



# 13018 - Deciphering the Assembly History of Galactic Disks: The Resolved Record in the Outer Disk of M31

Cycle: 20, Proposal Category: GO

(Availability Mode: SUPPORTED)

## INVESTIGATORS

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## 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) M31-SW-DISK-20KPC ANY	ACS/WFC WFC3/UVIS	3	10-Dec-2012 21:46:24.0	yes
02	(1) M31-SW-DISK-20KPC ANY	ACS/WFC WFC3/UVIS	3	10-Dec-2012 21:46:40.0	yes
03	(1) M31-SW-DISK-20KPC ANY	ACS/WFC WFC3/UVIS	3	10-Dec-2012 21:46:54.0	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	(1) M31-SW-DISK-20KPC ANY	ACS/WFC WFC3/UVIS	4	10-Dec-2012 21:47:10.0	yes
05	(2) M31-SW-DISK-23KPC ANY	ACS/WFC WFC3/UVIS	3	10-Dec-2012 21:47:25.0	yes
06	(2) M31-SW-DISK-23KPC ANY	ACS/WFC WFC3/UVIS	3	10-Dec-2012 21:47:38.0	yes
07	(2) M31-SW-DISK-23KPC ANY	ACS/WFC WFC3/UVIS	3	10-Dec-2012 21:47:53.0	yes
08	(2) M31-SW-DISK-23KPC ANY	ACS/WFC WFC3/UVIS	4	10-Dec-2012 21:48:08.0	yes

26 Total Orbits Used

### **ABSTRACT**

Disk galaxies account for a sizeable fraction of the stellar mass in the Universe yet the details of their formation and evolution are poorly understood. Measurements of the radial star formation and chemical enrichment histories across disks provide key constraints on models and are made with the highest precision in nearby systems where stellar populations can be resolved into individual stars. In a previous cycle, we obtained deep HST/ACS observations of a field at 26 kpc in M31's outer disk which we have used to reconstruct the star formation history back to early epochs. Our results are fascinating -- star formation at this location proceeded at a near constant rate until 5 Gyr ago when there was a rapid decline in activity followed by a short intense burst. This burst, centered at 2 Gyr, created ~25% of the stellar mass and coincides with a sharp drop in metallicity, highly suggestive of the inflow of metal-poor gas. Dynamical models of the M31-M33 interaction favour ~2-3 Gyr ago as the last pericentric passage, when the systems were within ~50 kpc of each other. In order to firmly establish the role this interaction played in triggering star formation in M31's outer disk, we request similar depth observations at two additional locations in order to determine if the behaviour derived from this single field is globally representative. Additionally, these pointings will span a considerable baseline over which to examine radial gradients in the old (> 5 Gyr) populations and, when combined with extant Keck radial velocities, will provide an exquisite dataset with which to test ideas about radial migration and disk galaxy assembly.

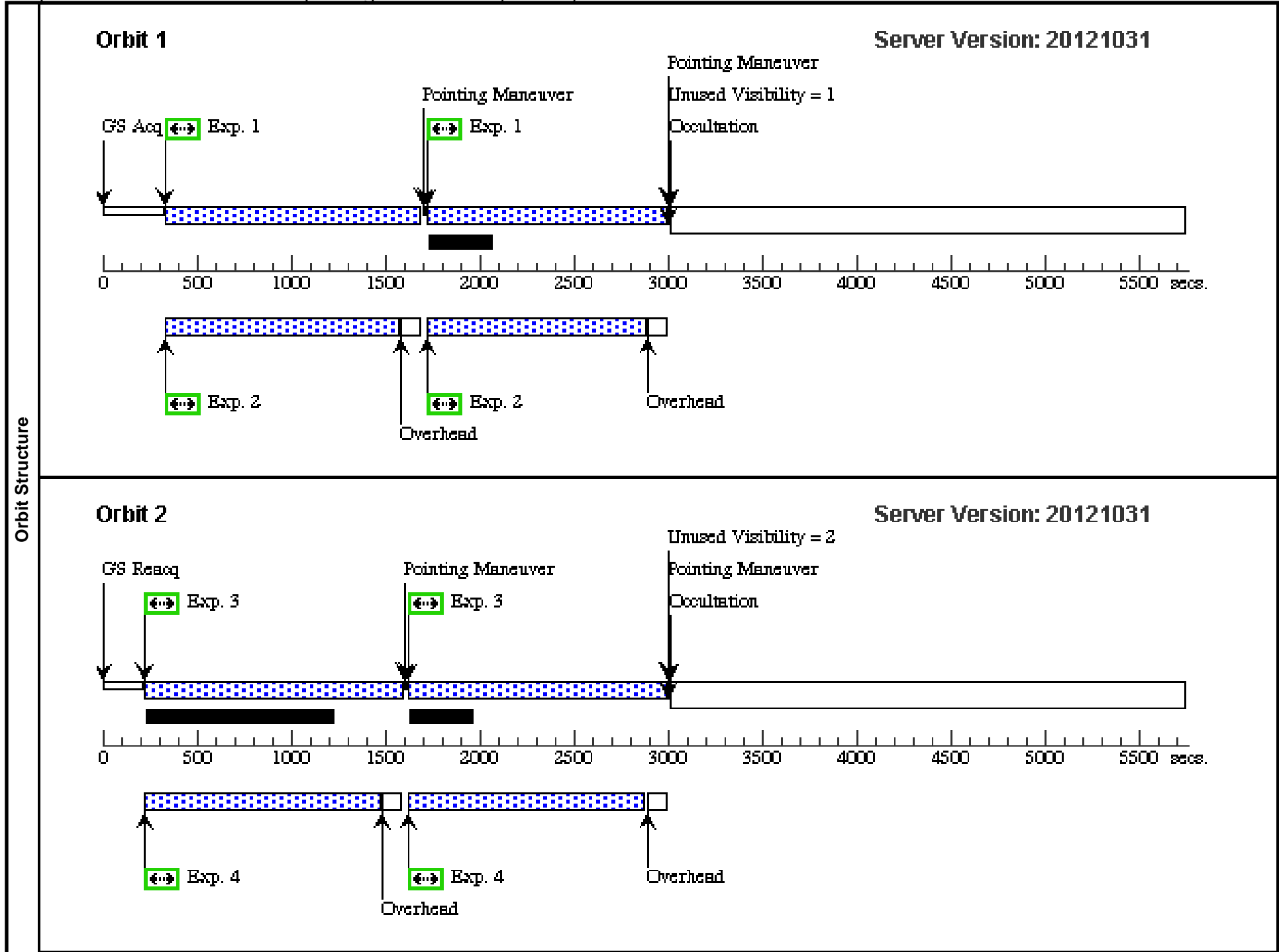
**OBSERVING DESCRIPTION**

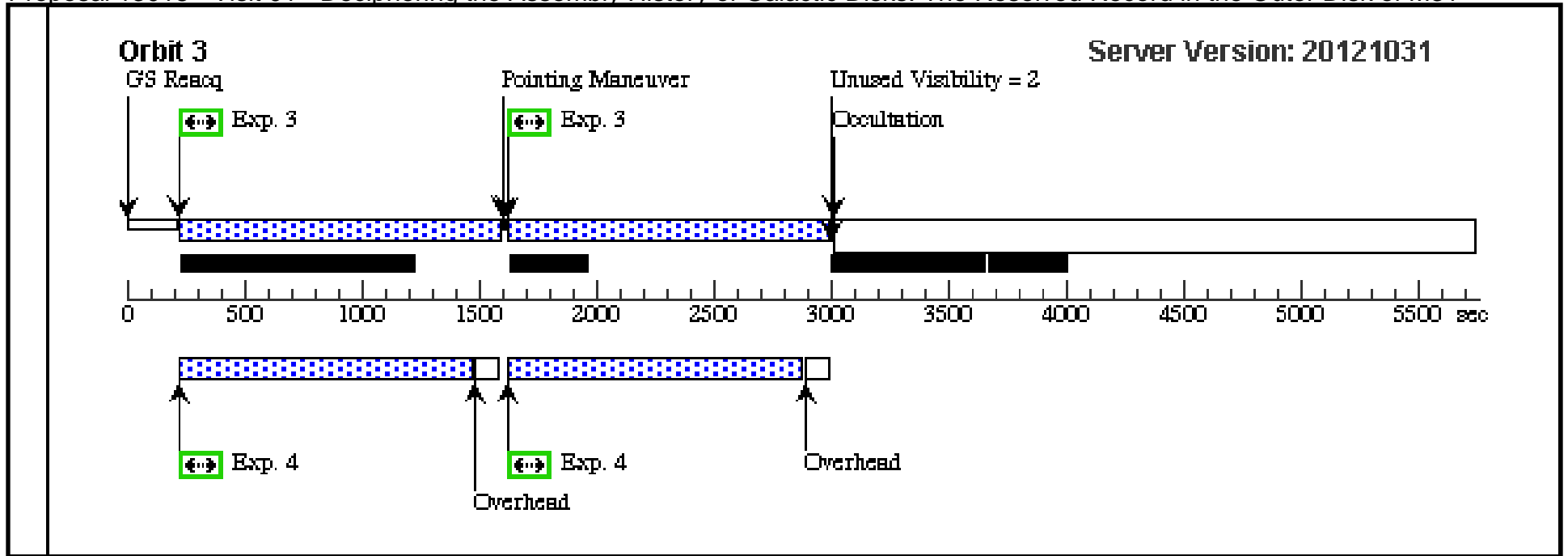
We will obtain deep CMDs at two locations (~20 and 23 kpc) in the outer disk of M31. We will image in the broad-V (F606W) and I (F814W) filters. Our goal is to reach 10 Gyr main sequence turn-off stars with  $[Fe/H]=-0.7$  and  $E(B-V)=0.06$  at the M31 distance (783 kpc); this requires  $V=29$  with  $S/N \geq 8$  and can be achieved with 6 orbits with F606W and 7 orbits with F814W. Visits comprise either 3 orbits in F606W or F814W, or 4 orbits in F814W. Exposures have small dithers in order to aid removal of CRs and hot pixels. Parallel exposures are obtained with WFC3/UVIS in F606W and F814W.

