17474 - Pioneering Precision: Advancing Cosmology with the First Statistical Sample of Gravitationally Lensed Supernovae

Cycle: 31, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

Name	*Institution*
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Prof. Simon Birrer (CoI)	State University of New York at Stony Brook
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Dr. Nikki Arendse (CoI) (ESA Member)	Stockholm University
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Dr. Anowar J Shajib (CoI)	University of Chicago
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Dr. Ismael Perez-Fournon (CoI) (ESA Member)	Instituto de Astrofisica de Canarias
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Prof. Tommaso L. Treu (CoI)	University of California - Los Angeles
Conor Larison (CoI)	Space Telescope Science Institute
Prof. Sherry H. Suyu (CoI) (ESA Member)	Technical University of Munich
Dr. Leonidas A Moustakas (CoI)	Jet Propulsion Laboratory
Dr. Louis-Gregory Strolger (CoI)	Space Telescope Science Institute
Dr. Armin Rest (CoI)	Space Telescope Science Institute
Dr. Ori Dosovitz Fox (CoI)	Space Telescope Science Institute
Dr. Suvi Gezari (CoI)	University of Maryland

Name	*Institution*
Prof. Sukanya Chakrabarti (CoI)	University of Alabama in Huntsville
Prof. Ryan Foley (CoI)	University of California - Santa Cruz
Dr. Sebastian Gomez (CoI)	University of Texas at Austin
Dr. Matthew Ryan Siebert (CoI)	Space Telescope Science Institute
Dr. Melissa Shahbandeh (CoI)	Space Telescope Science Institute
Dr. Qinan Wang (CoI)	Massachusetts Institute of Technology
Dr. Yossef Zenati (CoI)	The Johns Hopkins University
Mike Engesser (CoI)	Space Telescope Science Institute
Dr. Christa Gall (CoI) (ESA Member)	University of Copenhagen, Niels Bohr Institute
Mr. Christopher Storfer (CoI)	University of Hawaii
Dr. Stefan Schuldt (CoI) (ESA Member)	University of Turku
Prof. Xiaosheng Huang (CoI)	University of San Francisco
Dr. Tanja Petrushevska (CoI)	University of Nova Gorica
Dr. Patrick Kelly (CoI)	University of Minnesota - Twin Cities
Dr. Wenlei Chen (CoI)	Oklahoma State University Main Campus

VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
11	(4) ABELL-370-IRTARGET (7) ABELL-370-UVTARGET	WFC3/IR WFC3/UVIS	3	01-Jul-2026 12:01:03.0	yes
12	(4) ABELL-370-IRTARGET (7) ABELL-370-UVTARGET	WFC3/IR WFC3/UVIS	3	01-Jul-2026 12:01:04.0	yes
13	(4) ABELL-370-IRTARGET (7) ABELL-370-UVTARGET	WFC3/IR WFC3/UVIS	3	01-Jul-2026 12:01:06.0	yes
14	(4) ABELL-370-IRTARGET	WFC3/IR	2	01-Jul-2026 12:01:07.0	yes
21	(9) MACS-J0308-SN-IRPOS (10) MACS-J0308-SN-UVISPOS	WFC3/IR WFC3/UVIS	2	01-Jul-2026 12:01:08.0	yes
22	(9) MACS-J0308-SN-IRPOS (10) MACS-J0308-SN-UVISPOS	WFC3/IR WFC3/UVIS	3	01-Jul-2026 12:01:09.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
23	(9) MACS-J0308-SN-IRPOS (10) MACS-J0308-SN-UVISPOS	WFC3/IR WFC3/UVIS	4	01-Jul-2026 12:01:10.0	yes
24	(9) MACS-J0308-SN-IRPOS (10) MACS-J0308-SN-UVISPOS	WFC3/IR WFC3/UVIS	4	01-Jul-2026 12:01:12.0	yes
25	(9) MACS-J0308-SN-IRPOS (10) MACS-J0308-SN-UVISPOS	WFC3/IR WFC3/UVIS	4	01-Jul-2026 12:01:14.0	yes
31	(11) MACS-J0417-SN	WFC3/IR WFC3/UVIS	3	01-Jul-2026 12:01:15.0	yes
32	(11) MACS-J0417-SN	WFC3/IR WFC3/UVIS	3	01-Jul-2026 12:01:16.0	yes
33	(11) MACS-J0417-SN	WFC3/IR WFC3/UVIS	3	01-Jul-2026 12:01:18.0	yes
34	(11) MACS-J0417-SN	WFC3/IR WFC3/UVIS	3	01-Jul-2026 12:01:19.0	yes
35	(11) MACS-J0417-SN	WFC3/IR WFC3/UVIS	3	01-Jul-2026 12:01:20.0	yes
36	(11) MACS-J0417-SN	WFC3/IR WFC3/UVIS	3	01-Jul-2026 12:01:22.0	yes
37	(11) MACS-J0417-SN	WFC3/IR	2	01-Jul-2026 12:01:23.0	yes

48 Total Orbits Used

ABSTRACT

There is a 5-sigma tension between local measurements of the Hubble constant (H0) from Type Ia supernovae (SNe Ia), and the value inferred using late universe constraints from the cosmic microwave background (CMB). Independent measurements of H0 can help resolve the tension by agreeing with one method or the other, but a ~2.7% uncertainty is needed to distinguish between the values. The first H0 measurement from observing the multiple images of a gravitationally lensed SN (glSN) was recently made using SN Refsdal (6% precision), paving the way for glSNe to realize their promise as precise and single-step cosmological probes. This program will pursue complete follow-up campaigns for up to three glSNe using target of opportunity (ToO) observations over Cycles 31 & 32, which combined with the current sample (two glSNe) will enable a ~2.7% measurement of

H0. GlSNe also have unique leverage on dark energy properties, such that this program alone will increase our best dark energy constraints by 40%. The total request for this proposal is 45 HST imaging orbits (15 per glSN) and 8.1 JWST NIRSpec hours (2.7 per glSN, with all overheads), which includes all observations necessary to deliver our cosmological measurements.

OBSERVING DESCRIPTION

This program has three ToO activations, with join JWST observations. A preliminary JWST APT is being submitted alongside the HST phase II. Due to the variable nature of the targets for this program, we cannot create an exhaustive set of observations. However we have created three plausible trigger visits, and some combination of those visits will be used to fill out the remaining orbits across the three triggers. As each target is identified, we will create a tailored follow-up campaign for that trigger.

Reduced Gyro Operations comments: As this is a ToO program, operating on reduced gyros would have a significant impact in terms of both the loss in field of regard, and the slower response time of the observatory. The program can still be successful in this scenario, but we may not be able to trigger on every possible target, even those that will be quite attractive. These observations are also intended to be scheduled in conjunction with JWST, which is more difficult in a reduced gyro operations scenario.

Visit

Proposal 17474, Abell370-SN (11), completed Wed Jul 01 16:01:23 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: SCHED 100%; TOO MAX RESPONSE TIME 15.0D

Comments: 3 short WFC3-IR F110W and 3 short WFC3-IR F160W exposures of high-z qlSN, x2, then one orbit of F814W.

Diagnostics

(Abell370-SN (11)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Abell370-SN (11)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Abell370-SN (11)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Abell370-SN (11)) Informational (Form): Target of Opportunity Minimum Response time is a required field.

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(13)

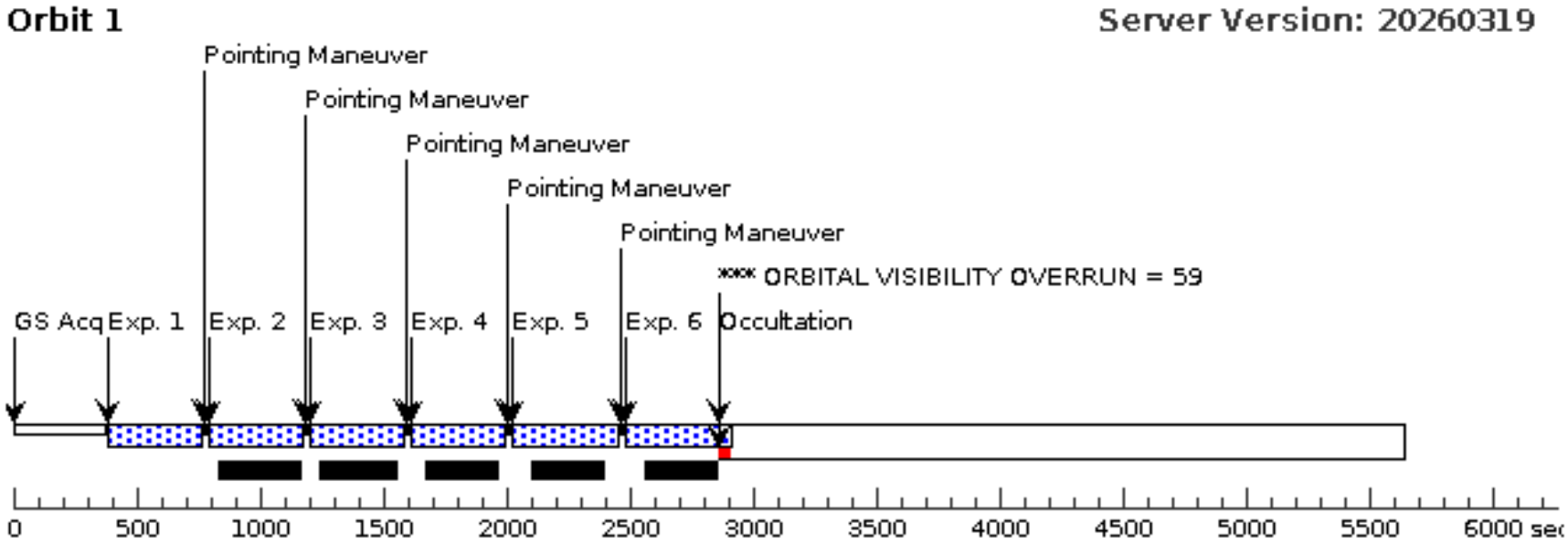
Fixed Targets

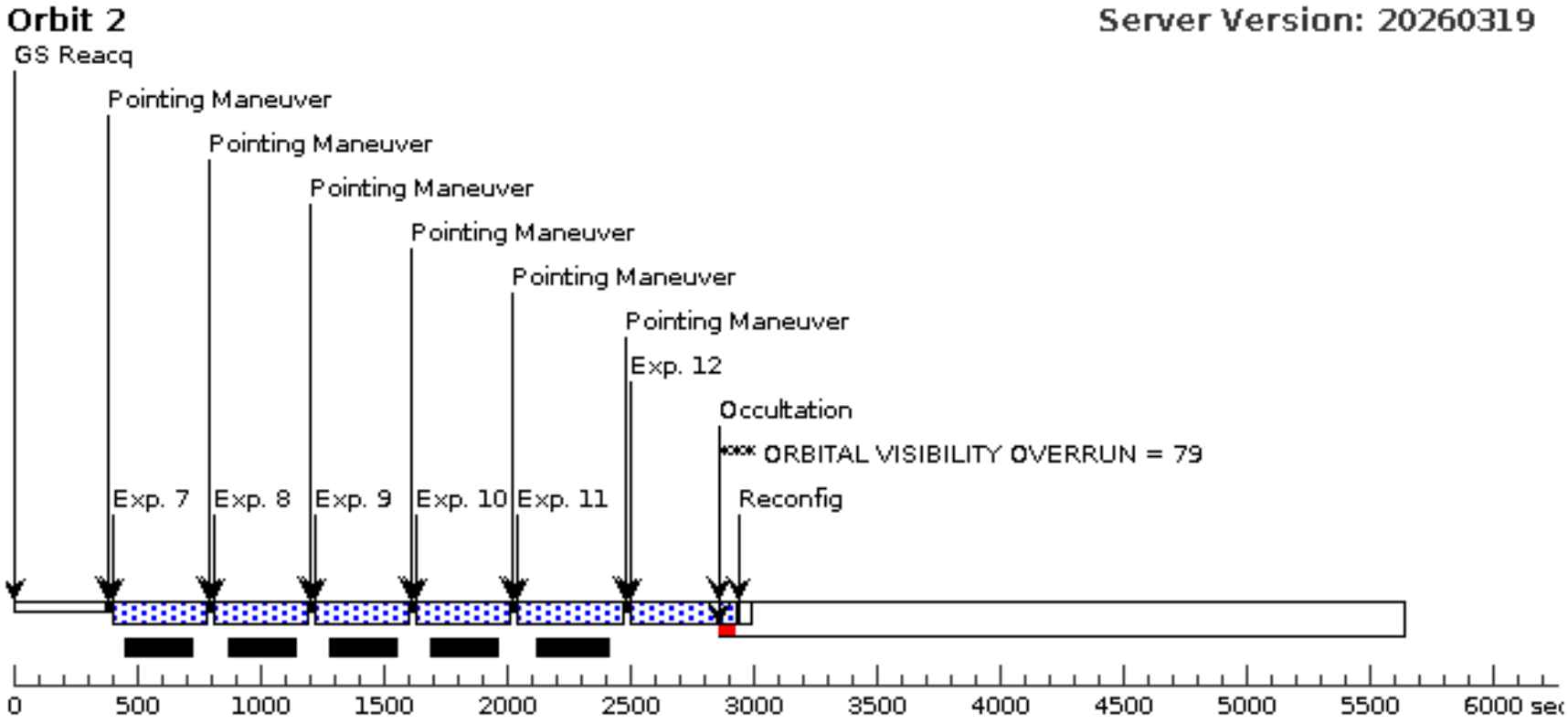
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	ABELL-370-IRTARGET	RA: 02 39 53.6321 (39.9734671d) Dec: -01 34 15.37 (-1.57094d) Equinox: J2000		V=26	Reference Frame: ICRS
Comments: *Category=EXT-STAR* *Description=[SUPERNOVA]* *Extended=NO*					
(7)	ABELL-370-UVTARGET	RA: 02 39 52.6321 (39.9693004d) Dec: -01 34 28.77 (-1.57466d) Equinox: J2000		V=26	Reference Frame: ICRS
Comments: *Category=EXT-STAR* *Description=[SUPERNOVA]* *Extended=NO*					

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 1-6 Non-Int in Abell370-SN (11)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
2	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 1-6 Non-Int in Abell370-SN (11)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
3	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.474,0.424	Sequence 1-6 Non-Int in Abell370-SN (11)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
4	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.925,0.827	Sequence 1-6 Non-Int in Abell370-SN (11)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
5	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 1-6 Non-Int in Abell370-SN (11)	399.233383 Secs (399.233 Secs) *[==>]*	***[1]***
6	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 1-6 Non-Int in Abell370-SN (11)	399.233383 Secs (399.233 Secs) *[==>]*	***[1]***
7	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 7-12 Non-Int in Abell370-SN (11)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
8	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 7-12 Non-Int in Abell370-SN (11)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
9	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 7-12 Non-Int in Abell370-SN (11)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
10	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 7-12 Non-Int in Abell370-SN (11)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
11	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 7-12 Non-Int in Abell370-SN (11)	399.233383 Secs (399.233 Secs) *[==>]*	***[2]***
12	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 7-12 Non-Int in Abell370-SN (11)	399.233383 Secs (399.233 Secs) *[==>]*	***[2]***
13		(7) ABELL-370-UV TARGET	WFC3/UVIS, ACCUM, UVIS2	F814W			Pattern 2, Exps 13-13 in Abell370-SN (11) (2)	756 Secs (2268 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[3]***

Orbit Structure

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GS Reacq
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Exp. 12
Occultation
**** ORBITAL VISIBILITY OVERRUN = 79
Exp. 7
Exp. 8
Exp. 9
Exp. 10
Exp. 11
Reconfig
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1500
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5000
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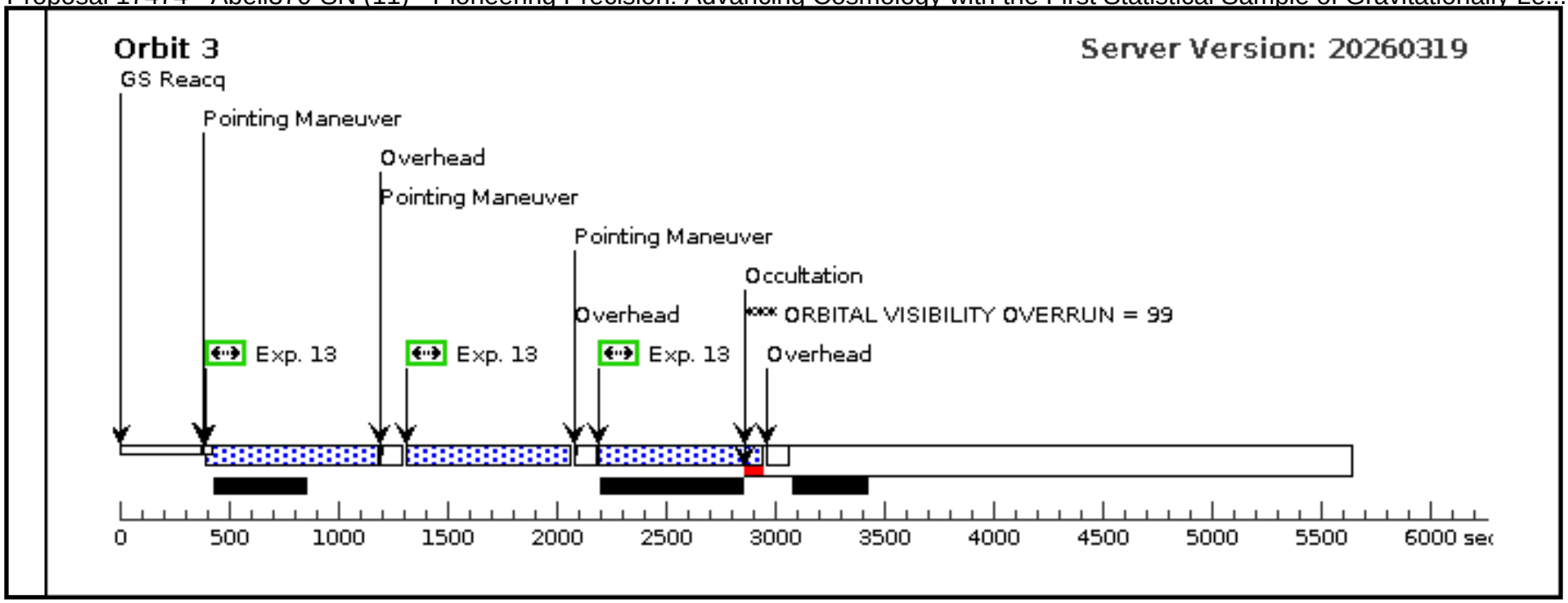
6000 sec


Orbit 3
Server Version: 20260319
GS Reacq
Pointing Maneuver
Overhead
Pointing Maneuver
Pointing Maneuver
Occultation
Overhead
*** ORBITAL VISIBILITY OVERRUN = 99
Exp. 13
Exp. 13
Exp. 13
Overhead
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17474, Abell370-SN (12), completed Wed Jul 01 16:01:23 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: SCHED 100%; AFTER 11 BY 8 D TO 16 D; TOO MAX RESPONSE TIME 15.0D

Comments: 3 short WFC3-IR F110W and 3 short WFC3-IR F160W exposures of high-z qlSN, x2, then one orbit of F814W.

Diagnostics

(Abell370-SN (12)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Abell370-SN (12)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Abell370-SN (12)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Abell370-SN (12)) Informational (Form): Target of Opportunity Minimum Response time is a required field.

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(13)

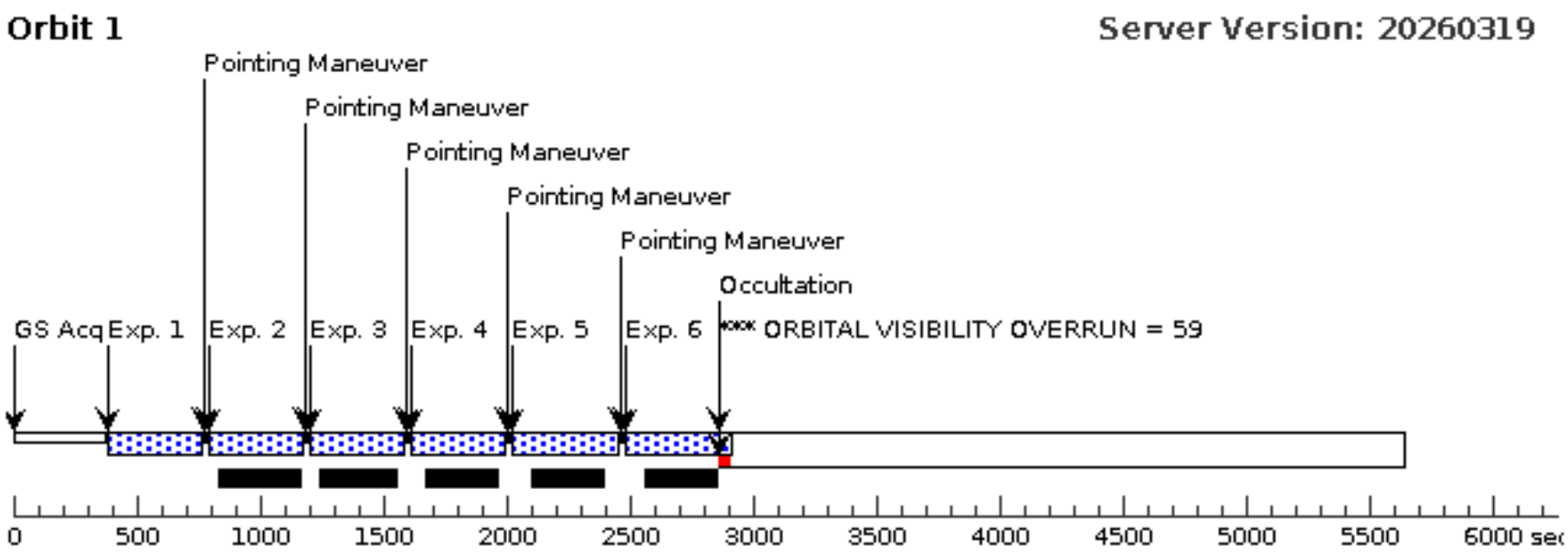
Fixed Targets

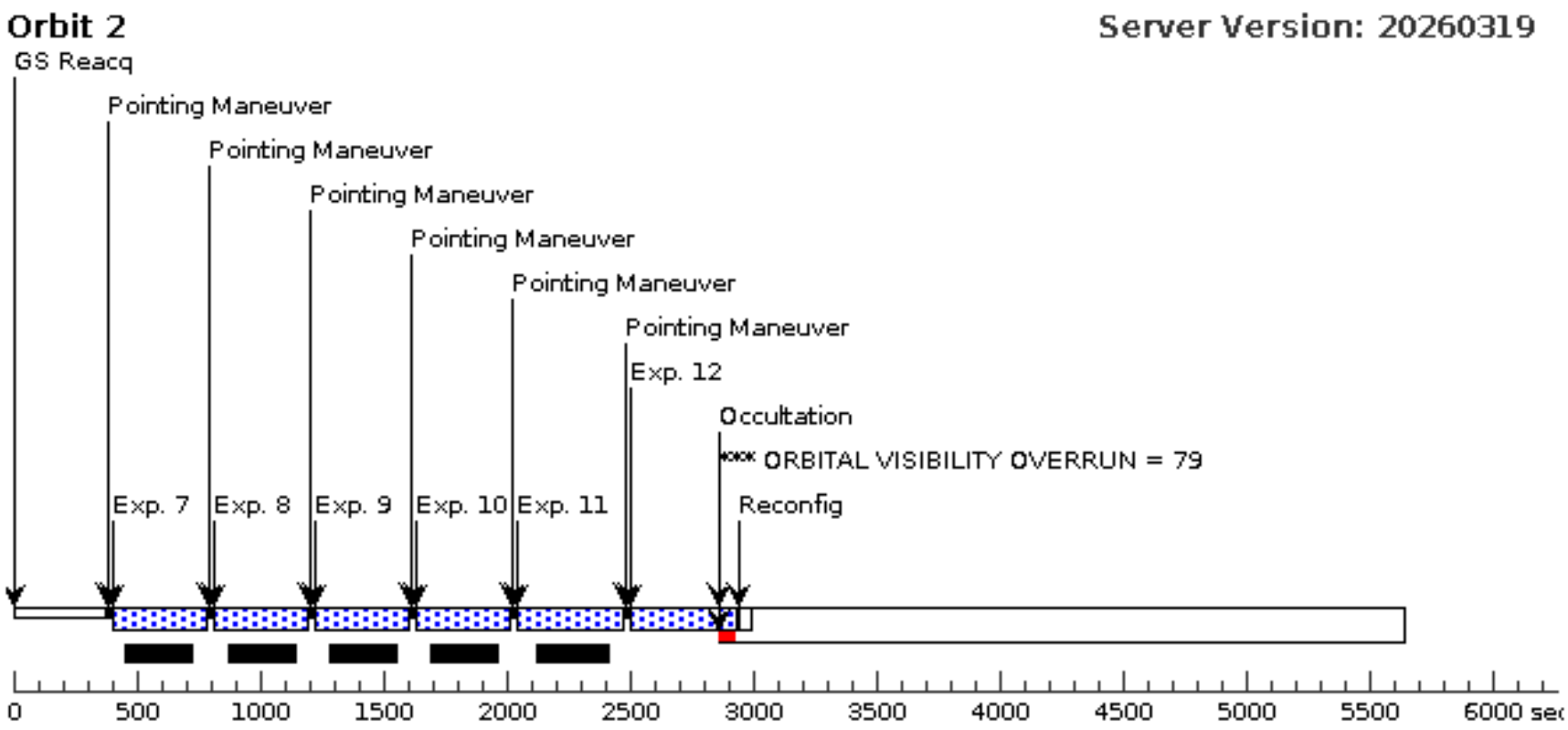
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	ABELL-370-IRTARGET	RA: 02 39 53.6321 (39.9734671d) Dec: -01 34 15.37 (-1.57094d) Equinox: J2000		V=26	Reference Frame: ICRS
Comments: *Category=EXT-STAR* *Description=[SUPERNOVA]* *Extended=NO*					
(7)	ABELL-370-UVTARGET	RA: 02 39 52.6321 (39.9693004d) Dec: -01 34 28.77 (-1.57466d) Equinox: J2000		V=26	Reference Frame: ICRS
Comments: *Category=EXT-STAR* *Description=[SUPERNOVA]* *Extended=NO*					

