18076 - Unveiling the Circumgalactic Medium of M33: A Study of Satellite-Host Interactions in the Local Group

Cycle: 33, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

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Dr. Jason Tumlinson (CoI)	Space Telescope Science Institute
Dr. Anna Wright (CoI)	Flatiron Institute

VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) SDSSJ013803.57+304026.1	COS/FUV COS/NUV	3	05-Aug-2026 11:00:17.0	yes
02	(1) SDSSJ013803.57+304026.1	COS/FUV COS/NUV	3	05-Aug-2026 11:00:18.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
03	(1) SDSSJ013803.57+304026.1	COS/FUV COS/NUV	3	05-Aug-2026 11:00:20.0	yes
04	(2) SDSSJ012657.02+315353.0	COS/FUV COS/NUV	3	05-Aug-2026 11:00:22.0	yes
05	(2) SDSSJ012657.02+315353.0	COS/FUV COS/NUV	2	05-Aug-2026 11:00:23.0	yes
25	(2) SDSSJ012657.02+315353.0	COS/FUV COS/NUV	1	05-Aug-2026 11:00:24.0	yes
06	(2) SDSSJ012657.02+315353.0	COS/FUV COS/NUV	2	05-Aug-2026 11:00:24.0	yes
26	(2) SDSSJ012657.02+315353.0	COS/FUV COS/NUV	1	05-Aug-2026 11:00:26.0	yes
07	(3) SDSSJ012007.00+285826.6	COS/FUV COS/NUV	3	05-Aug-2026 11:00:27.0	yes
08	(3) SDSSJ012007.00+285826.6	COS/FUV COS/NUV	3	05-Aug-2026 11:00:28.0	yes
09	(3) SDSSJ012007.00+285826.6	COS/FUV COS/NUV	3	05-Aug-2026 11:00:29.0	yes
10	(4) SDSSJ015356.31+305306.4	COS/FUV COS/NUV	3	05-Aug-2026 11:00:31.0	yes
11	(4) SDSSJ015356.31+305306.4	COS/FUV COS/NUV	2	05-Aug-2026 11:00:32.0	yes

32 Total Orbits Used

ABSTRACT

Satellite galaxies are cosmic storytellers, revealing how galaxies collide, evolve, and grow. Interactions with their hosts through ram-pressure and tidal stripping--can rapidly quench star formation. However, the circumgalactic medium (CGM), which serves as a protective outer envelope, remains largely unexplored for satellite galaxies, with the Large Magellanic Cloud (LMC) being the only well-studied case. We propose to study the

CGM of the Triangulum Galaxy (M33), the most massive satellite of Andromeda (M31) and an analog to the LMC. We request 30 orbits of HST/COS G130M spectroscopy to observe four new quasars. Combining with two archival sightlines, we will map M33's inner CGM (within 0.5 Rvir). Our goals are to: (1) determine if M33 hosts its own CGM or it has merged into M31's CGM, (2) compare it with the LMC to assess how environment and infall history shape CGM evolution, and (3) test predictions from simulations of satellite CGM evolution. This research offers a unique opportunity to advance our understanding of how feedback, host mass, and orbit influence satellite CGMs through direct observational constraints beyond the Milky Way.

OBSERVING DESCRIPTION

This is a COS FUV program to observe four QSO targets probing the halo of the M33 galaxy. The science goal is find out if M33 has its own CGM or it is merged with that of M31. I will use UV metal absoption lines in the spectra of G130M spectra of these quasars. The targets will be acquired with a NUV ACQ/IMAGE with the PSA and MIRRORA (object 1,2, 4) MIRRORB (object 4), followed by science observations with the G130M/1291 setting. We used two FP-POS 3 and 4 in each visit. These four objects are spread across 11 visits. All visits are up to 3 orbits in length, following the guidance from the PC.

Visit

Proposal 18076, Object1-Visit1-SDSS J013803 (01), scheduling Wed Aug 05 15:00:32 GMT 2026

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

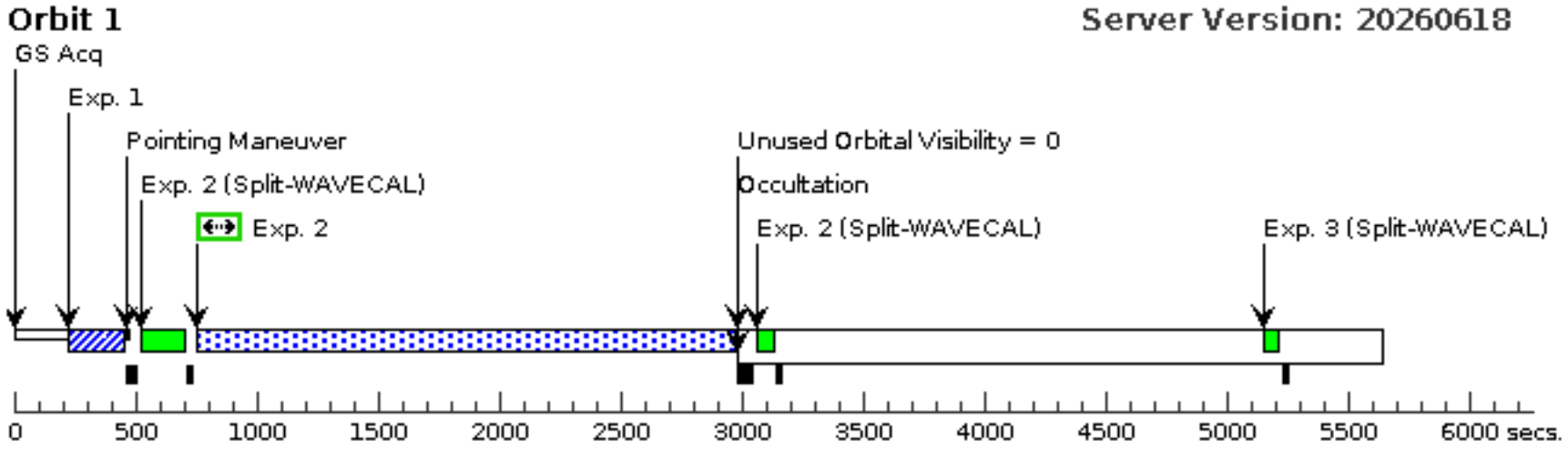
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SDSSJ013803.57+304026.1	RA: 01 38 3.5794 (24.5149142d) Dec: +30 40 26.21 (30.67395d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.335	V=18.132710 19.09 (FUV)	Reference Frame: ICRS

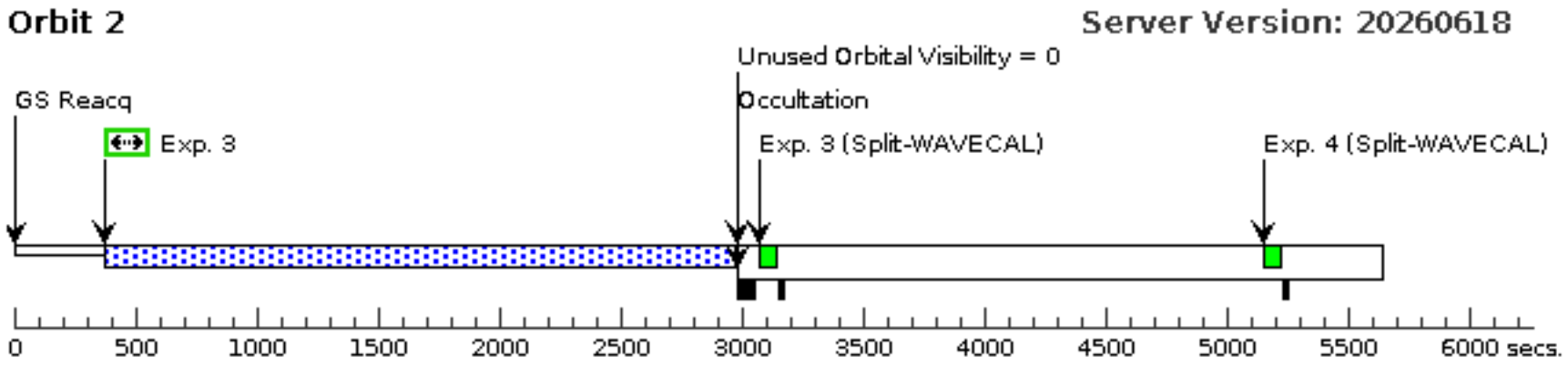
Comments: magnitude is in G-band
Category=ISM
Description=[ABSORPTION LINE SYSTEM, ABSORPTION LINE SYSTEM - EXTRAGALACTIC, ABSORPTION LINE SYSTEM - GALACTIC, HALO]
Extended=NO

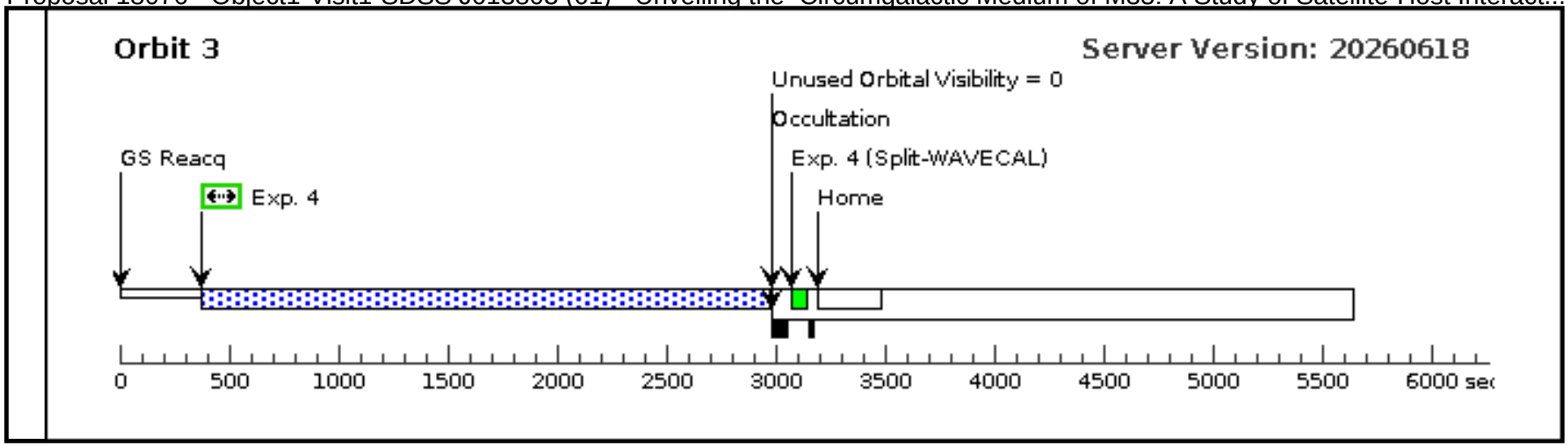
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAG (2216189)	(1) SDSSJ013803.57+304026.1	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				6 Secs (6 Secs) *[==>]*	 ***[1]***
Comments: NUV mag = 18.9134									
2	G130M/1291-FPPOS3 (1961024)	(1) SDSSJ013803.57+304026.1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=4307			2165 Secs (2165 Secs) *[==>]*	 ***[1]***
3	G130M/1291-FPPOS3 (1961024)	(1) SDSSJ013803.57+304026.1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=4307			2547 Secs (2547 Secs) *[==>]*	 ***[2]***
4	G130M/1291-FPPOS4 (1961024)	(1) SDSSJ013803.57+304026.1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=4307			2547 Secs (2547 Secs) *[==>]*	 ***[3]***