Proposal 13018 - Visit 01 - Deciphering the Assembly History of Galactic Disks: The Resolved Record in the Outer Disk of M31

Tue Dec 11 02:48:18 GMT 2012

Visit	<b>Proposal 13018, Visit 01, implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: SCHED 100%; ORIENT 347D TO 45 D; ORIENT 270D TO 318 D Comments: Orientation requirements set by inspection of Herschel dust maps and by avoidance of a bright star.									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(3-4)				
	(2)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.150 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=34.13 Angle Between Sides= Center Pattern=false		(1-2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	M31-SW-DISK-20KPC	RA: 00 38 5.7600 (9.5240000d) Dec: +40 05 35.00 (40.09306d) Equinox: J2000		V=19.0+/-0.5 V-I=1.0+/-0.5	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) M31-SW-DISK-20KPC	ACS/WFC, ACCUM, WFC	F606W	CR-SPLIT=NO		Pattern 2, Exps 1-2 in Visit 01 (2) Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in Visit 01	1149 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Pattern 2, Exps 1-2 in Visit 01 (2) Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in Visit 01	1000 Secs [==>1209.0 Secs (Pattern 1)] [==>1159.0 Secs (Pattern 2)]	[1]
	3		(1) M31-SW-DISK-20KPC	ACS/WFC, ACCUM, WFC	F606W	CR-SPLIT=NO	POS TARG 0.2629,0.3034	Pattern 1, Exps 3-4 in Visit 01 (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in Visit 01	1245 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2] [3]
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Pattern 1, Exps 3-4 in Visit 01 (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in Visit 01	1000 Secs [==>1255.0 Secs (Pattern 1)] [==>1255.0 Secs (Pattern 2)] [==>1255.0 Secs (Pattern 3)] [==>1255.0 Secs (Pattern 4)]	[2] [3]

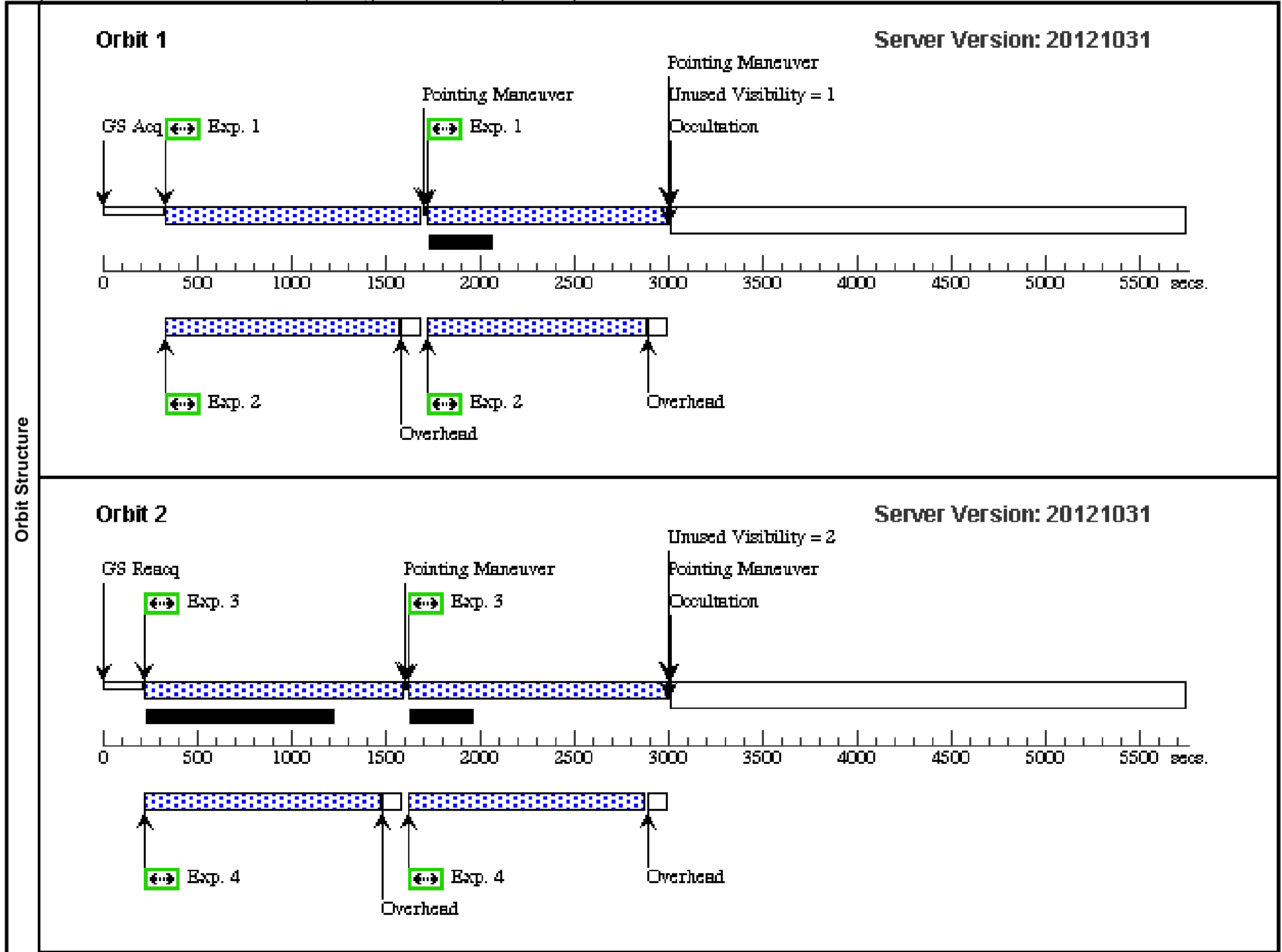


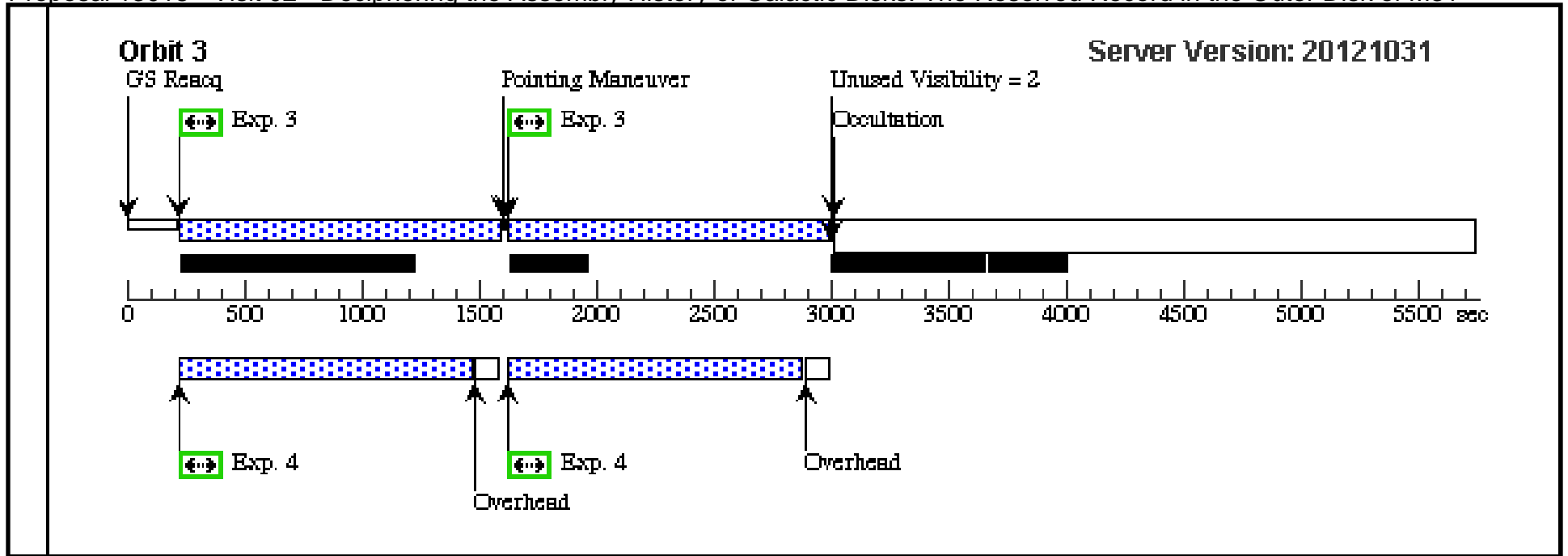


Proposal 13018 - Visit 02 - Deciphering the Assembly History of Galactic Disks: The Resolved Record in the Outer Disk of M31

