



15087 - Star Cluster Populations of Interacting Dwarf Galaxies

Cycle: 25, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
Dr. Sabrina Stierwalt (PI) (Contact)	California Institute of Technology	sabrina.stierwalt@gmail.com
Dr. Gurtina Besla (CoI)	University of Arizona	gbesla@email.arizona.edu
Prof. Kelsey E. Johnson (CoI)	The University of Virginia	kej7a@virginia.edu
Ms. Sandra Liss (CoI)	The University of Virginia	sel7pa@virginia.edu
Dr. David Patton (CoI) (CSA Member)	Trent University	dpatton@trentu.ca
Dr. George Privon (CoI)	University of Florida	george.privon@ufl.edu
Prof. Mary E. Putman (CoI)	Columbia University in the City of New York	mputman@astro.columbia.edu

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) INTERACTING-GAL-164711+210529	WFC3/UVIS	2	31-May-2018 20:00:26.0	yes
13	(1) INTERACTING-GAL-164711+210529	WFC3/UVIS	2	31-May-2018 20:00:28.0	yes
03	(2) INTERACTING-GAL-152927+260003	WFC3/UVIS	2	31-May-2018 20:00:31.0	yes
16	(8) INTERACTING-GAL-144950+362425	WFC3/UVIS	2	31-May-2018 20:00:33.0	yes
05	(4) INTERACTING-GAL-122532+501959	WFC3/UVIS	2	31-May-2018 20:00:35.0	yes
14	(4) INTERACTING-GAL-122532+501959	WFC3/UVIS	2	31-May-2018 20:00:37.0	yes

<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>
08	(5) INTERACTING-GAL-123745+181653	WFC3/UVIS	2	31-May-2018 20:00:39.0	yes
15	(5) INTERACTING-GAL-123745+181653	WFC3/UVIS	2	31-May-2018 20:00:42.0	yes
10	(6) GAL-222742-094337	WFC3/UVIS	2	31-May-2018 20:00:44.0	yes
11	(7) GAL-222731-093954	WFC3/UVIS	2	31-May-2018 20:00:46.0	yes

20 Total Orbits Used

ABSTRACT

We propose high spatial resolution optical, UV, and narrowband Ha imaging of 6 nearby pairs of dwarf galaxies with enhanced star formation likely driven by a dwarf-dwarf interaction. Dwarf-dwarf interactions dominate galaxy interactions at all redshifts, making this environment essential to our understanding of galaxy assembly and star formation throughout the universe. However, little is known about how galaxy mergers proceed at low mass. The high resolution observations proposed here will resolve individual star clusters (a goal not currently possible from the ground) to explore the role of tidal interactions in triggering clumpy star formation and in promoting the formation of massive star clusters in low metallicity environments. This mode of cluster formation was likely dominant during early galaxy assembly, and the extent to which star formation is clumped is predicted to play a role in the extent to which feedback impacts the interstellar medium. Our sample of isolated dwarf-dwarf interactions offers the only opportunity for a high resolution view of this mode of cluster formation outside the influence of a massive galaxy host.

OBSERVING DESCRIPTION

We aim to obtain WFC3/UVIS broadband optical (F621M and F814W), UV (F336W), and narrowband (F665N) imaging for 6 interacting dwarf pairs to resolve individual star clusters and thus determine accurate ages, masses, and distributions. The medium-band F621M images will be used to subtract the continuum to measure Ha fluxes from the (redshifted) narrowband F665N images, in addition to providing an additional data point on the SED. One WFC3/UVIS field of view can be used to observe both dwarfs simultaneously for 5 of the 6 target pairs, but the remaining pair will require two fields of view.

To detect clusters of $M_{\text{star}} \sim 10^4 M_{\text{sun}}$ as old as 100 Myr at the distance of our pairs (20-40 Mpc), we set our sensitivity requirement using the magnitudes predicted for clusters of that mass and age by Starburst99 models. Starburst99 predicts an absolute V band magnitude of -10.5. To achieve S/N ratios of 40-50 for this magnitude, the ETC determines that we can reach this level of sensitivity in ~25, 9, 4, and 4 minutes of

Proposal 15087 (STScI Edit Number: 1, Created: Thursday, May 31, 2018 7:00:47 PM EST) - Overview

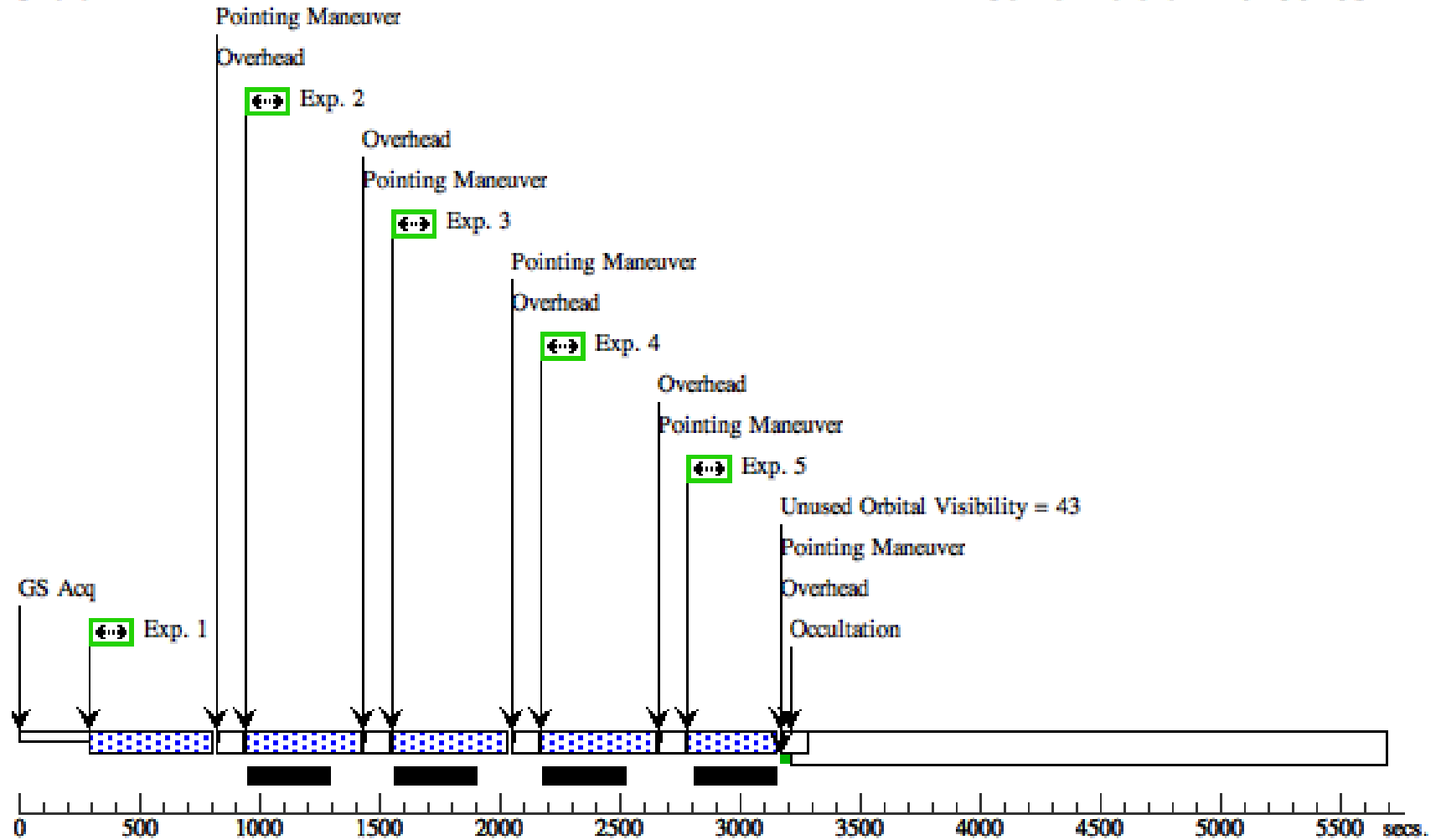
integration time in the Ha (F665N), U (F336W), mediumband (F621M), and I (F814W) broadband respectively at a distance of 20 Mpc which we then scale to the distances of our dwarf pairs.

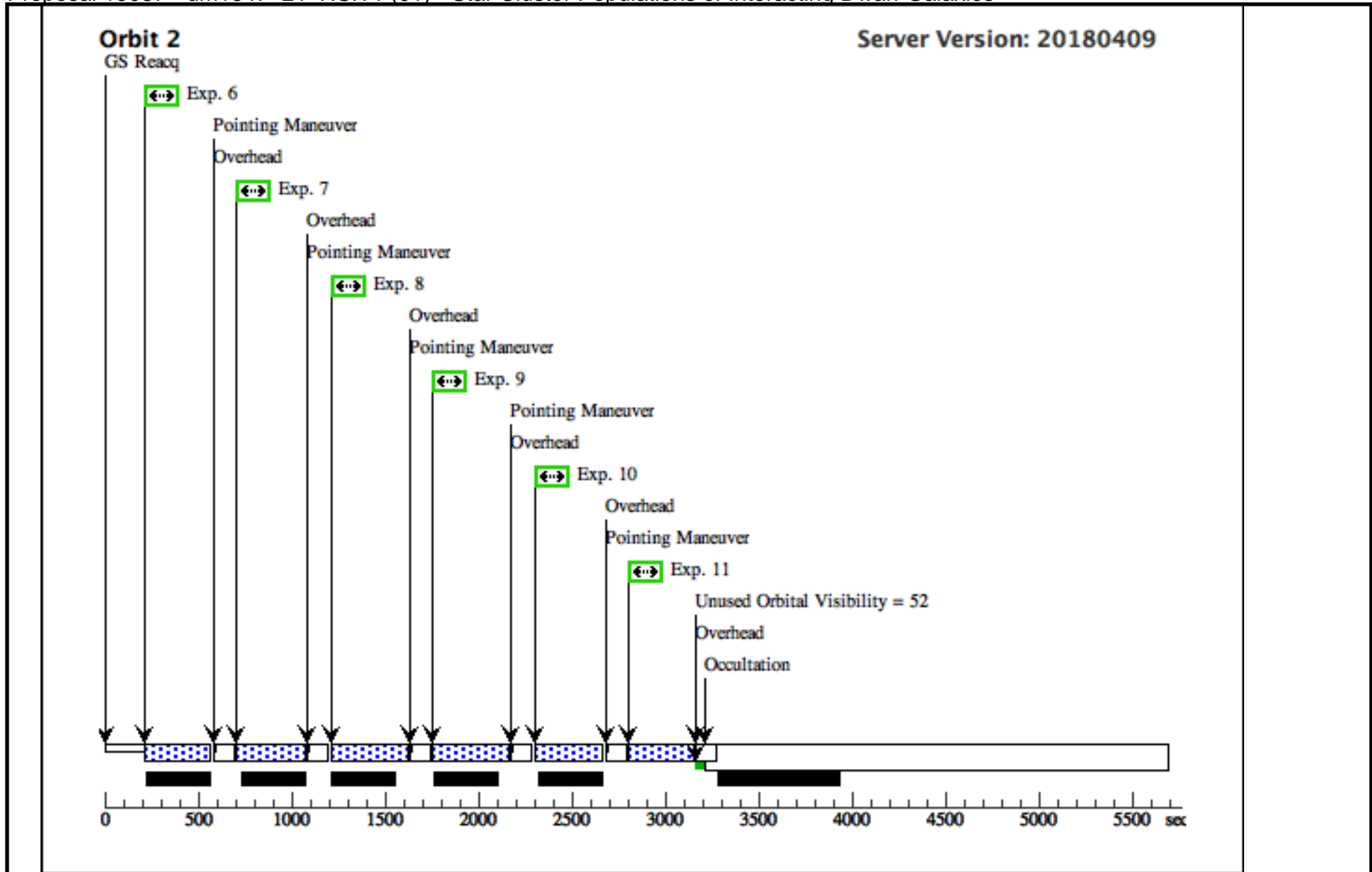
By combining the narrowband Ha and broadband I observations into one orbit (per individual dwarf or dwarf pair) and by combining the broadband U and mediumband optical observations into a second orbit, we have 10-15 minutes remaining per orbit for overhead (including an estimate of 6 minutes to acquire and an additional 0.5 minutes per dither).

To make our program as efficient as possible, we place no constraints on the timing or the roll angle of the observations. These are not coordinated observations.

Orbit 1

Orbit Structure



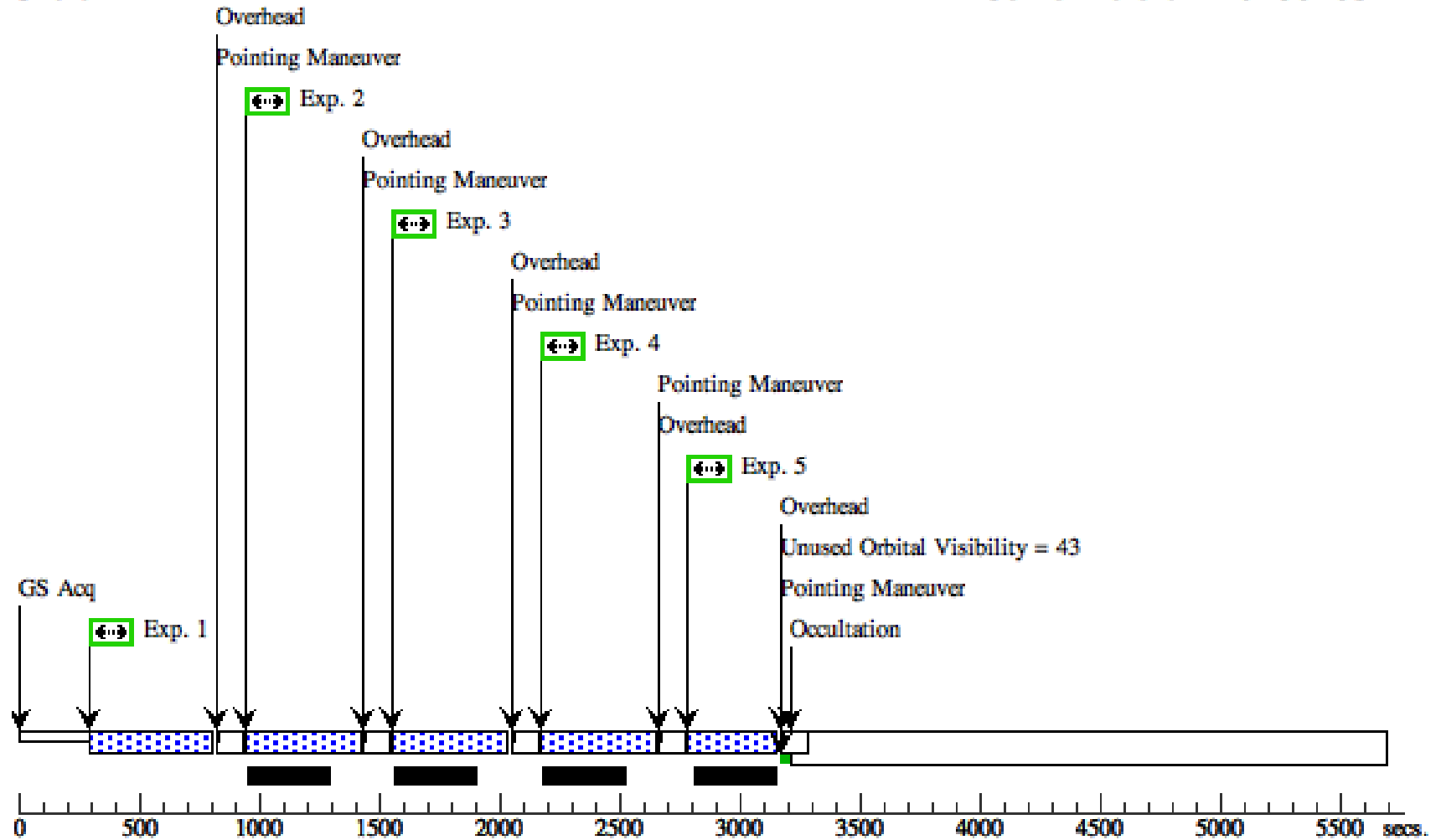


Proposal 15087 - dm1647+21-VISIT2 (13) - Star Cluster Populations of Interacting Dwarf Galaxies

Fri Jun 01 00:00:48 GMT 2018

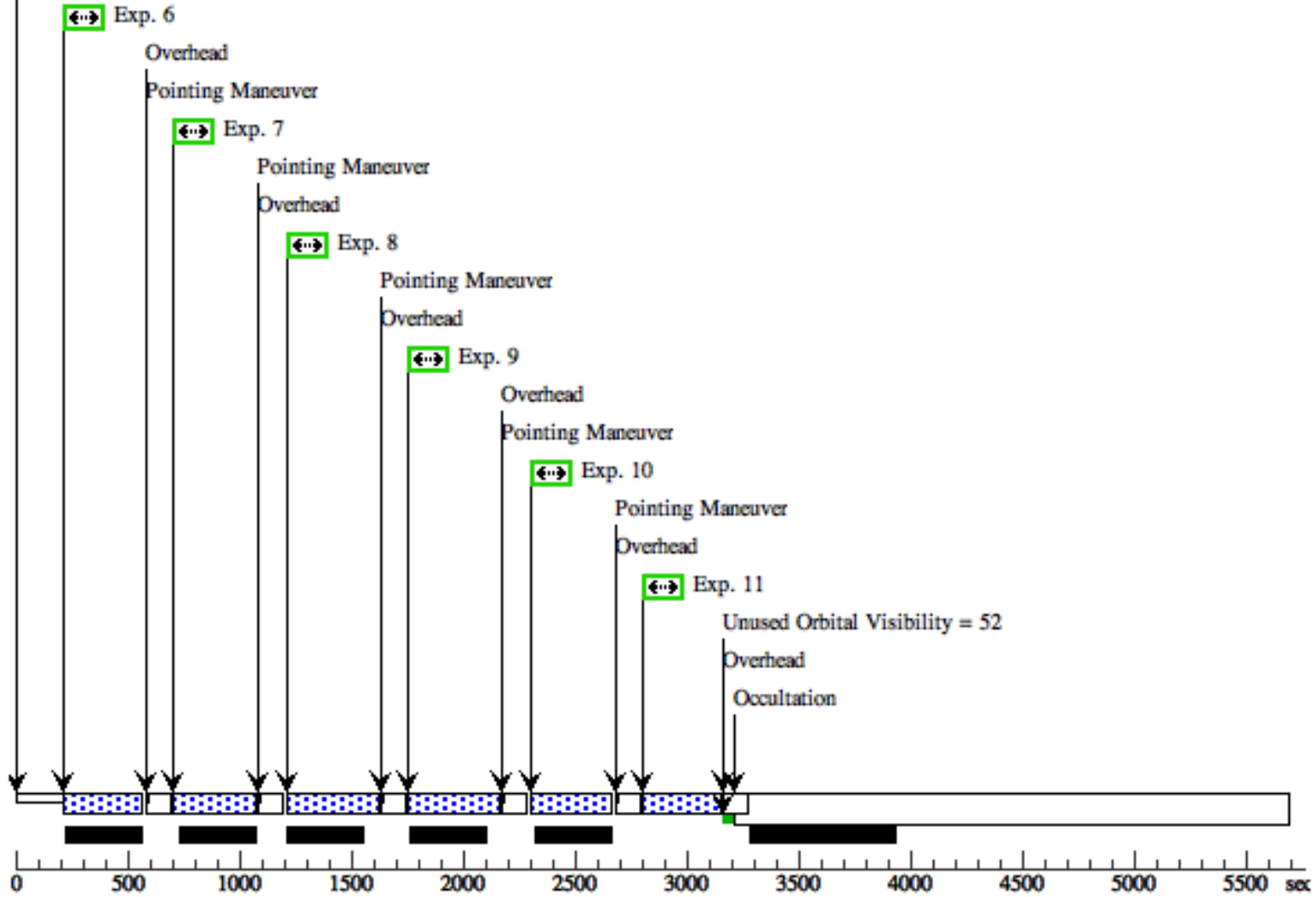
Visit	Proposal 15087, dm1647+21-VISIT2 (13), scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SAME ORIENT AS 01 <i>Comments: We aim to image the pair of merging dwarf galaxies that fit into one chip (UVIS2). We opt for a C4 (4-point) dither pattern for the longest exposure in filter F665N, a WFC3-UVIS-DITHER-LINE-3PT (3-point) dither pattern for the medium length exposure in filter F336W, and a WFC3-UVIS-DITHER-LINE (2-point) dither pattern for the shortest length exposures in filters F621M and F814W to minimize overhead. The merging system fits easily within the chip so all orientation angles are acceptable.</i>									
	Fixed Targets	# Name Target Coordinates Targ. Coord. Corrections Fluxes Miscellaneous (1) INTERACTING-GAL- RA: 16 47 11.0251 (251.7959379d) V=17.0+/-0.5 Reference Frame: ICRS 164711+210529 Dec: +21 05 35.68 (21.09324d) Equinox: J2000 <i>Comments:</i> Category=GALAXY Description=[AMORPHOUS IRREGULAR, INTERACTING GALAXY, STAR FORMING REGION]								
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	dm1647+21-VISIT2-F665N	(1) INTERACTING-GAL-164711+210529	WFC3/UVIS, ACCUM, UVIS2	F665N	FLASH=12	POS TARG 0.000,0.000		480 Secs (480 Secs) [==>]	[1]
	2	dm1647+21-VISIT2-F665N	(1) INTERACTING-GAL-164711+210529	WFC3/UVIS, ACCUM, UVIS2	F665N	FLASH=12	POS TARG 0.158,0.070		480 Secs (480 Secs) [==>]	[1]
	3	dm1647+21-VISIT2-F665N	(1) INTERACTING-GAL-164711+210529	WFC3/UVIS, ACCUM, UVIS2	F665N	FLASH=12	POS TARG 0.099,0.165		480 Secs (480 Secs) [==>]	[1]
	4	dm1647+21-VISIT2-F665N	(1) INTERACTING-GAL-164711+210529	WFC3/UVIS, ACCUM, UVIS2	F665N	FLASH=12	POS TARG -0.060,0.095		480 Secs (480 Secs) [==>]	[1]
	5	dm1647+21-VISIT2-F814W	(1) INTERACTING-GAL-164711+210529	WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=6	POS TARG 0.000,0.000		350 Secs (350 Secs) [==>]	[1]
	6	dm1647+21-VISIT2-F814W	(1) INTERACTING-GAL-164711+210529	WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=6	POS TARG 0.474,0.424		350 Secs (350 Secs) [==>]	[2]
	7	dm1647+21-VISIT2-F336W	(1) INTERACTING-GAL-164711+210529	WFC3/UVIS, ACCUM, UVIS2	F336W	FLASH=12	POS TARG 0.000,0.000		350 Secs (350 Secs) [==>]	[2]
	8	dm1647+21-VISIT2-F336W	(1) INTERACTING-GAL-164711+210529	WFC3/UVIS, ACCUM, UVIS2	F336W	FLASH=12	POS TARG 0.092,0.098		410 Secs (410 Secs) [==>]	[2]
	9	dm1647+21-VISIT2-F336W	(1) INTERACTING-GAL-164711+210529	WFC3/UVIS, ACCUM, UVIS2	F336W	FLASH=12	POS TARG 0.185,0.197		410 Secs (410 Secs) [==>]	[2]
	10	dm1647+21-VISIT2-F621M	(1) INTERACTING-GAL-164711+210529	WFC3/UVIS, ACCUM, UVIS2	F621M	FLASH=10	SAME POS AS 5		350 Secs (350 Secs) [==>]	[2]
	11	dm1647+21-VISIT2-F621M	(1) INTERACTING-GAL-164711+210529	WFC3/UVIS, ACCUM, UVIS2	F621M	FLASH=10	SAME POS AS 6		350 Secs (350 Secs) [==>]	[2]

Orbit Structure



Orbit 2

GS Reacq

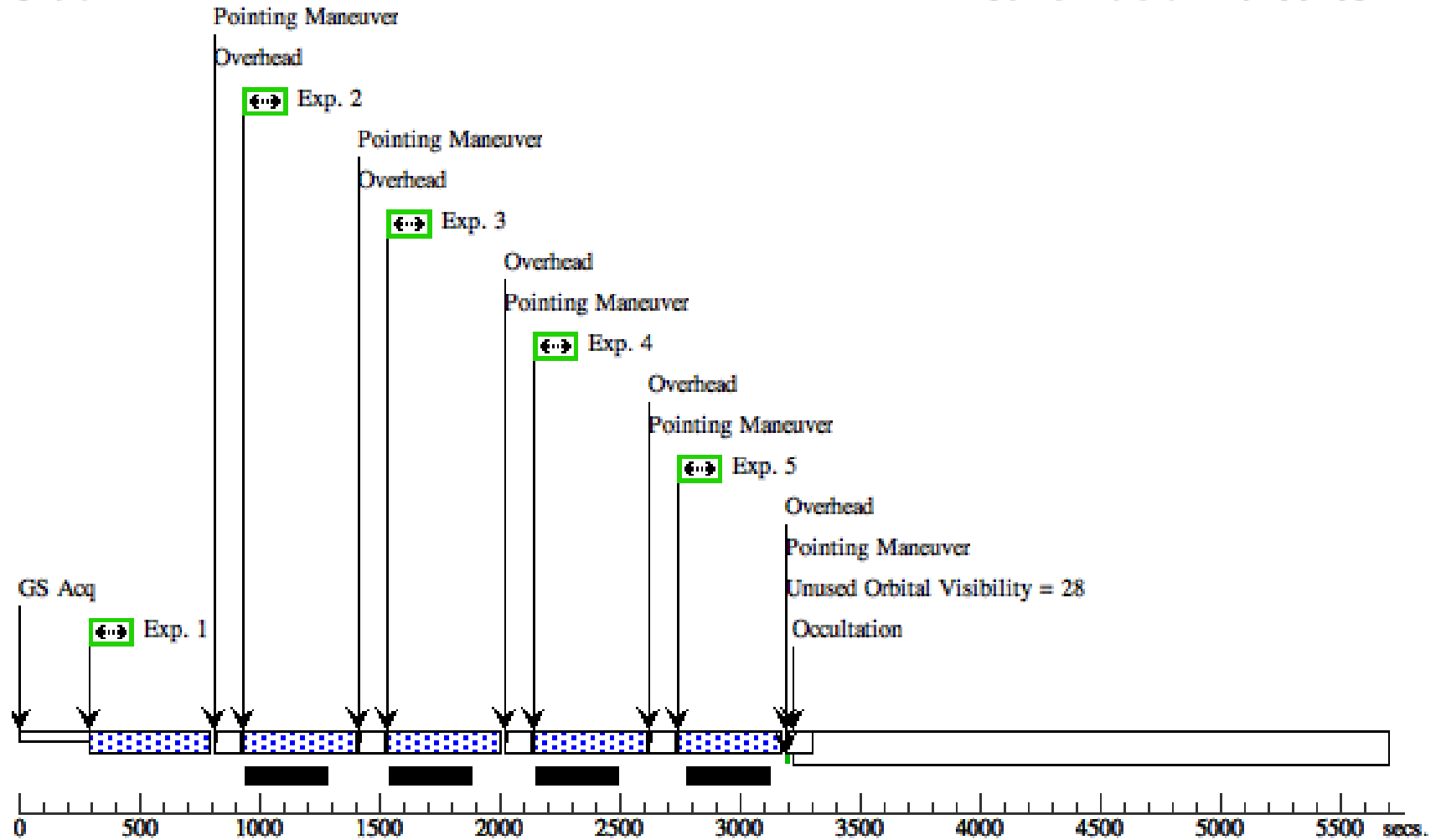


Proposal 15087 - dm1529+26 (03) - Star Cluster Populations of Interacting Dwarf Galaxies

Fri Jun 01 00:00:48 GMT 2018

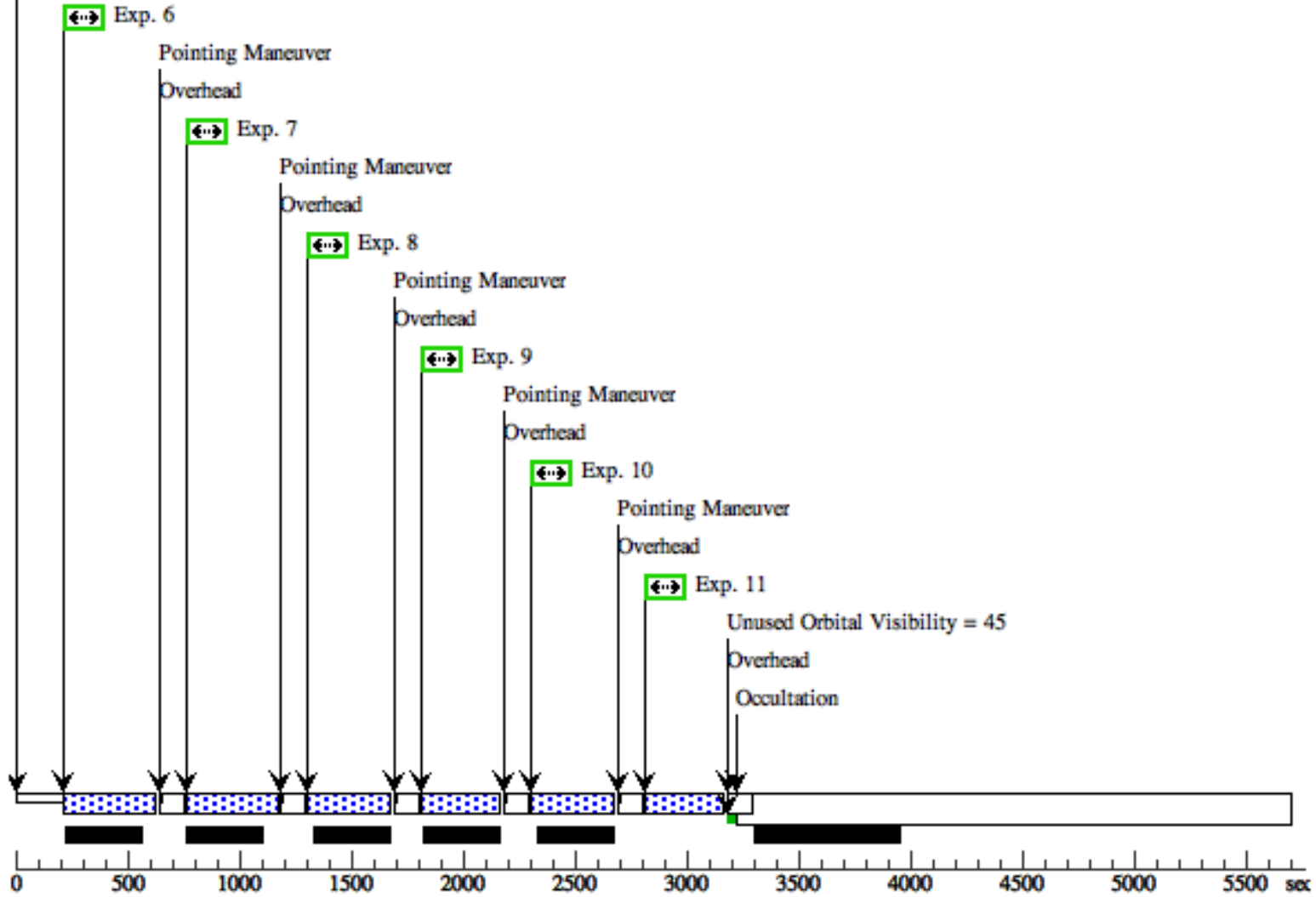
Visit	Proposal 15087, dm1529+26 (03), scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: ORIENT 330D TO 42 D; ORIENT 114D TO 121 D; ORIENT 173D TO 242 D <i>Comments: We aim to image the pair of dwarf galaxies that span both chips. We opt for a B4 (4-point) dither pattern for the longest exposure in filter F665N, a WFC3-UVIS-DITHER-LINE-3PT (3-point) dither pattern for the medium length exposure in filter F336W, and a WFC3-UVIS-DITHER-LINE (2-point) dither pattern for the shortest length exposures in filters F621M and F814W to minimize overhead. At some orient angles, the chip gap falls across either of our pair members so we avoid those.</i>									
	Fixed Targets	# Name Target Coordinates Targ. Coord. Corrections Fluxes Miscellaneous (2) INTERACTING-GAL-152927+260003 RA: 15 29 26.9192 (232.3621633d) Dec: +25 59 55.99 (25.99889d) Equinox: J2000 V=16.4+/-0.5 Reference Frame: ICRS Comments: Category=GALAXY Description=[AMORPHOUS IRREGULAR, INTERACTING GALAXY, STAR FORMING REGION]								
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	dm1529+26-F665N	(2) INTERACTING-GAL-152927+260003	WFC3/UVIS, ACCUM, UVIS	F665N	FLASH=12	POS TARG 0.000,0.000		470 Secs (470 Secs) [==>]	[1]
	2	dm1529+26-F665N	(2) INTERACTING-GAL-152927+260003	WFC3/UVIS, ACCUM, UVIS	F665N	FLASH=12	POS TARG 0.099,0.066		470 Secs (470 Secs) [==>]	[1]
	3	dm1529+26-F665N	(2) INTERACTING-GAL-152927+260003	WFC3/UVIS, ACCUM, UVIS	F665N	FLASH=12	POS TARG 1.790,1.927		470 Secs (470 Secs) [==>]	[1]
	4	dm1529+26-F665N	(2) INTERACTING-GAL-152927+260003	WFC3/UVIS, ACCUM, UVIS	F665N	FLASH=12	POS TARG 1.889,1.993		470 Secs (470 Secs) [==>]	[1]
	5	dm1529+26-F336W	(2) INTERACTING-GAL-152927+260003	WFC3/UVIS, ACCUM, UVIS	F336W	FLASH=12	POS TARG 0.000,0.000		410 Secs (410 Secs) [==>]	[1]
	6	dm1529+26-F336W	(2) INTERACTING-GAL-152927+260003	WFC3/UVIS, ACCUM, UVIS	F336W	FLASH=12	POS TARG 1.795,1.913		410 Secs (410 Secs) [==>]	[2]
	7	dm1529+26-F336W	(2) INTERACTING-GAL-152927+260003	WFC3/UVIS, ACCUM, UVIS	F336W	FLASH=12	POS TARG 3.590,3.826		410 Secs (410 Secs) [==>]	[2]
	8	dm1529+26-F814W	(2) INTERACTING-GAL-152927+260003	WFC3/UVIS, ACCUM, UVIS	F814W	FLASH=6	POS TARG 0.000,0.000		355 Secs (355 Secs) [==>]	[2]
	9	dm1529+26-F814W	(2) INTERACTING-GAL-152927+260003	WFC3/UVIS, ACCUM, UVIS	F814W	FLASH=6	POS TARG 1.802,1.920		355 Secs (355 Secs) [==>]	[2]
	10	dm1529+26-F621M	(2) INTERACTING-GAL-152927+260003	WFC3/UVIS, ACCUM, UVIS	F621M	FLASH=10	POS TARG 0.000,0.000		355 Secs (355 Secs) [==>]	[2]
11	dm1529+26-F621M	(2) INTERACTING-GAL-152927+260003	WFC3/UVIS, ACCUM, UVIS	F621M	FLASH=10	POS TARG 1.802,1.920		355 Secs (355 Secs) [==>]	[2]	

Orbit Structure



Orbit 2

GS Reacq

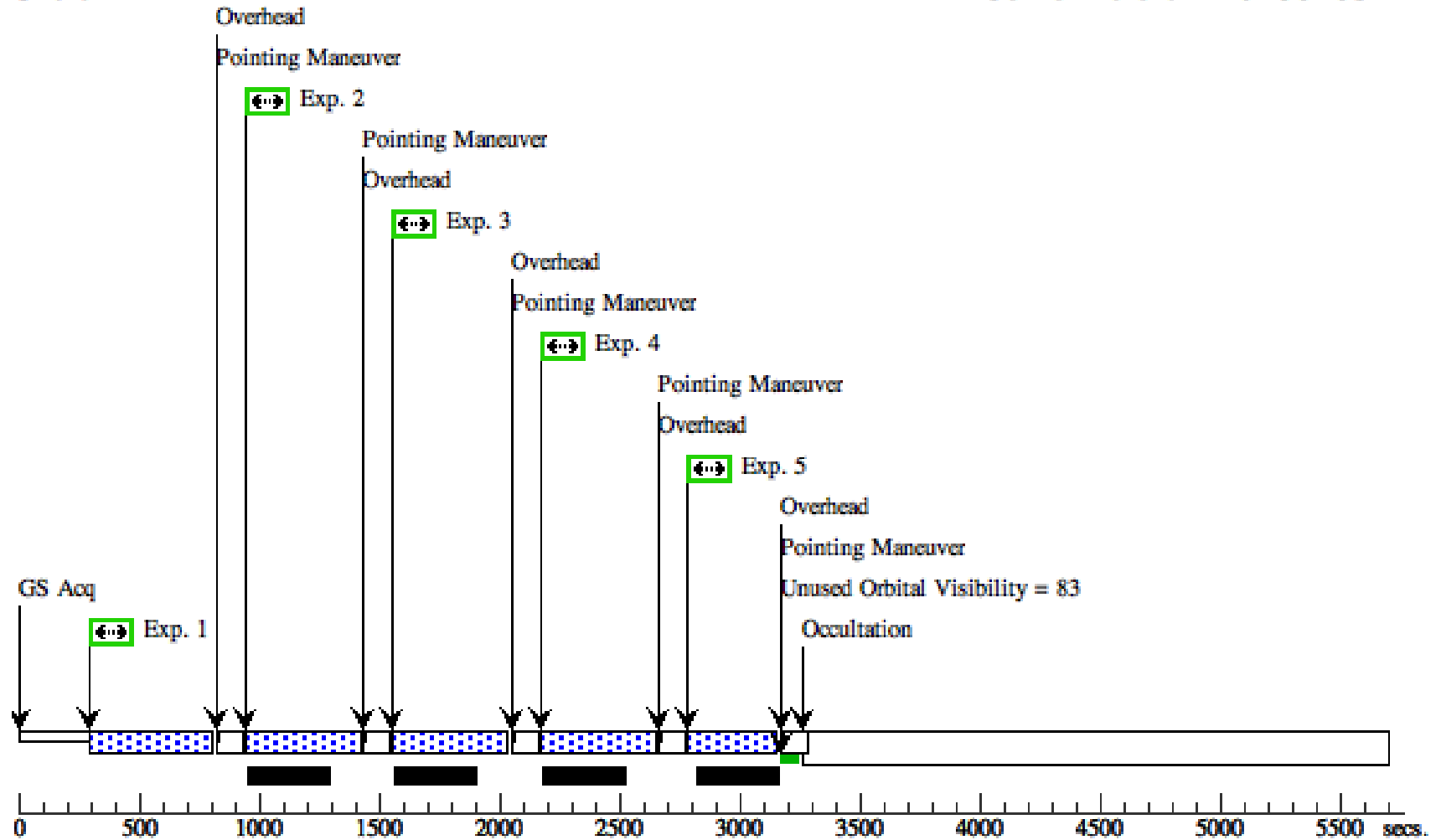


Proposal 15087 - dm1449+36 (16) - Star Cluster Populations of Interacting Dwarf Galaxies

Fri Jun 01 00:00:48 GMT 2018

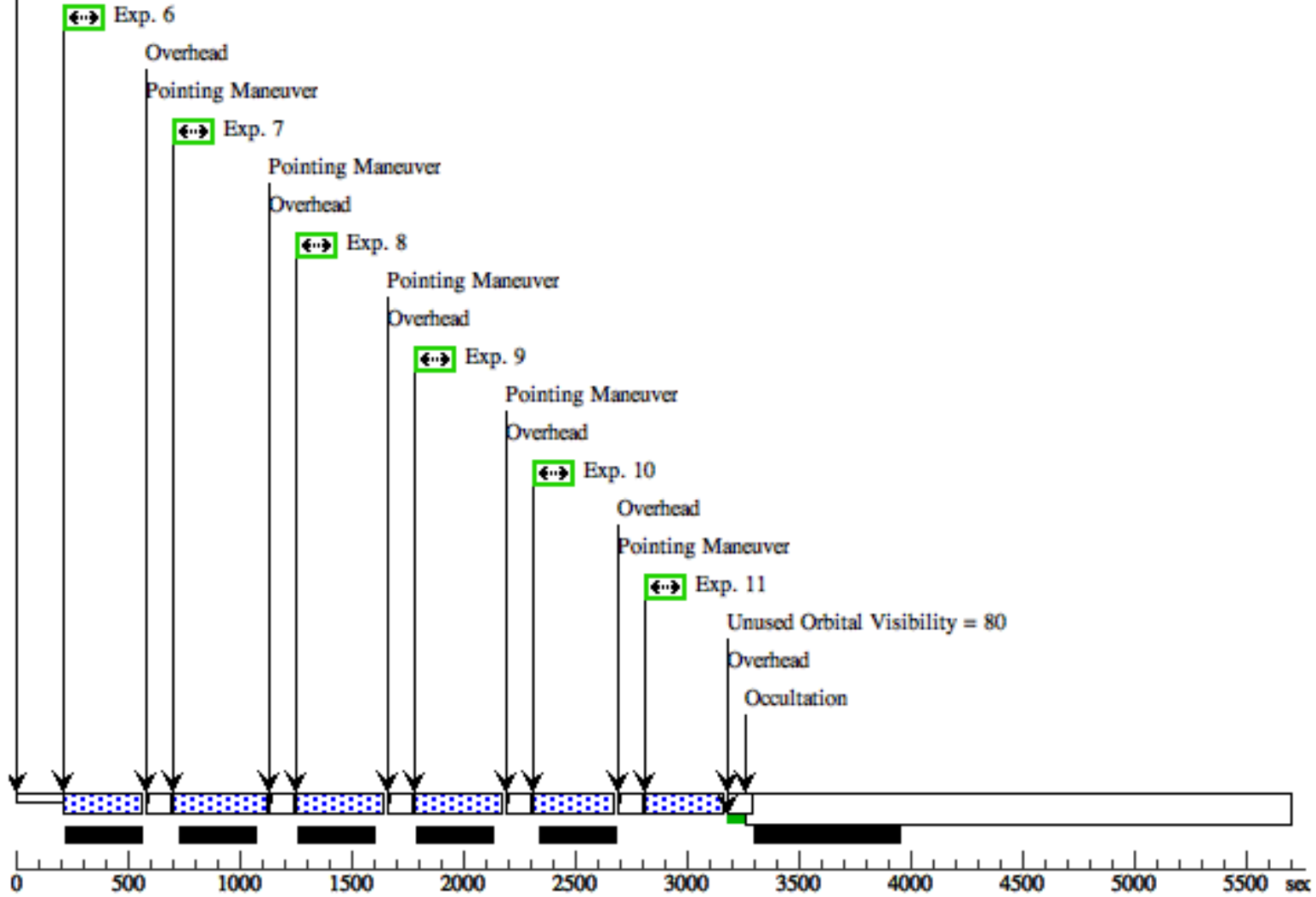
Visit	Proposal 15087, dm1449+36 (16), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: ORIENT 289D TO 22 D; ORIENT 105D TO 189 D <i>Comments: We aim to image the pair of dwarf galaxies that span both chips. We opt for a B4 (4-point) dither pattern for the longest exposure in filter F657N, a WFC3-UVIS-DITHER-LINE-3PT (3-point) dither pattern for the medium length exposure in filter F336W, and a WFC3-UVIS-DITHER-LINE (2-point) dither pattern for the shortest length exposures in filters F621M and F814W to minimize overhead. At some orient angles, the chip gap falls across either of our pair members so we avoid those.</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>(8)</td> <td>INTERACTING-GAL-144950+362425</td> <td>RA: 14 49 49.9000 (222.4579167d) Dec: +36 24 24.50 (36.40681d) Equinox: J2000</td> <td></td> <td>V=15.9+/-0.5</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments:</i> Category=GALAXY Description=[AMORPHOUS IRREGULAR, INTERACTING GALAXY, STAR FORMING REGION]</p>										#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(8)	INTERACTING-GAL-144950+362425	RA: 14 49 49.9000 (222.4579167d) Dec: +36 24 24.50 (36.40681d) Equinox: J2000		V=15.9+/-0.5
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																	
(8)	INTERACTING-GAL-144950+362425	RA: 14 49 49.9000 (222.4579167d) Dec: +36 24 24.50 (36.40681d) Equinox: J2000		V=15.9+/-0.5	Reference Frame: ICRS																	
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit												
	1	dm1449+36-F657N	(8) INTERACTING-GAL-144950+362425	WFC3/UVIS, ACCUM, UVIS	F657N	FLASH=12	POS TARG 0.000,0.000		480 Secs (480 Secs) [==>]	[1]												
	2	dm1449+36-F657N	(8) INTERACTING-GAL-144950+362425	WFC3/UVIS, ACCUM, UVIS	F657N	FLASH=12	POS TARG 0.099,0.066		480 Secs (480 Secs) [==>]	[1]												
	3	dm1449+36-F657N	(8) INTERACTING-GAL-144950+362425	WFC3/UVIS, ACCUM, UVIS	F657N	FLASH=12	POS TARG 1.790,0.927		480 Secs (480 Secs) [==>]	[1]												
	4	dm1449+36-F657N	(8) INTERACTING-GAL-144950+362425	WFC3/UVIS, ACCUM, UVIS	F657N	FLASH=12	POS TARG 1.889,1.993		480 Secs (480 Secs) [==>]	[1]												
	5	dm1449+36-F814W	(8) INTERACTING-GAL-144950+362425	WFC3/UVIS, ACCUM, UVIS	F814W	FLASH=6	POS TARG 0.000,0.000		350 Secs (350 Secs) [==>]	[1]												
	6	dm1449+36-F814W	(8) INTERACTING-GAL-144950+362425	WFC3/UVIS, ACCUM, UVIS	F814W	FLASH=6	POS TARG 1.802,1.920		350 Secs (350 Secs) [==>]	[2]												
	7	dm1449+36-F336W	(8) INTERACTING-GAL-144950+362425	WFC3/UVIS, ACCUM, UVIS	F336W	FLASH=12	POS TARG 0.000,0.000		395 Secs (395 Secs) [==>]	[2]												
	8	dm1449+36-F336W	(8) INTERACTING-GAL-144950+362425	WFC3/UVIS, ACCUM, UVIS	F336W	FLASH=12	POS TARG 1.795,1.913		395 Secs (395 Secs) [==>]	[2]												
	9	dm1449+36-F336W	(8) INTERACTING-GAL-144950+362425	WFC3/UVIS, ACCUM, UVIS	F336W	FLASH=12	POS TARG 3.590,3.826		395 Secs (395 Secs) [==>]	[2]												
	10	dm1449+36-F621M	(8) INTERACTING-GAL-144950+362425	WFC3/UVIS, ACCUM, UVIS	F621M	FLASH=10			350 Secs (350 Secs) [==>]	[2]												
11	dm1449+36-F621M	(8) INTERACTING-GAL-144950+362425	WFC3/UVIS, ACCUM, UVIS	F621M	FLASH=10	POS TARG 1.802,1.920		350 Secs (350 Secs) [==>]	[2]													

Orbit Structure

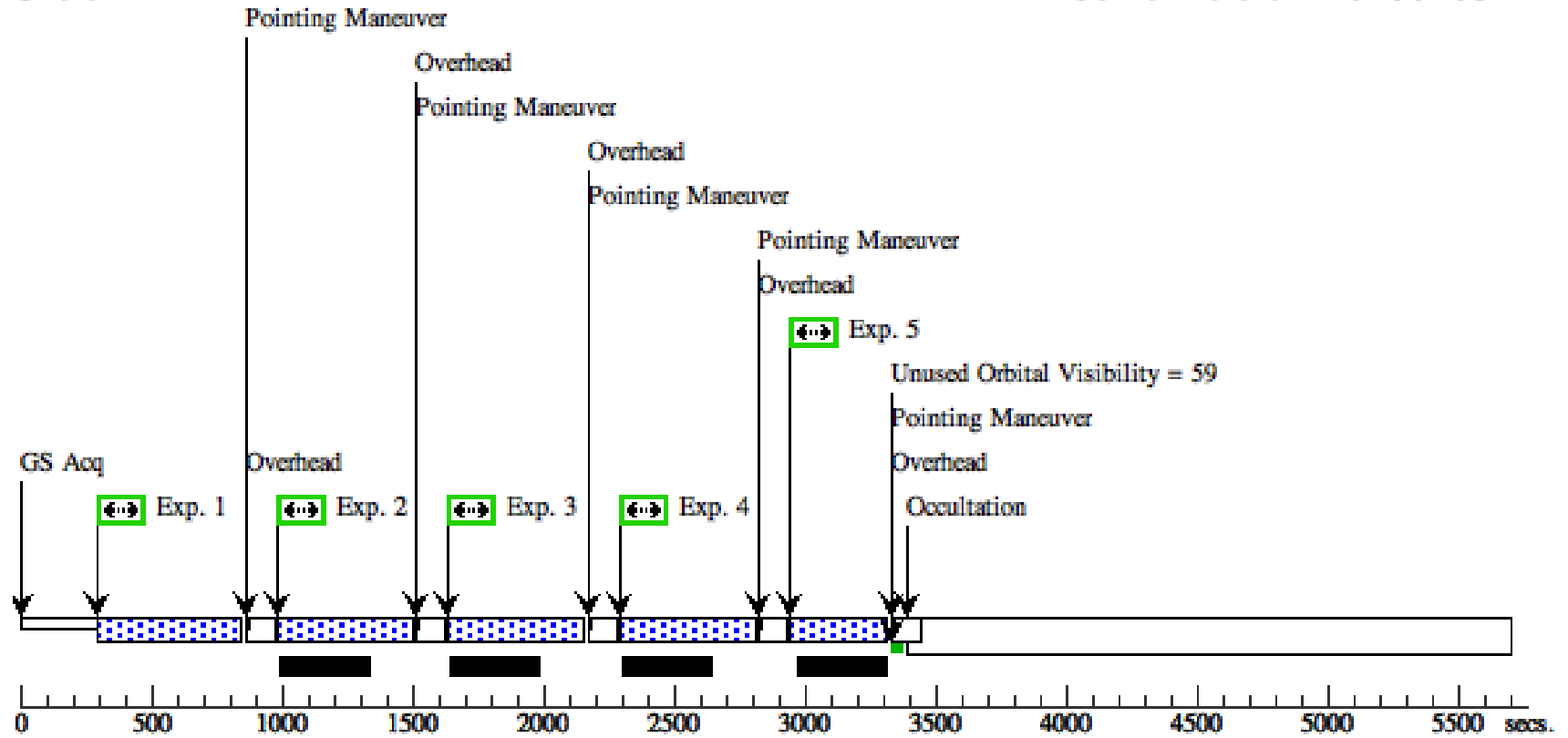


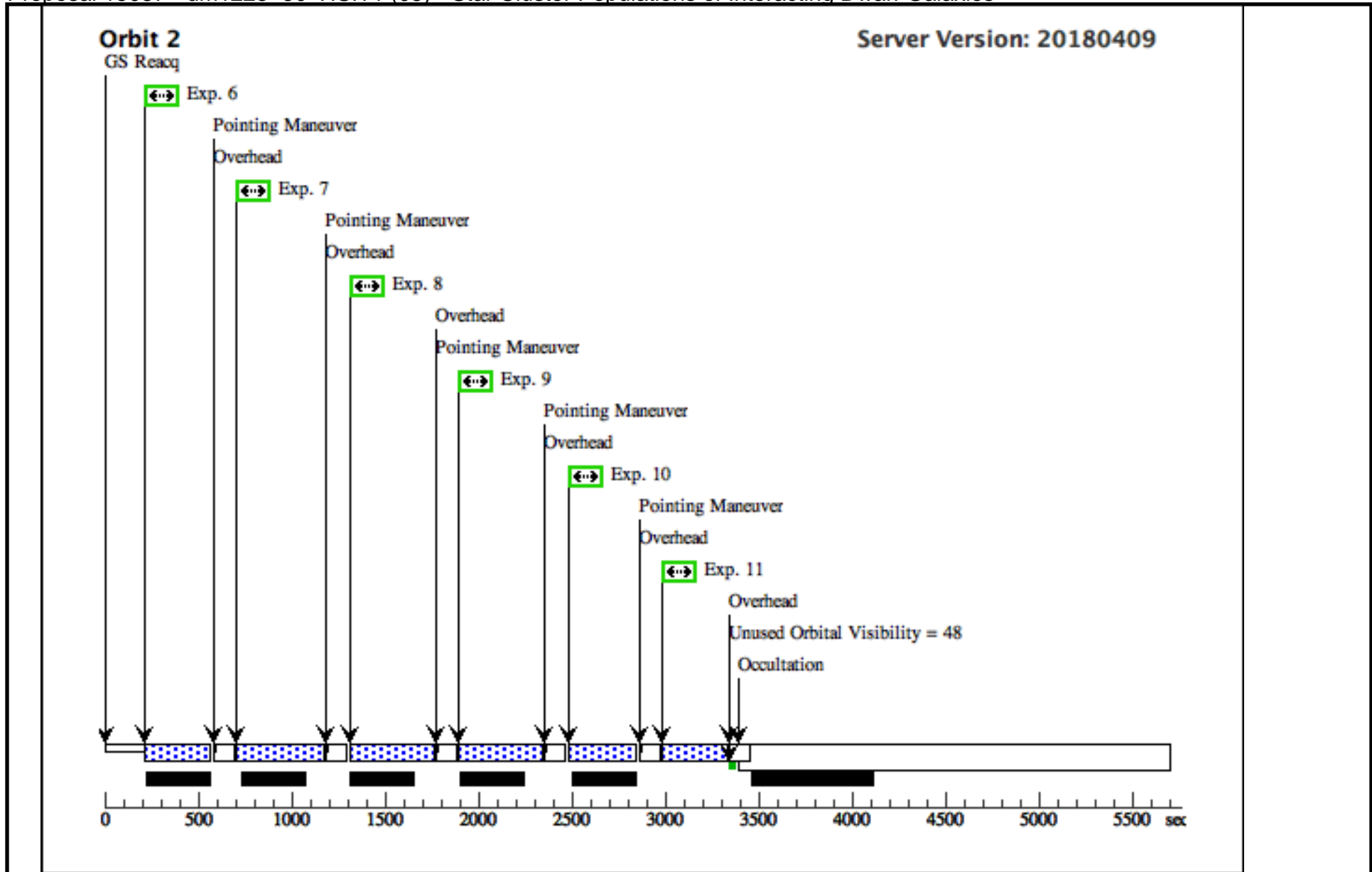
Orbit 2

GS Reacq



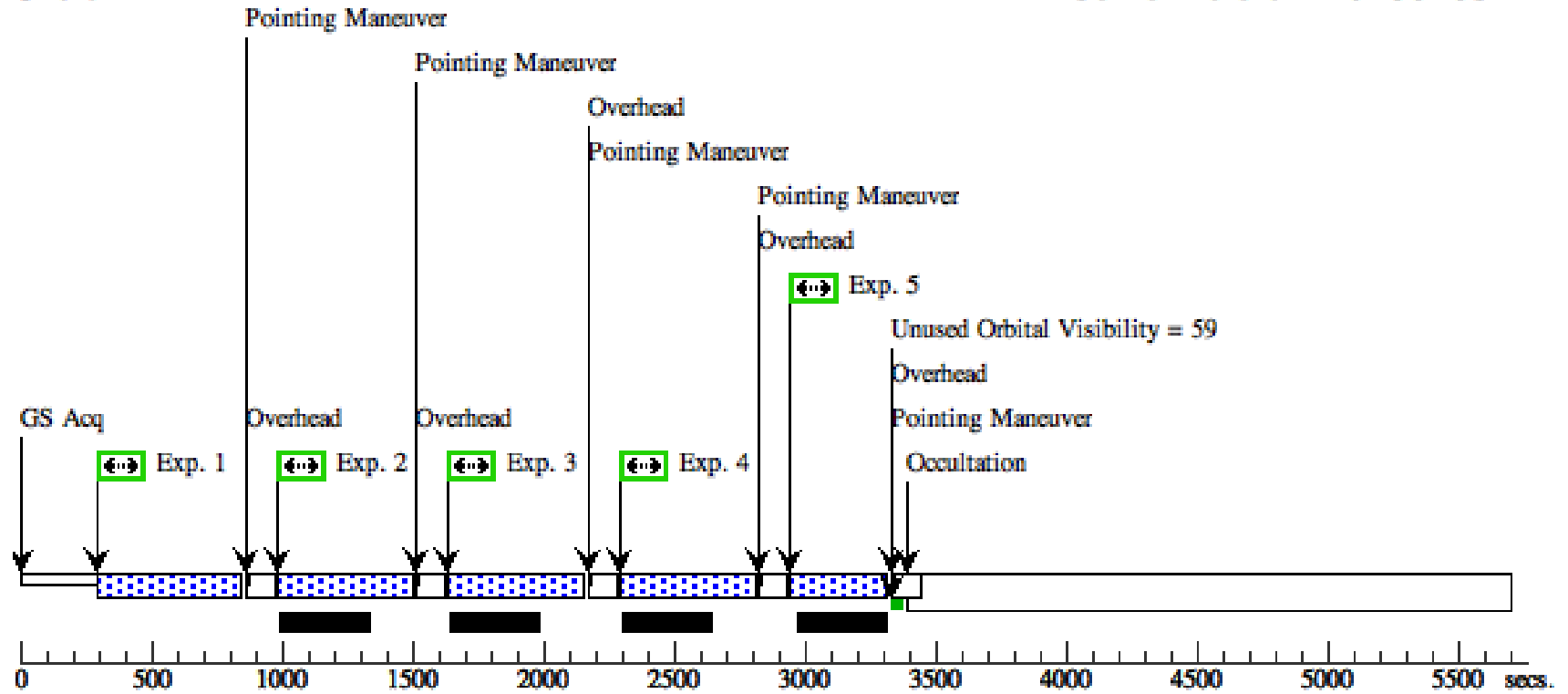
Orbit Structure

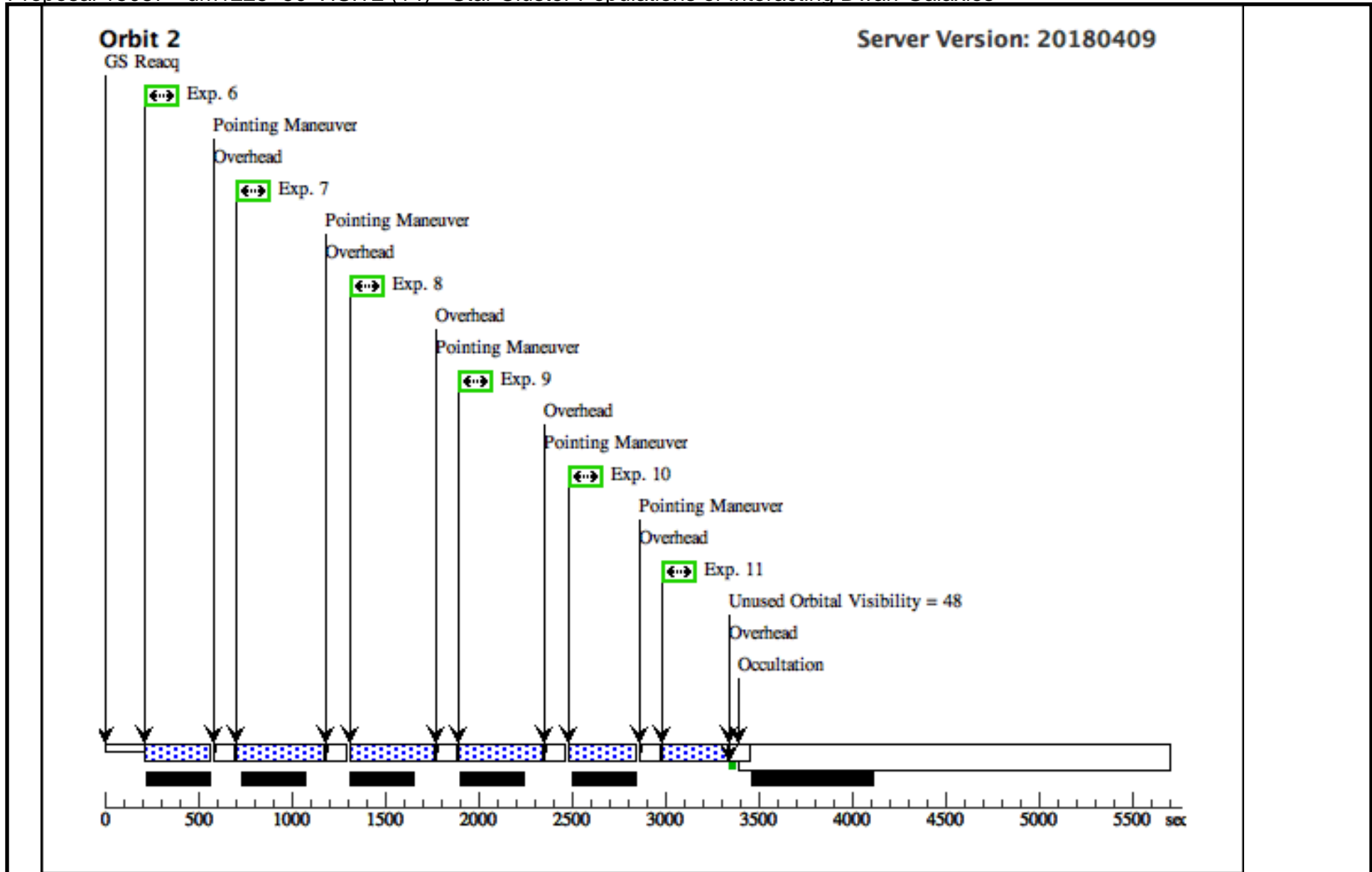




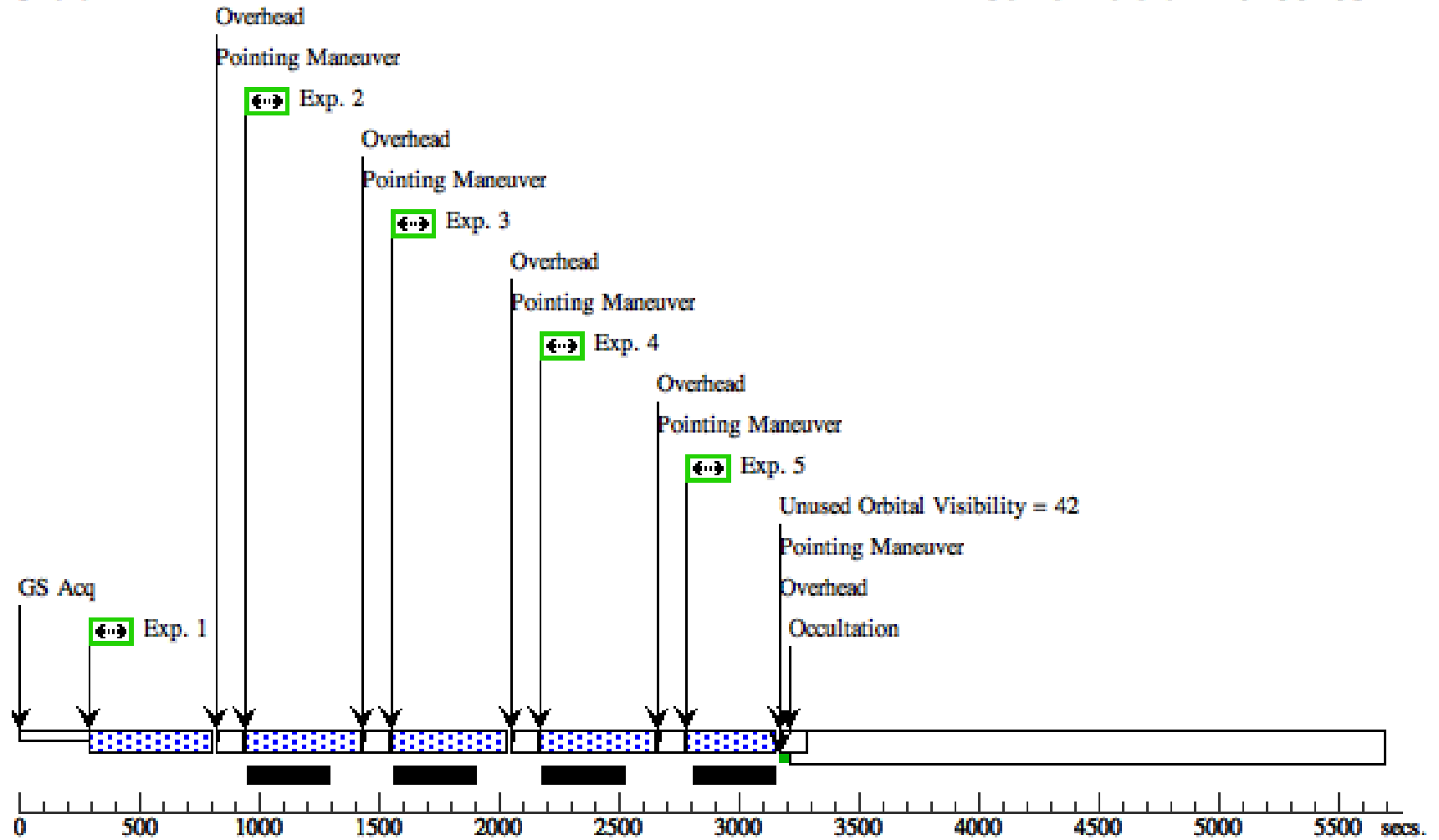
Orbit 1

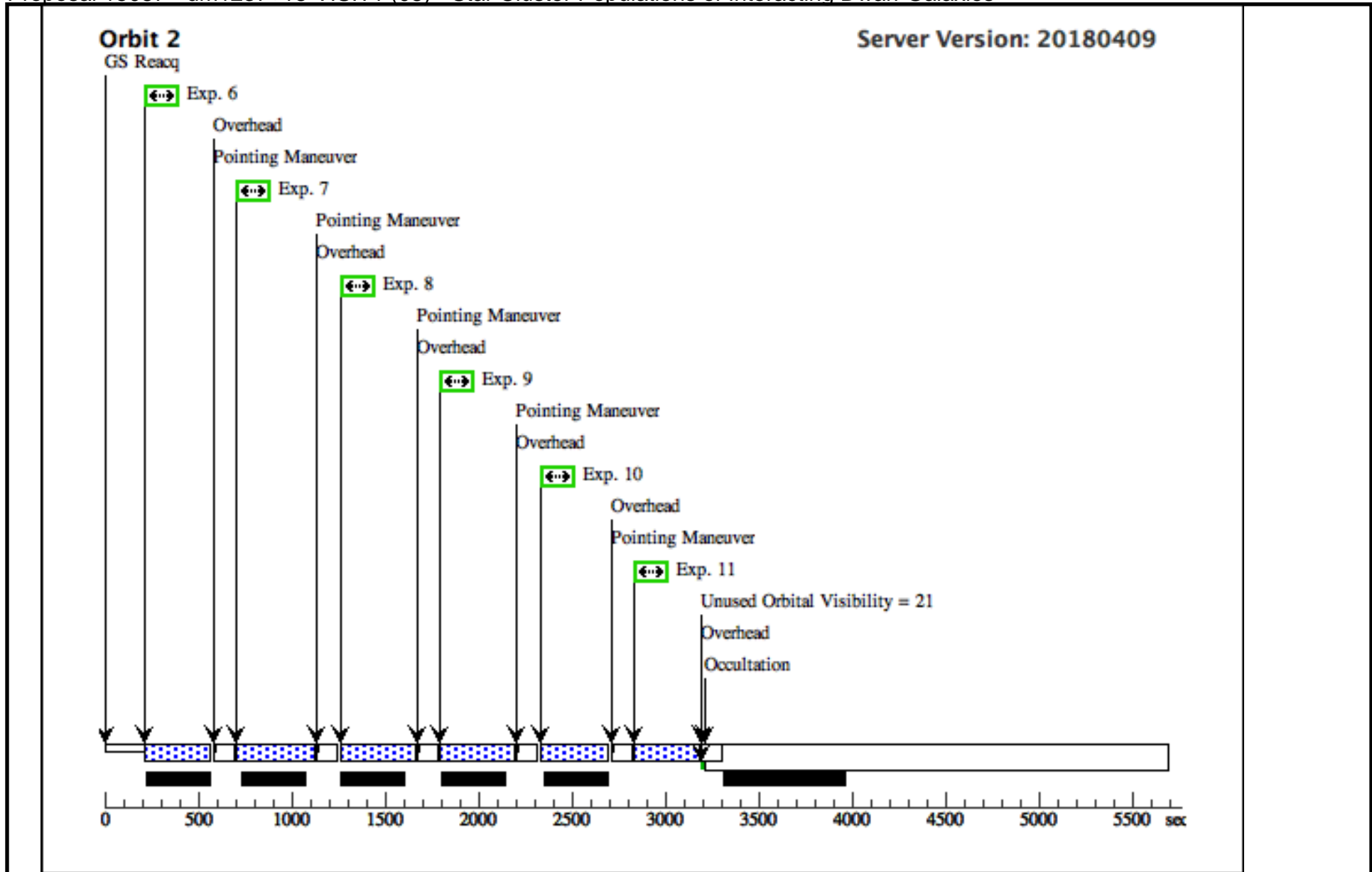
Orbit Structure



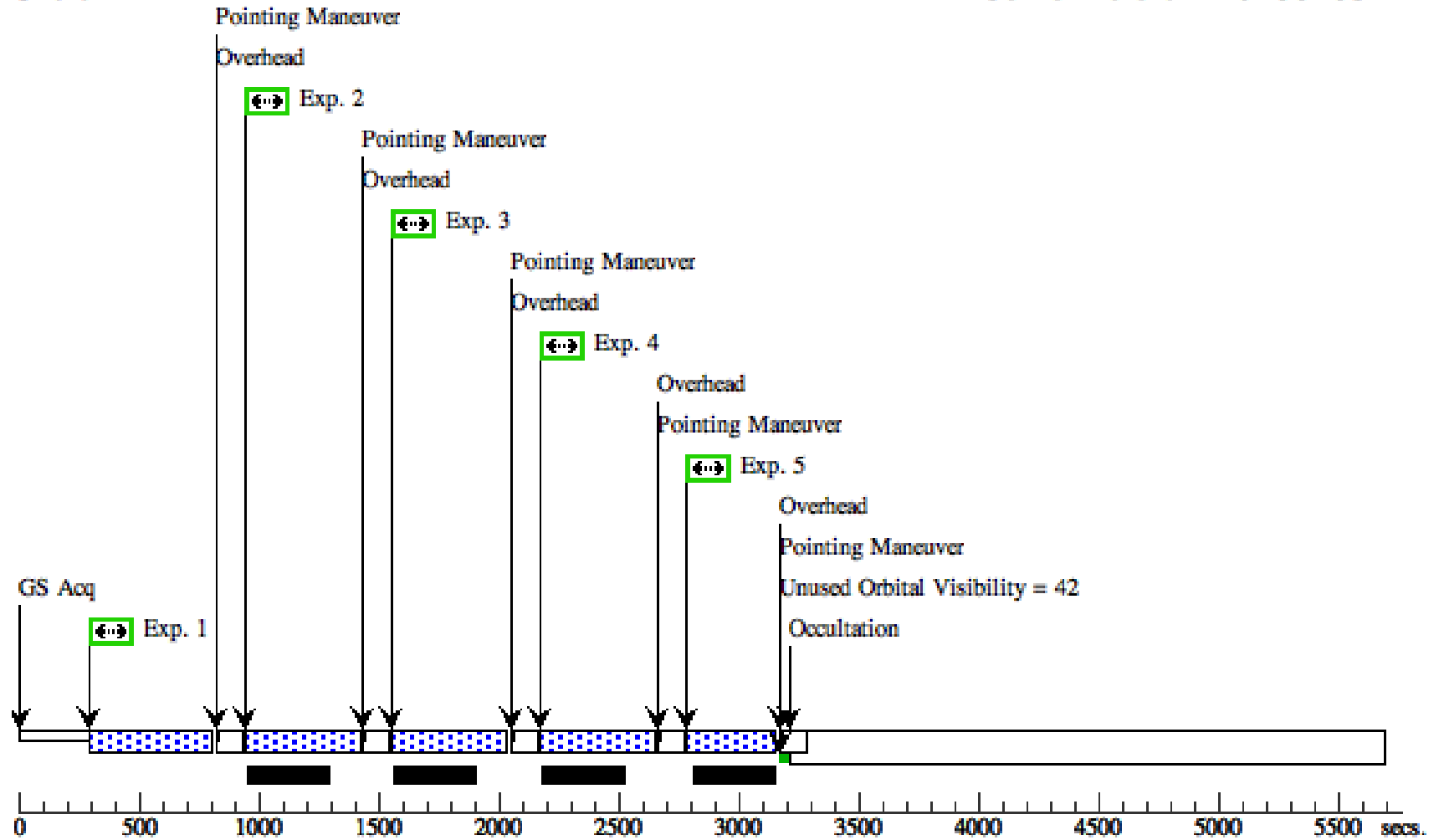


Orbit Structure



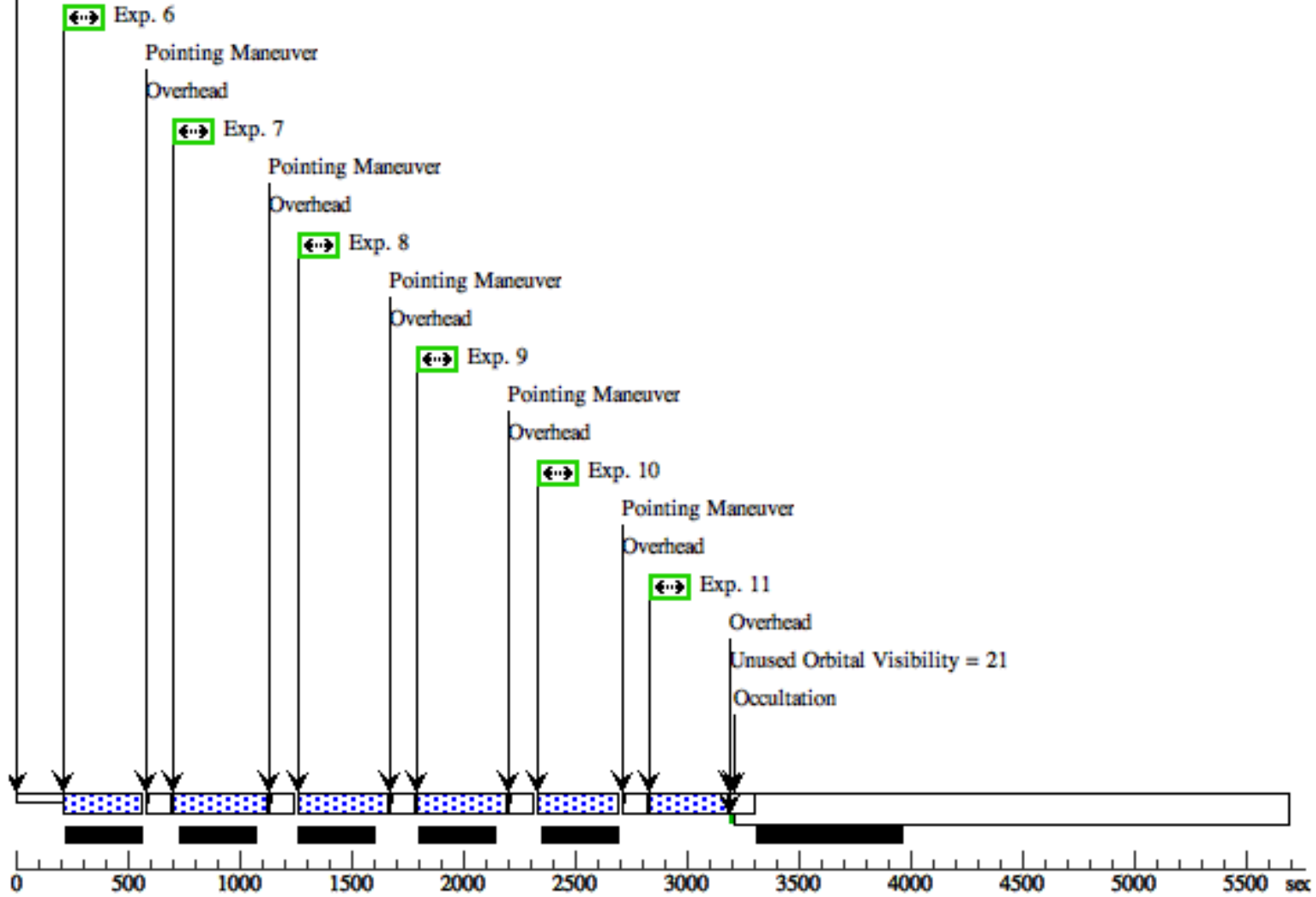


Orbit Structure



Orbit 2

GS Reacq



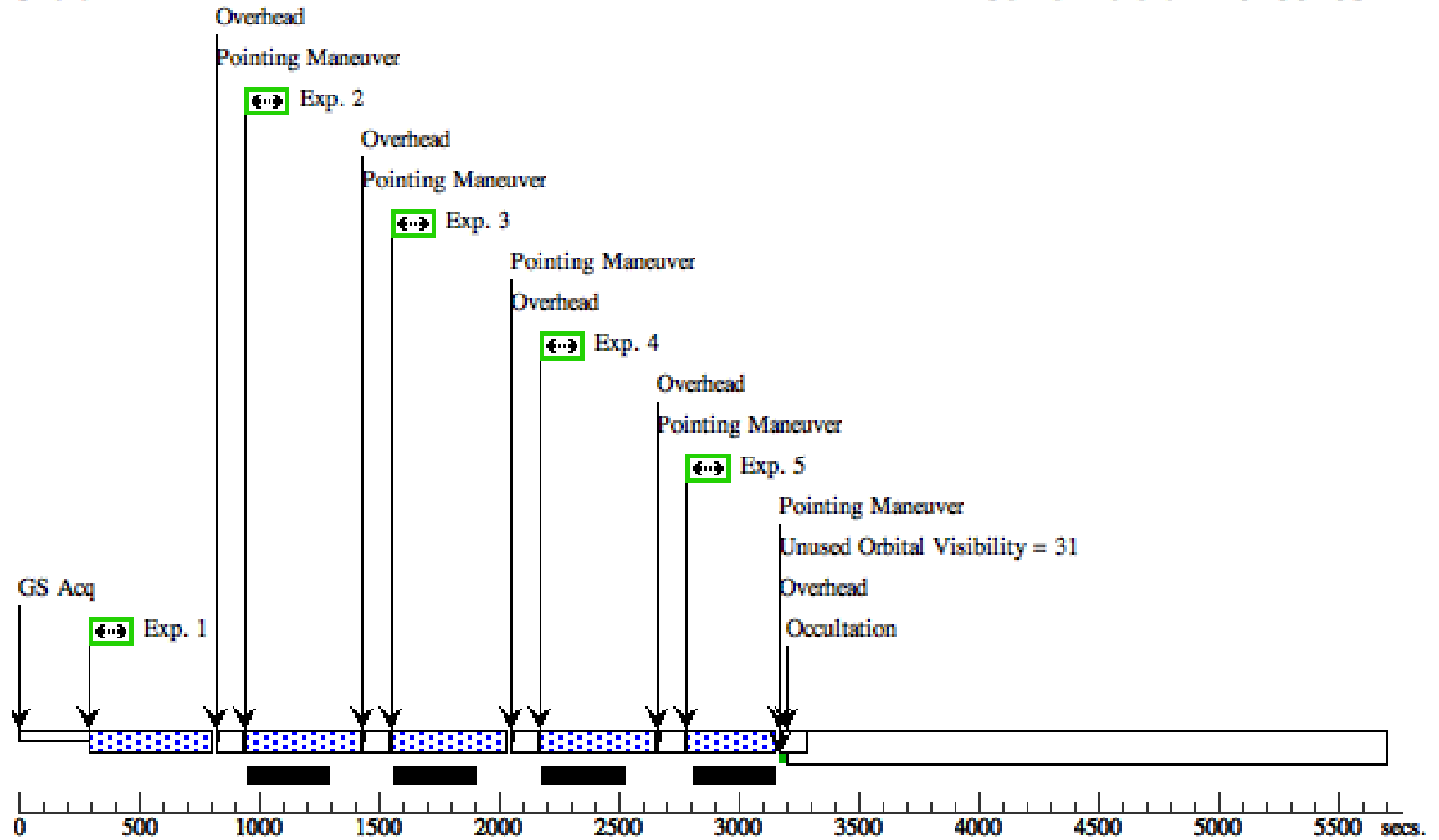
Proposal 15087 - dm2227-09S (10) - Star Cluster Populations of Interacting Dwarf Galaxies

