4; BUFFER-TIME=11843			2790 Secs (2790 Secs) *[==>]*	*[4]*

Orbit Structure





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sec

Visit

Proposal 15887, UVQSJ011054-154540-G160M (54), scheduling Mon Oct 12 21:00:36 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(UVQSJ011054-154540-G160M (54)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(UVQSJ011054-154540-G160M (54)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(UVQSJ011054-154540-G160M (54)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

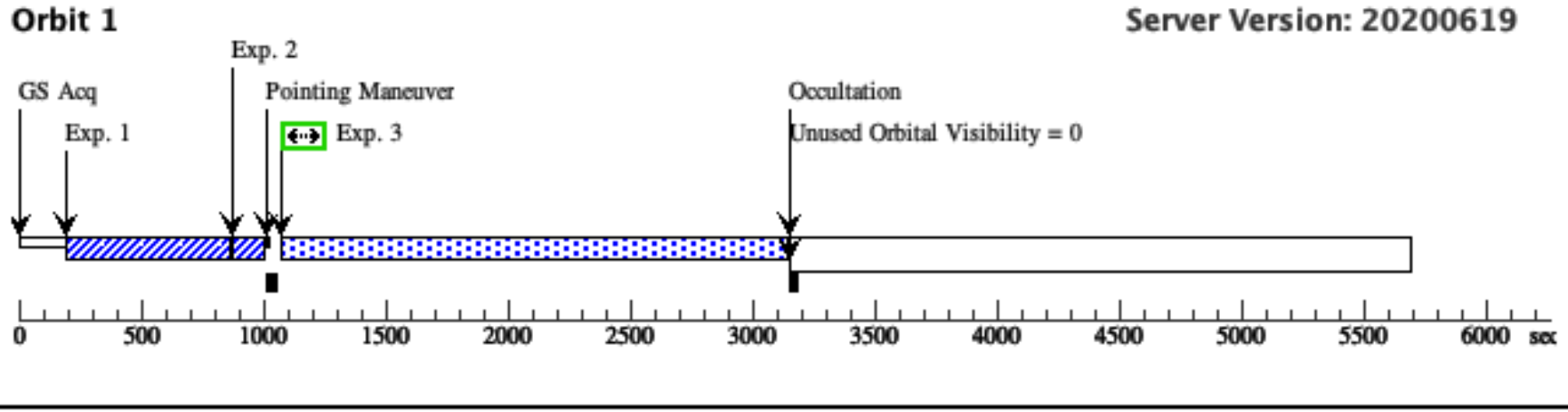
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	UVQSJ011054-154540	RA: 01 10 54.9900 (17.7291250d) Dec: -15 45 40.10 (-15.76114d) Equinox: J2000		V=15.0 GALEX FUV=17.94 NUV=17.38	Reference Frame: ICRS

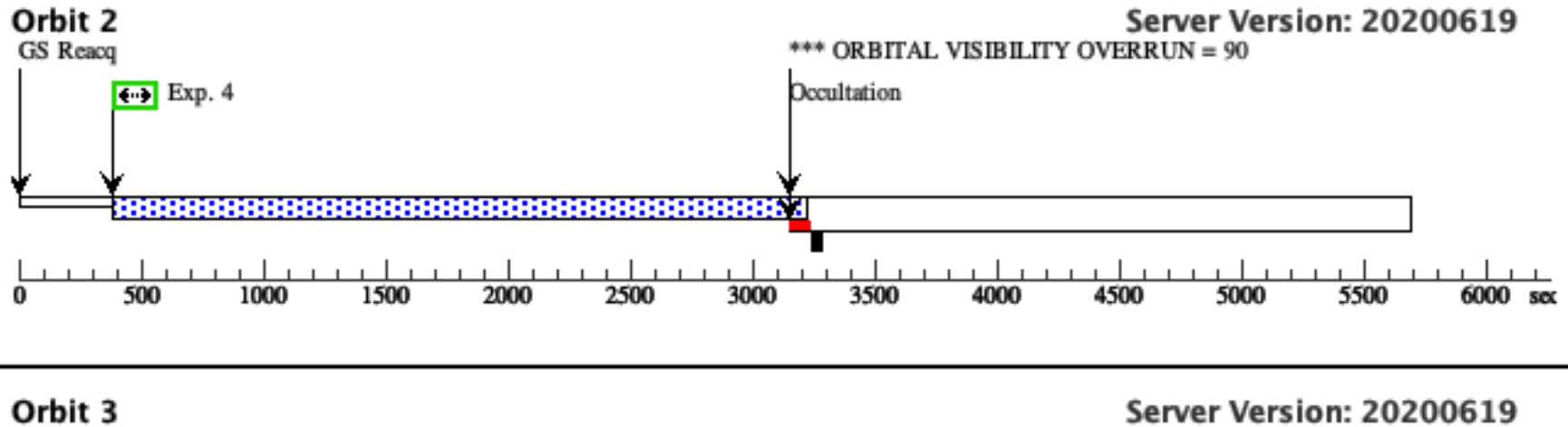
Comments:
Category=ISM
Description=[ABSORPTION LINE SYSTEM - GALACTIC, CORONAL GAS, HIGH VELOCITY CLOUD]
Extended=NO

