12757 - A DETAILED CHANDRA/HST STUDY OF THE FIRST z approx 1 CLUSTER BLINDLY DISCOVERED IN THE PLANCK ALL SKY SURVEY

Cycle: 19, Proposal Category: GO

(Availability Mode: SUPPORTED)

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(6) PLCKG266.6-27.3-V02-COPY	ACS/WFC	1	03-Oct-2011 21:17:11.0	yes
02	(7) PLCKG266.6-27.3-V03-COPY	ACS/WFC	1	03-Oct-2011 21:17:18.0	yes
03	(8) PLCKG266.6-27.3-V04-COPY	ACS/WFC	1	03-Oct-2011 21:17:23.0	yes
04	(9) PLCKG266.6-27.3-V05-COPY	ACS/WFC	1	03-Oct-2011 21:17:29.0	yes
05	(6) PLCKG266.6-27.3-V02-COPY	ACS/WFC	1	03-Oct-2011 21:17:34.0	yes
06	(7) PLCKG266.6-27.3-V03-COPY	ACS/WFC	1	03-Oct-2011 21:17:40.0	yes
07	(8) PLCKG266.6-27.3-V04-COPY	ACS/WFC	1	03-Oct-2011 21:17:47.0	yes
08	(9) PLCKG266.6-27.3-V05-COPY	ACS/WFC	1	03-Oct-2011 21:17:52.0	yes

8 Total Orbits Used

ABSTRACT

PLCKG266.6-27.3 is the first Planck blindly discovered cluster of galaxies at z=1. Consistent with expectations for high z Planck-detected clusters, a 10ks XMM observation confirms that it is an exceptional system: with its L500=15 10^44 ergs^-1, T500=11.6\pm1.4keV, and M500=7.8\pm1.0 10^14 M it is the most luminous cluster known at z > 0.5 and one of the most (if not the most) massive cluster at redshift z>1. Furthermore, unlike other high redshift clusters, PLCKG266.6-27.3 is likely to be a relaxed system so potentially ideal to make accurate hydrostatic mass measurements. We propose a joint Chandra-HST observation of PLCKG266.6-27.3 to confirm the relaxed dynamical status and, for the first time, to compare weak lensing and hydrostatic measurements in a z=1 cluster.

OBSERVING DESCRIPTION

Observation of 4 partially overlapping mosaic tiles to map out an area around the center of a newly discovered high-redshift galaxy cluster. Observations in two filters (F606W and F814W) for each tile, one field/filter per orbit (each split into 4 dithered 619s exposures).

Visit

Proposal 12757, Visit 01 Tue Oct 04 01:17:59 GMT 2011

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 23D TO 29 D; ORIENT 113D TO 119 D; ORIENT 203D TO 209 D; ORIENT 293D TO 299 D

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=5.011	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(1)

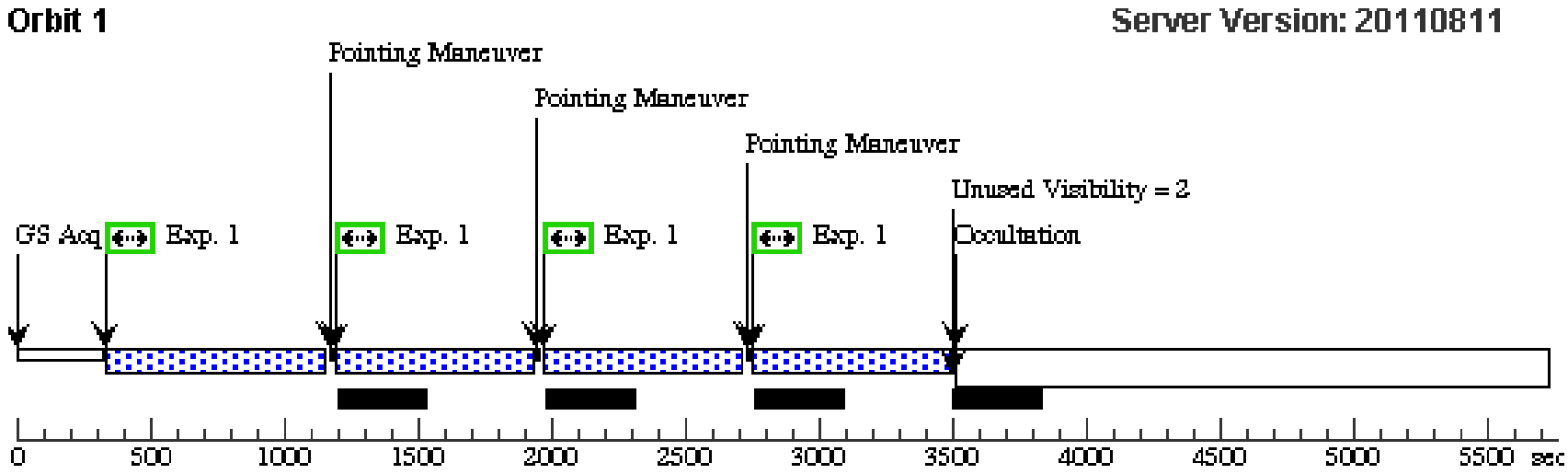
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	PLCKG266.6-27.3-V02-COPY	RA: 06 15 47.1339 (93.9463912d) Dec: -57 44 42.55 (-57.74515d) Equinox: J2000		V=23.0+/-1.0	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(6) PLCKG266.6-27.3-V02-COPY	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0,0.0	Pattern 1, Exps 1-1 in Tile Visit 01 (1)	500 Secs *[==>619 Secs (Pattern 1)]* *[==>619 Secs (Pattern 2)]* *[==>619 Secs (Pattern 3)]* *[==>619 Secs (Pattern 4)]*	*[1]*

