



16274 - Resolved Proper Motions of M33

Cycle: 28, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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Ms. Amanda Quirk (CoI)	University of California - Santa Cruz	acquirk@ucsc.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) M33-DISK2 ANY	ACS/WFC WFC3/UVIS	5	07-Jan-2022 16:00:21.0	yes
02	(2) M33-DISK3 ANY	ACS/WFC WFC3/UVIS	5	07-Jan-2022 16:00:24.0	yes
03	(3) M33-DISK4 ANY	ACS/WFC WFC3/UVIS	5	07-Jan-2022 16:00:27.0	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>
04	(4) M33-M9 ANY	ACS/WFC WFC3/UVIS	5	07-Jan-2022 16:00:29.0	yes
05	(5) M33-U49 ANY	ACS/WFC WFC3/UVIS	5	07-Jan-2022 16:00:33.0	yes
51	(1) M33-DISK2 ANY	ACS/WFC WFC3/UVIS	2	07-Jan-2022 16:00:34.0	yes
54	(4) M33-M9 ANY	ACS/WFC WFC3/UVIS	4	07-Jan-2022 16:00:36.0	yes

31 Total Orbits Used

ABSTRACT

As the only low-mass disk galaxy in the Local Group, M33 is one of the most important and best-studied galaxies on the sky. It is also one of the most confusing: since it is nearly bulgeless, it is unclear what makes it stable to formation of a strong bar. One stabilizing factor may be the existence of dynamically hot components such as a thick disk or halo, but these have long been controversial and hard to detect. Recent individual-star spectroscopy now gives clear evidence of a halo component, but its structural properties, its origin, and its dynamical effects are not yet clear. We propose to use proper motions with 16-year baselines to measure the kinematics of stars in five fields at the edge of the M33 disk. We will probe the relative rotational lag of the hotter components (the halo and a possible thick disk) versus the young, thin disk. We will measure the dispersions in the planar and vertical directions separately, using dispersions measured directly from proper motions as well as the correlation between the proper motions and LOS velocities from spectroscopy. We will check the halo for non-equilibrium flows indicating a possible origin in a recent merger. We will also provide an independent and more precise measurement of M33's center-of-mass proper motion. These observations are only feasible now because of the longevity of HST. They will yield a dataset completely unique in nature for any galaxy like M33, which will shed new light on the structure and dynamical history of this important galaxy.

OBSERVING DESCRIPTION

The primary goal of this program is to measure the proper motion (PM) of M33 stars using multi-epoch HST imaging. We will target 5 fields in total that have existing deep ACS/WFC imaging data. These are DISK2, DISK3, DISK4, M9, and U49. Each target field will be re-observed for 5 orbits with ACS/WFC using the same field locations and telescope orientations as the first-epoch observations. We will image all primary ACS/WFC target

Proposal 16274 (STScI Edit Number: 1, Created: Friday, January 7, 2022 at 4:00:36 PM Eastern Standard Time) - Overview

fields using F814W to measure PMs. The parallel WFC3/UVIS fields will be observed using F606W and F814W to study the stellar populations and number density of M33 stars that are 6 arcmin away from our primary target fields.

Proposal 16274 - DISK2-VISIT (01) - Resolved Proper Motions of M33

Fri Jan 07 21:00:37 GMT 2022

Visit	<p>Proposal 16274, DISK2-VISIT (01), failed</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: ORIENT 229.9D TO 229.9 D</p> <p><i>Comments: This is the visit for imaging the M33-DISK2 field with ACS/WFC as primary and WFC3/UVIS as parallel. We will image the primary field using F814W, and the parallel using F606W+F814W filters. Five orbits are required to complete this visit. Each orbit consists of two long exposures. We have also added Orient Ranges requirements to align our images with the previous epoch images. We implemented a custom-designed dither pattern via the POS-TARG requirement.</i></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>(1)</td> <td>M33-DISK2</td> <td>RA: 01 33 39.5413 (23.4147554d) Dec: +30 29 0.75 (30.48354d) Equinox: J2000</td> <td></td> <td>V=21</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments: Category=GALAXY Description=[DISK, HALO, SPIRAL]</i></p>					#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(1)	M33-DISK2	RA: 01 33 39.5413 (23.4147554d) Dec: +30 29 0.75 (30.48354d) Equinox: J2000		V=21
#		Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous											
(1)	M33-DISK2	RA: 01 33 39.5413 (23.4147554d) Dec: +30 29 0.75 (30.48354d) Equinox: J2000		V=21	Reference Frame: ICRS												

Proposal 16274 - DISK2-VISIT (01) - Resolved Proper Motions of M33

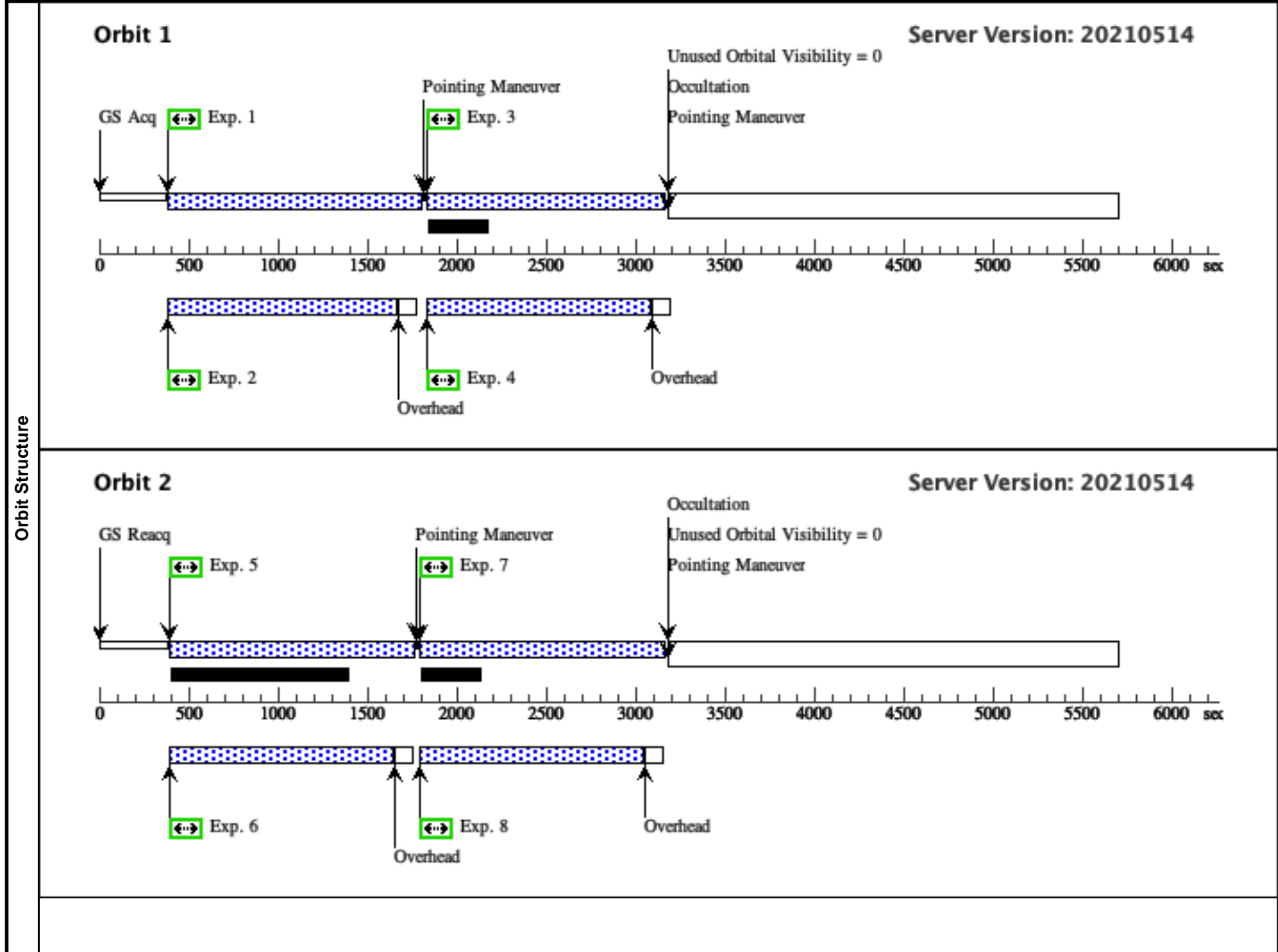
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1) M33-DISK2	ACS/WFC, ACCUM, WFCENTER	F814W		POS TARG 0.0000,0 .0000	Sequence 1-4 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 1-2 in Sequence 1-4 Non-Int in DISK2-VISIT (01)	1210 Secs (1210 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 1-4 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 1-2 in Sequence 1-4 Non-Int in DISK2-VISIT (01)	1250 Secs (1250 Secs) [==>]	[1]
	3	(1) M33-DISK2	ACS/WFC, ACCUM, WFCENTER	F814W		POS TARG 0.0654,0 .2574	Sequence 1-4 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 3-4 in Sequence 1-4 Non-Int in DISK2-VISIT (01)	1209 Secs (1209 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 1-4 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 3-4 in Sequence 1-4 Non-Int in DISK2-VISIT (01)	1250 Secs (1250 Secs) [==>]	[1]
	5	(1) M33-DISK2	ACS/WFC, ACCUM, WFCENTER	F814W		POS TARG 0.1391,0 .1689	Sequence 5-8 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 5-6 in Sequence 5-8 Non-Int in DISK2-VISIT (01)	1246 Secs (1246 Secs) [==>]	[2]
	6	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 5-8 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 5-6 in Sequence 5-8 Non-Int in DISK2-VISIT (01)	1250 Secs (1250 Secs) [==>]	[2]
	7	(1) M33-DISK2	ACS/WFC, ACCUM, WFCENTER	F814W		POS TARG 0.1550,0 .4225	Sequence 5-8 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 7-8 in Sequence 5-8 Non-Int in DISK2-VISIT (01)	1246 Secs (1246 Secs) [==>]	[2]
	8	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 5-8 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 7-8 in Sequence 5-8 Non-Int in DISK2-VISIT (01)	1250 Secs (1250 Secs) [==>]	[2]

Proposal 16274 - DISK2-VISIT (01) - Resolved Proper Motions of M33

9	(1) M33-DISK2	ACS/WFC, ACCUM, WFCENTER	F814W	POS TARG 0.2177,0 .0857	Sequence 9-12 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 9-10 in Sequence 9-12 Non-Int in DISK2-VISIT (01)	1246 Secs (1246 Secs) [==>]	[3]
10	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 9-12 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 9-10 in Sequence 9-12 Non-Int in DISK2-VISIT (01)	1250 Secs (1250 Secs) [==>]	[3]
11	(1) M33-DISK2	ACS/WFC, ACCUM, WFCENTER	F814W	POS TARG 0.2781,0 .3427	Sequence 9-12 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 11-12 in Sequence 9-12 Non-Int in DISK2-VISIT (01)	1246 Secs (1246 Secs) [==>]	[3]
12	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 9-12 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 11-12 in Sequence 9-12 Non-Int in DISK2-VISIT (01)	1250 Secs (1250 Secs) [==>]	[3]
13	(1) M33-DISK2	ACS/WFC, ACCUM, WFCENTER	F814W	POS TARG 0.3414,0 .1544	Sequence 13-16 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 13-14 in Sequence 13-16 Non-Int in DISK2-VISIT (01)	1246 Secs (1246 Secs) [==>]	[4]
14	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 13-16 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 13-14 in Sequence 13-16 Non-Int in DISK2-VISIT (01)	1250 Secs (1250 Secs) [==>]	[4]
15	(1) M33-DISK2	ACS/WFC, ACCUM, WFCENTER	F814W	POS TARG 0.3567,0 .2595	Sequence 13-16 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 15-16 in Sequence 13-16 Non-Int in DISK2-VISIT (01)	1246 Secs (1246 Secs) [==>]	[4]
16	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 13-16 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 15-16 in Sequence 13-16 Non-Int in DISK2-VISIT (01)	1250 Secs (1250 Secs) [==>]	[4]

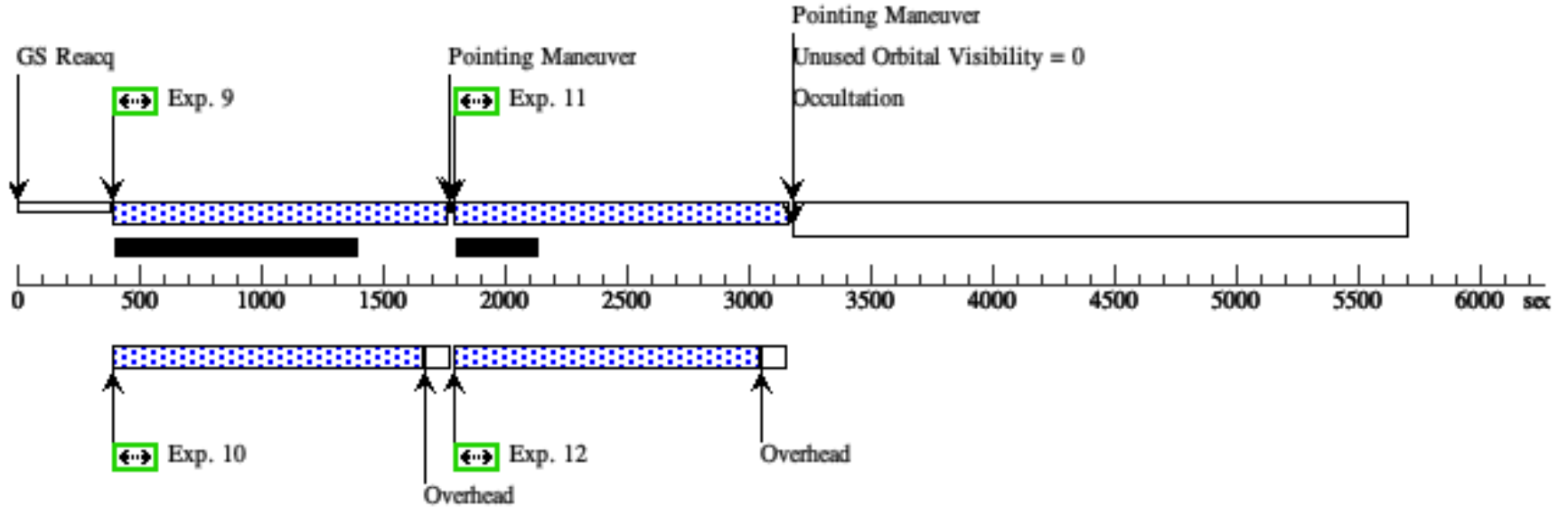
Proposal 16274 - DISK2-VISIT (01) - Resolved Proper Motions of M33