Tue Dec 11 02:48:24 GMT 2012

Visit	<b>Proposal 13018, Visit 02, implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: SCHED 100%; SAME ORIENT AS 01									
	#	Primary Pattern	Secondary Pattern	Exposures						
Patterns	(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187 Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(3-4)						
	(2)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.150 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=34.13 Angle Between Sides= Center Pattern=false		(1-2)						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	M31-SW-DISK-20KPC	RA: 00 38 5.7600 (9.5240000d) Dec: +40 05 35.00 (40.09306d) Equinox: J2000		V=19.0+/-0.5 V-I=1.0+/-0.5	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) M31-SW-DISK-20KPC	ACS/WFC, ACCUM, WFC	F606W	CR-SPLIT=NO	POS TARG -0.5109, -0.4218	Pattern 2, Exps 1-2 in Visit 02 (2) Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in Visit 02	1149 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Pattern 2, Exps 1-2 in Visit 02 (2) Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in Visit 02	1100 Secs [==>1209.0 Secs (Pattern 1)] [==>1159.0 Secs (Pattern 2)]	[1]
	3		(1) M31-SW-DISK-20KPC	ACS/WFC, ACCUM, WFC	F606W	CR-SPLIT=NO	POS TARG 0.1637, -0.0720	Pattern 1, Exps 3-4 in Visit 02 (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in Visit 02	1245 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2] [3]
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Pattern 1, Exps 3-4 in Visit 02 (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in Visit 02	1100 Secs [==>1255.0 Secs (Pattern 1)] [==>1255.0 Secs (Pattern 2)] [==>1255.0 Secs (Pattern 3)] [==>1255.0 Secs (Pattern 4)]	[2] [3]

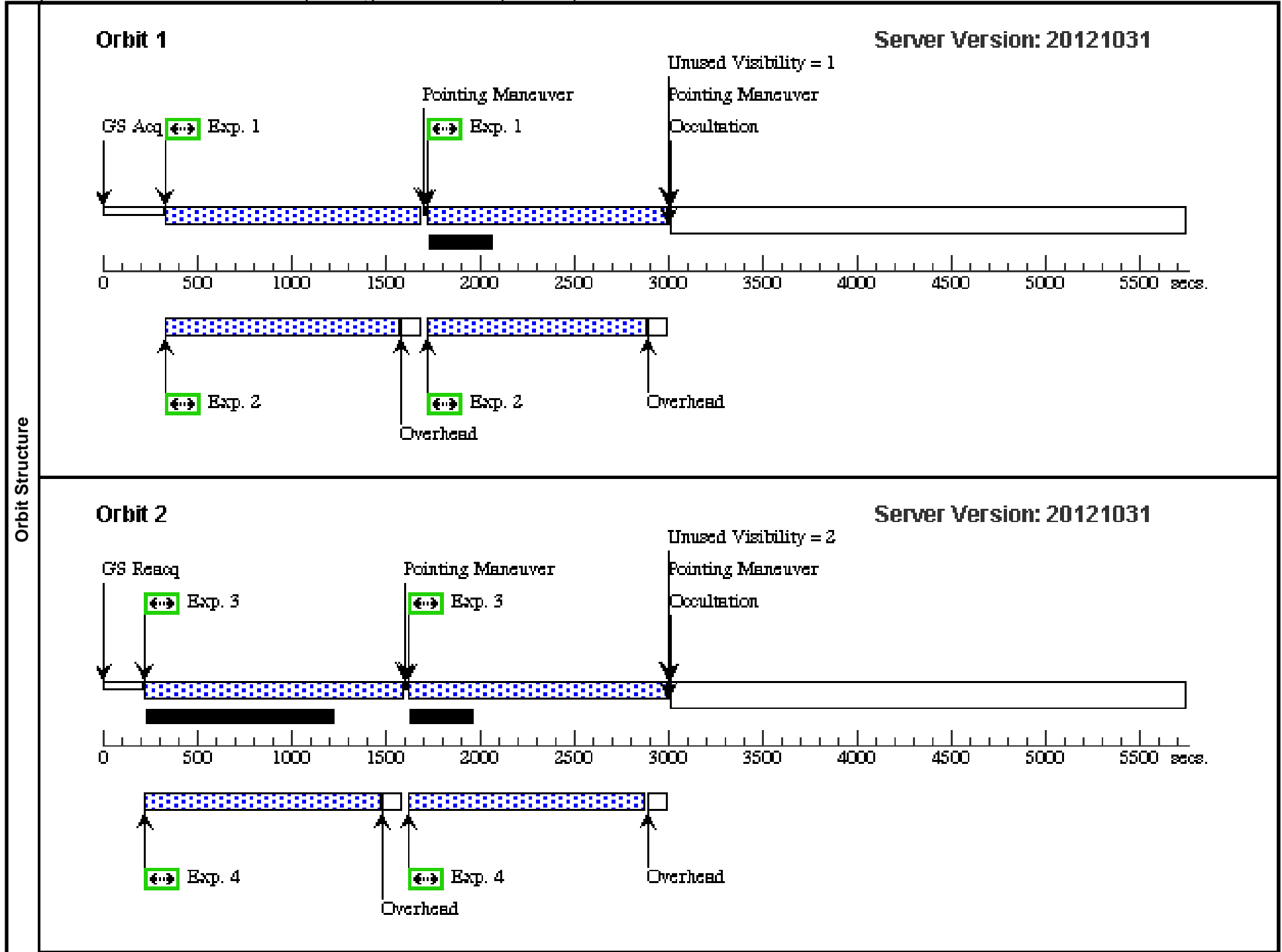


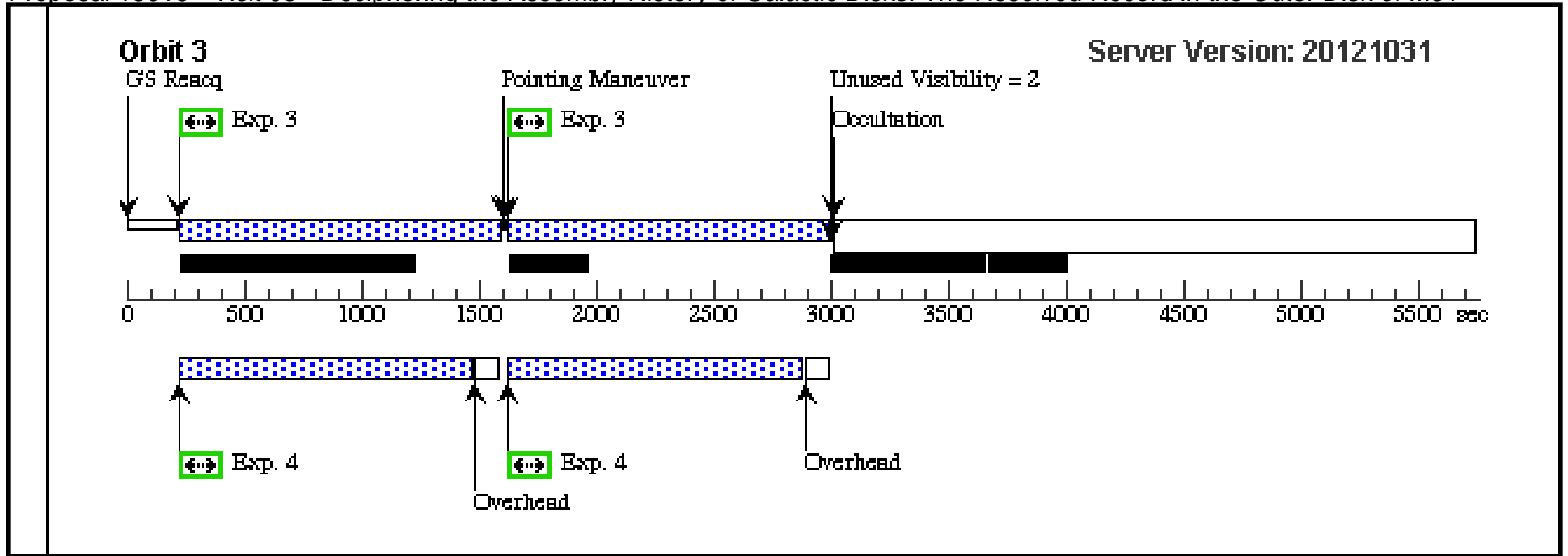


Proposal 13018 - Visit 03 - Deciphering the Assembly History of Galactic Disks: The Resolved Record in the Outer Disk of M31

Tue Dec 11 02:48:27 GMT 2012

Visit	<b>Proposal 13018, Visit 03, implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: SCHED 100%; SAME ORIENT AS 01									
	#	Primary Pattern	Secondary Pattern	Exposures						
Patterns	(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187 Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(3-4)						
	(2)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.150 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=34.13 Angle Between Sides= Center Pattern=false		(1-2)						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	M31-SW-DISK-20KPC	RA: 00 38 5.7600 (9.5240000d) Dec: +40 05 35.00 (40.09306d) Equinox: J2000		V=19.0+/-0.5 V-I=1.0+/-0.5	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) M31-SW-DISK-20KPC	ACS/WFC, ACCUM, WFC	F814W	CR-SPLIT=NO		Pattern 2, Exps 1-2 in Visit 03 (2) Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in Visit 03	1149 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F814W			Pattern 2, Exps 1-2 in Visit 03 (2) Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in Visit 03	1100 Secs [==>1209.0 Secs (Pattern 1)] [==>1159.0 Secs (Pattern 2)]	[1]
	3		(1) M31-SW-DISK-20KPC	ACS/WFC, ACCUM, WFC	F814W	CR-SPLIT=NO	POS TARG 0.2629,0.3034	Pattern 1, Exps 3-4 in Visit 03 (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in Visit 03	1245 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2] [3]
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F814W			Pattern 1, Exps 3-4 in Visit 03 (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in Visit 03	1100 Secs [==>1255.0 Secs (Pattern 1)] [==>1255.0 Secs (Pattern 2)] [==>1255.0 Secs (Pattern 3)] [==>1255.0 Secs (Pattern 4)]	[2] [3]