Orbit Structure



Visit

Proposal 12757, Visit 02 Tue Oct 04 01:18:00 GMT 2011

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: SAME ORIENT AS 01

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=5.011	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(1)

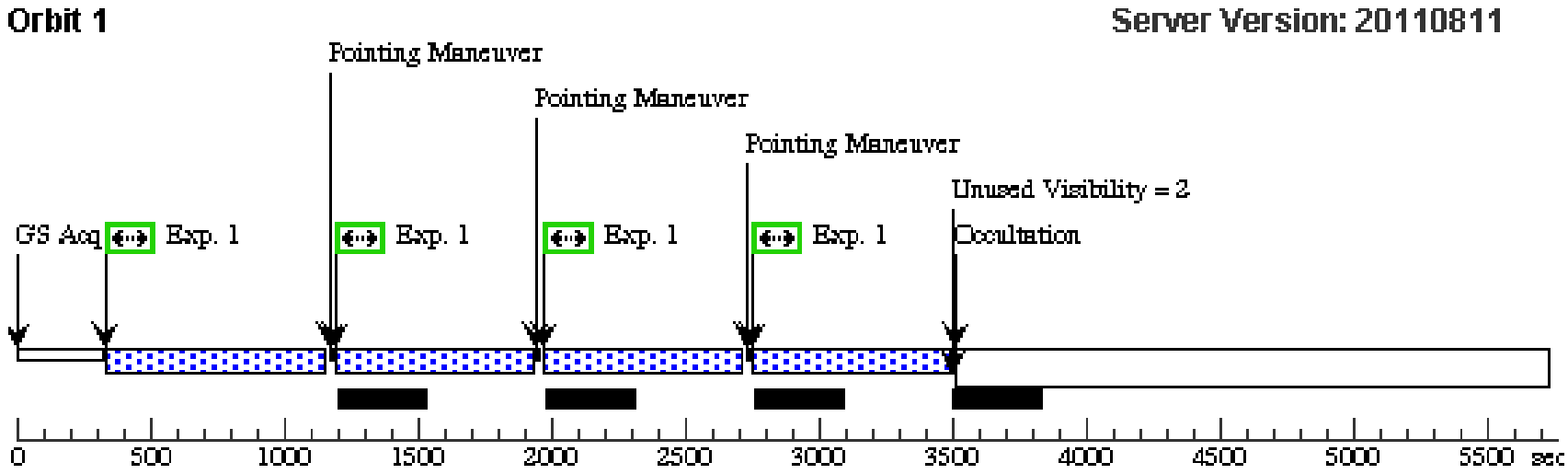
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	PLCKG266.6-27.3-V03-COPY	RA: 06 16 5.5211 (94.0230046d) Dec: -57 45 54.60 (-57.76517d) Equinox: J2000		V=23.0+/-1.0	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(7) PLCKG266.6-27.3-V03-COPY	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0,0.0	Pattern 1, Exps 1-1 in Tile Visit 02 (1)	500 Secs *[==>619 Secs (Pattern 1)]* *[==>619 Secs (Pattern 2)]* *[==>619 Secs (Pattern 3)]* *[==>619 Secs (Pattern 4)]*	*[1]*