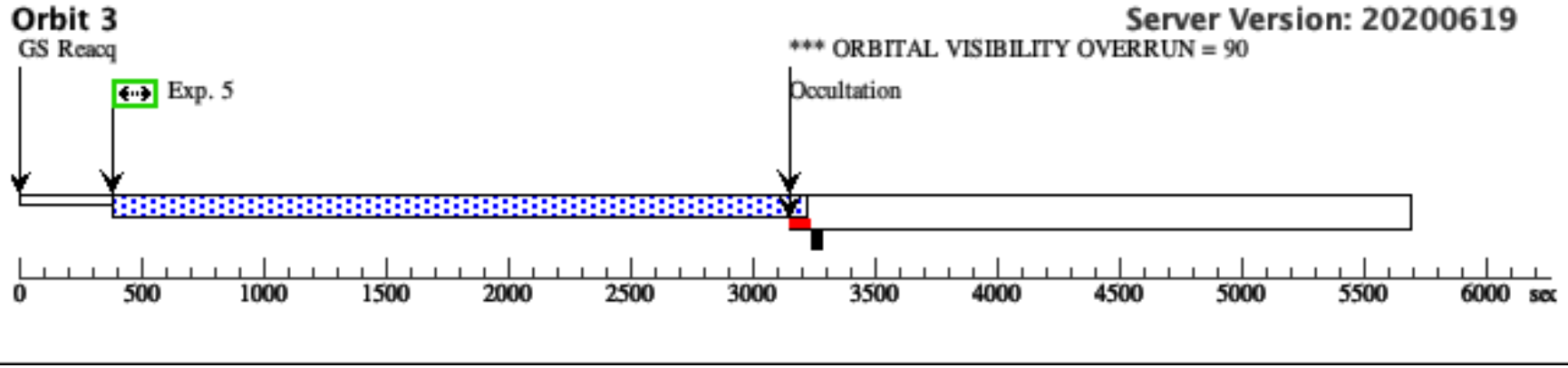
Exposures

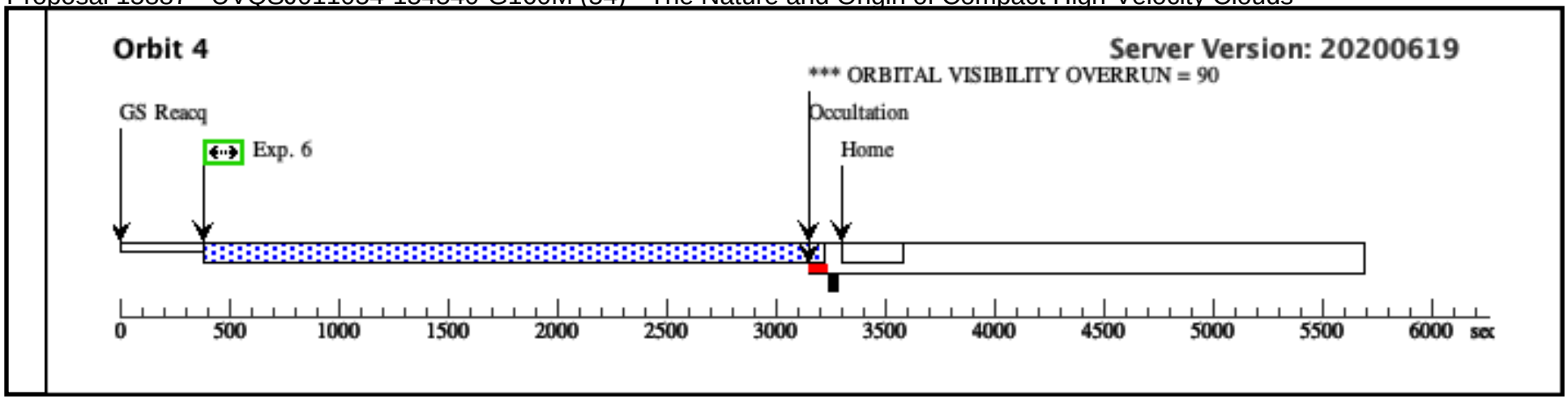
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/SEARCH (1382705)	(2) UVQSJ011054-154540	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	STEP-SIZE=1.767; SCAN-SIZE=2; CENTER=FLUX-WT			80 Secs (80 Secs) *[==>]*	 ***[1]***
2	ACQ/IMAGE (1367262)	(2) UVQSJ011054-154540	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				17 Secs (17 Secs) *[==>]*	 ***[1]***
3	G160M/FP-POS1 (1324310)	(2) UVQSJ011054-154540	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=1; BUFFER-TIME=11843			1849 Secs (1849 Secs) *[==>]*	 ***[1]***
4	G160M/FP-POS2 (1324310)	(2) UVQSJ011054-154540	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=2; BUFFER-TIME=11843			2790 Secs (2790 Secs) *[==>]*	 ***[2]***
5	G160M/FP-POS3 (1324310)	(2) UVQSJ011054-154540	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=11843			2790 Secs (2790 Secs) *[==>]*	 ***[3]***
6	G160M/FP-POS4 (1324310)	(2) UVQSJ011054-154540	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=4; BUFFER-TIME=11843			2790 Secs (2790 Secs) *[==>]*	 ***[4]***

Orbit Structure





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Server Version: 20200619
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Occultation
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2000
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3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15887, IRAS04596-2257-G130M (05), completed Mon Oct 12 21:00:36 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(IRAS04596-2257-G130M (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(IRAS04596-2257-G130M (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

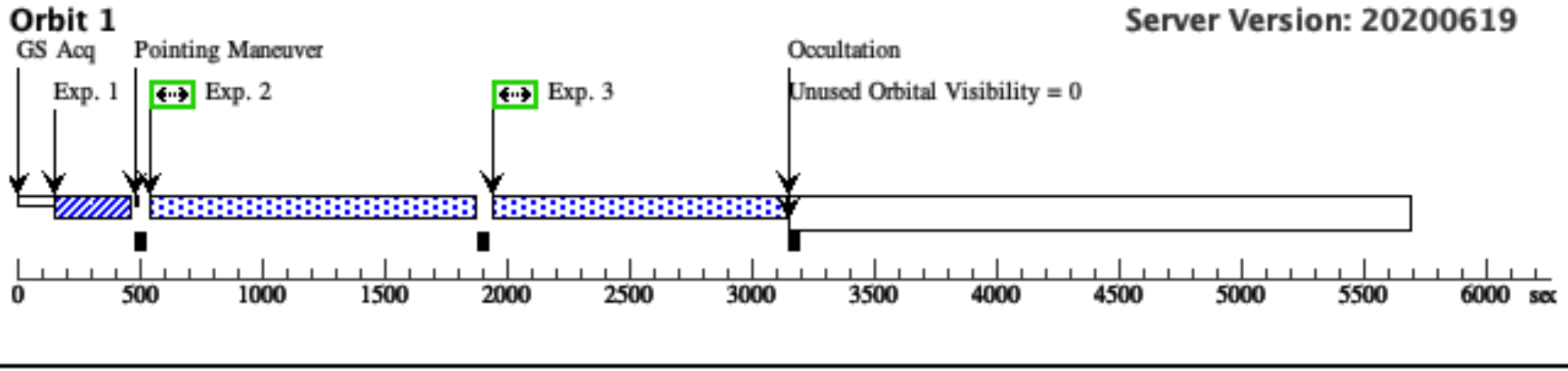
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	IRAS04596-2257	RA: 05 01 48.6170 (75.4525708d) Dec: -22 53 23.10 (-22.88975d) Equinox: J2000		V=15.13 GALEX FUV=17.14 NUV=16.76	Reference Frame: ICRS