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 1-6 Non-Int in Abell370-SN (12)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
2	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 1-6 Non-Int in Abell370-SN (12)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
3	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.474,0.424	Sequence 1-6 Non-Int in Abell370-SN (12)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
4	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.925,0.827	Sequence 1-6 Non-Int in Abell370-SN (12)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
5	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 1-6 Non-Int in Abell370-SN (12)	399.233383 Secs (399.233 Secs) *[==>]*	***[1]***
6	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 1-6 Non-Int in Abell370-SN (12)	399.233383 Secs (399.233 Secs) *[==>]*	***[1]***
7	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 7-12 Non-Int in Abell370-SN (12)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
8	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 7-12 Non-Int in Abell370-SN (12)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
9	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 7-12 Non-Int in Abell370-SN (12)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
10	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 7-12 Non-Int in Abell370-SN (12)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
11	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 7-12 Non-Int in Abell370-SN (12)	399.233383 Secs (399.233 Secs) *[==>]*	***[2]***
12	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 7-12 Non-Int in Abell370-SN (12)	399.233383 Secs (399.233 Secs) *[==>]*	***[2]***
13		(7) ABELL-370-UV TARGET	WFC3/UVIS, ACCUM, UVIS2	F814W			Pattern 2, Exps 13-13 in Abell370-SN (12) (2)	756 Secs (2268 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[3]***

Orbit Structure




Orbit 2
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Exp. 12
Occultation
**** ORBITAL VISIBILITY OVERRUN = 79
Exp. 7
Exp. 8
Exp. 9
Exp. 10
Exp. 11
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
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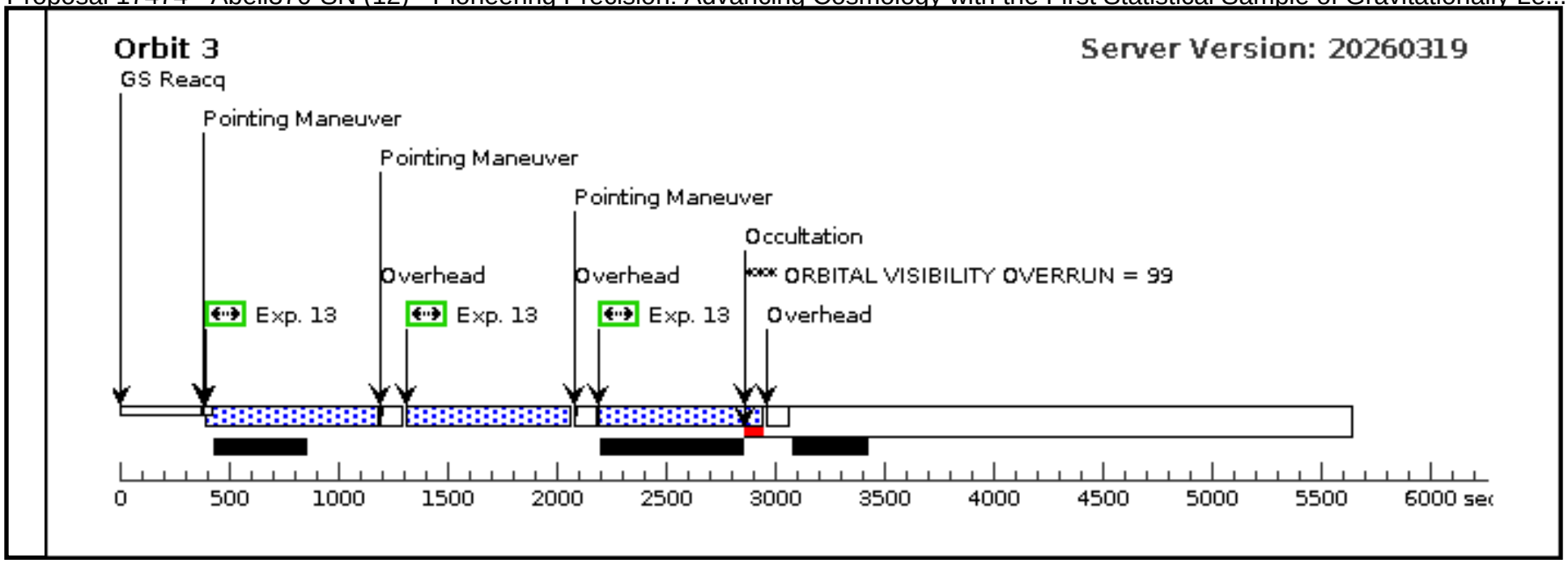
6000 sec


Orbit 3
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Occultation
Overhead
Overhead
**** ORBITAL VISIBILITY OVERRUN = 99
Exp. 13
Exp. 13
Exp. 13
Overhead
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17474, Abell370-SN (13), completed Wed Jul 01 16:01:23 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: SCHED 100%; AFTER 12 BY 8 D TO 16 D; TOO MAX RESPONSE TIME 15.0D

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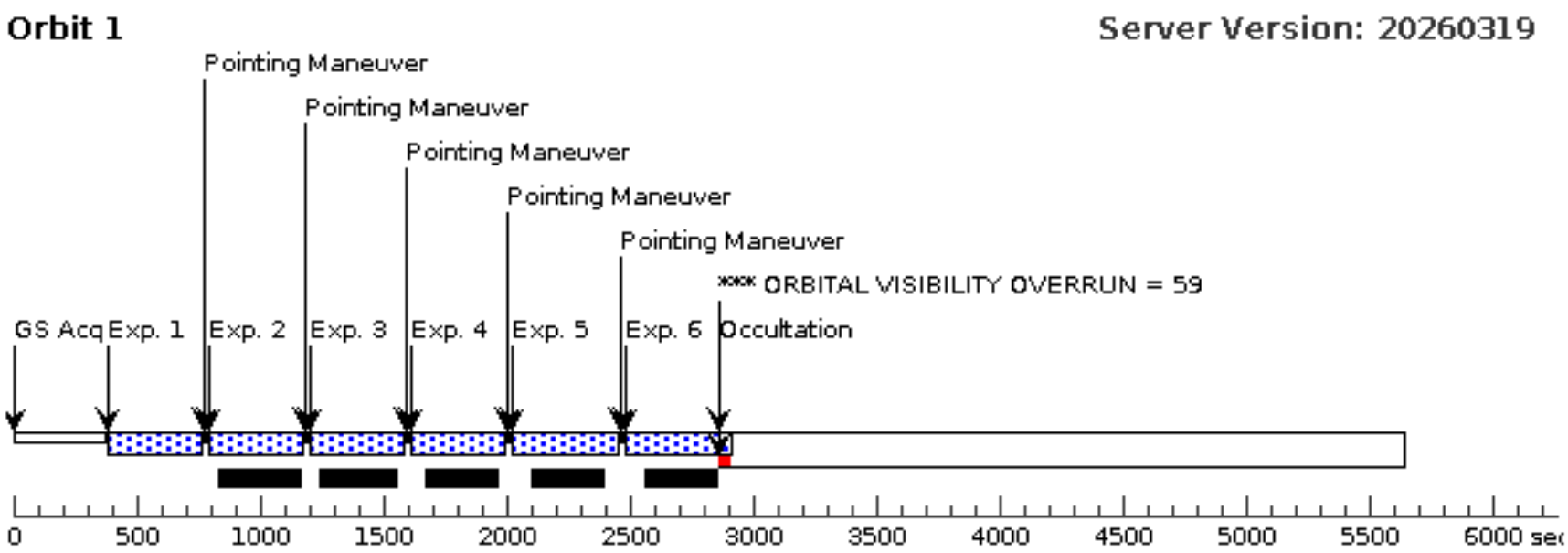
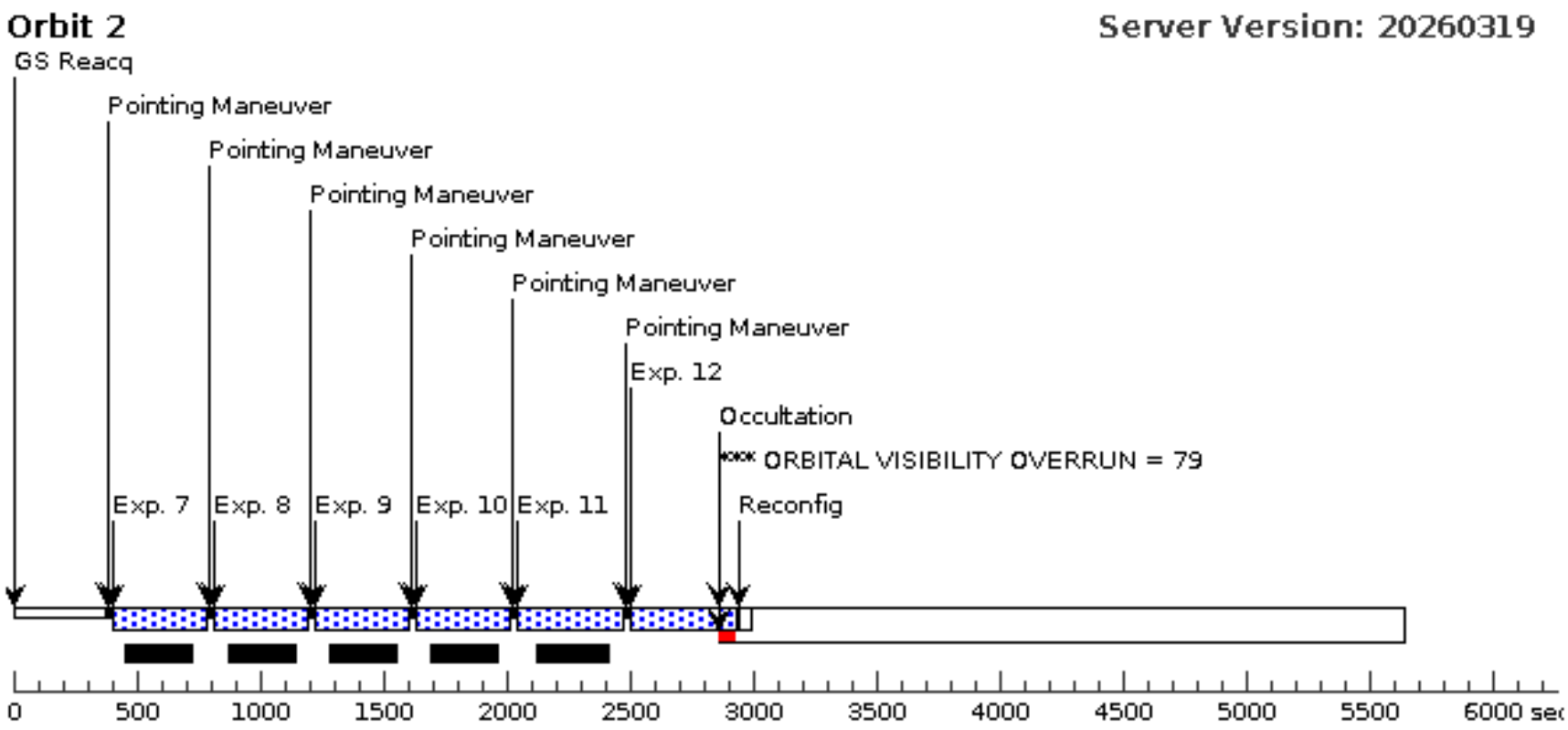
Comments: *Category=EXT-STAR* *Description=[SUPERNOVA]* *Extended=NO*					

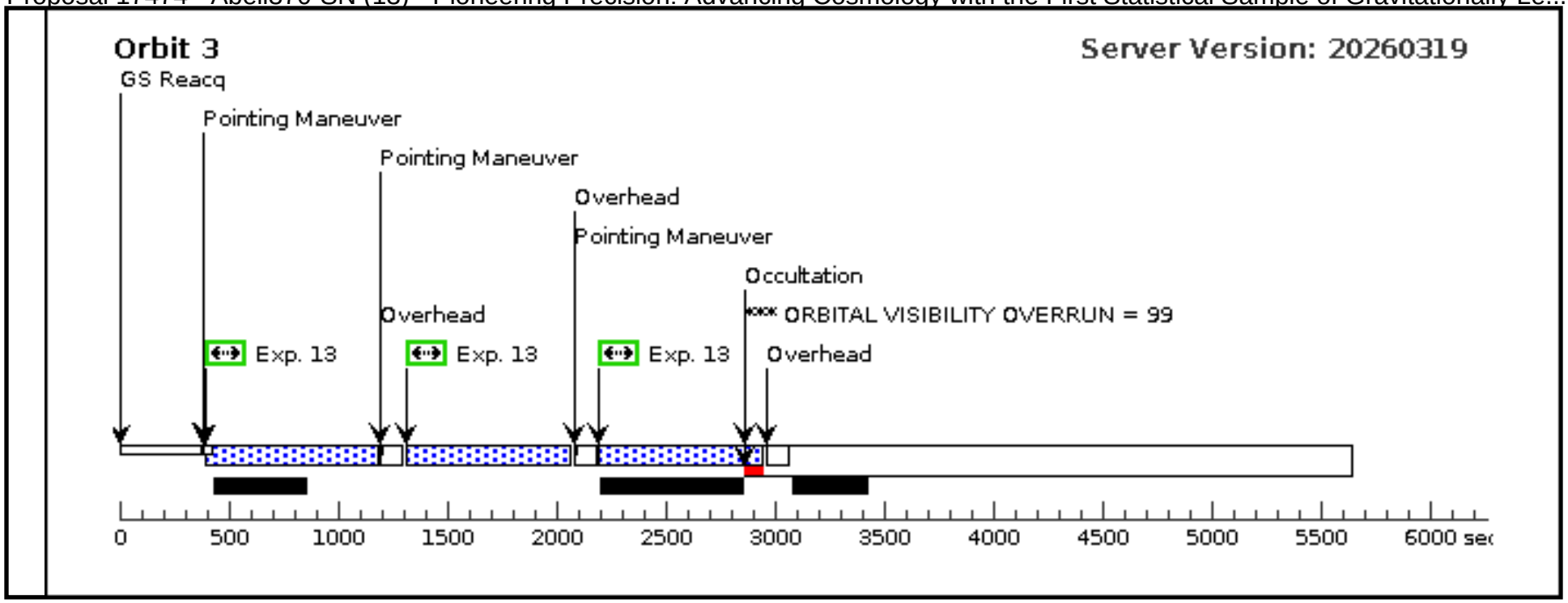
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 1-6 Non-Int in Abell370-SN (13)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
2	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 1-6 Non-Int in Abell370-SN (13)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
3	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.474,0.424	Sequence 1-6 Non-Int in Abell370-SN (13)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
4	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.925,0.827	Sequence 1-6 Non-Int in Abell370-SN (13)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
5	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 1-6 Non-Int in Abell370-SN (13)	399.233383 Secs (399.233 Secs) *[==>]*	***[1]***
6	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 1-6 Non-Int in Abell370-SN (13)	399.233383 Secs (399.233 Secs) *[==>]*	***[1]***
7	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 7-12 Non-Int in Abell370-SN (13)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
8	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 7-12 Non-Int in Abell370-SN (13)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
9	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 7-12 Non-Int in Abell370-SN (13)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
10	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 7-12 Non-Int in Abell370-SN (13)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
11	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 7-12 Non-Int in Abell370-SN (13)	399.233383 Secs (399.233 Secs) *[==>]*	***[2]***
12	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 7-12 Non-Int in Abell370-SN (13)	399.233383 Secs (399.233 Secs) *[==>]*	***[2]***
13		(7) ABELL-370-UV TARGET	WFC3/UVIS, ACCUM, UVIS2	F814W			Pattern 2, Exps 13-13 in Abell370-SN (13) (2)	756 Secs (2268 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[3]***

Orbit Structure




Orbit 2
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Exp. 12
Occultation
**** ORBITAL VISIBILITY OVERRUN = 79
Exp. 7
Exp. 8
Exp. 9
Exp. 10
Exp. 11
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec


Orbit 3
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Overhead
Pointing Maneuver
Occultation
Overhead
**** ORBITAL VISIBILITY OVERRUN = 99
Exp. 13
Exp. 13
Exp. 13
Overhead
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17474, Abell370-SN (14), completed Wed Jul 01 16:01:24 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SCHED 100%; AFTER 13 BY 10 D TO 30 D; TOO MAX RESPONSE TIME 15.0D

Comments: 3 short WFC3-IR F110W and 3 short WFC3-IR F160W exposures of high-z qlSN, x2, then one orbit of F814W.

Diagnostics

(Abell370-SN (14)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Abell370-SN (14)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Abell370-SN (14)) Informational (Form): Target of Opportunity Minimum Response time is a required field.

Fixed Targets

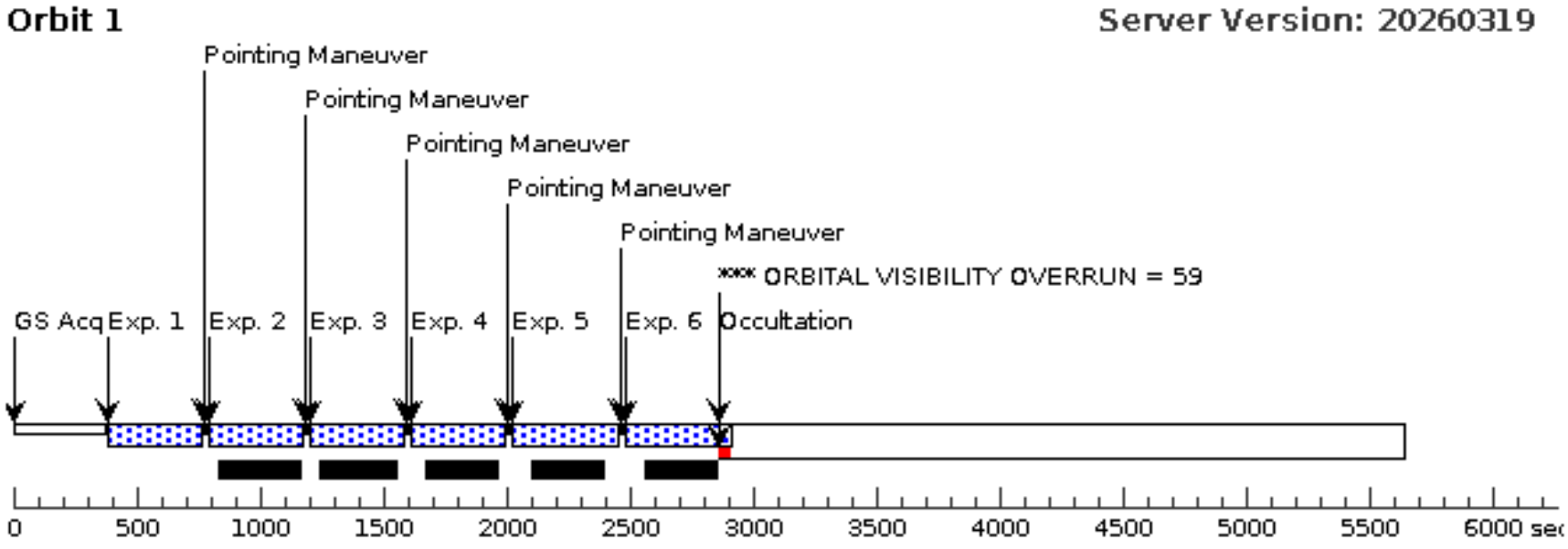
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	ABELL-370-IRTARGET	RA: 02 39 53.6321 (39.9734671d) Dec: -01 34 15.37 (-1.57094d) Equinox: J2000		V=26	Reference Frame: ICRS

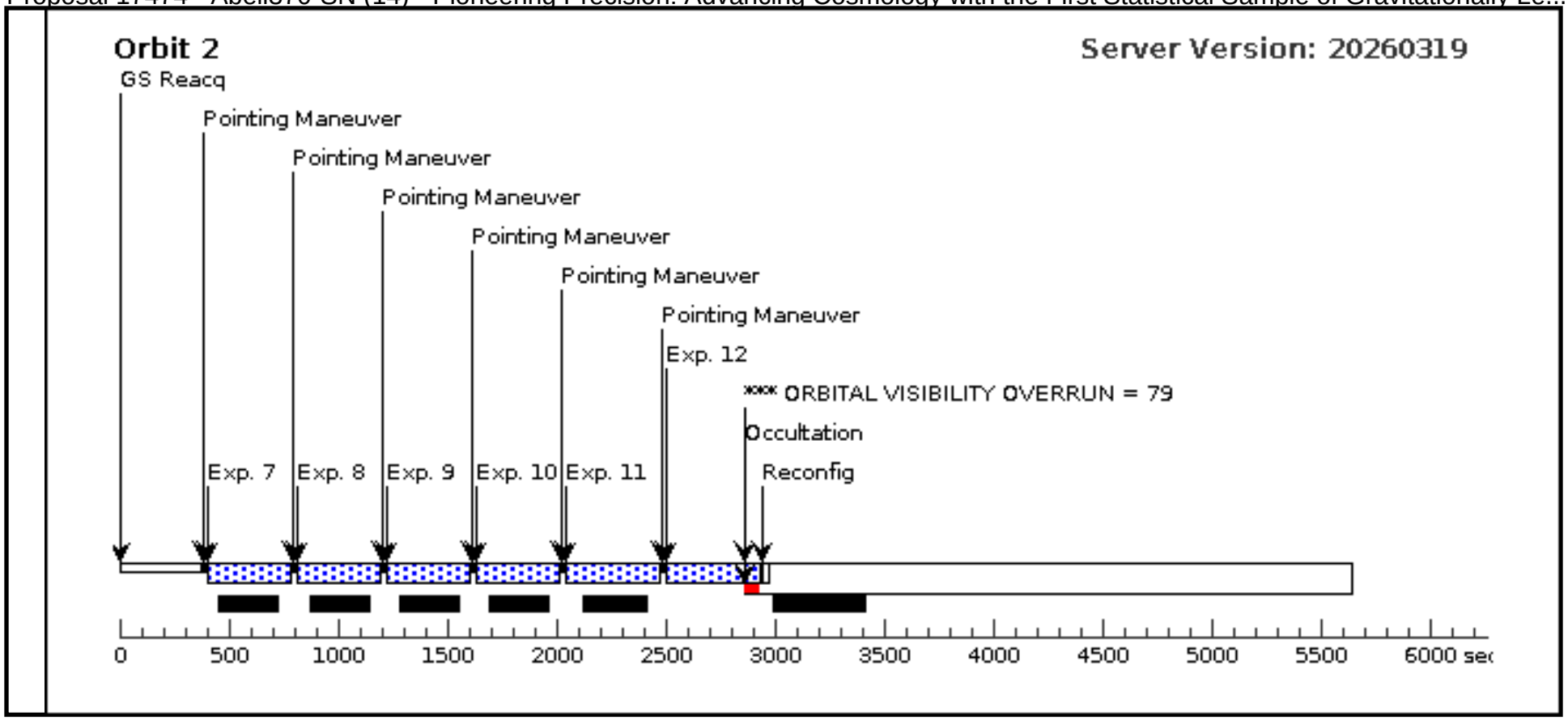
Comments:
Category=EXT-STAR
Description=[SUPERNOVA]
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 1-6 Non-Int in Abell370-SN (14)	349.232932 Secs (349.233 Secs)	
								[==>]	***[1]***
2	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 1-6 Non-Int in Abell370-SN (14)	349.232932 Secs (349.233 Secs)	
								[==>]	***[1]***
3	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.474,0.424	Sequence 1-6 Non-Int in Abell370-SN (14)	349.232932 Secs (349.233 Secs)	
								[==>]	***[1]***
4	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.925,0.827	Sequence 1-6 Non-Int in Abell370-SN (14)	349.232932 Secs (349.233 Secs)	
								[==>]	***[1]***
5	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 1-6 Non-Int in Abell370-SN (14)	399.233383 Secs (399.233 Secs)	
								[==>]	***[1]***
6	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 1-6 Non-Int in Abell370-SN (14)	399.233383 Secs (399.233 Secs)	
								[==>]	***[1]***
7	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 7-12 Non-Int in Abell370-SN (14)	349.232932 Secs (349.233 Secs)	
								[==>]	***[2]***
8	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 7-12 Non-Int in Abell370-SN (14)	349.232932 Secs (349.233 Secs)	
								[==>]	***[2]***
9	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 7-12 Non-Int in Abell370-SN (14)	349.232932 Secs (349.233 Secs)	
								[==>]	***[2]***
10	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 7-12 Non-Int in Abell370-SN (14)	349.232932 Secs (349.233 Secs)	
								[==>]	***[2]***
11	F110W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 7-12 Non-Int in Abell370-SN (14)	399.233383 Secs (399.233 Secs)	
								[==>]	***[2]***
12	F160W	(4) ABELL-370-IRT ARGET	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 7-12 Non-Int in Abell370-SN (14)	399.233383 Secs (399.233 Secs)	
								[==>]	***[2]***

Orbit Structure




Orbit 2
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Exp. 12
*** ORBITAL VISIBILITY OVERRUN = 79
Occultation
Exp. 7
Exp. 8
Exp. 9
Exp. 10
Exp. 11
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17474, MACS-J0308-SN (21), completed Wed Jul 01 16:01:24 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: SCHED 100%; ORIENT 200D TO 265 D; BEFORE 25-SEP-2025:00:00:00; TOO MAX RESPONSE TIME 21.0D

Comments: 3 short WFC3-IR F110W and 3 short WFC3-IR F160W exposures of high-z qlSN.