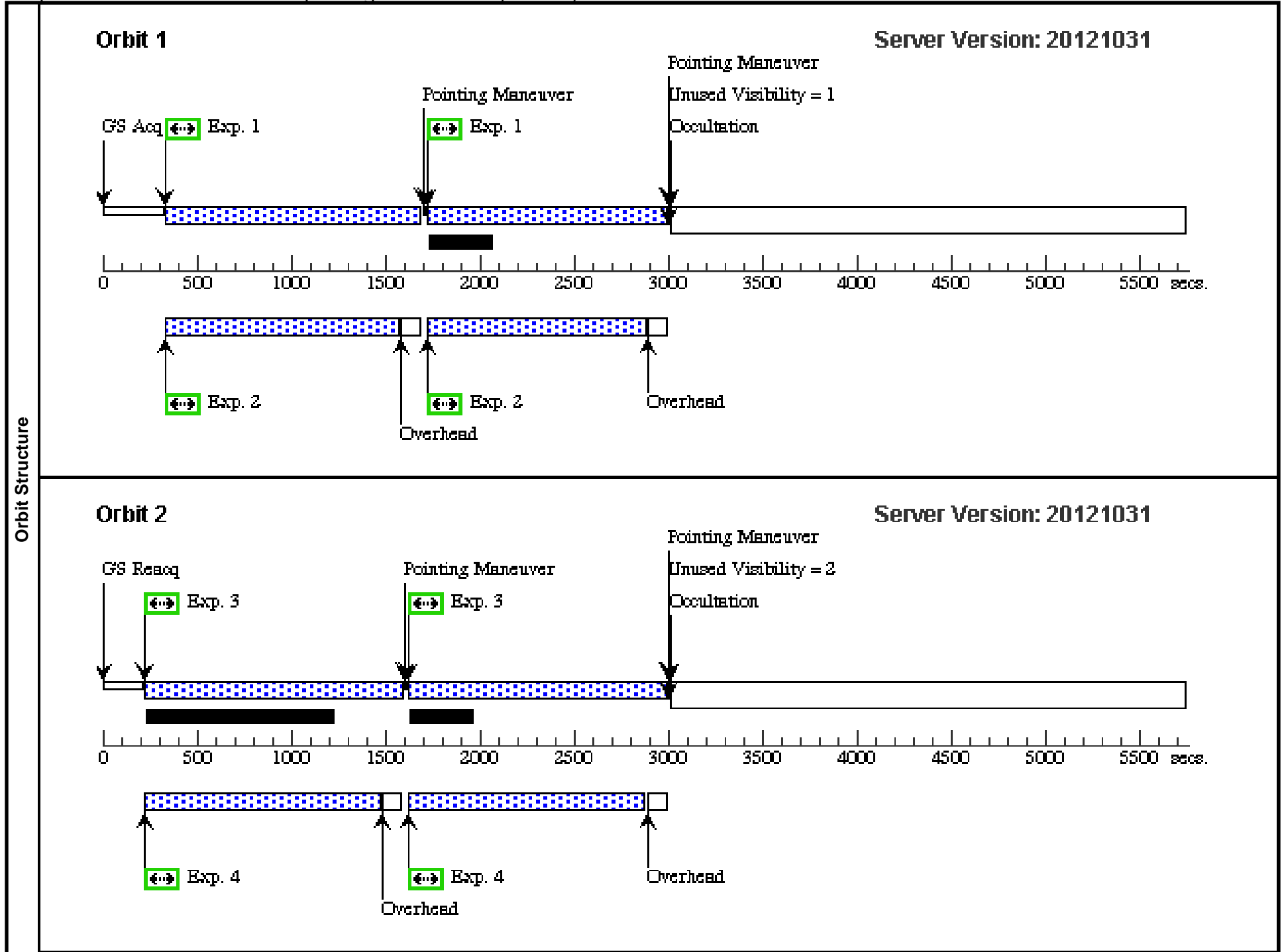
Proposal 13018 - Visit 04 - Deciphering the Assembly History of Galactic Disks: The Resolved Record in the Outer Disk of M31

Tue Dec 11 02:48:30 GMT 2012

Visit	<b>Proposal 13018, Visit 04, implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: SCHED 100%; SAME ORIENT AS 01					
	#	Primary Pattern	Secondary Pattern	Exposures		
Patterns	(2)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.150 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=34.13 Angle Between Sides= Center Pattern=false		(1-2)		
	(3)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=3 Point Spacing=0.138 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=32.99 Angle Between Sides= Center Pattern=false	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=47.23 Angle Between Sides= Center Pattern=false	(3-4)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	M31-SW-DISK-20KPC	RA: 00 38 5.7600 (9.5240000d) Dec: +40 05 35.00 (40.09306d) Equinox: J2000		V=19.0+/-0.5 V-I=1.0+/-0.5	Reference Frame: ICRS

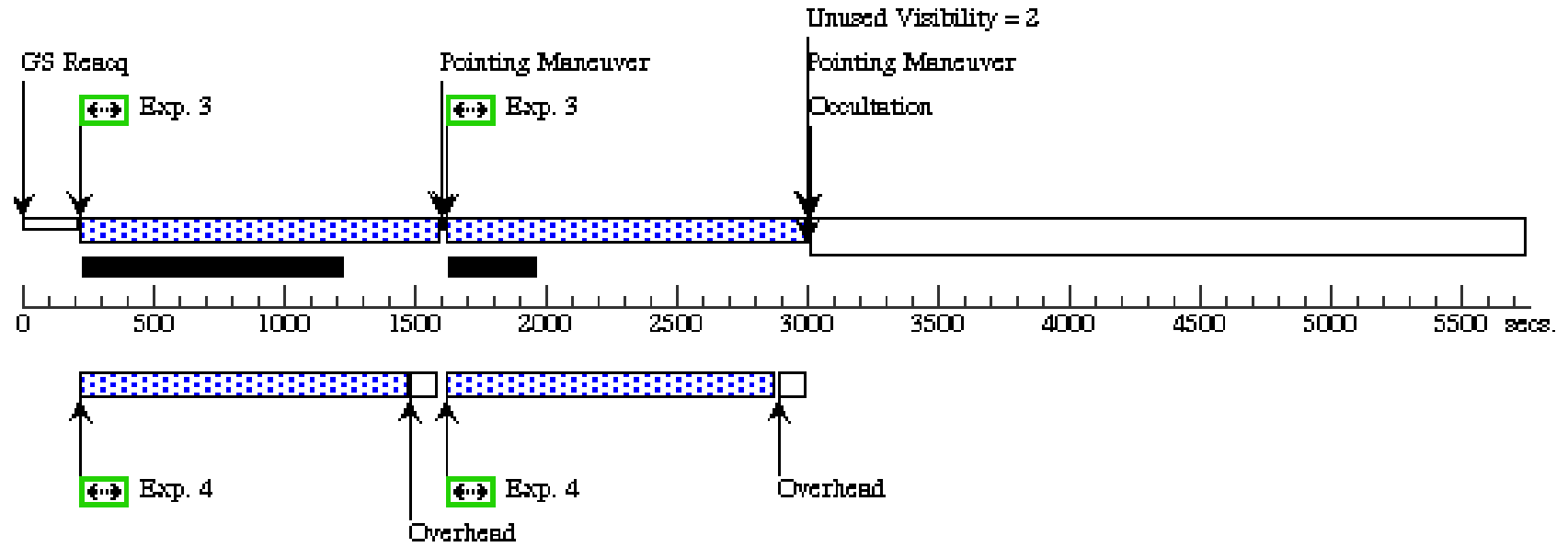
Proposal 13018 - Visit 04 - Deciphering the Assembly History of Galactic Disks: The Resolved Record in the Outer Disk of M31

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) M31-SW-DISK-20KPC	ACS/WFC, ACCUM, WFC	F814W	CR-SPLIT=NO	POS TARG -0.5109, -0.4218	Pattern 2, Exps 1-2 in Visit 04 (2) Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in Visit 04	1149 Secs [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F814W			Pattern 2, Exps 1-2 in Visit 04 (2) Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in Visit 04	1100 Secs [=>1209.0 Secs (Pattern 1)] [=>1159.0 Secs (Pattern 2)]	[1]
	3		(1) M31-SW-DISK-20KPC	ACS/WFC, ACCUM, WFC	F814W		POS TARG 0.1637, -0.0720	Pattern 3, Exps 3-4 in Visit 04 (3) Prime + Parallel Group 3-4 in Pattern 3, Exps 3-4 in Visit 04	1245 Secs [=>(Pattern 1,1)] [=>(Pattern 1,2)] [=>(Pattern 2,1)] [=>(Pattern 2,2)] [=>(Pattern 3,1)] [=>(Pattern 3,2)]	[2] [3] [4]
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F814W			Pattern 3, Exps 3-4 in Visit 04 (3) Prime + Parallel Group 3-4 in Pattern 3, Exps 3-4 in Visit 04	1100 Secs [=>1255.0 Secs (Pattern 1,1)] [=>1255.0 Secs (Pattern 1,2)] [=>1255.0 Secs (Pattern 2,1)] [=>1255.0 Secs (Pattern 2,2)] [=>1255.0 Secs (Pattern 3,1)] [=>1255.0 Secs (Pattern 3,2)]	[2] [3] [4]