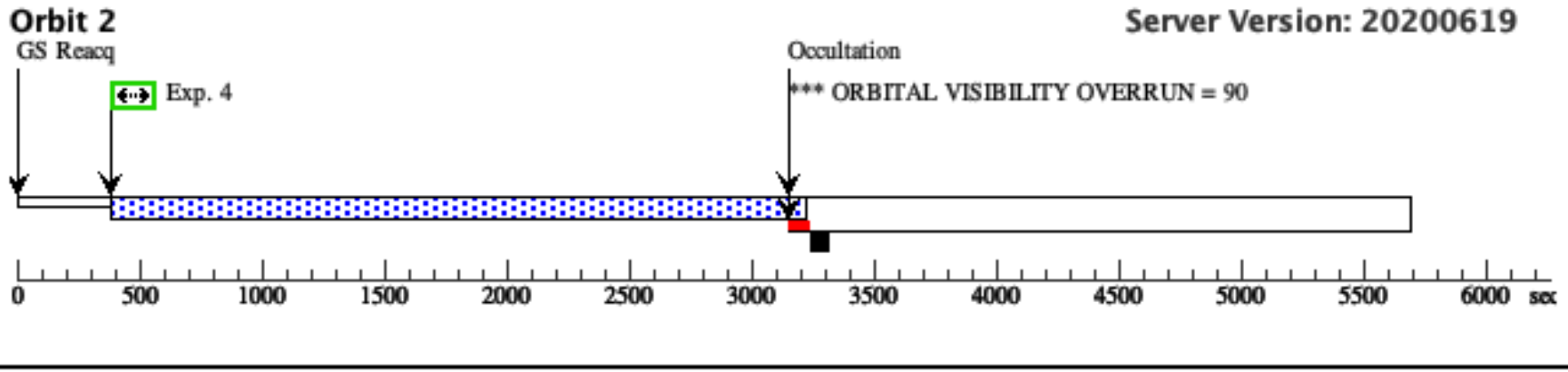
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=ISM
Description=[ABSORPTION LINE SYSTEM - GALACTIC, CORONAL GAS, HIGH VELOCITY CLOUD]
Extended=NO

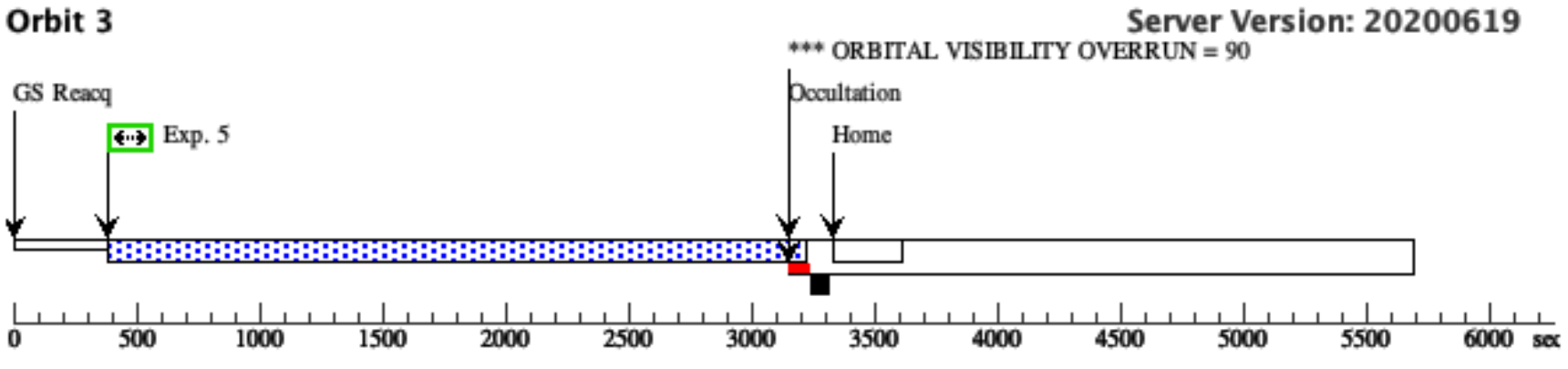
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (1367263)	(3) IRAS04596-2257	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				10 Secs (10 Secs) *[==>]*	 ***[1]***
2	G130M/FP-POS1 (1324276)	(3) IRAS04596-2257	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=4260			1147 Secs (1147 Secs) *[==>]*	 ***[1]***
3	G130M/FP-POS2 (1324276)	(3) IRAS04596-2257	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=4260			1146 Secs (1146 Secs) *[==>]*	 ***[1]***
4	G130M/FP-POS3 (1324276)	(3) IRAS04596-2257	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=4260			2791 Secs (2791 Secs) *[==>]*	 ***[2]***
5	G130M/FP-POS4 (1324276)	(3) IRAS04596-2257	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=4260			2791 Secs (2791 Secs) *[==>]*	 ***[3]***

Orbit Structure







Visit

Proposal 15887, IRAS04596-2257-G160M (06), completed Mon Oct 12 21:00:37 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(IRAS04596-2257-G160M (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(IRAS04596-2257-G160M (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

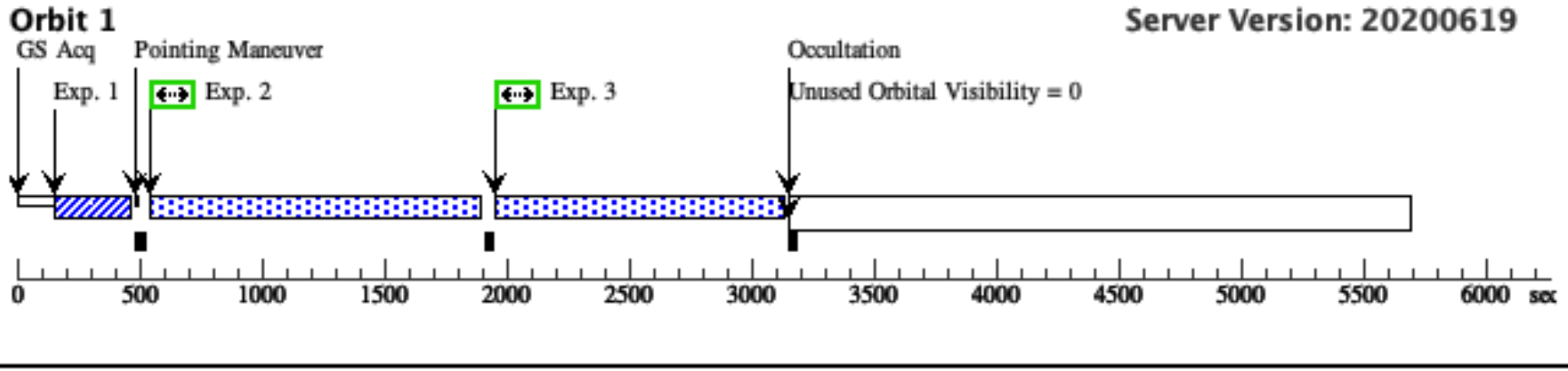
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	IRAS04596-2257	RA: 05 01 48.6170 (75.4525708d) Dec: -22 53 23.10 (-22.88975d) Equinox: J2000		V=15.13 GALEX FUV=17.14 NUV=16.76	Reference Frame: ICRS