Diagnostics

(MACS-J0308-SN (21)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(MACS-J0308-SN (21)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(MACS-J0308-SN (21)) Informational (Form): Target of Opportunity Minimum Response time is a required field.

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(7)

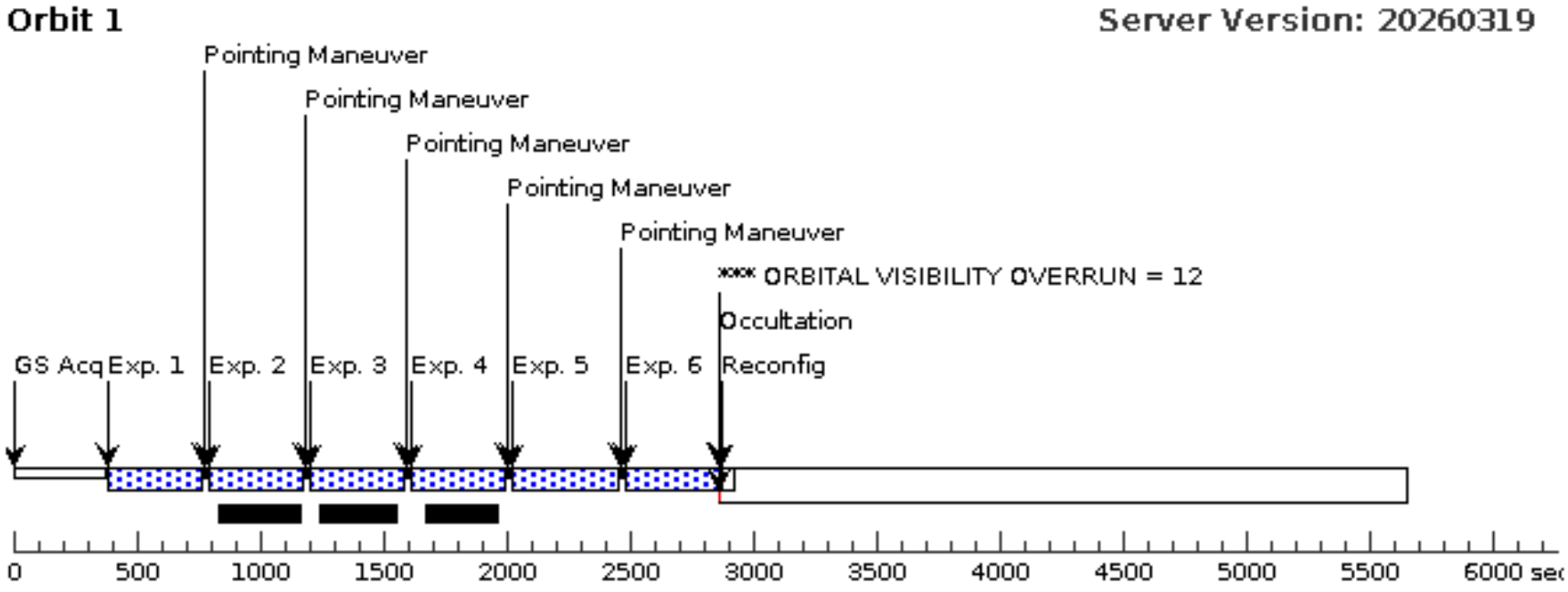
Fixed Targets

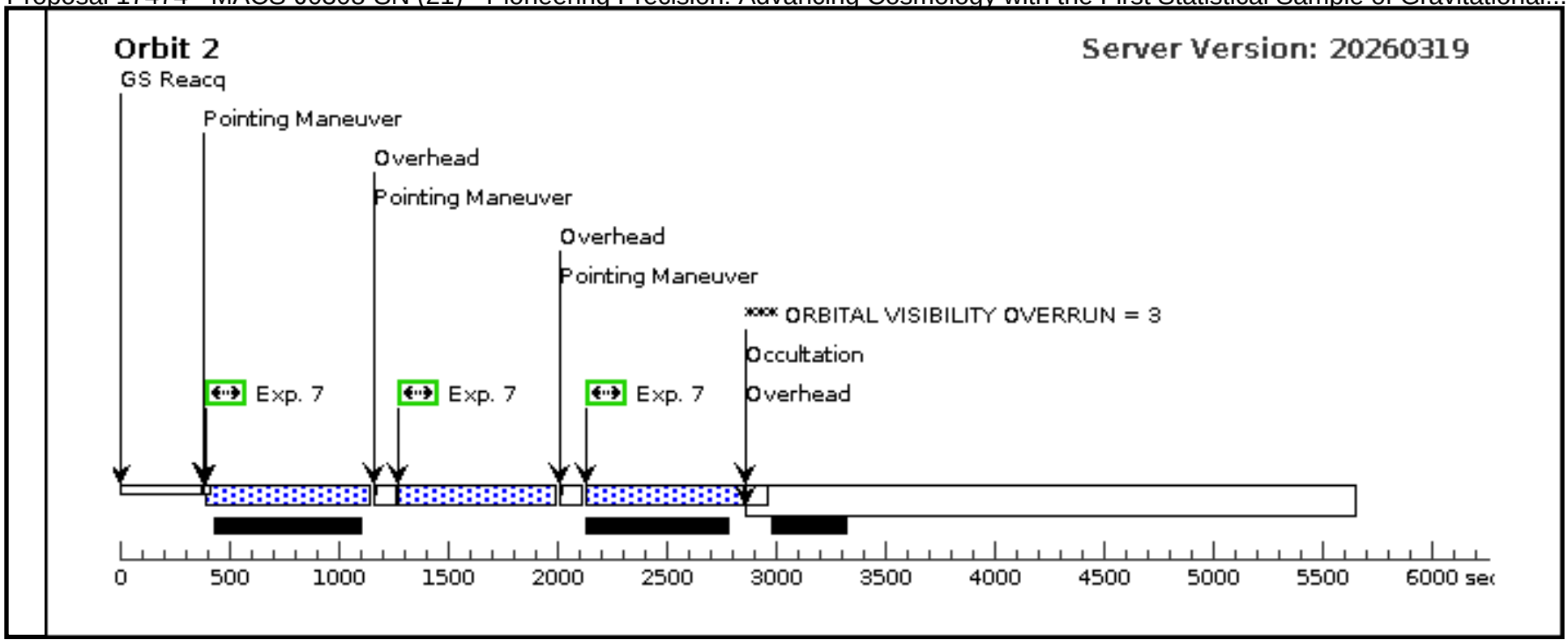
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	MACS-J0308-SN-IRPOS	RA: 03 08 54.9183 (47.2288262d) Dec: +26 45 58.64 (26.76629d) Equinox: J2000		V=27+/-0.3	Reference Frame: ICRS
Comments: *Category=EXT-STAR* *Description=[SUPERNOVA]* *Extended=NO*					
(10)	MACS-J0308-SN-UVISPOS	RA: 03 08 54.9183 (47.2288262d) Dec: +26 45 58.64 (26.76629d) Equinox: J2000		V=27+/-0.3	Reference Frame: ICRS
Comments: *Category=EXT-STAR* *Description=[SUPERNOVA]* *Extended=NO*					

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 1-6 Non-Int in MACS-J0308-SN (21)	349.232932 Secs (349.233 Secs) *[==>]*	 ***[1]***
2	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 1-6 Non-Int in MACS-J0308-SN (21)	349.232932 Secs (349.233 Secs) *[==>]*	 ***[1]***
3	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 1-6 Non-Int in MACS-J0308-SN (21)	349.232932 Secs (349.233 Secs) *[==>]*	 ***[1]***
4	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 1-6 Non-Int in MACS-J0308-SN (21)	349.232932 Secs (349.233 Secs) *[==>]*	 ***[1]***
5	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 1-6 Non-Int in MACS-J0308-SN (21)	399.233383 Secs (399.233 Secs) *[==>]*	 ***[1]***
6	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 1-6 Non-Int in MACS-J0308-SN (21)	349.232932 Secs (349.233 Secs) *[==>]*	 ***[1]***
7		(10) MACS-J0308-SN-UVISPOS	WFC3/UVIS, ACCUM, UVIS2	F814W			Pattern 2, Exps 7-7 in MACS-J0308-SN (21) (2)	725 Secs (2175 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	 ***[2]***

Orbit Structure




Orbit 2
Server Version: 20260319
GS Reacq
Pointing Maneuver
Overhead
Pointing Maneuver
Overhead
Pointing Maneuver
*** ORBITAL VISIBILITY OVERRUN = 3
Occultation
Overhead
Exp. 7
Exp. 7
Exp. 7
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17474, MACS-J0308-SN (22), completed Wed Jul 01 16:01:24 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: SCHED 100%; ORIENT 200D TO 250 D; AFTER 21 BY 5 D TO 12 D

Comments: 3 short WFC3-IR F110W and 3 short WFC3-IR F160W exposures of high-z qlSN.

Diagnostics

(MACS-J0308-SN (22)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(MACS-J0308-SN (22)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(7), (8)

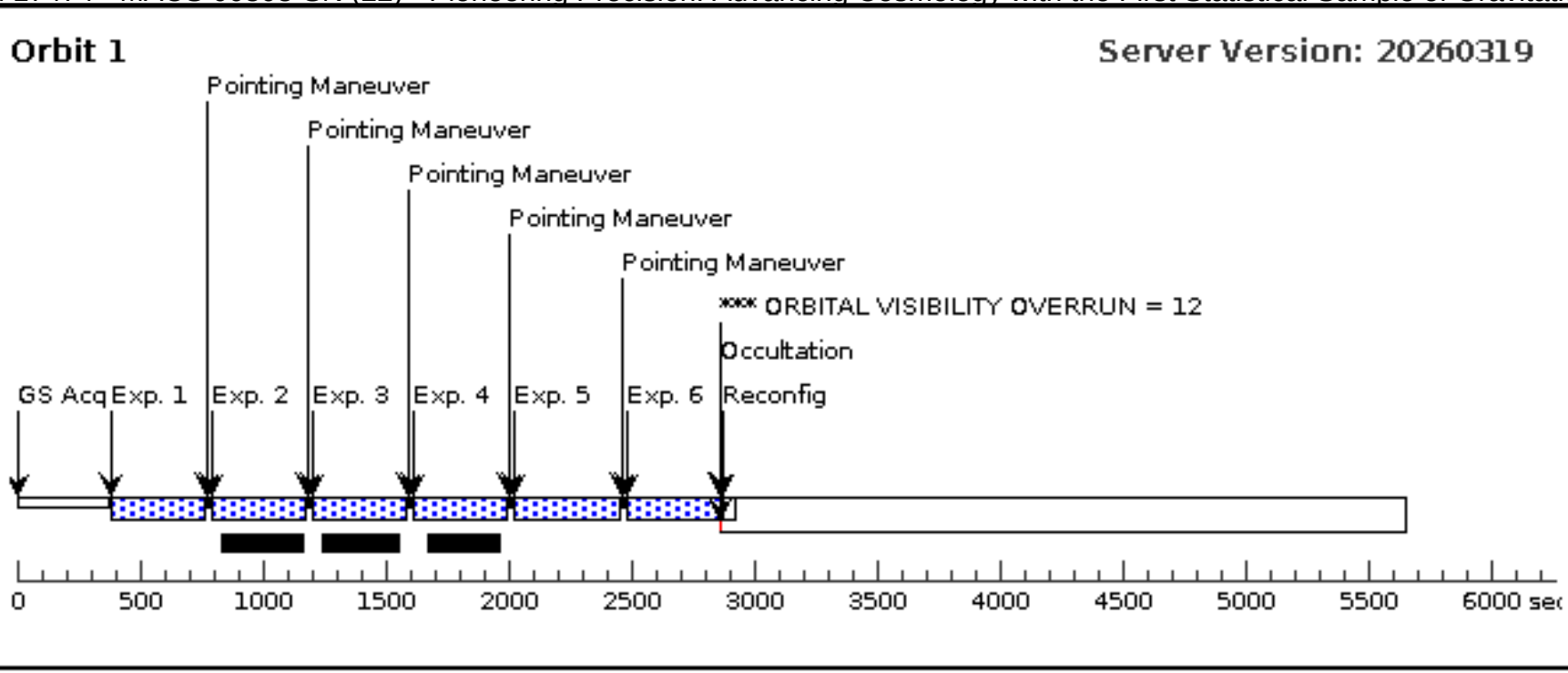
Fixed Targets

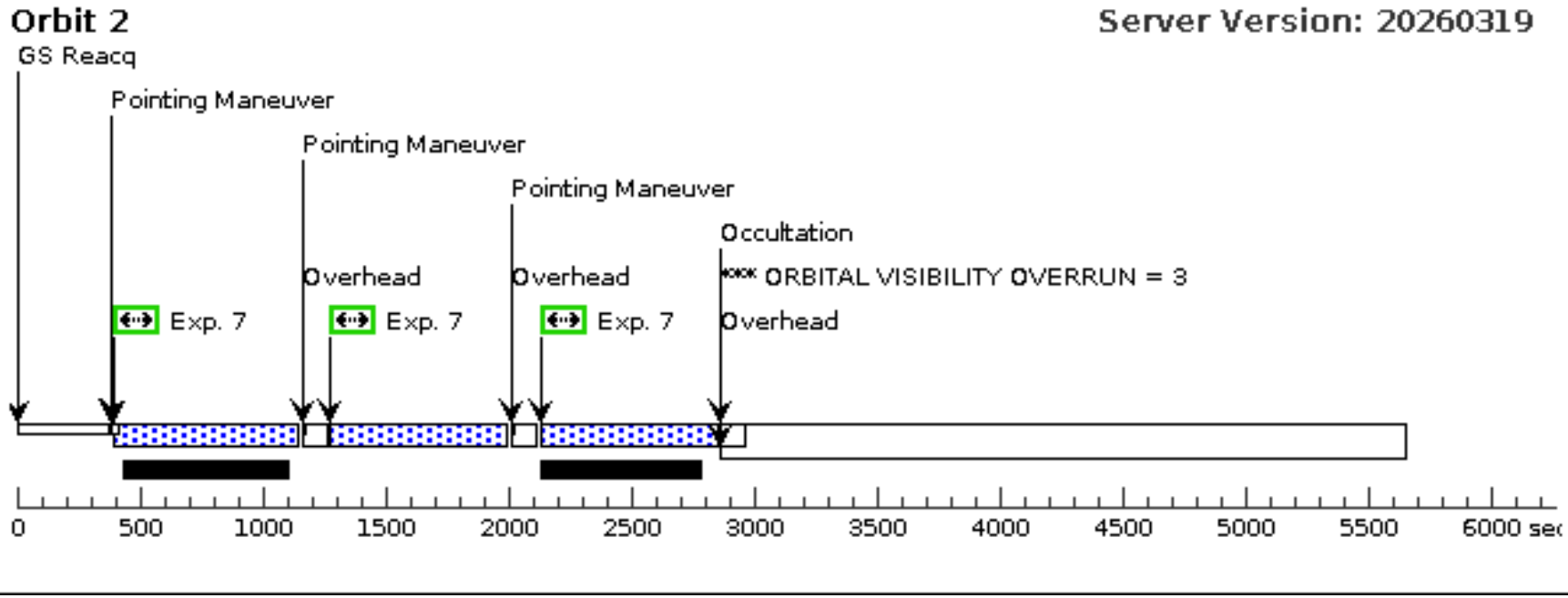
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	MACS-J0308-SN-IRPOS	RA: 03 08 54.9183 (47.2288262d) Dec: +26 45 58.64 (26.76629d) Equinox: J2000		V=27+/-0.3	Reference Frame: ICRS
Comments: *Category=EXT-STAR* *Description=[SUPERNOVA]* *Extended=NO*					
(10)	MACS-J0308-SN-UVISPOS	RA: 03 08 54.9183 (47.2288262d) Dec: +26 45 58.64 (26.76629d) Equinox: J2000		V=27+/-0.3	Reference Frame: ICRS
Comments: *Category=EXT-STAR* *Description=[SUPERNOVA]* *Extended=NO*					

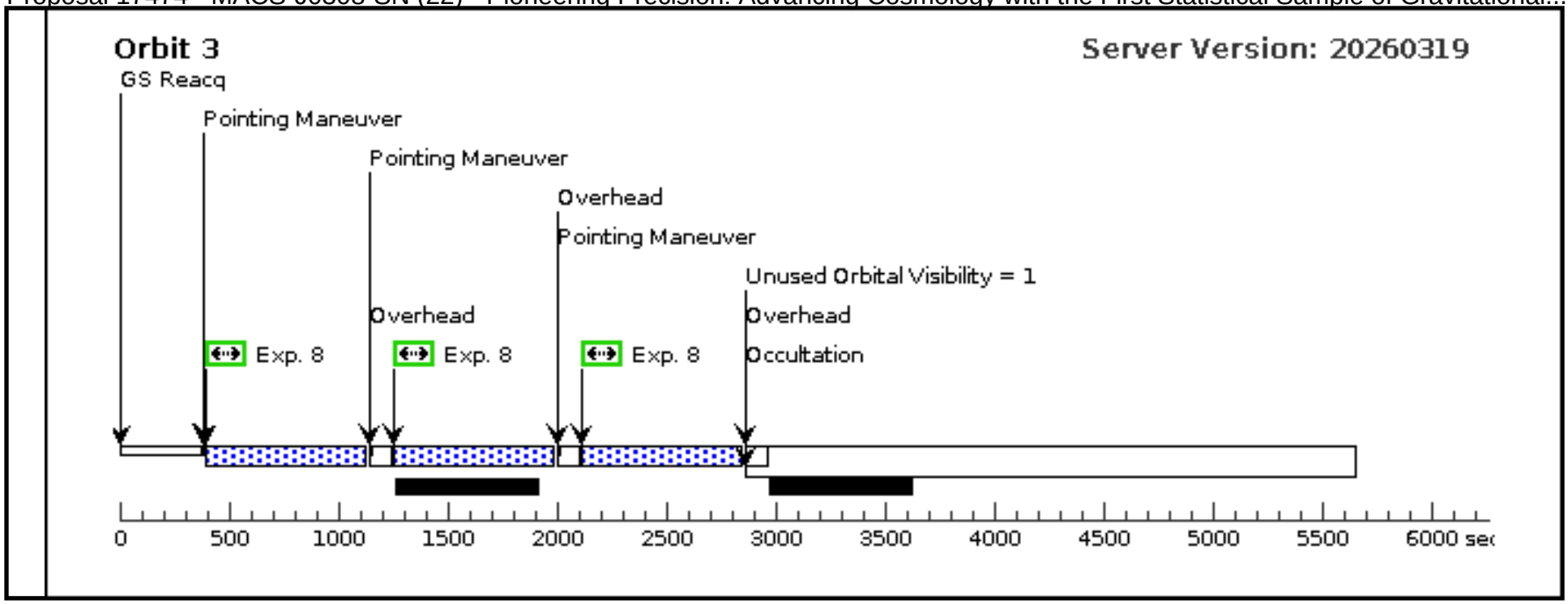
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 1-6 Non-Int in MACS-J0308-SN (22)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
2	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 1-6 Non-Int in MACS-J0308-SN (22)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
3	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 1-6 Non-Int in MACS-J0308-SN (22)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
4	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 1-6 Non-Int in MACS-J0308-SN (22)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
5	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 1-6 Non-Int in MACS-J0308-SN (22)	399.233383 Secs (399.233 Secs) *[==>]*	***[1]***
6	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 1-6 Non-Int in MACS-J0308-SN (22)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
7		(10) MACS-J0308-SN-UVISPOS	WFC3/UVIS, ACCUM, UVIS2	F814W			Pattern 2, Exps 7-7 in MACS-J0308-SN (22) (2)	725 Secs (2175 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
8		(10) MACS-J0308-SN-UVISPOS	WFC3/UVIS, ACCUM, UVIS2	F814W			Pattern 2, Exps 8-8 in MACS-J0308-SN (22) (2)	733 Secs (2199 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[3]***

Orbit Structure






Orbit 3
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Overhead
Pointing Maneuver
Unused Orbital Visibility = 1
Overhead
Overhead
Exp. 8
Exp. 8
Exp. 8
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17474, MACS-J0308-SN (23), completed Wed Jul 01 16:01:24 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: SCHED 100%; ORIENT 200D TO 250 D; AFTER 22 BY 5 D TO 12 D

Comments: 3 short WFC3-IR F110W and 3 short WFC3-IR F160W exposures of high-z qlSN.

Diagnostics

(MACS-J0308-SN (23)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(MACS-J0308-SN (23)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(MACS-J0308-SN (23)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(13), (14)

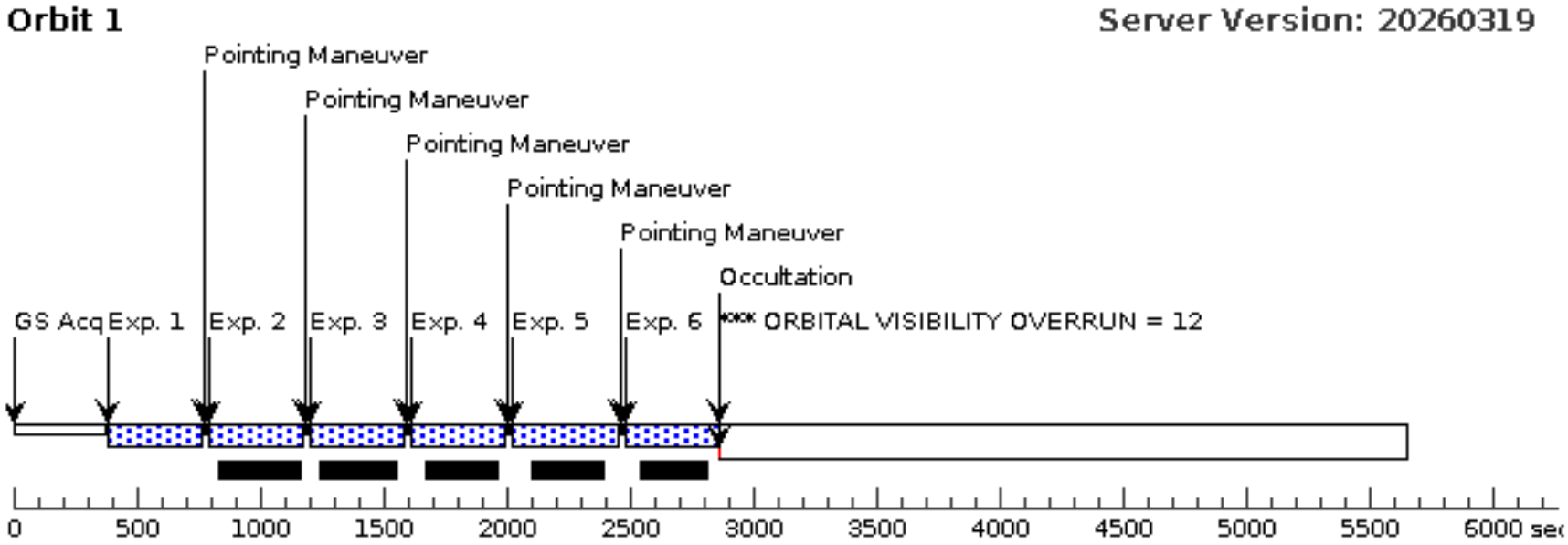
Fixed Targets

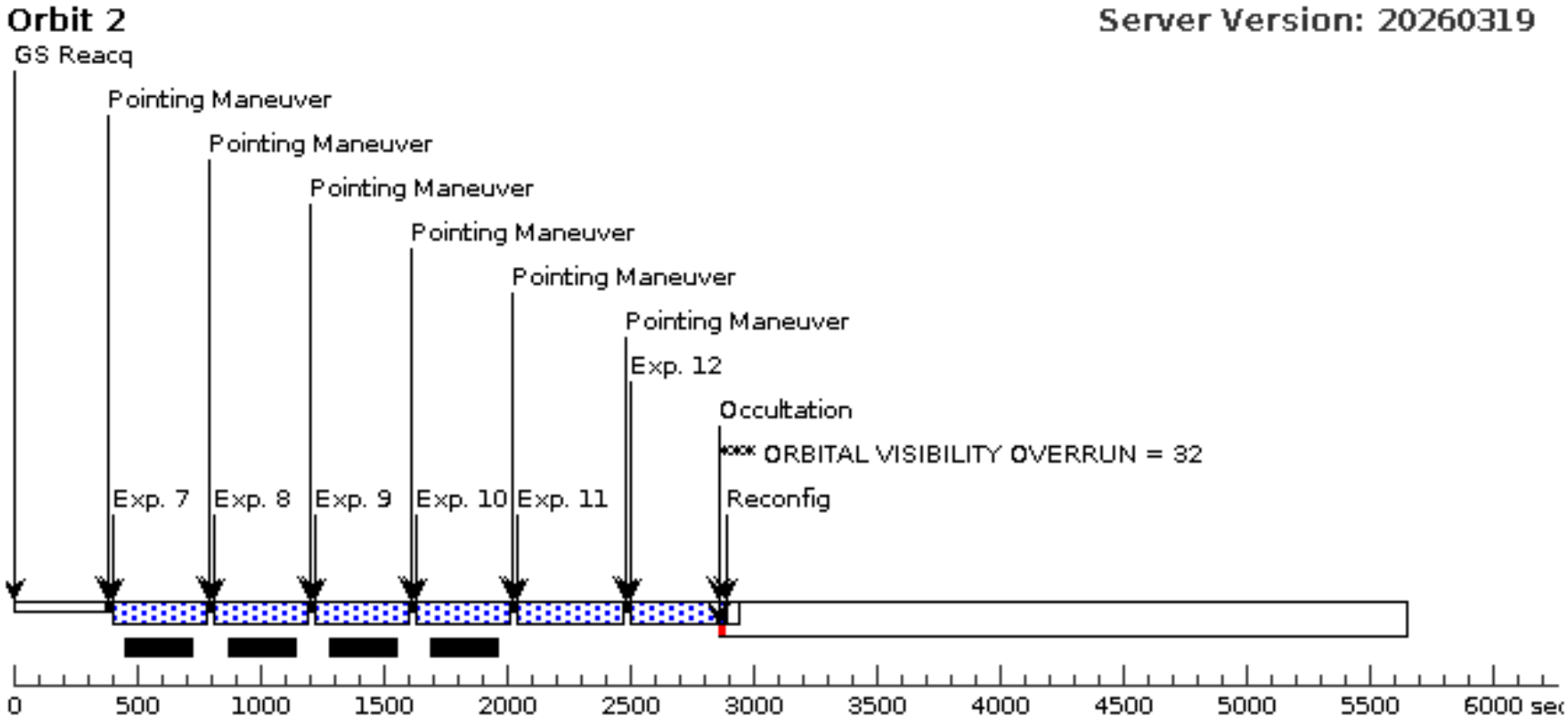
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	MACS-J0308-SN-IRPOS	RA: 03 08 54.9183 (47.2288262d) Dec: +26 45 58.64 (26.76629d) Equinox: J2000		V=27+/-0.3	Reference Frame: ICRS
Comments: *Category=EXT-STAR* *Description=[SUPERNOVA]* *Extended=NO*					
(10)	MACS-J0308-SN-UVISPOS	RA: 03 08 54.9183 (47.2288262d) Dec: +26 45 58.64 (26.76629d) Equinox: J2000		V=27+/-0.3	Reference Frame: ICRS
Comments: *Category=EXT-STAR* *Description=[SUPERNOVA]* *Extended=NO*					

