



13777 - Morphological Transformation in the Coma Cluster

Cycle: 22, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
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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) NGC-4907 ANY	ACS/WFC WFC3/UVIS	2	19-Dec-2014 21:04:33.0	yes
02	(2) NGC-4858 ANY	ACS/WFC WFC3/UVIS	2	19-Dec-2014 21:04:37.0	yes
03	(3) IC-3949 ANY	ACS/WFC WFC3/UVIS	2	19-Dec-2014 21:04:40.0	yes
04	(4) NGC-4848 ANY	ACS/WFC WFC3/UVIS	2	19-Dec-2014 21:04:44.0	yes
05	(5) MRK-58 ANY	ACS/WFC WFC3/UVIS	2	19-Dec-2014 21:04:47.0	yes

10 Total Orbits Used

ABSTRACT

This proposal seeks to document the various stages of ram pressure stripping of bright spiral galaxies evolving in the rich Coma cluster environment. Based on two ram pressure stripping examples we have already found in Coma, we have selected an additional five targets which manifest signs of ICM-ISM interactions. These seven objects are distributed in a ring around the inner core of Coma, sampling different locations in the cluster and each can be expected to show a different phase of evolution of the stripping process. We propose WFC3 UVIS imaging to reveal the details of the interactions. From these observations, we will be able to piece together a coherent picture of the processes which drive morphological transformation and evolution of disk galaxies in rich environments. The ionization and global star formation patterns, both spatial and temporal, will reveal and characterize the ISM-ICM interactions driving the evolution of galaxies in clusters and altering their morphologies.

OBSERVING DESCRIPTION

Primary WFC3 Imaging:

We will observe the five targets for two orbits each, dividing the time evenly between the extra-wide WFC3 filters F475X and F600LP. Each orbit will be subdivided into four dither positions to reject CRs and optimally sample the PSF. We will weight the exposure time to favor F600LP because F475X is more sensitive: 3 x 500 seconds exposures in F475X and 5 x 700 seconds in F600LP.

With 1500s total exposure in F475X, we will reach S/N of 14 for $B=27$, and with 3500s in F600LP, S/N of 12 for $R=27$, assuming typical colors of young star clusters. These correspond to $M_v = -8$ at the distance of Coma (100 Mpc, $m-M=35.0$). This is well down the cluster luminosity function,

assuming they will be comparable to cluster populations studied elsewhere, such as in the Antennae (Whitmore et al. 2010) where > 1000 clusters have been found down to these levels. Every individual exposure will be dithered to facilitate reduction with *astrodrizzle* routines.

Parallel ACS Imaging:

Proposal 13777 (STScI Edit Number: 3, Created: Friday, December 19, 2014 9:04:49 PM EST) - Overview

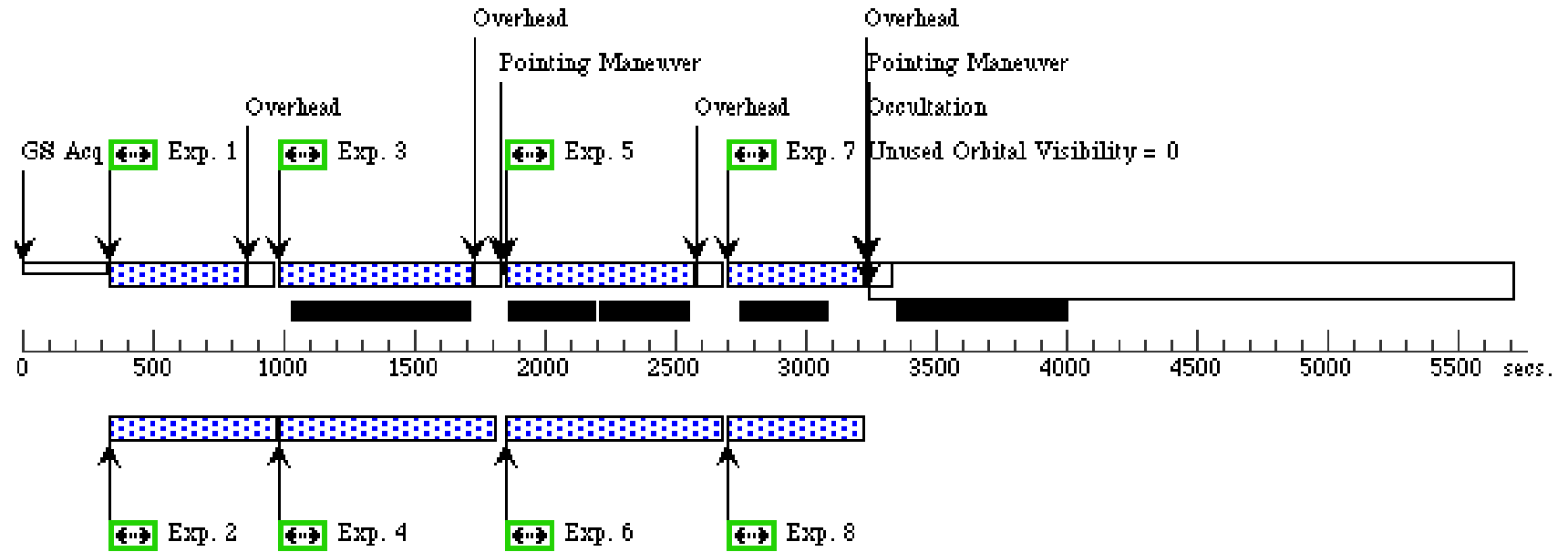
During our primary WFC3 observations, we will use the parallel ACS time to take F475W and F814W images. These are the filters used by the Coma Treasury Survey, and these ACS parallel observations will sample new regions in the Coma cluster, adding to the coverage of the Treasury imaging. With two orbits per field, these observations can exactly match the exposure times of the Treasury program which also devoted two orbits to each field. These new images will be useful for detecting intergalactic globular clusters, any tidal debris, and dwarf galaxies, all of which are also associated with the transformation and destruction of galaxies during the formation of rich clusters.

Proposal 13777 - Visit 01 - Morphological Transformation in the Coma Cluster

Visit	Proposal 13777, Visit 01, implementation								Sat Dec 20 02:04:49 GMT 2014	
	Diagnostic Status: No Diagnostics									
	Scientific Instruments: WFC3/UVIS, ACS/WFC									
	Special Requirements: ORIENT 150D TO 150 D									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	NGC-4907	RA: 13 00 49.2658 (195.2052742d) Dec: +28 09 29.16 (28.15810d) Equinox: J2000		V=14.40	Reference Frame: ICRS				
	Comments: This object was generated by the targetselector and retrieved from the NED database.									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) NGC-4907	WFC3/UVIS, ACCUM, UVIS1-FIX	F350LP		POS TARG -6.0,-0.4 ; GS ACQ SCENARI O BASE1B3	Prime + Parallel Gro up 1-2 in Visit 01	500 Secs (490 Secs) [==>490.0 Secs]	 [1]
	2		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Gro up 1-2 in Visit 01	100 Secs (430 Secs) [==>430.0 Secs]	 [1]
	3		(1) NGC-4907	WFC3/UVIS, ACCUM, UVIS1-FIX	F600LP		SAME POS AS 1	Prime + Parallel Gro up 3-4 in Visit 01	500 Secs (720 Secs) [==>720.0 Secs]	 [1]
	4		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Gro up 3-4 in Visit 01	100 Secs (670 Secs) [==>670.0 Secs]	 [1]
	5		(1) NGC-4907	WFC3/UVIS, ACCUM, UVIS1-FIX	F600LP		POS TARG -2.0,-0.2	Prime + Parallel Gro up 5-6 in Visit 01	500 Secs (720 Secs) [==>720.0 Secs]	 [1]
	6		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Gro up 5-6 in Visit 01	100 Secs (710 Secs) [==>710.0 Secs]	 [1]
	7		(1) NGC-4907	WFC3/UVIS, ACCUM, UVIS1-FIX	F350LP		SAME POS AS 5	Prime + Parallel Gro up 7-8 in Visit 01	500 Secs (495 Secs) [==>495.0 Secs]	 [1]
	8		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Gro up 7-8 in Visit 01	100 Secs (360 Secs) [==>360.0 Secs]	 [1]
	9		(1) NGC-4907	WFC3/UVIS, ACCUM, UVIS1-FIX	F350LP		POS TARG 2.0,0.2	Prime + Parallel Gro up 9-10 in Visit 01	500 Secs (545 Secs) [==>545.0 Secs]	 [2]
	10		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Gro up 9-10 in Visit 01	100 Secs (535 Secs) [==>535.0 Secs]	 [2]
	11		(1) NGC-4907	WFC3/UVIS, ACCUM, UVIS1-FIX	F600LP		SAME POS AS 9	Prime + Parallel Gro up 11-12 in Visit 01	500 Secs (740 Secs) [==>740.0 Secs]	 [2]
	12		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Gro up 11-12 in Visit 01	100 Secs (690 Secs) [==>690.0 Secs]	 [2]
	13		(1) NGC-4907	WFC3/UVIS, ACCUM, UVIS1-FIX	F600LP		POS TARG 6.0,0.4	Prime + Parallel Gro up 13-14 in Visit 01	500 Secs (739 Secs) [==>739.0 Secs]	 [2]
	14		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Gro up 13-14 in Visit 01	100 Secs (725 Secs) [==>725.0 Secs]	 [2]
	15		(1) NGC-4907	WFC3/UVIS, ACCUM, UVIS1-FIX	F350LP		SAME POS AS 13	Prime + Parallel Gro up 15-16 in Visit 01	500 Secs (548 Secs) [==>548.0 Secs]	 [2]
	16		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Gro up 15-16 in Visit 01	100 Secs (408 Secs) [==>408.0 Secs]	 [2]

Orbit 1

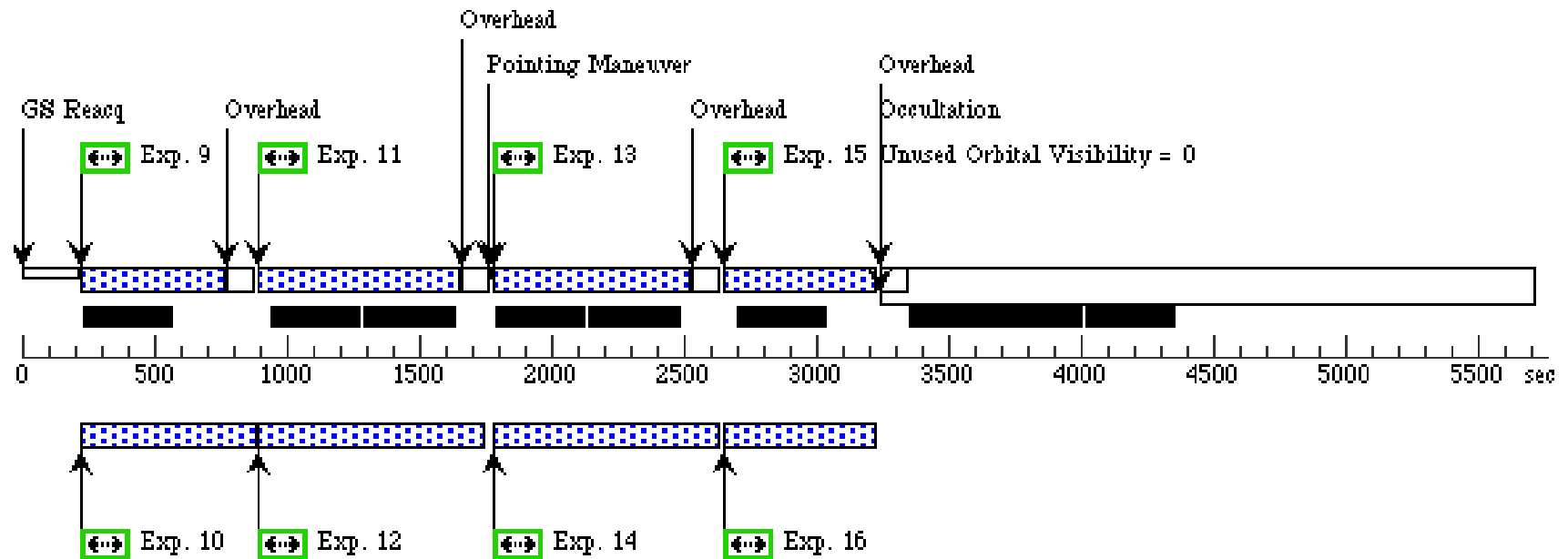
Server Version: 20140605



Orbit Structure

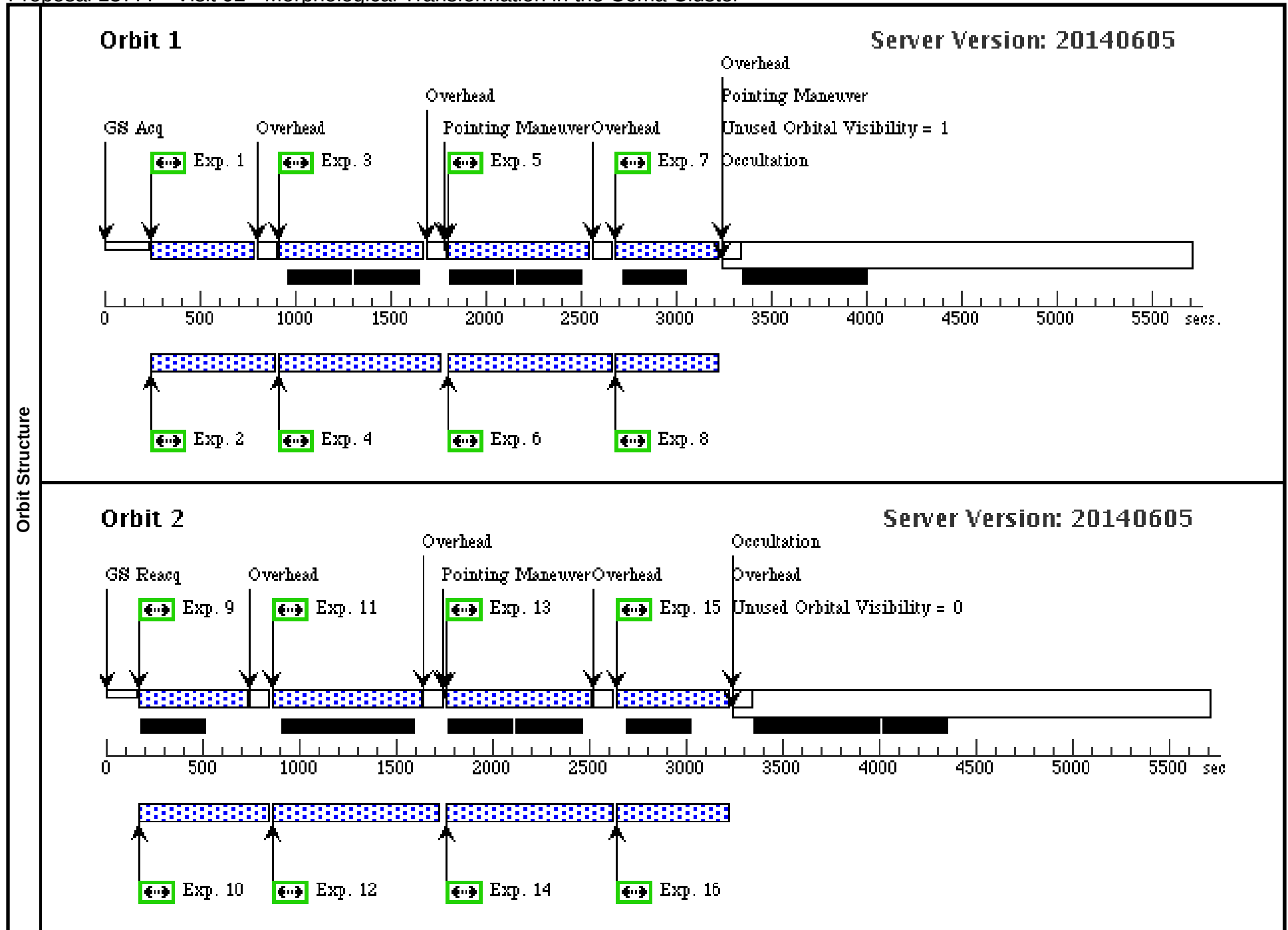
Orbit 2

Server Version: 20140605



Proposal 13777 - Visit 02 - Morphological Transformation in the Coma Cluster

Visit	Proposal 13777, Visit 02, implementation						Sat Dec 20 02:04:50 GMT 2014			
	Diagnostic Status: No Diagnostics									
	Scientific Instruments: WFC3/UVIS, ACS/WFC									
	Special Requirements: ORIENT 156D TO 156 D									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	NGC-4858	RA: 12 59 1.1000 (194.7545833d) Dec: +28 07 8.00 (28.11889d) Equinox: J2000		V=15.02	Reference Frame: ICRS				
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(2) NGC-4858	WFC3/UVIS, ACCUM, UVIS2-FIX	F350LP		POS TARG -2.85,-2.85; GS ACQ SCENARI ONEB1B3	Prime + Parallel Group 1-2 in Visit 02	500 Secs (515 Secs) [==>515.0 Secs]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Group 1-2 in Visit 02	100 Secs (445 Secs) [==>445.0 Secs]	[1]
	3		(2) NGC-4858	WFC3/UVIS, ACCUM, UVIS2-FIX	F600LP		SAME POS AS 1	Prime + Parallel Group 3-4 in Visit 02	500 Secs (745 Secs) [==>745.0 Secs]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Group 3-4 in Visit 02	100 Secs (690 Secs) [==>690.0 Secs]	[1]
	5		(2) NGC-4858	WFC3/UVIS, ACCUM, UVIS2-FIX	F600LP		POS TARG -0.95,-0.95	Prime + Parallel Group 5-6 in Visit 02	500 Secs (745 Secs) [==>745.0 Secs]	[1]
	6		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Group 5-6 in Visit 02	100 Secs (735 Secs) [==>735.0 Secs]	[1]
	7		(2) NGC-4858	WFC3/UVIS, ACCUM, UVIS2-FIX	F350LP		SAME POS AS 5	Prime + Parallel Group 7-8 in Visit 02	500 Secs (520 Secs) [==>520.0 Secs]	[1]
	8		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Group 7-8 in Visit 02	100 Secs (380 Secs) [==>380.0 Secs]	[1]
	9		(2) NGC-4858	WFC3/UVIS, ACCUM, UVIS2-FIX	F350LP		POS TARG +0.95,+0.95	Prime + Parallel Group 9-10 in Visit 02	500 Secs (560 Secs) [==>560.0 Secs]	[2]
	10		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Group 9-10 in Visit 02	100 Secs (545 Secs) [==>545.0 Secs]	[2]
	11		(2) NGC-4858	WFC3/UVIS, ACCUM, UVIS2-FIX	F600LP		SAME POS AS 9	Prime + Parallel Group 11-12 in Visit 02	500 Secs (750 Secs) [==>750.0 Secs]	[2]
	12		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Group 11-12 in Visit 02	100 Secs (700 Secs) [==>700.0 Secs]	[2]
	13		(2) NGC-4858	WFC3/UVIS, ACCUM, UVIS2-FIX	F600LP		POS TARG +2.85,+2.85	Prime + Parallel Group 13-14 in Visit 02	500 Secs (750 Secs) [==>750.0 Secs]	[2]
	14		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Group 13-14 in Visit 02	100 Secs (735 Secs) [==>735.0 Secs]	[2]
	15		(2) NGC-4858	WFC3/UVIS, ACCUM, UVIS2-FIX	F350LP		SAME POS AS 13	Prime + Parallel Group 15-16 in Visit 02	500 Secs (560 Secs) [==>560.0 Secs]	[2]
	16		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Group 15-16 in Visit 02	100 Secs (420 Secs) [==>420.0 Secs]	[2]

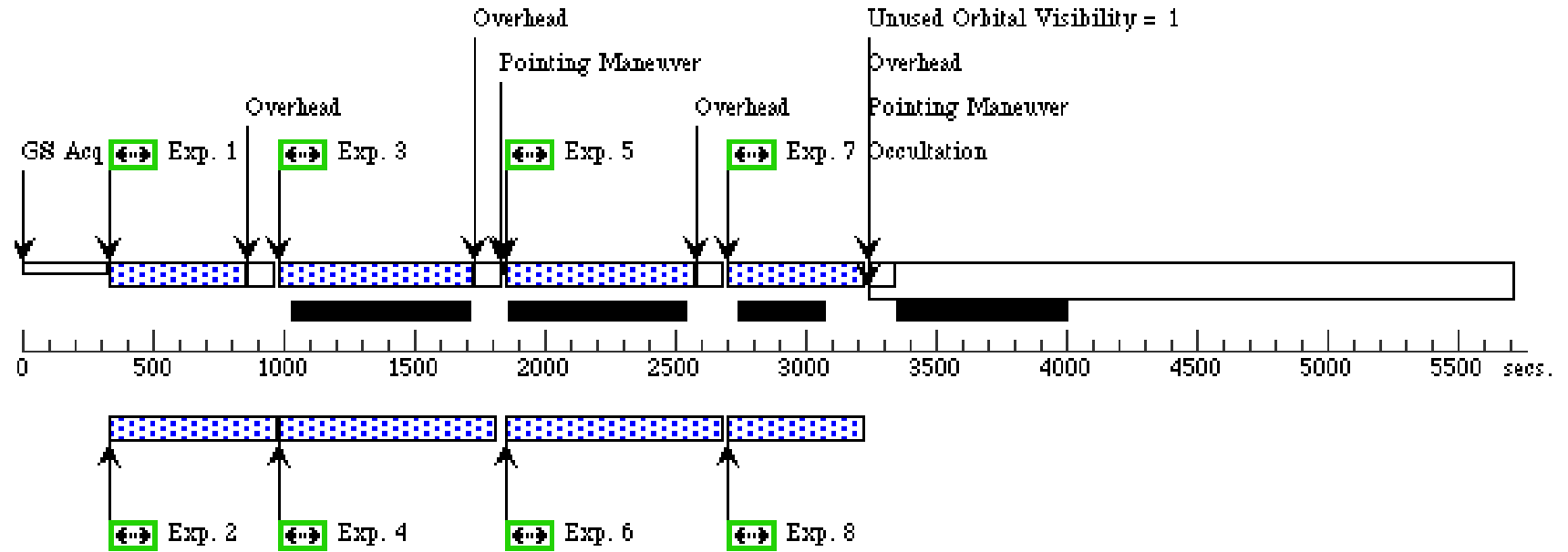


Proposal 13777 - Visit 03 - Morphological Transformation in the Coma Cluster

Visit	Proposal 13777, Visit 03, implementation Sat Dec 20 02:04:50 GMT 2014									
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: ORIENT 268D TO 268 D									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(3)	IC-3949	RA: 12 58 55.2330 (194.7301375d) Dec: +27 49 30.00 (27.82500d) Equinox: J2000 <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>		V=14.26	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(3) IC-3949	WFC3/UVIS, ACCUM, UVIS1-FIX	F350LP		POS TARG -2.85,-2.85	Prime + Parallel Group 1-2 in Visit 03	500 Secs (490 Secs) [==>490.0 Secs]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Group 1-2 in Visit 03	100 Secs (430 Secs) [==>430.0 Secs]	[1]
	3		(3) IC-3949	WFC3/UVIS, ACCUM, UVIS1-FIX	F600LP		SAME POS AS 1	Prime + Parallel Group 3-4 in Visit 03	500 Secs (720 Secs) [==>720.0 Secs]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Group 3-4 in Visit 03	100 Secs (670 Secs) [==>670.0 Secs]	[1]
	5		(3) IC-3949	WFC3/UVIS, ACCUM, UVIS1-FIX	F600LP		POS TARG -0.95,-0.95	Prime + Parallel Group 5-6 in Visit 03	500 Secs (720 Secs) [==>720.0 Secs]	[1]
	6		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Group 5-6 in Visit 03	100 Secs (710 Secs) [==>710.0 Secs]	[1]
	7		(3) IC-3949	WFC3/UVIS, ACCUM, UVIS1-FIX	F350LP		SAME POS AS 5	Prime + Parallel Group 7-8 in Visit 03	500 Secs (500 Secs) [==>500.0 Secs]	[1]
	8		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Group 7-8 in Visit 03	100 Secs (360 Secs) [==>360.0 Secs]	[1]
	9		(3) IC-3949	WFC3/UVIS, ACCUM, UVIS1-FIX	F350LP		POS TARG +0.95,+0.95	Prime + Parallel Group 9-10 in Visit 03	500 Secs (545 Secs) [==>545.0 Secs]	[2]
	10		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Group 9-10 in Visit 03	100 Secs (535 Secs) [==>535.0 Secs]	[2]
	11		(3) IC-3949	WFC3/UVIS, ACCUM, UVIS1-FIX	F600LP		SAME POS AS 9	Prime + Parallel Group 11-12 in Visit 03	500 Secs (740 Secs) [==>740.0 Secs]	[2]
	12		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Group 11-12 in Visit 03	100 Secs (690 Secs) [==>690.0 Secs]	[2]
	13		(3) IC-3949	WFC3/UVIS, ACCUM, UVIS1-FIX	F600LP		POS TARG +2.85,+2.85	Prime + Parallel Group 13-14 in Visit 03	500 Secs (739 Secs) [==>739.0 Secs]	[2]
	14		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Group 13-14 in Visit 03	100 Secs (725 Secs) [==>725.0 Secs]	[2]
	15		(3) IC-3949	WFC3/UVIS, ACCUM, UVIS1-FIX	F350LP		SAME POS AS 13	Prime + Parallel Group 15-16 in Visit 03	500 Secs (550 Secs) [==>550.0 Secs]	[2]
	16		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Group 15-16 in Visit 03	100 Secs (410 Secs) [==>410.0 Secs]	[2]

Orbit 1

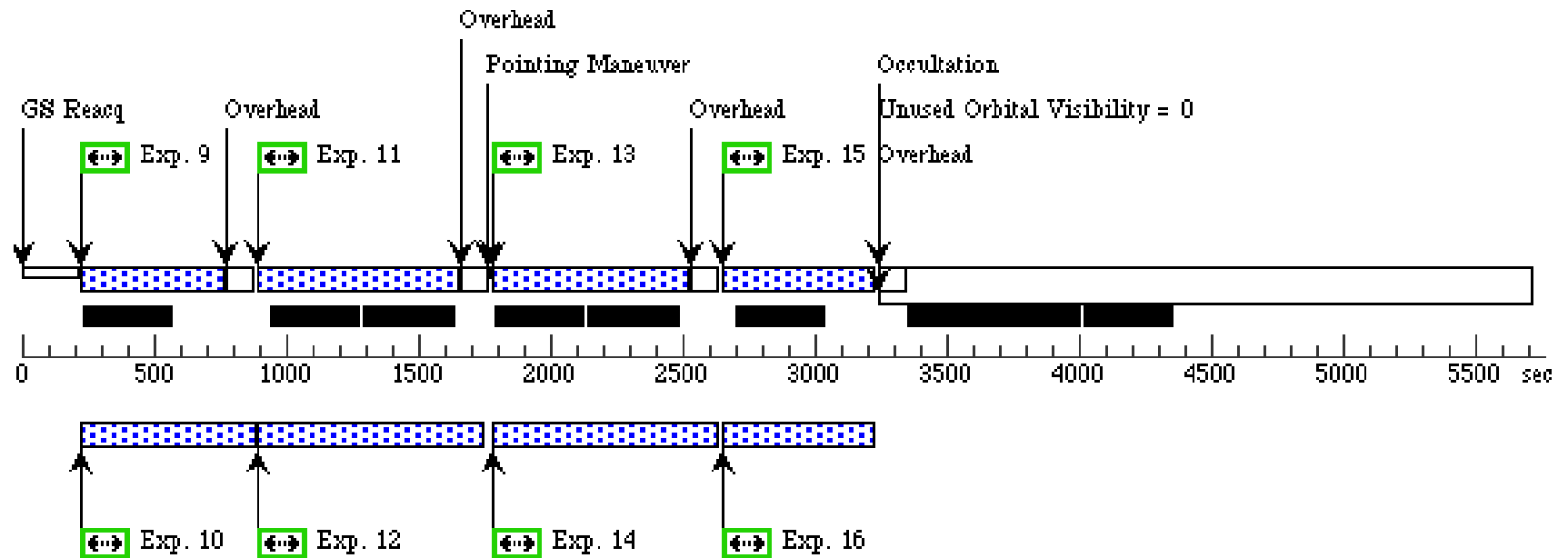
Server Version: 20140605



Orbit Structure

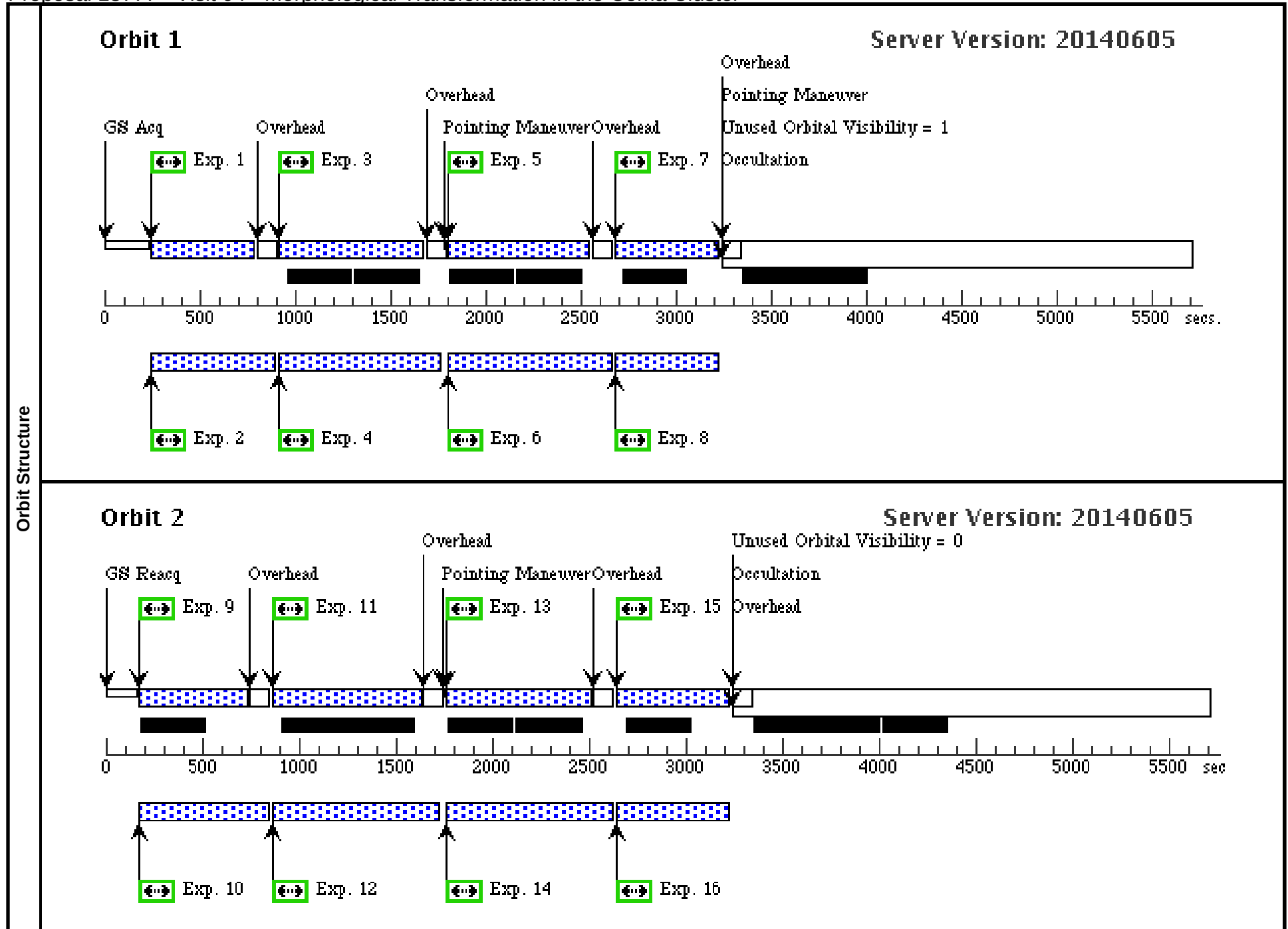
Orbit 2

Server Version: 20140605



Proposal 13777 - Visit 04 - Morphological Transformation in the Coma Cluster

Visit	Proposal 13777, Visit 04, implementation								Sat Dec 20 02:04:50 GMT 2014	
	Diagnostic Status: No Diagnostics									
	Scientific Instruments: WFC3/UVIS, ACS/WFC									
	Special Requirements: ORIENT 150D TO 150 D									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(4)	NGC-4848	RA: 12 58 3.0800 (194.5128333d) Dec: +28 14 42.10 (28.24503d) Equinox: J2000		V=14.41	Reference Frame: ICRS				
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(4) NGC-4848	WFC3/UVIS, ACCUM, UVIS2-FIX	F350LP		POS TARG -2.85,-2.85; GS ACQ SCENARI O ONEB1B3	Prime + Parallel Group 1-2 in Visit 04	500 Secs (515 Secs) [==>515.0 Secs]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Group 1-2 in Visit 04	100 Secs (445 Secs) [==>445 Secs]	[1]
	3		(4) NGC-4848	WFC3/UVIS, ACCUM, UVIS2-FIX	F600LP		SAME POS AS 1	Prime + Parallel Group 3-4 in Visit 04	500 Secs (745 Secs) [==>745 Secs]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Group 3-4 in Visit 04	100 Secs (690 Secs) [==>690 Secs]	[1]
	5		(4) NGC-4848	WFC3/UVIS, ACCUM, UVIS2-FIX	F600LP		POS TARG -0.95,-0.95	Prime + Parallel Group 5-6 in Visit 04	500 Secs (745 Secs) [==>745 Secs]	[1]
	6		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Group 5-6 in Visit 04	100 Secs (735 Secs) [==>735 Secs]	[1]
	7		(4) NGC-4848	WFC3/UVIS, ACCUM, UVIS2-FIX	F350LP		SAME POS AS 5	Prime + Parallel Group 7-8 in Visit 04	500 Secs (520 Secs) [==>520 Secs]	[1]
	8		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Group 7-8 in Visit 04	100 Secs (380 Secs) [==>380 Secs]	[1]
	9		(4) NGC-4848	WFC3/UVIS, ACCUM, UVIS2-FIX	F350LP		POS TARG +0.95,+0.95	Prime + Parallel Group 9-10 in Visit 04	500 Secs (560 Secs) [==>560 Secs]	[2]
	10		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Group 9-10 in Visit 04	100 Secs (545 Secs) [==>545 Secs]	[2]
	11		(4) NGC-4848	WFC3/UVIS, ACCUM, UVIS2-FIX	F600LP		SAME POS AS 9	Prime + Parallel Group 11-12 in Visit 04	500 Secs (750 Secs) [==>750 Secs]	[2]
	12		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Group 11-12 in Visit 04	100 Secs (700 Secs) [==>700 Secs]	[2]
	13		(4) NGC-4848	WFC3/UVIS, ACCUM, UVIS2-FIX	F600LP		POS TARG +2.85,+2.85	Prime + Parallel Group 13-14 in Visit 04	500 Secs (750 Secs) [==>750 Secs]	[2]
	14		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Group 13-14 in Visit 04	100 Secs (735 Secs) [==>735 Secs]	[2]
	15		(4) NGC-4848	WFC3/UVIS, ACCUM, UVIS2-FIX	F350LP		SAME POS AS 13	Prime + Parallel Group 15-16 in Visit 04	500 Secs (560 Secs) [==>560 Secs]	[2]
	16		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Group 15-16 in Visit 04	100 Secs (420 Secs) [==>420 Secs]	[2]

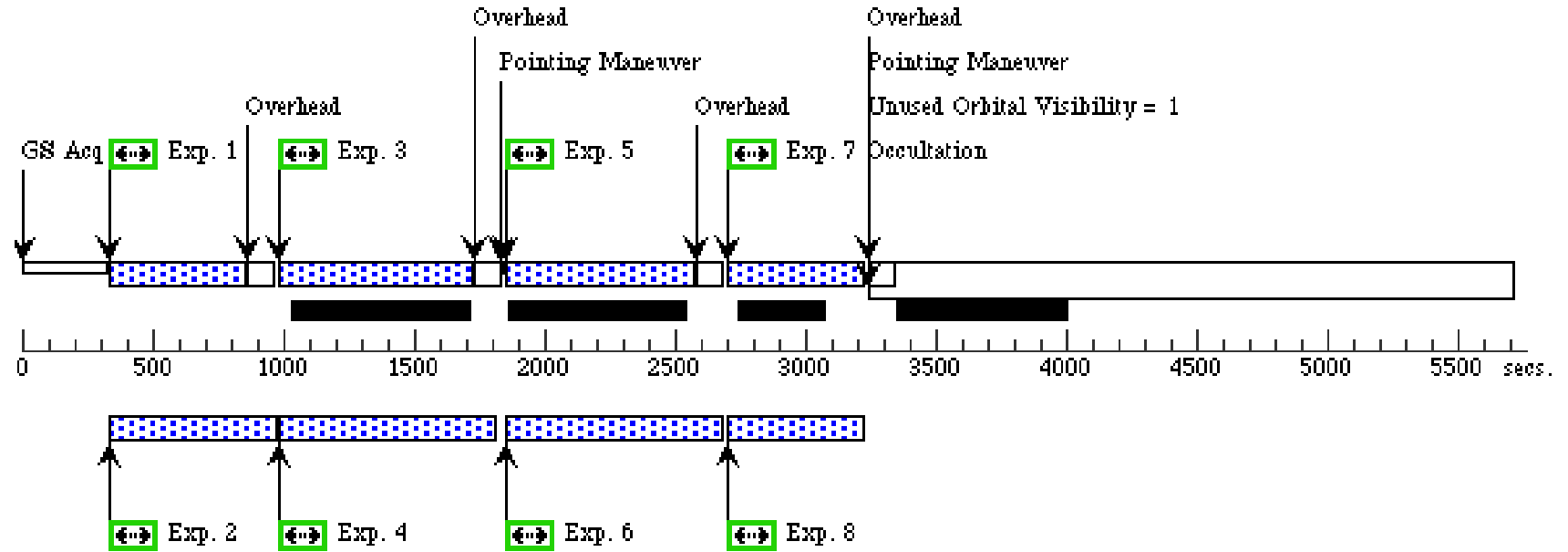


Proposal 13777 - Visit 05 - Morphological Transformation in the Coma Cluster

Visit	Proposal 13777, Visit 05, implementation								Sat Dec 20 02:04:50 GMT 2014	
	Diagnostic Status: No Diagnostics									
	Scientific Instruments: WFC3/UVIS, ACS/WFC									
	Special Requirements: ORIENT 252D TO 252 D									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(5)	MRK-58	RA: 12 59 5.3454 (194.7722725d) Dec: +27 38 40.45 (27.64457d) Equinox: J2000			V=14.54		Reference Frame: ICRS		
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(5) MRK-58	WFC3/UVIS, ACCUM, UVIS2-FIX	F350LP		POS TARG -2.85,-2.85; GS ACQ SCENARI O BASE1B3	Prime + Parallel Group 1-2 in Visit 05	500 Secs (490 Secs) [==>490.0 Secs]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Group 1-2 in Visit 05	100 Secs (430 Secs) [==>430.0 Secs]	[1]
	3		(5) MRK-58	WFC3/UVIS, ACCUM, UVIS2-FIX	F600LP		SAME POS AS 1	Prime + Parallel Group 3-4 in Visit 05	500 Secs (720 Secs) [==>720.0 Secs]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Group 3-4 in Visit 05	100 Secs (670 Secs) [==>670.0 Secs]	[1]
	5		(5) MRK-58	WFC3/UVIS, ACCUM, UVIS2-FIX	F600LP		POS TARG -0.95,-0.95	Prime + Parallel Group 5-6 in Visit 05	500 Secs (720 Secs) [==>720.0 Secs]	[1]
	6		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Group 5-6 in Visit 05	100 Secs (710 Secs) [==>710.0 Secs]	[1]
	7		(5) MRK-58	WFC3/UVIS, ACCUM, UVIS2-FIX	F350LP		SAME POS AS 5	Prime + Parallel Group 7-8 in Visit 05	500 Secs (500 Secs) [==>500.0 Secs]	[1]
	8		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Group 7-8 in Visit 05	100 Secs (360 Secs) [==>360.0 Secs]	[1]
	9		(5) MRK-58	WFC3/UVIS, ACCUM, UVIS2-FIX	F350LP		POS TARG +0.95,+0.95	Prime + Parallel Group 9-10 in Visit 05	500 Secs (545 Secs) [==>545.0 Secs]	[2]
	10		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Group 9-10 in Visit 05	100 Secs (535 Secs) [==>535.0 Secs]	[2]
	11		(5) MRK-58	WFC3/UVIS, ACCUM, UVIS2-FIX	F600LP		SAME POS AS 9	Prime + Parallel Group 11-12 in Visit 05	500 Secs (740 Secs) [==>740.0 Secs]	[2]
	12		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Group 11-12 in Visit 05	100 Secs (690 Secs) [==>690.0 Secs]	[2]
	13		(5) MRK-58	WFC3/UVIS, ACCUM, UVIS2-FIX	F600LP		POS TARG +2.85,+2.85	Prime + Parallel Group 13-14 in Visit 05	500 Secs (739 Secs) [==>739.0 Secs]	[2]
	14		ANY	ACS/WFC, ACCUM, WFC-FIX	F475W			Prime + Parallel Group 13-14 in Visit 05	100 Secs (725 Secs) [==>725.0 Secs]	[2]
	15		(5) MRK-58	WFC3/UVIS, ACCUM, UVIS2-FIX	F350LP		SAME POS AS 13	Prime + Parallel Group 15-16 in Visit 05	500 Secs (550 Secs) [==>550.0 Secs]	[2]
	16		ANY	ACS/WFC, ACCUM, WFC-FIX	F814W			Prime + Parallel Group 15-16 in Visit 05	100 Secs (410 Secs) [==>410.0 Secs]	[2]

Orbit 1

Server Version: 20140605



Orbit Structure

Orbit 2

Server Version: 20140605