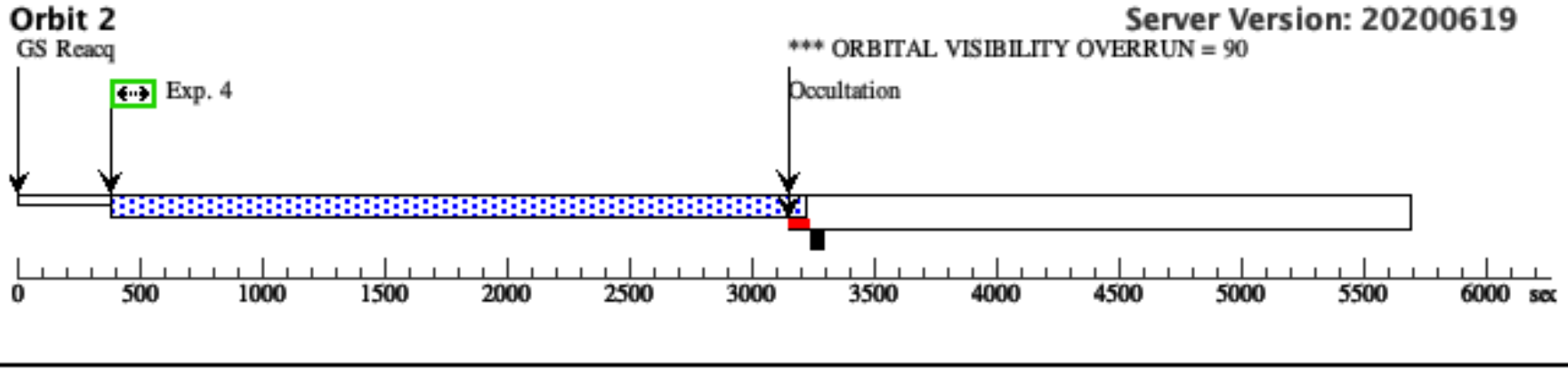
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=ISM
Description=[ABSORPTION LINE SYSTEM - GALACTIC, CORONAL GAS, HIGH VELOCITY CLOUD]
Extended=NO

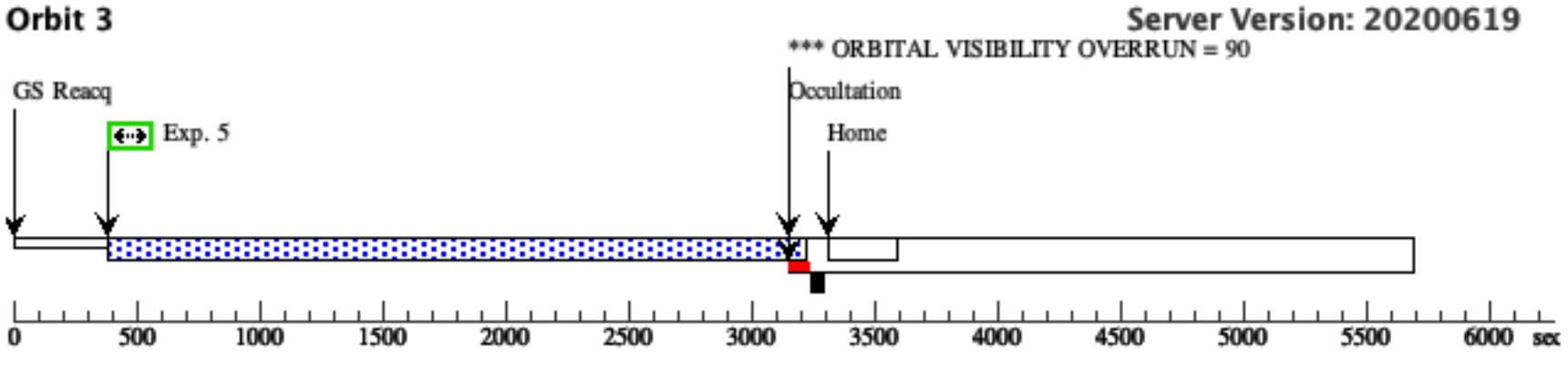
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (1367263)	(3) IRAS04596-2257	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				10 Secs (10 Secs) *[==>]*	***[1]***
2	G160M/FP-POS1 (1324311)	(3) IRAS04596-2257	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=1; BUFFER-TIME=7365			1132 Secs (1132 Secs) *[==>]*	***[1]***
3	G160M/FP-POS2 (1324311)	(3) IRAS04596-2257	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=2; BUFFER-TIME=7365			1132 Secs (1132 Secs) *[==>]*	***[1]***
4	G160M/FP-POS3 (1324311)	(3) IRAS04596-2257	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=7365			2791 Secs (2791 Secs) *[==>]*	***[2]***
5	G160M/FP-POS4 (1324311)	(3) IRAS04596-2257	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=4; BUFFER-TIME=7365			2791 Secs (2791 Secs) *[==>]*	***[3]***

Orbit Structure







Visit

Proposal 15887, HE0027-3118-G130M (07), completed Mon Oct 12 21:00:37 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(HE0027-3118-G130M (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(HE0027-3118-G130M (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(HE0027-3118-G130M (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

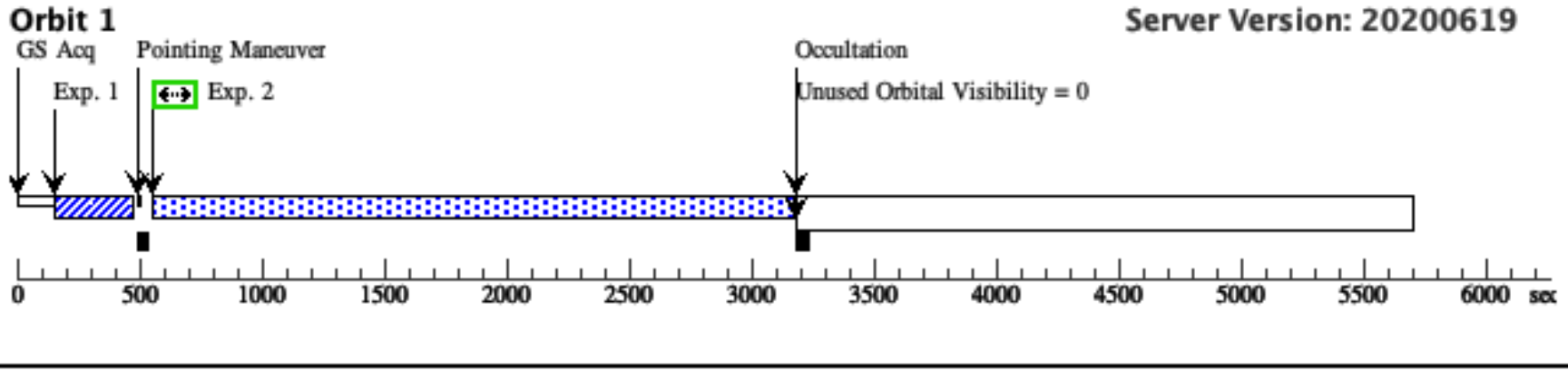
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	HE0027-3118	RA: 00 29 37.3320 (7.4055500d) Dec: -31 02 8.99 (-31.03583d) Equinox: J2000		V=17.24 GALEX FUV=17.27 NUV=17.19	Reference Frame: ICRS