17	(1) M33-DISK2	ACS/WFC, ACCUM, WFCENTER	F814W	POS TARG 0.4216,0 .4178	Sequence 17-20 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 17-18 in Sequence 17-20 Non-Int in DISK2-VISIT (01)	1246 Secs (1246 Secs) [==>]	[5]
18	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 17-20 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 17-18 in Sequence 17-20 Non-Int in DISK2-VISIT (01)	1250 Secs (1250 Secs) [==>]	[5]
19	(1) M33-DISK2	ACS/WFC, ACCUM, WFCENTER	F814W	POS TARG 0.4802,0 .2787	Sequence 17-20 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 19-20 in Sequence 17-20 Non-Int in DISK2-VISIT (01)	1246 Secs (1246 Secs) [==>]	[5]
20	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 17-20 Non-Int in DISK2-VISIT (01) Prime + Parallel Group 19-20 in Sequence 17-20 Non-Int in DISK2-VISIT (01)	1250 Secs (1250 Secs) [==>]	[5]



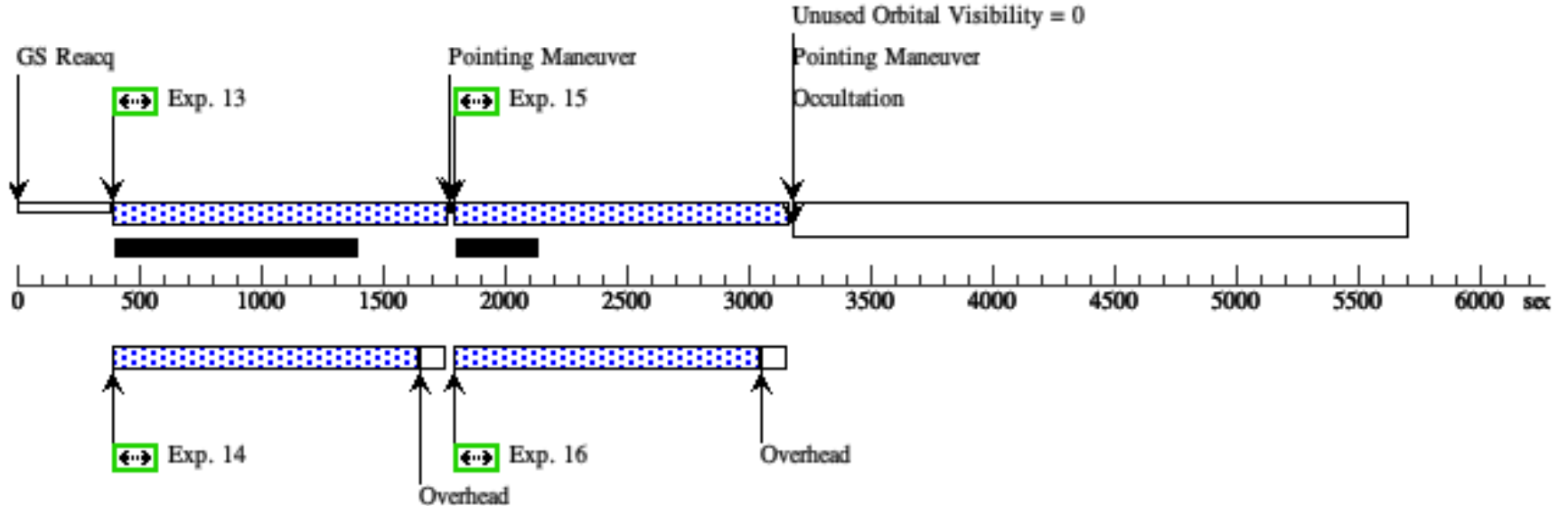
Orbit 3

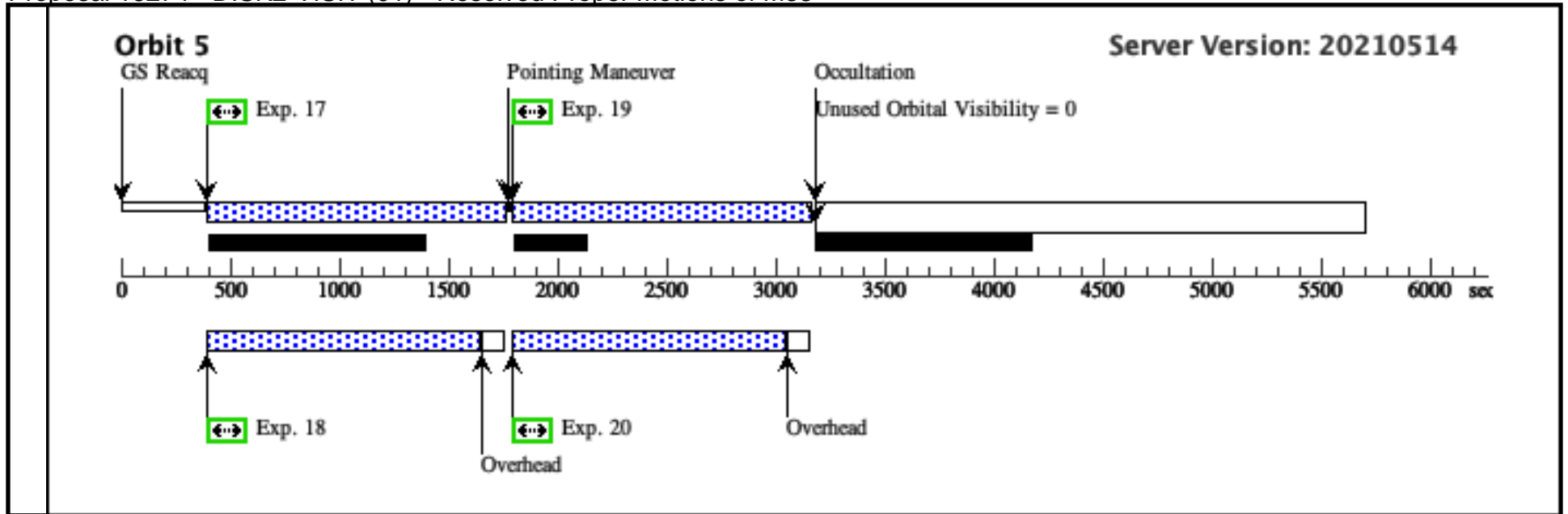
Server Version: 20210514



Orbit 4

Server Version: 20210514





Proposal 16274 - DISK3-VISIT (02) - Resolved Proper Motions of M33

Fri Jan 07 21:00:37 GMT 2022

Visit	<p>Proposal 16274, DISK3-VISIT (02), completed</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: ORIENT 61.1D TO 61.1 D</p> <p><i>Comments: This is the visit for imaging the M33-DISK3 field with ACS/WFC as primary and WFC3/UVIS as parallel. We will image the primary field using F814W, and the parallel using F606W+F814W filters. Five orbits are required to complete this visit. Each orbit consists of two long exposures. We added Orient Ranges requirements to align our images with the previous epoch images. We implemented a custom-designed diither pattern via the POS-TARG requirement.</i></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>(2)</td> <td>M33-DISK3</td> <td>RA: 01 33 20.6563 (23.3360679d) Dec: +30 22 13.64 (30.37046d) Equinox: J2000</td> <td></td> <td>V=21</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments: Category=GALAXY Description=[DISK, HALO, SPIRAL]</i></p>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(2)	M33-DISK3	RA: 01 33 20.6563 (23.3360679d) Dec: +30 22 13.64 (30.37046d) Equinox: J2000		V=21
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous								
(2)	M33-DISK3	RA: 01 33 20.6563 (23.3360679d) Dec: +30 22 13.64 (30.37046d) Equinox: J2000		V=21	Reference Frame: ICRS								

Proposal 16274 - DISK3-VISIT (02) - Resolved Proper Motions of M33

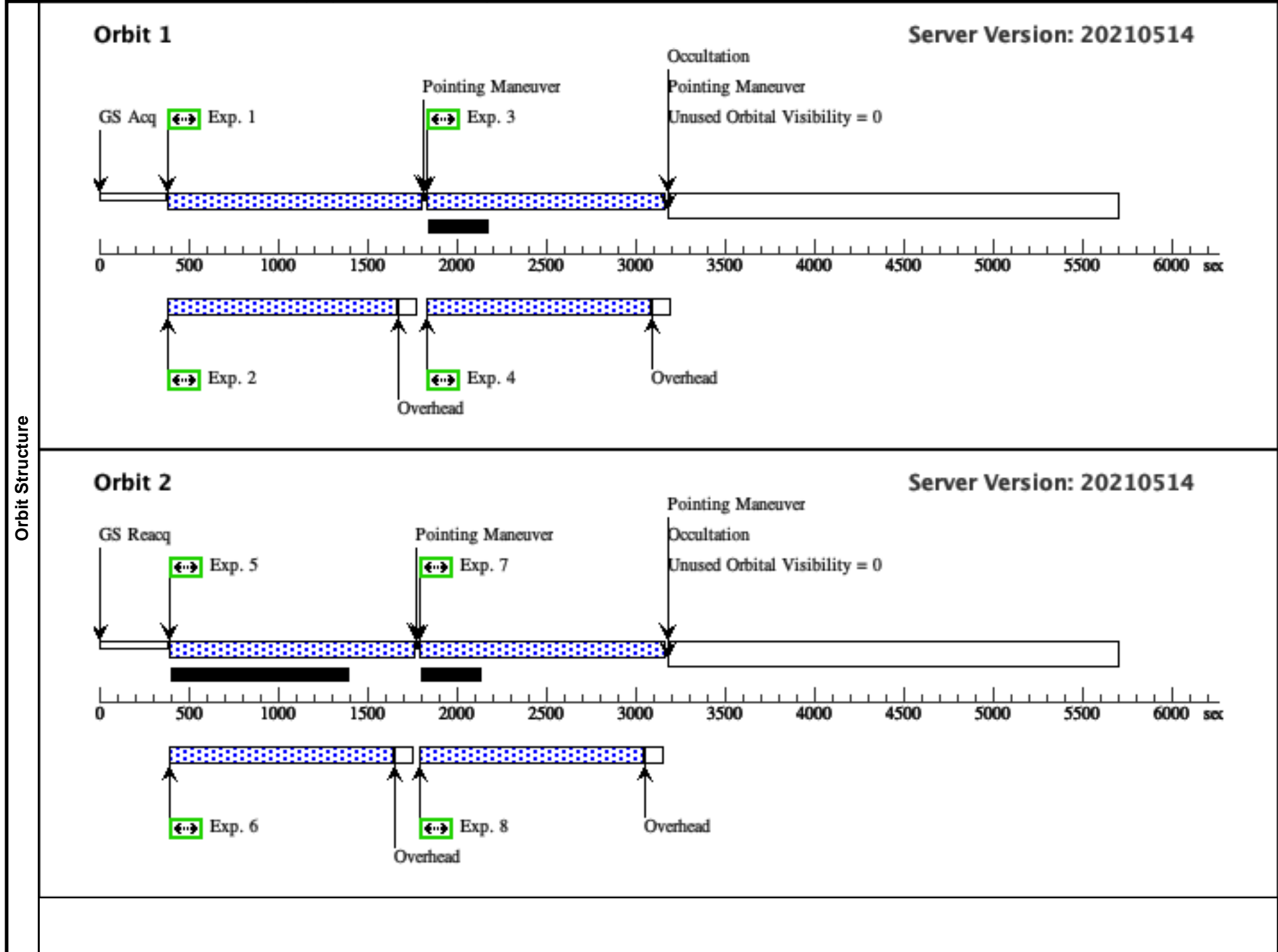
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(2) M33-DISK3	ACS/WFC, ACCUM, WFCENTER	F814W		POS TARG 0.0000,0 .0000	Sequence 1-4 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 1-2 in Sequence 1-4 Non-Int in DISK3-VISIT (02)	1210 Secs (1210 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 1-4 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 1-2 in Sequence 1-4 Non-Int in DISK3-VISIT (02)	1250 Secs (1250 Secs) [==>]	[1]
	3	(2) M33-DISK3	ACS/WFC, ACCUM, WFCENTER	F814W		POS TARG 0.0654,0 .2574	Sequence 1-4 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 3-4 in Sequence 1-4 Non-Int in DISK3-VISIT (02)	1209 Secs (1209 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 1-4 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 3-4 in Sequence 1-4 Non-Int in DISK3-VISIT (02)	1250 Secs (1250 Secs) [==>]	[1]
	5	(2) M33-DISK3	ACS/WFC, ACCUM, WFCENTER	F814W		POS TARG 0.1391,0 .1689	Sequence 5-8 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 5-6 in Sequence 5-8 Non-Int in DISK3-VISIT (02)	1246 Secs (1246 Secs) [==>]	[2]
	6	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 5-8 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 5-6 in Sequence 5-8 Non-Int in DISK3-VISIT (02)	1250 Secs (1250 Secs) [==>]	[2]
	7	(2) M33-DISK3	ACS/WFC, ACCUM, WFCENTER	F814W		POS TARG 0.1550,0 .4225	Sequence 5-8 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 7-8 in Sequence 5-8 Non-Int in DISK3-VISIT (02)	1246 Secs (1246 Secs) [==>]	[2]
	8	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 5-8 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 7-8 in Sequence 5-8 Non-Int in DISK3-VISIT (02)	1250 Secs (1250 Secs) [==>]	[2]