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 1-6 Non-Int in MACS-J0308-SN (23)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
2	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 1-6 Non-Int in MACS-J0308-SN (23)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
3	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 1-6 Non-Int in MACS-J0308-SN (23)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
4	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 1-6 Non-Int in MACS-J0308-SN (23)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
5	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 1-6 Non-Int in MACS-J0308-SN (23)	399.233383 Secs (399.233 Secs) *[==>]*	***[1]***
6	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 1-6 Non-Int in MACS-J0308-SN (23)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
7	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 7-12 Non-Int in MACS-J0308-SN (23)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
8	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 7-12 Non-Int in MACS-J0308-SN (23)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
9	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 7-12 Non-Int in MACS-J0308-SN (23)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
10	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 7-12 Non-Int in MACS-J0308-SN (23)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
11	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 7-12 Non-Int in MACS-J0308-SN (23)	399.233383 Secs (399.233 Secs) *[==>]*	***[2]***
12	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 7-12 Non-Int in MACS-J0308-SN (23)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
13		(10) MACS-J0308-SN-UVISPOS	WFC3/UVIS, ACCUM, UVIS2	F814W			Pattern 2, Exps 13-13 in MACS-J0308-SN (23) (2)	725 Secs (2175 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[3]***
14		(10) MACS-J0308-SN-UVISPOS	WFC3/UVIS, ACCUM, UVIS2	F814W			Pattern 2, Exps 14-14 in MACS-J0308-SN (23) (2)	733 Secs (2199 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[4]***

Orbit Structure

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Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Exp. 12
Occultation
*** ORBITAL VISIBILITY OVERRUN = 32
Exp. 7
Exp. 8
Exp. 9
Exp. 10
Exp. 11
Reconfig
0
500
1000
1500
2000
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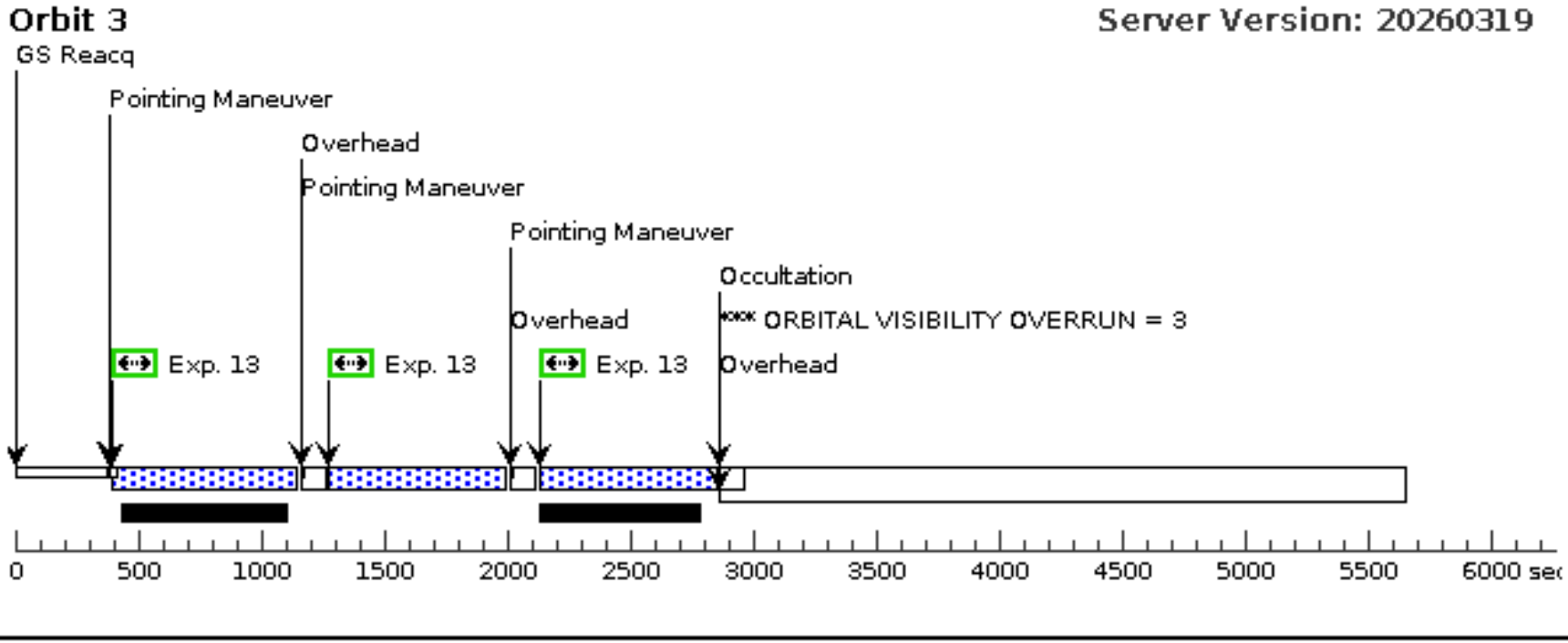
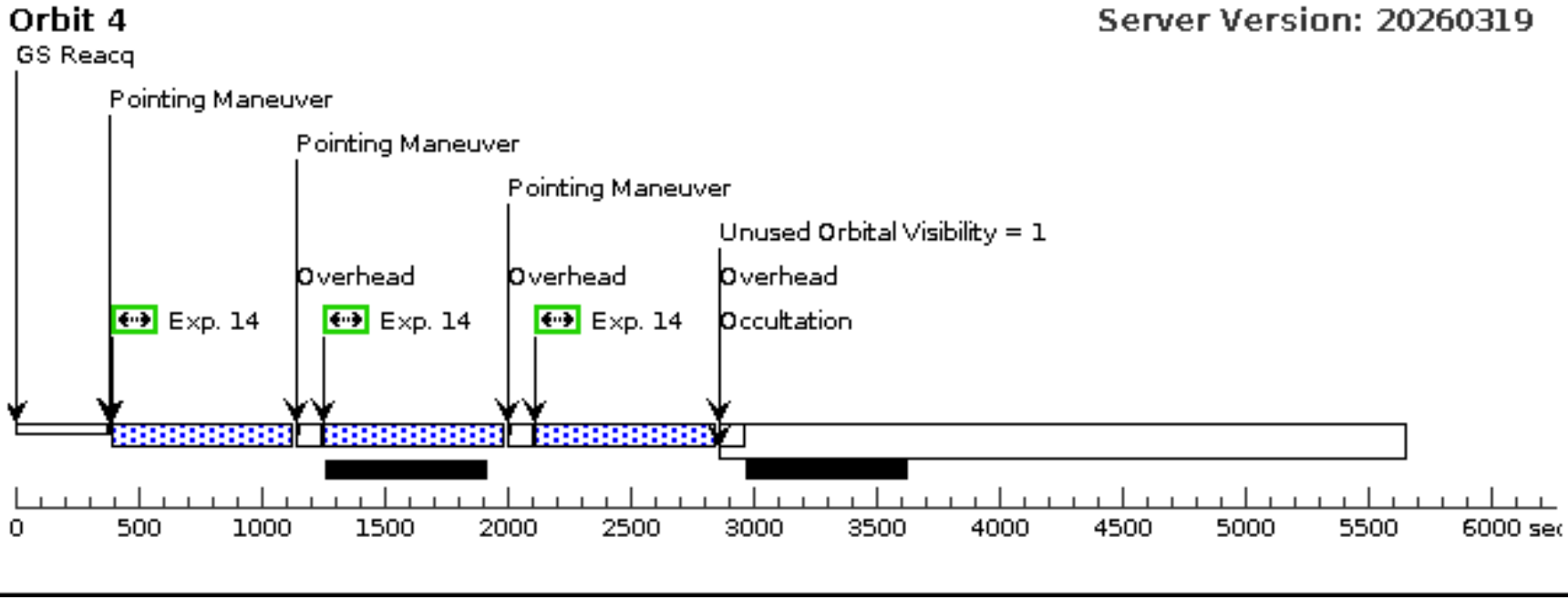
4500
5000
5500
6000 sec


Orbit 3
Server Version: 20260319
GS Reacq
Pointing Maneuver
Overhead
Pointing Maneuver
Pointing Maneuver
Occultation
Overhead
*** ORBITAL VISIBILITY OVERRUN = 3
Exp. 13
Exp. 13
Exp. 13
Overhead
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec


Orbit 4
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 1
Overhead
Overhead
Overhead
Exp. 14
Exp. 14
Exp. 14
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17474, MACS-J0308-SN (24), completed Wed Jul 01 16:01:24 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: SCHED 100%; ORIENT 200D TO 250 D; AFTER 23 BY 5 D TO 12 D

Comments: 3 short WFC3-IR F110W and 3 short WFC3-IR F160W exposures of high-z qlSN.

Diagnostics

(MACS-J0308-SN (24)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(MACS-J0308-SN (24)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(MACS-J0308-SN (24)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(13), (14)

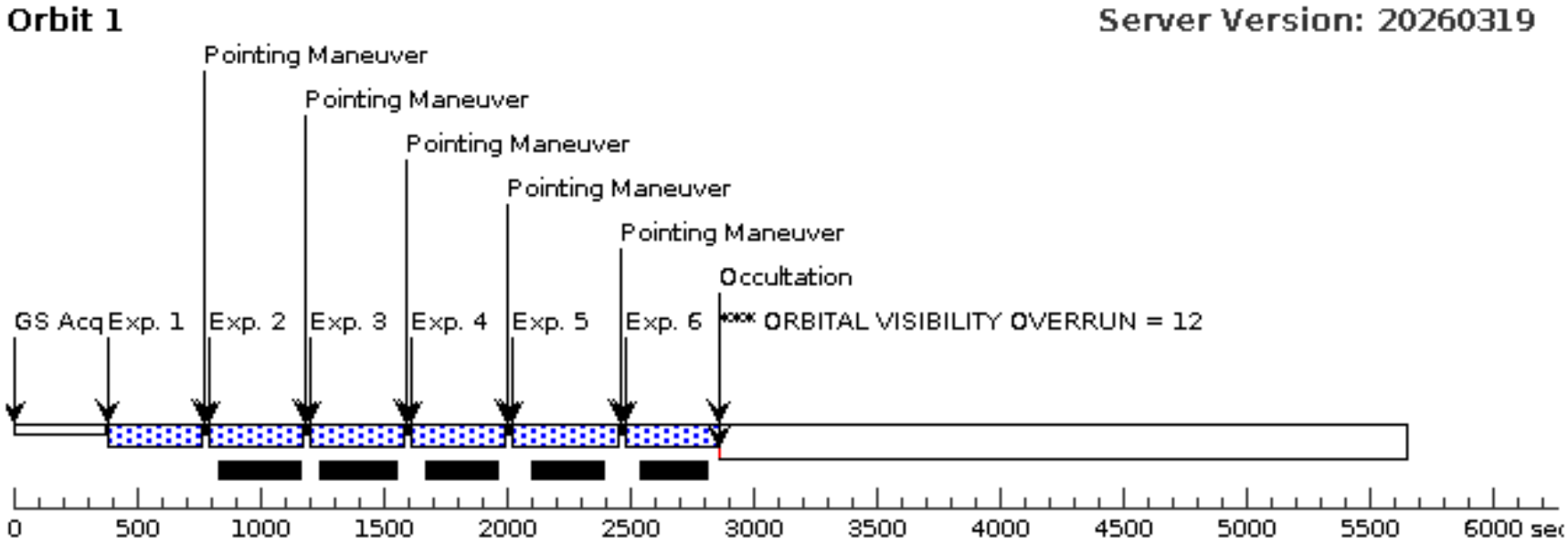
Fixed Targets

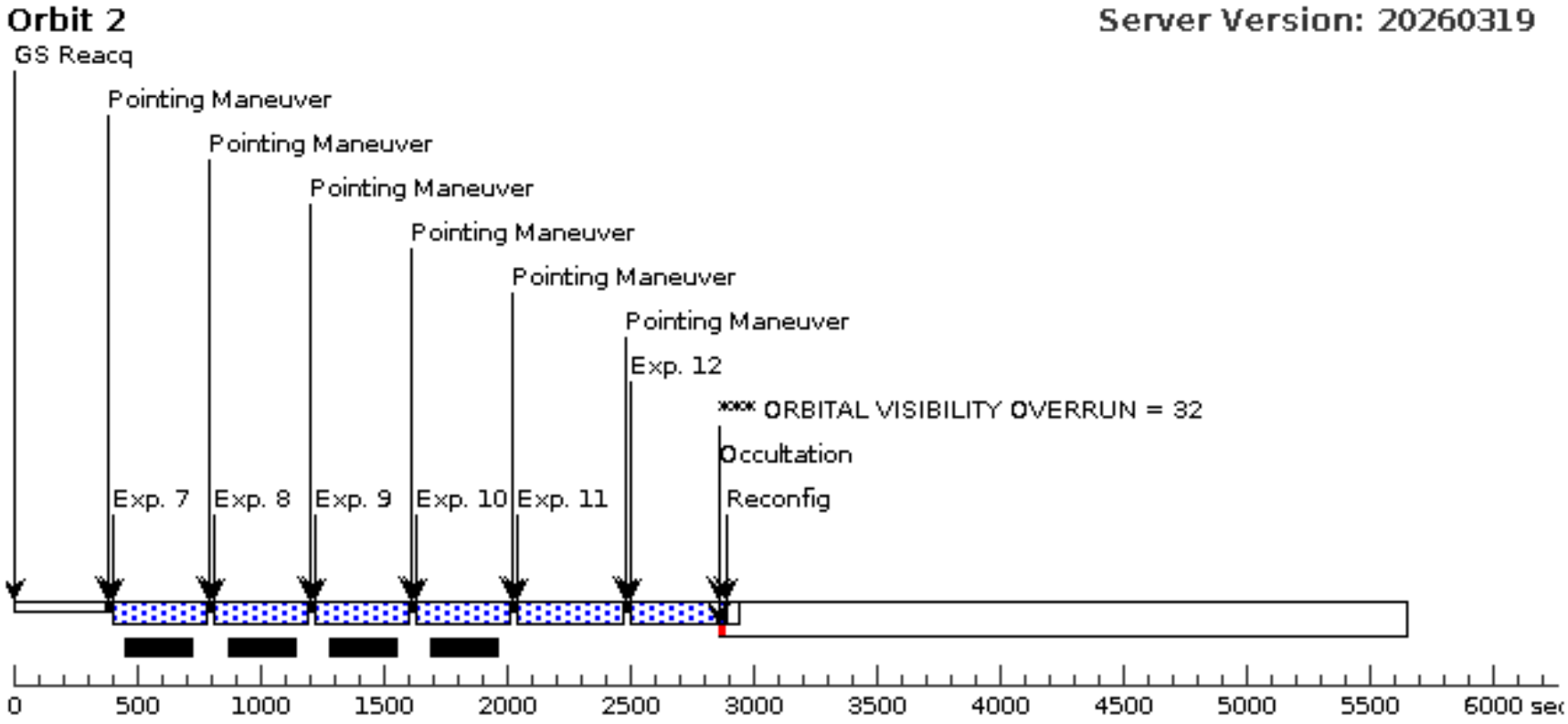
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	MACS-J0308-SN-IRPOS	RA: 03 08 54.9183 (47.2288262d) Dec: +26 45 58.64 (26.76629d) Equinox: J2000		V=27+/-0.3	Reference Frame: ICRS
Comments: *Category=EXT-STAR* *Description=[SUPERNOVA]* *Extended=NO*					
(10)	MACS-J0308-SN-UVISPOS	RA: 03 08 54.9183 (47.2288262d) Dec: +26 45 58.64 (26.76629d) Equinox: J2000		V=27+/-0.3	Reference Frame: ICRS
Comments: *Category=EXT-STAR* *Description=[SUPERNOVA]* *Extended=NO*					

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 1-6 Non-Int in MACS-J0308-SN (24)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
2	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 1-6 Non-Int in MACS-J0308-SN (24)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
3	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 1-6 Non-Int in MACS-J0308-SN (24)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
4	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 1-6 Non-Int in MACS-J0308-SN (24)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
5	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 1-6 Non-Int in MACS-J0308-SN (24)	399.233383 Secs (399.233 Secs) *[==>]*	***[1]***
6	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 1-6 Non-Int in MACS-J0308-SN (24)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
7	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 7-12 Non-Int in MACS-J0308-SN (24)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
8	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 7-12 Non-Int in MACS-J0308-SN (24)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
9	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 7-12 Non-Int in MACS-J0308-SN (24)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
10	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 7-12 Non-Int in MACS-J0308-SN (24)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
11	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 7-12 Non-Int in MACS-J0308-SN (24)	399.233383 Secs (399.233 Secs) *[==>]*	***[2]***
12	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 7-12 Non-Int in MACS-J0308-SN (24)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
13		(10) MACS-J0308-SN-UVISPOS	WFC3/UVIS, ACCUM, UVIS2	F814W			Pattern 2, Exps 13-13 in MACS-J0308-SN (24) (2)	725 Secs (2175 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[3]***
14		(10) MACS-J0308-SN-UVISPOS	WFC3/UVIS, ACCUM, UVIS2	F814W			Pattern 2, Exps 14-14 in MACS-J0308-SN (24) (2)	733 Secs (2199 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[4]***

Orbit Structure




Orbit 2
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Exp. 12
*** ORBITAL VISIBILITY OVERRUN = 32
Occultation
Reconfig
Exp. 7
Exp. 8
Exp. 9
Exp. 10
Exp. 11
0
500
1000
1500
2000
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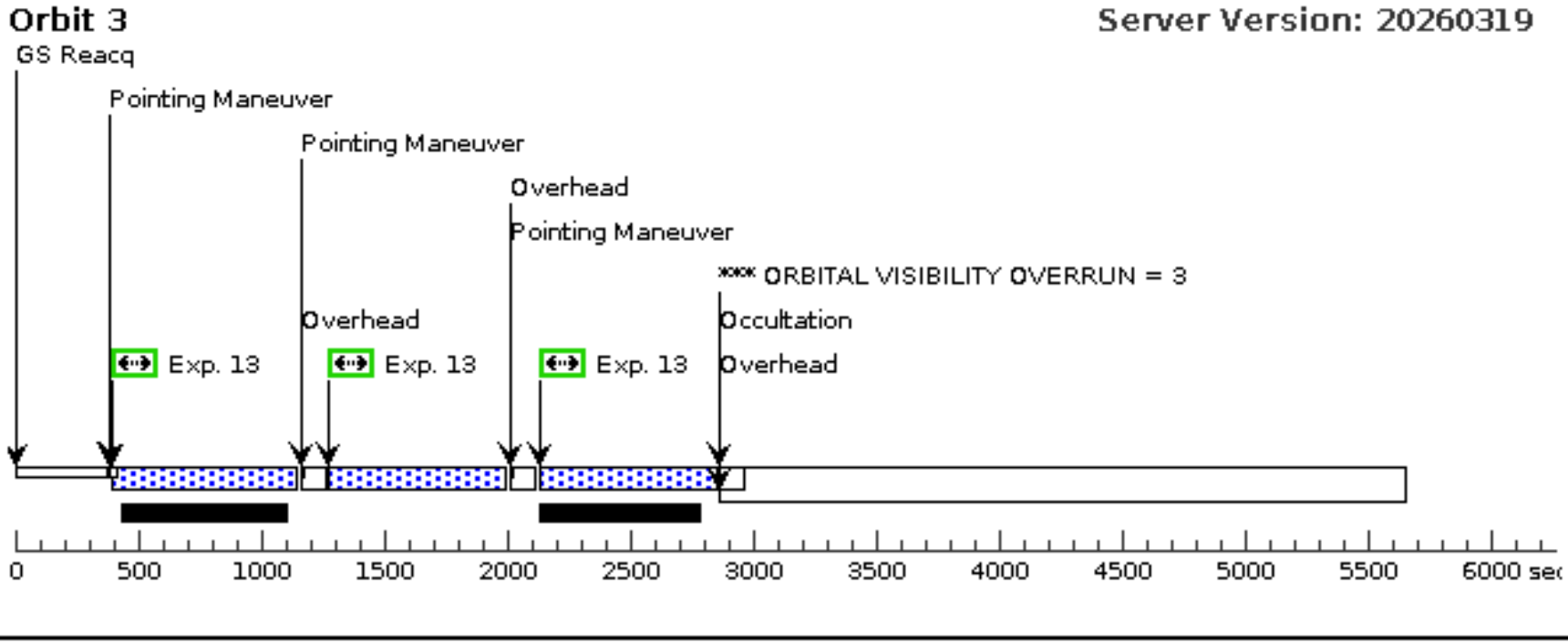
5000
5500
6000 sec


Orbit 3
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Overhead
Pointing Maneuver
*** ORBITAL VISIBILITY OVERRUN = 3
Overhead
Occultation
Exp. 13
Exp. 13
Exp. 13
Overhead
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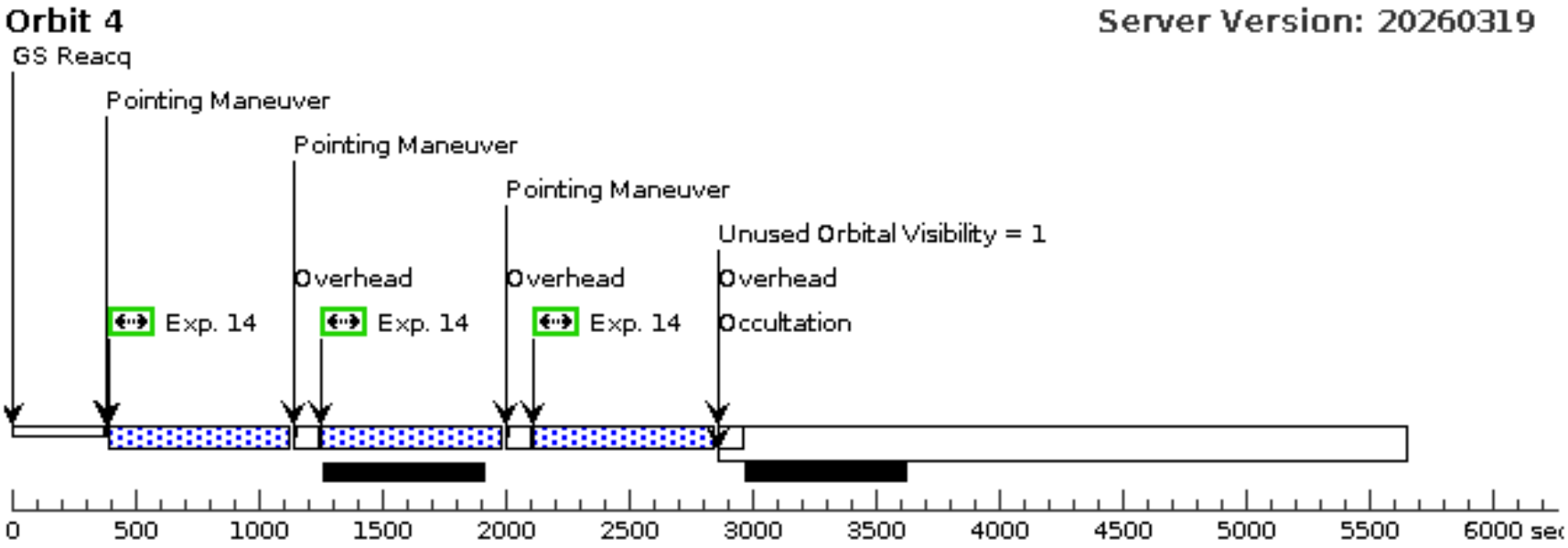
5000
5500
6000 sec


Orbit 4
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 1
Overhead
Overhead
Overhead
Occultation
Exp. 14
Exp. 14
Exp. 14
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17474, MACS-J0308-SN (25), completed Wed Jul 01 16:01:24 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: SCHED 100%; ORIENT 200D TO 250 D; AFTER 24 BY 5 D TO 12 D

Comments: 3 short WFC3-IR F110W and 3 short WFC3-IR F160W exposures of high-z qlSN.