Orbit Structure






Orbit 3
Server Version: 20260618
Unused Orbital Visibility = 0
Occultation
GS Reacq
Exp. 4 (Split-WAVECAL)
Exp. 4
Home
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2000
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4500
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6000 sec

Visit

Proposal 18076, Object1-Visit2-SDSS J013803 (02), scheduling Wed Aug 05 15:00:33 GMT 2026

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

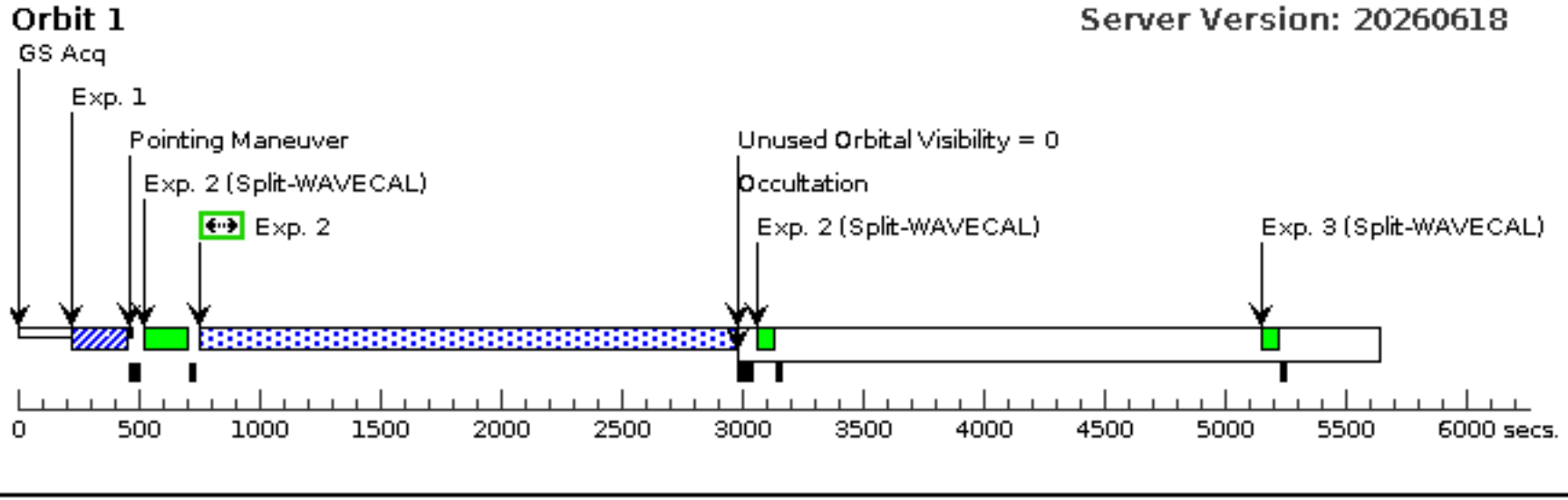
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SDSSJ013803.57+304026.1	RA: 01 38 3.5794 (24.5149142d) Dec: +30 40 26.21 (30.67395d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.335	V=18.132710 19.09 (FUV)	Reference Frame: ICRS

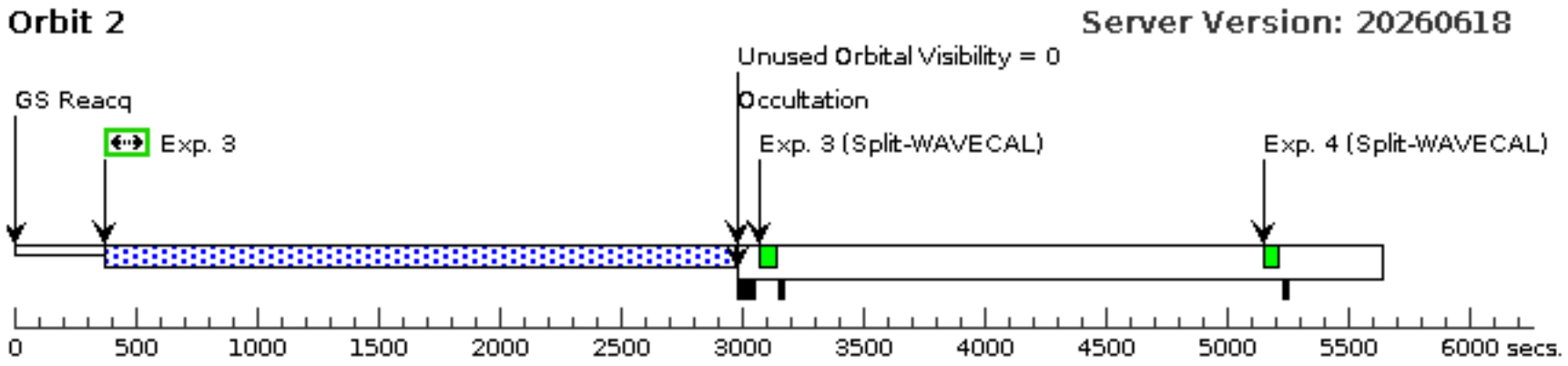
Comments: magnitude is in G-band
Category=ISM
Description=[ABSORPTION LINE SYSTEM, ABSORPTION LINE SYSTEM - EXTRAGALACTIC, ABSORPTION LINE SYSTEM - GALACTIC, HALO]
Extended=NO

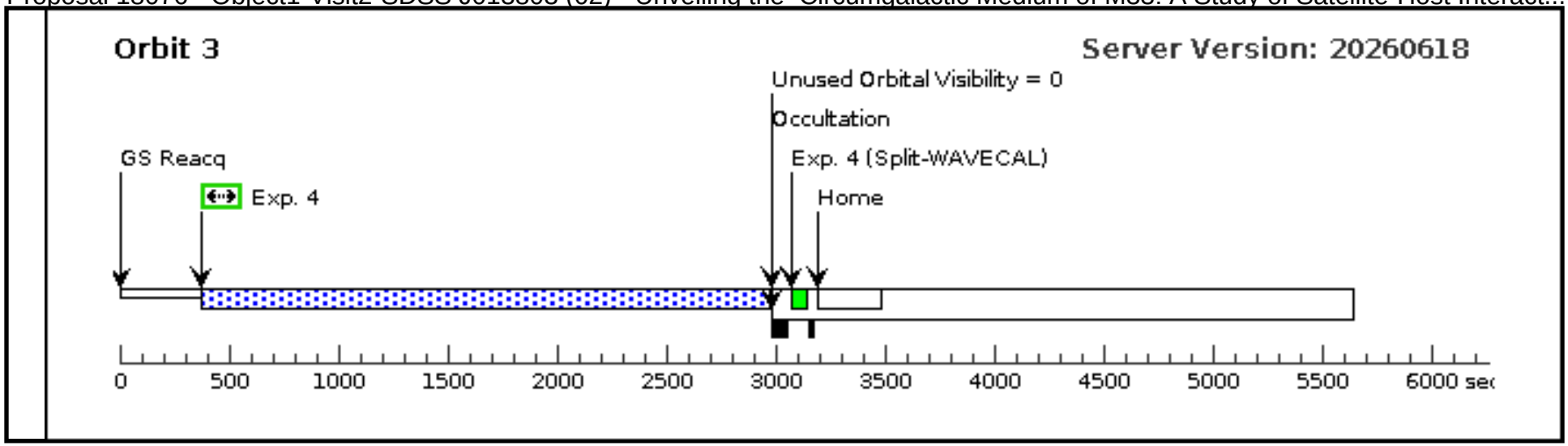
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAG (2216189)	(1) SDSSJ013803.57+304026.1	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				6 Secs (6 Secs) *[==>]*	 ***[1]***
Comments: NUV mag = 18.9134									
2	G130M/1291-FPPOS3 (1961024)	(1) SDSSJ013803.57+304026.1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=4307			2165 Secs (2165 Secs) *[==>]*	 ***[1]***
3	G130M/1291-FPPOS4 (1961024)	(1) SDSSJ013803.57+304026.1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=4307			2547 Secs (2547 Secs) *[==>]*	 ***[2]***
4	G130M/1291-FPPOS4 (1961024)	(1) SDSSJ013803.57+304026.1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=4307			2547 Secs (2547 Secs) *[==>]*	 ***[3]***

Orbit Structure






Orbit 3
Server Version: 20260618
Unused Orbital Visibility = 0
Occultation
GS Reacq
Exp. 4 (Split-WAVECAL)
Exp. 4
Home
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500
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Visit

Proposal 18076, Object1-Visit3-SDSS J013803 (03), scheduling Wed Aug 05 15:00:33 GMT 2026

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

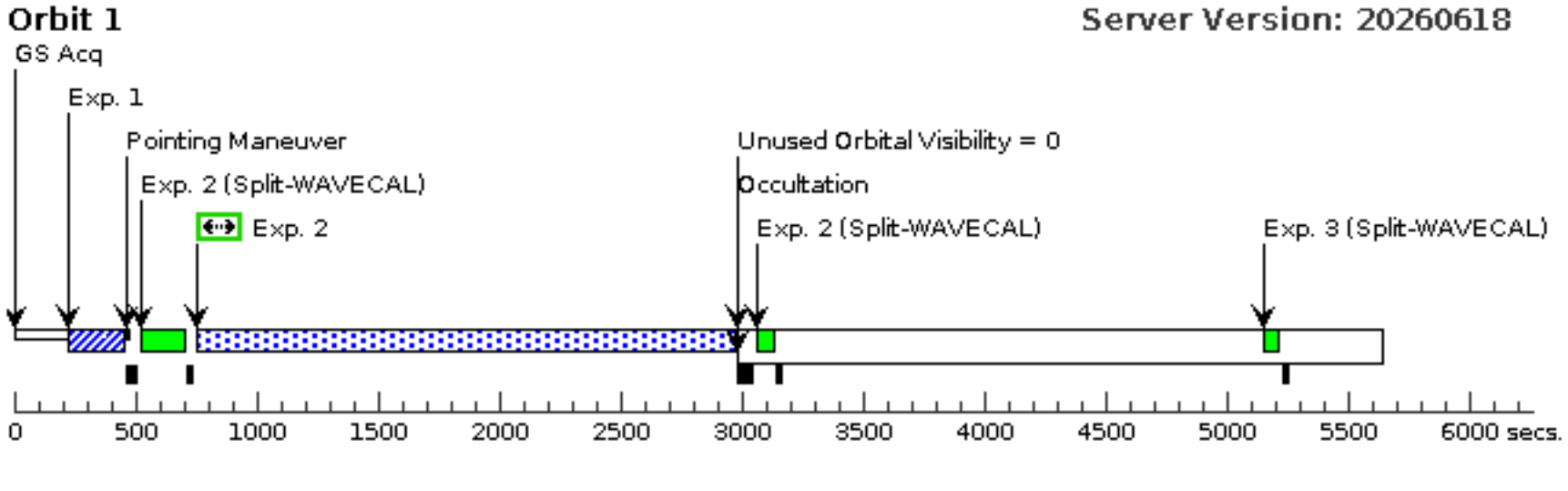
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SDSSJ013803.57+304026.1	RA: 01 38 3.5794 (24.5149142d) Dec: +30 40 26.21 (30.67395d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.335	V=18.132710 19.09 (FUV)	Reference Frame: ICRS