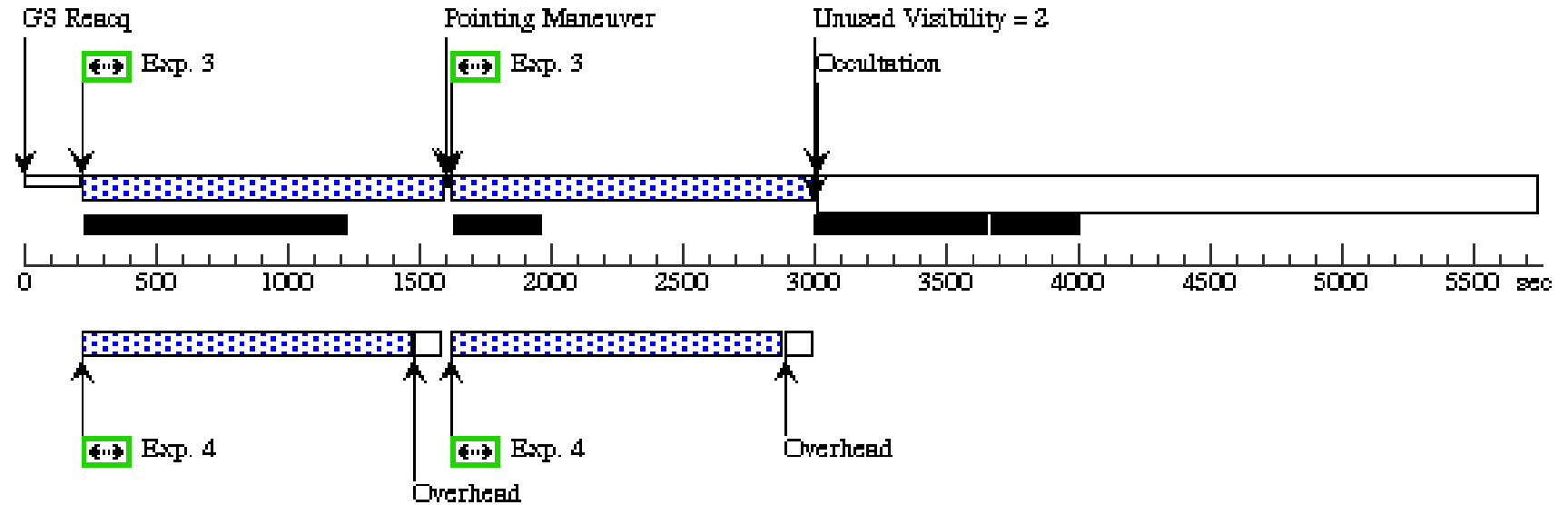
**Orbit 3**

Server Version: 20121031



**Orbit 4**

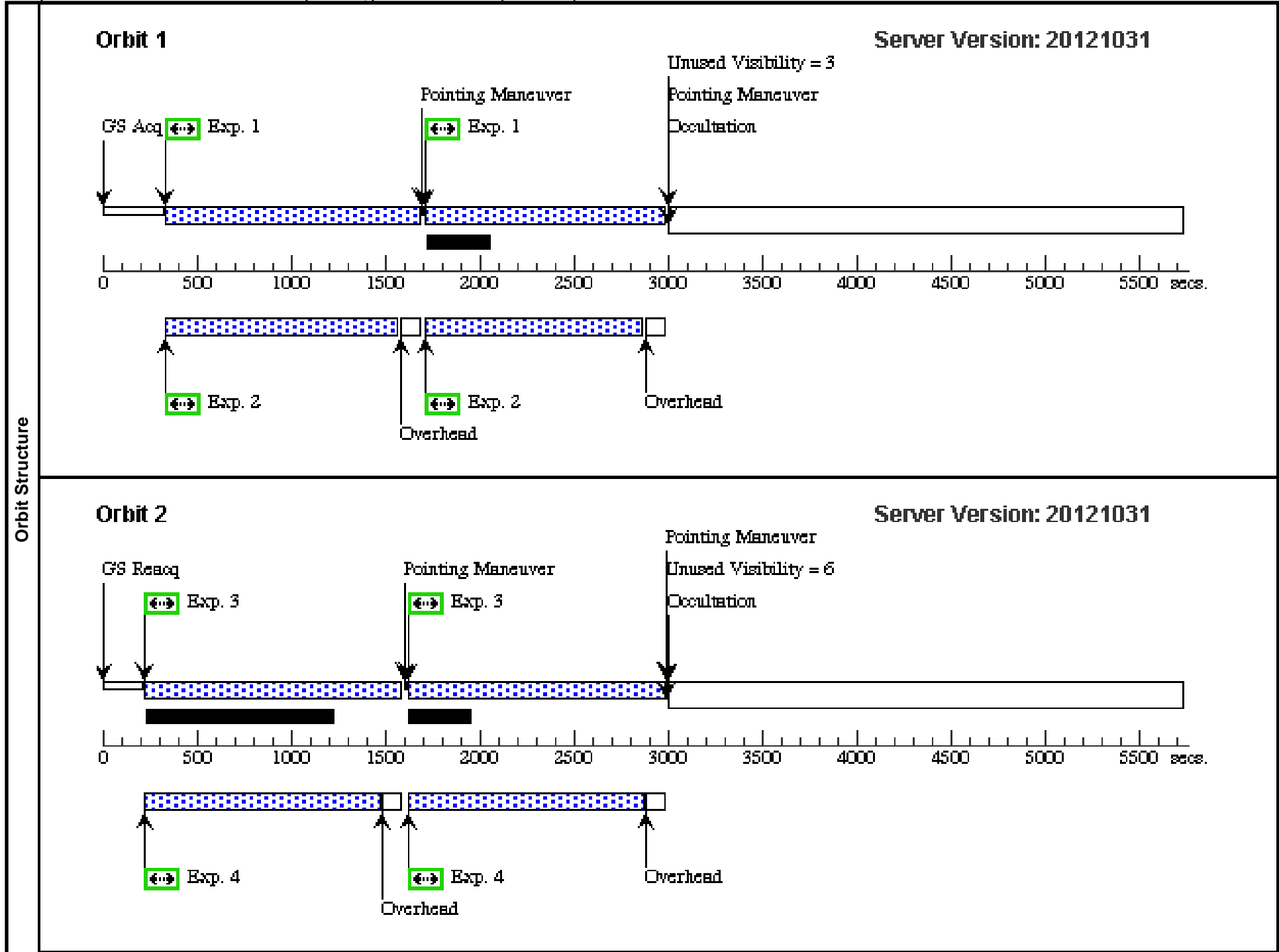
Server Version: 20121031

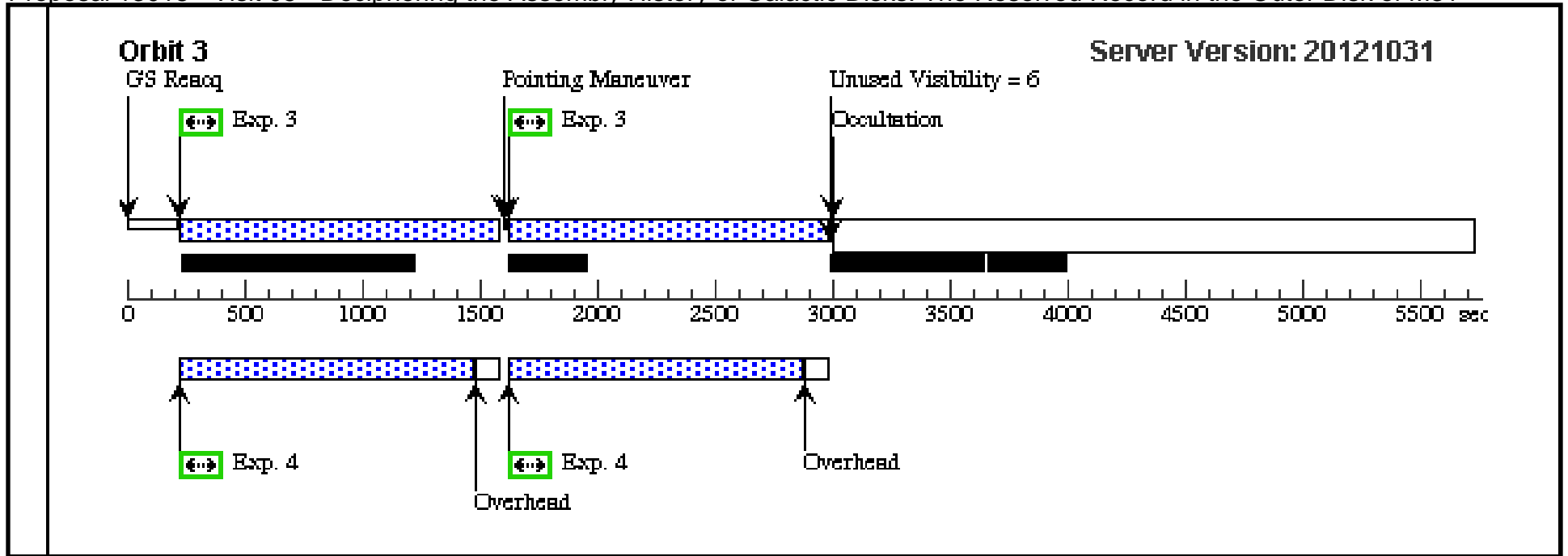


Proposal 13018 - Visit 05 - Deciphering the Assembly History of Galactic Disks: The Resolved Record in the Outer Disk of M31