Diagnostics

(MACS-J0308-SN (25)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(MACS-J0308-SN (25)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(MACS-J0308-SN (25)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(13), (14)

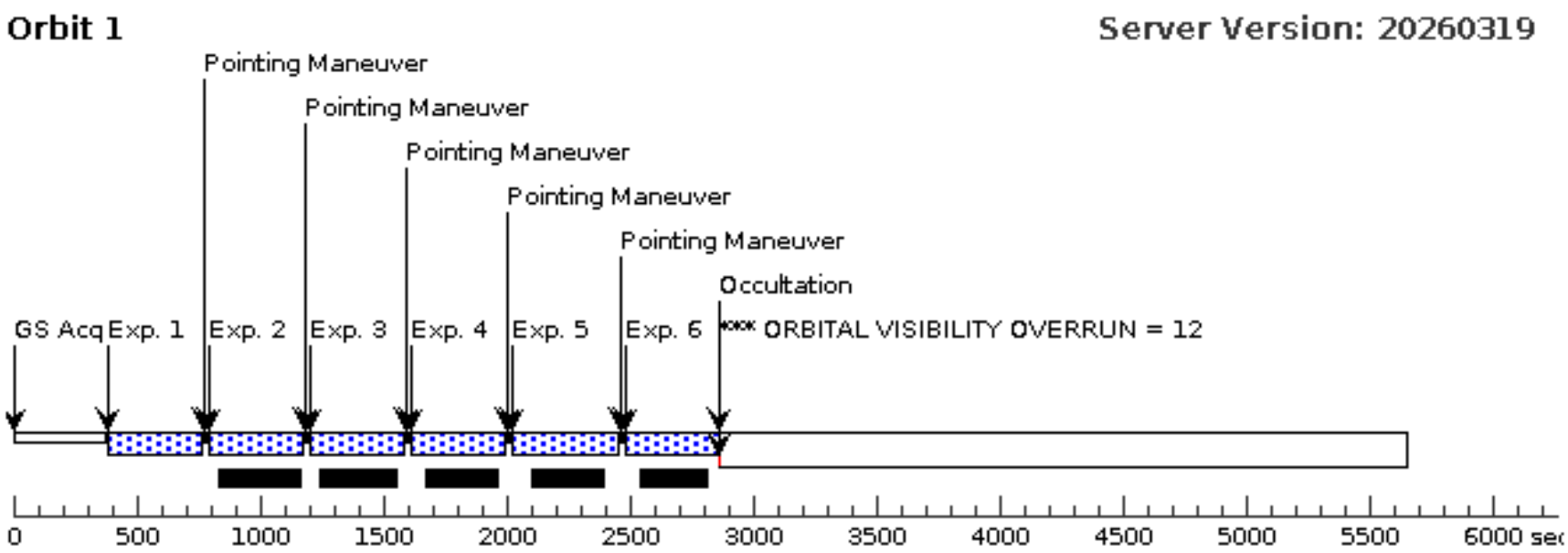
Fixed Targets

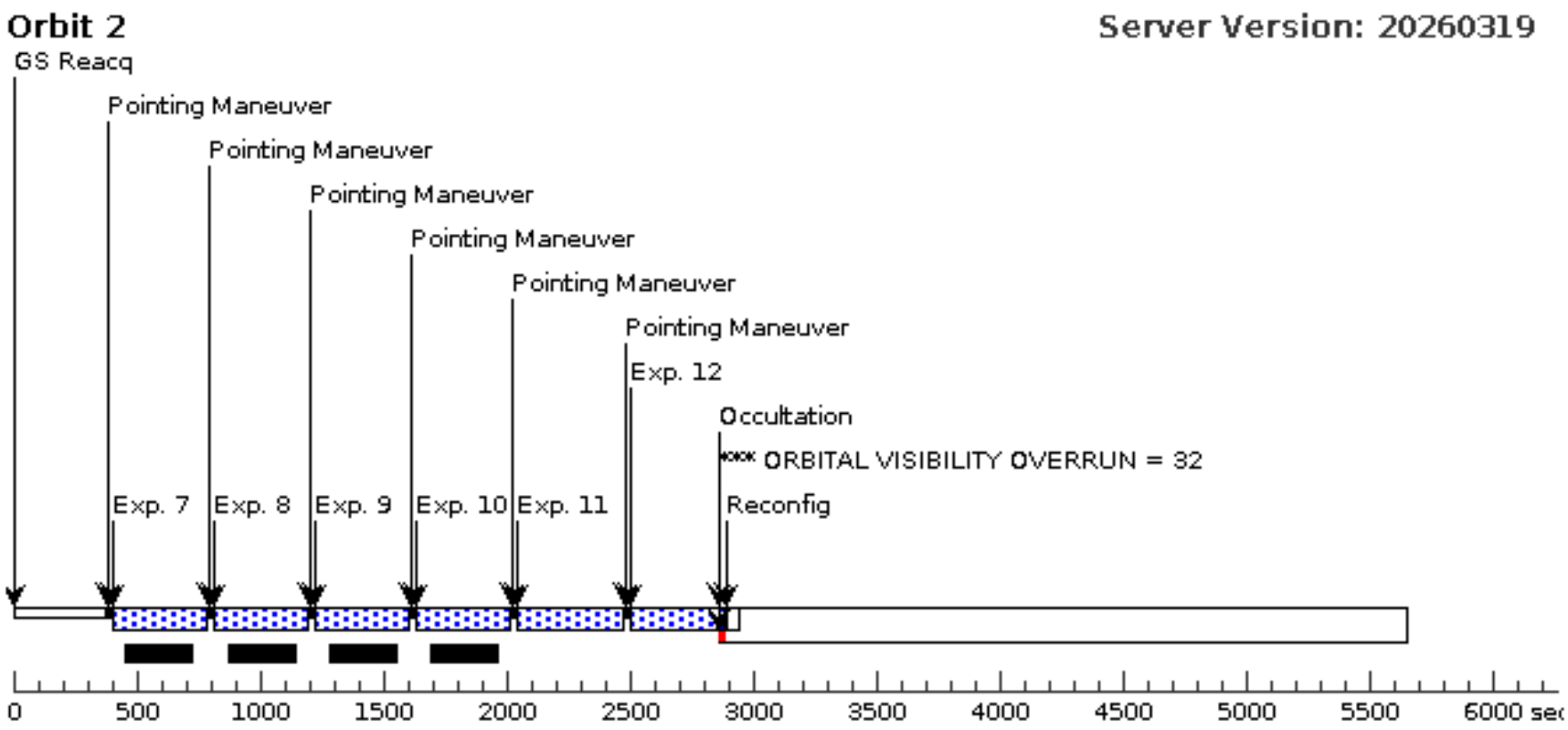
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	MACS-J0308-SN-IRPOS	RA: 03 08 54.9183 (47.2288262d) Dec: +26 45 58.64 (26.76629d) Equinox: J2000		V=27+/-0.3	Reference Frame: ICRS
Comments: *Category=EXT-STAR* *Description=[SUPERNOVA]* *Extended=NO*					
(10)	MACS-J0308-SN-UVISPOS	RA: 03 08 54.9183 (47.2288262d) Dec: +26 45 58.64 (26.76629d) Equinox: J2000		V=27+/-0.3	Reference Frame: ICRS
Comments: *Category=EXT-STAR* *Description=[SUPERNOVA]* *Extended=NO*					

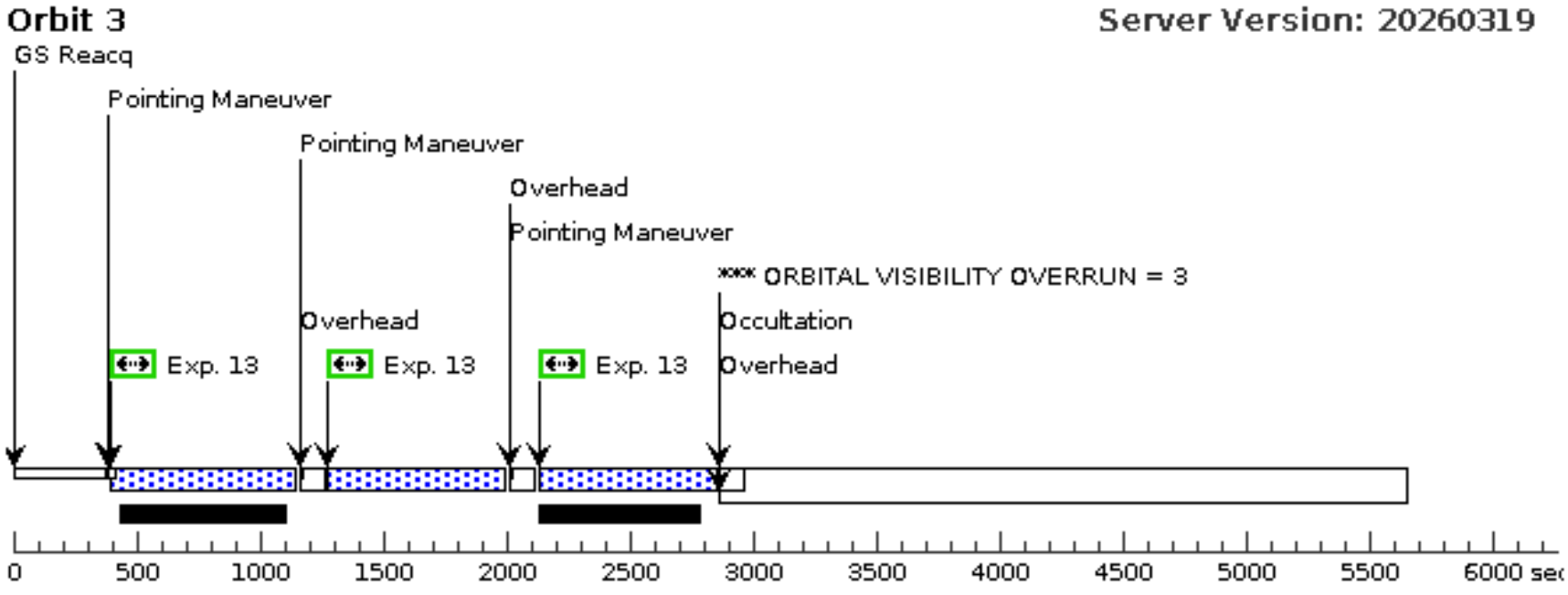
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 1-6 Non-Int in MACS-J0308-SN (25)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
2	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 1-6 Non-Int in MACS-J0308-SN (25)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
3	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 1-6 Non-Int in MACS-J0308-SN (25)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
4	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 1-6 Non-Int in MACS-J0308-SN (25)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
5	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 1-6 Non-Int in MACS-J0308-SN (25)	399.233383 Secs (399.233 Secs) *[==>]*	***[1]***
6	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 1-6 Non-Int in MACS-J0308-SN (25)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
7	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 7-12 Non-Int in MACS-J0308-SN (25)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
8	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 7-12 Non-Int in MACS-J0308-SN (25)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
9	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 7-12 Non-Int in MACS-J0308-SN (25)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
10	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 7-12 Non-Int in MACS-J0308-SN (25)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
11	F110W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F110W	NSAMP=13; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 7-12 Non-Int in MACS-J0308-SN (25)	399.233383 Secs (399.233 Secs) *[==>]*	***[2]***
12	F160W	(9) MACS-J0308-SN-IRPOS	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 7-12 Non-Int in MACS-J0308-SN (25)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
13		(10) MACS-J0308-SN-UVISPOS	WFC3/UVIS, ACCUM, UVIS2	F814W			Pattern 2, Exps 13-13 in MACS-J0308-SN (25) (2)	725 Secs (2175 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[3]***
14		(10) MACS-J0308-SN-UVISPOS	WFC3/UVIS, ACCUM, UVIS2	F814W			Pattern 2, Exps 14-14 in MACS-J0308-SN (25) (2)	733 Secs (2199 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[4]***

Orbit Structure




Orbit 2
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Exp. 12
Occultation
*** ORBITAL VISIBILITY OVERRUN = 32
Exp. 7
Exp. 8
Exp. 9
Exp. 10
Exp. 11
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec


Orbit 3
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Overhead
Pointing Maneuver
**** ORBITAL VISIBILITY OVERRUN = 3
Overhead
Occultation
Exp. 13
Exp. 13
Exp. 13
Overhead
0
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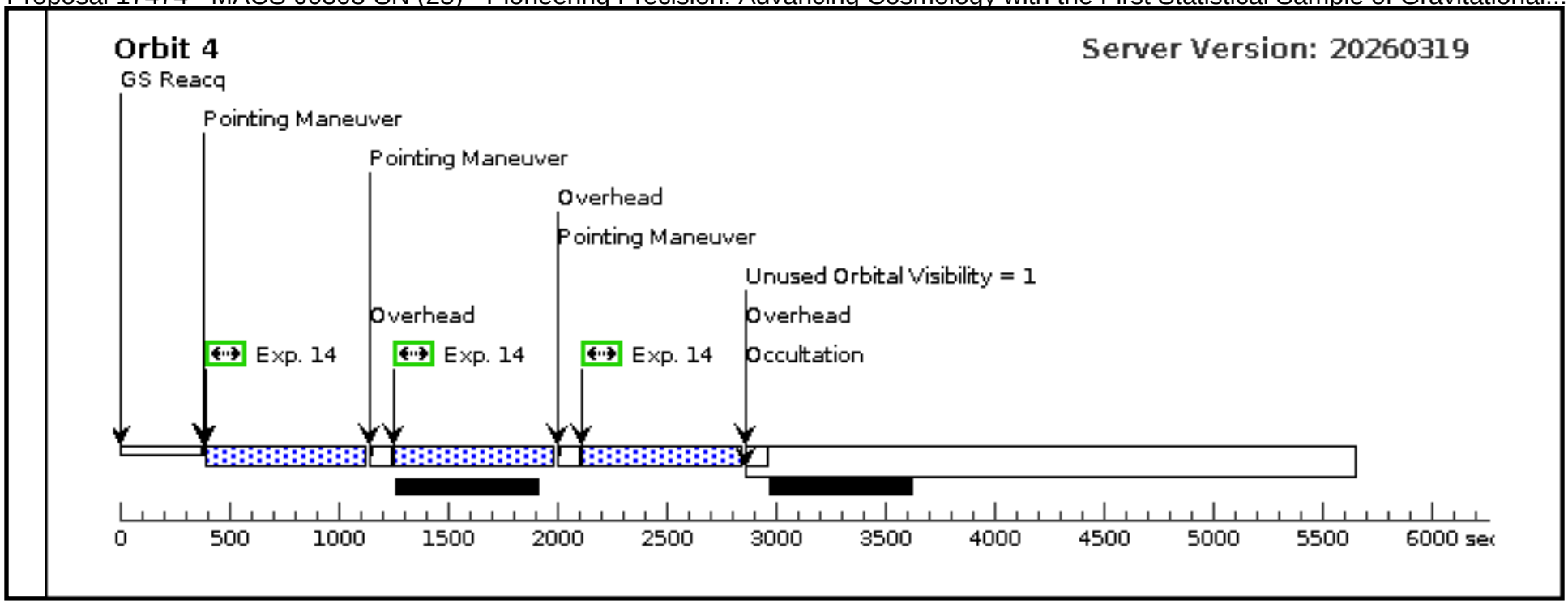
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec


Orbit 4
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Overhead
Pointing Maneuver
Unused Orbital Visibility = 1
Overhead
Overhead
Exp. 14
Exp. 14
Exp. 14
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17474, MACS-J0417-SN (31), completed Wed Jul 01 16:01:24 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: SCHED 100%; BEFORE 17-OCT-2025:00:00:00; TOO MAX RESPONSE TIME 7.0D

Comments: Alternate ortbit setup for a lower-z qlSN.

Diagnostics

(MACS-J0417-SN (31)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(MACS-J0417-SN (31)) Informational (Form): Target of Opportunity Minimum Response time is a required field.

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(4)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(1), (2)

Fixed Targets

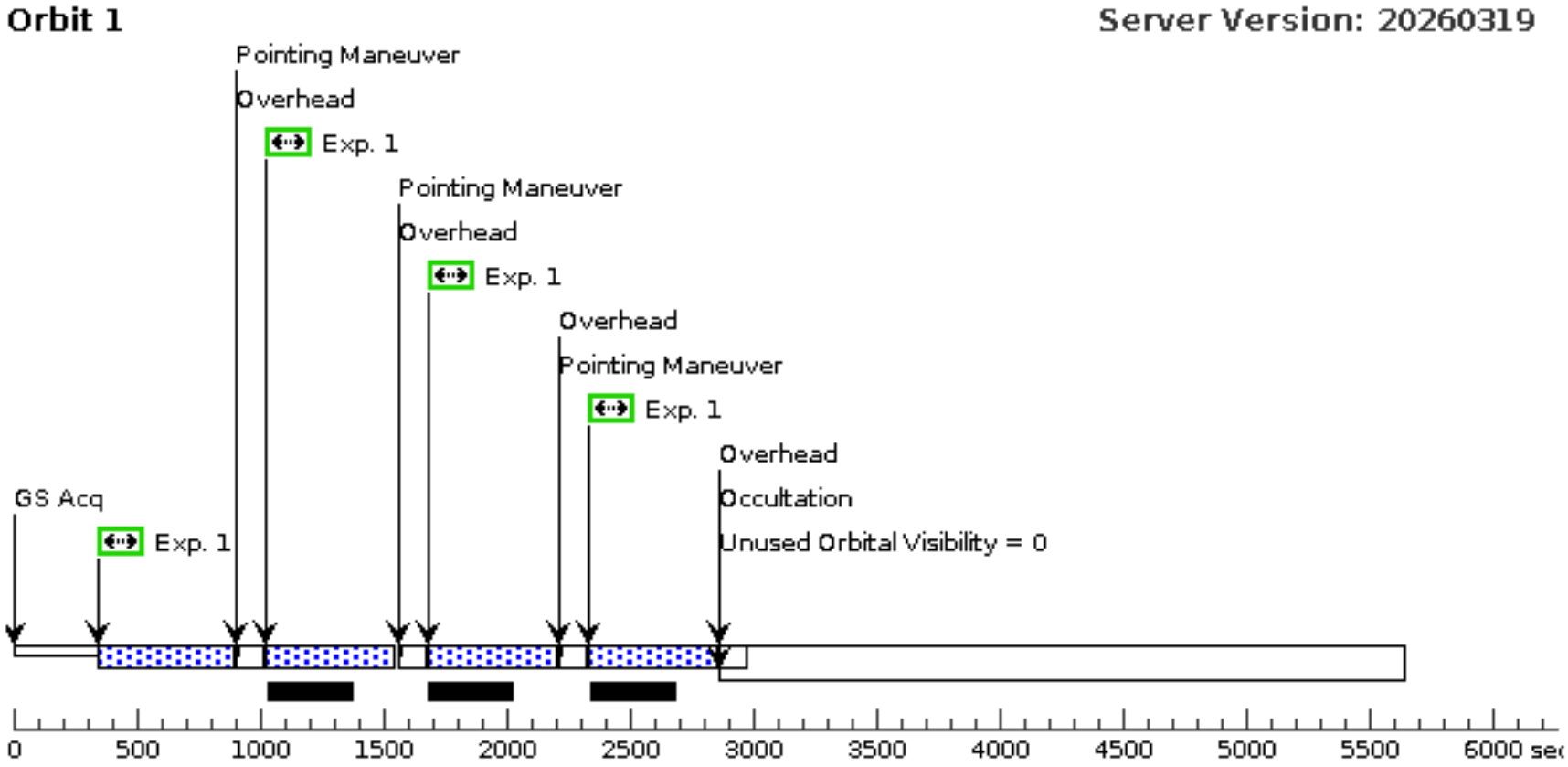
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	MACS-J0417-SN	RA: 04 17 35.1368 (64.3964033d) Dec: -11 54 25.36 (-11.90704d) Equinox: J2000		V=24+/-.5	Reference Frame: ICRS

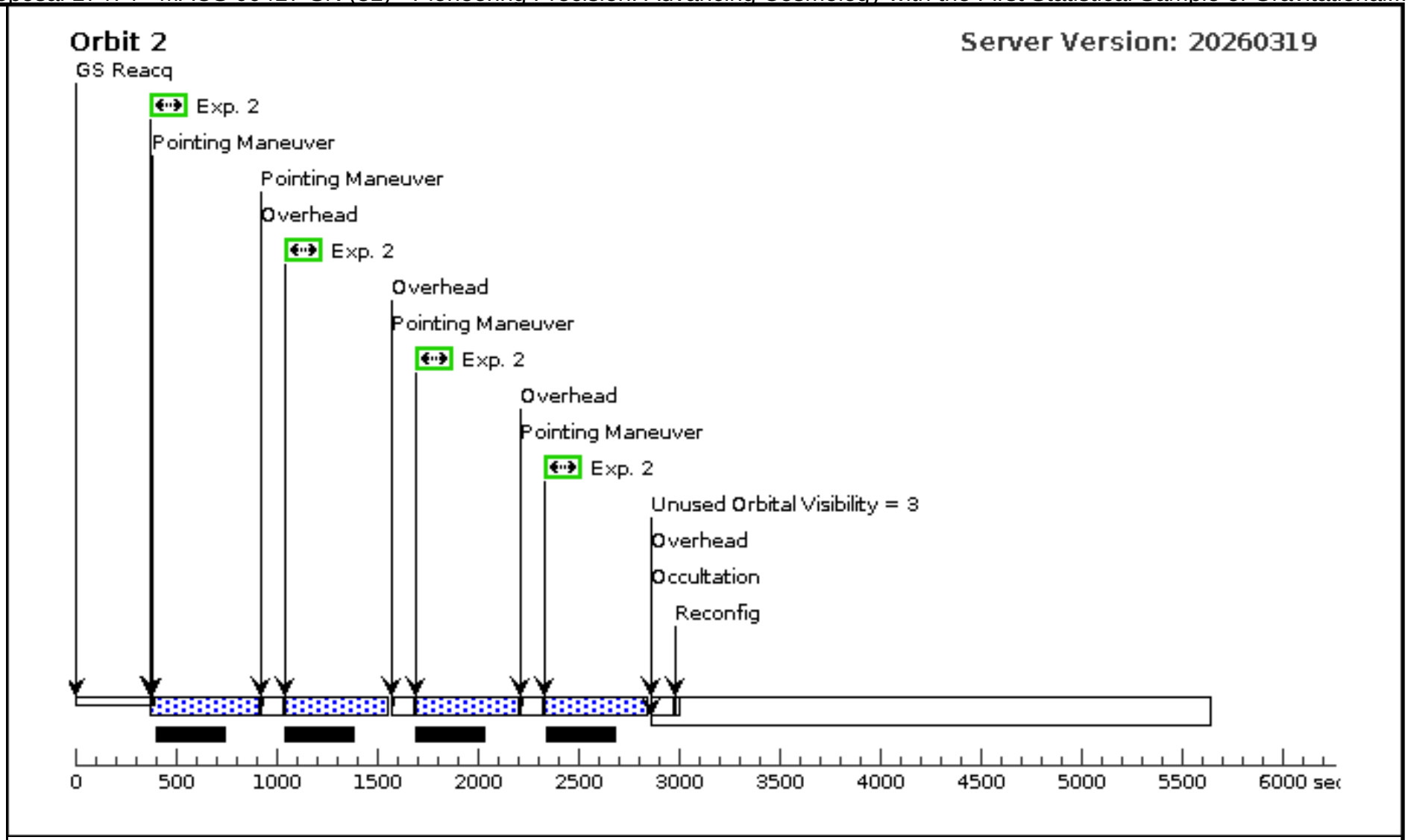
Comments:
Category=EXT-STAR
Description=[SUPERNOVA]