Proposal 16274 - DISK3-VISIT (02) - Resolved Proper Motions of M33

9	(2) M33-DISK3	ACS/WFC, ACCUM, WFCENTER	F814W	POS TARG 0.2177,0 .0857	Sequence 9-12 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 9-10 in Sequence 9-12 Non-Int in DISK3-VISIT (02)	1246 Secs (1246 Secs) [==>]	[3]
10	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 9-12 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 9-10 in Sequence 9-12 Non-Int in DISK3-VISIT (02)	1250 Secs (1250 Secs) [==>]	[3]
11	(2) M33-DISK3	ACS/WFC, ACCUM, WFCENTER	F814W	POS TARG 0.2781,0 .3427	Sequence 9-12 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 11-12 in Sequence 9-12 Non-Int in DISK3-VISIT (02)	1246 Secs (1246 Secs) [==>]	[3]
12	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 9-12 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 11-12 in Sequence 9-12 Non-Int in DISK3-VISIT (02)	1250 Secs (1250 Secs) [==>]	[3]
13	(2) M33-DISK3	ACS/WFC, ACCUM, WFCENTER	F814W	POS TARG 0.3414,0 .1544	Sequence 13-16 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 13-14 in Sequence 13-16 Non-Int in DISK3-VISIT (02)	1246 Secs (1246 Secs) [==>]	[4]
14	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 13-16 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 13-14 in Sequence 13-16 Non-Int in DISK3-VISIT (02)	1250 Secs (1250 Secs) [==>]	[4]
15	(2) M33-DISK3	ACS/WFC, ACCUM, WFCENTER	F814W	POS TARG 0.3567,0 .2595	Sequence 13-16 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 15-16 in Sequence 13-16 Non-Int in DISK3-VISIT (02)	1246 Secs (1246 Secs) [==>]	[4]
16	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 13-16 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 15-16 in Sequence 13-16 Non-Int in DISK3-VISIT (02)	1250 Secs (1250 Secs) [==>]	[4]

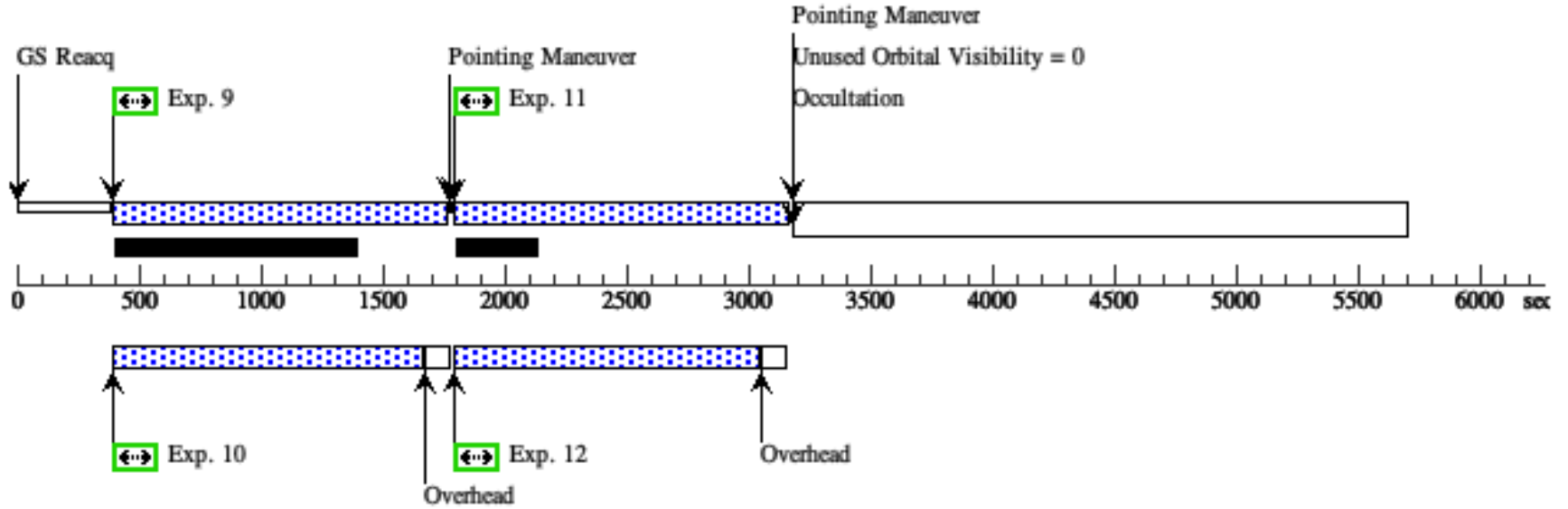
Proposal 16274 - DISK3-VISIT (02) - Resolved Proper Motions of M33

17	(2) M33-DISK3	ACS/WFC, ACCUM, WFCENTER	F814W	POS TARG 0.4216,0 .4178	Sequence 17-20 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 17-18 in Sequence 17-20 Non-Int in DISK3-VISIT (02)	1246 Secs (1246 Secs) [==>]	[5]
18	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 17-20 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 17-18 in Sequence 17-20 Non-Int in DISK3-VISIT (02)	1250 Secs (1250 Secs) [==>]	[5]
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20	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 17-20 Non-Int in DISK3-VISIT (02) Prime + Parallel Group 19-20 in Sequence 17-20 Non-Int in DISK3-VISIT (02)	1250 Secs (1250 Secs) [==>]	[5]



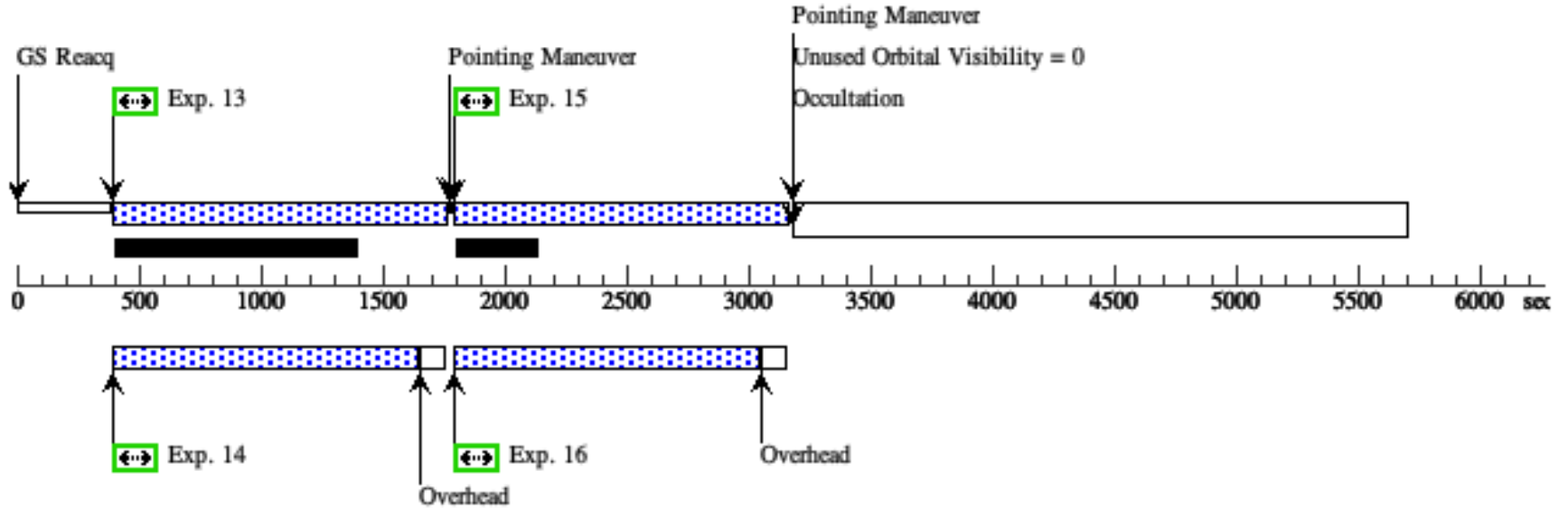
Orbit 3

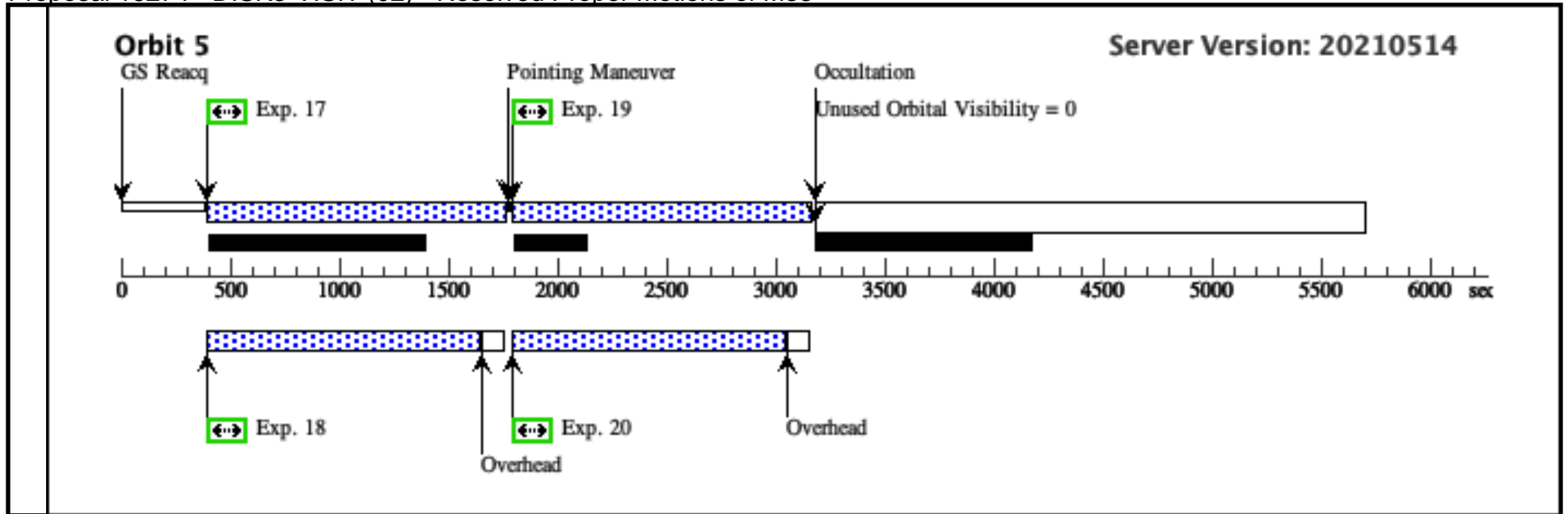
Server Version: 20210514



Orbit 4

Server Version: 20210514





Proposal 16274 - DISK4-VISIT (03) - Resolved Proper Motions of M33

Fri Jan 07 21:00:37 GMT 2022

Visit	<p>Proposal 16274, DISK4-VISIT (03), scheduling</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: ORIENT 140.0D TO 140.0 D</p> <p><i>Comments: This is the visit for imaging the M33-DISK4 field with ACS/WFC as primary and WFC3/UVIS as parallel. We will image the primary field using F814W, and the parallel using F606W+F814W filters. Five orbits are required to complete this visit. Each orbit consists of two long exposures. We added Orient Ranges requirements to align our images with the previous epoch images. We implemented a custom-designed diither pattern via the POS-TARG requirement.</i></p>												
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#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous								
(3)	M33-DISK4	RA: 01 33 7.8421 (23.2826754d) Dec: +30 15 5.38 (30.25149d) Equinox: J2000		V=21	Reference Frame: ICRS								

