



16791 - Cold Dark Matter and the GD-1 Stellar Stream

Cycle: 29, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

<i>Name</i>	<i>Institution</i>
Dr. Ana Bonaca (PI) (Contact)	Carnegie Institution of Washington
Dr. Nitya Kallivayalil (CoI)	The University of Virginia
Prof. Charlie Conroy (CoI)	Harvard University
Dr. David W. Hogg (CoI)	New York University
Dr. Adrian Price-Whelan (CoI)	Princeton University
Dr. Sangmo Tony Sohn (CoI) (Contact)	Space Telescope Science Institute
Dr. Roeland P. van der Marel (CoI)	Space Telescope Science Institute

VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	(1) SPUR1 ANY	ACS/WFC WFC3/UVIS	3	09-Aug-2023 17:00:40.0	yes
02	(2) SPUR2 ANY	ACS/WFC WFC3/UVIS	3	09-Aug-2023 17:00:42.0	yes
03	(3) SPUR3 ANY	ACS/WFC WFC3/UVIS	3	09-Aug-2023 17:00:44.0	yes
04	(4) SPUR4 ANY	ACS/WFC WFC3/UVIS	3	09-Aug-2023 17:00:46.0	yes
05	(5) STREAME1 ANY	ACS/WFC WFC3/UVIS	1	09-Aug-2023 17:00:47.0	yes

Proposal 16791 (STScI Edit Number: 3, Created: Wednesday, August 9, 2023 at 4:01:00 PM Eastern Standard Time) - Overview

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
06	(5) STREAME1 ANY	ACS/WFC WFC3/UVIS	1	09-Aug-2023 17:00:48.0	yes
07	(5) STREAME1 ANY	ACS/WFC WFC3/UVIS	1	09-Aug-2023 17:00:48.0	yes
08	(6) STREAME2 ANY	ACS/WFC WFC3/UVIS	3	09-Aug-2023 17:00:50.0	yes
09	(7) STREAMW1 ANY	ACS/WFC WFC3/UVIS	3	09-Aug-2023 17:00:52.0	yes
10	(8) STREAMW2 ANY	ACS/WFC WFC3/UVIS	1	09-Aug-2023 17:00:53.0	yes
11	(8) STREAMW2 ANY	ACS/WFC WFC3/UVIS	1	09-Aug-2023 17:00:54.0	yes
12	(8) STREAMW2 ANY	ACS/WFC WFC3/UVIS	1	09-Aug-2023 17:00:54.0	yes
52	(2) SPUR2 ANY	ACS/WFC WFC3/UVIS	1	09-Aug-2023 17:00:55.0	yes
53	(3) SPUR3 ANY	ACS/WFC WFC3/UVIS	1	09-Aug-2023 17:00:56.0	yes
55	(5) STREAME1 ANY	ACS/WFC WFC3/UVIS	1	09-Aug-2023 17:00:57.0	yes
56	(5) STREAME1 ANY	ACS/WFC WFC3/UVIS	1	09-Aug-2023 17:00:57.0	yes
59	(7) STREAMW1 ANY	ACS/WFC WFC3/UVIS	3	09-Aug-2023 17:00:59.0	yes

31 Total Orbits Used

ABSTRACT

Proposal 16791 (STScI Edit Number: 3, Created: Wednesday, August 9, 2023 at 4:01:00 PM Eastern Standard Time) - Overview

We propose to use HST to characterize a dark-matter subhalo in the Milky Way. Tidally disrupted globular clusters create thin and kinematically cold stellar streams that are extremely sensitive to any gravitational perturbation. Orbiting in the Milky Way halo, these streams provide a unique opportunity to test for the presence of perturbing dark-matter subhalos. Gaps discovered along streams provide tentative evidence for dark matter influence, but their origin remains uncertain as stream gaps alone can be due to baryonic effects as well. Recently, Gaia observations of the GD-1 stellar stream have revealed a spur of stars associated with one of the gaps in the stream. Such features naturally arise when a stream encounters a massive perturber, and have a unique 3D kinematic signature. We propose here to measure precise proper motions in the perturbed region of GD-1. We will target eight fields with ACS/WFC and parallel-observe with WFC3/UVIS in two epochs. Proper motion accuracies near 3 km/s will be achieved by measuring the relative motion between stream stars and background galaxies using established techniques that have already been successfully applied to other objects in the Local Group (e.g., LMC/SMC, Leo I, M31, Sgr and Lethe streams). A passing subhalo is expected to introduce differences in tangential velocity between the stream and the spur, and our data will have the precision to resolve these kinematic offsets. Our results will definitively establish whether GD-1 features are a signature of a dark matter subhalo. If HST confirms the subhalo origin of the gap, it will measure the physical properties of the subhalo and rule out all reasonable alternatives.

OBSERVING DESCRIPTION

The ultimate goal of this multi-cycle program (GO-15390 & 16791) is to obtain sets of images separated by 3 years in time for measuring absolute proper motions of individual stars along the GD-1 stellar stream. As part of the Cycle 27 program GO-15930, the first-epoch data for 16 (8 primary ACS/WFC + 8 parallel WFC3/UVIS) target fields were obtained on Feb 2020 using F606W and F814W filters. For this Cycle 29 program GO-16791, we will obtain the second-epoch data for the same 16 target fields using the same telescope configurations (pointings and orientations) as in the first-epoch observations. The second-epoch data will be primarily used for measuring motions of stars against background galaxies, so we only use the F606W filter. We added "Orient Ranges" special requirements for each visit to align our second-epoch observations with the first-epoch ones as closely as possible. We also added "Timing Requirements" to allow time baselines to be in accordance with our request in the Phase 1 proposal. Each visit has 3 orbits, and each primary or parallel orbit has 1 short + 2 long F606W exposures.

Proposal 16791 - SPUR1 (01) - Cold Dark Matter and the GD-1 Stellar Stream

Wed Aug 09 21:01:00 GMT 2023

Visit	Proposal 16791, SPUR1 (01), completed Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: SCHED 70%; ORIENT 182.93D TO 182.93 D; AFTER 01-AUG-2022:00:00:00 <i>Comments: This is a 3-orbit visit for the SPUR1 target field. We will observe this field using the F606W filters. We request a specific orient range to match the first-epoch's telescope orientation. Individual exposures will be dithered using a customized dither pattern designed for optimizing pixel-phase coverage via the POS TARG arguments. To fulfill our scientific goals, we require at least 3 years of time baseline as stated in our Phase 1 proposal. Since the first-epoch data for this field were obtained in Feb 2020, we added Timing Requirements of "After 01-AUG-2022:00:00:00".</i>																
	Diagnosics (Parallel Exposure 2 (Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in SPUR1 (01))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Parallel Exposure 8 (Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in SPUR1 (01))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Parallel Exposure 14 (Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in SPUR1 (01))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser																
Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>SPUR1</td> <td>RA: 10 15 34.7697 (153.8948737d) Dec: +42 24 43.36 (42.41204d) Equinox: J2000</td> <td></td> <td>V=20.0</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table>					#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(1)	SPUR1	RA: 10 15 34.7697 (153.8948737d) Dec: +42 24 43.36 (42.41204d) Equinox: J2000		V=20.0	Reference Frame: ICRS
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous											
(1)	SPUR1	RA: 10 15 34.7697 (153.8948737d) Dec: +42 24 43.36 (42.41204d) Equinox: J2000		V=20.0	Reference Frame: ICRS												
<i>Comments:</i> Category=STELLAR CLUSTER Description=[GLOBULAR CLUSTER, TIDAL TAIL] Extended=NO																	

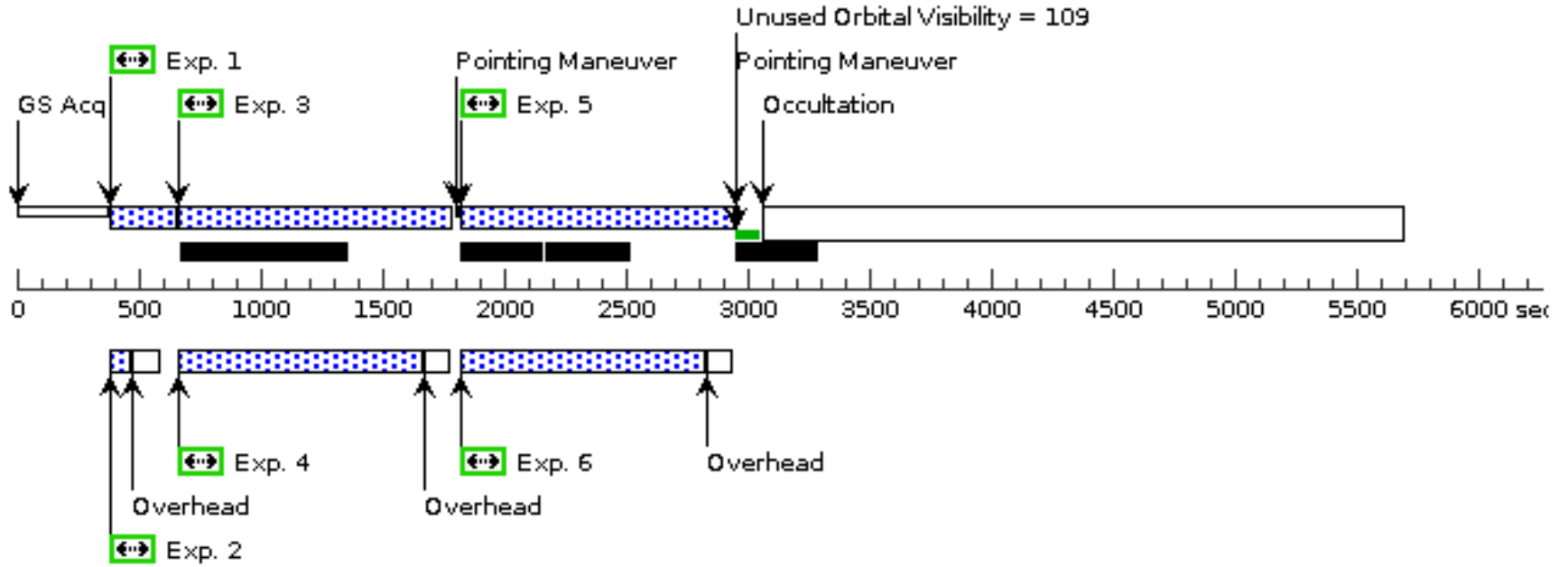
Proposal 16791 - SPUR1 (01) - Cold Dark Matter and the GD-1 Stellar Stream

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1) SPUR1	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.0000,0 .0000	Sequence 1-6 Non-Int in SPUR1 (01) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in SPUR1 (01)	50 Secs (50 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 1-6 Non-Int in SPUR1 (01) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in SPUR1 (01)	50 Secs (50 Secs) [==>]	[1]
	3	(1) SPUR1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0000,0 .0000	Sequence 1-6 Non-Int in SPUR1 (01) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in SPUR1 (01)	1000 Secs (1000 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in SPUR1 (01) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in SPUR1 (01)	1000 Secs (1000 Secs) [==>]	[1]
	5	(1) SPUR1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.1647,0 .0124	Sequence 1-6 Non-Int in SPUR1 (01) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in SPUR1 (01)	1000 Secs (1000 Secs) [==>]	[1]
	6	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in SPUR1 (01) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in SPUR1 (01)	1000 Secs (1000 Secs) [==>]	[1]
	7	(1) SPUR1	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.3293,0 .0248	Sequence 7-12 Non-Int in SPUR1 (01) Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in SPUR1 (01)	50 Secs (50 Secs) [==>]	[2]
	8	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10		Sequence 7-12 Non-Int in SPUR1 (01) Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in SPUR1 (01)	50 Secs (50 Secs) [==>]	[2]
	9	(1) SPUR1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.3293,0 .0248	Sequence 7-12 Non-Int in SPUR1 (01) Prime + Parallel Group 9-10 in Sequence 7-12 Non-Int in SPUR1 (01)	1020 Secs (1020 Secs) [==>]	[2]

Proposal 16791 - SPUR1 (01) - Cold Dark Matter and the GD-1 Stellar Stream

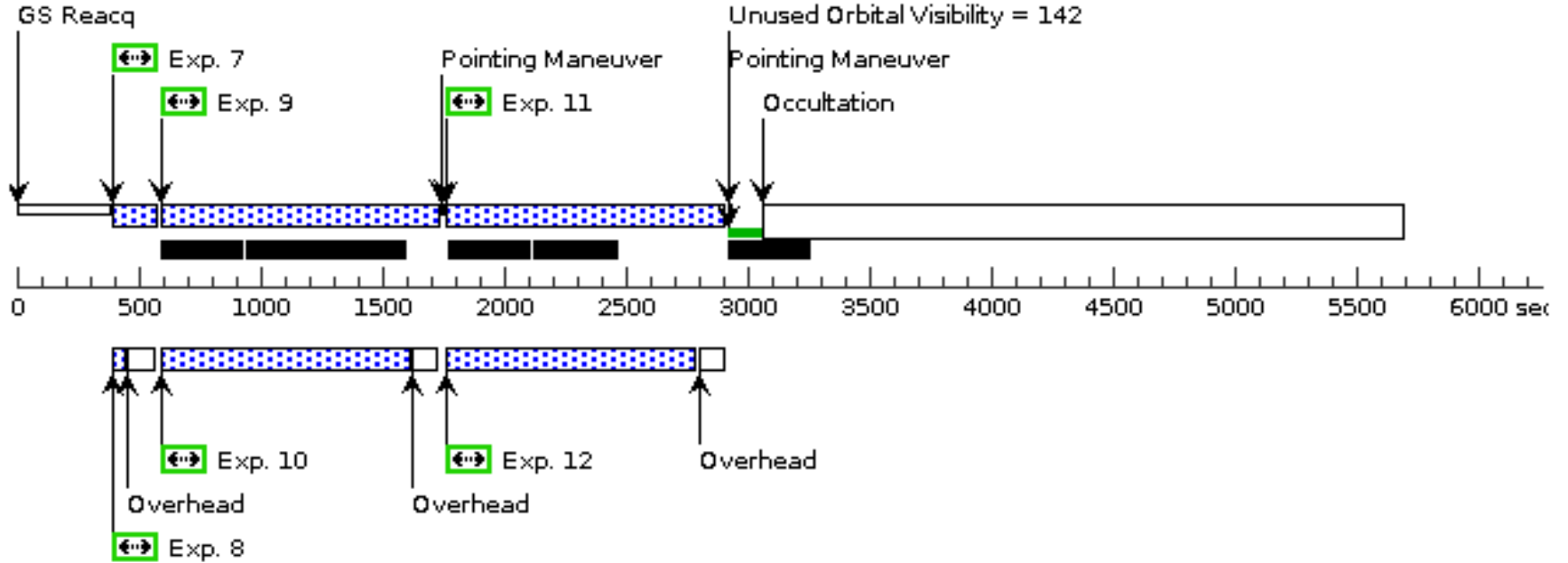
10	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 7-12 Non-Int in SPUR1 (01) Prime + Parallel Group 9-10 in Sequence 7-12 Non-Int in SPUR1 (01)	1020 Secs (1020 Secs) [==>]	[2]
11	(1) SPUR1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0747,0.1294	Sequence 7-12 Non-Int in SPUR1 (01) Prime + Parallel Group 11-12 in Sequence 7-12 Non-Int in SPUR1 (01)	1020 Secs (1020 Secs) [==>]	[2]
12	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 7-12 Non-Int in SPUR1 (01) Prime + Parallel Group 11-12 in Sequence 7-12 Non-Int in SPUR1 (01)	1020 Secs (1020 Secs) [==>]	[2]
13	(1) SPUR1	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.2393,0.1418	Sequence 13-18 Non-Int in SPUR1 (01) Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in SPUR1 (01)	50 Secs (50 Secs) [==>]	[3]
14	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 13-18 Non-Int in SPUR1 (01) Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in SPUR1 (01)	50 Secs (50 Secs) [==>]	[3]
15	(1) SPUR1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.2393,0.1418	Sequence 13-18 Non-Int in SPUR1 (01) Prime + Parallel Group 15-16 in Sequence 13-18 Non-Int in SPUR1 (01)	1020 Secs (1020 Secs) [==>]	[3]
16	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 13-18 Non-Int in SPUR1 (01) Prime + Parallel Group 15-16 in Sequence 13-18 Non-Int in SPUR1 (01)	1020 Secs (1020 Secs) [==>]	[3]
17	(1) SPUR1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.4039,0.1541	Sequence 13-18 Non-Int in SPUR1 (01) Prime + Parallel Group 17-18 in Sequence 13-18 Non-Int in SPUR1 (01)	1020 Secs (1020 Secs) [==>]	[3]
18	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 13-18 Non-Int in SPUR1 (01) Prime + Parallel Group 17-18 in Sequence 13-18 Non-Int in SPUR1 (01)	1020 Secs (1020 Secs) [==>]	[3]