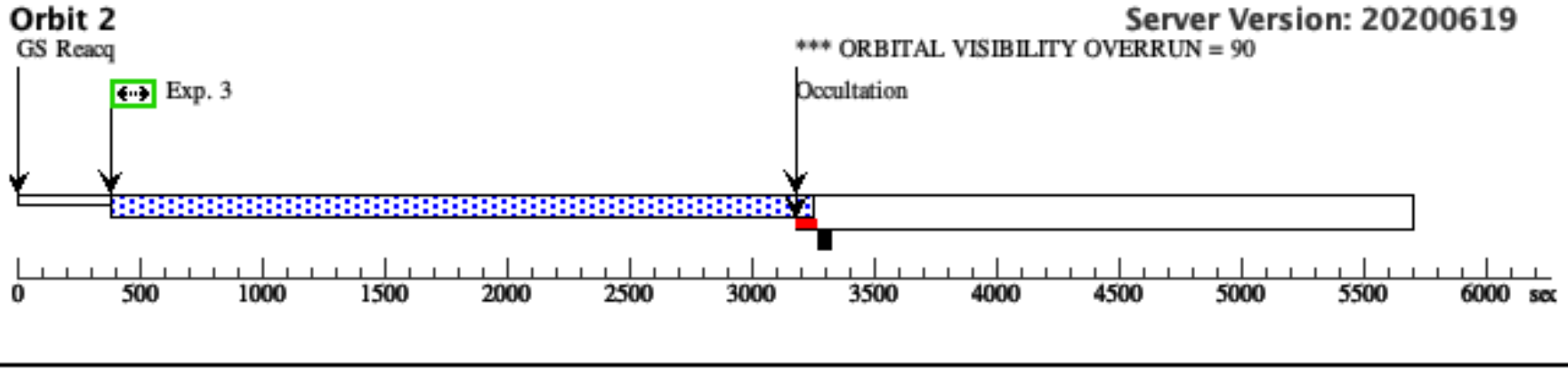
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=ISM
Description=[ABSORPTION LINE SYSTEM - GALACTIC, CORONAL GAS, HIGH VELOCITY CLOUD]
Extended=NO

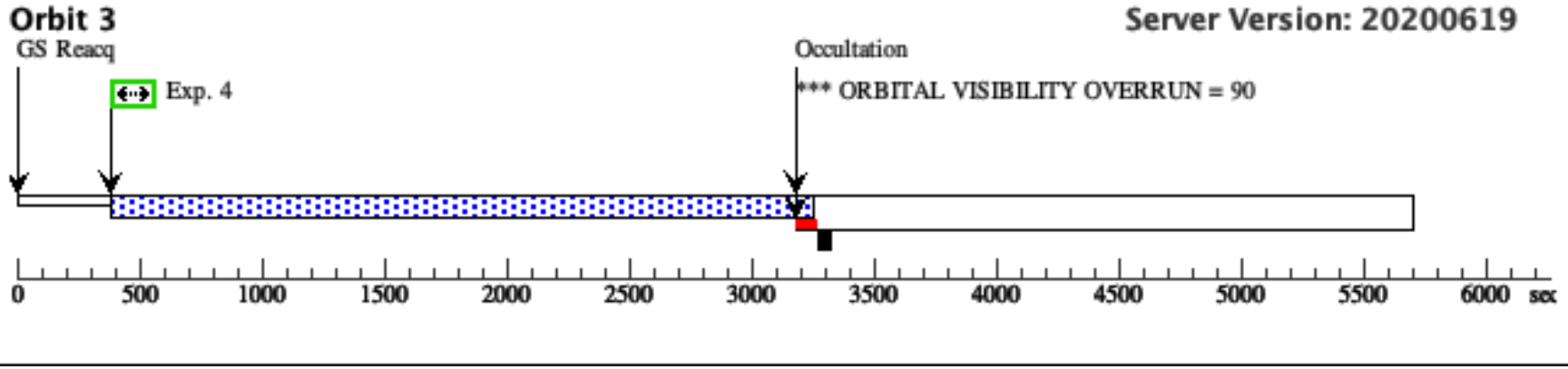
Exposures

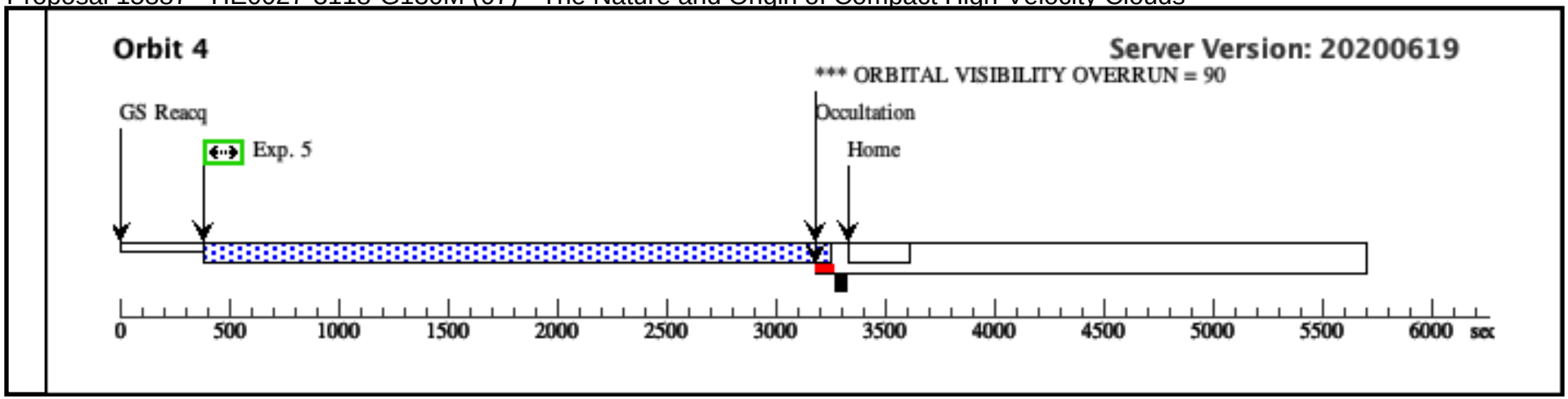
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (1367264)	(4) HE0027-3118	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				14 Secs (14 Secs) *[==>]*	***[1]***
2	G130M/FP-POS1 (1324291)	(4) HE0027-3118	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=6673			2432 Secs (2432 Secs) *[==>]*	***[1]***
3	G130M/FP-POS2 (1324291)	(4) HE0027-3118	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=6673			2814 Secs (2814 Secs) *[==>]*	***[2]***
4	G130M/FP-POS3 (1324291)	(4) HE0027-3118	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=6673			2814 Secs (2814 Secs) *[==>]*	***[3]***
5	G130M/FP-POS4 (1324291)	(4) HE0027-3118	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=6673			2814 Secs (2814 Secs) *[==>]*	***[4]***