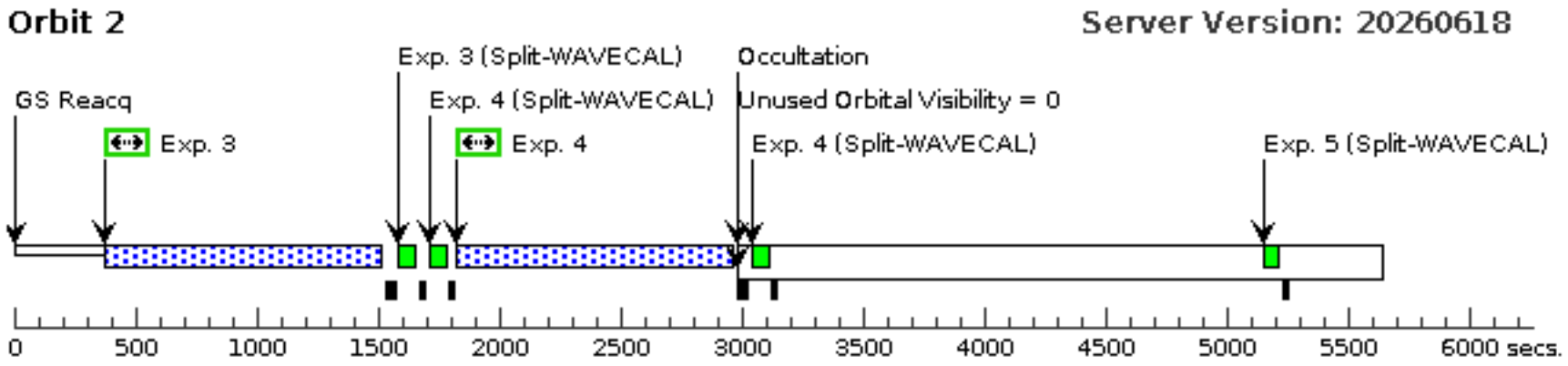
Comments: magnitude is in G-band
Category=ISM
Description=[ABSORPTION LINE SYSTEM, ABSORPTION LINE SYSTEM - EXTRAGALACTIC, ABSORPTION LINE SYSTEM - GALACTIC, HALO]
Extended=NO

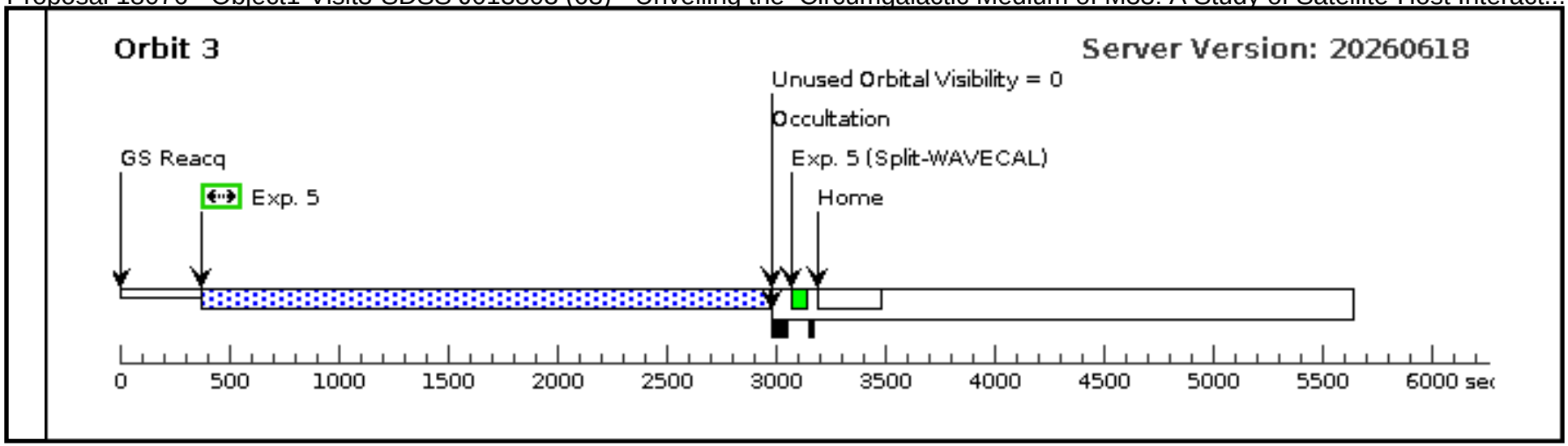
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAG (2216189)	(1) SDSSJ013803.57+304026.1	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				6 Secs (6 Secs) *[==>]*	 ***[1]***
Comments: NUV mag = 18.9134									
2	G130M/1291-FPPOS3 (1961024)	(1) SDSSJ013803.57+304026.1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=4307			2165 Secs (2165 Secs) *[==>]*	 ***[1]***
3	G130M/1291-FPPOS3 (1961024)	(1) SDSSJ013803.57+304026.1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=4307			1092 Secs (1092 Secs) *[==>]*	 ***[2]***
4	G130M/1291-FPPOS4 (1961024)	(1) SDSSJ013803.57+304026.1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=4307			1092 Secs (1092 Secs) *[==>]*	 ***[2]***
5	G130M/1291-FPPOS4 (1961024)	(1) SDSSJ013803.57+304026.1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=4307			2547 Secs (2547 Secs) *[==>]*	 ***[3]***

Orbit Structure



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Unused Orbital Visibility = 0
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Exp. 5
Exp. 5 (Split-WAVECAL)
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Visit

Proposal 18076, Object2-Visit1-SDSS J012657 (04), scheduling Wed Aug 05 15:00:33 GMT 2026

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

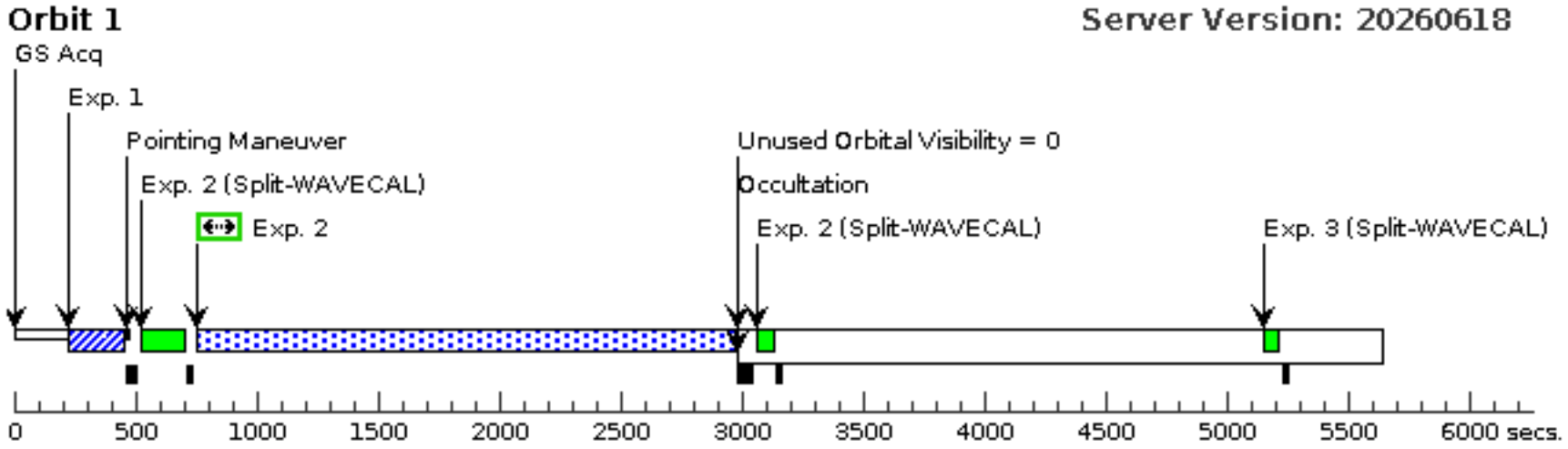
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	SDSSJ012657.02+315353.0	RA: 01 26 57.0250 (21.7376042d) Dec: +31 53 53.08 (31.89808d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.342	V=18.550688 19.02 (FUV)	Reference Frame: ICRS

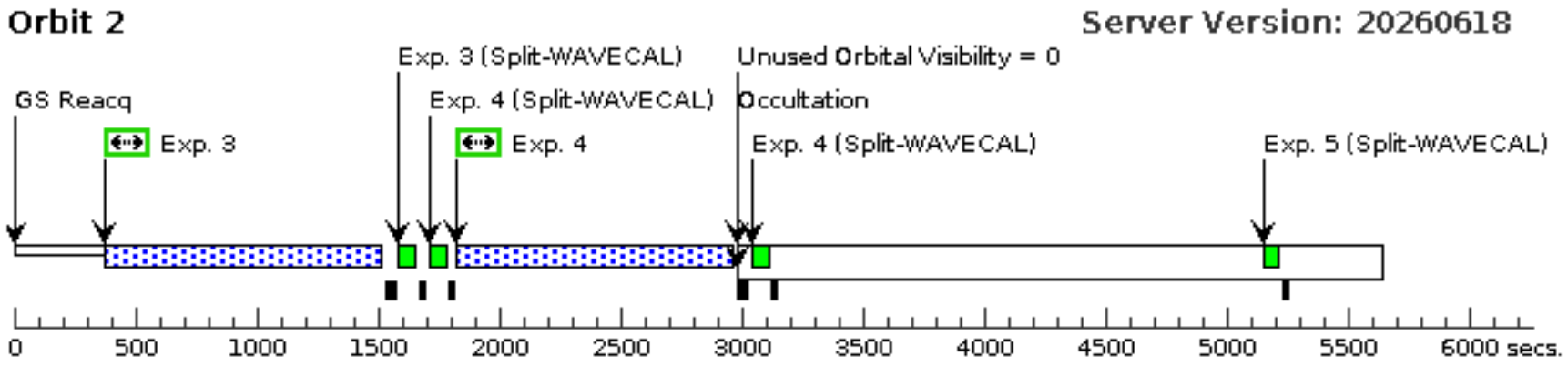
Comments: magnitude is in G band
Category=ISM
Description=[ABSORPTION LINE SYSTEM, ABSORPTION LINE SYSTEM - EXTRAGALACTIC, ABSORPTION LINE SYSTEM - GALACTIC, HALO]
Extended=NO