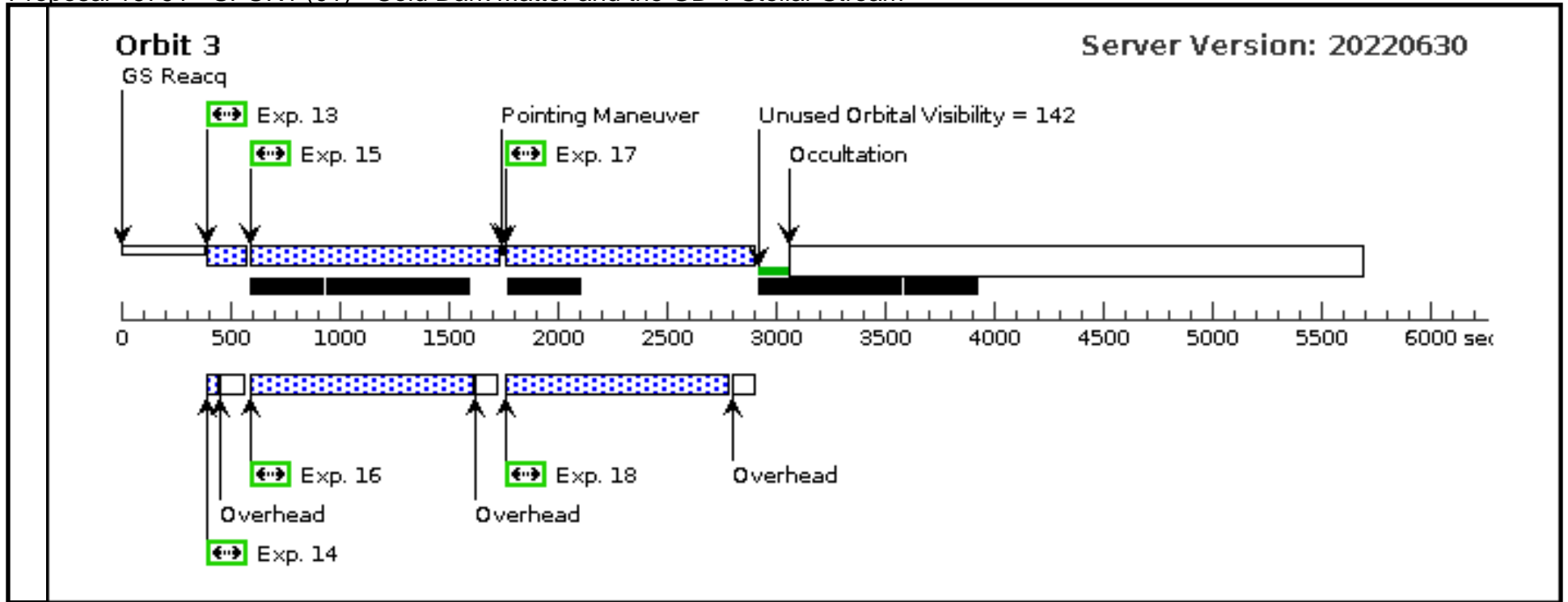
Orbit 1



Orbit Structure

Orbit 2





Proposal 16791 - SPUR2 (02) - Cold Dark Matter and the GD-1 Stellar Stream

Wed Aug 09 21:01:00 GMT 2023

Visit	Proposal 16791, SPUR2 (02), failed Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: SCHED 70%; ORIENT 183.93D TO 183.93 D; AFTER 01-AUG-2022:00:00:00 <i>Comments: This is a 3-orbit visit for the SPUR2 target field. We will observe this field using the F606W filters. We request a specific orient range to match the first-epoch's telescope orientation. Individual exposures will be dithered using a customized dither pattern designed for optimizing pixel-phase coverage via the POS TARG arguments. To fulfill our scientific goals, we require at least 3 years of time baseline as stated in our Phase 1 proposal. Since the first-epoch data for this field were obtained in Feb 2020, we added Timing Requirements of "After 01-AUG-2022:00:00:00".</i>																
	Diagnosics (Parallel Exposure 2 (Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in SPUR2 (02))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Parallel Exposure 8 (Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in SPUR2 (02))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Parallel Exposure 14 (Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in SPUR2 (02))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser																
Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(2)</td> <td>SPUR2</td> <td>RA: 10 15 17.9579 (153.8248246d) Dec: +42 26 36.70 (42.44353d) Equinox: J2000</td> <td></td> <td>V=20.0</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table>					#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(2)	SPUR2	RA: 10 15 17.9579 (153.8248246d) Dec: +42 26 36.70 (42.44353d) Equinox: J2000		V=20.0	Reference Frame: ICRS
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous											
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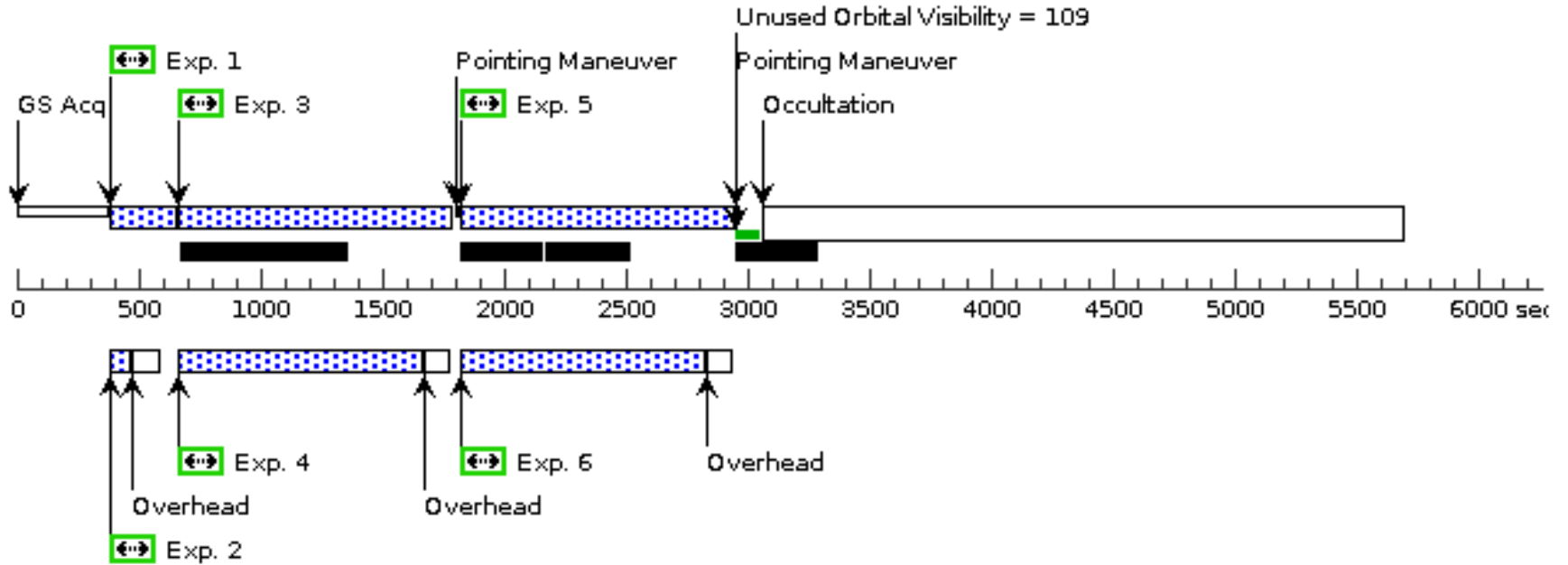
Proposal 16791 - SPUR2 (02) - Cold Dark Matter and the GD-1 Stellar Stream

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(2) SPUR2	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.0000,0 .0000	Sequence 1-6 Non-Int in SPUR2 (02) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in SPUR2 (02)	50 Secs (50 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 1-6 Non-Int in SPUR2 (02) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in SPUR2 (02)	50 Secs (50 Secs) [==>]	[1]
	3	(2) SPUR2	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0000,0 .0000	Sequence 1-6 Non-Int in SPUR2 (02) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in SPUR2 (02)	1000 Secs (1000 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in SPUR2 (02) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in SPUR2 (02)	1000 Secs (1000 Secs) [==>]	[1]
	5	(2) SPUR2	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.1647,0 .0124	Sequence 1-6 Non-Int in SPUR2 (02) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in SPUR2 (02)	1000 Secs (1000 Secs) [==>]	[1]
	6	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in SPUR2 (02) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in SPUR2 (02)	1000 Secs (1000 Secs) [==>]	[1]
	7	(2) SPUR2	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.3293,0 .0248	Sequence 7-12 Non-Int in SPUR2 (02) Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in SPUR2 (02)	50 Secs (50 Secs) [==>]	[2]
	8	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 7-12 Non-Int in SPUR2 (02) Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in SPUR2 (02)	50 Secs (50 Secs) [==>]	[2]
	9	(2) SPUR2	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.3293,0 .0248	Sequence 7-12 Non-Int in SPUR2 (02) Prime + Parallel Group 9-10 in Sequence 7-12 Non-Int in SPUR2 (02)	1020 Secs (1020 Secs) [==>]	[2]

Proposal 16791 - SPUR2 (02) - Cold Dark Matter and the GD-1 Stellar Stream

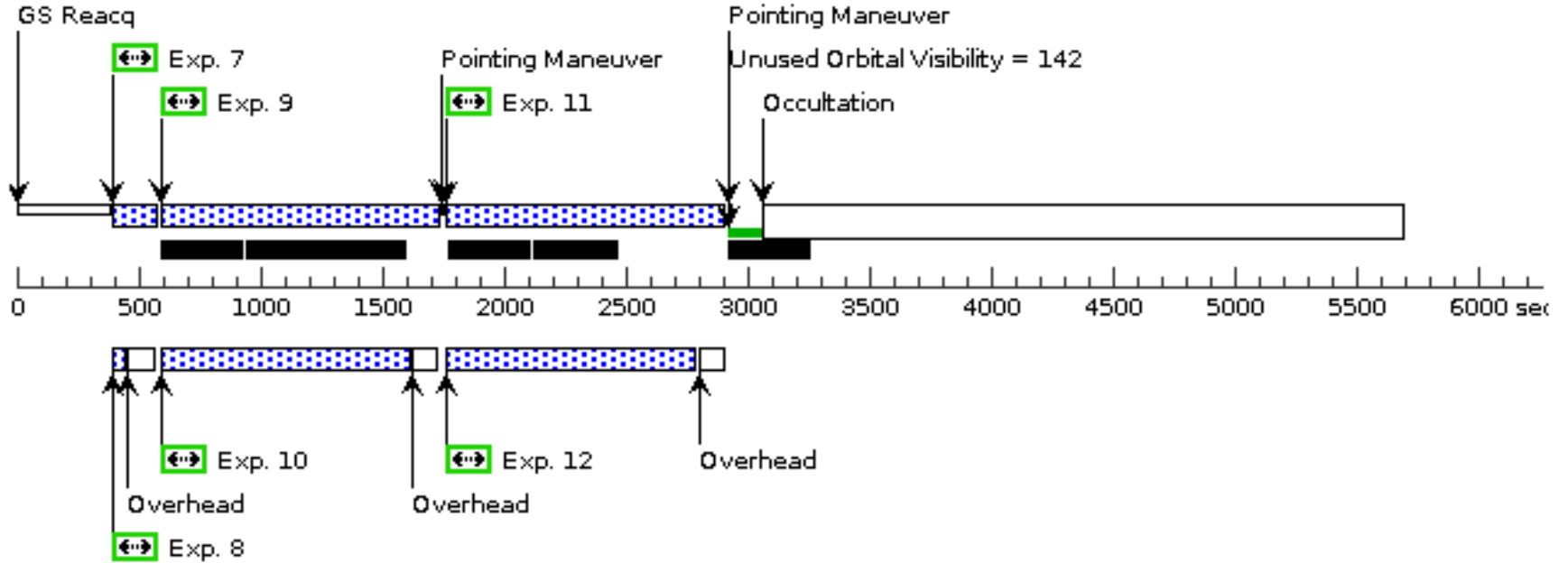
10	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 7-12 Non-Int in SPUR2 (02) Prime + Parallel Group 9-10 in Sequence 7-12 Non-Int in SPUR2 (02)	1020 Secs (1020 Secs) [==>]	[2]
11	(2) SPUR2	ACS/WFC, ACCUM, WFC	F606W	POS TARG 0.0747,0.1294		Sequence 7-12 Non-Int in SPUR2 (02) Prime + Parallel Group 11-12 in Sequence 7-12 Non-Int in SPUR2 (02)	1020 Secs (1020 Secs) [==>]	[2]
12	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 7-12 Non-Int in SPUR2 (02) Prime + Parallel Group 11-12 in Sequence 7-12 Non-Int in SPUR2 (02)	1020 Secs (1020 Secs) [==>]	[2]
13	(2) SPUR2	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.2393,0.1418	Sequence 13-18 Non-Int in SPUR2 (02) Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in SPUR2 (02)	50 Secs (50 Secs) [==>]	[3]
14	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 13-18 Non-Int in SPUR2 (02) Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in SPUR2 (02)	50 Secs (50 Secs) [==>]	[3]
15	(2) SPUR2	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.2393,0.1418	Sequence 13-18 Non-Int in SPUR2 (02) Prime + Parallel Group 15-16 in Sequence 13-18 Non-Int in SPUR2 (02)	1020 Secs (1020 Secs) [==>]	[3]
16	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 13-18 Non-Int in SPUR2 (02) Prime + Parallel Group 15-16 in Sequence 13-18 Non-Int in SPUR2 (02)	1020 Secs (1020 Secs) [==>]	[3]
17	(2) SPUR2	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.4039,0.1541	Sequence 13-18 Non-Int in SPUR2 (02) Prime + Parallel Group 17-18 in Sequence 13-18 Non-Int in SPUR2 (02)	1020 Secs (1020 Secs) [==>]	[3]
18	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 13-18 Non-Int in SPUR2 (02) Prime + Parallel Group 17-18 in Sequence 13-18 Non-Int in SPUR2 (02)	1020 Secs (1020 Secs) [==>]	[3]

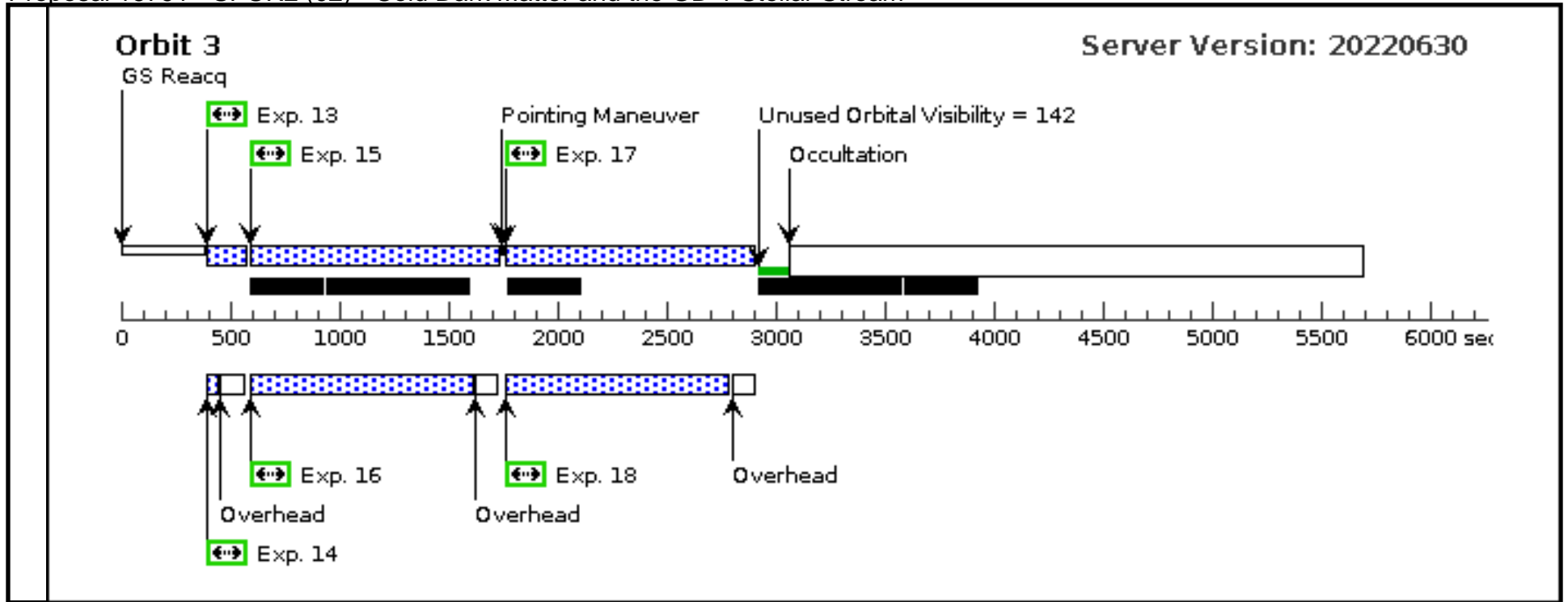
Orbit 1



Orbit Structure

Orbit 2





Proposal 16791 - SPUR3 (03) - Cold Dark Matter and the GD-1 Stellar Stream

Wed Aug 09 21:01:00 GMT 2023

Visit	Proposal 16791, SPUR3 (03), failed Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: SCHED 70%; ORIENT 182.93D TO 182.93 D; AFTER 01-AUG-2022:00:00:00 <i>Comments: This is a 3-orbit visit for the SPUR3 target field. We will observe this field using the F606W filters. We request a specific orient range to match the first-epoch's telescope orientation. Individual exposures will be dithered using a customized dither pattern designed for optimizing pixel-phase coverage via the POS TARG arguments. To fulfill our scientific goals, we require at least 3 years of time baseline as stated in our Phase 1 proposal. Since the first-epoch data for this field were obtained in Feb 2020, we added Timing Requirements of "After 01-AUG-2022:00:00:00".</i>																
	Diagnosics (Parallel Exposure 2 (Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in SPUR3 (03))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Parallel Exposure 8 (Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in SPUR3 (03))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Parallel Exposure 14 (Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in SPUR3 (03))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser																
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	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous											
(3)	SPUR3	RA: 10 15 35.6103 (153.8983762d) Dec: +42 28 1.36 (42.46704d) Equinox: J2000		V=20.0	Reference Frame: ICRS												
<i>Comments:</i> Category=STELLAR CLUSTER Description=[GLOBULAR CLUSTER, TIDAL TAIL] Extended=NO																	

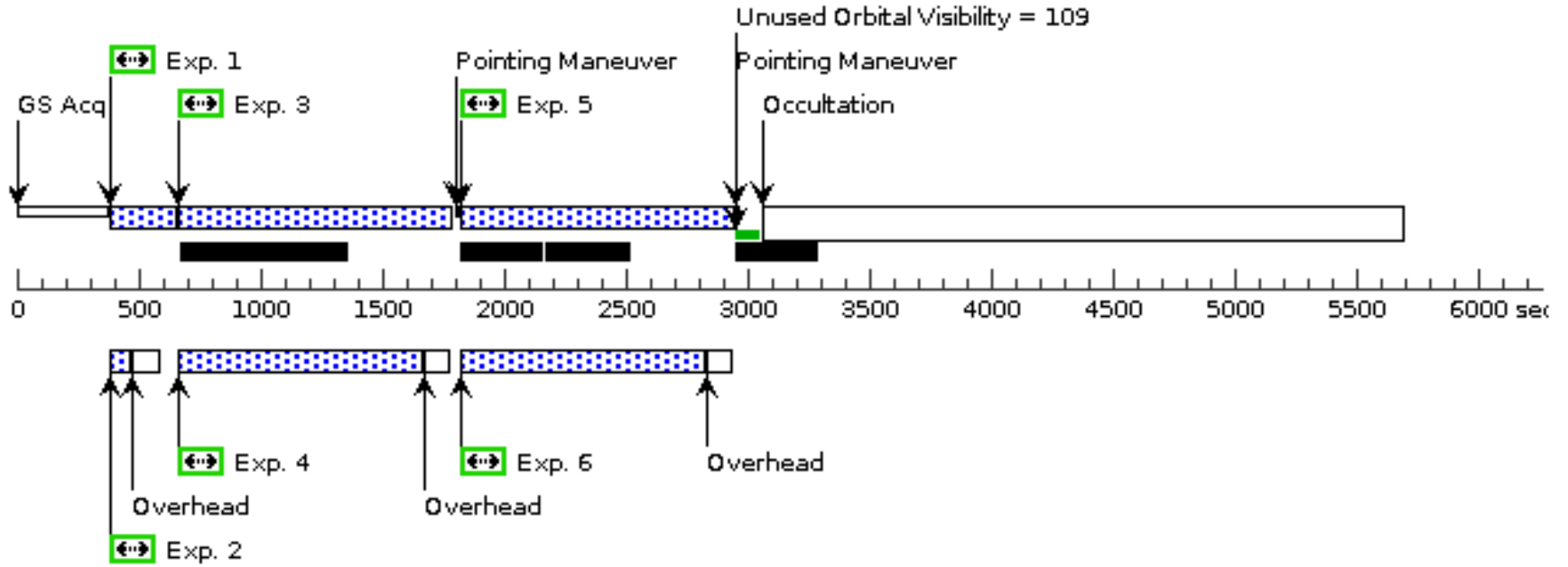
Proposal 16791 - SPUR3 (03) - Cold Dark Matter and the GD-1 Stellar Stream