Tue Dec 11 02:48:33 GMT 2012

Visit	<b>Proposal 13018, Visit 05, implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: SCHED 100%; ORIENT 106D TO 112 D; ORIENT 146D TO 166 D; ORIENT 198D TO 225 D Comments: Orientation requirements set by inspection of Herschel dust maps and by avoidance of a bright star.									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(3-4)					
	(2)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.150 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=34.13 Angle Between Sides= Center Pattern=false		(1-2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	M31-SW-DISK-23KPC	RA: 00 37 23.7500 (9.3489583d) Dec: +39 54 0.00 (39.90000d) Equinox: J2000		V=19.0+/-0.5 V-I=1.0+/-0.5	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(2) M31-SW-DISK-23KPC	ACS/WFC, ACCUM, WFC	F606W	CR-SPLIT=NO		Pattern 2, Exps 1-2 in Visit 05 (2) Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in Visit 05	1145 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Pattern 2, Exps 1-2 in Visit 05 (2) Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in Visit 05	1100 Secs [==>1205.0 Secs (Pattern 1)] [==>1155.0 Secs (Pattern 2)]	[1]
	3		(2) M31-SW-DISK-23KPC	ACS/WFC, ACCUM, WFC	F606W	CR-SPLIT=NO	POS TARG 0.2629,0.3034	Pattern 1, Exps 3-4 in Visit 05 (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in Visit 05	1240 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2] [3]
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Pattern 1, Exps 3-4 in Visit 05 (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in Visit 05	1100 Secs [==>1250.0 Secs (Pattern 1)] [==>1250.0 Secs (Pattern 2)] [==>1250.0 Secs (Pattern 3)] [==>1250.0 Secs (Pattern 4)]	[2] [3]

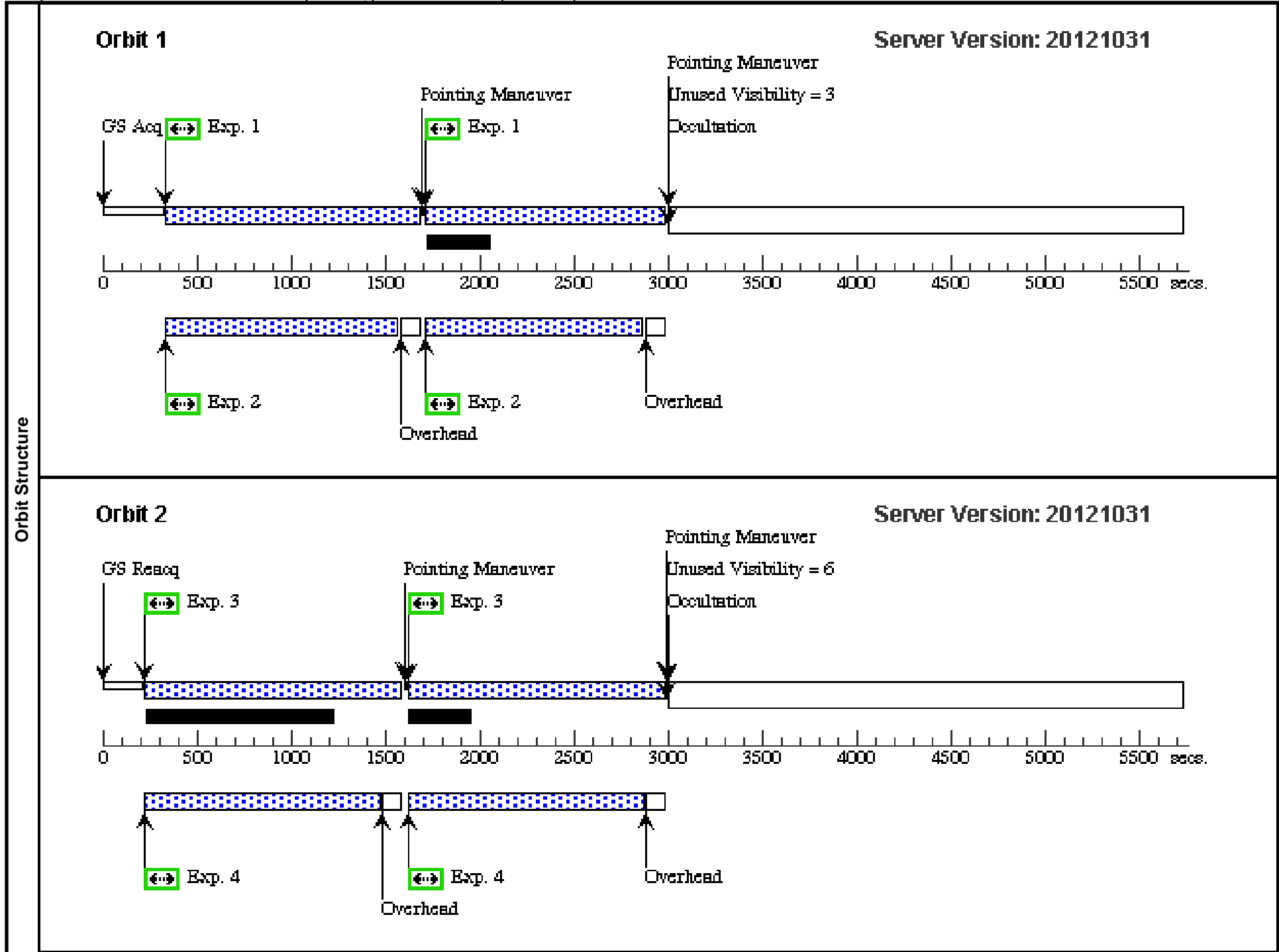


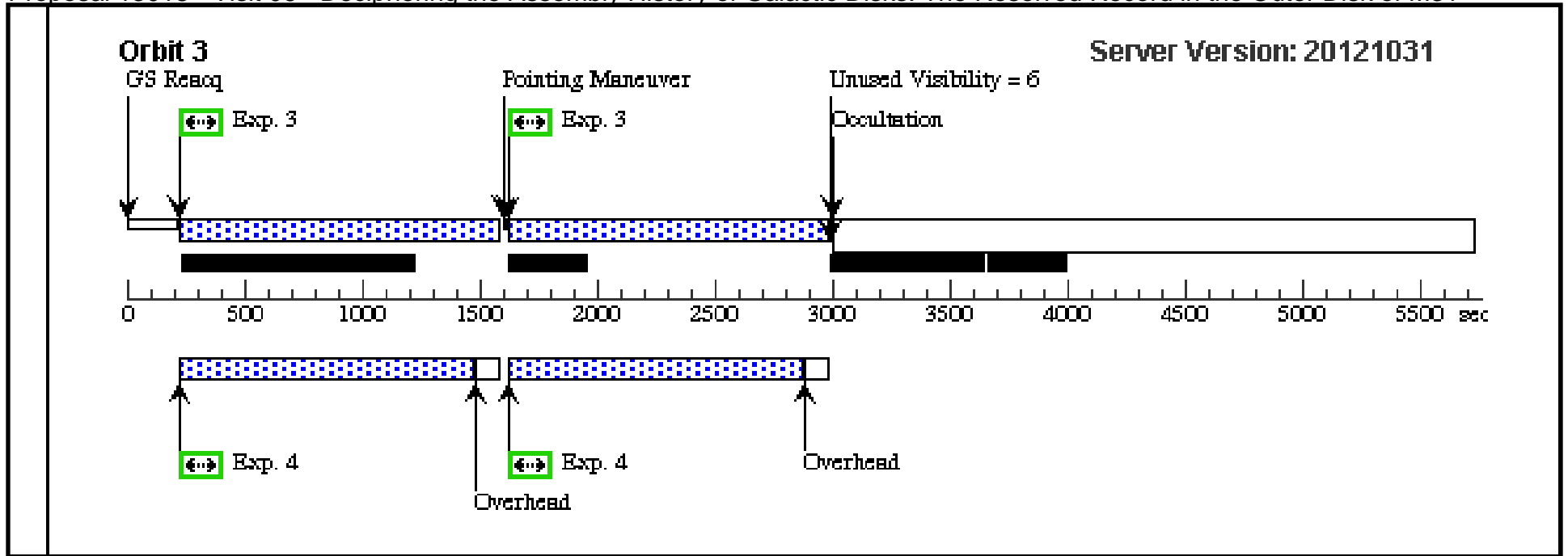


Proposal 13018 - Visit 06 - Deciphering the Assembly History of Galactic Disks: The Resolved Record in the Outer Disk of M31

Tue Dec 11 02:48:36 GMT 2012

Visit	<b>Proposal 13018, Visit 06, implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: SCHED 100%; SAME ORIENT AS 05									
	#	Primary Pattern	Secondary Pattern	Exposures						
Patterns	(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187 Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(3-4)						
	(2)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.150 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=34.13 Angle Between Sides= Center Pattern=false		(1-2)						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	M31-SW-DISK-23KPC	RA: 00 37 23.7500 (9.3489583d) Dec: +39 54 0.00 (39.90000d) Equinox: J2000		V=19.0+/-0.5 V-I=1.0+/-0.5	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(2) M31-SW-DISK-23KPC	ACS/WFC, ACCUM, WFC	F606W	CR-SPLIT=NO	POS TARG -0.5109, -0.4218	Pattern 2, Exps 1-2 in Visit 06 (2) Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in Visit 06	1145 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Pattern 2, Exps 1-2 in Visit 06 (2) Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in Visit 06	1100 Secs [==>1205.0 Secs (Pattern 1)] [==>1155.0 Secs (Pattern 2)]	[1]
	3		(2) M31-SW-DISK-23KPC	ACS/WFC, ACCUM, WFC	F606W	CR-SPLIT=NO	POS TARG 0.1637, -0.0720	Pattern 1, Exps 3-4 in Visit 06 (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in Visit 06	1240 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2] [3]
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F606W			Pattern 1, Exps 3-4 in Visit 06 (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in Visit 06	1100 Secs [==>1250.0 Secs (Pattern 1)] [==>1250.0 Secs (Pattern 2)] [==>1250.0 Secs (Pattern 3)] [==>1250.0 Secs (Pattern 4)]	[2] [3]