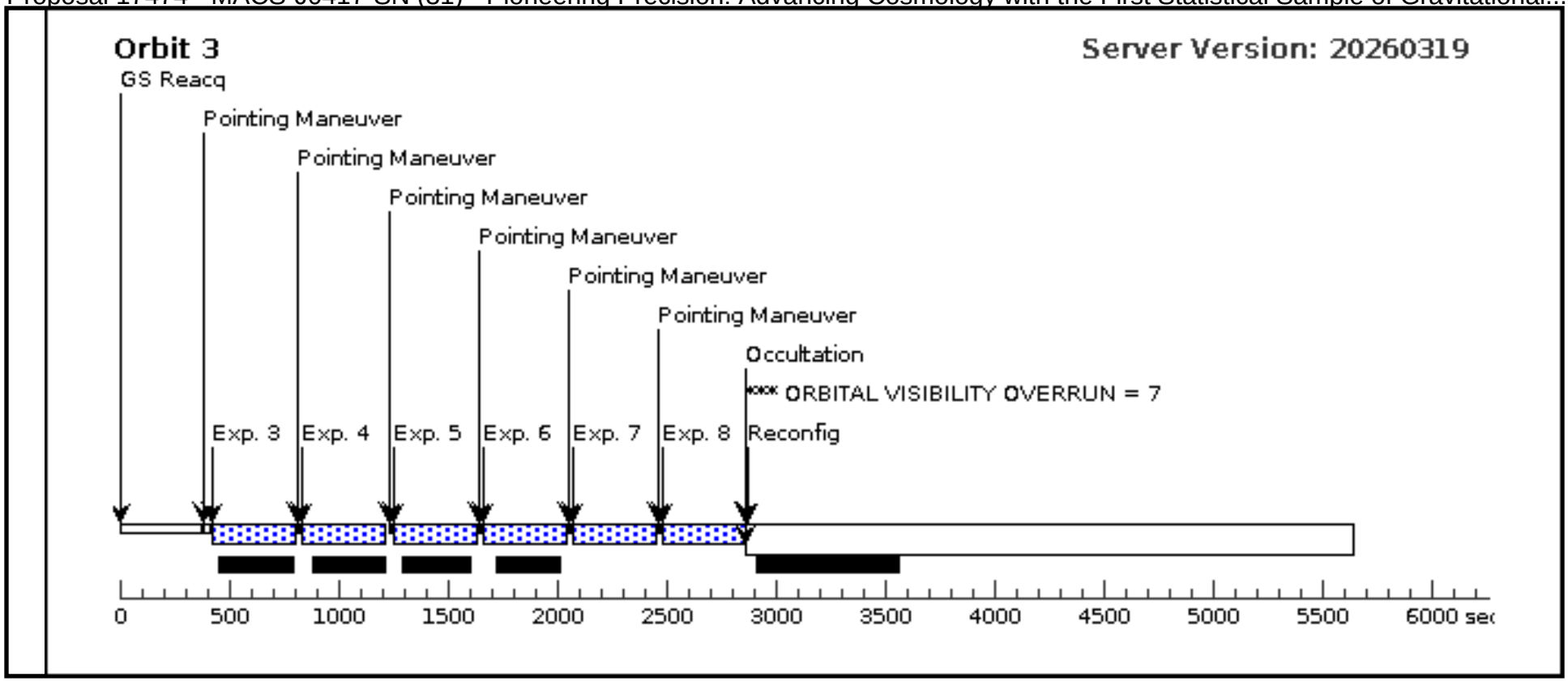
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(11) MACS-J0417-SN	WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=5		Pattern 4, Exps 1-1 in MACS-J0417-SN (31) (4)	520 Secs (2080 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		(11) MACS-J0417-SN	WFC3/UVIS, ACCUM, UVIS2	F606W	FLASH=3		Pattern 4, Exps 2-2 in MACS-J0417-SN (31) (4)	515 Secs (2060 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[2]***
3	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 3-8 Non-Int in MACS-J0417-SN (31)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
4	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 3-8 Non-Int in MACS-J0417-SN (31)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
5	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 3-8 Non-Int in MACS-J0417-SN (31)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
6	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 3-8 Non-Int in MACS-J0417-SN (31)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
7	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 3-8 Non-Int in MACS-J0417-SN (31)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
8	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 3-8 Non-Int in MACS-J0417-SN (31)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***

Orbit Structure




Orbit 2
Server Version: 20260319
GS Reacq
Exp. 2
Pointing Maneuver
Pointing Maneuver
Overhead
Exp. 2
Overhead
Pointing Maneuver
Exp. 2
Overhead
Pointing Maneuver
Exp. 2
Unused Orbital Visibility = 3
Overhead
Occultation
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec


Orbit 3
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Occultation
*** ORBITAL VISIBILITY OVERRUN = 7
Exp. 3
Exp. 4
Exp. 5
Exp. 6
Exp. 7
Exp. 8
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17474, MACS-J0417-SN (32), failed Wed Jul 01 16:01:24 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: SCHED 100%; AFTER 31 BY 6 D TO 12 D; TOO MAX RESPONSE TIME 7.0D

Comments: Alternate ortbit setup for a lower-z qlSN.

Diagnostics

(MACS-J0417-SN (32)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(MACS-J0417-SN (32)) Informational (Form): Target of Opportunity Minimum Response time is a required field.

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(4)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(1), (2)

Fixed Targets

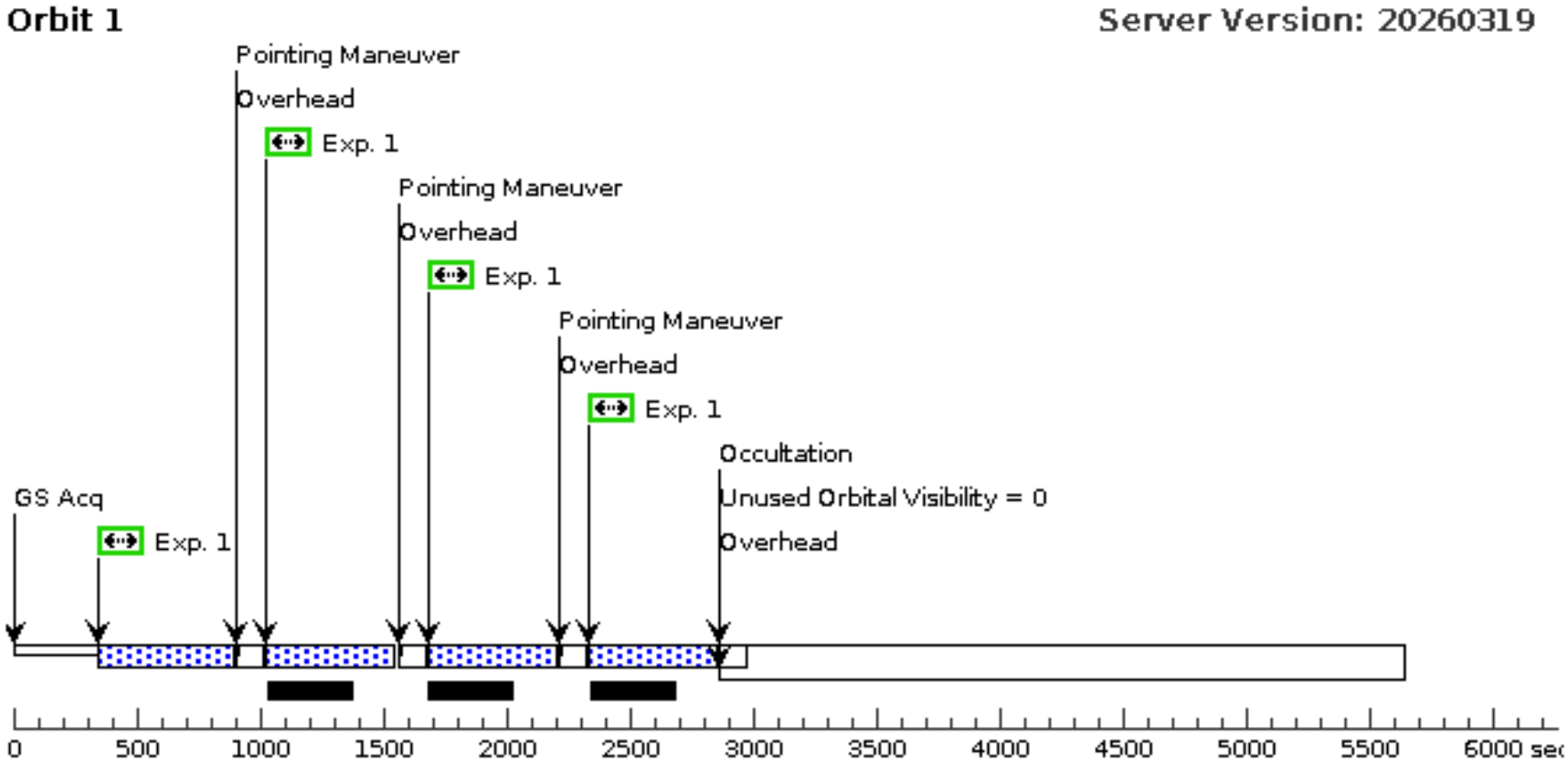
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	MACS-J0417-SN	RA: 04 17 35.1368 (64.3964033d) Dec: -11 54 25.36 (-11.90704d) Equinox: J2000		V=24+/-.5	Reference Frame: ICRS

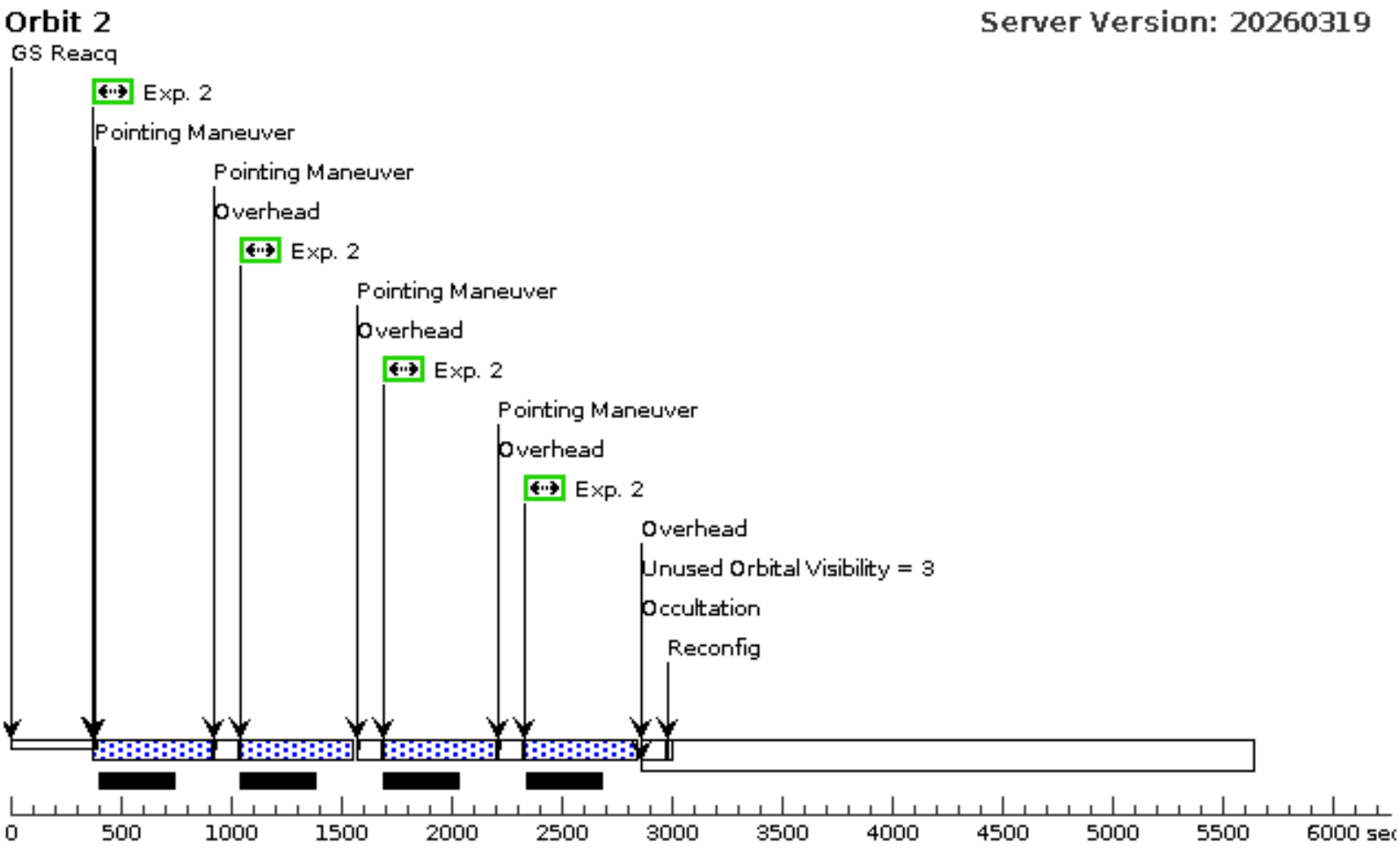
Comments:
Category=EXT-STAR
Description=[SUPERNOVA]

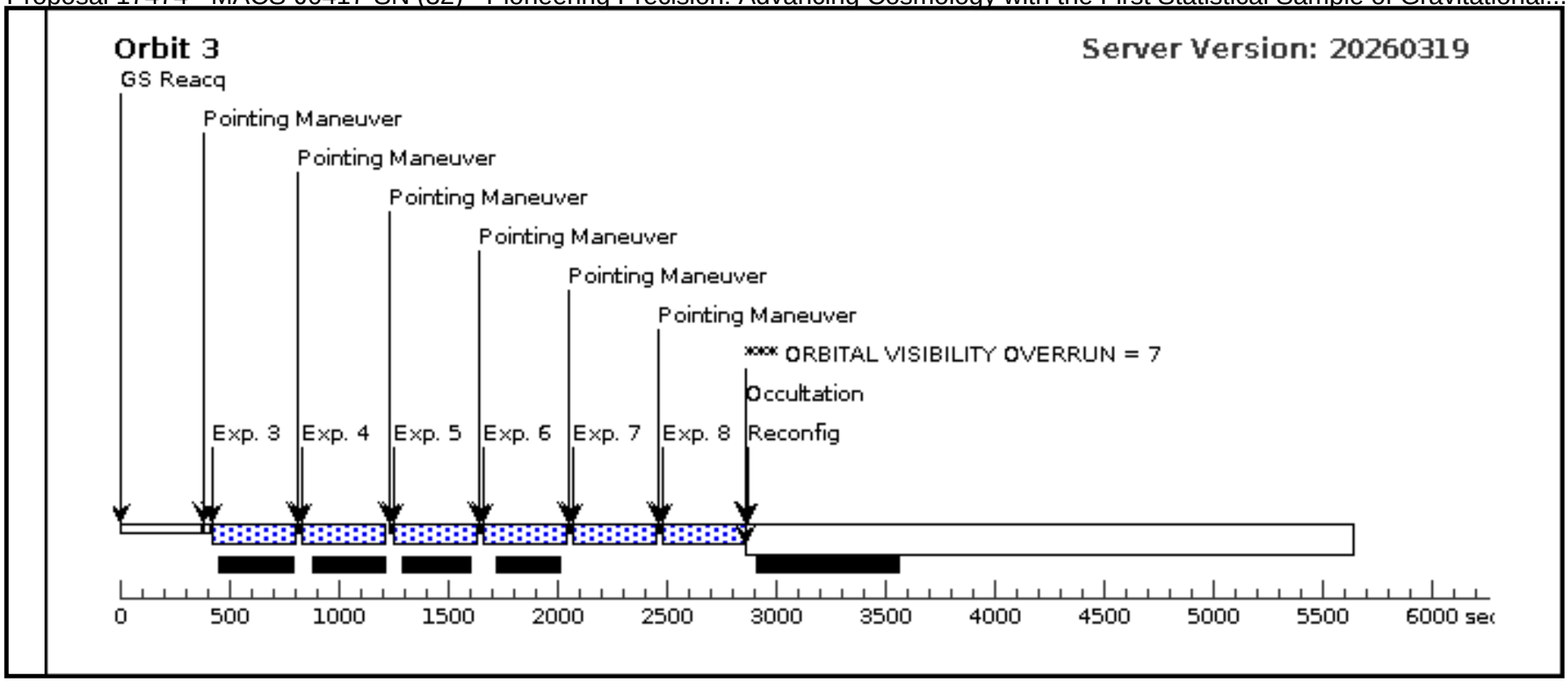
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(11) MACS-J0417-SN	WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=5		Pattern 4, Exps 1-1 in MACS-J0417-SN (32) (4)	520 Secs (2080 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		(11) MACS-J0417-SN	WFC3/UVIS, ACCUM, UVIS2	F606W	FLASH=3		Pattern 4, Exps 2-2 in MACS-J0417-SN (32) (4)	515 Secs (2060 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[2]***
3	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 3-8 Non-Int in MACS-J0417-SN (32)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
4	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 3-8 Non-Int in MACS-J0417-SN (32)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
5	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 3-8 Non-Int in MACS-J0417-SN (32)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
6	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 3-8 Non-Int in MACS-J0417-SN (32)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
7	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 3-8 Non-Int in MACS-J0417-SN (32)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
8	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 3-8 Non-Int in MACS-J0417-SN (32)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***

Orbit Structure




Orbit 2
Server Version: 20260319
GS Reacq
Exp. 2
Pointing Maneuver
Pointing Maneuver
Overhead
Exp. 2
Pointing Maneuver
Overhead
Exp. 2
Pointing Maneuver
Overhead
Exp. 2
Overhead
Unused Orbital Visibility = 3
Occultation
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec


Orbit 3
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
**** ORBITAL VISIBILITY OVERRUN = 7
Occultation
Exp. 3
Exp. 4
Exp. 5
Exp. 6
Exp. 7
Exp. 8
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17474, MACS-J0417-SN (33), failed Wed Jul 01 16:01:24 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: SCHED 100%; AFTER 32 BY 6 D TO 12 D; TOO MAX RESPONSE TIME 7.0D

Comments: Alternate ortbit setup for a lower-z qlSN.

Diagnostics

(MACS-J0417-SN (33)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(MACS-J0417-SN (33)) Informational (Form): Target of Opportunity Minimum Response time is a required field.

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(4)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(1), (2)

Fixed Targets

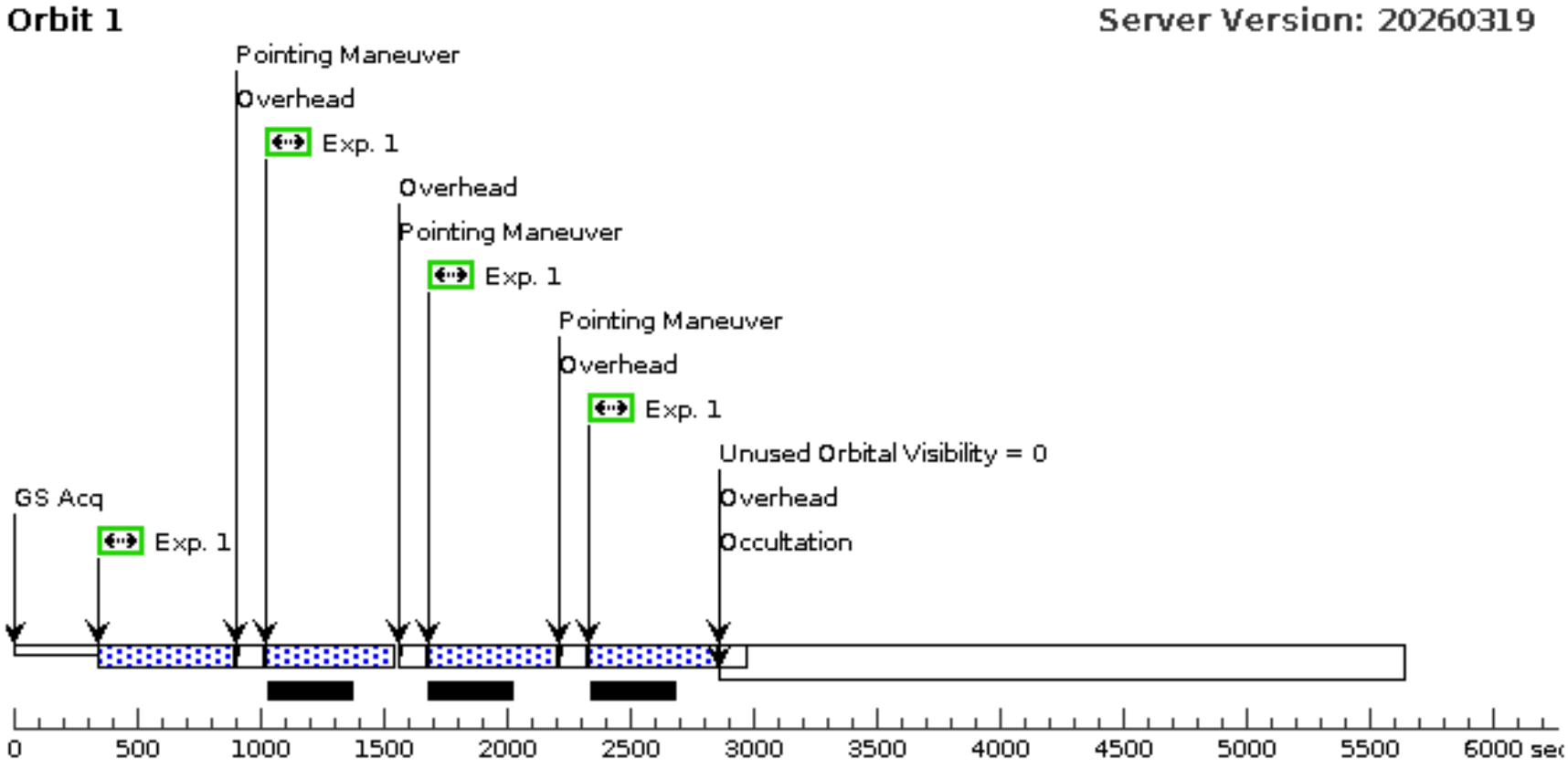
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	MACS-J0417-SN	RA: 04 17 35.1368 (64.3964033d) Dec: -11 54 25.36 (-11.90704d) Equinox: J2000		V=24+/-.5	Reference Frame: ICRS

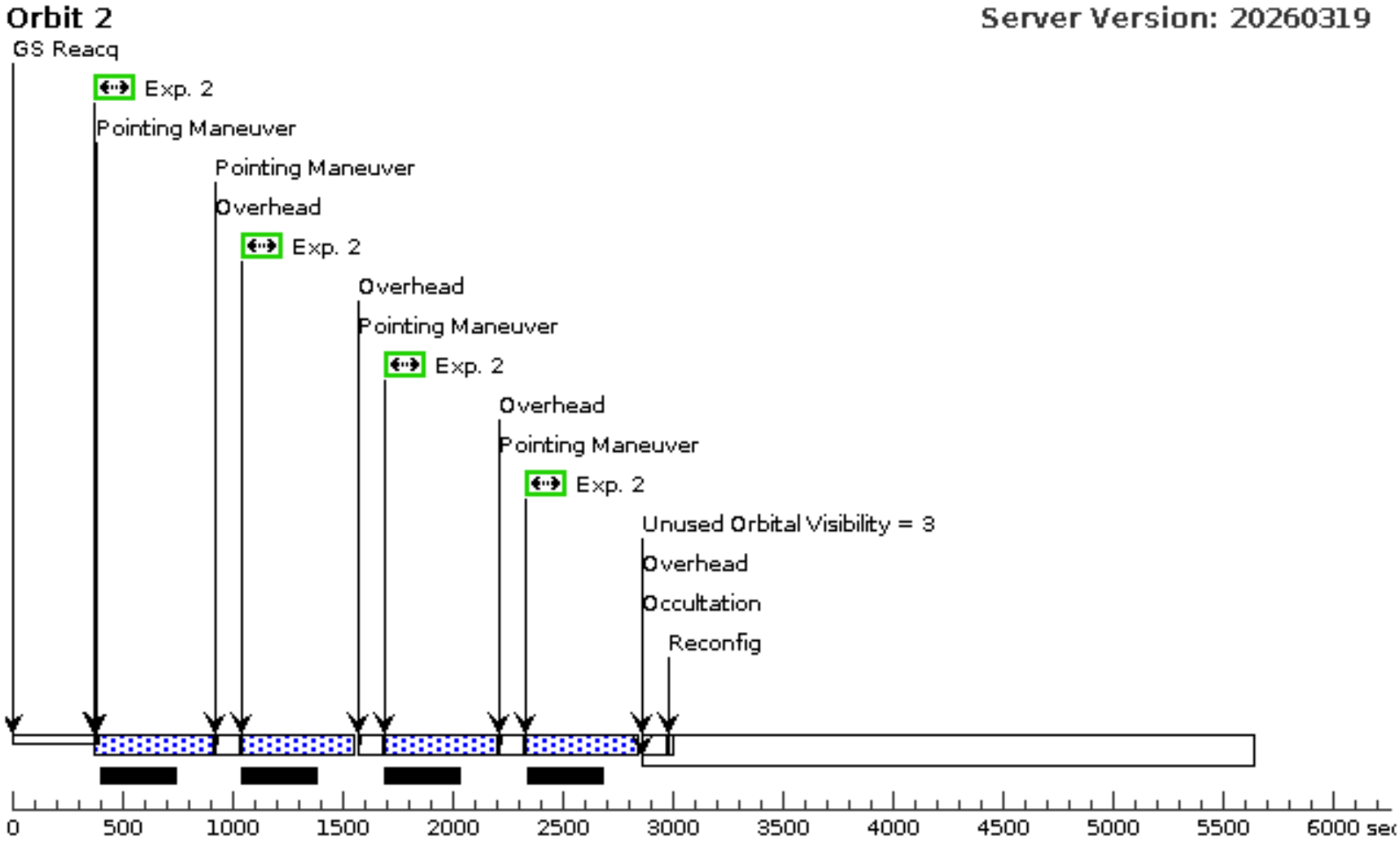
Comments:
Category=EXT-STAR
Description=[SUPERNOVA]