Proposal 16274 - DISK4-VISIT (03) - Resolved Proper Motions of M33

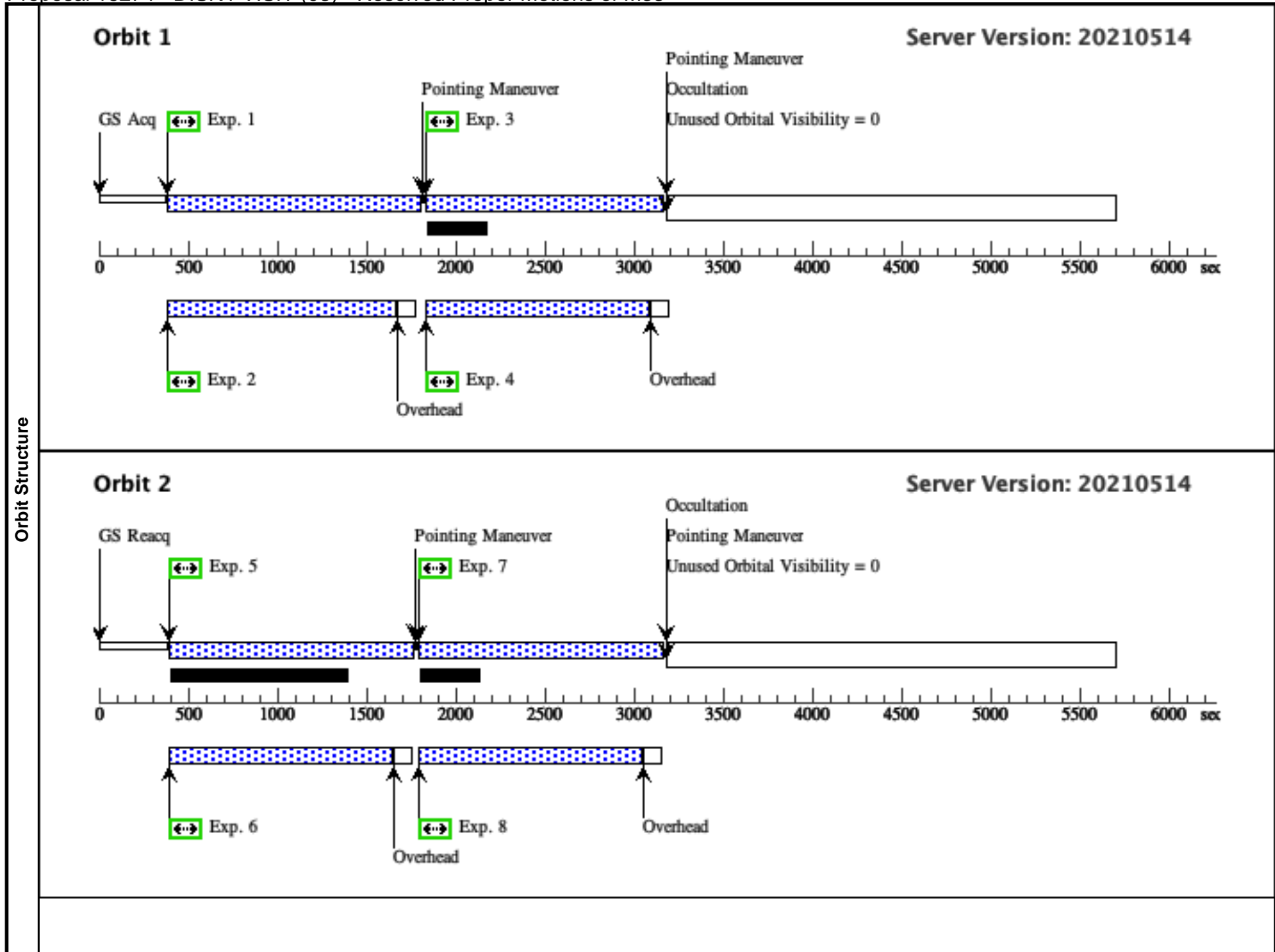
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(3) M33-DISK4	ACS/WFC, ACCUM, WFCENTER	F814W		POS TARG 0.0000,0 .0000	Sequence 1-4 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 1-2 in Sequence 1-4 Non-Int in DISK4-VISIT (03)	1210 Secs (1210 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 1-4 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 1-2 in Sequence 1-4 Non-Int in DISK4-VISIT (03)	1250 Secs (1250 Secs) [==>]	[1]
	3	(3) M33-DISK4	ACS/WFC, ACCUM, WFCENTER	F814W		POS TARG 0.0654,0 .2574	Sequence 1-4 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 3-4 in Sequence 1-4 Non-Int in DISK4-VISIT (03)	1209 Secs (1209 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 1-4 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 3-4 in Sequence 1-4 Non-Int in DISK4-VISIT (03)	1250 Secs (1250 Secs) [==>]	[1]
	5	(3) M33-DISK4	ACS/WFC, ACCUM, WFCENTER	F814W		POS TARG 0.1391,0 .1689	Sequence 5-8 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 5-6 in Sequence 5-8 Non-Int in DISK4-VISIT (03)	1246 Secs (1246 Secs) [==>]	[2]
	6	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 5-8 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 5-6 in Sequence 5-8 Non-Int in DISK4-VISIT (03)	1250 Secs (1250 Secs) [==>]	[2]
	7	(3) M33-DISK4	ACS/WFC, ACCUM, WFCENTER	F814W		POS TARG 0.1550,0 .4225	Sequence 5-8 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 7-8 in Sequence 5-8 Non-Int in DISK4-VISIT (03)	1246 Secs (1246 Secs) [==>]	[2]
	8	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 5-8 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 7-8 in Sequence 5-8 Non-Int in DISK4-VISIT (03)	1250 Secs (1250 Secs) [==>]	[2]

Proposal 16274 - DISK4-VISIT (03) - Resolved Proper Motions of M33

9	(3) M33-DISK4	ACS/WFC, ACCUM, WFCENTER	F814W	POS TARG 0.2177,0 .0857	Sequence 9-12 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 9-10 in Sequence 9-12 Non-Int in DISK4-VISIT (03)	1246 Secs (1246 Secs) [==>]	[3]
10	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 9-12 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 9-10 in Sequence 9-12 Non-Int in DISK4-VISIT (03)	1250 Secs (1250 Secs) [==>]	[3]
11	(3) M33-DISK4	ACS/WFC, ACCUM, WFCENTER	F814W	POS TARG 0.2781,0 .3427	Sequence 9-12 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 11-12 in Sequence 9-12 Non-Int in DISK4-VISIT (03)	1246 Secs (1246 Secs) [==>]	[3]
12	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 9-12 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 11-12 in Sequence 9-12 Non-Int in DISK4-VISIT (03)	1250 Secs (1250 Secs) [==>]	[3]
13	(3) M33-DISK4	ACS/WFC, ACCUM, WFCENTER	F814W	POS TARG 0.3414,0 .1544	Sequence 13-16 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 13-14 in Sequence 13-16 Non-Int in DISK4-VISIT (03)	1246 Secs (1246 Secs) [==>]	[4]
14	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 13-16 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 13-14 in Sequence 13-16 Non-Int in DISK4-VISIT (03)	1250 Secs (1250 Secs) [==>]	[4]
15	(3) M33-DISK4	ACS/WFC, ACCUM, WFCENTER	F814W	POS TARG 0.3567,0 .2595	Sequence 13-16 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 15-16 in Sequence 13-16 Non-Int in DISK4-VISIT (03)	1246 Secs (1246 Secs) [==>]	[4]
16	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 13-16 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 15-16 in Sequence 13-16 Non-Int in DISK4-VISIT (03)	1250 Secs (1250 Secs) [==>]	[4]

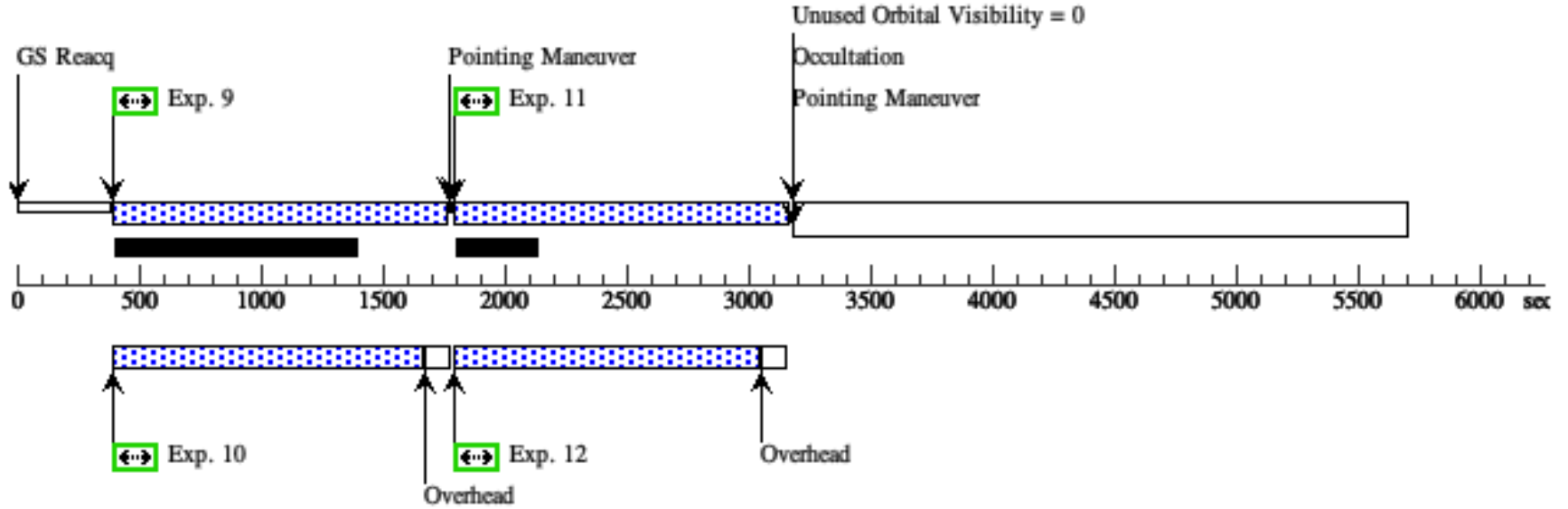
Proposal 16274 - DISK4-VISIT (03) - Resolved Proper Motions of M33

17	(3) M33-DISK4	ACS/WFC, ACCUM, WFCENTER	F814W	POS TARG 0.4216,0 .4178	Sequence 17-20 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 17-18 in Sequence 17-20 Non-Int in DISK4-VISIT (03)	1246 Secs (1246 Secs) [==>]	[5]
18	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 17-20 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 17-18 in Sequence 17-20 Non-Int in DISK4-VISIT (03)	1250 Secs (1250 Secs) [==>]	[5]
19	(3) M33-DISK4	ACS/WFC, ACCUM, WFCENTER	F814W	POS TARG 0.4802,0 .2787	Sequence 17-20 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 19-20 in Sequence 17-20 Non-Int in DISK4-VISIT (03)	1246 Secs (1246 Secs) [==>]	[5]
20	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 17-20 Non-Int in DISK4-VISIT (03) Prime + Parallel Group 19-20 in Sequence 17-20 Non-Int in DISK4-VISIT (03)	1250 Secs (1250 Secs) [==>]	[5]



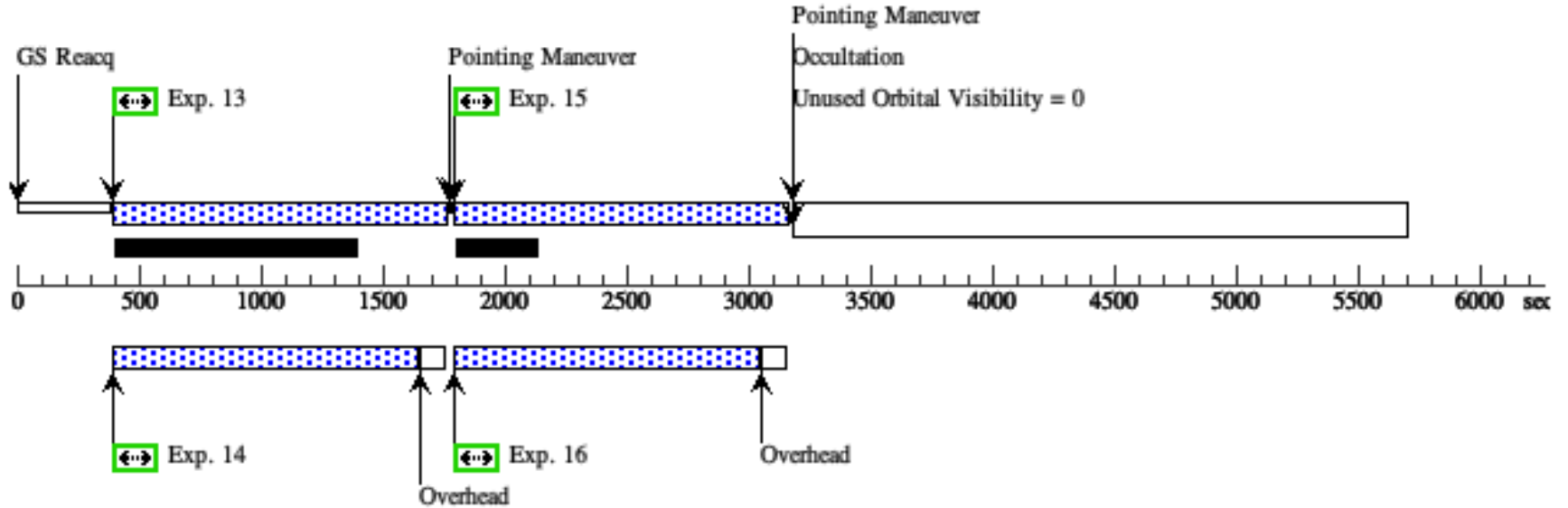
Orbit 3

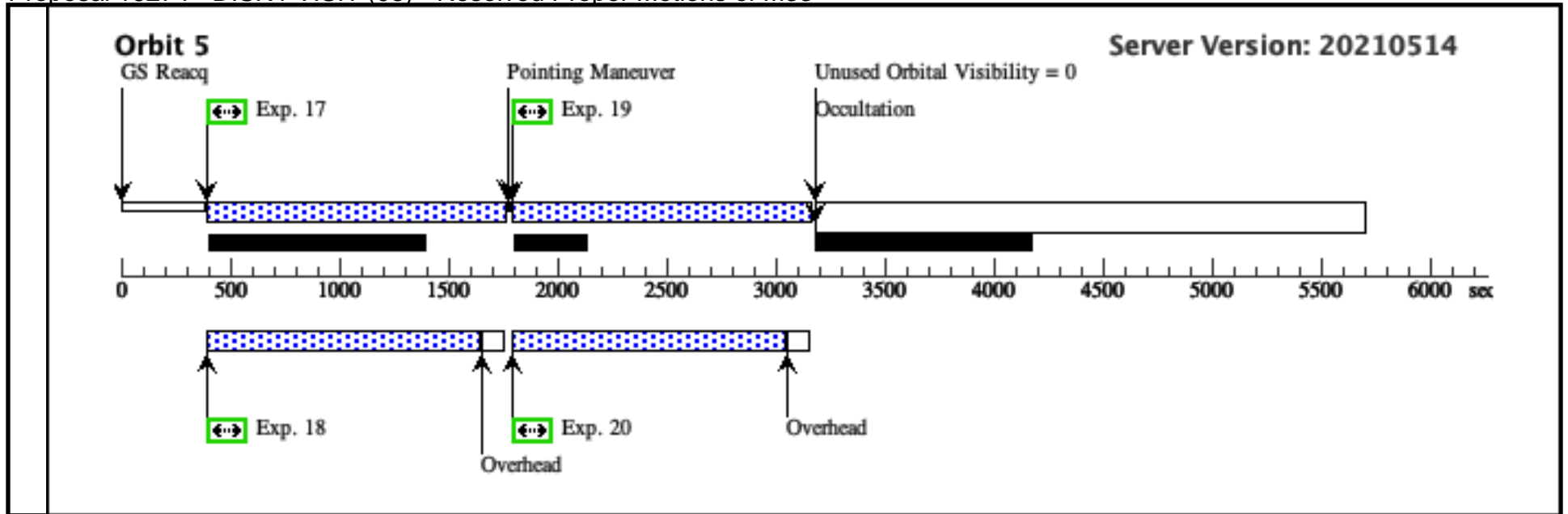
Server Version: 20210514



Orbit 4

Server Version: 20210514





Proposal 16274 - M9-VISIT (04) - Resolved Proper Motions of M33

Visit	<p>Proposal 16274, M9-VISIT (04), completed Fri Jan 07 21:00:37 GMT 2022</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: ORIENT 59.5D TO 59.5 D</p> <p><i>Comments: This is the visit for imaging the M33-M9 field with ACS/WFC as primary and WFC3/UVIS as parallel. We will image the primary field using F814W, and the parallel using F606W+F814W filters. Five orbits are required to complete this visit. Each orbit consists of two long exposures. We added Orient Ranges requirements to align our images with the previous epoch images. We implemented a custom-designed diither pattern via the POS-TARG requirement.</i></p>					
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
(4)		M33-M9	RA: 01 34 30.3571 (23.6264879d) Dec: +30 38 14.04 (30.63723d) Equinox: J2000		V=21	Reference Frame: ICRS
<p><i>Comments:</i> Category=GALAXY Description=[DISK, HALO, SPIRAL]</p>						