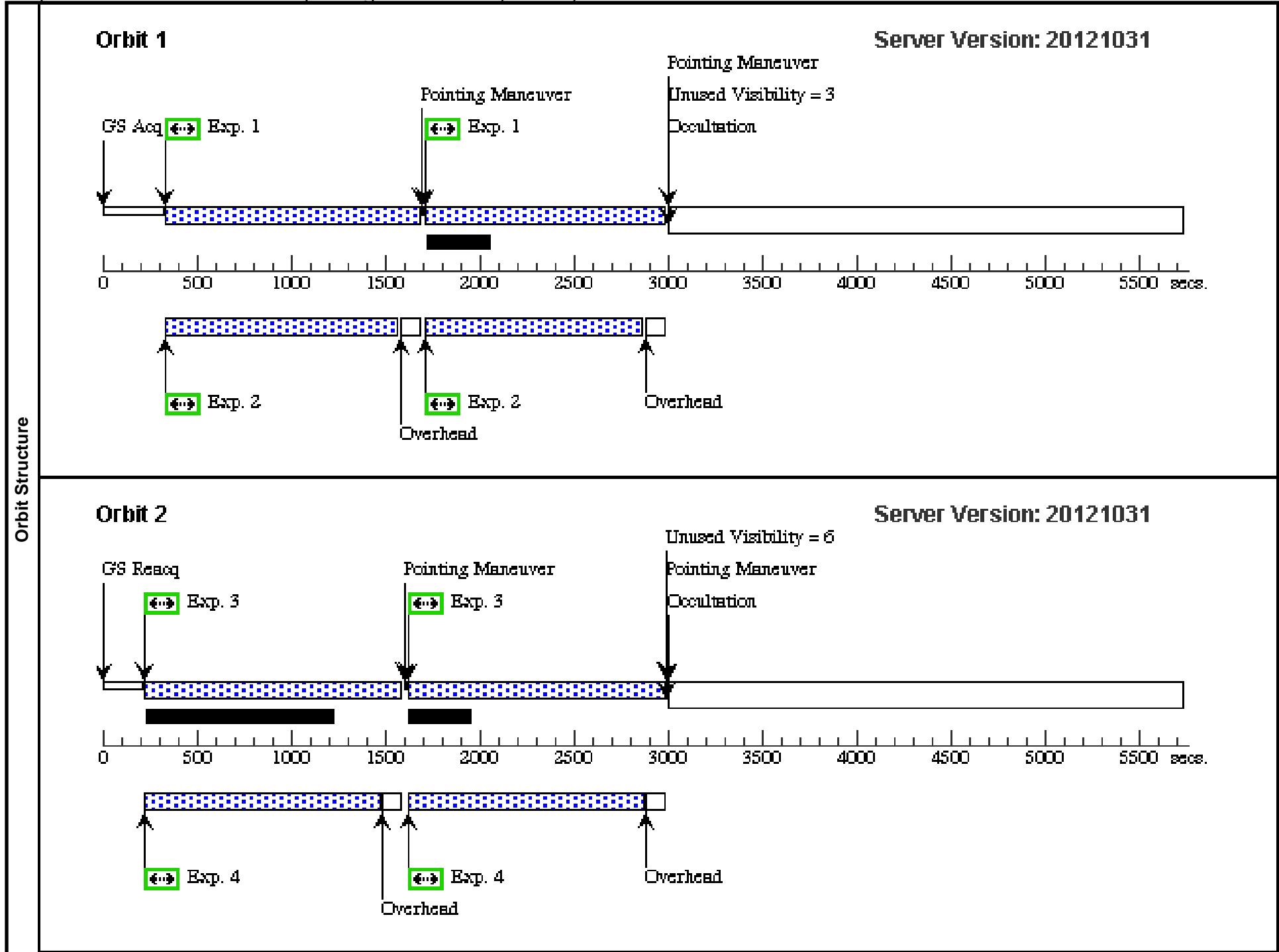


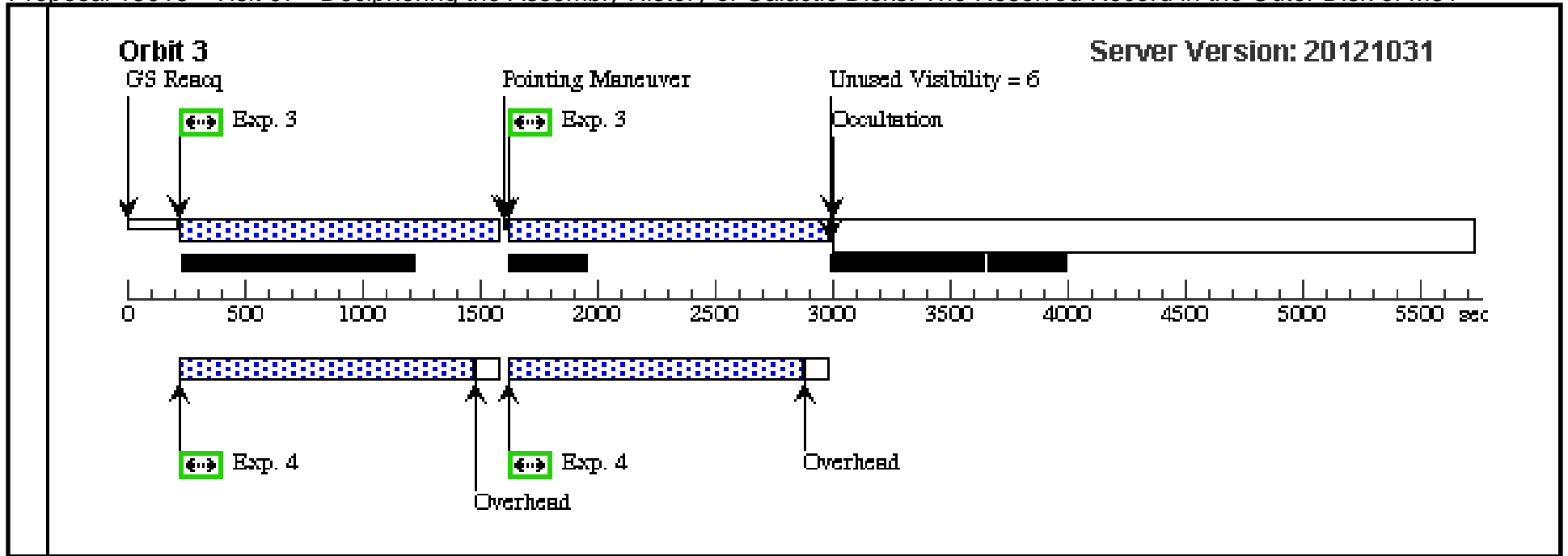


Proposal 13018 - Visit 07 - Deciphering the Assembly History of Galactic Disks: The Resolved Record in the Outer Disk of M31

Tue Dec 11 02:48:39 GMT 2012

Visit	<b>Proposal 13018, Visit 07, implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: SCHED 100%; SAME ORIENT AS 05									
	#	Primary Pattern	Secondary Pattern	Exposures						
Patterns	(1)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.265 Line Spacing=0.187 Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(3-4)						
	(2)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.150 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=34.13 Angle Between Sides= Center Pattern=false		(1-2)						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	M31-SW-DISK-23KPC	RA: 00 37 23.7500 (9.3489583d) Dec: +39 54 0.00 (39.90000d) Equinox: J2000		V=19.0+/-0.5 V-I=1.0+/-0.5	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(2) M31-SW-DISK-23KPC	ACS/WFC, ACCUM, WFC	F814W	CR-SPLIT=NO		Pattern 2, Exps 1-2 in Visit 07 (2) Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in Visit 07	1145 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F814W			Pattern 2, Exps 1-2 in Visit 07 (2) Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in Visit 07	1100 Secs [==>1205.0 Secs (Pattern 1)] [==>1155.0 Secs (Pattern 2)]	[1]
	3		(2) M31-SW-DISK-23KPC	ACS/WFC, ACCUM, WFC	F814W	CR-SPLIT=NO	POS TARG 0.2629,0.3034	Pattern 1, Exps 3-4 in Visit 07 (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in Visit 07	1240 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2] [3]
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F814W			Pattern 1, Exps 3-4 in Visit 07 (1) Prime + Parallel Group 3-4 in Pattern 1, Exps 3-4 in Visit 07	1100 Secs [==>1250.0 Secs (Pattern 1)] [==>1250.0 Secs (Pattern 2)] [==>1250.0 Secs (Pattern 3)] [==>1250.0 Secs (Pattern 4)]	[2] [3]