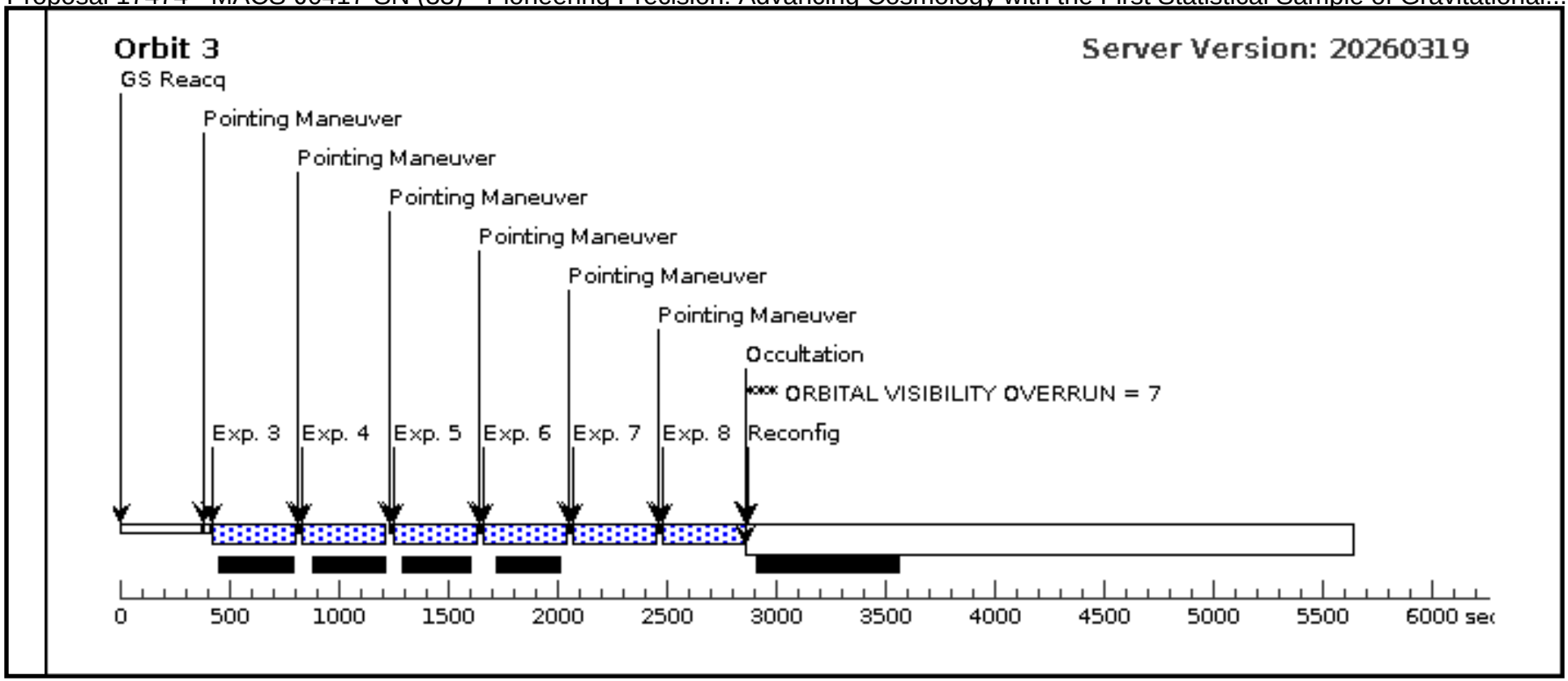
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(11) MACS-J0417-SN	WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=5		Pattern 4, Exps 1-1 in MACS-J0417-SN (33) (4)	520 Secs (2080 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		(11) MACS-J0417-SN	WFC3/UVIS, ACCUM, UVIS2	F606W	FLASH=3		Pattern 4, Exps 2-2 in MACS-J0417-SN (33) (4)	515 Secs (2060 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[2]***
3	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 3-8 Non-Int in MACS-J0417-SN (33)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
4	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 3-8 Non-Int in MACS-J0417-SN (33)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
5	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 3-8 Non-Int in MACS-J0417-SN (33)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
6	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 3-8 Non-Int in MACS-J0417-SN (33)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
7	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 3-8 Non-Int in MACS-J0417-SN (33)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
8	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 3-8 Non-Int in MACS-J0417-SN (33)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***

Orbit Structure




Orbit 2
Server Version: 20260319
GS Reacq
Exp. 2
Pointing Maneuver
Pointing Maneuver
Overhead
Exp. 2
Overhead
Pointing Maneuver
Exp. 2
Overhead
Pointing Maneuver
Exp. 2
Unused Orbital Visibility = 3
Overhead
Occultation
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec


Orbit 3
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Occultation
*** ORBITAL VISIBILITY OVERRUN = 7
Exp. 3
Exp. 4
Exp. 5
Exp. 6
Exp. 7
Exp. 8
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17474, MACS-J0417-SN (34), failed Wed Jul 01 16:01:24 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: SCHED 100%; AFTER 33 BY 6 D TO 12 D; TOO MAX RESPONSE TIME 7.0D

Comments: Alternate ortbit setup for a lower-z qlSN.

Diagnostics

(MACS-J0417-SN (34)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(MACS-J0417-SN (34)) Informational (Form): Target of Opportunity Minimum Response time is a required field.

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(4)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(1), (2)

Fixed Targets

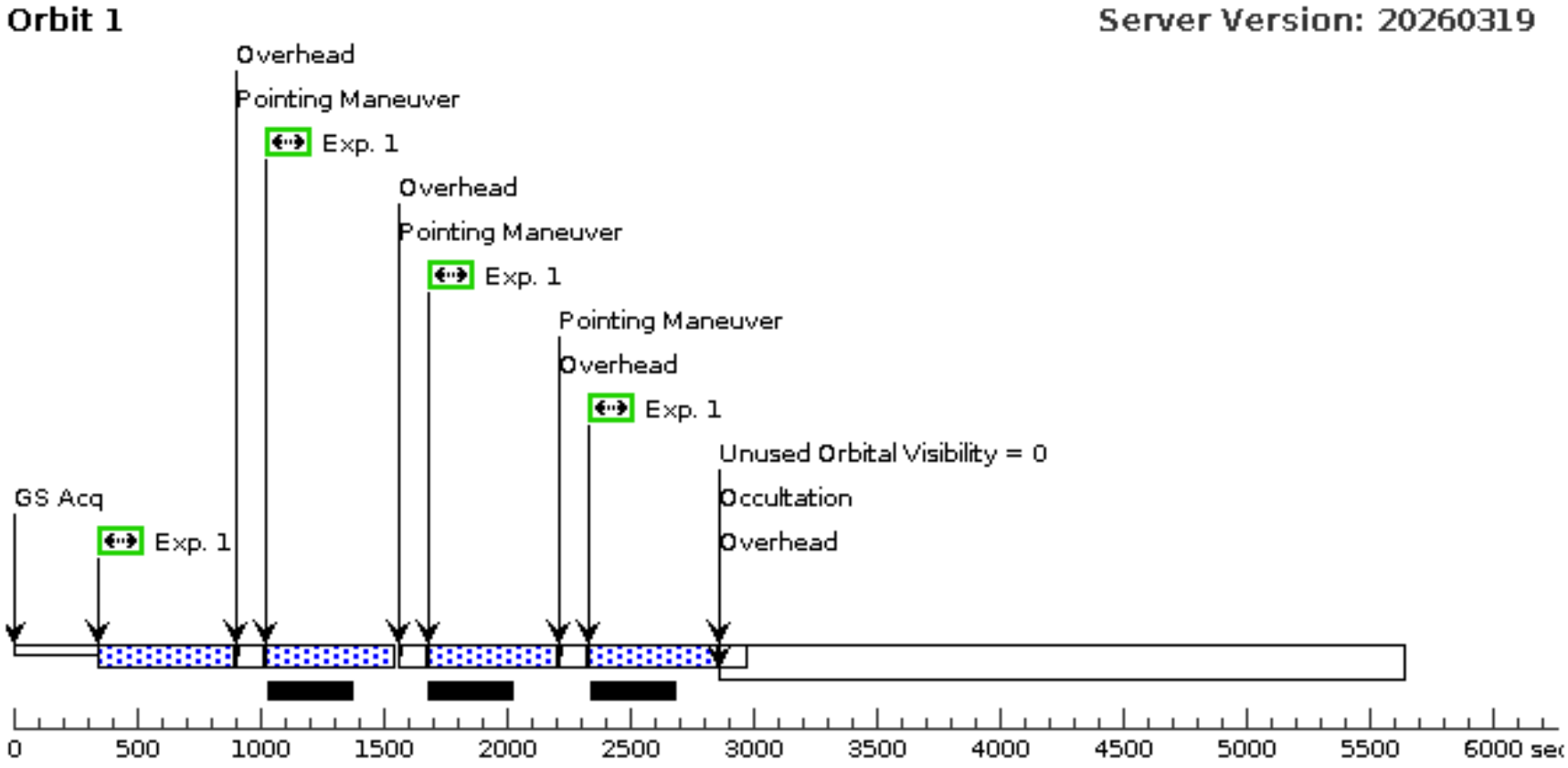
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	MACS-J0417-SN	RA: 04 17 35.1368 (64.3964033d) Dec: -11 54 25.36 (-11.90704d) Equinox: J2000		V=24+/-.5	Reference Frame: ICRS

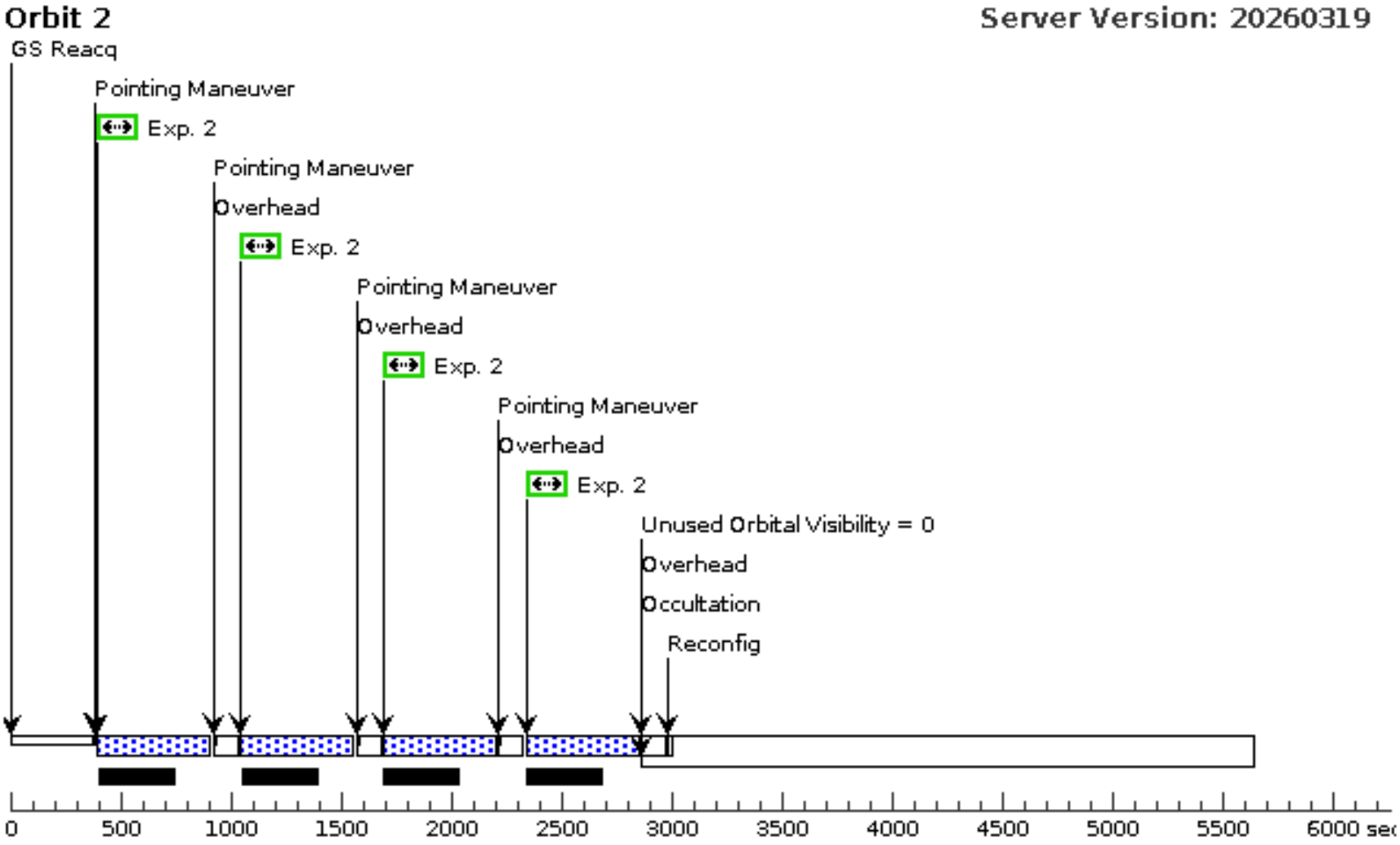
Comments:
Category=EXT-STAR
Description=[SUPERNOVA]

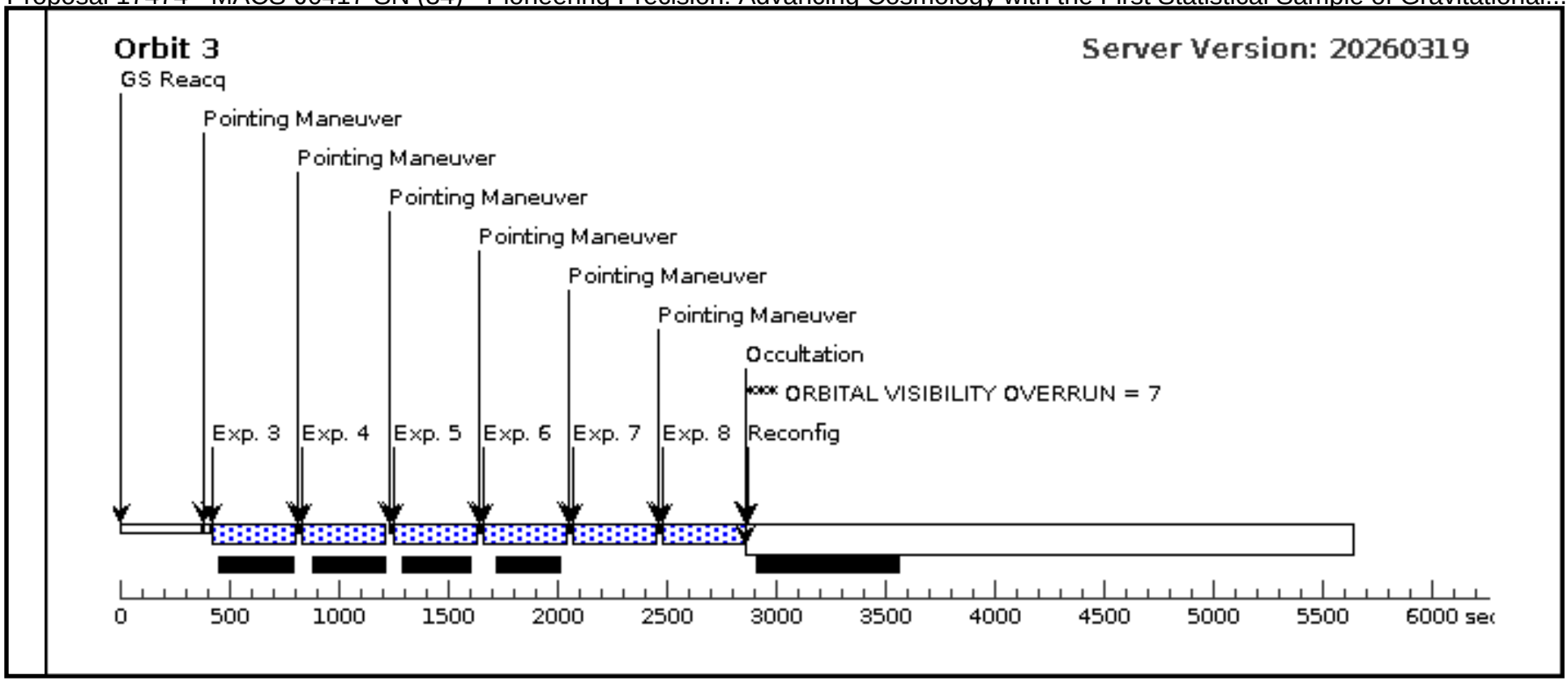
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(11) MACS-J0417-SN	WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=5		Pattern 4, Exps 1-1 in MACS-J0417-SN (34) (4)	520 Secs (2080 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		(11) MACS-J0417-SN	WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=5		Pattern 4, Exps 2-2 in MACS-J0417-SN (34) (4)	515 Secs (2060 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[2]***
3	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 3-8 Non-Int in MACS-J0417-SN (34)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
4	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 3-8 Non-Int in MACS-J0417-SN (34)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
5	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 3-8 Non-Int in MACS-J0417-SN (34)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
6	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 3-8 Non-Int in MACS-J0417-SN (34)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
7	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 3-8 Non-Int in MACS-J0417-SN (34)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
8	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 3-8 Non-Int in MACS-J0417-SN (34)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***

Orbit Structure




Orbit 2
Server Version: 20260319
GS Reacq
Pointing Maneuver
Exp. 2
Pointing Maneuver
Overhead
Exp. 2
Pointing Maneuver
Overhead
Exp. 2
Pointing Maneuver
Overhead
Exp. 2
Unused Orbital Visibility = 0
Overhead
Occultation
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec


Orbit 3
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Occultation
*** ORBITAL VISIBILITY OVERRUN = 7
Exp. 3
Exp. 4
Exp. 5
Exp. 6
Exp. 7
Exp. 8
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17474, MACS-J0417-SN (35), failed Wed Jul 01 16:01:24 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: SCHED 100%; AFTER 34 BY 6 D TO 12 D; TOO MAX RESPONSE TIME 7.0D

Comments: Alternate ortbit setup for a lower-z qlSN.

Diagnostics

(MACS-J0417-SN (35)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(MACS-J0417-SN (35)) Informational (Form): Target of Opportunity Minimum Response time is a required field.

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(4)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(1), (2)

Fixed Targets

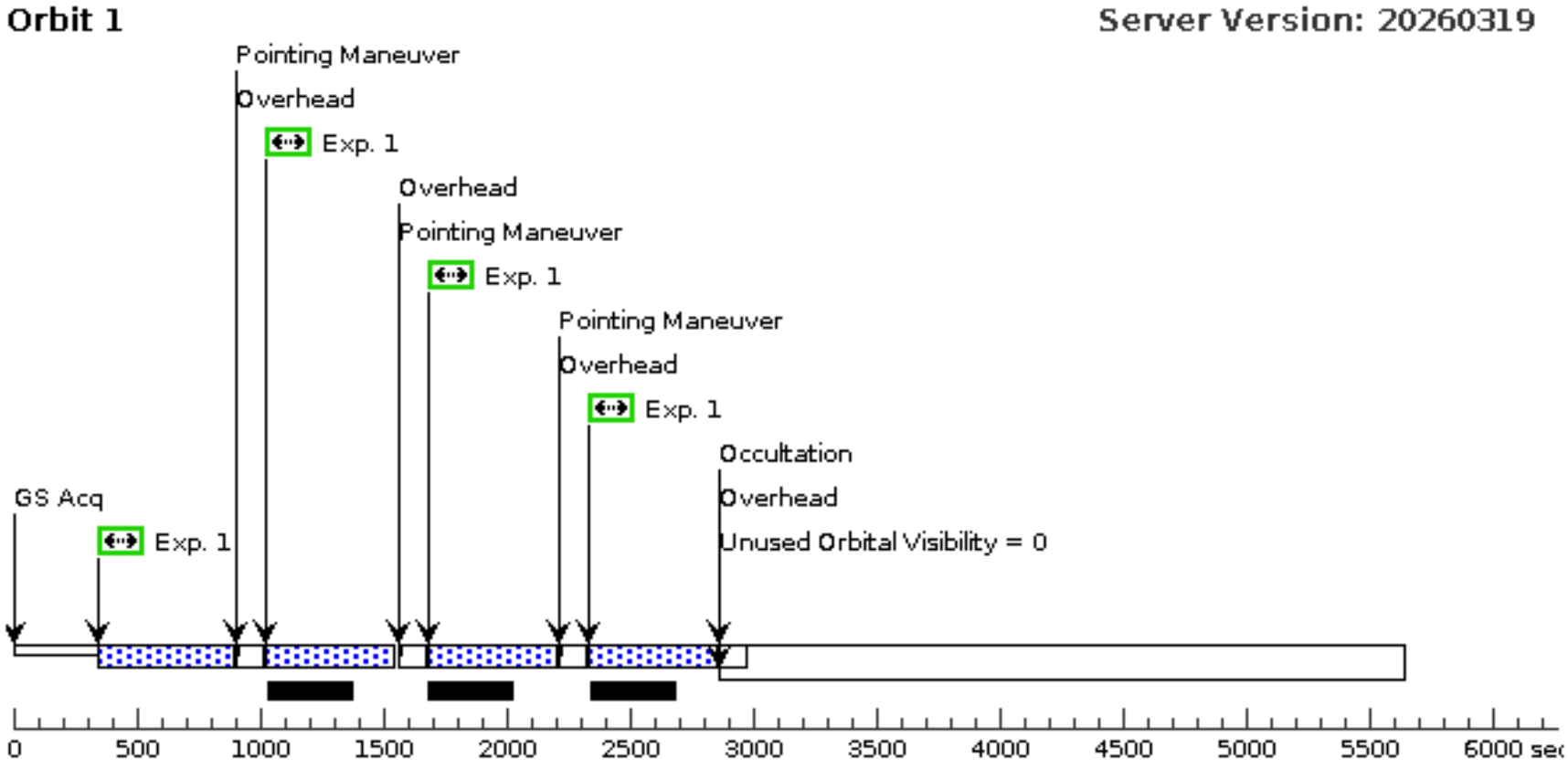
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	MACS-J0417-SN	RA: 04 17 35.1368 (64.3964033d) Dec: -11 54 25.36 (-11.90704d) Equinox: J2000		V=24+/-.5	Reference Frame: ICRS

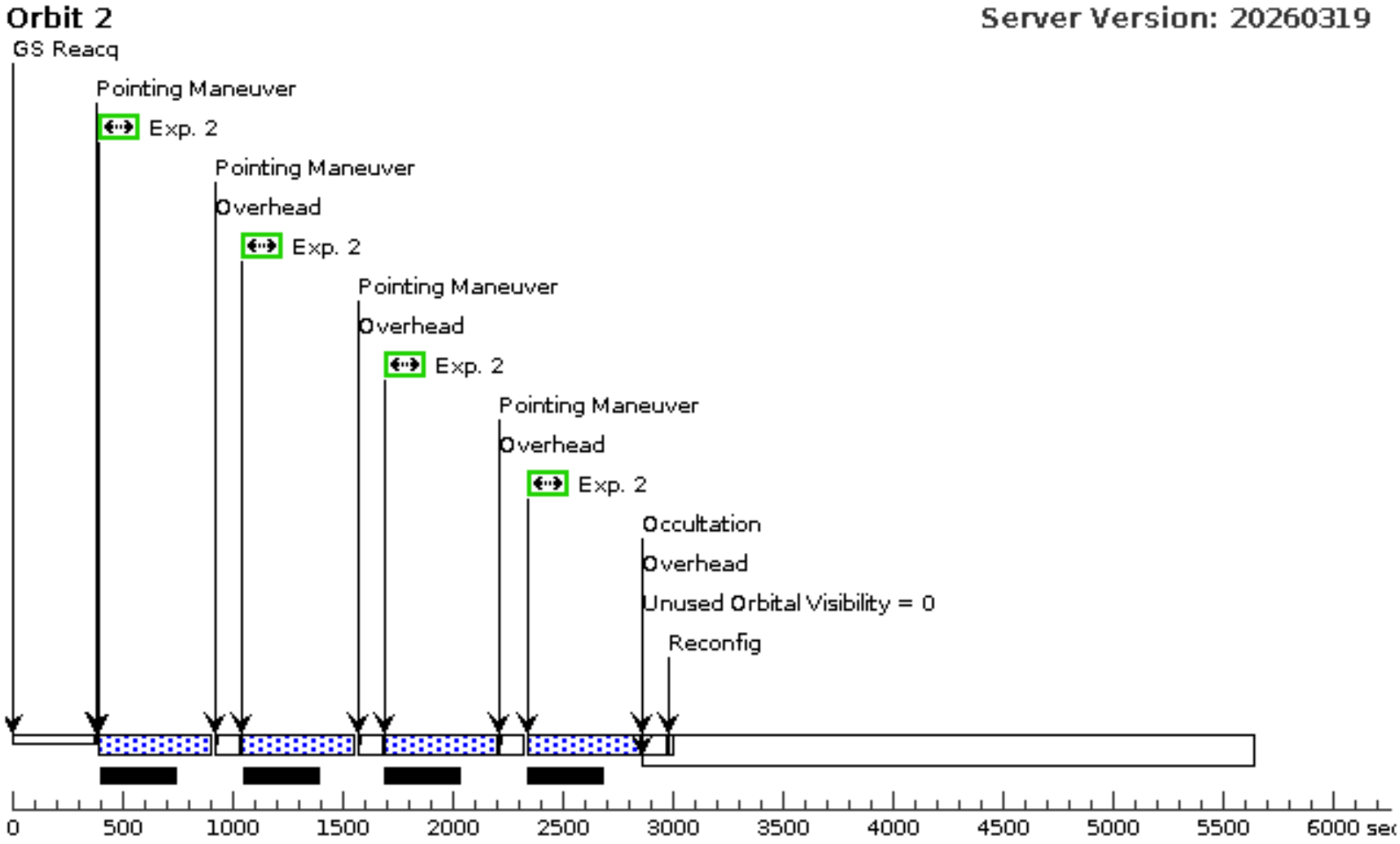
Comments:
Category=EXT-STAR
Description=[SUPERNOVA]