Orbit Structure



Visit

Proposal 12757, Visit 03 Tue Oct 04 01:18:01 GMT 2011

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: SAME ORIENT AS 01

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=5.011	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(1)

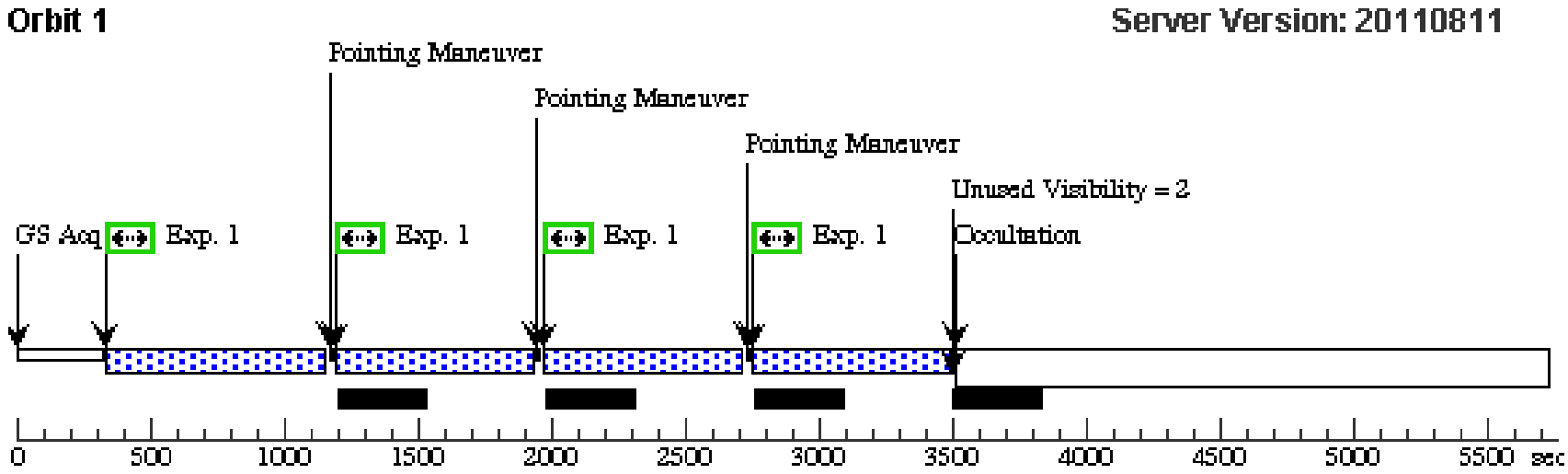
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	PLCKG266.6-27.3-V04-COPY	RA: 06 15 39.1747 (93.9132279d) Dec: -57 47 15.36 (-57.78760d) Equinox: J2000		V=23.0+/-1.0	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(8) PLCKG266.6-27.3-V04-COPY	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0,0.0	Pattern 1, Exps 1-1 in Tile Visit 03 (1)	500 Secs *[==>619 Secs (Pattern 1)]* *[==>619 Secs (Pattern 2)]* *[==>619 Secs (Pattern 3)]* *[==>619 Secs (Pattern 4)]*	*[1]*

Orbit Structure



Visit

Proposal 12757, Visit 04 Tue Oct 04 01:18:02 GMT 2011

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: SAME ORIENT AS 01

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=5.011	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(1)

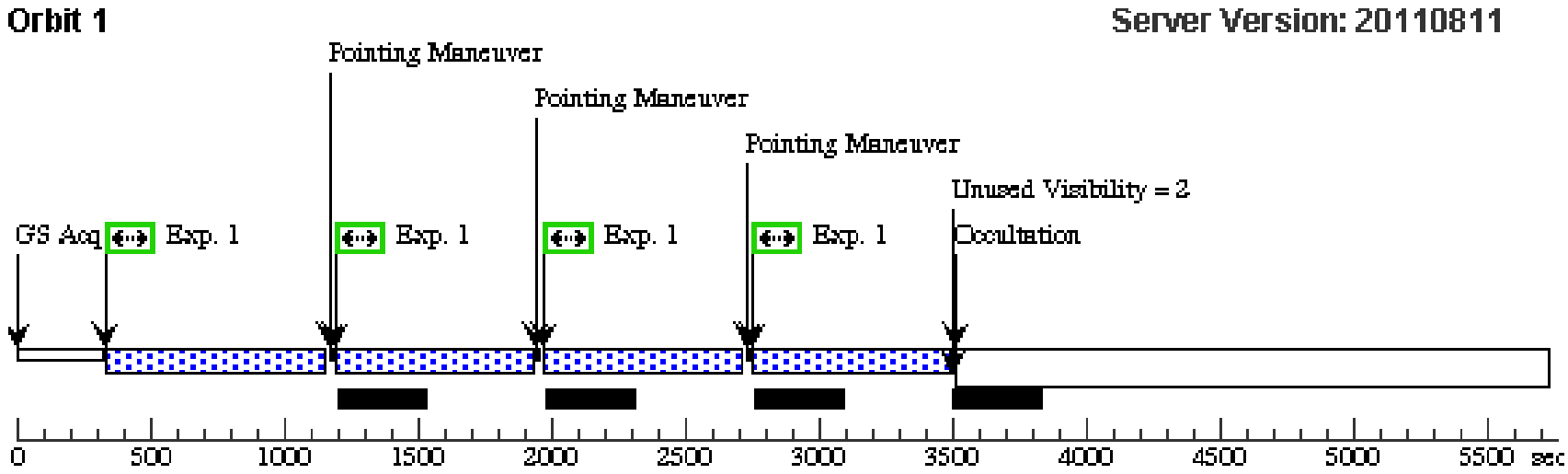
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	PLCKG266.6-27.3-V05-COPY	RA: 06 15 57.5618 (93.9898408d) Dec: -57 48 27.49 (-57.80764d) Equinox: J2000		V=23.0+/-1.0	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(9) PLCKG266.6-27.3-V05-COPY	ACS/WFC, ACCUM, WFC	F606W		POS TARG 0.0,0.0	Pattern 1, Exps 1-1 in Tile Visit 04 (1)	500 Secs *[==>619 Secs (Pattern 1)]* *[==>619 Secs (Pattern 2)]* *[==>619 Secs (Pattern 3)]* *[==>619 Secs (Pattern 4)]*	*[1]*

Orbit Structure



Visit

Proposal 12757, Visit 05 Tue Oct 04 01:18:03 GMT 2011

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 23D TO 29 D; ORIENT 113D TO 119 D; ORIENT 203D TO 209 D; ORIENT 293.0D TO 299.0 D

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=5.011	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(1)

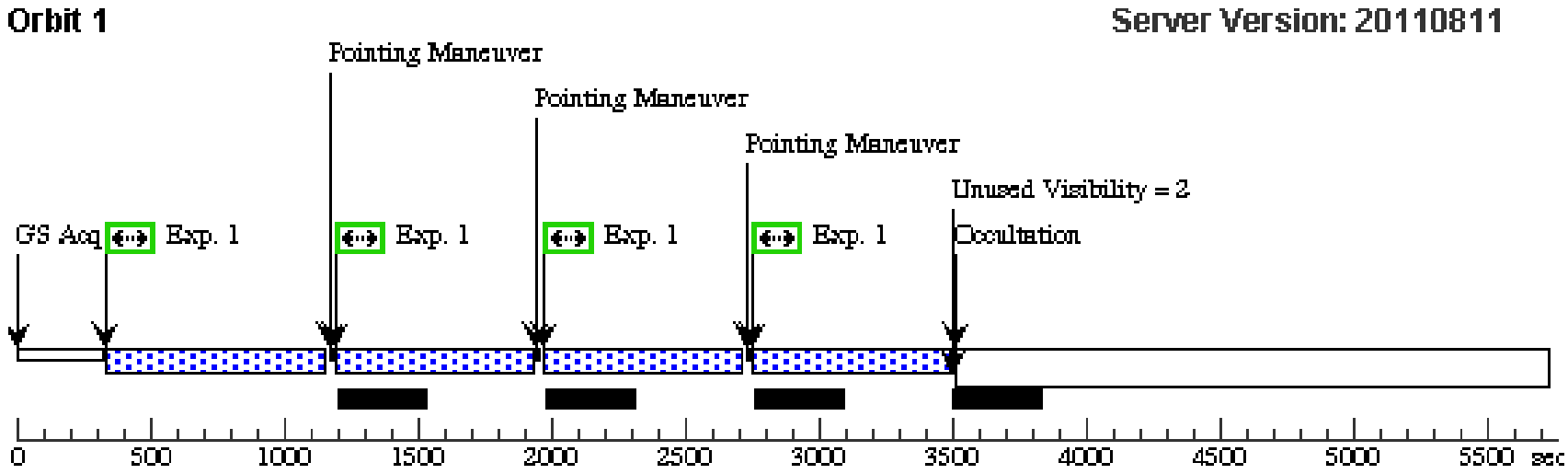
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	PLCKG266.6-27.3-V02-COPY	RA: 06 15 47.1339 (93.9463912d) Dec: -57 44 42.55 (-57.74515d) Equinox: J2000		V=23.0+/-1.0	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(6) PLCKG266.6-27.3-V02-COPY	ACS/WFC, ACCUM, WFC	F814W		POS TARG 0.0,0.0	Pattern 1, Exps 1-1 in Tile Visit 05 (1)	500 Secs *[==>619 Secs (Pattern 1)]* *[==>619 Secs (Pattern 2)]* *[==>619 Secs (Pattern 3)]* *[==>619 Secs (Pattern 4)]*	*[1]*