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(3) SPUR3	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.0000,0.0000	Sequence 1-6 Non-Int in SPUR3 (03) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in SPUR3 (03)	50 Secs (50 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 1-6 Non-Int in SPUR3 (03) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in SPUR3 (03)	50 Secs (50 Secs) [==>]	[1]
	3	(3) SPUR3	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0000,0.0000	Sequence 1-6 Non-Int in SPUR3 (03) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in SPUR3 (03)	1000 Secs (1000 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in SPUR3 (03) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in SPUR3 (03)	1000 Secs (1000 Secs) [==>]	[1]
	5	(3) SPUR3	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.1647,0.0124	Sequence 1-6 Non-Int in SPUR3 (03) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in SPUR3 (03)	1000 Secs (1000 Secs) [==>]	[1]
	6	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in SPUR3 (03) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in SPUR3 (03)	1000 Secs (1000 Secs) [==>]	[1]
	7	(3) SPUR3	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.3293,0.0248	Sequence 7-12 Non-Int in SPUR3 (03) Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in SPUR3 (03)	50 Secs (50 Secs) [==>]	[2]
	8	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 7-12 Non-Int in SPUR3 (03) Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in SPUR3 (03)	50 Secs (50 Secs) [==>]	[2]
	9	(3) SPUR3	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.3293,0.0248	Sequence 7-12 Non-Int in SPUR3 (03) Prime + Parallel Group 9-10 in Sequence 7-12 Non-Int in SPUR3 (03)	1020 Secs (1020 Secs) [==>]	[2]

Proposal 16791 - SPUR3 (03) - Cold Dark Matter and the GD-1 Stellar Stream

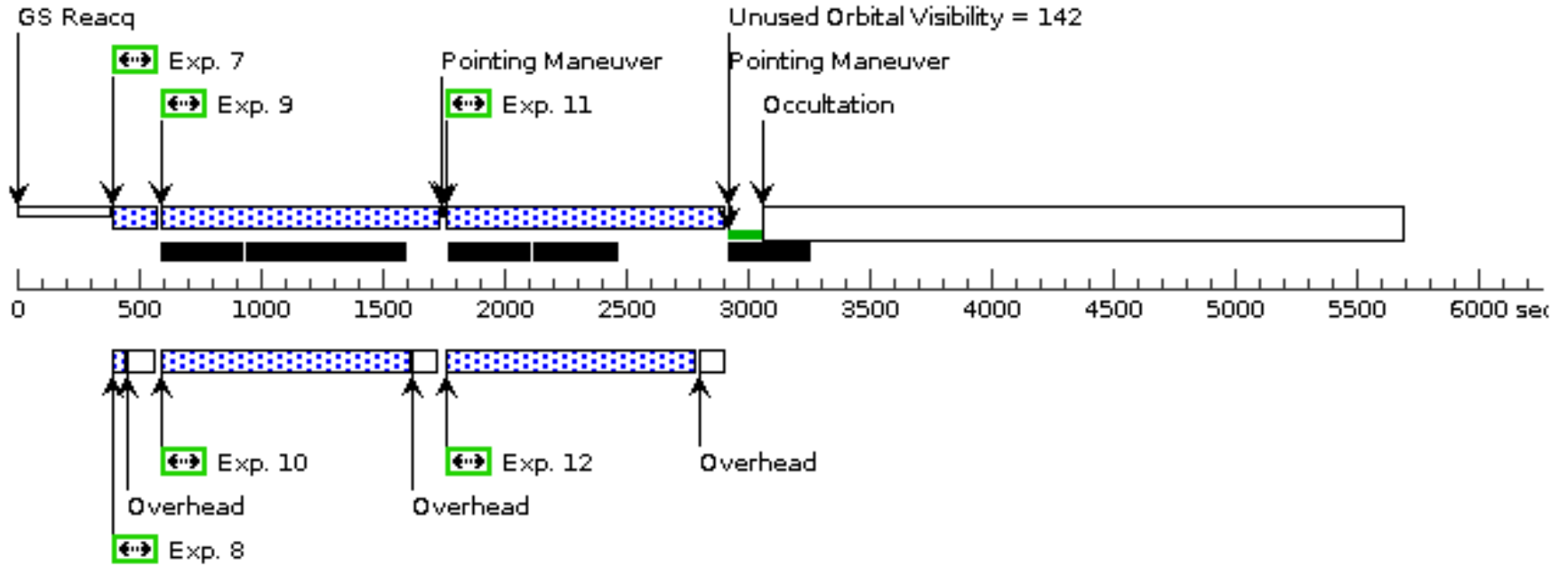
10	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 7-12 Non-Int in SPUR3 (03) Prime + Parallel Group 9-10 in Sequence 7-12 Non-Int in SPU R3 (03)	1020 Secs (1020 Secs) [==>]	[2]
11	(3) SPUR3	ACS/WFC, ACCUM, WFC	F606W	POS TARG 0.0747,0 .1294		Sequence 7-12 Non-Int in SPUR3 (03) Prime + Parallel Group 11-12 in Sequence 7-12 Non-Int in SPUR3 (03)	1020 Secs (1020 Secs) [==>]	[2]
12	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 7-12 Non-Int in SPUR3 (03) Prime + Parallel Group 11-12 in Sequence 7-12 Non-Int in SPUR3 (03)	1020 Secs (1020 Secs) [==>]	[2]
13	(3) SPUR3	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.2393,0 .1418	Sequence 13-18 Non-Int in SPUR3 (03) Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in SPUR3 (03)	50 Secs (50 Secs) [==>]	[3]
14	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 13-18 Non-Int in SPUR3 (03) Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in SPUR3 (03)	50 Secs (50 Secs) [==>]	[3]
15	(3) SPUR3	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.2393,0 .1418	Sequence 13-18 Non-Int in SPUR3 (03) Prime + Parallel Group 15-16 in Sequence 13-18 Non-Int in SPUR3 (03)	1020 Secs (1020 Secs) [==>]	[3]
16	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 13-18 Non-Int in SPUR3 (03) Prime + Parallel Group 15-16 in Sequence 13-18 Non-Int in SPUR3 (03)	1020 Secs (1020 Secs) [==>]	[3]
17	(3) SPUR3	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.4039,0 .1541	Sequence 13-18 Non-Int in SPUR3 (03) Prime + Parallel Group 17-18 in Sequence 13-18 Non-Int in SPUR3 (03)	1020 Secs (1020 Secs) [==>]	[3]
18	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 13-18 Non-Int in SPUR3 (03) Prime + Parallel Group 17-18 in Sequence 13-18 Non-Int in SPUR3 (03)	1020 Secs (1020 Secs) [==>]	[3]

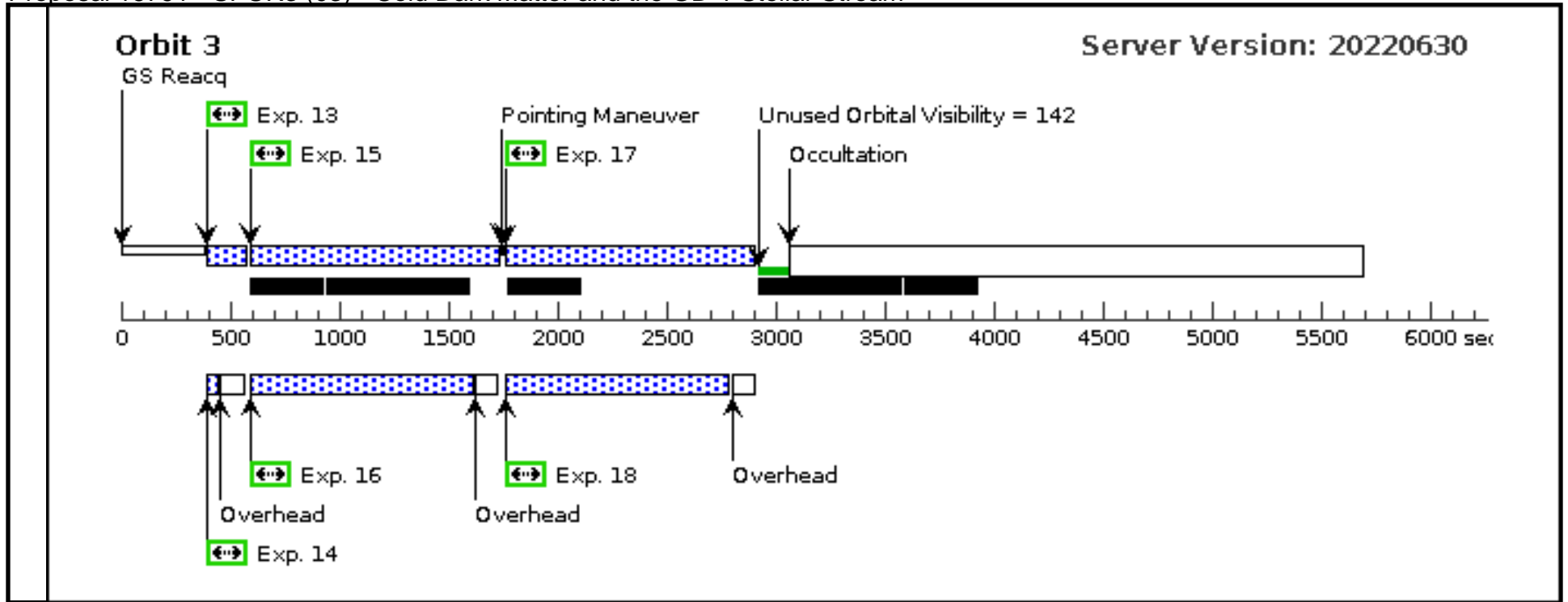
Orbit 1



Orbit Structure

Orbit 2





Proposal 16791 - SPUR4 (04) - Cold Dark Matter and the GD-1 Stellar Stream

Wed Aug 09 21:01:00 GMT 2023

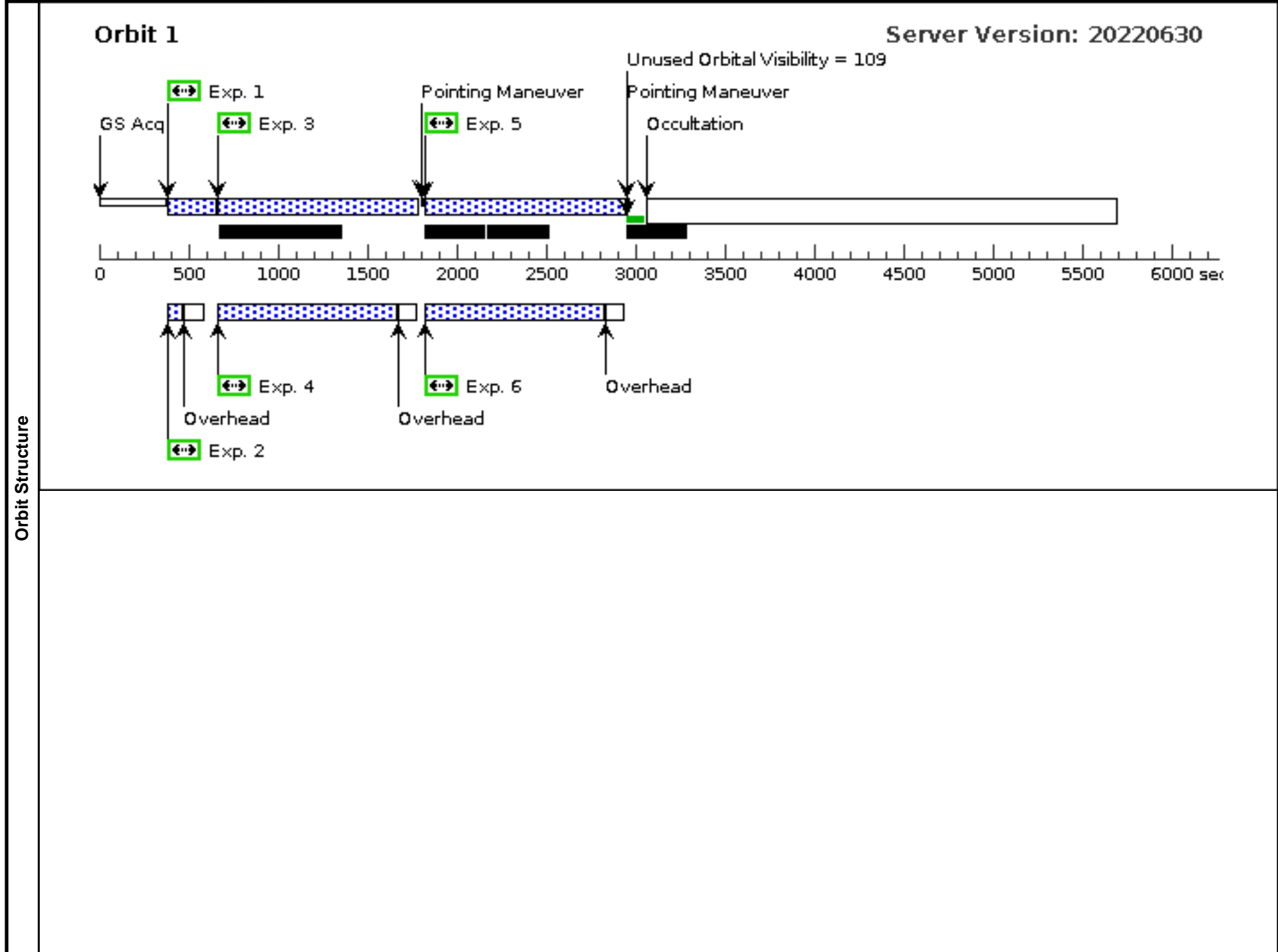
Visit	Proposal 16791, SPUR4 (04), completed Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: SCHED 70%; ORIENT 183.93D TO 183.93 D; AFTER 01-AUG-2022:00:00:00 <i>Comments: This is a 3-orbit visit for the SPUR4 target field. We will observe this field using the F606W filters. We request a specific orient range to match the first-epoch's telescope orientation. Individual exposures will be dithered using a customized dither pattern designed for optimizing pixel-phase coverage via the POS TARG arguments. To fulfill our scientific goals, we require at least 3 years of time baseline as stated in our Phase 1 proposal. Since the first-epoch data for this field were obtained in Feb 2020, we added Timing Requirements of "After 01-AUG-2022:00:00:00".</i>																
	Diagnosics (Parallel Exposure 2 (Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in SPUR4 (04))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Parallel Exposure 8 (Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in SPUR4 (04))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Parallel Exposure 14 (Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in SPUR4 (04))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser																
Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(4)</td> <td>SPUR4</td> <td>RA: 10 15 18.4202 (153.8267508d) Dec: +42 29 53.64 (42.49823d) Equinox: J2000</td> <td></td> <td>V=20.0</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table>					#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(4)	SPUR4	RA: 10 15 18.4202 (153.8267508d) Dec: +42 29 53.64 (42.49823d) Equinox: J2000		V=20.0	Reference Frame: ICRS
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous											
(4)	SPUR4	RA: 10 15 18.4202 (153.8267508d) Dec: +42 29 53.64 (42.49823d) Equinox: J2000		V=20.0	Reference Frame: ICRS												
<i>Comments:</i> Category=STELLAR CLUSTER Description=[GLOBULAR CLUSTER, TIDAL TAIL] Extended=NO																	

Proposal 16791 - SPUR4 (04) - Cold Dark Matter and the GD-1 Stellar Stream

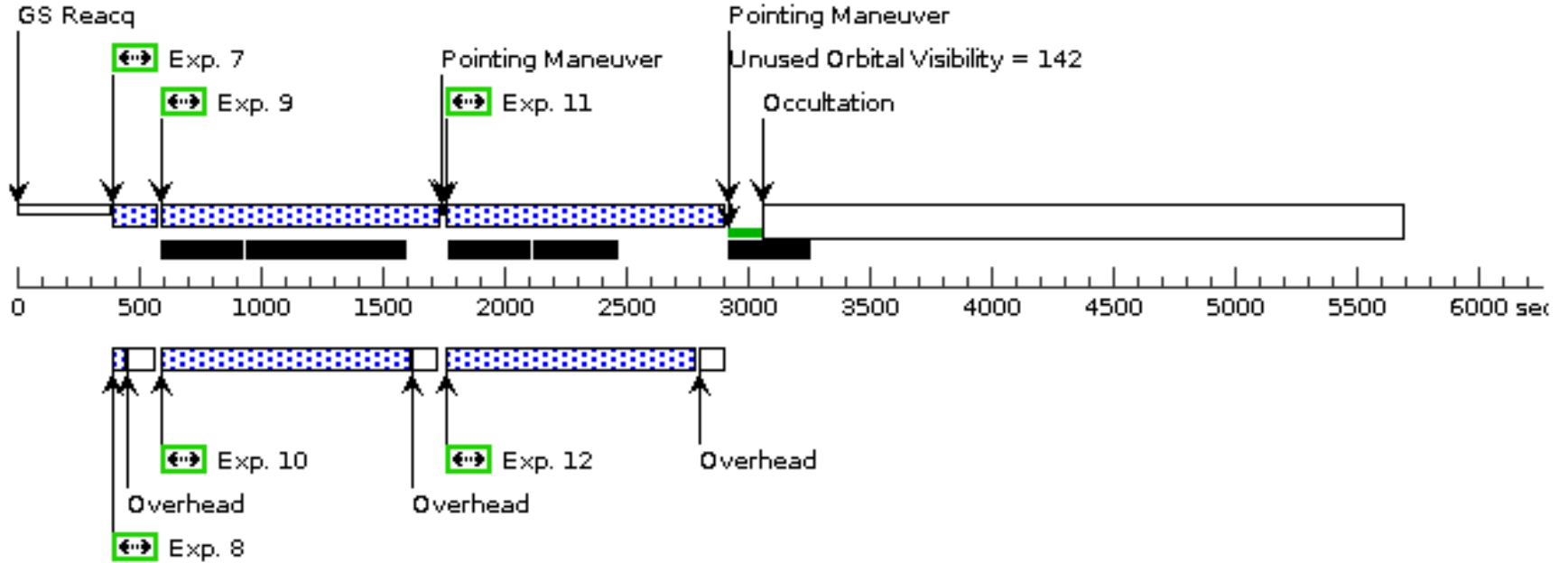
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(4) SPUR4	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.0000,0 .0000	Sequence 1-6 Non-Int in SPUR4 (04) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in SPUR4 (04)	50 Secs (50 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 1-6 Non-Int in SPUR4 (04) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in SPUR4 (04)	50 Secs (50 Secs) [==>]	[1]
	3	(4) SPUR4	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0000,0 .0000	Sequence 1-6 Non-Int in SPUR4 (04) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in SPUR4 (04)	1000 Secs (1000 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in SPUR4 (04) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in SPUR4 (04)	1000 Secs (1000 Secs) [==>]	[1]
	5	(4) SPUR4	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.1647,0 .0124	Sequence 1-6 Non-Int in SPUR4 (04) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in SPUR4 (04)	1000 Secs (1000 Secs) [==>]	[1]
	6	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in SPUR4 (04) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in SPUR4 (04)	1000 Secs (1000 Secs) [==>]	[1]
	7	(4) SPUR4	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.3293,0 .0248	Sequence 7-12 Non-Int in SPUR4 (04) Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in SPUR4 (04)	50 Secs (50 Secs) [==>]	[2]
	8	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 7-12 Non-Int in SPUR4 (04) Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in SPUR4 (04)	50 Secs (50 Secs) [==>]	[2]
	9	(4) SPUR4	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.3293,0 .0248	Sequence 7-12 Non-Int in SPUR4 (04) Prime + Parallel Group 9-10 in Sequence 7-12 Non-Int in SPUR4 (04)	1020 Secs (1020 Secs) [==>]	[2]