Orbit Structure








Orbit 4
Server Version: 20200619
*** ORBITAL VISIBILITY OVERRUN = 90
GS Reacq
Exp. 5
Occultation
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15887, HE0027-3118-G160M (08), completed Mon Oct 12 21:00:37 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(HE0027-3118-G160M (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(HE0027-3118-G160M (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

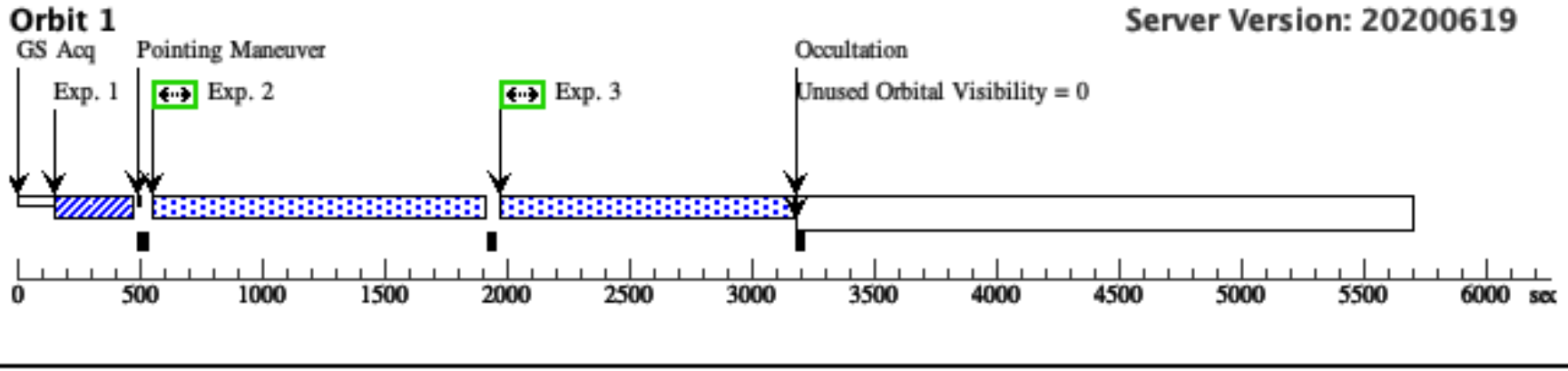
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	HE0027-3118	RA: 00 29 37.3320 (7.4055500d) Dec: -31 02 8.99 (-31.03583d) Equinox: J2000		V=17.24 GALEX FUV=17.27 NUV=17.19	Reference Frame: ICRS

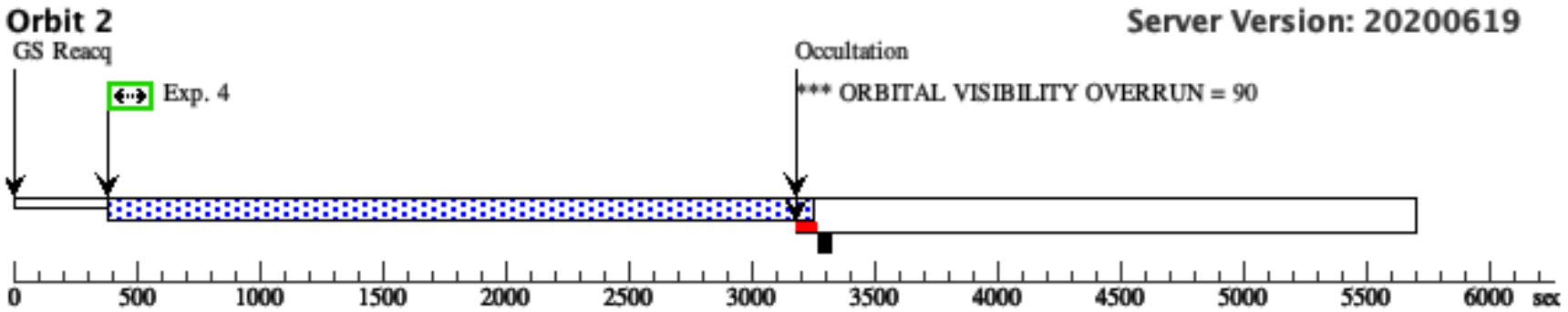
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=ISM
Description=[ABSORPTION LINE SYSTEM - GALACTIC, CORONAL GAS, HIGH VELOCITY CLOUD]
Extended=NO

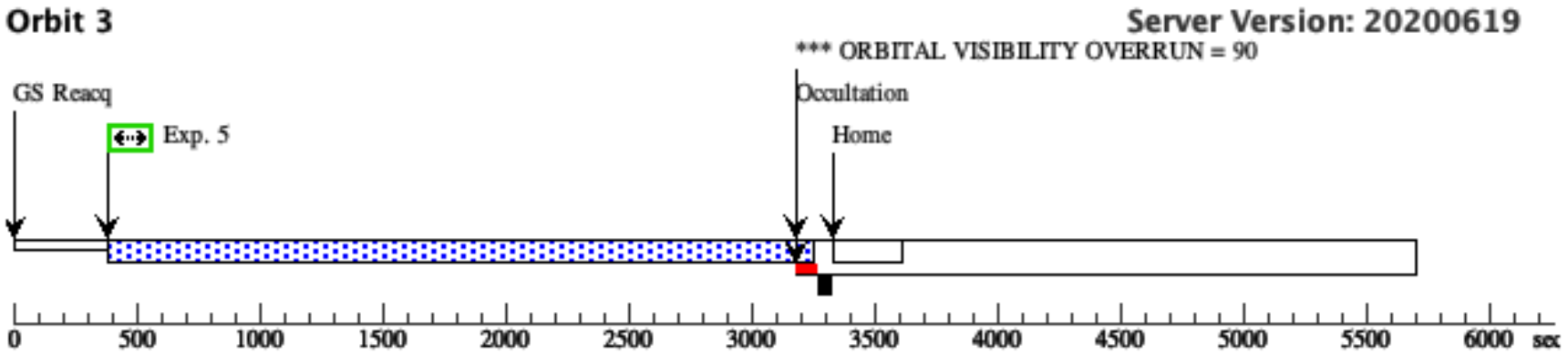
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (1367264)	(4) HE0027-3118	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				14 Secs (14 Secs) *[==>]*	*[1]*
2	G160M/FP-POS1 (1324316)	(4) HE0027-3118	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=1; BUFFER-TIME=6357			1136 Secs (1136 Secs) *[==>]*	*[1]*
3	G160M/FP-POS2 (1324316)	(4) HE0027-3118	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=2; BUFFER-TIME=6357			1143 Secs (1143 Secs) *[==>]*	*[1]*
4	G160M/FP-POS3 (1324316)	(4) HE0027-3118	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=6357			2814 Secs (2814 Secs) *[==>]*	*[2]*
5	G160M/FP-POS4 (1324316)	(4) HE0027-3118	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=4; BUFFER-TIME=6357			2814 Secs (2814 Secs) *[==>]*	*[3]*