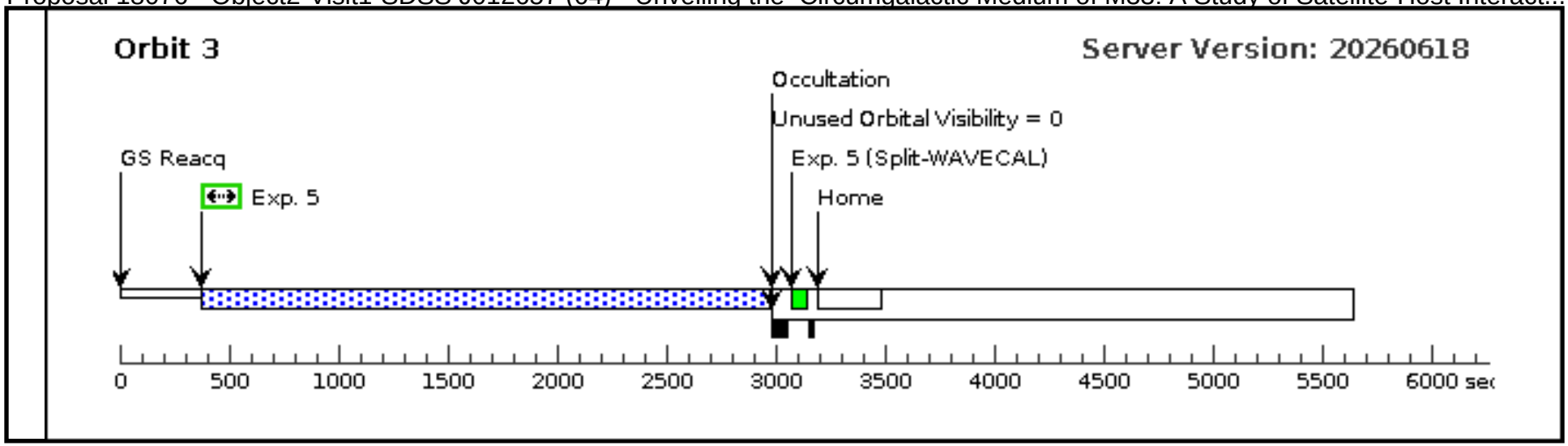
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAG (2216194)	(2) SDSSJ012657.02 +315353.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				6 Secs (6 Secs) *[==>]*	 ***[1]***
Comments: NUV mag = 18.781									
2	G130M/1291-FPPOS3 (1961026)	(2) SDSSJ012657.02 +315353.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=4286			2165 Secs (2165 Secs) *[==>]*	 ***[1]***
3	G130M/1291-FPPOS3 (1961026)	(2) SDSSJ012657.02 +315353.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=4286			1092 Secs (1092 Secs) *[==>]*	 ***[2]***
4	G130M/1291-FPPOS4 (1961026)	(2) SDSSJ012657.02 +315353.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=4286			1092 Secs (1092 Secs) *[==>]*	 ***[2]***
5	G130M/1291-FPPOS4 (1961026)	(2) SDSSJ012657.02 +315353.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=4286			2547 Secs (2547 Secs) *[==>]*	 ***[3]***

Orbit Structure






Orbit 3
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Occultation
Unused Orbital Visibility = 0
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Exp. 5
Home
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4500
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5500
6000 sec

Visit

Proposal 18076, Object2-Visit2-SDSS J012657 (05), failed Wed Aug 05 15:00:33 GMT 2026

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

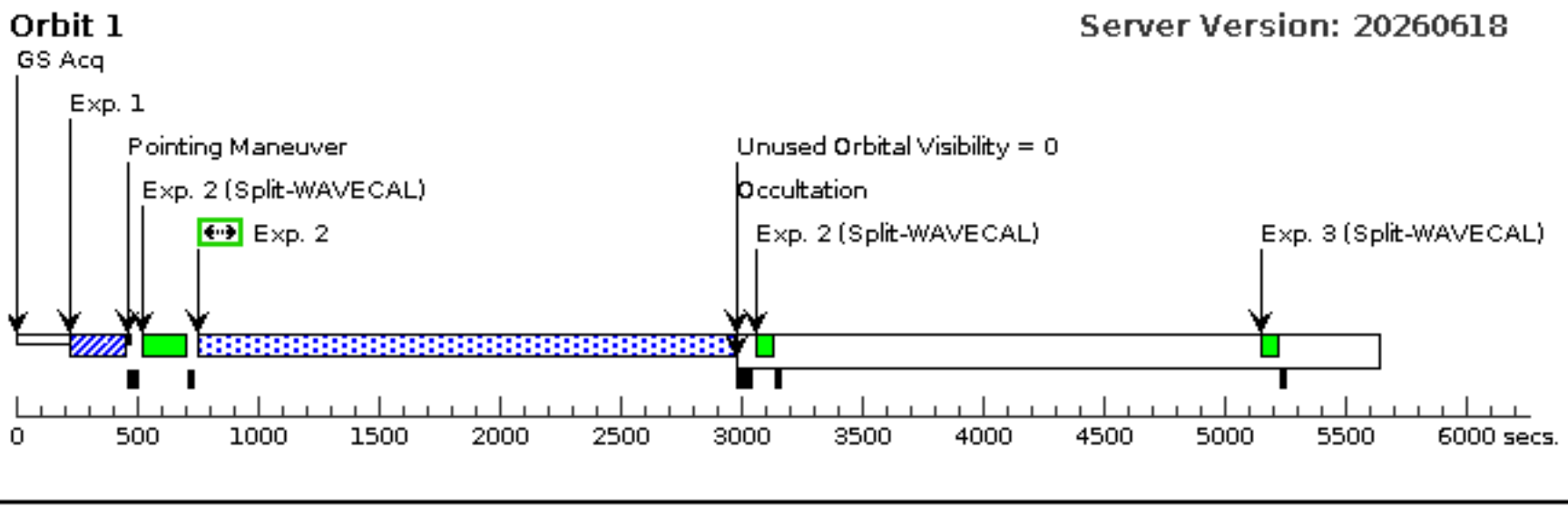
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	SDSSJ012657.02+315353.0	RA: 01 26 57.0250 (21.7376042d) Dec: +31 53 53.08 (31.89808d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.342	V=18.550688 19.02 (FUV)	Reference Frame: ICRS

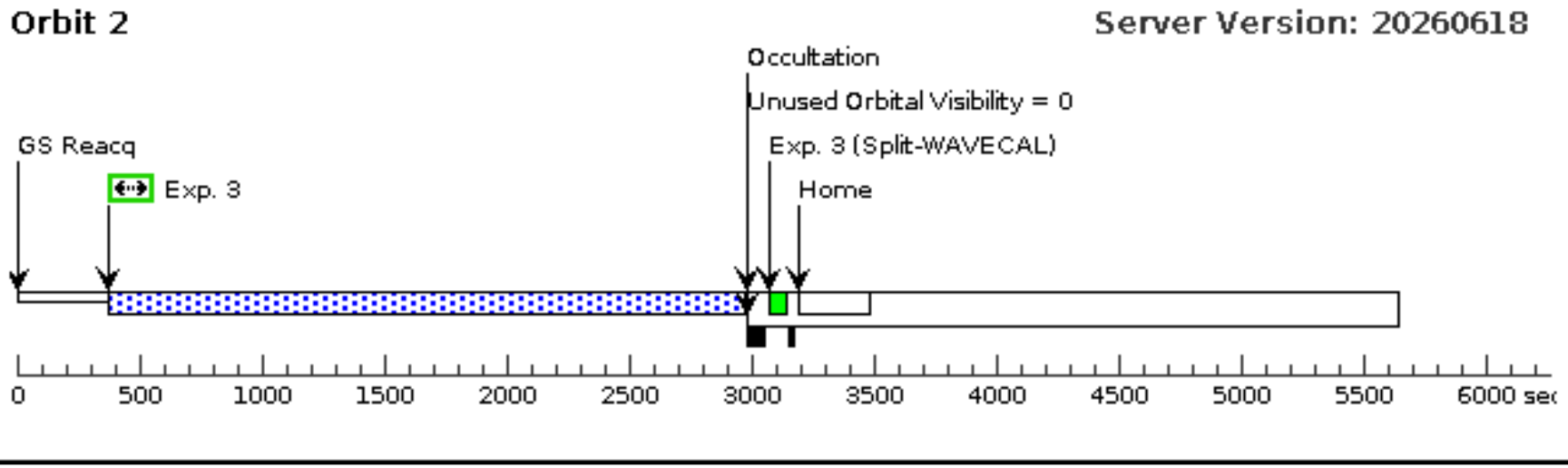
Comments: magnitude is in G band
Category=ISM
Description=[ABSORPTION LINE SYSTEM, ABSORPTION LINE SYSTEM - EXTRAGALACTIC, ABSORPTION LINE SYSTEM - GALACTIC, HALO]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAG (2216194)	(2) SDSSJ012657.02 +315353.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				6 Secs (6 Secs) *[==>]*	 ***[1]***
Comments: NUV mag = 18.781									
2	G130M/1291-FPPOS3 (1961026)	(2) SDSSJ012657.02 +315353.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=4286			2165 Secs (2165 Secs) *[==>]*	 ***[1]***
3	G130M/1291-FPPOS4 (1961026)	(2) SDSSJ012657.02 +315353.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=4286			2547 Secs (2547 Secs) *[==>]*	 ***[2]***

Orbit Structure





Visit

Proposal 18076, Object2-Visit2-SDSS J012657 (25) Wed Aug 05 15:00:33 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Object2-Visit2-SDSS J012657 (25)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions at a given COS cenwave (or 2 positions for certain exception cases). See extended explanation in the diagnostic browser.

Fixed Targets

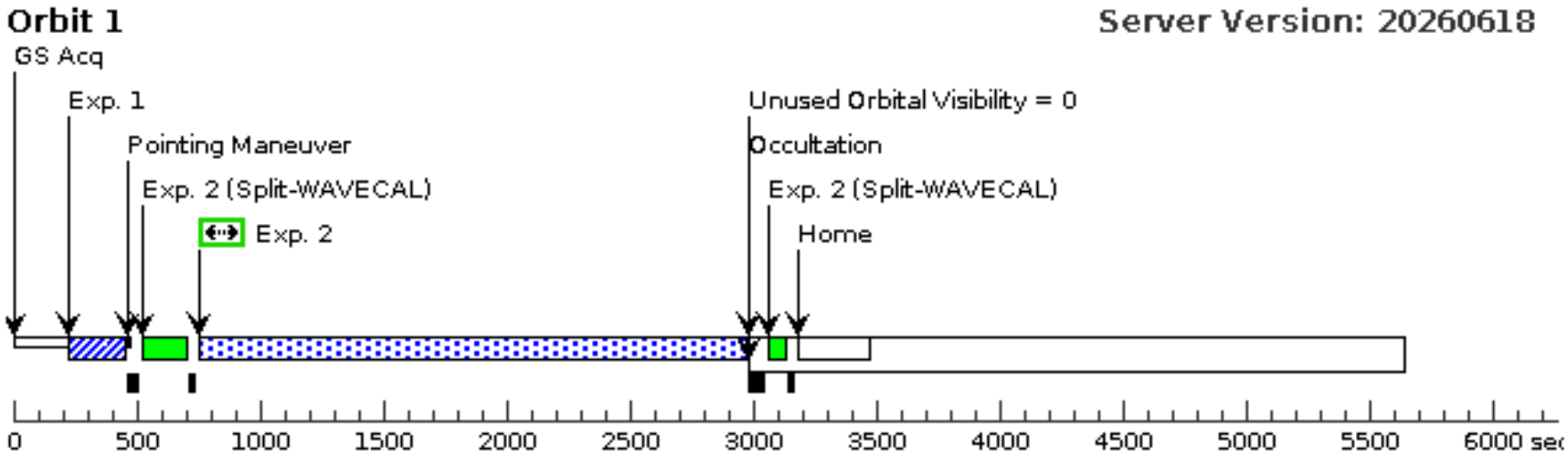
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	SDSSJ012657.02+315353.0	RA: 01 26 57.0250 (21.7376042d) Dec: +31 53 53.08 (31.89808d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.342	V=18.550688 19.02 (FUV)	Reference Frame: ICRS

Comments: magnitude is in G band
Category=ISM
Description=[ABSORPTION LINE SYSTEM, ABSORPTION LINE SYSTEM - EXTRAGALACTIC, ABSORPTION LINE SYSTEM - GALACTIC, HALO]
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/IMAG (2216194)	(2) SDSSJ012657.02 +315353.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				6 Secs (6 Secs) *[==>]*	*[1]*
Comments: NUV mag = 18.781									
2	G130M/1291-FPPOS3 (1961026)	(2) SDSSJ012657.02 +315353.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=4286			2165 Secs (2165 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 18076, Object2-Visit3-SDSS J012657 (06), failed Wed Aug 05 15:00:33 GMT 2026