Proposal 16274 - M9-VISIT (04) - Resolved Proper Motions of M33

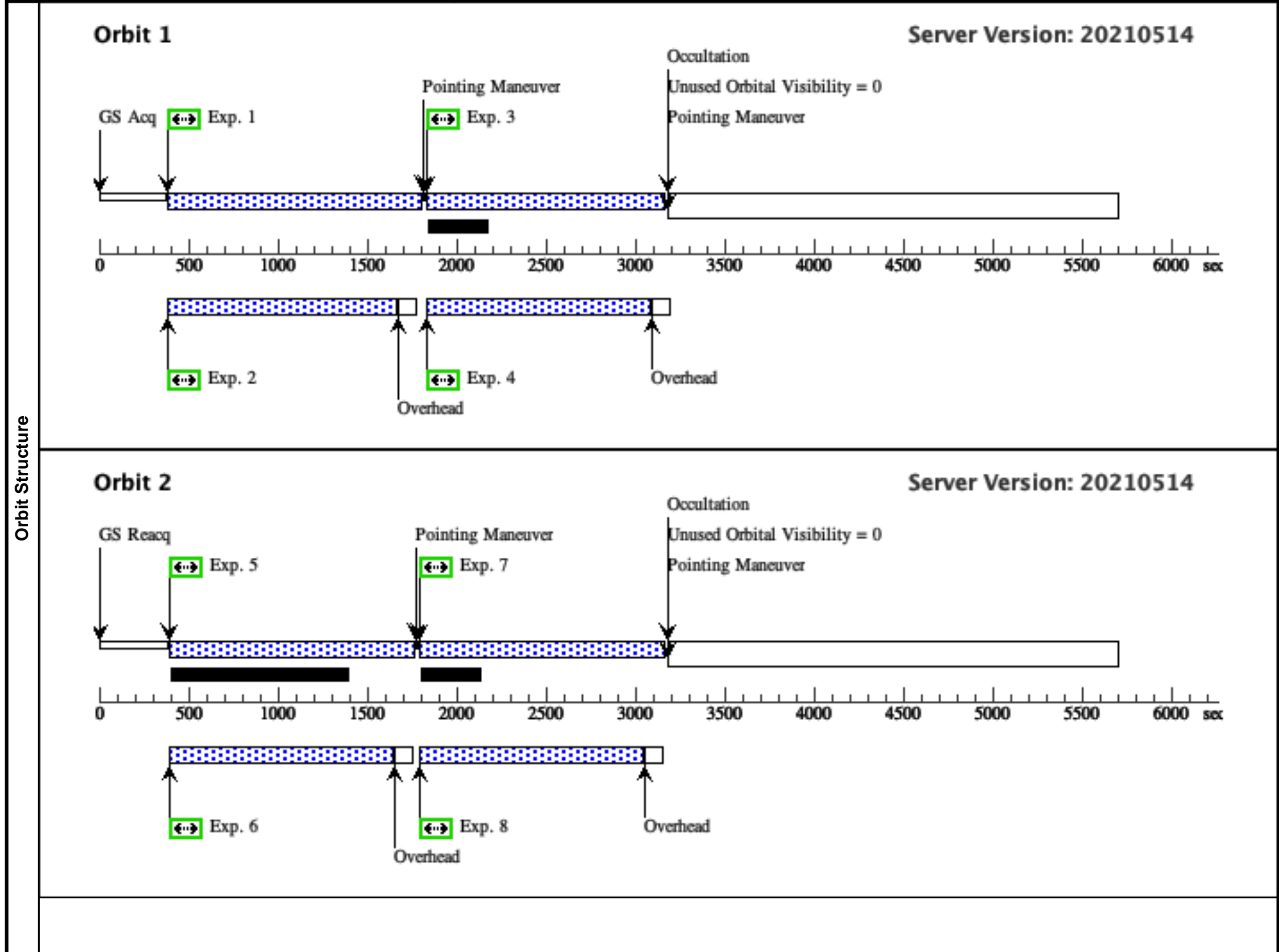
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(4) M33-M9	ACS/WFC, ACCUM, WFC1	F814W		POS TARG 0.0000,0 .0000	Sequence 1-4 Non-Int in M9-VISIT (04) Prime + Parallel Group 1-2 in Sequence 1-4 Non-Int in M9-VISIT (04)	1210 Secs (1210 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 1-4 Non-Int in M9-VISIT (04) Prime + Parallel Group 1-2 in Sequence 1-4 Non-Int in M9-VISIT (04)	1250 Secs (1250 Secs) [==>]	[1]
	3	(4) M33-M9	ACS/WFC, ACCUM, WFC1	F814W		POS TARG 0.0654,0 .2574	Sequence 1-4 Non-Int in M9-VISIT (04) Prime + Parallel Group 3-4 in Sequence 1-4 Non-Int in M9-VISIT (04)	1209 Secs (1209 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 1-4 Non-Int in M9-VISIT (04) Prime + Parallel Group 3-4 in Sequence 1-4 Non-Int in M9-VISIT (04)	1250 Secs (1250 Secs) [==>]	[1]
	5	(4) M33-M9	ACS/WFC, ACCUM, WFC1	F814W		POS TARG 0.1391,0 .1689	Sequence 5-8 Non-Int in M9-VISIT (04) Prime + Parallel Group 5-6 in Sequence 5-8 Non-Int in M9-VISIT (04)	1246 Secs (1246 Secs) [==>]	[2]
	6	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 5-8 Non-Int in M9-VISIT (04) Prime + Parallel Group 5-6 in Sequence 5-8 Non-Int in M9-VISIT (04)	1250 Secs (1250 Secs) [==>]	[2]
	7	(4) M33-M9	ACS/WFC, ACCUM, WFC1	F814W		POS TARG 0.1550,0 .4225	Sequence 5-8 Non-Int in M9-VISIT (04) Prime + Parallel Group 7-8 in Sequence 5-8 Non-Int in M9-VISIT (04)	1246 Secs (1246 Secs) [==>]	[2]
	8	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 5-8 Non-Int in M9-VISIT (04) Prime + Parallel Group 7-8 in Sequence 5-8 Non-Int in M9-VISIT (04)	1250 Secs (1250 Secs) [==>]	[2]
	9	(4) M33-M9	ACS/WFC, ACCUM, WFC1	F814W		POS TARG 0.2177,0 .0857	Sequence 9-12 Non-Int in M9-VISIT (04) Prime + Parallel Group 9-10 in Sequence 9-12 Non-Int in M9-VISIT (04)	1246 Secs (1246 Secs) [==>]	[3]

Proposal 16274 - M9-VISIT (04) - Resolved Proper Motions of M33

10	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 9-12 Non-Int in M9-VISIT (04) Prime + Parallel Group 9-10 in Sequence 9-12 Non-Int in M9-VISIT (04)	1250 Secs (1250 Secs) [==>]	[3]
11	(4) M33-M9	ACS/WFC, ACCUM, WFC1	F814W	POS TARG 0.2781,0 .3427	Sequence 9-12 Non-Int in M9-VISIT (04) Prime + Parallel Group 11-12 in Sequence 9-12 Non-Int in M9-VISIT (04)	1246 Secs (1246 Secs) [==>]	[3]
12	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 9-12 Non-Int in M9-VISIT (04) Prime + Parallel Group 11-12 in Sequence 9-12 Non-Int in M9-VISIT (04)	1250 Secs (1250 Secs) [==>]	[3]
13	(4) M33-M9	ACS/WFC, ACCUM, WFC1	F814W	POS TARG 0.3414,0 .1544	Sequence 13-16 Non-Int in M9-VISIT (04) Prime + Parallel Group 13-14 in Sequence 13-16 Non-Int in M9-VISIT (04)	1246 Secs (1246 Secs) [==>]	[4]
14	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 13-16 Non-Int in M9-VISIT (04) Prime + Parallel Group 13-14 in Sequence 13-16 Non-Int in M9-VISIT (04)	1250 Secs (1250 Secs) [==>]	[4]
15	(4) M33-M9	ACS/WFC, ACCUM, WFC1	F814W	POS TARG 0.3567,0 .2595	Sequence 13-16 Non-Int in M9-VISIT (04) Prime + Parallel Group 15-16 in Sequence 13-16 Non-Int in M9-VISIT (04)	1246 Secs (1246 Secs) [==>]	[4]
16	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 13-16 Non-Int in M9-VISIT (04) Prime + Parallel Group 15-16 in Sequence 13-16 Non-Int in M9-VISIT (04)	1250 Secs (1250 Secs) [==>]	[4]
17	(4) M33-M9	ACS/WFC, ACCUM, WFC1	F814W	POS TARG 0.4216,0 .4178	Sequence 17-20 Non-Int in M9-VISIT (04) Prime + Parallel Group 17-18 in Sequence 17-20 Non-Int in M9-VISIT (04)	1246 Secs (1246 Secs) [==>]	[5]

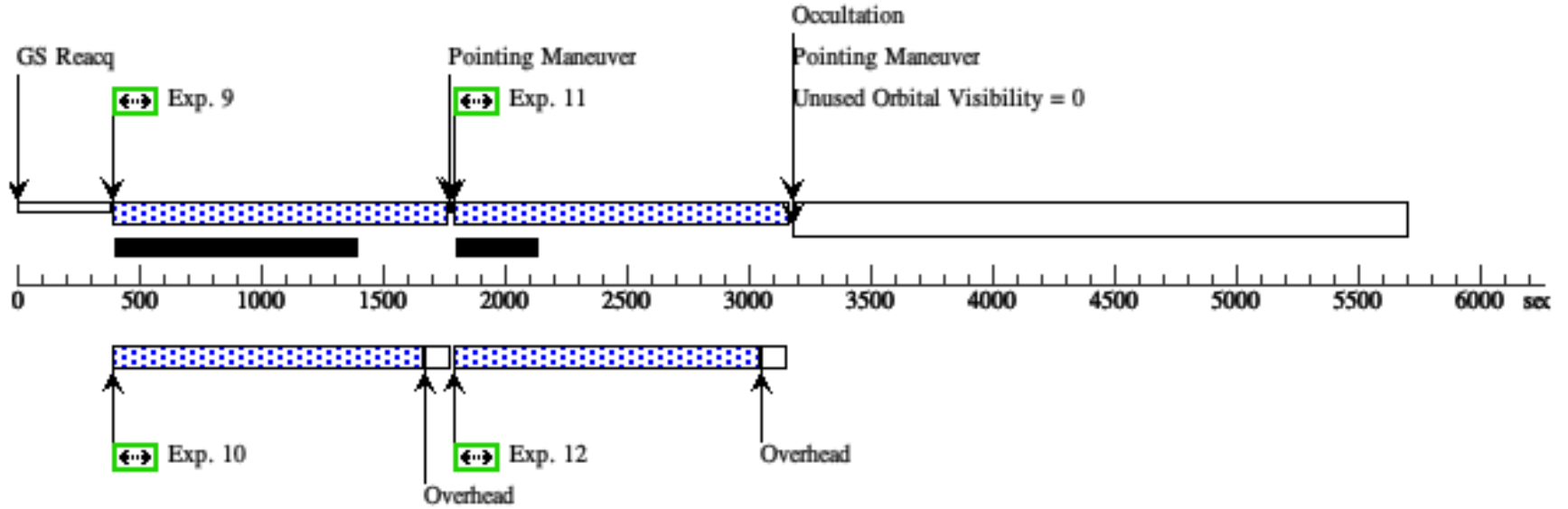
Proposal 16274 - M9-VISIT (04) - Resolved Proper Motions of M33

18	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 17-20 Non-Int in M9-VISIT (04) Prime + Parallel Group 17-18 in Sequence 17-20 Non-Int in M9-VISIT (04)	1250 Secs (1250 Secs) [==>]	[5]
19	(4) M33-M9	ACS/WFC, ACCUM, WFC1	F814W	POS TARG 0.4802,0 .2787	Sequence 17-20 Non-Int in M9-VISIT (04) Prime + Parallel Group 19-20 in Sequence 17-20 Non-Int in M9-VISIT (04)	1246 Secs (1246 Secs) [==>]	[5]
20	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 17-20 Non-Int in M9-VISIT (04) Prime + Parallel Group 19-20 in Sequence 17-20 Non-Int in M9-VISIT (04)	1250 Secs (1250 Secs) [==>]	[5]