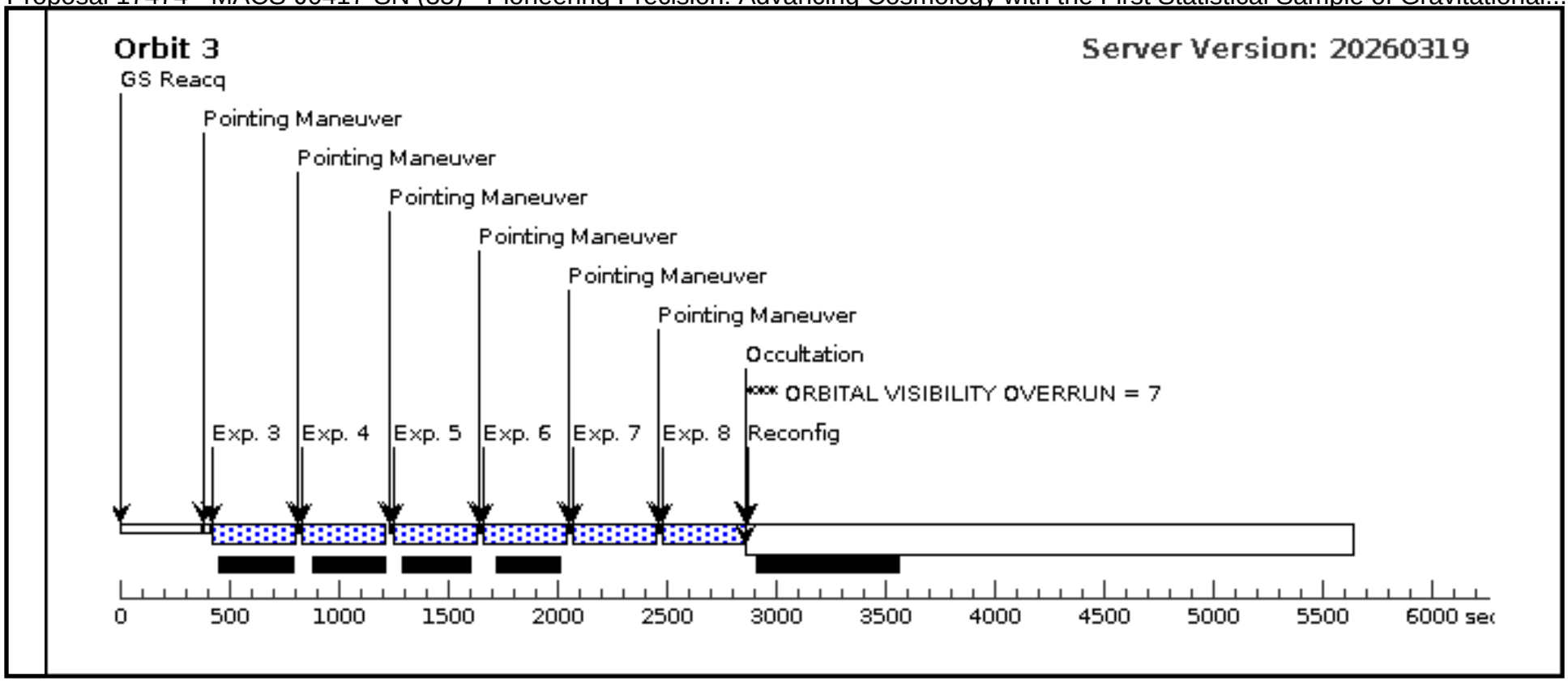
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(11) MACS-J0417-SN	WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=5		Pattern 4, Exps 1-1 in MACS-J0417-SN (35) (4)	520 Secs (2080 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		(11) MACS-J0417-SN	WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=5		Pattern 4, Exps 2-2 in MACS-J0417-SN (35) (4)	515 Secs (2060 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[2]***
3	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 3-8 Non-Int in MACS-J0417-SN (35)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
4	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 3-8 Non-Int in MACS-J0417-SN (35)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
5	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 3-8 Non-Int in MACS-J0417-SN (35)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
6	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 3-8 Non-Int in MACS-J0417-SN (35)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
7	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 3-8 Non-Int in MACS-J0417-SN (35)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
8	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 3-8 Non-Int in MACS-J0417-SN (35)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***

Orbit Structure




Orbit 2
Server Version: 20260319
GS Reacq
Pointing Maneuver
Exp. 2
Pointing Maneuver
Overhead
Exp. 2
Pointing Maneuver
Overhead
Exp. 2
Pointing Maneuver
Overhead
Exp. 2
Occultation
Overhead
Unused Orbital Visibility = 0
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec


Orbit 3
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Occultation
*** ORBITAL VISIBILITY OVERRUN = 7
Exp. 3
Exp. 4
Exp. 5
Exp. 6
Exp. 7
Exp. 8
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17474, MACS-J0417-SN (36), completed Wed Jul 01 16:01:24 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: SCHED 100%; BETWEEN 10-DEC-2025:00:00:00 AND 18-DEC-2025:00:00:00; TOO MAX RESPONSE TIME 7.0D

Comments: Alternate ortbit setup for a lower-z glSN.

Diagnostics

(MACS-J0417-SN (36)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(MACS-J0417-SN (36)) Informational (Form): Target of Opportunity Minimum Response time is a required field.

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(4)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(1)

Fixed Targets

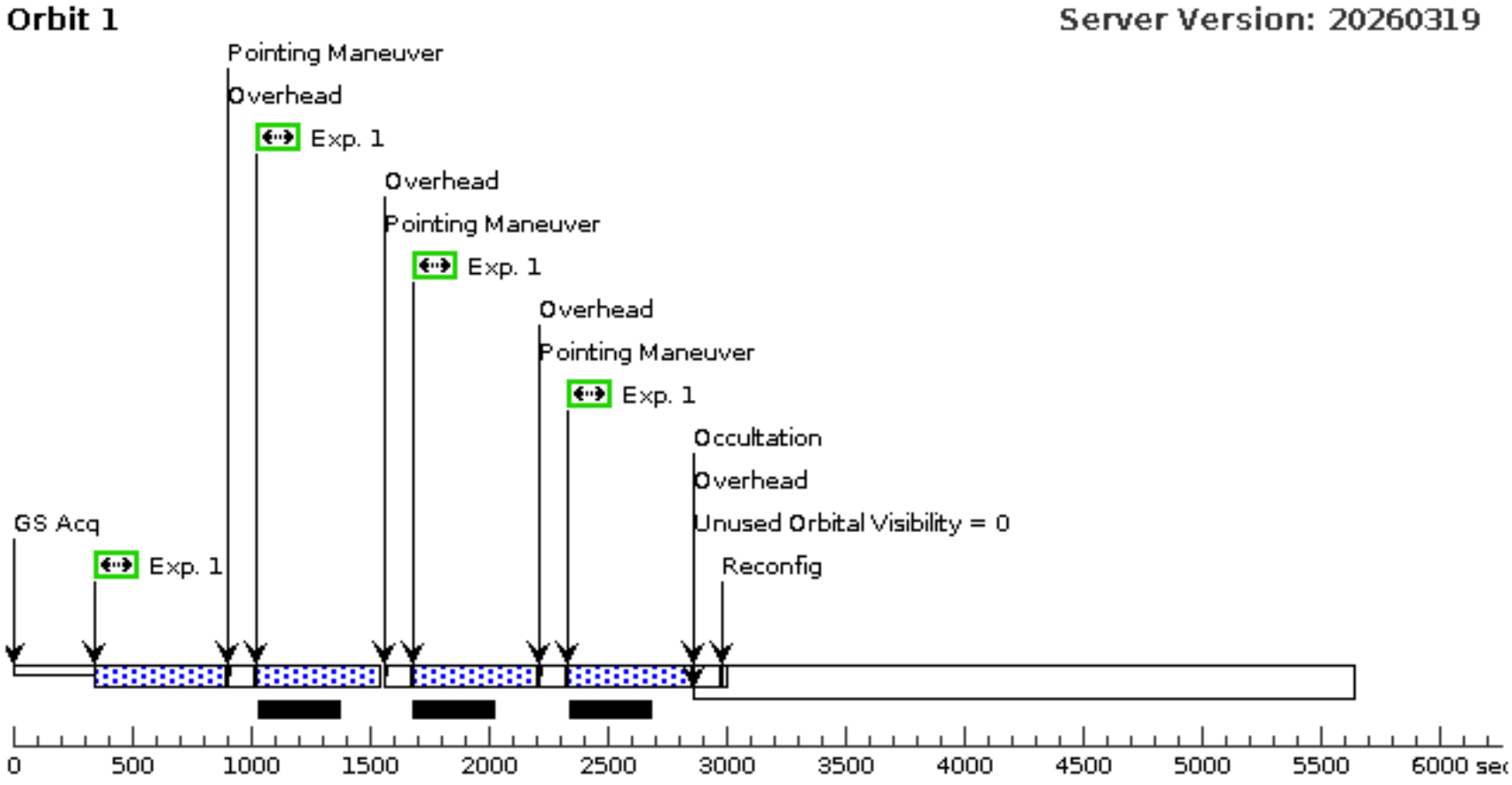
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	MACS-J0417-SN	RA: 04 17 35.1368 (64.3964033d) Dec: -11 54 25.36 (-11.90704d) Equinox: J2000		V=24+/-.5	Reference Frame: ICRS

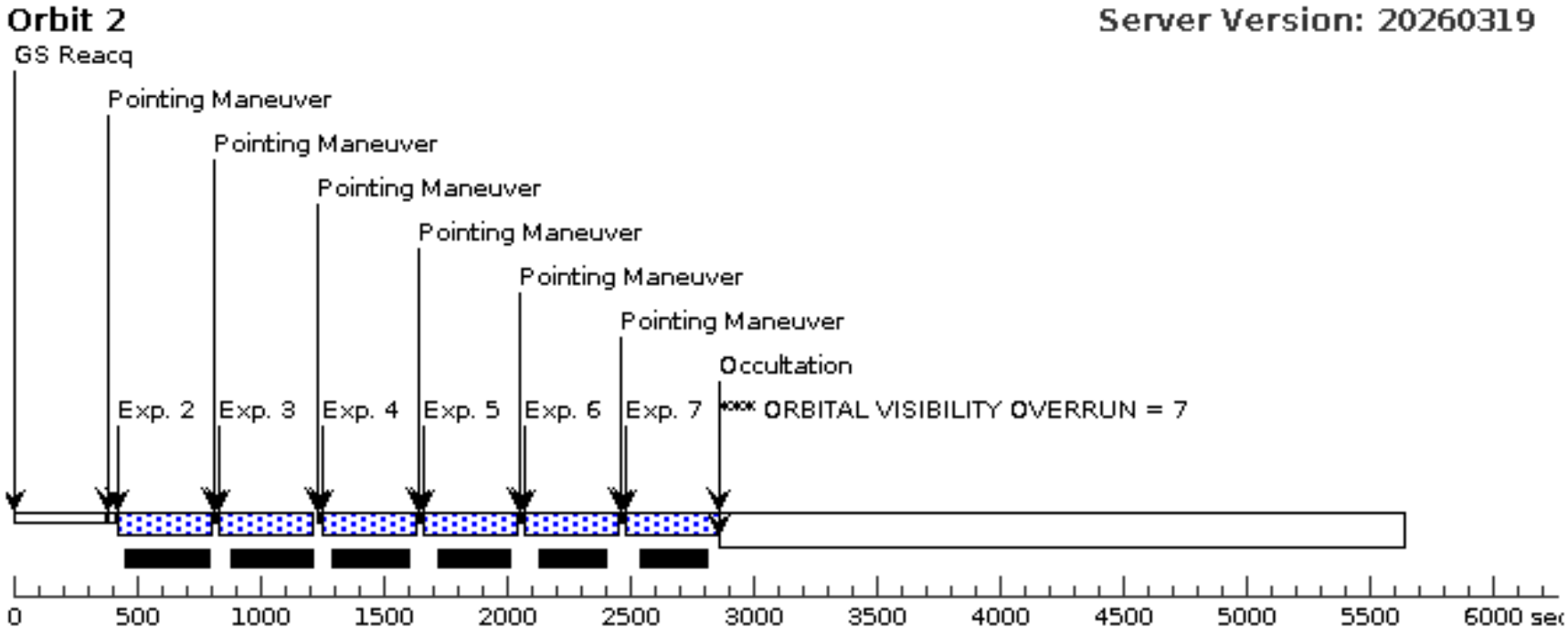
Comments:
Category=EXT-STAR
Description=[SUPERNOVA]

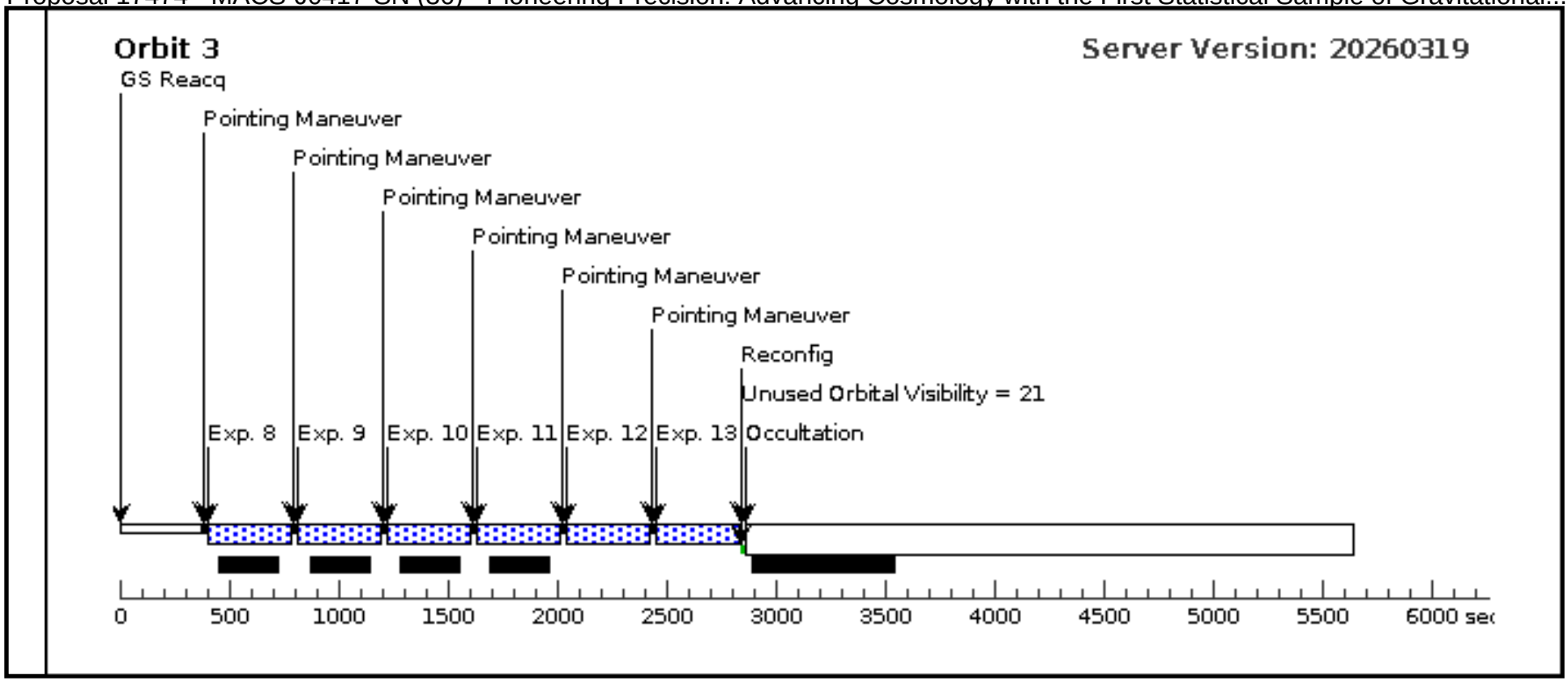
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(11) MACS-J0417-SN	WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=5		Pattern 4, Exps 1-1 in MACS-J0417-SN (36) (4)	520 Secs (2080 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 2-7 Non-Int in MACS-J0417-SN (36)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
3	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 2-7 Non-Int in MACS-J0417-SN (36)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
4	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 2-7 Non-Int in MACS-J0417-SN (36)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
5	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 2-7 Non-Int in MACS-J0417-SN (36)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
6	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 2-7 Non-Int in MACS-J0417-SN (36)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
7	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 2-7 Non-Int in MACS-J0417-SN (36)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
8	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 8-13 Non-Int in MACS-J0417-SN (36)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
9	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 8-13 Non-Int in MACS-J0417-SN (36)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
10	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 8-13 Non-Int in MACS-J0417-SN (36)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
11	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 8-13 Non-Int in MACS-J0417-SN (36)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
12	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 8-13 Non-Int in MACS-J0417-SN (36)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***
13	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 8-13 Non-Int in MACS-J0417-SN (36)	349.232932 Secs (349.233 Secs) *[==>]*	***[3]***

Orbit Structure




Orbit 2
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Occultation
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Exp. 6
Exp. 7
*** ORBITAL VISIBILITY OVERRUN = 7
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec


Orbit 3
Server Version: 20260319
GS Reacq
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
Unused Orbital Visibility = 21
Exp. 8
Exp. 9
Exp. 10
Exp. 11
Exp. 12
Exp. 13
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17474, MACS-J0417-SN (37), implementation Wed Jul 01 16:01:24 GMT 2026

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: SCHED 100%

Comments: Alternate ortbit setup for a lower-z glSN.

Fixed Targets

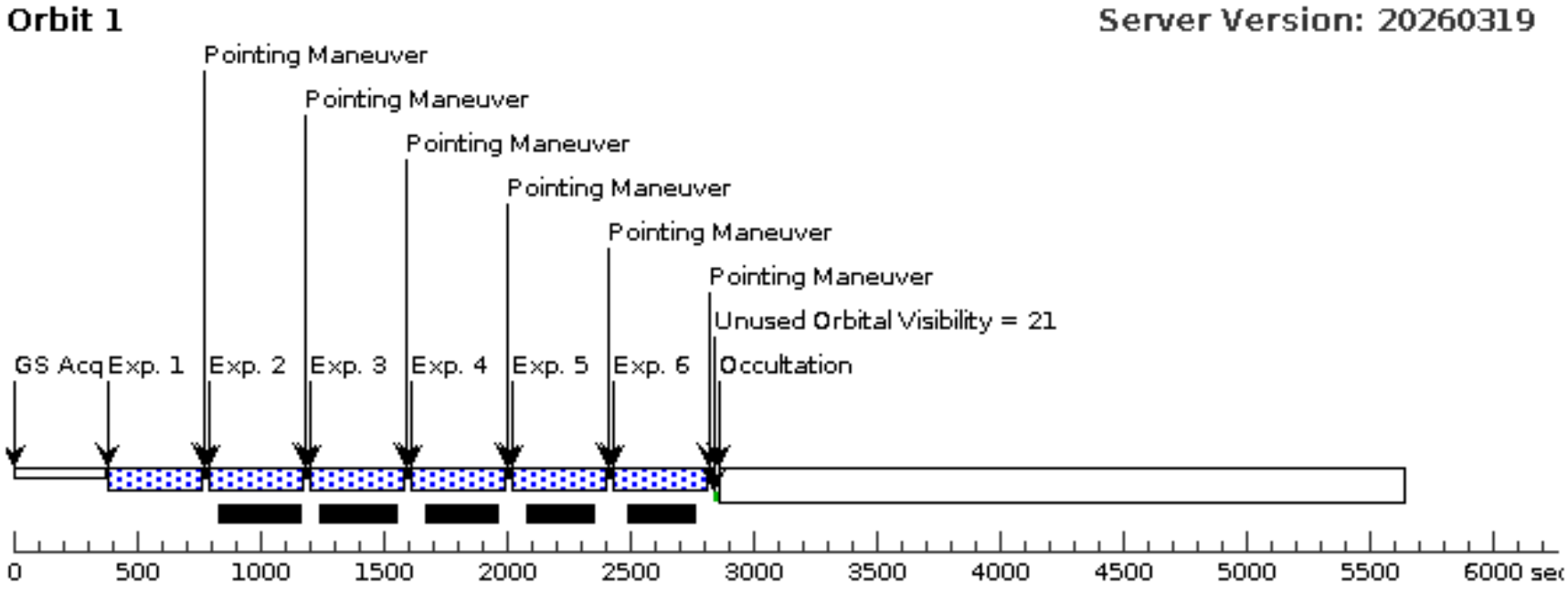
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	MACS-J0417-SN	RA: 04 17 35.1368 (64.3964033d) Dec: -11 54 25.36 (-11.90704d) Equinox: J2000		V=24+/-.5	Reference Frame: ICRS

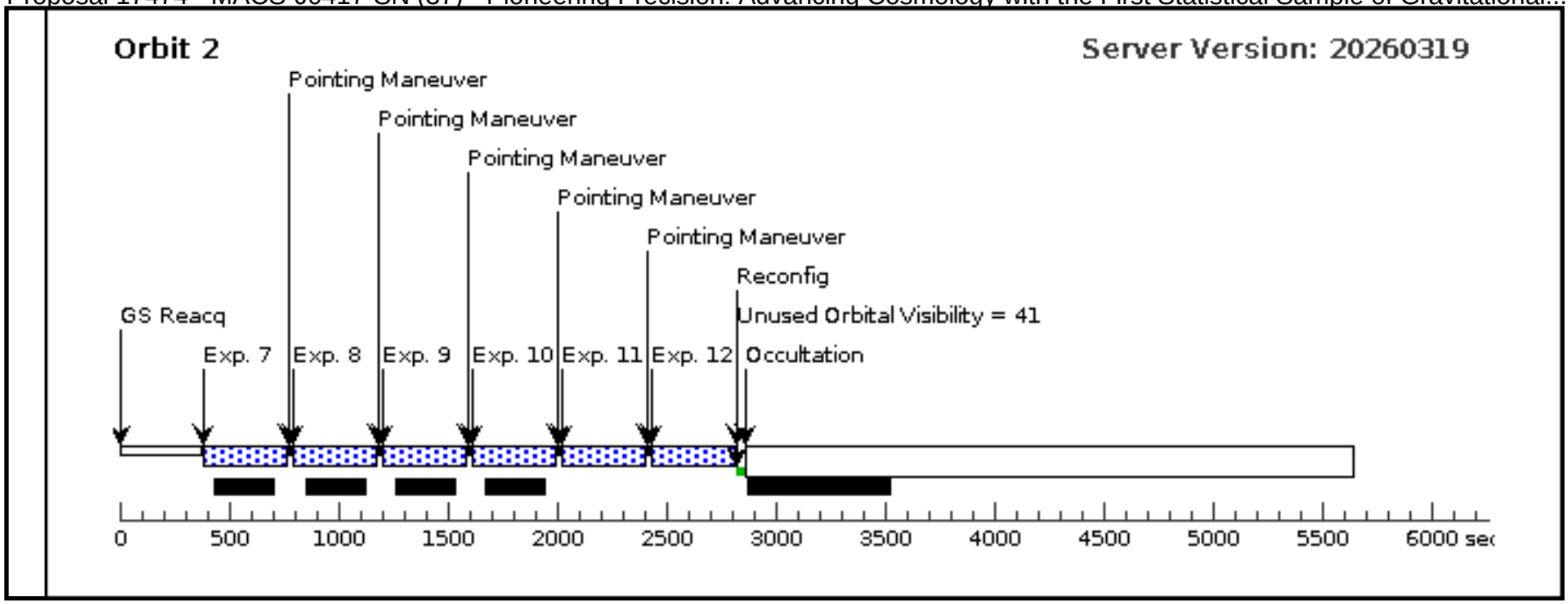
Comments:
Category=EXT-STAR
Description=[SUPERNOVA]

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 1-6 Non-Int in MACS-J0417-SN (37)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
2	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 1-6 Non-Int in MACS-J0417-SN (37)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
3	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 1-6 Non-Int in MACS-J0417-SN (37)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
4	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 1-6 Non-Int in MACS-J0417-SN (37)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
5	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 1-6 Non-Int in MACS-J0417-SN (37)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
6	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 1-6 Non-Int in MACS-J0417-SN (37)	349.232932 Secs (349.233 Secs) *[==>]*	***[1]***
7	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0,0	Sequence 7-12 Non-Int in MACS-J0417-SN (37)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
8	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.451,0.403	Sequence 7-12 Non-Int in MACS-J0417-SN (37)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
9	F140W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .474,.424	Sequence 7-12 Non-Int in MACS-J0417-SN (37)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
10	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG .925,.827	Sequence 7-12 Non-Int in MACS-J0417-SN (37)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
11	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 1.376,1.230	Sequence 7-12 Non-Int in MACS-J0417-SN (37)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***
12	F105W	(11) MACS-J0417-SN	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=12; SAMP-SEQ=STEP50	POS TARG 0.902,0.806	Sequence 7-12 Non-Int in MACS-J0417-SN (37)	349.232932 Secs (349.233 Secs) *[==>]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20260319
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
GS Reacq
Unused Orbital Visibility = 41
Exp. 7
Exp. 8
Exp. 9
Exp. 10
Exp. 11
Exp. 12
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec