



13514 - Snapshots In The History Of Dissociative Major Mergers

Cycle: 21, Proposal Category: GO

(Availability Mode: SUPPORTED)

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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) ACO-S-295	ACS/WFC	4	02-Oct-2013 21:47:19.0	yes

4 Total Orbits Used

ABSTRACT

We propose joint Chandra/HST observations of two $z=0.3$ cluster mergers presenting offsets between the gas and dark matter distribution. Both were discovered within the follow-up program of the APEX-SZ experiment. The first one shows a bullet structure with a probable bow shock. The new data will permit an accurate joint X-ray, Sunyaev-Zel'dovich effect and lensing analysis to characterize both the thermodynamical state of its intracluster gas and the distribution of dark matter around it. The second cluster lacks good X-ray data and we request a short Chandra observations to confirm the gas distribution. Combined with three similar systems from the APEX-SZ sample, we aim at reconstructing observationally the time sequence of dissociative mergers.

OBSERVING DESCRIPTION

We perform deep ACS/WFC observations on the merging cluster AS0295 for a high resolution mass map based on gravitational lensing. The cluster will be observed in F435W (1 Orbit), F606W (1 Orbit) and F814W (2 Orbits). The filter F814W will be primarily used for the shape measurements needed for the weak lensing analysis. Shape measurements will also applied to the F606W observations for diagnostics and to shrink measurement errors.

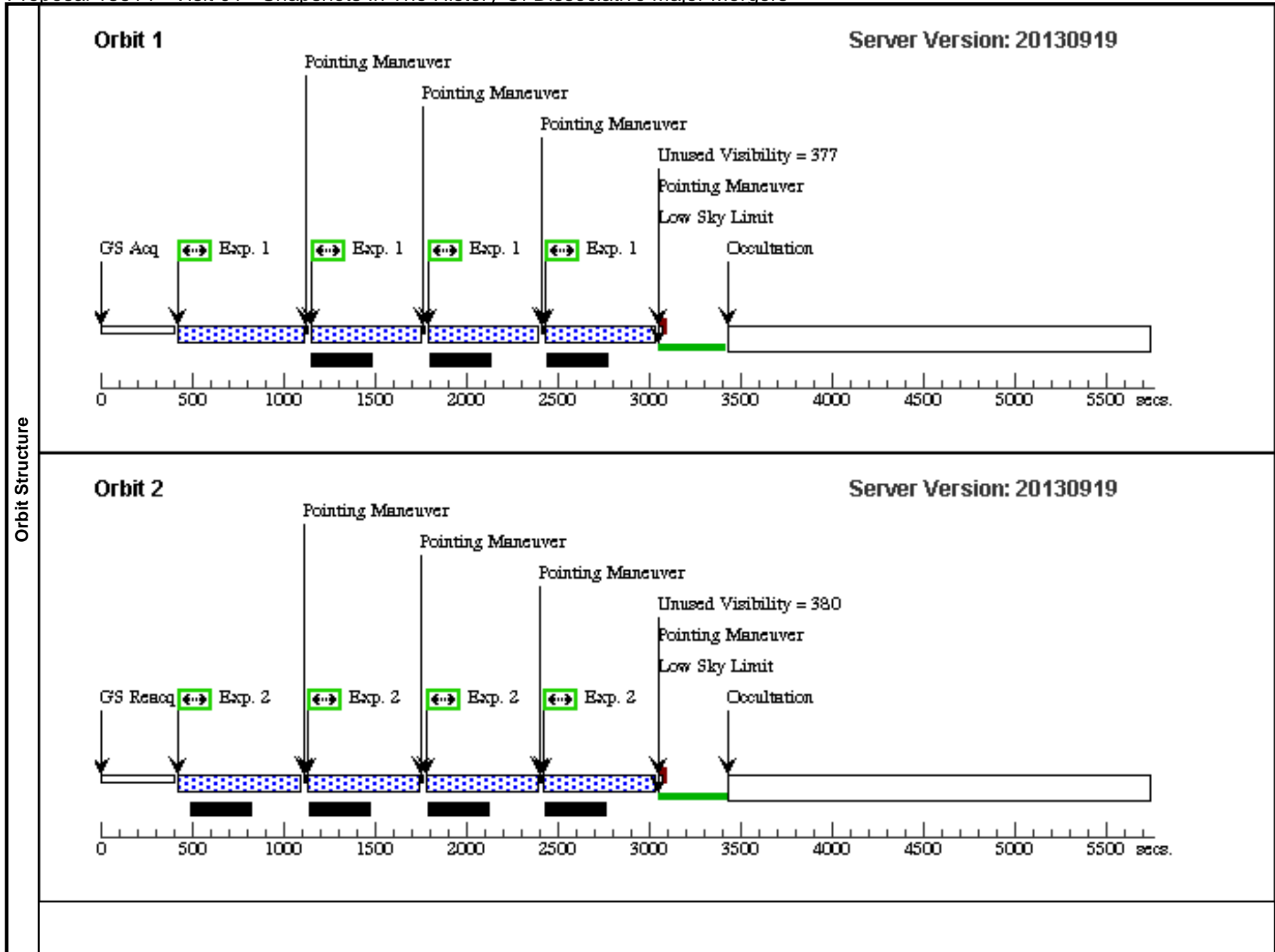
The combination of all three filters will allow the identification of red and blue cluster members. Further, the color informations are used to identify multiply imaged galaxies in the strong lensing regime and to constrain the redshift range of these sources.