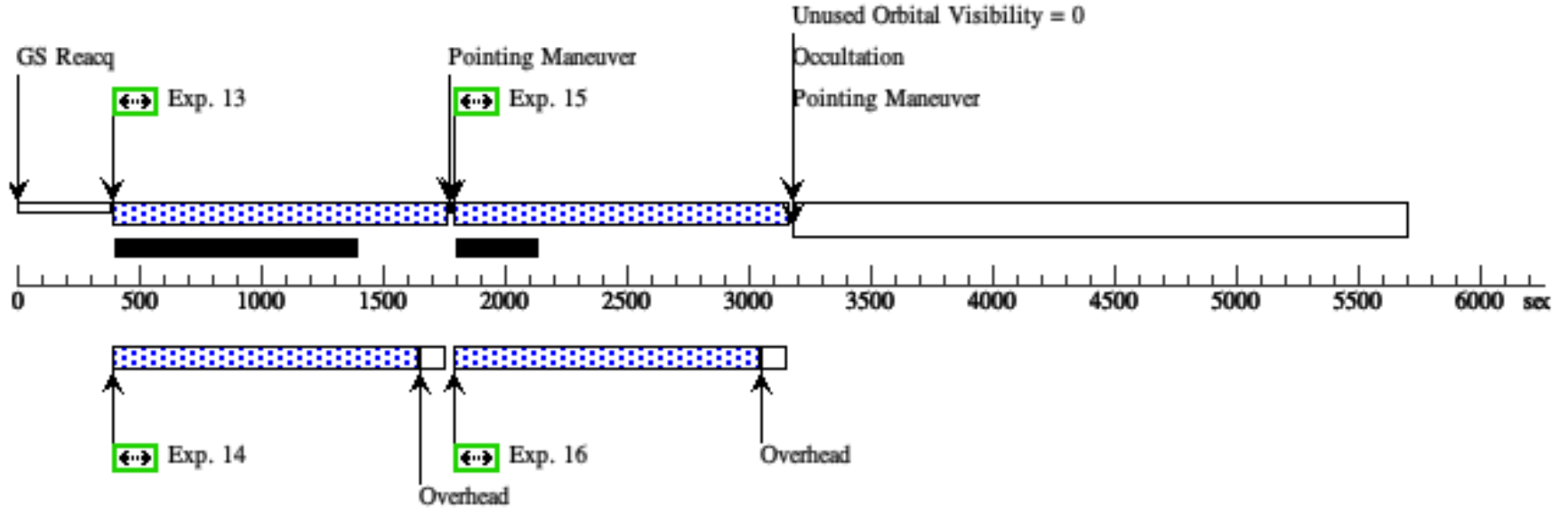
Orbit 3

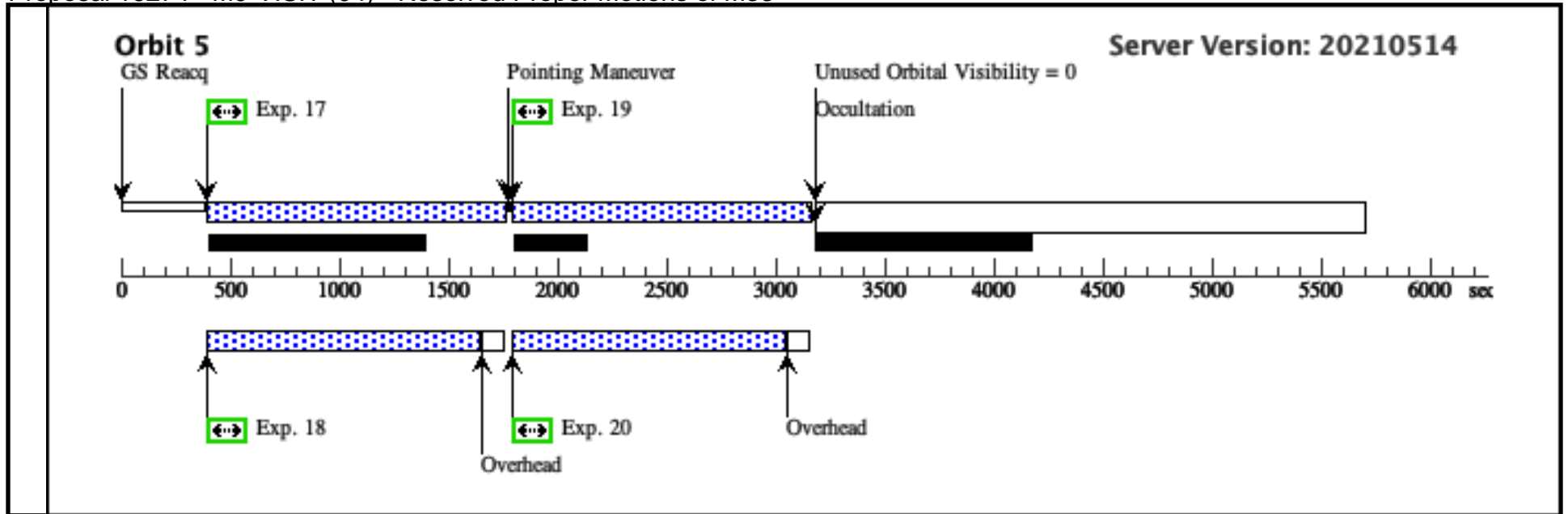
Server Version: 20210514



Orbit 4

Server Version: 20210514





Proposal 16274 - U49-VISIT (05) - Resolved Proper Motions of M33

Fri Jan 07 21:00:37 GMT 2022

Visit	<p>Proposal 16274, U49-VISIT (05), scheduling</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: ORIENT 136.1D TO 140.1 D</p> <p><i>Comments: This is the visit for imaging the M33-U49 field with ACS/WFC as primary and WFC3/UVIS as parallel. We will image the primary field using F814W, and the parallel using F606W+F814W filters. Five orbits are required to complete this visit. Each orbit consists of two long exposures. We added Orient Ranges requirements to align our images with the previous epoch images. We implemented a custom-designed diither pattern via the POS-TARG requirement.</i></p>					
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
(5)		M33-U49	RA: 01 33 40.6153 (23.4192304d) Dec: +30 47 59.26 (30.79979d) Equinox: J2000		V=21	Reference Frame: ICRS
<p><i>Comments:</i> <i>Category=GALAXY</i> <i>Description=[DISK, HALO, SPIRAL]</i></p>						

Proposal 16274 - U49-VISIT (05) - Resolved Proper Motions of M33

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(5) M33-U49	ACS/WFC, ACCUM, WFC1	F814W		POS TARG 0.0000,0 .0000	Sequence 1-4 Non-Int in U49-VISIT (05) Prime + Parallel Group 1-2 in Sequence 1-4 Non-Int in U49-VISIT (05)	1210 Secs (1210 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 1-4 Non-Int in U49-VISIT (05) Prime + Parallel Group 1-2 in Sequence 1-4 Non-Int in U49-VISIT (05)	1250 Secs (1250 Secs) [==>]	[1]
	3	(5) M33-U49	ACS/WFC, ACCUM, WFC1	F814W		POS TARG 0.0654,0 .2574	Sequence 1-4 Non-Int in U49-VISIT (05) Prime + Parallel Group 3-4 in Sequence 1-4 Non-Int in U49-VISIT (05)	1209 Secs (1209 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 1-4 Non-Int in U49-VISIT (05) Prime + Parallel Group 3-4 in Sequence 1-4 Non-Int in U49-VISIT (05)	1250 Secs (1250 Secs) [==>]	[1]
	5	(5) M33-U49	ACS/WFC, ACCUM, WFC1	F814W		POS TARG 0.1391,0 .1689	Sequence 5-8 Non-Int in U49-VISIT (05) Prime + Parallel Group 5-6 in Sequence 5-8 Non-Int in U49-VISIT (05)	1246 Secs (1246 Secs) [==>]	[2]
	6	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 5-8 Non-Int in U49-VISIT (05) Prime + Parallel Group 5-6 in Sequence 5-8 Non-Int in U49-VISIT (05)	1250 Secs (1250 Secs) [==>]	[2]
	7	(5) M33-U49	ACS/WFC, ACCUM, WFC1	F814W		POS TARG 0.1550,0 .4225	Sequence 5-8 Non-Int in U49-VISIT (05) Prime + Parallel Group 7-8 in Sequence 5-8 Non-Int in U49-VISIT (05)	1246 Secs (1246 Secs) [==>]	[2]
	8	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 5-8 Non-Int in U49-VISIT (05) Prime + Parallel Group 7-8 in Sequence 5-8 Non-Int in U49-VISIT (05)	1250 Secs (1250 Secs) [==>]	[2]
	9	(5) M33-U49	ACS/WFC, ACCUM, WFC1	F814W		POS TARG 0.2177,0 .0857	Sequence 9-12 Non-Int in U49-VISIT (05) Prime + Parallel Group 9-10 in Sequence 9-12 Non-Int in U49-VISIT (05)	1246 Secs (1246 Secs) [==>]	[3]

Proposal 16274 - U49-VISIT (05) - Resolved Proper Motions of M33

10	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 9-12 Non-Int in U49-VISIT (05) Prime + Parallel Group 9-10 in Sequence 9-12 Non-Int in U49-VISIT (05)	1250 Secs (1250 Secs) [==>]	[3]
11	(5) M33-U49	ACS/WFC, ACCUM, WFC1	F814W	POS TARG 0.2781,0 .3427	Sequence 9-12 Non-Int in U49-VISIT (05) Prime + Parallel Group 11-12 in Sequence 9-12 Non-Int in U49-VISIT (05)	1246 Secs (1246 Secs) [==>]	[3]
12	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 9-12 Non-Int in U49-VISIT (05) Prime + Parallel Group 11-12 in Sequence 9-12 Non-Int in U49-VISIT (05)	1250 Secs (1250 Secs) [==>]	[3]
13	(5) M33-U49	ACS/WFC, ACCUM, WFC1	F814W	POS TARG 0.3414,0 .1544	Sequence 13-16 Non-Int in U49-VISIT (05) Prime + Parallel Group 13-14 in Sequence 13-16 Non-Int in U49-VISIT (05)	1246 Secs (1246 Secs) [==>]	[4]
14	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 13-16 Non-Int in U49-VISIT (05) Prime + Parallel Group 13-14 in Sequence 13-16 Non-Int in U49-VISIT (05)	1250 Secs (1250 Secs) [==>]	[4]
15	(5) M33-U49	ACS/WFC, ACCUM, WFC1	F814W	POS TARG 0.3567,0 .2595	Sequence 13-16 Non-Int in U49-VISIT (05) Prime + Parallel Group 15-16 in Sequence 13-16 Non-Int in U49-VISIT (05)	1246 Secs (1246 Secs) [==>]	[4]
16	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 13-16 Non-Int in U49-VISIT (05) Prime + Parallel Group 15-16 in Sequence 13-16 Non-Int in U49-VISIT (05)	1250 Secs (1250 Secs) [==>]	[4]
17	(5) M33-U49	ACS/WFC, ACCUM, WFC1	F814W	POS TARG 0.4216,0 .4178	Sequence 17-20 Non-Int in U49-VISIT (05) Prime + Parallel Group 17-18 in Sequence 17-20 Non-Int in U49-VISIT (05)	1246 Secs (1246 Secs) [==>]	[5]

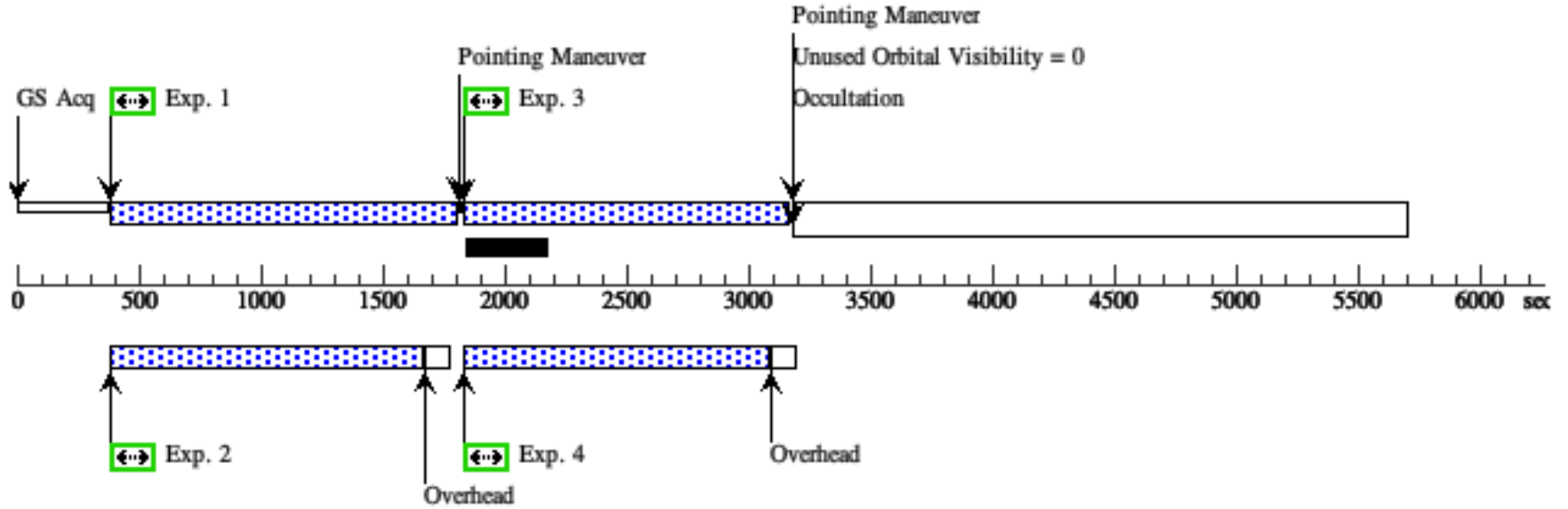
Proposal 16274 - U49-VISIT (05) - Resolved Proper Motions of M33