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

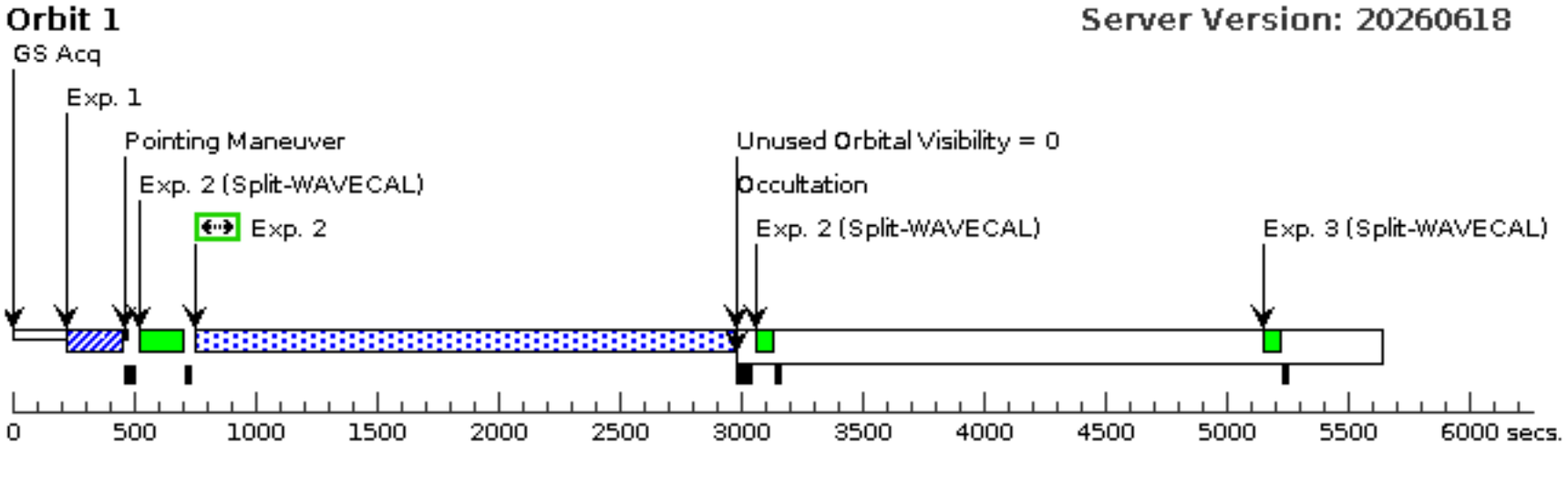
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	SDSSJ012657.02+315353.0	RA: 01 26 57.0250 (21.7376042d) Dec: +31 53 53.08 (31.89808d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.342	V=18.550688 19.02 (FUV)	Reference Frame: ICRS

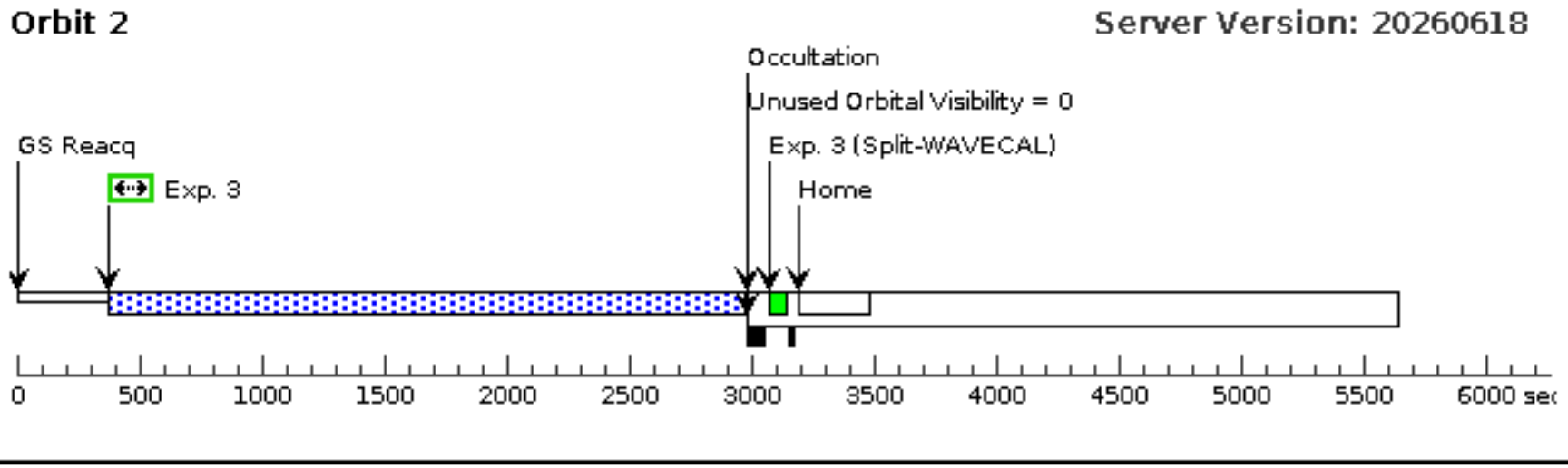
Comments: magnitude is in G band
Category=ISM
Description=[ABSORPTION LINE SYSTEM, ABSORPTION LINE SYSTEM - EXTRAGALACTIC, ABSORPTION LINE SYSTEM - GALACTIC, HALO]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAG (2216194)	(2) SDSSJ012657.02 +315353.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				6 Secs (6 Secs) *[==>]*	 ***[1]***
Comments: NUV mag = 18.781									
2	G130M/1291-FPPOS3 (1961026)	(2) SDSSJ012657.02 +315353.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=4286			2165 Secs (2165 Secs) *[==>]*	 ***[1]***
3	G130M/1291-FPPOS4 (1961026)	(2) SDSSJ012657.02 +315353.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=4286			2547 Secs (2547 Secs) *[==>]*	 ***[2]***

Orbit Structure





Visit

Proposal 18076, Object2-Visit3-SDSS J012657 (26) Wed Aug 05 15:00:33 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Object2-Visit3-SDSS J012657 (26)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions at a given COS cenwave (or 2 positions for certain exception cases). See extended explanation in the diagnostic browser.

Fixed Targets

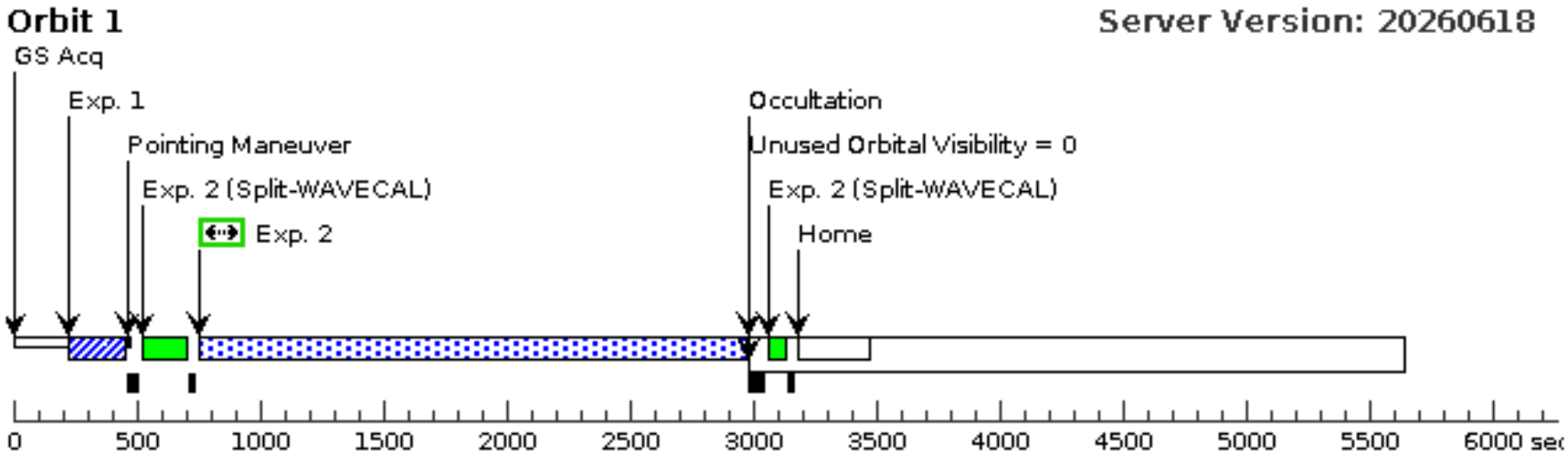
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	SDSSJ012657.02+315353.0	RA: 01 26 57.0250 (21.7376042d) Dec: +31 53 53.08 (31.89808d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.342	V=18.550688 19.02 (FUV)	Reference Frame: ICRS

Comments: magnitude is in G band
Category=ISM
Description=[ABSORPTION LINE SYSTEM, ABSORPTION LINE SYSTEM - EXTRAGALACTIC, ABSORPTION LINE SYSTEM - GALACTIC, HALO]
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/IMAG (2216194)	(2) SDSSJ012657.02 +315353.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				6 Secs (6 Secs) *[==>]*	*[1]*
Comments: NUV mag = 18.781									
2	G130M/1291-FPPOS3 (1961026)	(2) SDSSJ012657.02 +315353.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=4286			2165 Secs (2165 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 18076, Object3-Visit1-SDSS J012007 (07), scheduling Wed Aug 05 15:00:33 GMT 2026

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

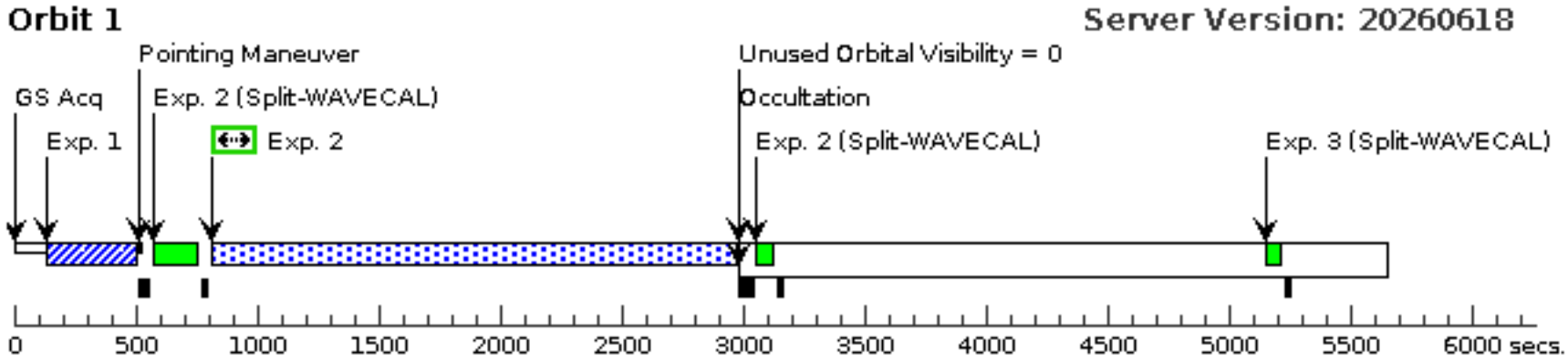
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SDSSJ012007.00+285826.6	RA: 01 20 7.0032 (20.0291800d) Dec: +28 58 26.63 (28.97406d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.685	V=17.849812 18.81 (FUV)	Reference Frame: ICRS