Orbit Structure







Visit

Proposal 15887, CTS47-G130M (09), failed Mon Oct 12 21:00:37 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(CTS47-G130M (09)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(CTS47-G130M (09)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(CTS47-G130M (09)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

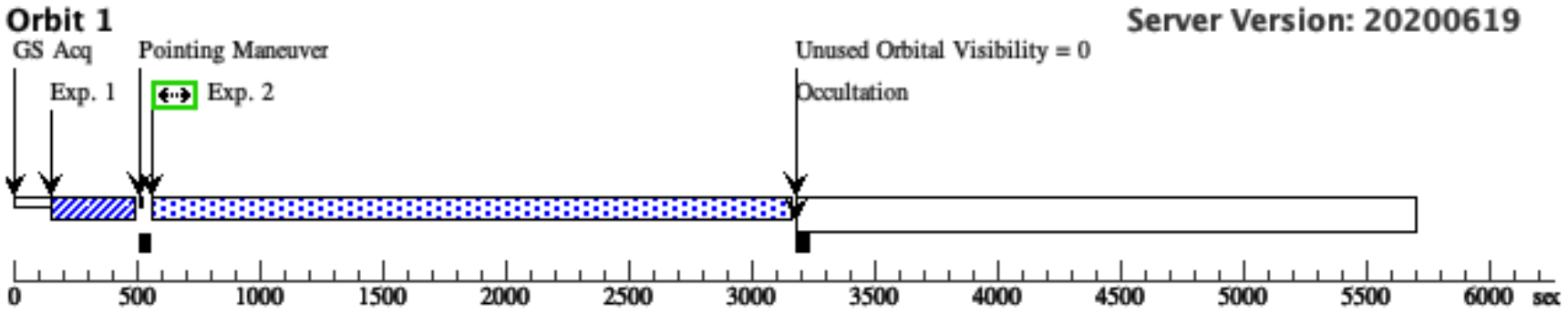
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	CTS47	RA: 04 40 44.7306 (70.1863775d) Dec: -34 41 51.15 (-34.69754d) Equinox: J2000	Proper Motion RA: 3.592126800707514E-5 sec of time/yr Proper Motion Dec: -4.639999360733782E-4 arcsec/yr Epoch of Position: 2015.5	V=17.1 GALEX FUV=17.81 NUV=17.66	Reference Frame: ICRS

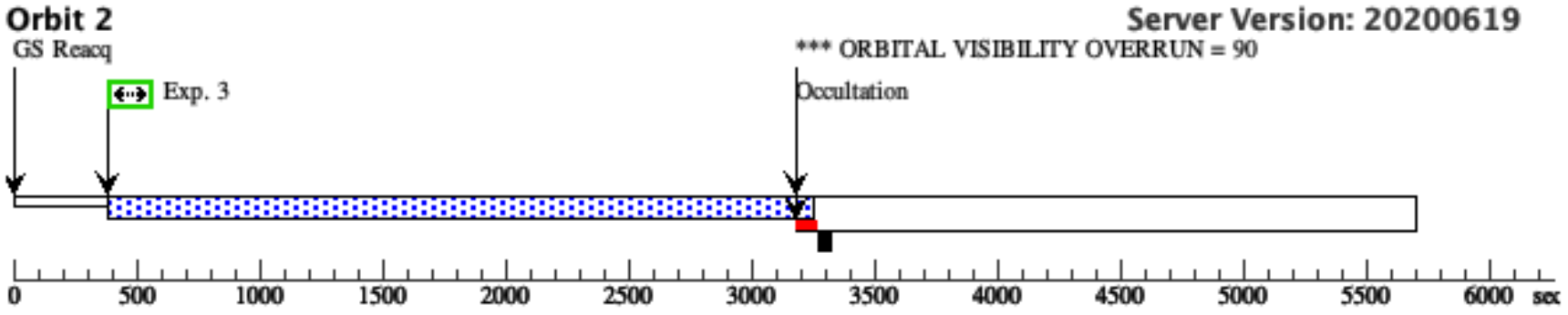
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=ISM
Description=[ABSORPTION LINE SYSTEM - GALACTIC, CORONAL GAS, HIGH VELOCITY CLOUD]
Extended=NO