18	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 17-20 Non-Int in U49-VISIT (05) Prime + Parallel Group 17-18 in Sequence 17-20 Non-Int in U49-VISIT (05)	1250 Secs (1250 Secs) [==>]	[5]
19	(5) M33-U49	ACS/WFC, ACCUM, WFC1	F814W	POS TARG 0.4802,0 .2787	Sequence 17-20 Non-Int in U49-VISIT (05) Prime + Parallel Group 19-20 in Sequence 17-20 Non-Int in U49-VISIT (05)	1246 Secs (1246 Secs) [==>]	[5]
20	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 17-20 Non-Int in U49-VISIT (05) Prime + Parallel Group 19-20 in Sequence 17-20 Non-Int in U49-VISIT (05)	1250 Secs (1250 Secs) [==>]	[5]

Orbit Structure

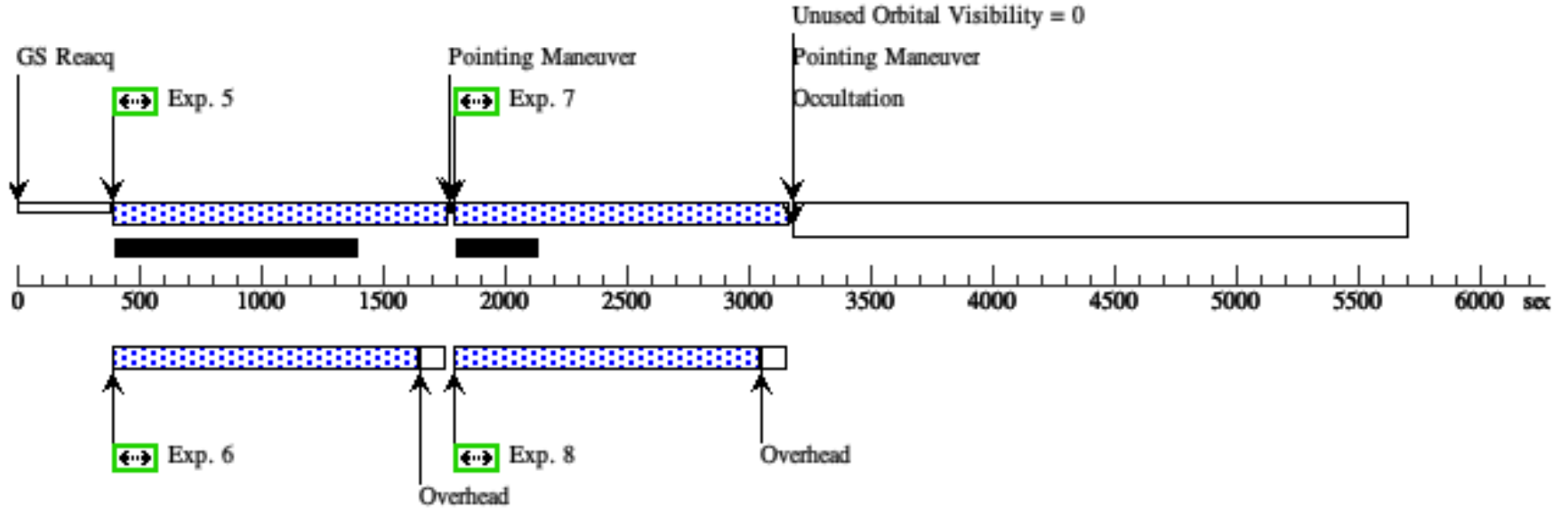
Orbit 1

Server Version: 20210514



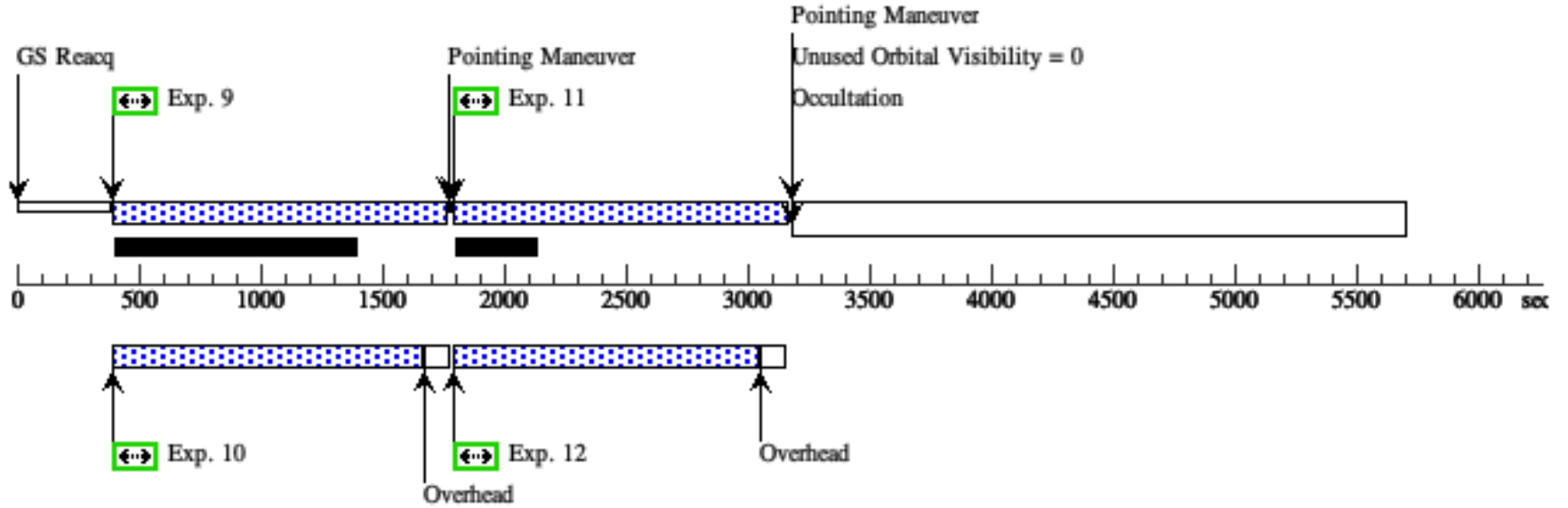
Orbit 2

Server Version: 20210514



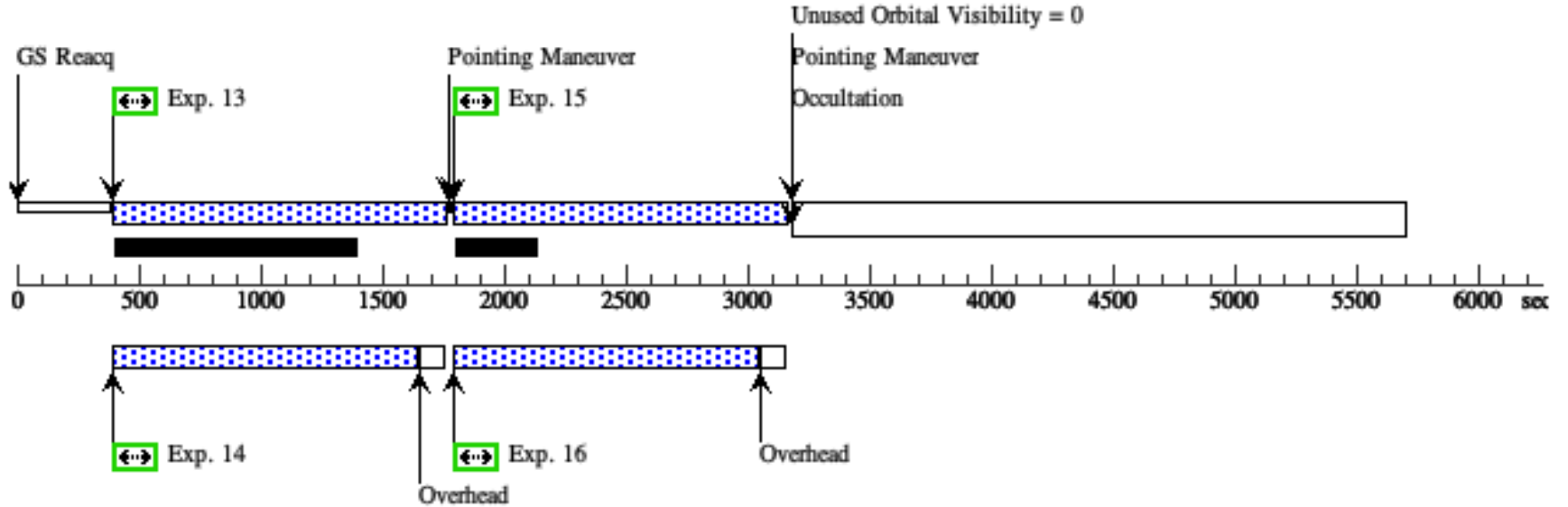
Orbit 3

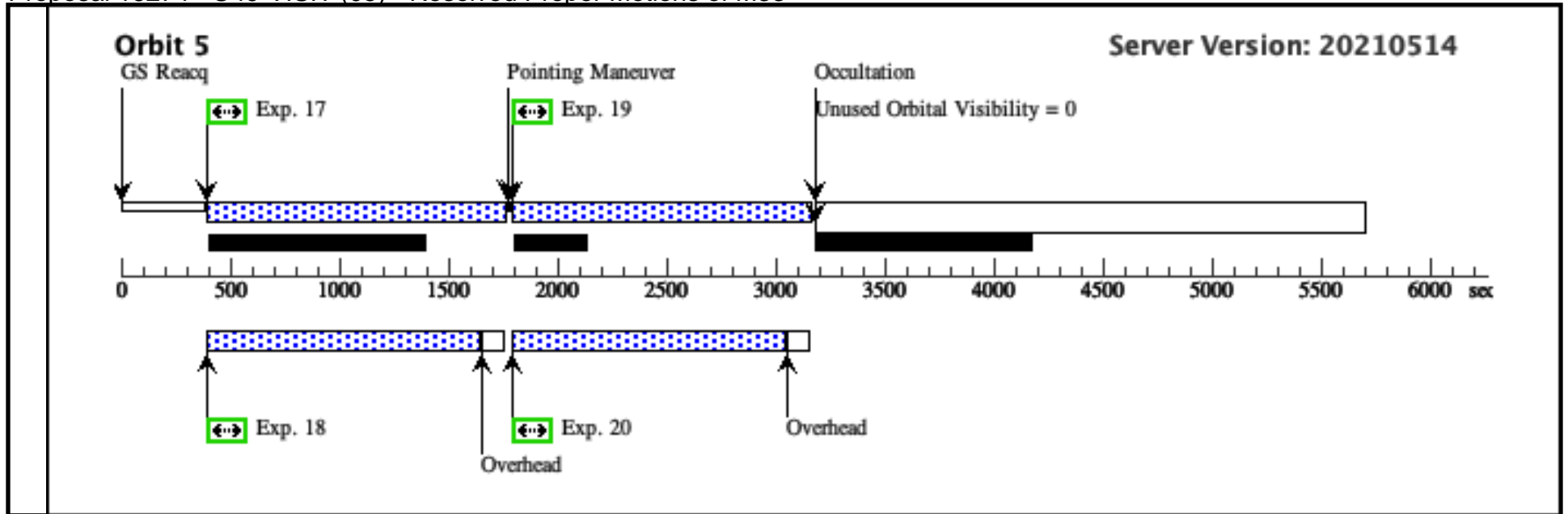
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Orbit 4

Server Version: 20210514





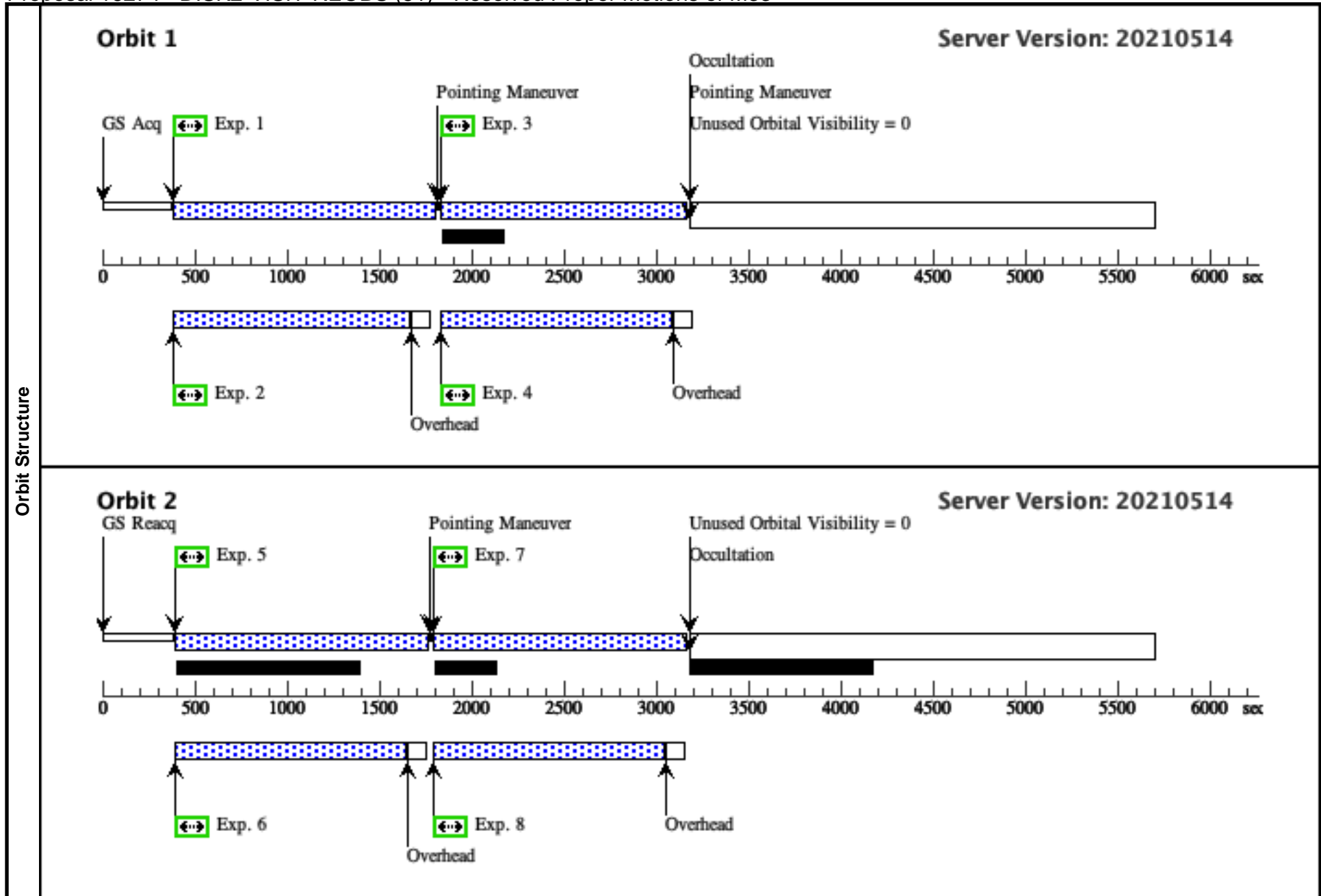
Proposal 16274 - DISK2-VISIT-REOBS (51) - Resolved Proper Motions of M33