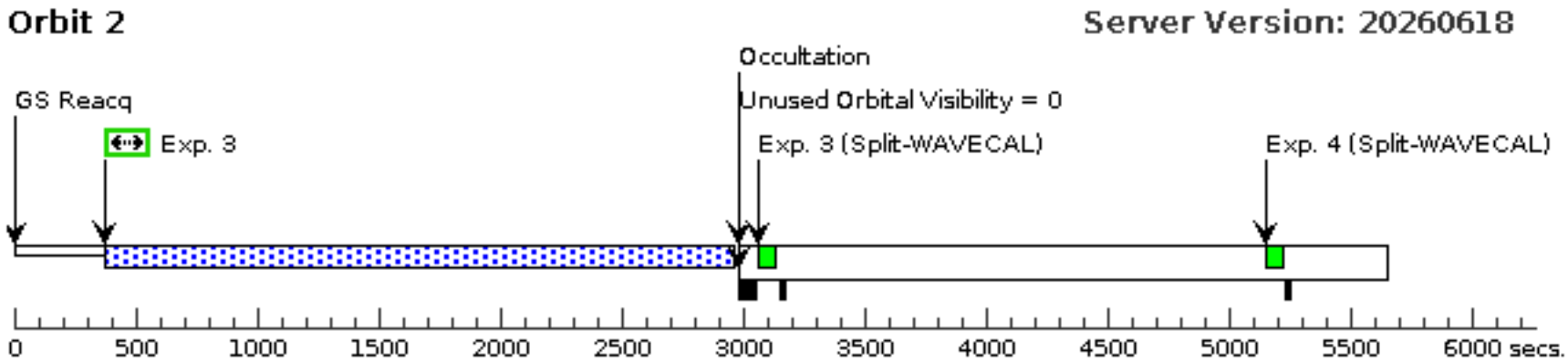
Comments: magnitude is in G band
Category=ISM
Description=[ABSORPTION LINE SYSTEM, ABSORPTION LINE SYSTEM - EXTRAGALACTIC, ABSORPTION LINE SYSTEM - GALACTIC, HALO]
Extended=NO

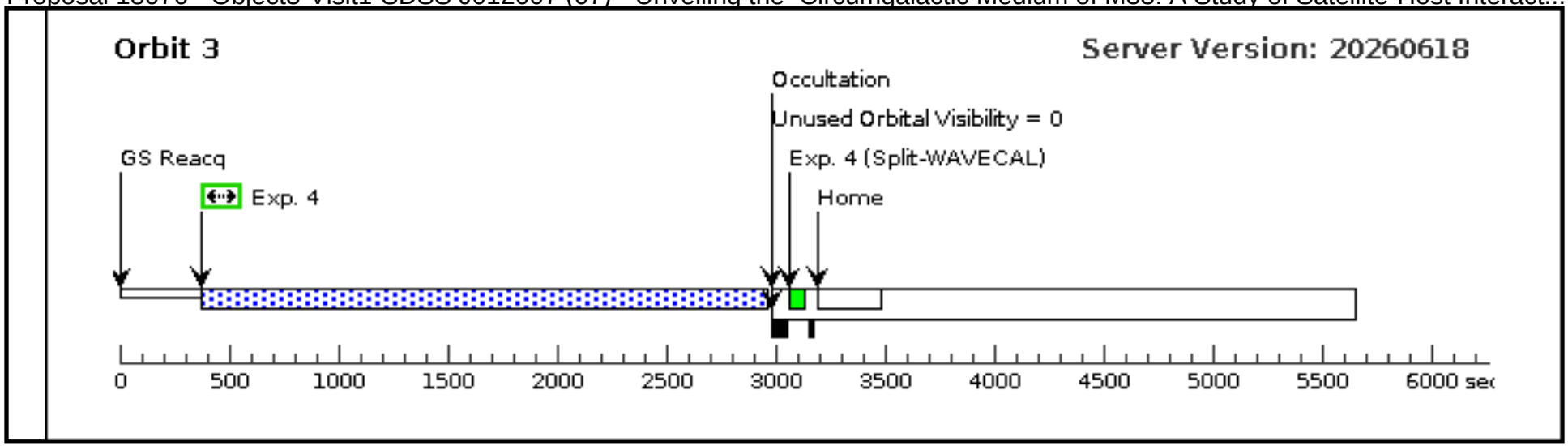
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAG (2224586)	(3) SDSSJ012007.00+285826.6	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				33 Secs (33 Secs) *[==>]*	***[1]***
Comments: NUV mag = 18.0356									
2	G130M/1291-FPPOS3 (1961017)	(3) SDSSJ012007.00+285826.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=4170			2107 Secs (2107 Secs) *[==>]*	***[1]***
3	G130M/1291-FPPOS3 (1961017)	(3) SDSSJ012007.00+285826.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=4170			2543 Secs (2543 Secs) *[==>]*	***[2]***
4	G130M/1291-FPPOS4 (1961017)	(3) SDSSJ012007.00+285826.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=4170			2543 Secs (2543 Secs) *[==>]*	***[3]***

Orbit Structure






Orbit 3
Server Version: 20260618
Occultation
Unused Orbital Visibility = 0
GS Reacq
Exp. 4 (Split-WAVECAL)
Exp. 4
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 18076, Object3-Visit2-SDSS J012007 (08), scheduling Wed Aug 05 15:00:33 GMT 2026

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

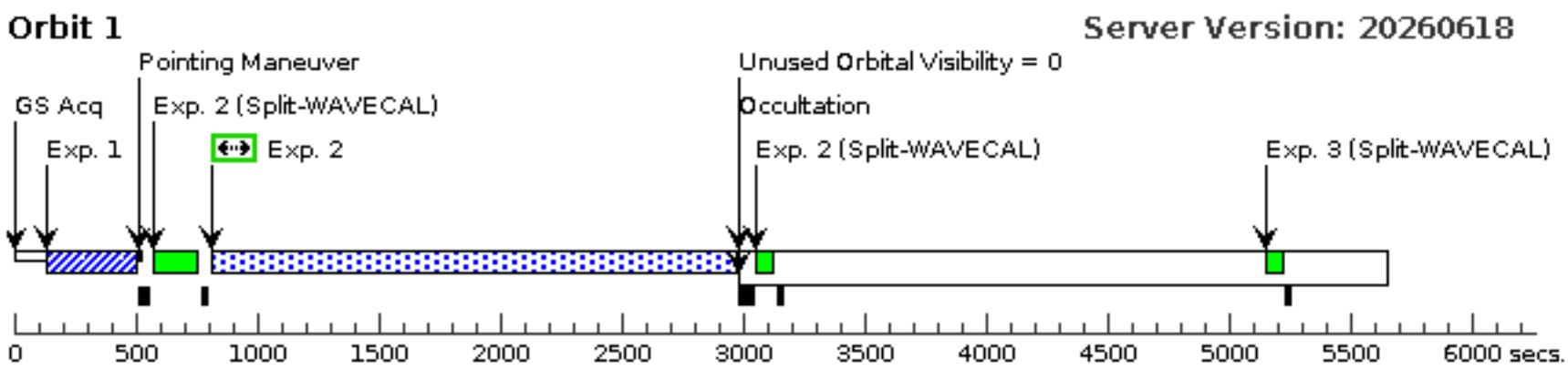
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SDSSJ012007.00+285826.6	RA: 01 20 7.0032 (20.0291800d) Dec: +28 58 26.63 (28.97406d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.685	V=17.849812 18.81 (FUV)	Reference Frame: ICRS

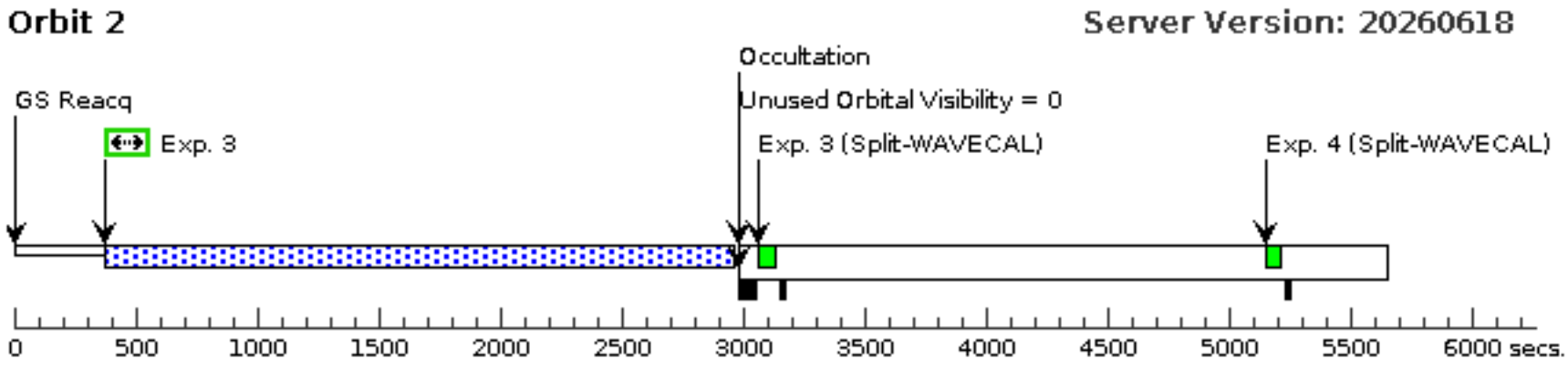
Comments: magnitude is in G band
Category=ISM
Description=[ABSORPTION LINE SYSTEM, ABSORPTION LINE SYSTEM - EXTRAGALACTIC, ABSORPTION LINE SYSTEM - GALACTIC, HALO]
Extended=NO

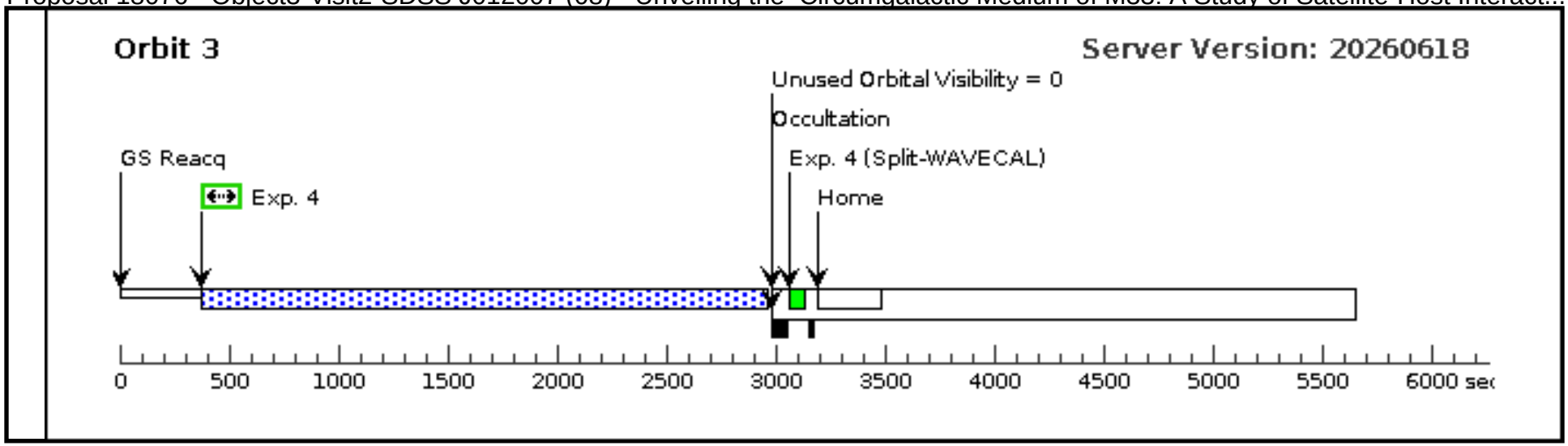
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAG (2224586)	(3) SDSSJ012007.00+285826.6	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				33 Secs (33 Secs) *[==>]*	***[1]***
Comments: NUV mag = 18.0356									
2	G130M/1291-FPPOS3 (1961017)	(3) SDSSJ012007.00+285826.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=4170			2107 Secs (2107 Secs) *[==>]*	***[1]***
3	G130M/1291-FPPOS4 (1961017)	(3) SDSSJ012007.00+285826.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=4170			2543 Secs (2543 Secs) *[==>]*	***[2]***
4	G130M/1291-FPPOS4 (1961017)	(3) SDSSJ012007.00+285826.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=4170			2543 Secs (2543 Secs) *[==>]*	***[3]***