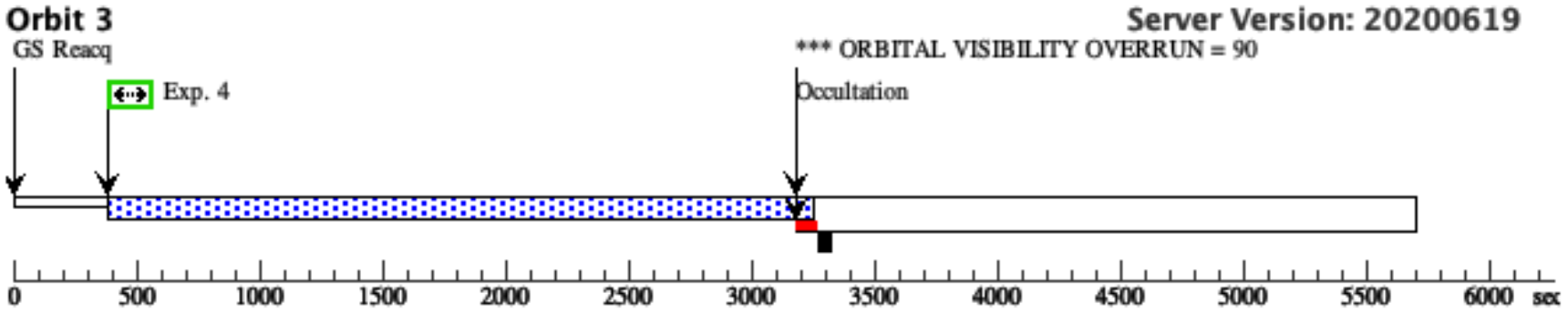
Exposures

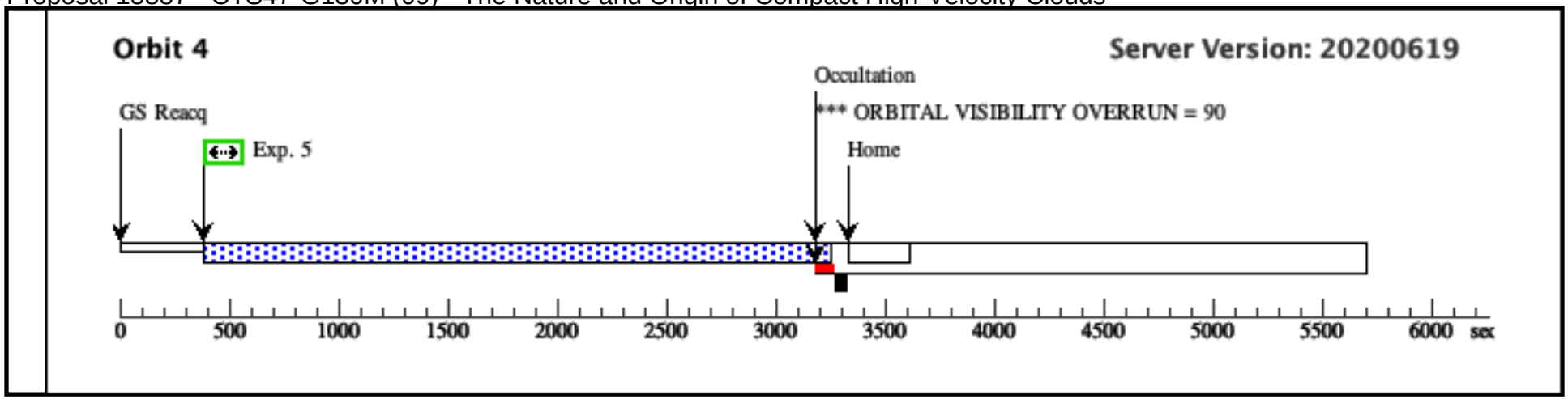
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (1367265)	(5) CTS47	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				22 Secs (22 Secs) *[==>]*	*[1]*
2	G130M/FP-POS1 (1336624)	(5) CTS47	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=7030			2416 Secs (2416 Secs) *[==>]*	*[1]*
3	G130M/FP-POS2 (1336624)	(5) CTS47	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=7030			2814 Secs (2814 Secs) *[==>]*	*[2]*
4	G130M/FP-POS3 (1336624)	(5) CTS47	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=7030			2814 Secs (2814 Secs) *[==>]*	*[3]*
5	G130M/FP-POS4 (1336624)	(5) CTS47	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=7030			2814 Secs (2814 Secs) *[==>]*	*[4]*

Orbit Structure








Orbit 4
Server Version: 20200619
Occultation
GS Reacq
*** ORBITAL VISIBILITY OVERRUN = 90
Exp. 5
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15887, CTS47-G130M-repeat (59), implementation Mon Oct 12 21:00:37 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

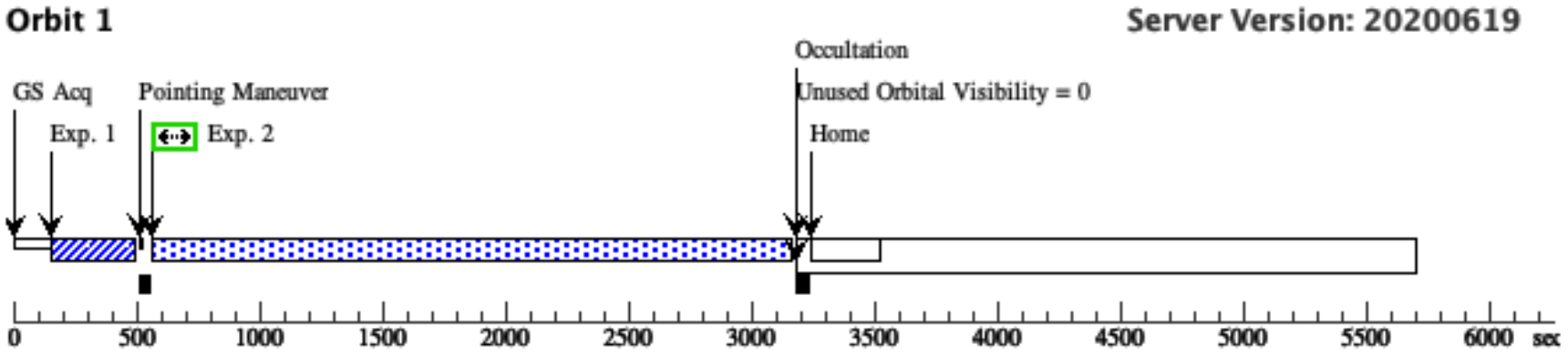
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	CTS47	RA: 04 40 44.7306 (70.1863775d) Dec: -34 41 51.15 (-34.69754d) Equinox: J2000	Proper Motion RA: 3.592126800707514E-5 sec of time/yr Proper Motion Dec: -4.639999360733782E-4 arcsec/yr Epoch of Position: 2015.5	V=17.1 GALEX FUV=17.81 NUV=17.66	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=ISM
Description=[ABSORPTION LINE SYSTEM - GALACTIC, CORONAL GAS, HIGH VELOCITY CLOUD]
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/IMAGE (1367265)	(5) CTS47	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				22 Secs (22 Secs) *[==>]*	*[1]*
2	G130M/FP-POS4 (1336624)	(5) CTS47	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=7030			2416 Secs (2416 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 15887, CTS47-G160M (10), completed Mon Oct 12 21:00:37 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(CTS47-G160M (10)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(CTS47-G160M (10)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	CTS47	RA: 04 40 44.7306 (70.1863775d) Dec: -34 41 51.15 (-34.69754d) Equinox: J2000	Proper Motion RA: 3.592126800707514E-5 sec of time/yr Proper Motion Dec: -4.639999360733782E-4 arcsec/yr Epoch of Position: 2015.5	V=17.1 GALEX FUV=17.81 NUV=17.66	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=ISM
Description=[ABSORPTION LINE SYSTEM - GALACTIC, CORONAL GAS, HIGH VELOCITY CLOUD]
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/IMAGE (1367265)	(5) CTS47	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				22 Secs (22 Secs) *[==>]*	*[1]*
2	G160M/FP-POS1 (1336632)	(5) CTS47	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=1; BUFFER-TIME=10900			1130 Secs (1130 Secs) *[==>]*	*[1]*
3	G160M/FP-POS2 (1336632)	(5) CTS47	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=2; BUFFER-TIME=10900			1143 Secs (1143 Secs) *[==>]*	*[1]*
4	G160M/FP-POS3 (1336632)	(5) CTS47	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=10900			2814 Secs (2814 Secs) *[==>]*	*[2]*
5	G160M/FP-POS4 (1336632)	(5) CTS47	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=4; BUFFER-TIME=10900			2814 Secs (2814 Secs) *[==>]*	*[3]*

Orbit Structure