Fri Jan 07 21:00:38 GMT 2022

Visit	<p>Proposal 16274, DISK2-VISIT-REOBS (51), completed</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: ORIENT 229.9D TO 229.9 D</p> <p><i>Comments: This is the visit for imaging the M33-DISK2 field with ACS/WFC as primary and WFC3/UVIS as parallel. We will image the primary field using F814W, and the parallel using F606W+F814W filters. Five orbits are required to complete this visit. Each orbit consists of two long exposures. We have also added Orient Ranges requirements to align our images with the previous epoch images. We implemented a custom-designed dither pattern via the POS-TARG requirement.</i></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>(1)</td> <td>M33-DISK2</td> <td>RA: 01 33 39.5413 (23.4147554d) Dec: +30 29 0.75 (30.48354d) Equinox: J2000</td> <td></td> <td>V=21</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments: Category=GALAXY Description=[DISK, HALO, SPIRAL]</i></p>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(1)	M33-DISK2	RA: 01 33 39.5413 (23.4147554d) Dec: +30 29 0.75 (30.48354d) Equinox: J2000		V=21
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous								
(1)	M33-DISK2	RA: 01 33 39.5413 (23.4147554d) Dec: +30 29 0.75 (30.48354d) Equinox: J2000		V=21	Reference Frame: ICRS								

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#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1) M33-DISK2	ACS/WFC, ACCUM, WFCENTER	F814W		POS TARG 0.3414,0 .1544	Sequence 1-4 Non-Int in DISK2-VISIT-REOBS (51) Prime + Parallel Group 1-2 in Sequence 1-4 Non-Int in DISK2-VISIT-REOBS (51)	1210 Secs (1210 Secs) [==>]	[1]
	2	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W			Sequence 1-4 Non-Int in DISK2-VISIT-REOBS (51) Prime + Parallel Group 1-2 in Sequence 1-4 Non-Int in DISK2-VISIT-REOBS (51)	1250 Secs (1250 Secs) [==>]	[1]
	3	(1) M33-DISK2	ACS/WFC, ACCUM, WFCENTER	F814W		POS TARG 0.3567,0 .2595	Sequence 1-4 Non-Int in DISK2-VISIT-REOBS (51) Prime + Parallel Group 3-4 in Sequence 1-4 Non-Int in DISK2-VISIT-REOBS (51)	1209 Secs (1209 Secs) [==>]	[1]
	4	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W			Sequence 1-4 Non-Int in DISK2-VISIT-REOBS (51) Prime + Parallel Group 3-4 in Sequence 1-4 Non-Int in DISK2-VISIT-REOBS (51)	1250 Secs (1250 Secs) [==>]	[1]
	5	(1) M33-DISK2	ACS/WFC, ACCUM, WFCENTER	F814W		POS TARG 0.4216,0 .4178	Sequence 5-8 Non-Int in DISK2-VISIT-REOBS (51) Prime + Parallel Group 5-6 in Sequence 5-8 Non-Int in DISK2-VISIT-REOBS (51)	1246 Secs (1246 Secs) [==>]	[2]
	6	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W			Sequence 5-8 Non-Int in DISK2-VISIT-REOBS (51) Prime + Parallel Group 5-6 in Sequence 5-8 Non-Int in DISK2-VISIT-REOBS (51)	1250 Secs (1250 Secs) [==>]	[2]
	7	(1) M33-DISK2	ACS/WFC, ACCUM, WFCENTER	F814W		POS TARG 0.4802,0 .2787	Sequence 5-8 Non-Int in DISK2-VISIT-REOBS (51) Prime + Parallel Group 7-8 in Sequence 5-8 Non-Int in DISK2-VISIT-REOBS (51)	1246 Secs (1246 Secs) [==>]	[2]
	8	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W			Sequence 5-8 Non-Int in DISK2-VISIT-REOBS (51) Prime + Parallel Group 7-8 in Sequence 5-8 Non-Int in DISK2-VISIT-REOBS (51)	1250 Secs (1250 Secs) [==>]	[2]



Proposal 16274 - M9-VISIT-REOBS (54) - Resolved Proper Motions of M33

Fri Jan 07 21:00:38 GMT 2022

Visit	<p>Proposal 16274, M9-VISIT-REOBS (54)</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: ORIENT 59.0D TO 60.0 D</p> <p><i>Comments: This is the visit for imaging the M33-M9 field with ACS/WFC as primary and WFC3/UVIS as parallel. We will image the primary field using F814W, and the parallel using F606W+F814W filters. Five orbits are required to complete this visit. Each orbit consists of two long exposures. We added Orient Ranges requirements to align our images with the previous epoch images. We implemented a custom-designed diither pattern via the POS-TARG requirement.</i></p>												
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#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous								
(4)	M33-M9	RA: 01 34 30.3571 (23.6264879d) Dec: +30 38 14.04 (30.63723d) Equinox: J2000		V=21	Reference Frame: ICRS								

Proposal 16274 - M9-VISIT-REOBS (54) - Resolved Proper Motions of M33

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(4) M33-M9	ACS/WFC, ACCUM, WFC1	F814W		POS TARG 0.1391,0.1689	Sequence 1-4 Non-Int in M9-VISIT-REOBS (54) Prime + Parallel Group 1-2 in Sequence 1-4 Non-Int in M9-VISIT-REOBS (54)	1209 Secs (1209 Secs) [==>]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 1-4 Non-Int in M9-VISIT-REOBS (54) Prime + Parallel Group 1-2 in Sequence 1-4 Non-Int in M9-VISIT-REOBS (54)	1250 Secs (1250 Secs) [==>]	[1]
	3		(4) M33-M9	ACS/WFC, ACCUM, WFC1	F814W		POS TARG 0.1550,0.4225	Sequence 1-4 Non-Int in M9-VISIT-REOBS (54) Prime + Parallel Group 3-4 in Sequence 1-4 Non-Int in M9-VISIT-REOBS (54)	1209 Secs (1209 Secs) [==>]	[1]
	4		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W			Sequence 1-4 Non-Int in M9-VISIT-REOBS (54) Prime + Parallel Group 3-4 in Sequence 1-4 Non-Int in M9-VISIT-REOBS (54)	1250 Secs (1250 Secs) [==>]	[1]
	5		(4) M33-M9	ACS/WFC, ACCUM, WFC1	F814W		POS TARG 0.2177,0.0857	Sequence 5-8 Non-Int in M9-VISIT-REOBS (54) Prime + Parallel Group 5-6 in Sequence 5-8 Non-Int in M9-VISIT-REOBS (54)	1246 Secs (1246 Secs) [==>]	[2]
	6		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W			Sequence 5-8 Non-Int in M9-VISIT-REOBS (54) Prime + Parallel Group 5-6 in Sequence 5-8 Non-Int in M9-VISIT-REOBS (54)	1250 Secs (1250 Secs) [==>]	[2]
	7		(4) M33-M9	ACS/WFC, ACCUM, WFC1	F814W		POS TARG 0.2781,0.3427	Sequence 5-8 Non-Int in M9-VISIT-REOBS (54) Prime + Parallel Group 7-8 in Sequence 5-8 Non-Int in M9-VISIT-REOBS (54)	1246 Secs (1246 Secs) [==>]	[2]
	8		ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W			Sequence 5-8 Non-Int in M9-VISIT-REOBS (54) Prime + Parallel Group 7-8 in Sequence 5-8 Non-Int in M9-VISIT-REOBS (54)	1250 Secs (1250 Secs) [==>]	[2]

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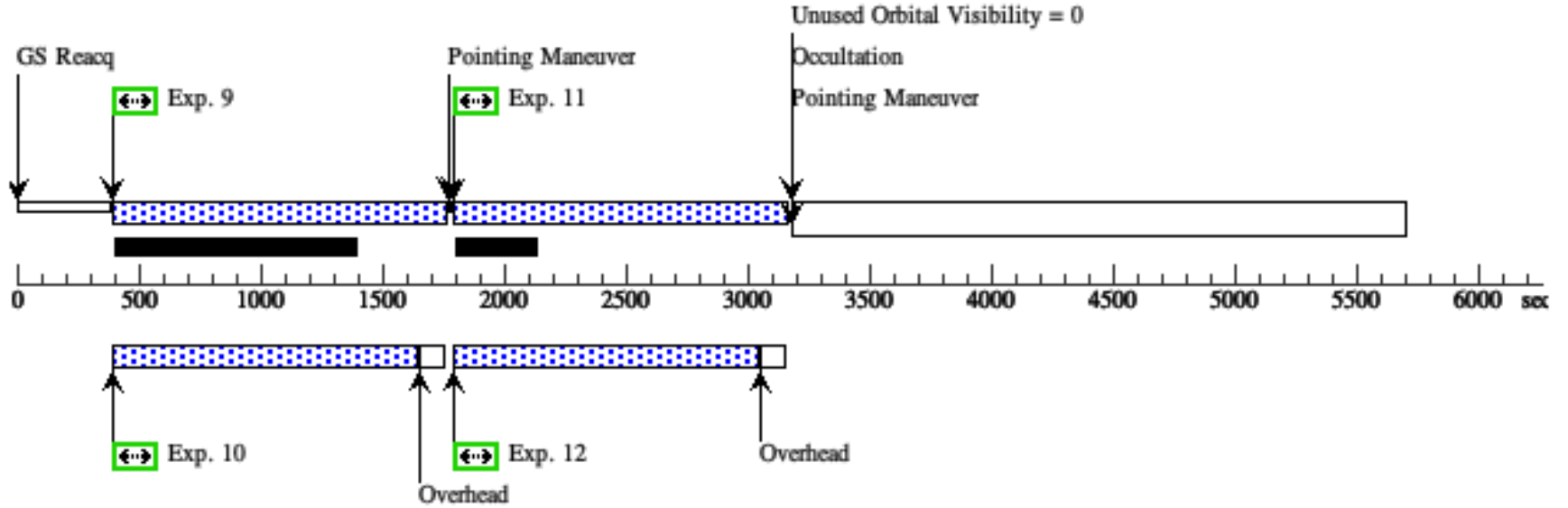
9	(4) M33-M9	ACS/WFC, ACCUM, WFC1	F814W	POS TARG 0.3414,0 .1544	Sequence 9-12 Non-Int in M9-VISIT-REOBS (54) Prime + Parallel Group 9-10 in Sequence 9-12 Non-Int in M9-VISIT-REOBS (54)	1246 Secs (1246 Secs) [==>]	[3]
10	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 9-12 Non-Int in M9-VISIT-REOBS (54) Prime + Parallel Group 9-10 in Sequence 9-12 Non-Int in M9-VISIT-REOBS (54)	1250 Secs (1250 Secs) [==>]	[3]
11	(4) M33-M9	ACS/WFC, ACCUM, WFC1	F814W	POS TARG 0.3567,0 .2595	Sequence 9-12 Non-Int in M9-VISIT-REOBS (54) Prime + Parallel Group 11-12 in Sequence 9-12 Non-Int in M9-VISIT-REOBS (54)	1246 Secs (1246 Secs) [==>]	[3]
12	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 9-12 Non-Int in M9-VISIT-REOBS (54) Prime + Parallel Group 11-12 in Sequence 9-12 Non-Int in M9-VISIT-REOBS (54)	1250 Secs (1250 Secs) [==>]	[3]
13	(4) M33-M9	ACS/WFC, ACCUM, WFC1	F814W	POS TARG 0.4216,0 .4178	Sequence 13-16 Non-Int in M9-VISIT-REOBS (54) Prime + Parallel Group 13-14 in Sequence 13-16 Non-Int in M9-VISIT-REOBS (54)	1246 Secs (1246 Secs) [==>]	[4]
14	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		Sequence 13-16 Non-Int in M9-VISIT-REOBS (54) Prime + Parallel Group 13-14 in Sequence 13-16 Non-Int in M9-VISIT-REOBS (54)	1250 Secs (1250 Secs) [==>]	[4]
15	(4) M33-M9	ACS/WFC, ACCUM, WFC1	F814W	POS TARG 0.4802,0 .2787	Sequence 13-16 Non-Int in M9-VISIT-REOBS (54) Prime + Parallel Group 15-16 in Sequence 13-16 Non-Int in M9-VISIT-REOBS (54)	1246 Secs (1246 Secs) [==>]	[4]

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16	ANY	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W	Sequence 13-16 Non-Int in M9-VISIT-REOBS (54) Prime + Parallel Group 15-16 in Sequence 13-16 Non-Int in M9-VISIT-REOBS (54)	1250 Secs (1250 Secs) [==>]	[4]
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Orbit 3

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