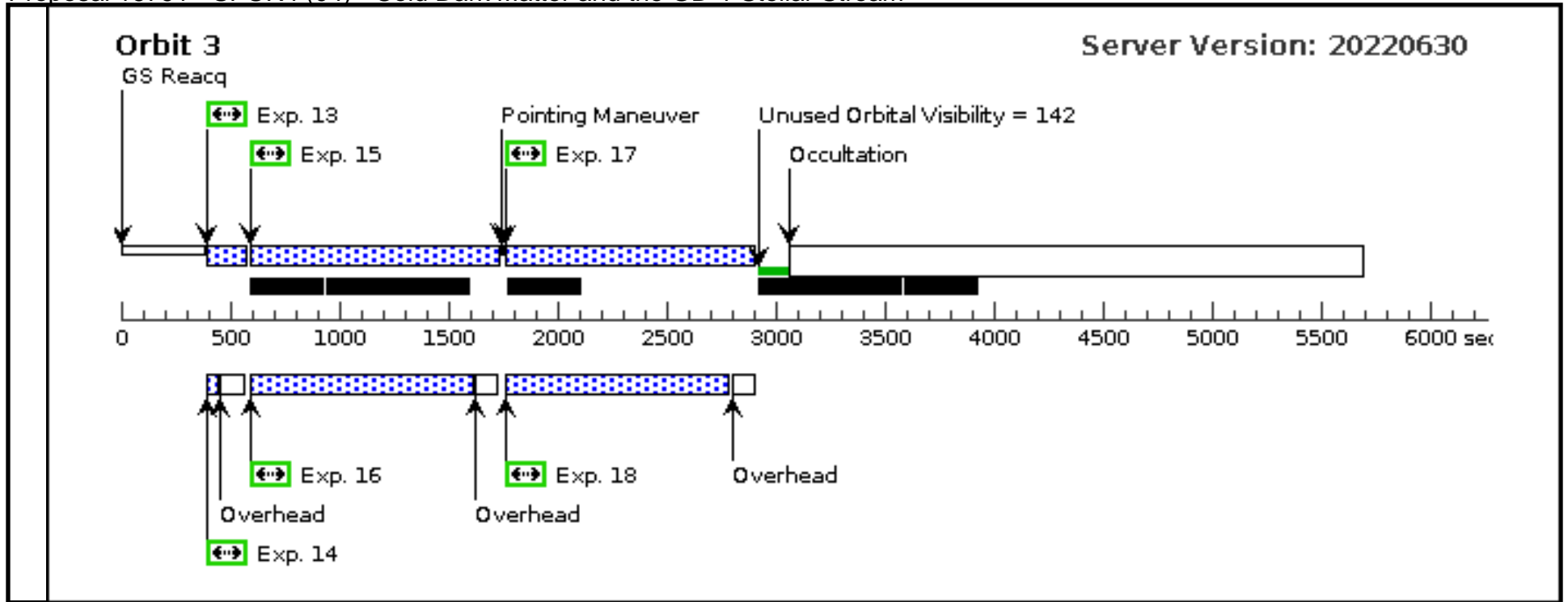
Proposal 16791 - SPUR4 (04) - Cold Dark Matter and the GD-1 Stellar Stream

10	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 7-12 Non-Int in SPUR4 (04) Prime + Parallel Group 9-10 in Sequence 7-12 Non-Int in SPUR4 (04)	1020 Secs (1020 Secs) [==>]	[2]
11	(4) SPUR4	ACS/WFC, ACCUM, WFC	F606W	POS TARG 0.0747,0.1294		Sequence 7-12 Non-Int in SPUR4 (04) Prime + Parallel Group 11-12 in Sequence 7-12 Non-Int in SPUR4 (04)	1020 Secs (1020 Secs) [==>]	[2]
12	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 7-12 Non-Int in SPUR4 (04) Prime + Parallel Group 11-12 in Sequence 7-12 Non-Int in SPUR4 (04)	1020 Secs (1020 Secs) [==>]	[2]
13	(4) SPUR4	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.2393,0.1418	Sequence 13-18 Non-Int in SPUR4 (04) Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in SPUR4 (04)	50 Secs (50 Secs) [==>]	[3]
14	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 13-18 Non-Int in SPUR4 (04) Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in SPUR4 (04)	50 Secs (50 Secs) [==>]	[3]
15	(4) SPUR4	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.2393,0.1418	Sequence 13-18 Non-Int in SPUR4 (04) Prime + Parallel Group 15-16 in Sequence 13-18 Non-Int in SPUR4 (04)	1020 Secs (1020 Secs) [==>]	[3]
16	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 13-18 Non-Int in SPUR4 (04) Prime + Parallel Group 15-16 in Sequence 13-18 Non-Int in SPUR4 (04)	1020 Secs (1020 Secs) [==>]	[3]
17	(4) SPUR4	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.4039,0.1541	Sequence 13-18 Non-Int in SPUR4 (04) Prime + Parallel Group 17-18 in Sequence 13-18 Non-Int in SPUR4 (04)	1020 Secs (1020 Secs) [==>]	[3]
18	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 13-18 Non-Int in SPUR4 (04) Prime + Parallel Group 17-18 in Sequence 13-18 Non-Int in SPUR4 (04)	1020 Secs (1020 Secs) [==>]	[3]



Orbit 2





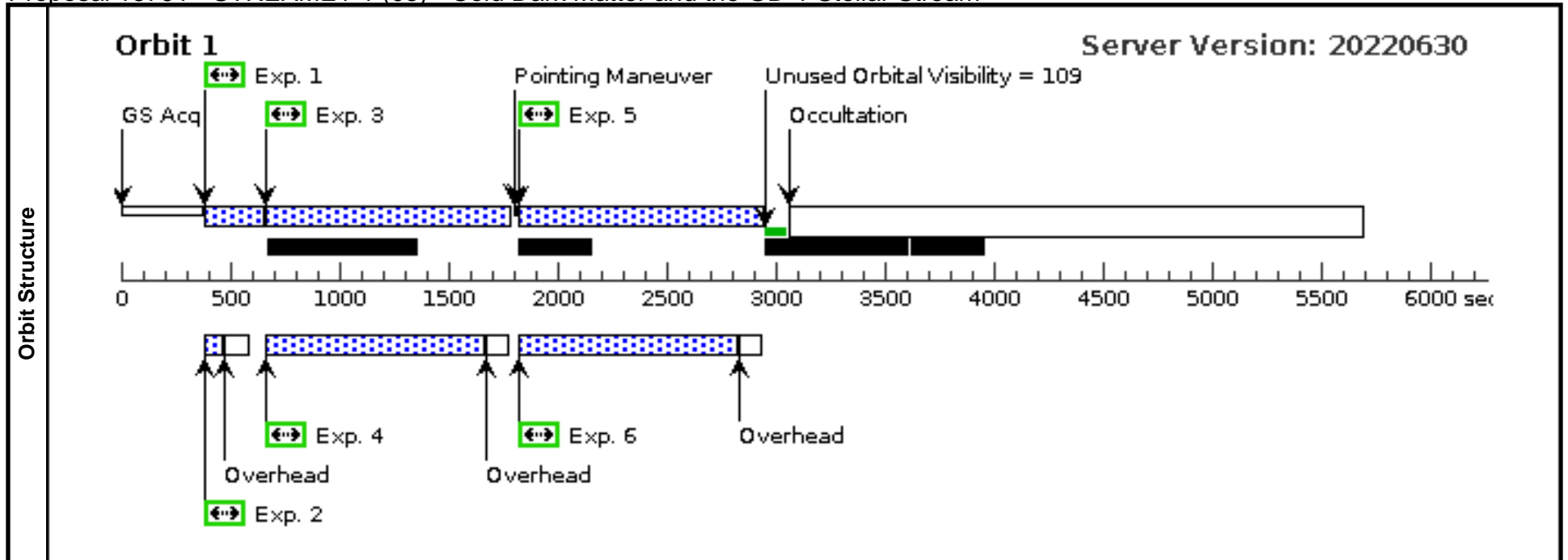
Proposal 16791 - STREAME1-1 (05) - Cold Dark Matter and the GD-1 Stellar Stream

Wed Aug 09 21:01:01 GMT 2023

Visit	<p>Proposal 16791, STREAME1-1 (05), failed</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: SCHED 70%; ORIENT 185.93D TO 185.93 D; AFTER 01-AUG-2022:00:00:00; GROUP 05,06,07 WITHIN 15D</p> <p><i>Comments: This is a single-orbit visit for the STREAME1 target field. We will observe this field using the F606W filters. We request a specific orient range to match the first-epoch's telescope orientation. Individual exposures will be dithered using a customized dither pattern designed for optimizing pixel-phase coverage via the POS TARG arguments. To fulfill our scientific goals, we require at least 3 years of time baseline as stated in our Phase 1 proposal. Since the first-epoch data for this field were obtained in Feb 2020, we added Timing Requirements of "After 01-AUG-2022:00:00:00".</i></p>																
	<p>Diagnosics</p> <p>(Parallel Exposure 2 (Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAME1-1 (05))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p>																
Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(5)</td> <td>STREAME1</td> <td>RA: 10 23 28.9979 (155.8708246d) Dec: +42 10 53.66 (42.18157d) Equinox: J2000</td> <td></td> <td>V=20.0</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments: Category=STELLAR CLUSTER Description=[GLOBULAR CLUSTER, TIDAL TAIL] Extended=NO</i></p>					#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(5)	STREAME1	RA: 10 23 28.9979 (155.8708246d) Dec: +42 10 53.66 (42.18157d) Equinox: J2000		V=20.0	Reference Frame: ICRS
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous											
(5)	STREAME1	RA: 10 23 28.9979 (155.8708246d) Dec: +42 10 53.66 (42.18157d) Equinox: J2000		V=20.0	Reference Frame: ICRS												

Proposal 16791 - STREAME1-1 (05) - Cold Dark Matter and the GD-1 Stellar Stream

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(5) STREAME1	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.0000,0 .0000	Sequence 1-6 Non-Int in STREAME1-1 (05) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAME1-1 (05)	50 Secs (50 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 1-6 Non-Int in STREAME1-1 (05) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAME1-1 (05)	50 Secs (50 Secs) [==>]	[1]
	3	(5) STREAME1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0000,0 .0000	Sequence 1-6 Non-Int in STREAME1-1 (05) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAME1-1 (05)	1000 Secs (1000 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAME1-1 (05) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAME1-1 (05)	1000 Secs (1000 Secs) [==>]	[1]
	5	(5) STREAME1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.1647,0 .0124	Sequence 1-6 Non-Int in STREAME1-1 (05) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAME1-1 (05)	1000 Secs (1000 Secs) [==>]	[1]
	6	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAME1-1 (05) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAME1-1 (05)	1000 Secs (1000 Secs) [==>]	[1]



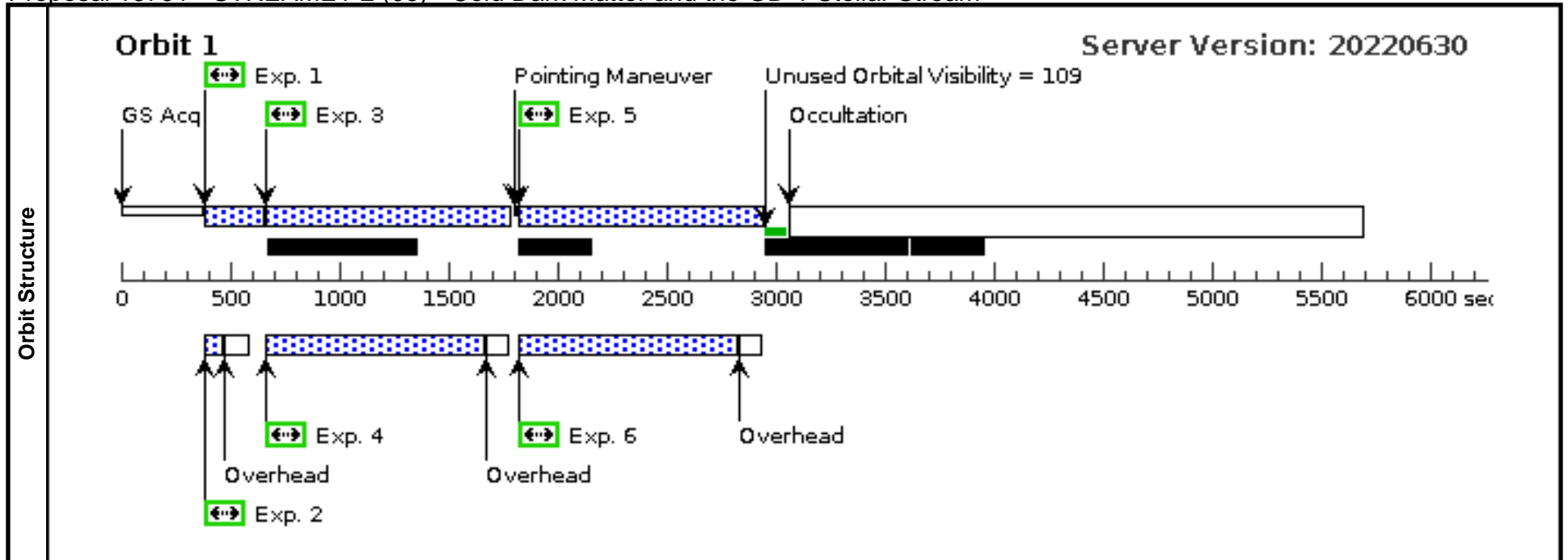
Proposal 16791 - STREAME1-2 (06) - Cold Dark Matter and the GD-1 Stellar Stream

Wed Aug 09 21:01:01 GMT 2023

Visit	<p>Proposal 16791, STREAME1-2 (06), failed</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: SCHED 70%; ORIENT 185.93D TO 185.93 D; AFTER 01-AUG-2022:00:00:00; GROUP 06,05,07 WITHIN 15D</p> <p><i>Comments: This is a single-orbit visit for the STREAME1 target field. We will observe this field using the F606W filters. We request a specific orient range to match the first-epoch's telescope orientation. Individual exposures will be dithered using a customized dither pattern designed for optimizing pixel-phase coverage via the POS TARG arguments. To fulfill our scientific goals, we require at least 3 years of time baseline as stated in our Phase 1 proposal. Since the first-epoch data for this field were obtained in Feb 2020, we added Timing Requirements of "After 01-AUG-2022:00:00:00".</i></p>																
	<p>Diagnosics</p> <p>(Parallel Exposure 2 (Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAME1-2 (06))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p>																
Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(5)</td> <td>STREAME1</td> <td>RA: 10 23 28.9979 (155.8708246d) Dec: +42 10 53.66 (42.18157d) Equinox: J2000</td> <td></td> <td>V=20.0</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments: Category=STELLAR CLUSTER Description=[GLOBULAR CLUSTER, TIDAL TAIL] Extended=NO</i></p>					#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(5)	STREAME1	RA: 10 23 28.9979 (155.8708246d) Dec: +42 10 53.66 (42.18157d) Equinox: J2000		V=20.0	Reference Frame: ICRS
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous											
(5)	STREAME1	RA: 10 23 28.9979 (155.8708246d) Dec: +42 10 53.66 (42.18157d) Equinox: J2000		V=20.0	Reference Frame: ICRS												

Proposal 16791 - STREAME1-2 (06) - Cold Dark Matter and the GD-1 Stellar Stream

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(5) STREAME1	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.3293,0 .0248	Sequence 1-6 Non-Int in STREAME1-2 (06) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAME1-2 (06)	50 Secs (50 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 1-6 Non-Int in STREAME1-2 (06) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAME1-2 (06)	50 Secs (50 Secs) [==>]	[1]
	3	(5) STREAME1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.3293,0 .0248	Sequence 1-6 Non-Int in STREAME1-2 (06) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAME1-2 (06)	1000 Secs (1000 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAME1-2 (06) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAME1-2 (06)	1000 Secs (1000 Secs) [==>]	[1]
	5	(5) STREAME1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0747,0 .1294	Sequence 1-6 Non-Int in STREAME1-2 (06) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAME1-2 (06)	1000 Secs (1000 Secs) [==>]	[1]
	6	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAME1-2 (06) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAME1-2 (06)	1000 Secs (1000 Secs) [==>]	[1]



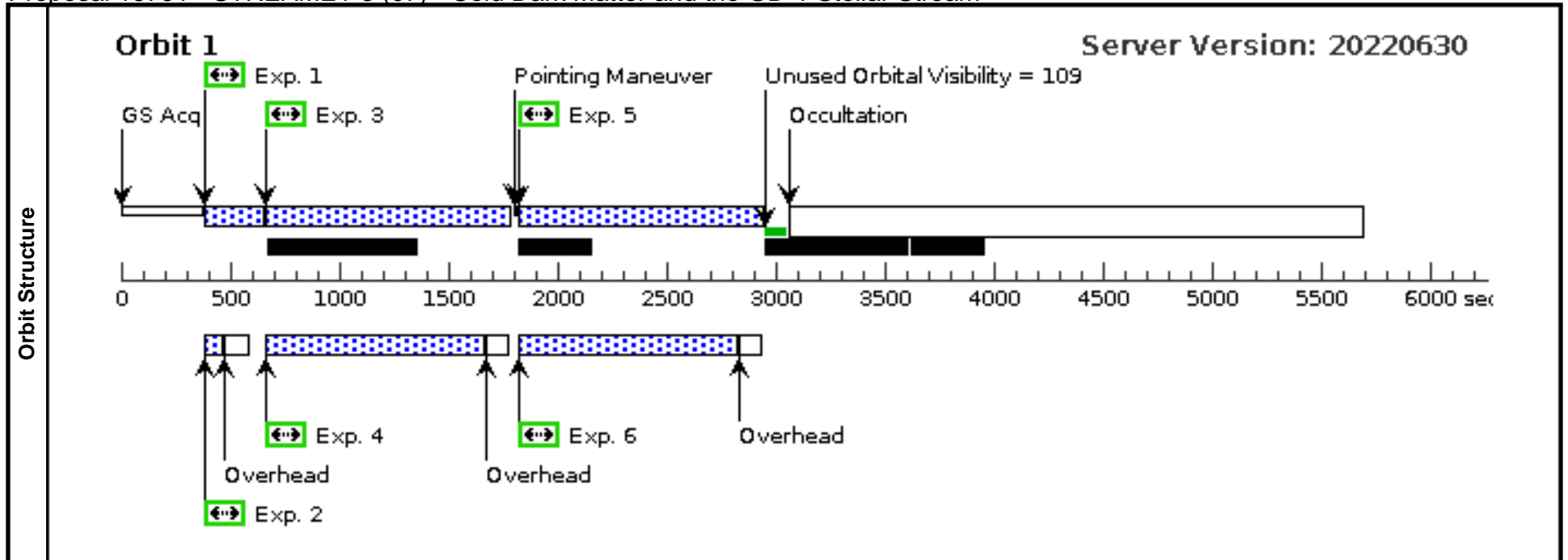
Proposal 16791 - STREAME1-3 (07) - Cold Dark Matter and the GD-1 Stellar Stream