Fri Jun 01 00:00:49 GMT 2018

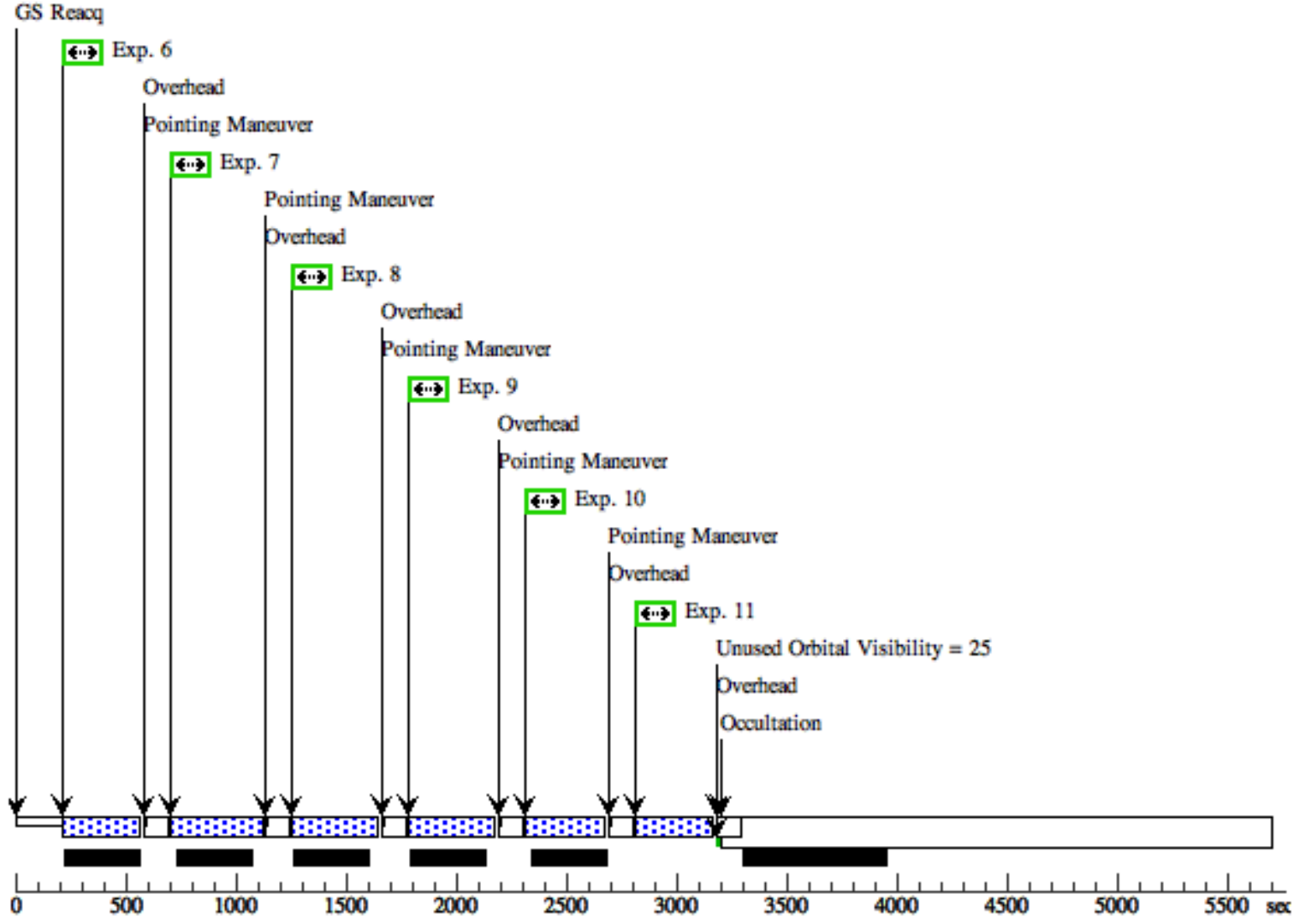
Visit	Proposal 15087, dm2227-09S (10), scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SAME ORIENT AS 11 <i>Comments: We aim to image a single dwarf galaxy that is a member of a pair and that fits into one chip (UVIS2). We opt for a C4 (4-point) dither pattern for the longest exposure in filter F665N, a WFC3-UVIS-DITHER-LINE-3PT (3-point) dither pattern for the medium length exposure in filter F336W, and a WFC3-UVIS-DITHER-LINE (2-point) dither pattern for the shortest length exposures in filters F621M and F814W to minimize overhead. The dwarf fits within the chip so all orientation angles are acceptable.</i>									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(6)	GAL-222742-094337	RA: 22 27 41.2753 (336.9219804d) Dec: -09 43 36.80 (-9.72689d) Equinox: J2000		V=16.2+/-0.5	Reference Frame: ICRS				
<i>Comments:</i> Category=GALAXY Description=[AMORPHOUS IRREGULAR, INTERACTING GALAXY, STAR FORMING REGION]										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	dm2227-09S -F665N	(6) GAL-222742-09 4337	WFC3/UVIS, ACCUM, UVIS2	F665N	FLASH=12	POS TARG 0.000,0. 000		480 Secs (480 Secs) [==>]	[1]
	2	dm2227-09S -F665N	(6) GAL-222742-09 4337	WFC3/UVIS, ACCUM, UVIS2	F665N	FLASH=12	POS TARG 0.158,0. 070		480 Secs (480 Secs) [==>]	[1]
	3	dm2227-09S -F665N	(6) GAL-222742-09 4337	WFC3/UVIS, ACCUM, UVIS2	F665N	FLASH=12	POS TARG 0.099,0. 165		480 Secs (480 Secs) [==>]	[1]
	4	dm2227-09S -F665N	(6) GAL-222742-09 4337	WFC3/UVIS, ACCUM, UVIS2	F665N	FLASH=12	POS TARG -0.060,0. .095		480 Secs (480 Secs) [==>]	[1]
	5	dm2227-09S -F814W	(6) GAL-222742-09 4337	WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=6	POS TARG 0.000,0. 000		350 Secs (350 Secs) [==>]	[1]
	6	dm2227-09S -F814W	(6) GAL-222742-09 4337	WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=6	POS TARG 0.099,0. 106		350 Secs (350 Secs) [==>]	[2]
	7	dm2227-09S -F336W	(6) GAL-222742-09 4337	WFC3/UVIS, ACCUM, UVIS2	F336W	FLASH=12	POS TARG 0.000,0. 000		395 Secs (395 Secs) [==>]	[2]
	8	dm2227-09S -F336W	(6) GAL-222742-09 4337	WFC3/UVIS, ACCUM, UVIS2	F336W	FLASH=12	POS TARG 0.092,0. 098		395 Secs (395 Secs) [==>]	[2]
	9	dm2227-09S -F336W	(6) GAL-222742-09 4337	WFC3/UVIS, ACCUM, UVIS2	F336W	FLASH=12	POS TARG 0.185,0. 197		395 Secs (395 Secs) [==>]	[2]
	10	dm2227-09S -F621M	(6) GAL-222742-09 4337	WFC3/UVIS, ACCUM, UVIS2	F621M	FLASH=10	POS TARG 0.000,0. 000		350 Secs (350 Secs) [==>]	[2]
11	dm2227-09S -F621M	(6) GAL-222742-09 4337	WFC3/UVIS, ACCUM, UVIS2	F621M	FLASH=10	POS TARG 0.099,0. 106		350 Secs (350 Secs) [==>]	[2]	

Orbit 1

Orbit Structure



Orbit 2

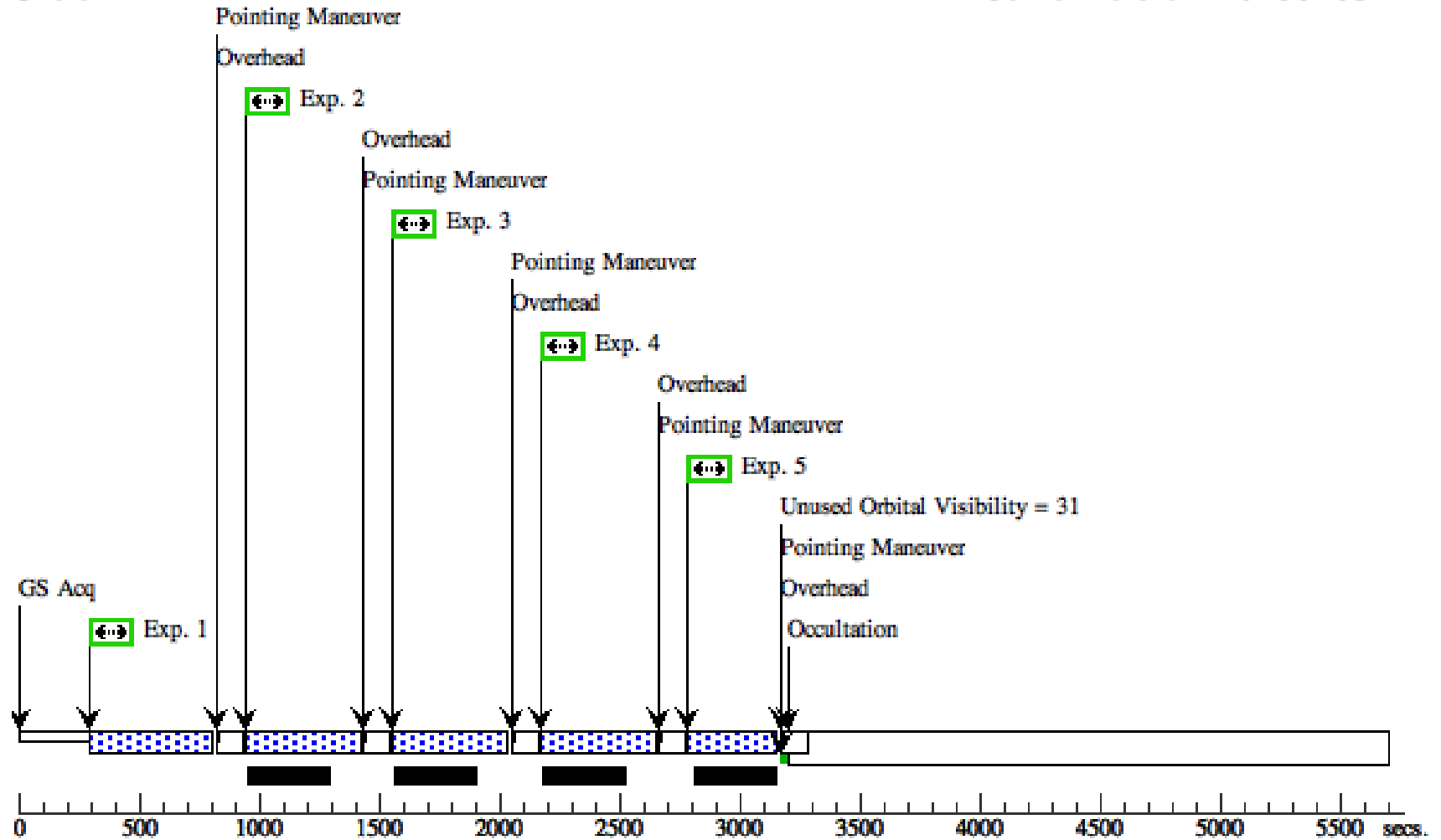


Proposal 15087 - dm2227-09N (11) - Star Cluster Populations of Interacting Dwarf Galaxies

Fri Jun 01 00:00:49 GMT 2018

Visit	Proposal 15087, dm2227-09N (11), scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: (none) <i>Comments: We aim to image a single dwarf galaxy that is a member of a pair and that fits into one chip (UVIS2). We opt for a C4 (4-point) dither pattern for the longest exposure in filter F665N, a WFC3-UVIS-DITHER-LINE-3PT (3-point) dither pattern for the medium length exposure in filter F336W, and a WFC3-UVIS-DITHER-LINE (2-point) dither pattern for the shortest length exposures in filters F621M and F814W to minimize overhead. The dwarf fits within the chip so all orientation angles are acceptable.</i>									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(7)	GAL-222731-093954	RA: 22 27 30.7000 (336.8779167d) Dec: -09 39 55.90 (-9.66553d) Equinox: J2000		V=15.8+/-0.5	Reference Frame: ICRS				
<i>Comments:</i> Category=GALAXY Description=[AMORPHOUS IRREGULAR, INTERACTING GALAXY, STAR FORMING REGION]										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	dm2227-09 N-F665N	(7) GAL-222731-09 3954	WFC3/UVIS, ACCUM, UVIS2	F665N	FLASH=12	POS TARG 0.000,0. 000		480 Secs (480 Secs) [==>]	[1]
	2	dm2227-09 N-F665N	(7) GAL-222731-09 3954	WFC3/UVIS, ACCUM, UVIS2	F665N	FLASH=12	POS TARG 0.158,0. 070		480 Secs (480 Secs) [==>]	[1]
	3	dm2227-09 N-F665N	(7) GAL-222731-09 3954	WFC3/UVIS, ACCUM, UVIS2	F665N	FLASH=12	POS TARG 0.099,0. 165		480 Secs (480 Secs) [==>]	[1]
	4	dm2227-09 N-F665N	(7) GAL-222731-09 3954	WFC3/UVIS, ACCUM, UVIS2	F665N	FLASH=12	POS TARG -0.060,0. .095		480 Secs (480 Secs) [==>]	[1]
	5	dm2227-09 N-F814W	(7) GAL-222731-09 3954	WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=6	POS TARG 0.000,0. 000		350 Secs (350 Secs) [==>]	[1]
	6	dm2227-09 N-F814W	(7) GAL-222731-09 3954	WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=6	POS TARG 0.099,0. 106		350 Secs (350 Secs) [==>]	[2]
	7	dm2227-09 N-F336W	(7) GAL-222731-09 3954	WFC3/UVIS, ACCUM, UVIS2	F336W	FLASH=12	POS TARG 0.000,0. 000		395 Secs (395 Secs) [==>]	[2]
	8	dm2227-09 N-F336W	(7) GAL-222731-09 3954	WFC3/UVIS, ACCUM, UVIS2	F336W	FLASH=12	POS TARG 0.092,0. 098		395 Secs (395 Secs) [==>]	[2]
	9	dm2227-09 N-F336W	(7) GAL-222731-09 3954	WFC3/UVIS, ACCUM, UVIS2	F336W	FLASH=12	POS TARG 0.185,0. 197		395 Secs (395 Secs) [==>]	[2]
	10	dm2227-09 N-F621M	(7) GAL-222731-09 3954	WFC3/UVIS, ACCUM, UVIS2	F621M	FLASH=10	POS TARG 0.000,0. 000		350 Secs (350 Secs) [==>]	[2]
11	dm2227-09 N-F621M	(7) GAL-222731-09 3954	WFC3/UVIS, ACCUM, UVIS2	F621M	FLASH=10	POS TARG 0.099,0. 106		350 Secs (350 Secs) [==>]	[2]	

Orbit Structure



Orbit 2