To fill the gap between the ACS/WFC chips, we use a linear pattern with four exposures. The allowed orientation angle of the observations is restricted in order to optimize the FoV along the merger axis and to avoid a bright star ($V=11$ mag) to enter the field of view of ACS/WFC.

Proposal 13514 - Visit 01 - Snapshots In The History Of Dissociative Major Mergers

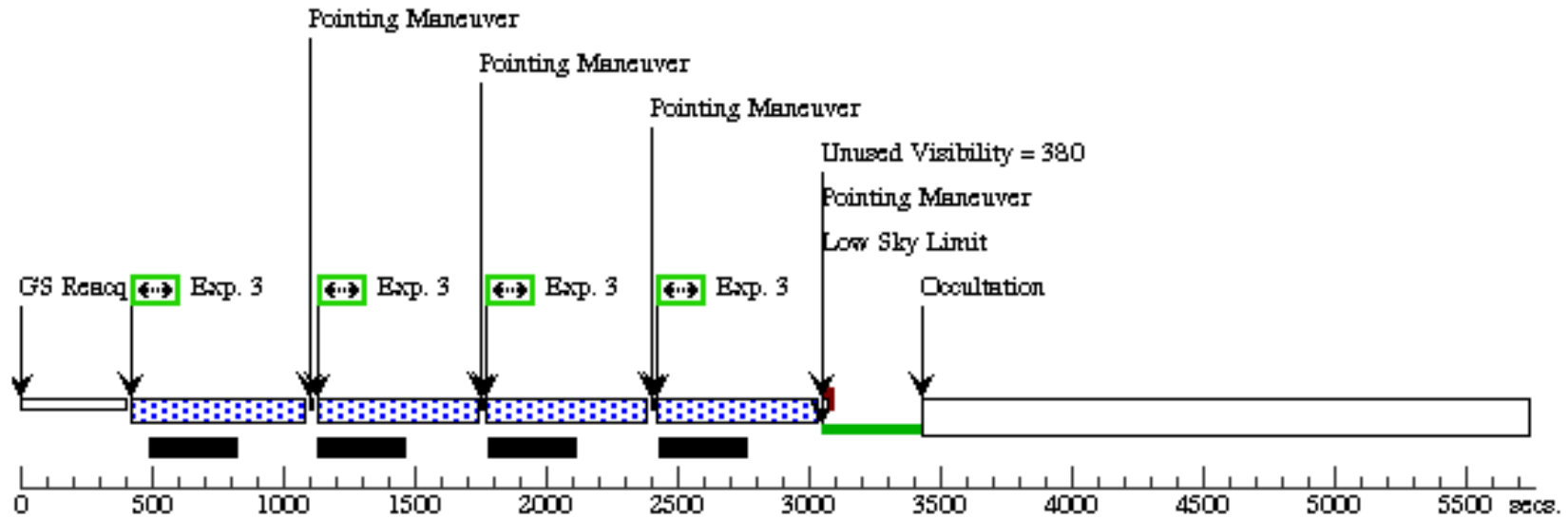
Thu Oct 03 01:47:31 GMT 2013

Visit	Proposal 13514, Visit 01 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: ORIENT 330D TO 30 D; ORIENT 50D TO 111 D									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(2)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=4 Point Spacing=3.011 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.28 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	ACO-S-295	RA: 02 45 29.7870 (41.3741125d) Dec: -53 02 24.55 (-53.04015d) Equinox: J2000	Redshift: 0.3	V=20+/-1	Reference Frame: ICRS				
<i>Comments: The target position is slightly shifted with respect to the SIMBAD coordinates to center the merging system within the FoV of ACS/WFC.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) ACO-S-295	ACS/WFC, ACCUM, WFCENTER	F435W		LOW-SKY	Pattern 2, Exps 1-1 in Visit 01 (2)	480 Secs (1920 Secs)	
									[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]
	2		(1) ACO-S-295	ACS/WFC, ACCUM, WFCENTER	F606W		LOW-SKY	Pattern 2, Exps 2-2 in Visit 01 (2)	484 Secs (1936 Secs)	
									[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[2]
3		(1) ACO-S-295	ACS/WFC, ACCUM, WFCENTER	F814W		LOW-SKY	Pattern 2, Exps 3-3 in Visit 01 (2)	486 Secs (1944 Secs)		
								[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[3]	
4		(1) ACO-S-295	ACS/WFC, ACCUM, WFCENTER	F814W		LOW-SKY	Pattern 2, Exps 4-4 in Visit 01 (2)	500 Secs (2000 Secs)		
								[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[4]	



Orbit 3

Server Version: 20130919



Orbit 4

Server Version: 20130919