Wed Aug 09 21:01:01 GMT 2023

Visit	<p>Proposal 16791, STREAME1-3 (07), completed</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: SCHED 70%; ORIENT 185.93D TO 185.93 D; AFTER 01-AUG-2022:00:00:00; GROUP 07,05,06 WITHIN 15D</p> <p><i>Comments: This is a single-orbit visit for the STREAME1 target field. We will observe this field using the F606W filters. We request a specific orient range to match the first-epoch's telescope orientation. Individual exposures will be dithered using a customized dither pattern designed for optimizing pixel-phase coverage via the POS TARG arguments. To fulfill our scientific goals, we require at least 3 years of time baseline as stated in our Phase 1 proposal. Since the first-epoch data for this field were obtained in Feb 2020, we added Timing Requirements of "After 01-AUG-2022:00:00:00".</i></p>																
	<p>Diagnosics</p> <p>(Parallel Exposure 2 (Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAME1-3 (07))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p>																
Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(5)</td> <td>STREAME1</td> <td>RA: 10 23 28.9979 (155.8708246d) Dec: +42 10 53.66 (42.18157d) Equinox: J2000</td> <td></td> <td>V=20.0</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments: Category=STELLAR CLUSTER Description=[GLOBULAR CLUSTER, TIDAL TAIL] Extended=NO</i></p>					#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(5)	STREAME1	RA: 10 23 28.9979 (155.8708246d) Dec: +42 10 53.66 (42.18157d) Equinox: J2000		V=20.0	Reference Frame: ICRS
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous											
(5)	STREAME1	RA: 10 23 28.9979 (155.8708246d) Dec: +42 10 53.66 (42.18157d) Equinox: J2000		V=20.0	Reference Frame: ICRS												

Proposal 16791 - STREAME1-3 (07) - Cold Dark Matter and the GD-1 Stellar Stream

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(5) STREAME1	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.2393,0 .1418	Sequence 1-6 Non-Int in STREAME1-3 (07) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAME1-3 (07)	50 Secs (50 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 1-6 Non-Int in STREAME1-3 (07) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAME1-3 (07)	50 Secs (50 Secs) [==>]	[1]
	3	(5) STREAME1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.2393,0 .1418	Sequence 1-6 Non-Int in STREAME1-3 (07) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAME1-3 (07)	1000 Secs (1000 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAME1-3 (07) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAME1-3 (07)	1000 Secs (1000 Secs) [==>]	[1]
	5	(5) STREAME1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.4039,0 .1541	Sequence 1-6 Non-Int in STREAME1-3 (07) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAME1-3 (07)	1000 Secs (1000 Secs) [==>]	[1]
	6	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAME1-3 (07) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAME1-3 (07)	1000 Secs (1000 Secs) [==>]	[1]



Proposal 16791 - STREAME2 (08) - Cold Dark Matter and the GD-1 Stellar Stream

Wed Aug 09 21:01:01 GMT 2023

Visit	<p>Proposal 16791, STREAME2 (08), completed</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: SCHED 70%; ORIENT 185.93D TO 185.93 D; AFTER 01-AUG-2022:00:00:00</p> <p><i>Comments: This is a 3-orbit visit for the STREAME2 target field. We will observe this field using the F606W filters. We request a specific orient range to match the first-epoch's telescope orientation. Individual exposures will be dithered using a customized dither pattern designed for optimizing pixel-phase coverage via the POS TARG arguments. To fulfill our scientific goals, we require at least 3 years of time baseline as stated in our Phase 1 proposal. Since the first-epoch data for this field were obtained in Feb 2020, we added Timing Requirements of "After 01-AUG-2022:00:00:00".</i></p>						
	Diagnostics	<p>(Parallel Exposure 2 (Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAME2 (08))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p> <p>(Parallel Exposure 8 (Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in STREAME2 (08))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p> <p>(Parallel Exposure 14 (Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in STREAME2 (08))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p>					
Fixed Targets		#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
		(6)	STREAME2	RA: 10 23 44.6911 (155.9362129d) Dec: +42 09 42.91 (42.16192d) Equinox: J2000		V=20.0	Reference Frame: ICRS
<p><i>Comments:</i> <i>Category=STELLAR CLUSTER</i> <i>Description=[GLOBULAR CLUSTER, TIDAL TAIL]</i> <i>Extended=NO</i></p>							

Proposal 16791 - STREAME2 (08) - Cold Dark Matter and the GD-1 Stellar Stream

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) STREAME2	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.0000,0.0000	Sequence 1-6 Non-Int in STREAME2 (08) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAME2 (08)	50 Secs (50 Secs) [==>]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 1-6 Non-Int in STREAME2 (08) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAME2 (08)	50 Secs (50 Secs) [==>]	[1]
	3		(6) STREAME2	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0000,0.0000	Sequence 1-6 Non-Int in STREAME2 (08) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAME2 (08)	1000 Secs (1000 Secs) [==>]	[1]
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAME2 (08) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAME2 (08)	1000 Secs (1000 Secs) [==>]	[1]
	5		(6) STREAME2	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.1647,0.0124	Sequence 1-6 Non-Int in STREAME2 (08) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAME2 (08)	1000 Secs (1000 Secs) [==>]	[1]
	6		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAME2 (08) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAME2 (08)	1000 Secs (1000 Secs) [==>]	[1]
	7		(6) STREAME2	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.3293,0.0248	Sequence 7-12 Non-Int in STREAME2 (08) Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in STREAME2 (08)	50 Secs (50 Secs) [==>]	[2]
	8		ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 7-12 Non-Int in STREAME2 (08) Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in STREAME2 (08)	50 Secs (50 Secs) [==>]	[2]

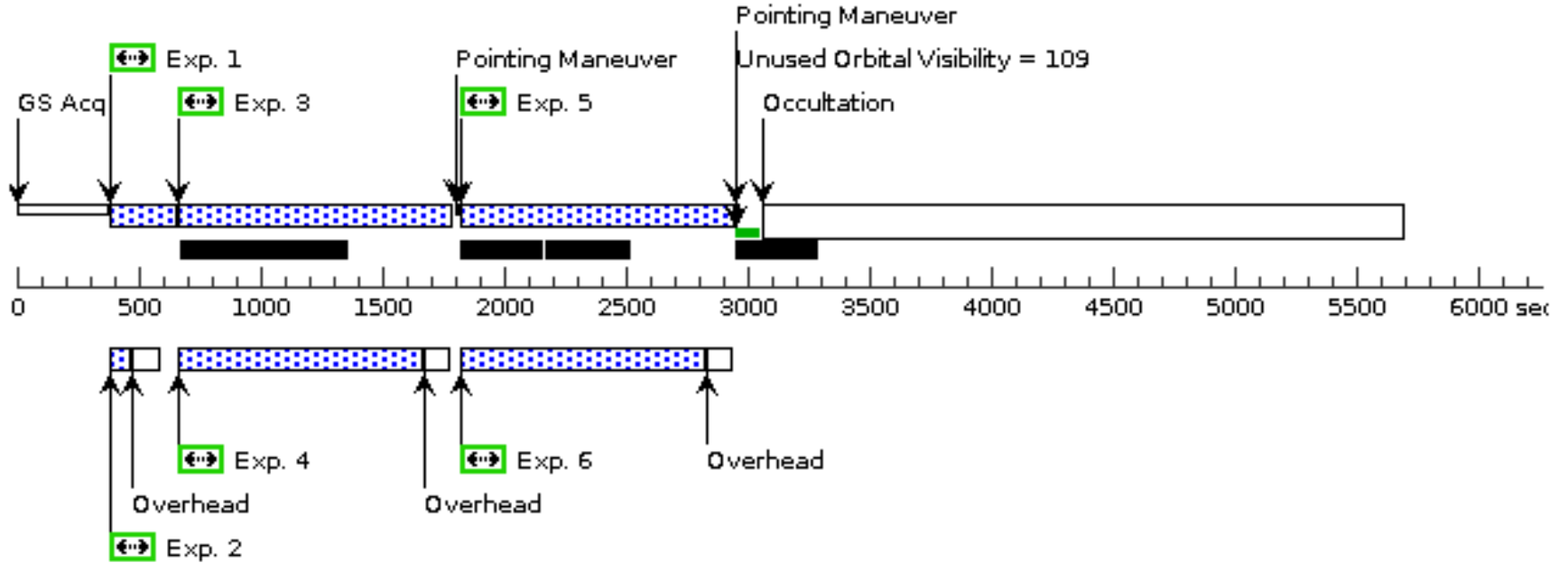
Proposal 16791 - STREAME2 (08) - Cold Dark Matter and the GD-1 Stellar Stream

9	(6) STREAME2	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.3293,0 .0248	Sequence 7-12 Non-Int in STREAME2 (08) Prime + Parallel Group 9-10 in Sequence 7-12 Non-Int in STREAME2 (08)	1020 Secs (1020 Secs) [==>]	[2]
10	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 7-12 Non-Int in STREAME2 (08) Prime + Parallel Group 9-10 in Sequence 7-12 Non-Int in STREAME2 (08)	1020 Secs (1020 Secs) [==>]	[2]
11	(6) STREAME2	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0747,0 .1294	Sequence 7-12 Non-Int in STREAME2 (08) Prime + Parallel Group 11-12 in Sequence 7-12 Non-Int in STREAME2 (08)	1020 Secs (1020 Secs) [==>]	[2]
12	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 7-12 Non-Int in STREAME2 (08) Prime + Parallel Group 11-12 in Sequence 7-12 Non-Int in STREAME2 (08)	1020 Secs (1020 Secs) [==>]	[2]
13	(6) STREAME2	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.2393,0 .1418	Sequence 13-18 Non-Int in STREAME2 (08) Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in STREAME2 (08)	50 Secs (50 Secs) [==>]	[3]
14	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 13-18 Non-Int in STREAME2 (08) Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in STREAME2 (08)	50 Secs (50 Secs) [==>]	[3]
15	(6) STREAME2	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.2393,0 .1418	Sequence 13-18 Non-Int in STREAME2 (08) Prime + Parallel Group 15-16 in Sequence 13-18 Non-Int in STREAME2 (08)	1020 Secs (1020 Secs) [==>]	[3]
16	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 13-18 Non-Int in STREAME2 (08) Prime + Parallel Group 15-16 in Sequence 13-18 Non-Int in STREAME2 (08)	1020 Secs (1020 Secs) [==>]	[3]

Proposal 16791 - STREAME2 (08) - Cold Dark Matter and the GD-1 Stellar Stream

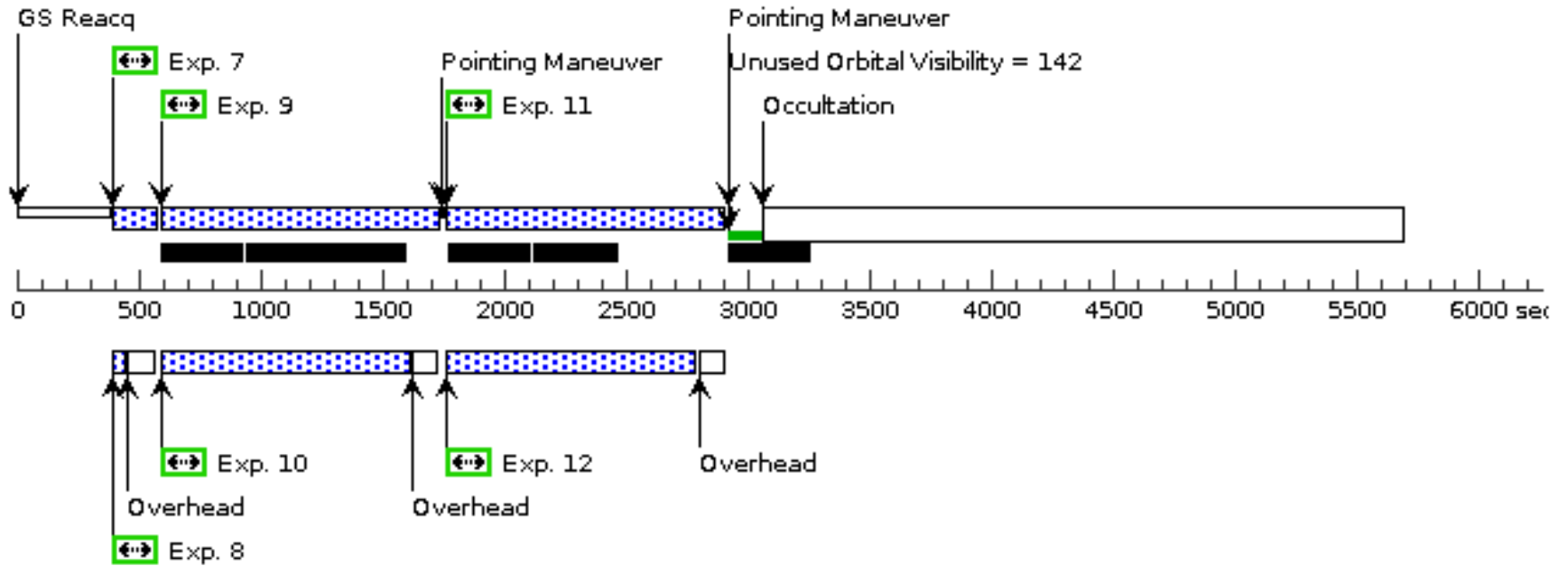
17	(6) STREAME2	ACS/WFC, ACCUM, WFC	F606W	POS TARG 0.4039,0 .1541	Sequence 13-18 Non-Int in STREAME2 (08) Prime + Parallel Group 17-18 in Sequence 13-18 Non-Int in STREAME2 (08)	1020 Secs (1020 Secs) [==>]	[3]
18	ANY	WFC3/UVIS, ACCUM, UVIS	F606W		Sequence 13-18 Non-Int in STREAME2 (08) Prime + Parallel Group 17-18 in Sequence 13-18 Non-Int in STREAME2 (08)	1020 Secs (1020 Secs) [==>]	[3]

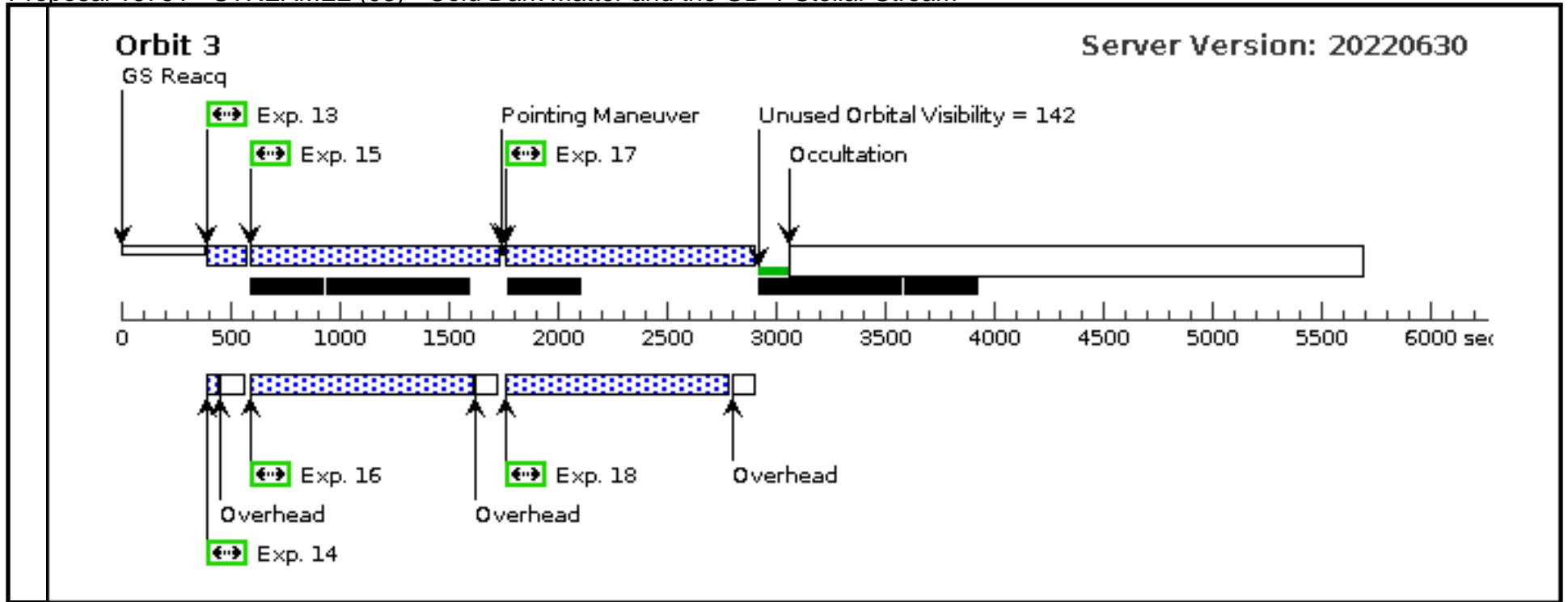
Orbit 1



Orbit Structure

Orbit 2





Proposal 16791 - STREAMW1 (09) - Cold Dark Matter and the GD-1 Stellar Stream

Wed Aug 09 21:01:01 GMT 2023

Visit	<p>Proposal 16791, STREAMW1 (09), failed</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: SCHED 70%; ORIENT 169.8D TO 170.96 D; AFTER 01-AUG-2022:00:00:00</p> <p><i>Comments: This is a 3-orbit visit for the STREAMW1 target field. We will observe this field using the F606W filters. We request a specific orient range to match the first-epoch's telescope orientation. Individual exposures will be dithered using a customized dither pattern designed for optimizing pixel-phase coverage via the POS TARG arguments. To fulfill our scientific goals, we require at least 3 years of time baseline as stated in our Phase 1 proposal. Since the first-epoch data for this field were obtained in Feb 2020, we added Timing Requirements of "After 01-AUG-2022:00:00:00".</i></p>					
	Diagnostics	<p>(Parallel Exposure 2 (Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAMW1 (09))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p> <p>(Parallel Exposure 8 (Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in STREAMW1 (09))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p> <p>(Parallel Exposure 14 (Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in STREAMW1 (09))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p>				
Fixed Targets		#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
		(7)	STREAMW1	RA: 09 36 59.0668 (144.2461117d) Dec: +30 16 20.36 (30.27232d) Equinox: J2000		V=20.0
	<p><i>Comments:</i> <i>Category=STELLAR CLUSTER</i> <i>Description=[GLOBULAR CLUSTER, TIDAL TAIL]</i> <i>Extended=NO</i></p>					
	<p>Miscellaneous</p> <p>Reference Frame: ICRS</p>					