Orbit Structure






Orbit 3
Server Version: 20260618
Unused Orbital Visibility = 0
Occultation
GS Reacq
Exp. 4
Exp. 4 (Split-WAVECAL)
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 18076, Object3-Visit3-SDSS J012007 (09), scheduling Wed Aug 05 15:00:33 GMT 2026

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

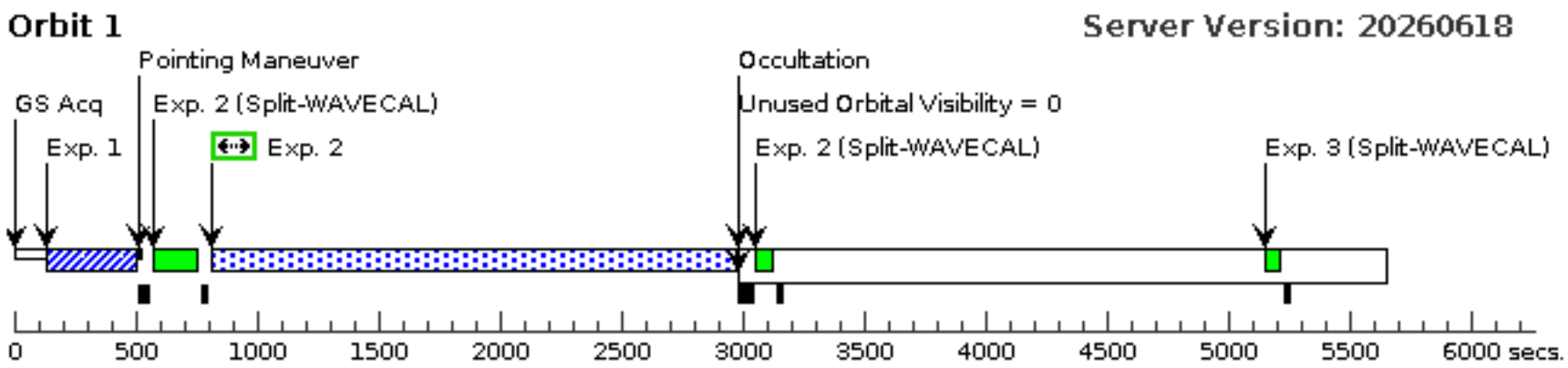
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SDSSJ012007.00+285826.6	RA: 01 20 7.0032 (20.0291800d) Dec: +28 58 26.63 (28.97406d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.685	V=17.849812 18.81 (FUV)	Reference Frame: ICRS

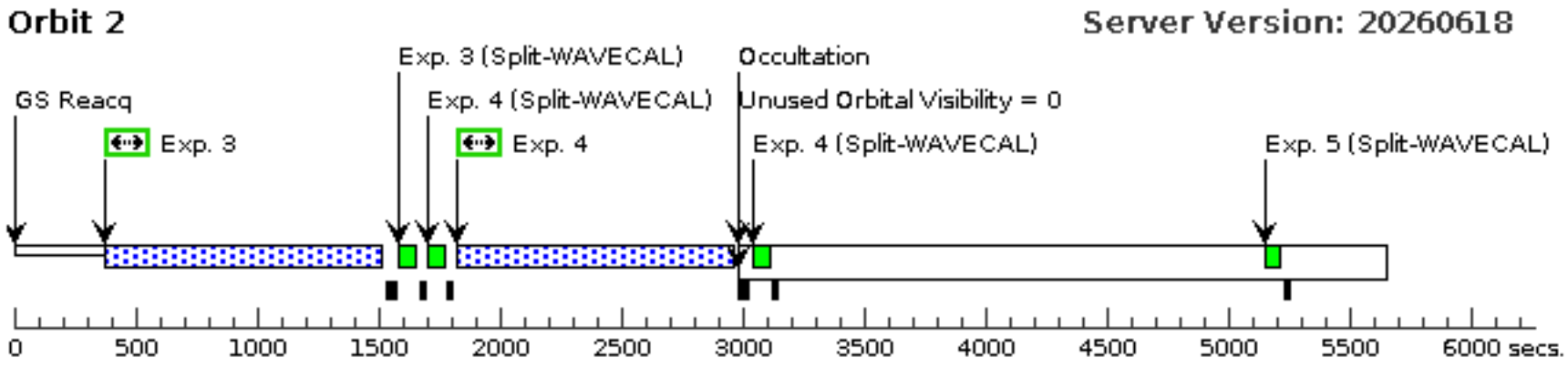
Comments: magnitude is in G band
Category=ISM
Description=[ABSORPTION LINE SYSTEM, ABSORPTION LINE SYSTEM - EXTRAGALACTIC, ABSORPTION LINE SYSTEM - GALACTIC, HALO]
Extended=NO

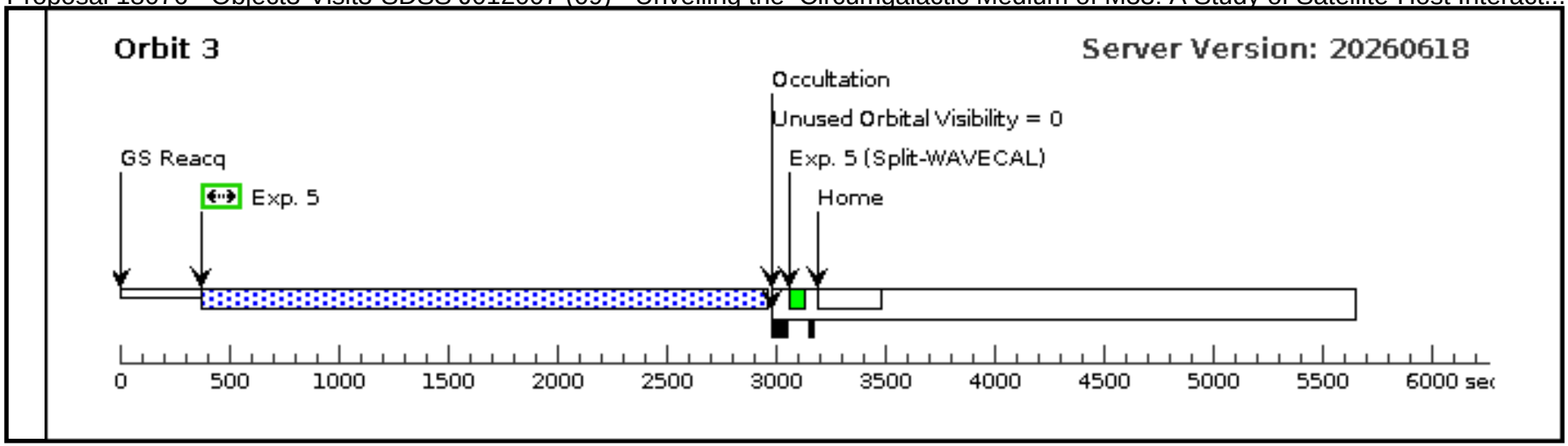
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAG (2224586)	(3) SDSSJ012007.00+285826.6	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				33 Secs (33 Secs) *[==>]*	 ***[1]***
Comments: NUV mag = 18.0356									
2	G130M/1291-FPPOS3 (1961017)	(3) SDSSJ012007.00+285826.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=4170			2107 Secs (2107 Secs) *[==>]*	 ***[1]***
3	G130M/1291-FPPOS3 (1961017)	(3) SDSSJ012007.00+285826.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=4170			1090 Secs (1090 Secs) *[==>]*	 ***[2]***
4	G130M/1291-FPPOS4 (1961017)	(3) SDSSJ012007.00+285826.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=4170			1090 Secs (1090 Secs) *[==>]*	 ***[2]***
5	G130M/1291-FPPOS4 (1961017)	(3) SDSSJ012007.00+285826.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=4170			2543 Secs (2543 Secs) *[==>]*	 ***[3]***

Orbit Structure






Orbit 3
Server Version: 20260618
Occultation
Unused Orbital Visibility = 0
GS Reacq
Exp. 5 (Split-WAVECAL)
Exp. 5
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 18076, Object4-Visit1-SDSS J015356 (10), completed Wed Aug 05 15:00:33 GMT 2026

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

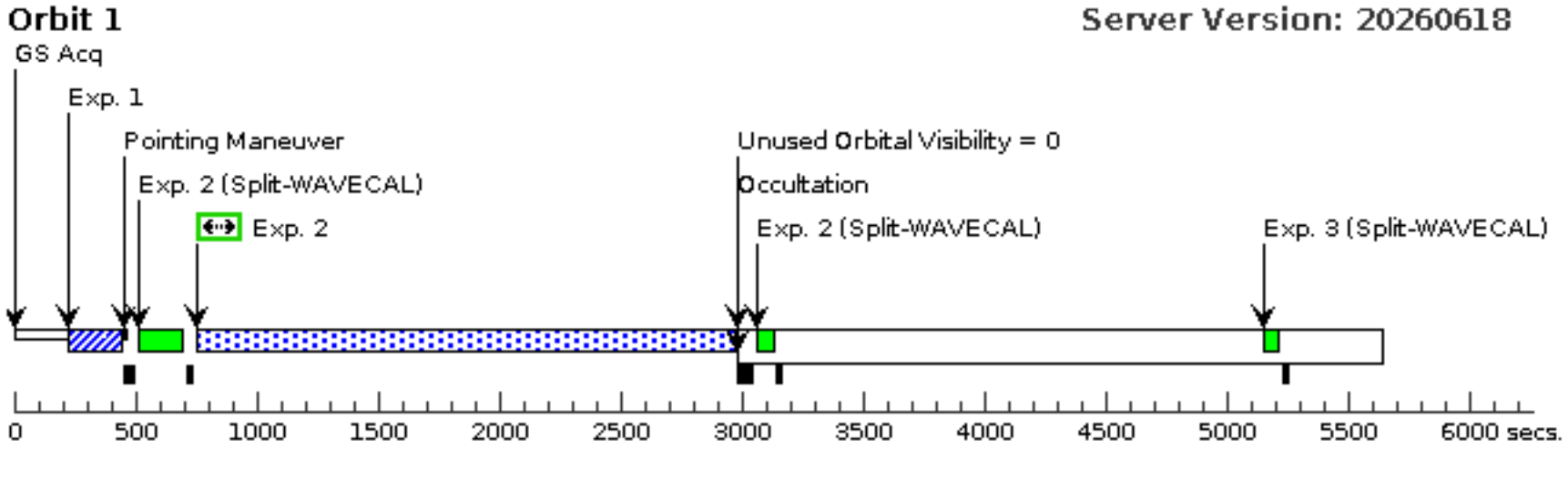
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	SDSSJ015356.31+305306.4	RA: 01 53 56.3146 (28.4846442d) Dec: +30 53 6.49 (30.88514d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.259	V=17.03390 18.06 (FUV)	Reference Frame: ICRS