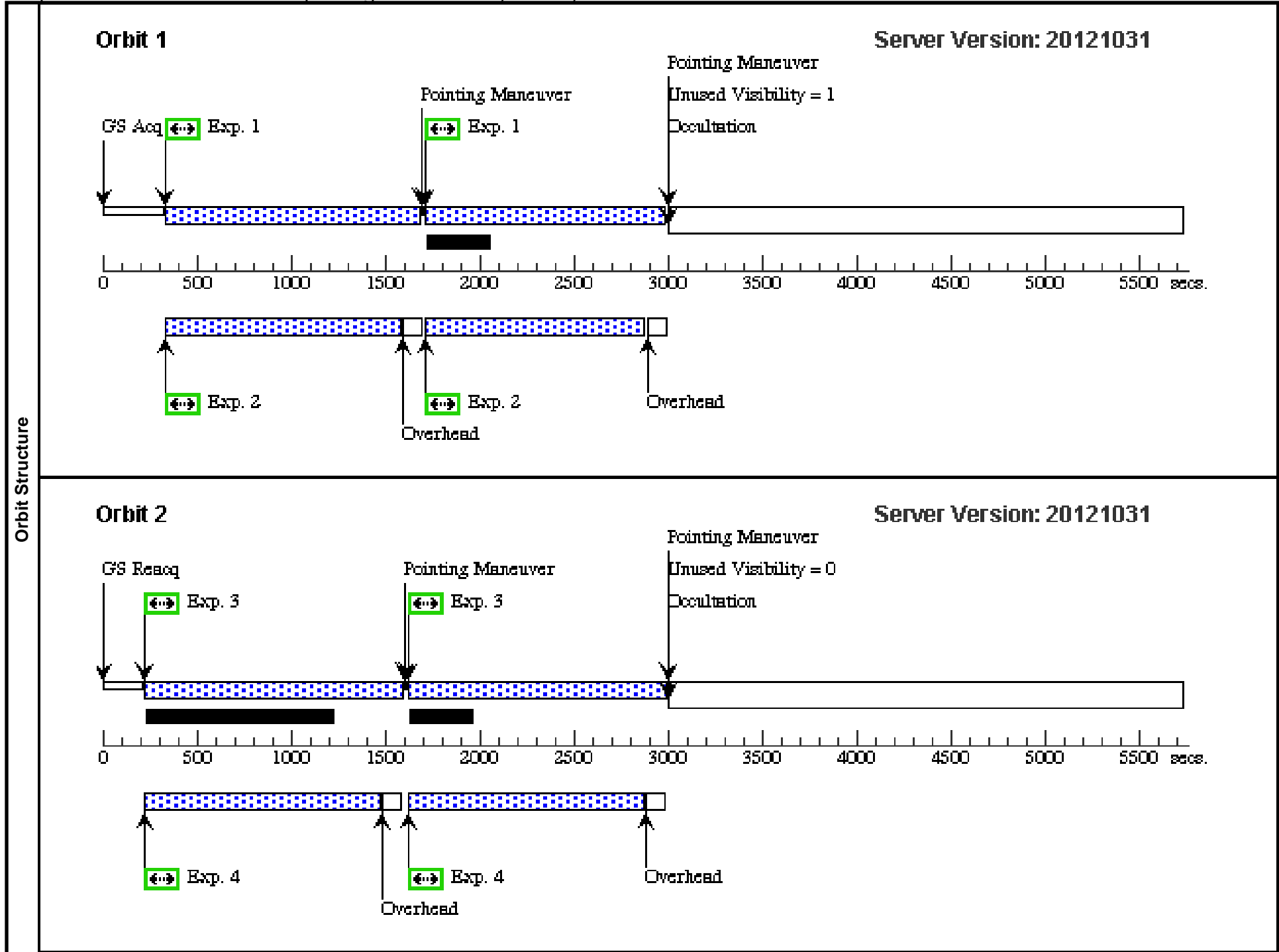
Proposal 13018 - Visit 08 - Deciphering the Assembly History of Galactic Disks: The Resolved Record in the Outer Disk of M31

Tue Dec 11 02:48:42 GMT 2012

<b>Visit</b>	<b>Proposal 13018, Visit 08, implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: SCHED 100%; SAME ORIENT AS 05					
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>		<b>Secondary Pattern</b>		<b>Exposures</b>
	(2)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.150 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=34.13 Angle Between Sides= Center Pattern=false			(1-2)
	(3)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=3 Point Spacing=0.138 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=32.99 Angle Between Sides= Center Pattern=false	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=47.23 Angle Between Sides= Center Pattern=false	(3-4)
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(2)	M31-SW-DISK-23KPC	RA: 00 37 23.7500 (9.3489583d) Dec: +39 54 0.00 (39.90000d) Equinox: J2000		V=19.0+/-0.5 V-I=1.0+/-0.5	Reference Frame: ICRS

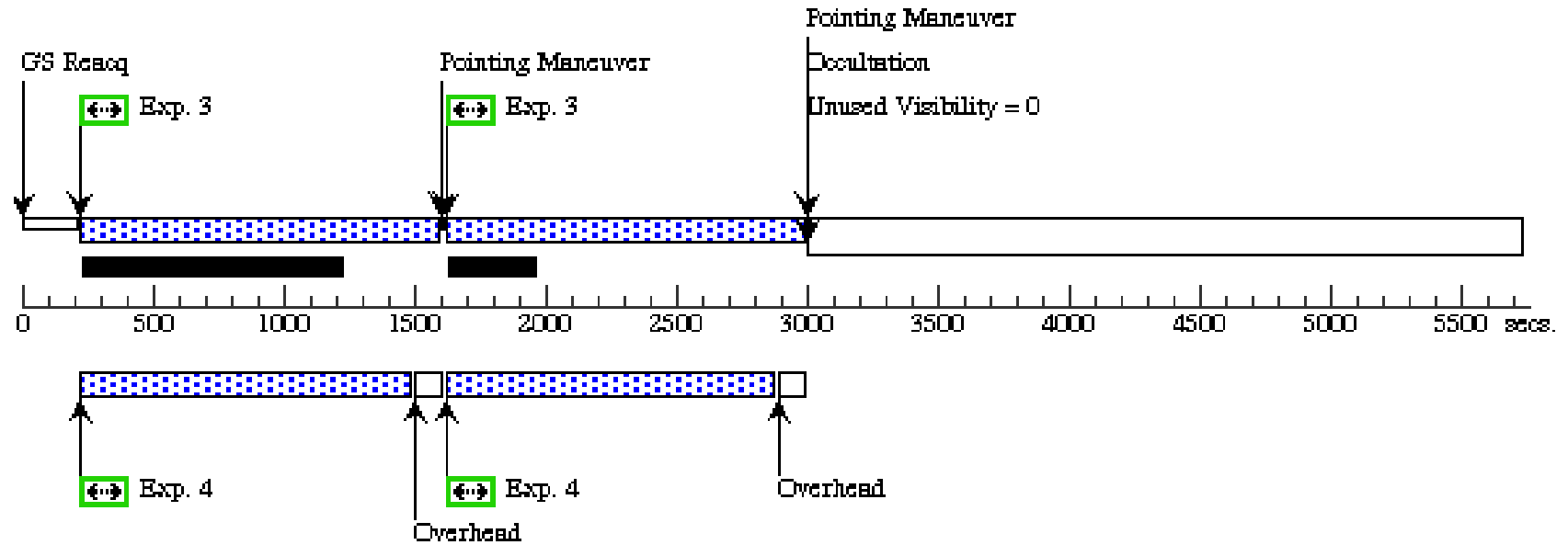
Proposal 13018 - Visit 08 - Deciphering the Assembly History of Galactic Disks: The Resolved Record in the Outer Disk of M31

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(2) M31-SW-DISK-23KPC	ACS/WFC, ACCUM, WFC	F814W	CR-SPLIT=NO	POS TARG -0.5109, -0.4218	Pattern 2, Exps 1-2 in Visit 08 (2) Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in Visit 08	1149 Secs [=>1146.0 Secs (Pattern 1)] [=>1146.0 Secs (Pattern 2)]	[1]
	2		ANY	WFC3/UVIS, ACCUM, UVIS	F814W			Pattern 2, Exps 1-2 in Visit 08 (2) Prime + Parallel Group 1-2 in Pattern 2, Exps 1-2 in Visit 08	1100 Secs [=>1219.0 Secs (Pattern 1)] [=>1159.0 Secs (Pattern 2)]	[1]
	3		(2) M31-SW-DISK-23KPC	ACS/WFC, ACCUM, WFC	F814W		POS TARG 0.1637, -0.0720	Pattern 3, Exps 3-4 in Visit 08 (3) Prime + Parallel Group 3-4 in Pattern 3, Exps 3-4 in Visit 08	1145 Secs [=>1243.0 Secs (Pattern 1,1)] [=>1243.0 Secs (Pattern 1,2)] [=>1243.0 Secs (Pattern 2,1)] [=>1243.0 Secs (Pattern 2,2)] [=>1243.0 Secs (Pattern 3,1)] [=>1243.0 Secs (Pattern 3,2)]	[2] [3] [4]
	4		ANY	WFC3/UVIS, ACCUM, UVIS	F814W			Pattern 3, Exps 3-4 in Visit 08 (3) Prime + Parallel Group 3-4 in Pattern 3, Exps 3-4 in Visit 08	1100 Secs [=>1253.0 Secs (Pattern 1,1)] [=>1253.0 Secs (Pattern 1,2)] [=>1266.0 Secs (Pattern 2,1)] [=>1256.0 Secs (Pattern 2,2)] [=>1266.0 Secs (Pattern 3,1)] [=>1256.0 Secs (Pattern 3,2)]	[2] [3] [4]



**Orbit 3**

Server Version: 20121031



**Orbit 4**

Server Version: 20121031