Proposal 16791 - STREAMW1 (09) - Cold Dark Matter and the GD-1 Stellar Stream

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(7) STREAMW1	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.0000,0.0000	Sequence 1-6 Non-Int in STREAMW1 (09) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAMW1 (09)	50 Secs (50 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 1-6 Non-Int in STREAMW1 (09) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAMW1 (09)	50 Secs (50 Secs) [==>]	[1]
	3	(7) STREAMW1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0000,0.0000	Sequence 1-6 Non-Int in STREAMW1 (09) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAMW1 (09)	1000 Secs (1000 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAMW1 (09) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAMW1 (09)	1000 Secs (1000 Secs) [==>]	[1]
	5	(7) STREAMW1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.1647,0.0124	Sequence 1-6 Non-Int in STREAMW1 (09) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAMW1 (09)	1000 Secs (1000 Secs) [==>]	[1]
	6	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAMW1 (09) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAMW1 (09)	1000 Secs (1000 Secs) [==>]	[1]
	7	(7) STREAMW1	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.3293,0.0248	Sequence 7-12 Non-Int in STREAMW1 (09) Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in STREAMW1 (09)	50 Secs (50 Secs) [==>]	[2]
	8	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 7-12 Non-Int in STREAMW1 (09) Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in STREAMW1 (09)	50 Secs (50 Secs) [==>]	[2]

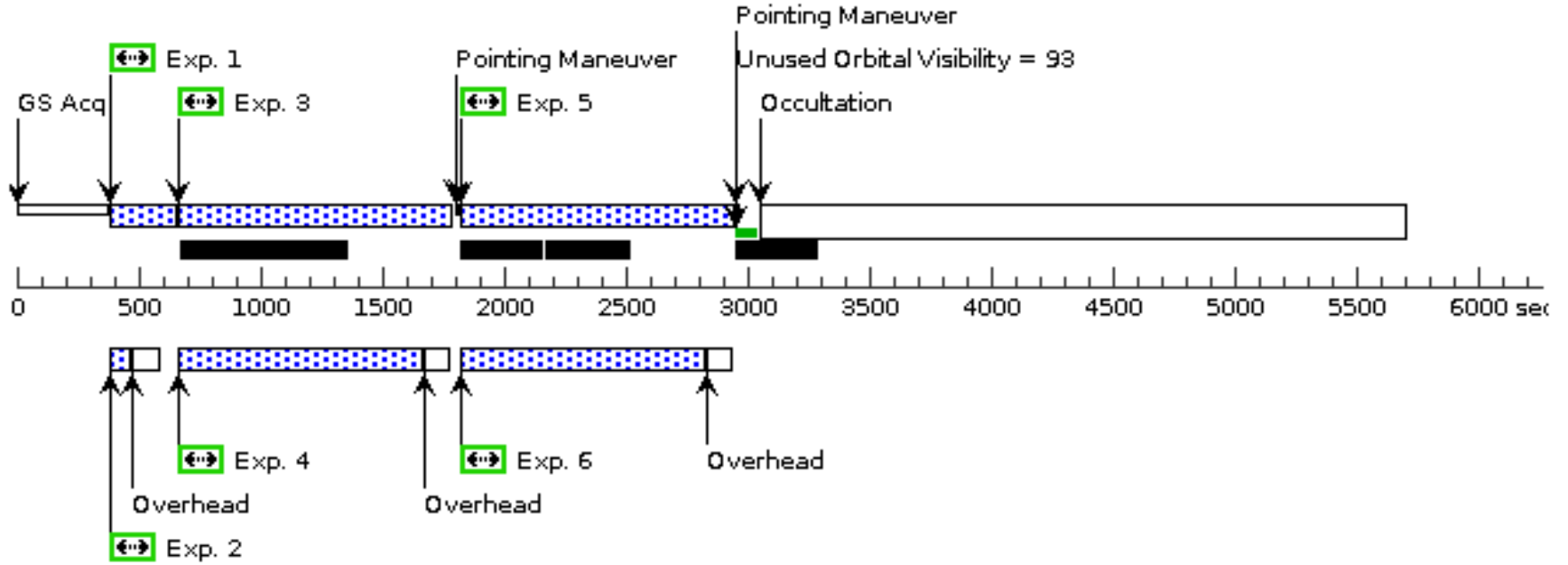
Proposal 16791 - STREAMW1 (09) - Cold Dark Matter and the GD-1 Stellar Stream

9	(7) STREAMW1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.3293,0 .0248	Sequence 7-12 Non-Int in STREAMW1 (09) Prime + Parallel Group 9-10 in Sequence 7-12 Non-Int in STREAMW1 (09)	1020 Secs (1020 Secs) [==>]	[2]
10	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 7-12 Non-Int in STREAMW1 (09) Prime + Parallel Group 9-10 in Sequence 7-12 Non-Int in STREAMW1 (09)	1020 Secs (1020 Secs) [==>]	[2]
11	(7) STREAMW1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0747,0 .1294	Sequence 7-12 Non-Int in STREAMW1 (09) Prime + Parallel Group 11-12 in Sequence 7-12 Non-Int in STREAMW1 (09)	1020 Secs (1020 Secs) [==>]	[2]
12	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 7-12 Non-Int in STREAMW1 (09) Prime + Parallel Group 11-12 in Sequence 7-12 Non-Int in STREAMW1 (09)	1020 Secs (1020 Secs) [==>]	[2]
13	(7) STREAMW1	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.2393,0 .1418	Sequence 13-18 Non-Int in STREAMW1 (09) Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in STREAMW1 (09)	50 Secs (50 Secs) [==>]	[3]
14	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 13-18 Non-Int in STREAMW1 (09) Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in STREAMW1 (09)	50 Secs (50 Secs) [==>]	[3]
15	(7) STREAMW1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.2393,0 .1418	Sequence 13-18 Non-Int in STREAMW1 (09) Prime + Parallel Group 15-16 in Sequence 13-18 Non-Int in STREAMW1 (09)	1020 Secs (1020 Secs) [==>]	[3]
16	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 13-18 Non-Int in STREAMW1 (09) Prime + Parallel Group 15-16 in Sequence 13-18 Non-Int in STREAMW1 (09)	1020 Secs (1020 Secs) [==>]	[3]

Proposal 16791 - STREAMW1 (09) - Cold Dark Matter and the GD-1 Stellar Stream

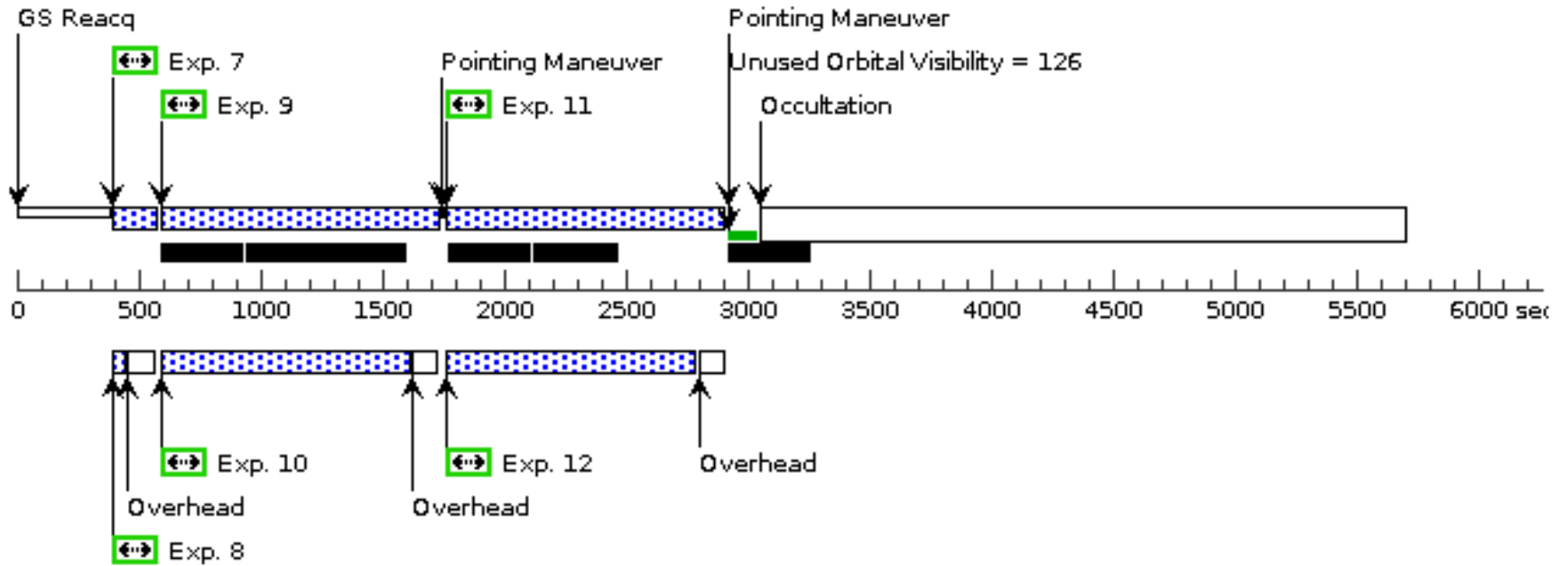
17	(7) STREAMW1	ACS/WFC, ACCUM, WFC	F606W	POS TARG 0.4039,0 .1541	Sequence 13-18 Non-Int in STREAMW1 (09) Prime + Parallel Group 17-18 in Sequence 13-18 Non-Int in STREAMW1 (09)	1020 Secs (1020 Secs) [==>]	[3]
18	ANY	WFC3/UVIS, ACCUM, UVIS	F606W		Sequence 13-18 Non-Int in STREAMW1 (09) Prime + Parallel Group 17-18 in Sequence 13-18 Non-Int in STREAMW1 (09)	1020 Secs (1020 Secs) [==>]	[3]

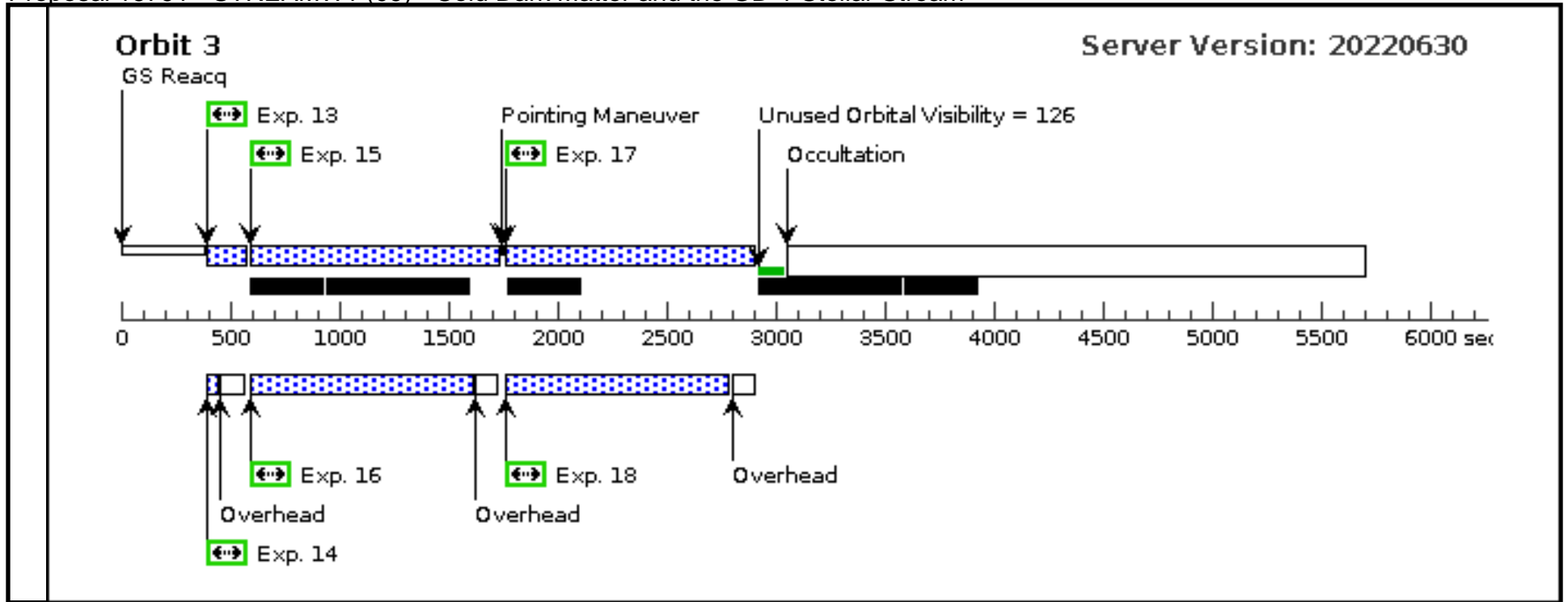
Orbit 1



Orbit Structure

Orbit 2





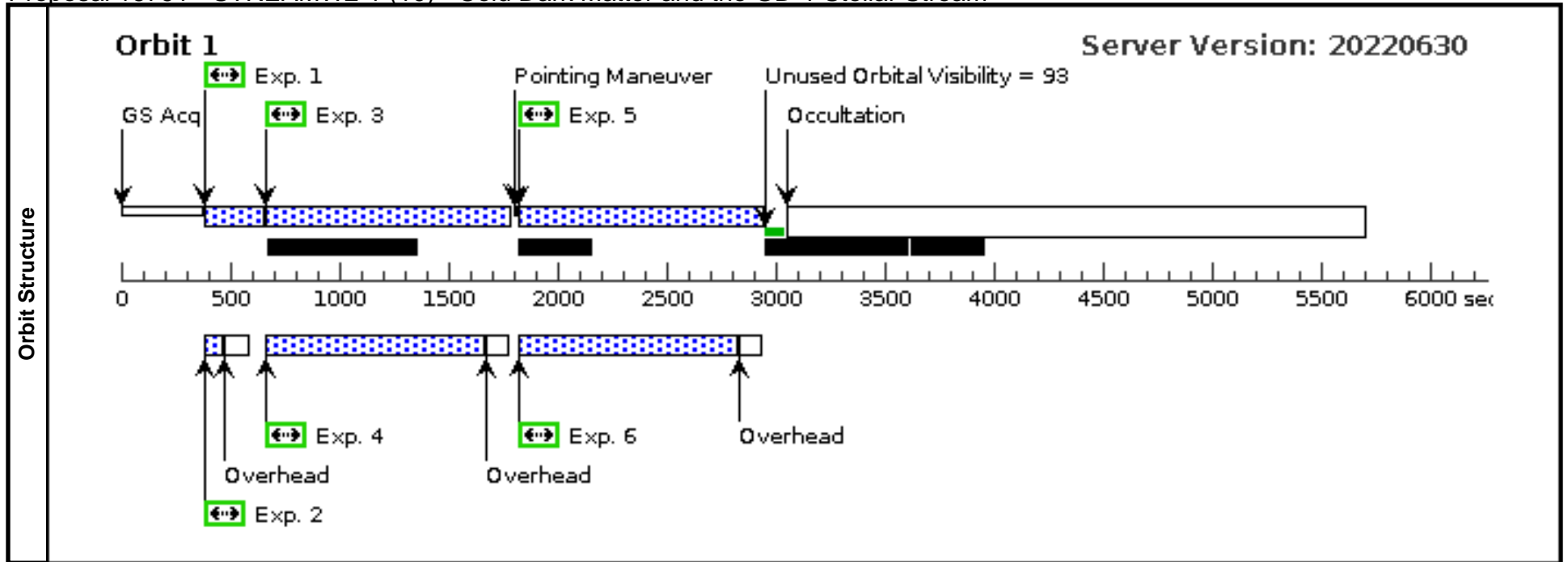
Proposal 16791 - STREAMW2-1 (10) - Cold Dark Matter and the GD-1 Stellar Stream

Wed Aug 09 21:01:01 GMT 2023

Visit	Proposal 16791, STREAMW2-1 (10), completed Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: SCHED 70%; ORIENT 175.46D TO 175.46 D; AFTER 01-AUG-2022:00:00:00; GROUP 10,11,12 WITHIN 15D <i>Comments: This is a single-orbit visit for the STREAMW2 target field. We will observe this field using the F606W filters. We request a specific orient range to match the first-epoch's telescope orientation. Individual exposures will be dithered using a customized dither pattern designed for optimizing pixel-phase coverage via the POS TARG arguments. To fulfill our scientific goals, we require at least 3 years of time baseline as stated in our Phase 1 proposal. Since the first-epoch data for this field were obtained in Feb 2020, we added Timing Requirements of "After 01-AUG-2022:00:00:00".</i>																
	Diagnosics (Parallel Exposure 2 (Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAMW2-1 (10))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser																
Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(8)</td> <td>STREAMW2</td> <td>RA: 09 36 43.8271 (144.1826129d) Dec: +30 17 18.11 (30.28836d) Equinox: J2000</td> <td></td> <td>V=20.0</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table>					#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(8)	STREAMW2	RA: 09 36 43.8271 (144.1826129d) Dec: +30 17 18.11 (30.28836d) Equinox: J2000		V=20.0	Reference Frame: ICRS
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous											
(8)	STREAMW2	RA: 09 36 43.8271 (144.1826129d) Dec: +30 17 18.11 (30.28836d) Equinox: J2000		V=20.0	Reference Frame: ICRS												
<i>Comments:</i> Category=STELLAR CLUSTER Description=[GLOBULAR CLUSTER, TIDAL TAIL] Extended=NO																	

Proposal 16791 - STREAMW2-1 (10) - Cold Dark Matter and the GD-1 Stellar Stream

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(8) STREAMW2	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.0000,0 .0000	Sequence 1-6 Non-Int in STREAMW2-1 (10) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAMW2-1 (10)	50 Secs (50 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 1-6 Non-Int in STREAMW2-1 (10) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAMW2-1 (10)	50 Secs (50 Secs) [==>]	[1]
	3	(8) STREAMW2	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0000,0 .0000	Sequence 1-6 Non-Int in STREAMW2-1 (10) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAMW2-1 (10)	1000 Secs (1000 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAMW2-1 (10) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAMW2-1 (10)	1000 Secs (1000 Secs) [==>]	[1]
	5	(8) STREAMW2	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.1647,0 .0124	Sequence 1-6 Non-Int in STREAMW2-1 (10) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAMW2-1 (10)	1000 Secs (1000 Secs) [==>]	[1]
	6	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAMW2-1 (10) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAMW2-1 (10)	1000 Secs (1000 Secs) [==>]	[1]