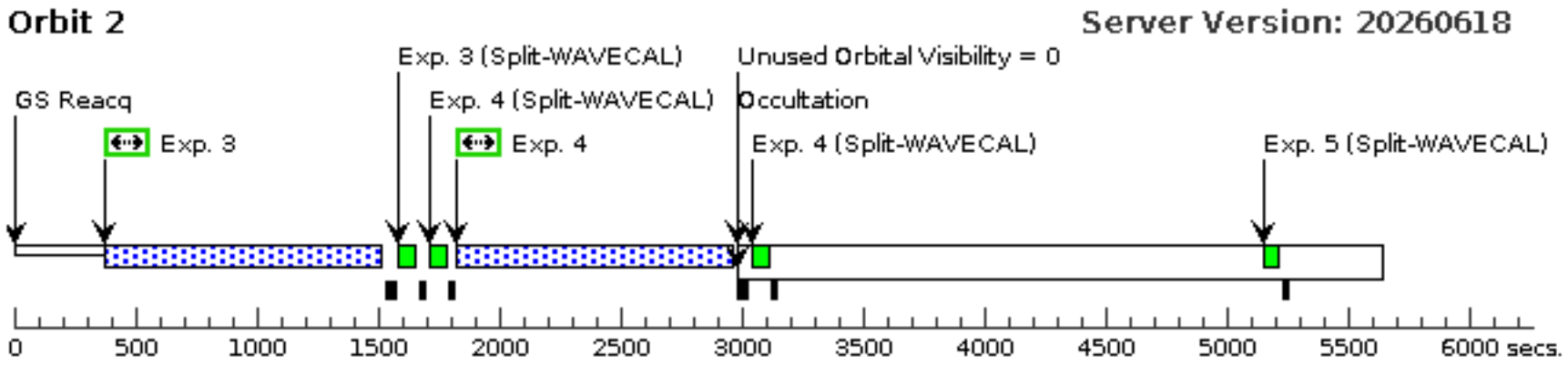
Comments: magnitude is in G band
Category=ISM
Description=[ABSORPTION LINE SYSTEM, ABSORPTION LINE SYSTEM - EXTRAGALACTIC, ABSORPTION LINE SYSTEM - GALACTIC, HALO]
Extended=NO

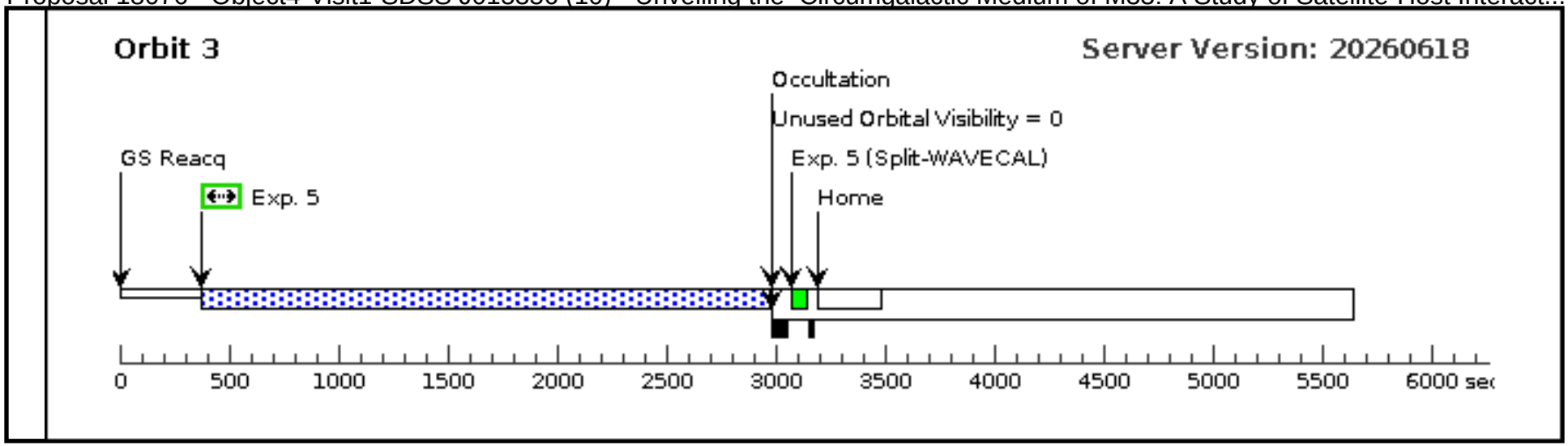
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAG (2224581)	(4) SDSSJ015356.31+305306.4	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				3 Secs (3 Secs) *[==>]*	 ***[1]***
Comments: NUV mag = 17.7972									
2	G130M/1291-FPPOS3 (1961020)	(4) SDSSJ015356.31+305306.4	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=3948			2171 Secs (2171 Secs) *[==>]*	 ***[1]***
3	G130M/1291-FPPOS3 (1961020)	(4) SDSSJ015356.31+305306.4	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=3948			1092 Secs (1092 Secs) *[==>]*	 ***[2]***
4	G130M/1291-FPPOS4 (1961020)	(4) SDSSJ015356.31+305306.4	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=3948			1092 Secs (1092 Secs) *[==>]*	 ***[2]***
5	G130M/1291-FPPOS4 (1961020)	(4) SDSSJ015356.31+305306.4	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=3948			2547 Secs (2547 Secs) *[==>]*	 ***[3]***

Orbit Structure






Orbit 3
Server Version: 20260618
Occultation
Unused Orbital Visibility = 0
GS Reacq
Exp. 5 (Split-WAVECAL)
Exp. 5
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 18076, Object4-Visit2-SDSS J015356 (11), completed Wed Aug 05 15:00:33 GMT 2026

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

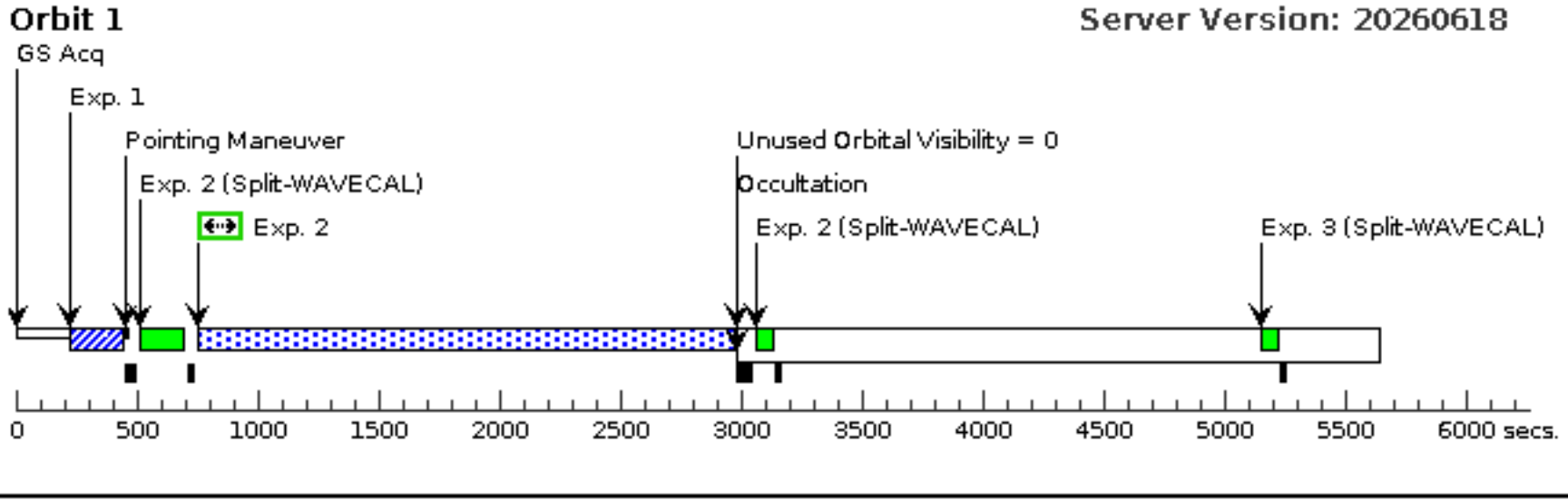
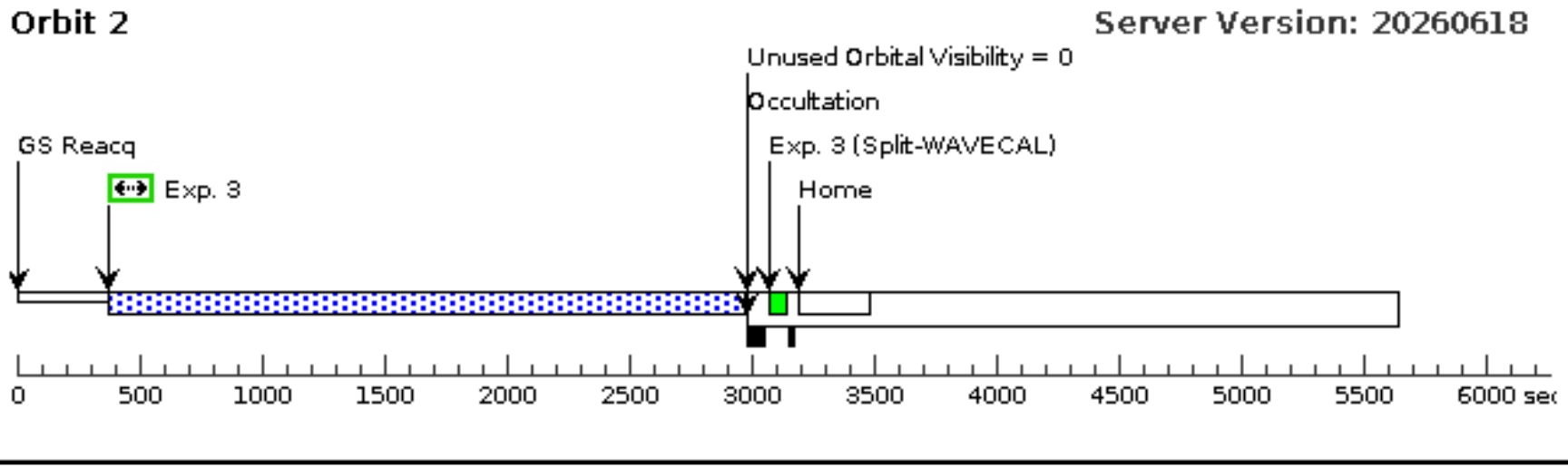
Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	SDSSJ015356.31+305306.4	RA: 01 53 56.3146 (28.4846442d) Dec: +30 53 6.49 (30.88514d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.259	V=17.03390 18.06 (FUV)	Reference Frame: ICRS

Comments: magnitude is in G band
Category=ISM
Description=[ABSORPTION LINE SYSTEM, ABSORPTION LINE SYSTEM - EXTRAGALACTIC, ABSORPTION LINE SYSTEM - GALACTIC, HALO]
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/IMAG (2224581)	(4) SDSSJ015356.31+305306.4	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				3 Secs (3 Secs) *[==>]*	 ***[1]***
Comments: NUV mag = 17.7972									
2	G130M/1291-FPPOS3 (1961020)	(4) SDSSJ015356.31+305306.4	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=3948			2171 Secs (2171 Secs) *[==>]*	 ***[1]***
3	G130M/1291-FPPOS4 (1961020)	(4) SDSSJ015356.31+305306.4	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=3948			2547 Secs (2547 Secs) *[==>]*	 ***[2]***

Orbit Structure