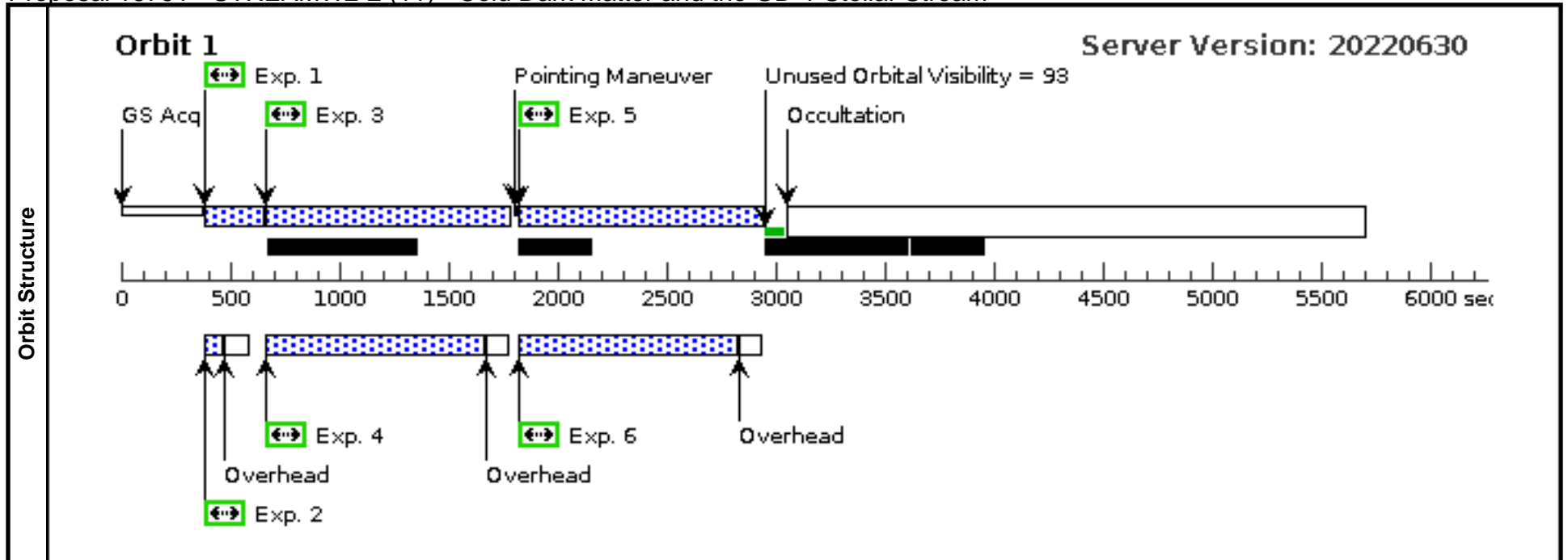
Proposal 16791 - STREAMW2-2 (11) - Cold Dark Matter and the GD-1 Stellar Stream

Wed Aug 09 21:01:01 GMT 2023

Visit	<p>Proposal 16791, STREAMW2-2 (11), completed</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: SCHED 70%; ORIENT 175.46D TO 175.46 D; AFTER 01-AUG-2022:00:00:00; GROUP 11,10,12 WITHIN 15D</p> <p><i>Comments: This is a single-orbit visit for the STREAMW2 target field. We will observe this field using the F606W filters. We request a specific orient range to match the first-epoch's telescope orientation. Individual exposures will be dithered using a customized dither pattern designed for optimizing pixel-phase coverage via the POS TARG arguments. To fulfill our scientific goals, we require at least 3 years of time baseline as stated in our Phase 1 proposal. Since the first-epoch data for this field were obtained in Feb 2020, we added Timing Requirements of "After 01-AUG-2022:00:00:00".</i></p>																	
	Diagnostics	<p>(Parallel Exposure 2 (Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAMW2-2 (11))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p>																
Fixed Targets		<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(8)</td> <td>STREAMW2</td> <td>RA: 09 36 43.8271 (144.1826129d) Dec: +30 17 18.11 (30.28836d) Equinox: J2000</td> <td></td> <td>V=20.0</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments: Category=STELLAR CLUSTER Description=[GLOBULAR CLUSTER, TIDAL TAIL] Extended=NO</i></p>						#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(8)	STREAMW2	RA: 09 36 43.8271 (144.1826129d) Dec: +30 17 18.11 (30.28836d) Equinox: J2000		V=20.0
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous												
(8)	STREAMW2	RA: 09 36 43.8271 (144.1826129d) Dec: +30 17 18.11 (30.28836d) Equinox: J2000		V=20.0	Reference Frame: ICRS													

Proposal 16791 - STREAMW2-2 (11) - Cold Dark Matter and the GD-1 Stellar Stream

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(8) STREAMW2	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.3293,0 .0248	Sequence 1-6 Non-Int in STREAMW2-2 (11) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAMW2-2 (11)	50 Secs (50 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 1-6 Non-Int in STREAMW2-2 (11) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAMW2-2 (11)	50 Secs (50 Secs) [==>]	[1]
	3	(8) STREAMW2	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.3293,0 .0248	Sequence 1-6 Non-Int in STREAMW2-2 (11) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAMW2-2 (11)	1000 Secs (1000 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAMW2-2 (11) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAMW2-2 (11)	1000 Secs (1000 Secs) [==>]	[1]
	5	(8) STREAMW2	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0747,0 .1294	Sequence 1-6 Non-Int in STREAMW2-2 (11) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAMW2-2 (11)	1000 Secs (1000 Secs) [==>]	[1]
	6	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAMW2-2 (11) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAMW2-2 (11)	1000 Secs (1000 Secs) [==>]	[1]



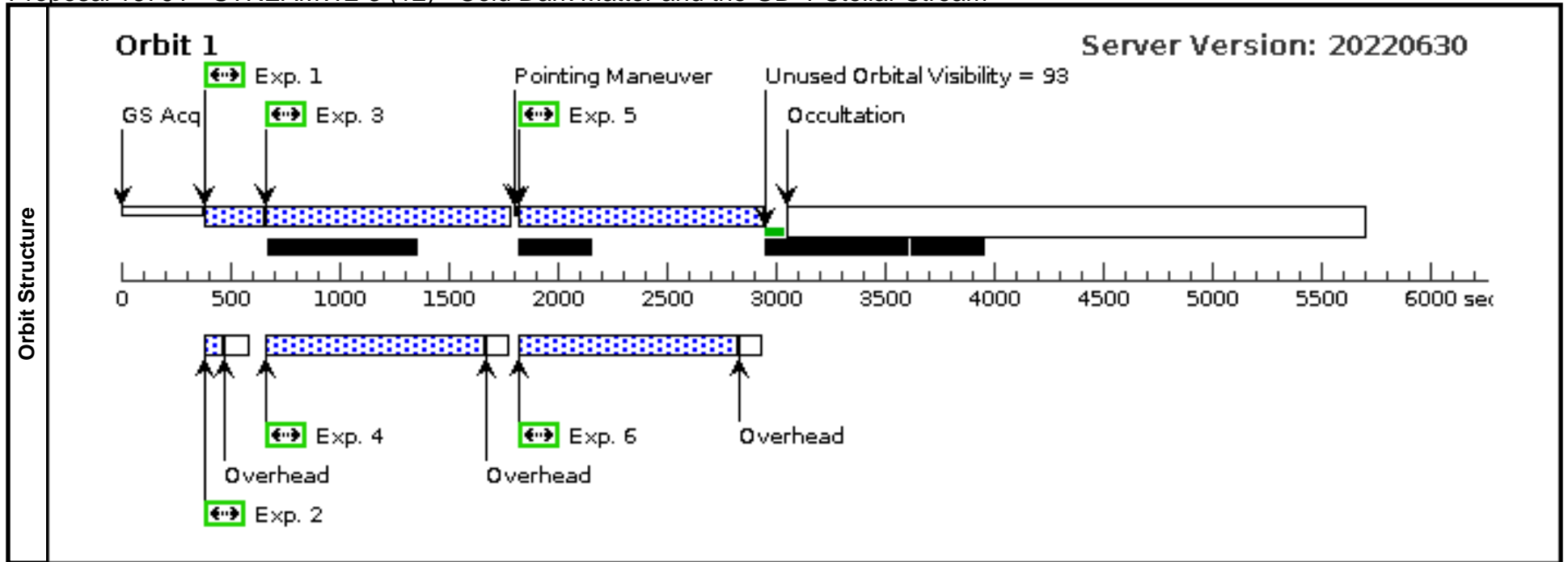
Proposal 16791 - STREAMW2-3 (12) - Cold Dark Matter and the GD-1 Stellar Stream

Wed Aug 09 21:01:01 GMT 2023

Visit	<p>Proposal 16791, STREAMW2-3 (12), completed</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: SCHED 70%; ORIENT 175.46D TO 175.46 D; AFTER 01-AUG-2022:00:00:00; GROUP 12,10,11 WITHIN 15D</p> <p><i>Comments: This is a single-orbit visit for the STREAMW2 target field. We will observe this field using the F606W filters. We request a specific orient range to match the first-epoch's telescope orientation. Individual exposures will be dithered using a customized dither pattern designed for optimizing pixel-phase coverage via the POS TARG arguments. To fulfill our scientific goals, we require at least 3 years of time baseline as stated in our Phase 1 proposal. Since the first-epoch data for this field were obtained in Feb 2020, we added Timing Requirements of "After 01-AUG-2022:00:00:00".</i></p>																	
	Diagnostics	<p>(Parallel Exposure 2 (Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAMW2-3 (12))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p>																
Fixed Targets		<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(8)</td> <td>STREAMW2</td> <td>RA: 09 36 43.8271 (144.1826129d) Dec: +30 17 18.11 (30.28836d) Equinox: J2000</td> <td></td> <td>V=20.0</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments: Category=STELLAR CLUSTER Description=[GLOBULAR CLUSTER, TIDAL TAIL] Extended=NO</i></p>						#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(8)	STREAMW2	RA: 09 36 43.8271 (144.1826129d) Dec: +30 17 18.11 (30.28836d) Equinox: J2000		V=20.0
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous												
(8)	STREAMW2	RA: 09 36 43.8271 (144.1826129d) Dec: +30 17 18.11 (30.28836d) Equinox: J2000		V=20.0	Reference Frame: ICRS													

Proposal 16791 - STREAMW2-3 (12) - Cold Dark Matter and the GD-1 Stellar Stream

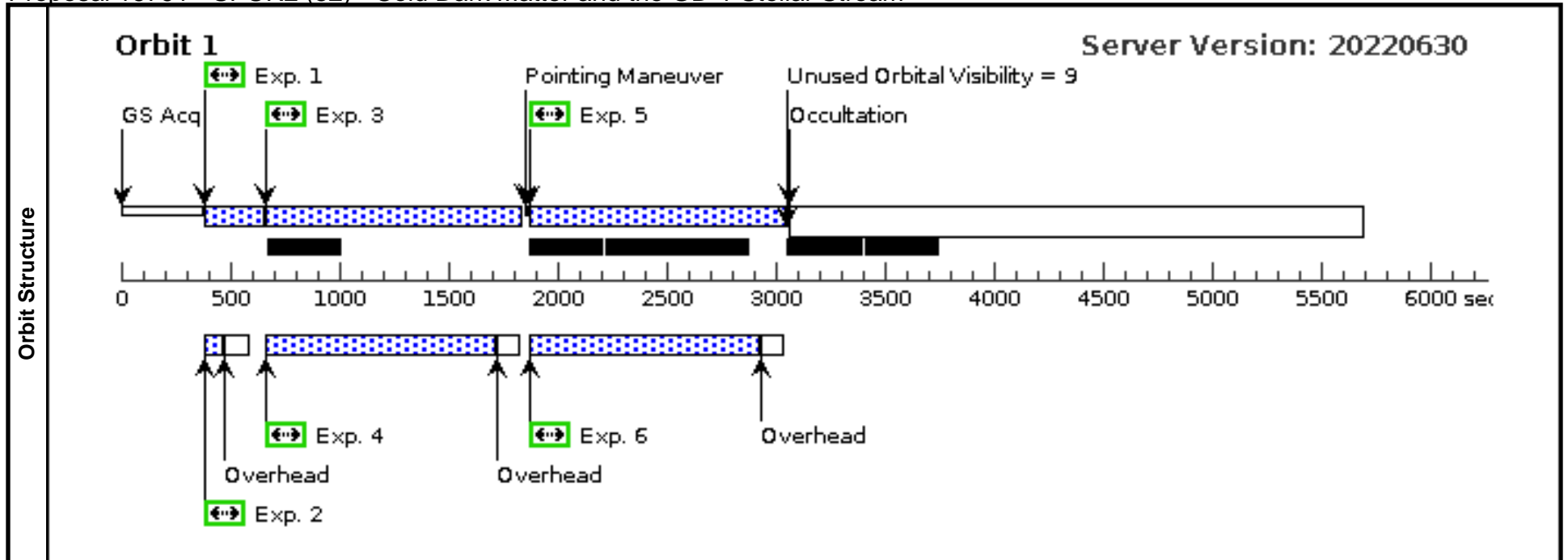
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(8) STREAMW2	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.2393,0 .1418	Sequence 1-6 Non-Int in STREAMW2-3 (12) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAMW2-3 (12)	50 Secs (50 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=10.0		Sequence 1-6 Non-Int in STREAMW2-3 (12) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAMW2-3 (12)	50 Secs (50 Secs) [==>]	[1]
	3	(8) STREAMW2	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.2393,0 .1418	Sequence 1-6 Non-Int in STREAMW2-3 (12) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAMW2-3 (12)	1000 Secs (1000 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAMW2-3 (12) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAMW2-3 (12)	1000 Secs (1000 Secs) [==>]	[1]
	5	(8) STREAMW2	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.4039,0 .1541	Sequence 1-6 Non-Int in STREAMW2-3 (12) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAMW2-3 (12)	1000 Secs (1000 Secs) [==>]	[1]
	6	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAMW2-3 (12) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAMW2-3 (12)	1000 Secs (1000 Secs) [==>]	[1]



Proposal 16791 - SPUR2 (52) - Cold Dark Matter and the GD-1 Stellar Stream

Wed Aug 09 21:01:01 GMT 2023

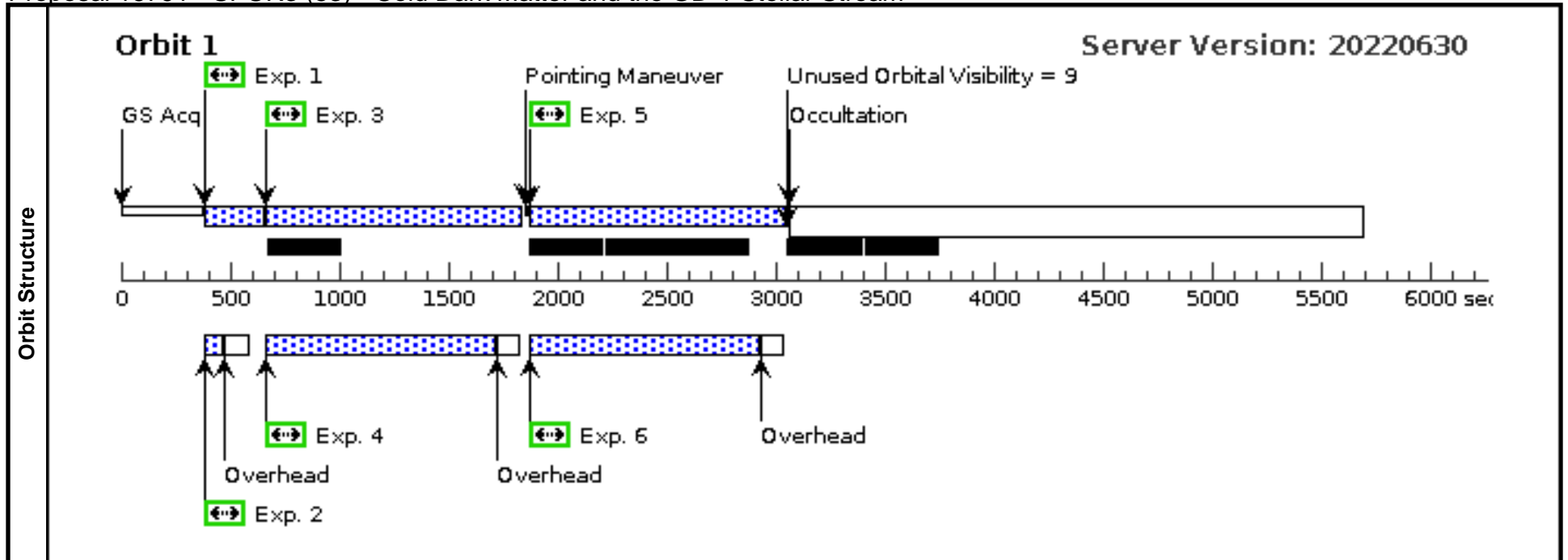
Visit	Proposal 16791, SPUR2 (52) Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: SCHED 70%; ORIENT 183.93D TO 183.93 D <i>Comments: This is a 1-orbit visit for the re-obs of SPUR2 target field. We will observe this field using the F606W filters. We request a specific orient range to match the first-epoch's telescope orientation. Individual exposures will be dithered using a customized dither pattern designed for optimizing pixel-phase coverage via the POS TARG arguments.</i>												
	Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(2)</td> <td>SPUR2</td> <td>RA: 10 15 17.9579 (153.8248246d) Dec: +42 26 36.70 (42.44353d) Equinox: J2000</td> <td></td> <td>V=20.0</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments:</i> Category=STELLAR CLUSTER Description=[GLOBULAR CLUSTER, TIDAL TAIL] Extended=NO</p>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(2)	SPUR2	RA: 10 15 17.9579 (153.8248246d) Dec: +42 26 36.70 (42.44353d) Equinox: J2000		V=20.0
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous								
(2)	SPUR2	RA: 10 15 17.9579 (153.8248246d) Dec: +42 26 36.70 (42.44353d) Equinox: J2000		V=20.0	Reference Frame: ICRS								
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit			
	1		(2) SPUR2	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.0000,0.0000	Sequence 1-6 Non-Int in SPUR2 (52) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in SPUR2 (52)	50 Secs (50 Secs) [==>]	[1]			
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=14		Sequence 1-6 Non-Int in SPUR2 (52) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in SPUR2 (52)	50 Secs (50 Secs) [==>]	[1]			
	3		(2) SPUR2	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0000,0.0000	Sequence 1-6 Non-Int in SPUR2 (52) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in SPUR2 (52)	1050 Secs (1050 Secs) [==>]	[1]			
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in SPUR2 (52) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in SPUR2 (52)	1050 Secs (1050 Secs) [==>]	[1]			
	5		(2) SPUR2	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.1647,0.0124	Sequence 1-6 Non-Int in SPUR2 (52) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in SPUR2 (52)	1050 Secs (1050 Secs) [==>]	[1]			
	6		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in SPUR2 (52) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in SPUR2 (52)	1050 Secs (1050 Secs) [==>]	[1]			



Proposal 16791 - SPUR3 (53) - Cold Dark Matter and the GD-1 Stellar Stream

Wed Aug 09 21:01:01 GMT 2023

Visit	Proposal 16791, SPUR3 (53) Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: SCHED 70%; ORIENT 182.93D TO 182.93 D <i>Comments: This is a 1-orbit visit for the re-obs of SPUR3 target field. We will observe this field using the F606W filters. We request a specific orient range to match the first-epoch's telescope orientation. Individual exposures will be dithered using a customized dither pattern designed for optimizing pixel-phase coverage via the POS TARG arguments.</i>									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(3)	SPUR3	RA: 10 15 35.6103 (153.8983762d) Dec: +42 28 1.36 (42.46704d) Equinox: J2000		V=20.0	Reference Frame: ICRS				
	<i>Comments:</i> Category=STELLAR CLUSTER Description=[GLOBULAR CLUSTER, TIDAL TAIL] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(3) SPUR3	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.0000,0.0000	Sequence 1-6 Non-Int in SPUR3 (53) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in SPUR3 (53)	50 Secs (50 Secs) [==>]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=14		Sequence 1-6 Non-Int in SPUR3 (53) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in SPUR3 (53)	50 Secs (50 Secs) [==>]	[1]
	3		(3) SPUR3	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0000,0.0000	Sequence 1-6 Non-Int in SPUR3 (53) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in SPUR3 (53)	1050 Secs (1050 Secs) [==>]	[1]
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in SPUR3 (53) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in SPUR3 (53)	1050 Secs (1050 Secs) [==>]	[1]
	5		(3) SPUR3	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.1647,0.0124	Sequence 1-6 Non-Int in SPUR3 (53) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in SPUR3 (53)	1050 Secs (1050 Secs) [==>]	[1]
	6		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in SPUR3 (53) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in SPUR3 (53)	1050 Secs (1050 Secs) [==>]	[1]



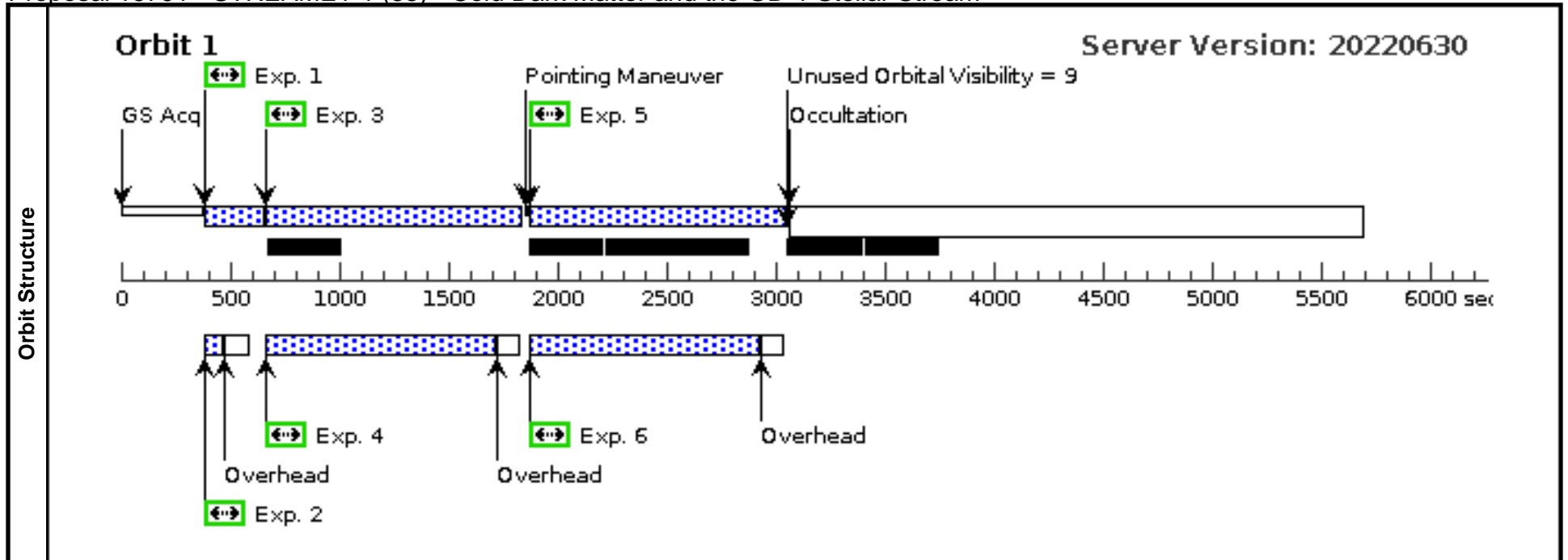
Proposal 16791 - STREAME1-1 (55) - Cold Dark Matter and the GD-1 Stellar Stream

Wed Aug 09 21:01:01 GMT 2023

Visit	<p>Proposal 16791, STREAME1-1 (55)</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: SCHED 70%; ORIENT 185.93D TO 185.93 D</p> <p><i>Comments: This is a 1-orbit visit for the re-obs of STREAME1 target field. We will observe this field using the F606W filters. We request a specific orient range to match the first-epoch's telescope orientation. Individual exposures will be dithered using a customized dither pattern designed for optimizing pixel-phase coverage via the POS TARG arguments.</i></p>					
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
	(5)	STREAME1	RA: 10 23 28.9979 (155.8708246d) Dec: +42 10 53.66 (42.18157d) Equinox: J2000		V=20.0	Reference Frame: ICRS
	<p><i>Comments:</i></p> <p><i>Category=STELLAR CLUSTER</i></p> <p><i>Description=[GLOBULAR CLUSTER, TIDAL TAIL]</i></p> <p><i>Extended=NO</i></p>					

Proposal 16791 - STREAME1-1 (55) - Cold Dark Matter and the GD-1 Stellar Stream

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(5) STREAME1	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.0000,0 .0000	Sequence 1-6 Non-Int in STREAME1-1 (55) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAME1-1 (55)	50 Secs (50 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=14		Sequence 1-6 Non-Int in STREAME1-1 (55) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAME1-1 (55)	50 Secs (50 Secs) [==>]	[1]
	3	(5) STREAME1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0000,0 .0000	Sequence 1-6 Non-Int in STREAME1-1 (55) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAME1-1 (55)	1050 Secs (1050 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAME1-1 (55) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAME1-1 (55)	1050 Secs (1050 Secs) [==>]	[1]
	5	(5) STREAME1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.1647,0 .0124	Sequence 1-6 Non-Int in STREAME1-1 (55) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAME1-1 (55)	1050 Secs (1050 Secs) [==>]	[1]
	6	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAME1-1 (55) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAME1-1 (55)	1050 Secs (1050 Secs) [==>]	[1]



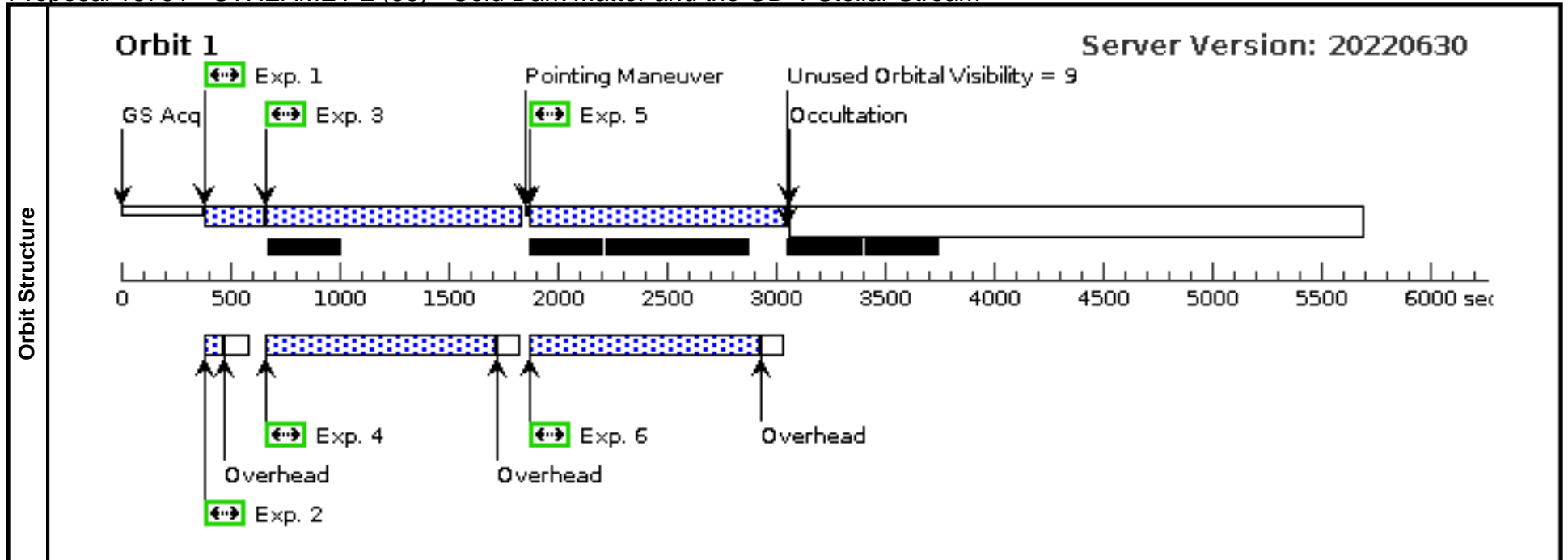
Proposal 16791 - STREAME1-2 (56) - Cold Dark Matter and the GD-1 Stellar Stream

Wed Aug 09 21:01:01 GMT 2023

Visit	<p>Proposal 16791, STREAME1-2 (56)</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: SCHED 70%; ORIENT 185.93D TO 185.93 D</p> <p><i>Comments: This is a 1-orbit visit for the re-obs of STREAME1 target field. We will observe this field using the F606W filters. We request a specific orient range to match the first-epoch's telescope orientation. Individual exposures will be dithered using a customized dither pattern designed for optimizing pixel-phase coverage via the POS TARG arguments.</i></p>					
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
	(5)	STREAME1	RA: 10 23 28.9979 (155.8708246d) Dec: +42 10 53.66 (42.18157d) Equinox: J2000		V=20.0	Reference Frame: ICRS
	<p><i>Comments:</i></p> <p><i>Category=STELLAR CLUSTER</i></p> <p><i>Description=[GLOBULAR CLUSTER, TIDAL TAIL]</i></p> <p><i>Extended=NO</i></p>					

Proposal 16791 - STREAME1-2 (56) - Cold Dark Matter and the GD-1 Stellar Stream

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(5) STREAME1	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.3293,0 .0248	Sequence 1-6 Non-Int in STREAME1-2 (56) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAME1-2 (56)	50 Secs (50 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=14		Sequence 1-6 Non-Int in STREAME1-2 (56) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAME1-2 (56)	50 Secs (50 Secs) [==>]	[1]
	3	(5) STREAME1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.3293,0 .0248	Sequence 1-6 Non-Int in STREAME1-2 (56) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAME1-2 (56)	1050 Secs (1050 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAME1-2 (56) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAME1-2 (56)	1050 Secs (1050 Secs) [==>]	[1]
	5	(5) STREAME1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0747,0 .1294	Sequence 1-6 Non-Int in STREAME1-2 (56) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAME1-2 (56)	1050 Secs (1050 Secs) [==>]	[1]
	6	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAME1-2 (56) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAME1-2 (56)	1050 Secs (1050 Secs) [==>]	[1]



Proposal 16791 - STREAMW1 (59) - Cold Dark Matter and the GD-1 Stellar Stream

Wed Aug 09 21:01:01 GMT 2023

Visit	<p>Proposal 16791, STREAMW1 (59)</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: SCHED 70%; ORIENT 169.8D TO 170.96 D</p> <p><i>Comments: This is a 3-orbit visit for the re-obs of STREAMW1 target field. We will observe this field using the F606W filters. We request a specific orient range to match the first-epoch's telescope orientation. Individual exposures will be dithered using a customized dither pattern designed for optimizing pixel-phase coverage via the POS TARG arguments.</i></p>					
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
	(7)	STREAMW1	RA: 09 36 59.0668 (144.2461117d) Dec: +30 16 20.36 (30.27232d) Equinox: J2000		V=20.0	Reference Frame: ICRS
	<p><i>Comments:</i></p> <p><i>Category=STELLAR CLUSTER</i></p> <p><i>Description=[GLOBULAR CLUSTER, TIDAL TAIL]</i></p> <p><i>Extended=NO</i></p>					

Proposal 16791 - STREAMW1 (59) - Cold Dark Matter and the GD-1 Stellar Stream

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(7) STREAMW1	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.0000,0.0000	Sequence 1-6 Non-Int in STREAMW1 (59) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAMW1 (59)	50 Secs (50 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=14		Sequence 1-6 Non-Int in STREAMW1 (59) Prime + Parallel Group 1-2 in Sequence 1-6 Non-Int in STREAMW1 (59)	50 Secs (50 Secs) [==>]	[1]
	3	(7) STREAMW1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0000,0.0000	Sequence 1-6 Non-Int in STREAMW1 (59) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAMW1 (59)	1045 Secs (1045 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAMW1 (59) Prime + Parallel Group 3-4 in Sequence 1-6 Non-Int in STREAMW1 (59)	1045 Secs (1045 Secs) [==>]	[1]
	5	(7) STREAMW1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.1647,0.0124	Sequence 1-6 Non-Int in STREAMW1 (59) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAMW1 (59)	1045 Secs (1045 Secs) [==>]	[1]
	6	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 1-6 Non-Int in STREAMW1 (59) Prime + Parallel Group 5-6 in Sequence 1-6 Non-Int in STREAMW1 (59)	1045 Secs (1045 Secs) [==>]	[1]
	7	(7) STREAMW1	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.3293,0.0248	Sequence 7-12 Non-Int in STREAMW1 (59) Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in STREAMW1 (59)	50 Secs (50 Secs) [==>]	[2]
	8	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=14		Sequence 7-12 Non-Int in STREAMW1 (59) Prime + Parallel Group 7-8 in Sequence 7-12 Non-Int in STREAMW1 (59)	50 Secs (50 Secs) [==>]	[2]

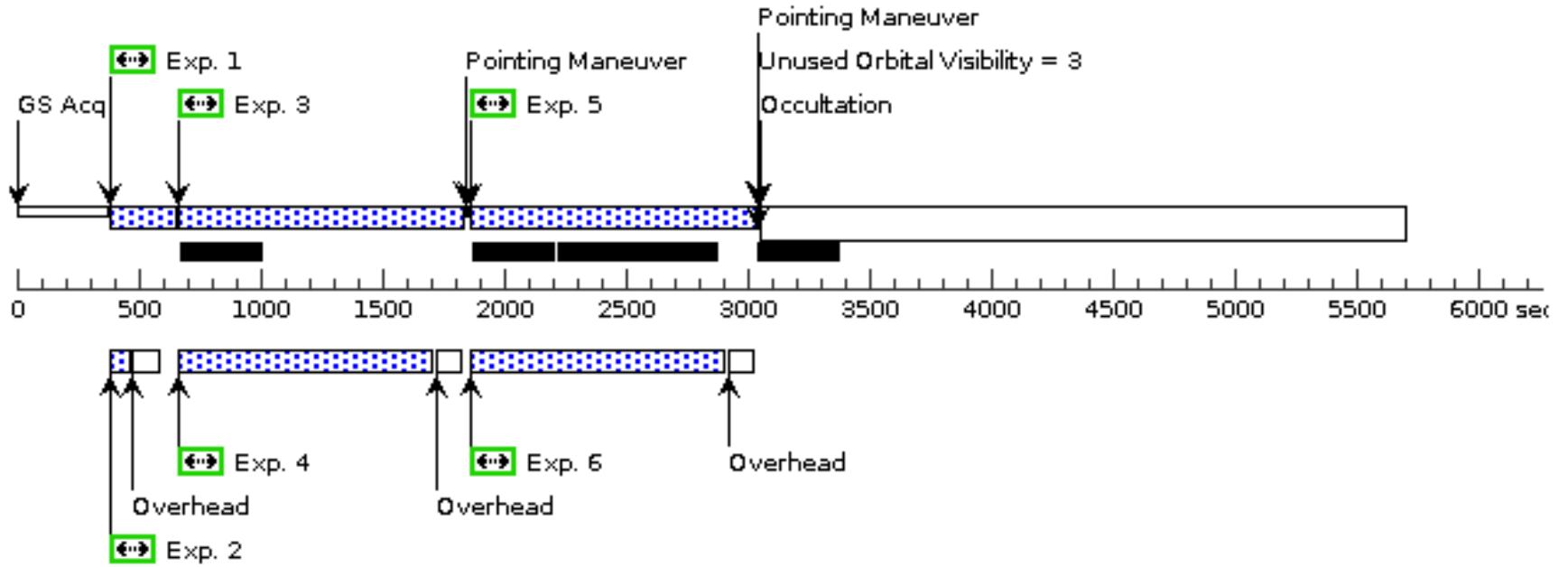
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9	(7) STREAMW1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.3293,0 .0248	Sequence 7-12 Non-Int in STREAMW1 (59) Prime + Parallel Group 9-10 in Sequence 7-12 Non-Int in STREAMW1 (59)	1050 Secs (1050 Secs) [==>]	[2]
10	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 7-12 Non-Int in STREAMW1 (59) Prime + Parallel Group 9-10 in Sequence 7-12 Non-Int in STREAMW1 (59)	1050 Secs (1050 Secs) [==>]	[2]
11	(7) STREAMW1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0747,0 .1294	Sequence 7-12 Non-Int in STREAMW1 (59) Prime + Parallel Group 11-12 in Sequence 7-12 Non-Int in STREAMW1 (59)	1050 Secs (1050 Secs) [==>]	[2]
12	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 7-12 Non-Int in STREAMW1 (59) Prime + Parallel Group 11-12 in Sequence 7-12 Non-Int in STREAMW1 (59)	1050 Secs (1050 Secs) [==>]	[2]
13	(7) STREAMW1	ACS/WFC, ACCUM, WFC	F606W	FLASH=23	POS TARG 0.2393,0 .1418	Sequence 13-18 Non-Int in STREAMW1 (59) Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in STREAMW1 (59)	50 Secs (50 Secs) [==>]	[3]
14	ANY	WFC3/UVIS, ACCUM, UVIS	F606W	FLASH=14		Sequence 13-18 Non-Int in STREAMW1 (59) Prime + Parallel Group 13-14 in Sequence 13-18 Non-Int in STREAMW1 (59)	50 Secs (50 Secs) [==>]	[3]
15	(7) STREAMW1	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.2393,0 .1418	Sequence 13-18 Non-Int in STREAMW1 (59) Prime + Parallel Group 15-16 in Sequence 13-18 Non-Int in STREAMW1 (59)	1050 Secs (1050 Secs) [==>]	[3]
16	ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Sequence 13-18 Non-Int in STREAMW1 (59) Prime + Parallel Group 15-16 in Sequence 13-18 Non-Int in STREAMW1 (59)	1050 Secs (1050 Secs) [==>]	[3]

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17	(7) STREAMW1	ACS/WFC, ACCUM, WFC	F606W	POS TARG 0.4039,0 .1541	Sequence 13-18 Non-Int in STREAMW1 (59) Prime + Parallel Group 17-18 in Sequence 13-18 Non-Int in STREAMW1 (59)	1050 Secs (1050 Secs) [==>]	[3]
18	ANY	WFC3/UVIS, ACCUM, UVIS	F606W		Sequence 13-18 Non-Int in STREAMW1 (59) Prime + Parallel Group 17-18 in Sequence 13-18 Non-Int in STREAMW1 (59)	1050 Secs (1050 Secs) [==>]	[3]

Orbit 1



Orbit Structure

Orbit 2