Orbit Structure



Visit

Proposal 12757, Visit 06 Tue Oct 04 01:18:03 GMT 2011

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: SAME ORIENT AS 05

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=5.011	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(1)

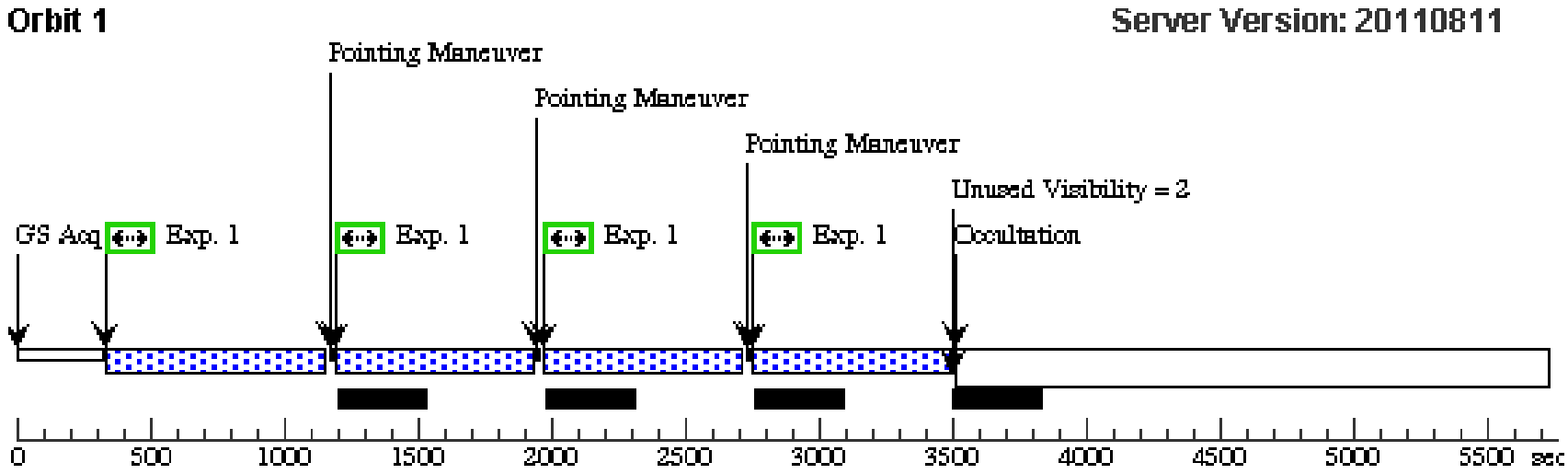
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	PLCKG266.6-27.3-V03-COPY	RA: 06 16 5.5211 (94.0230046d) Dec: -57 45 54.60 (-57.76517d) Equinox: J2000		V=23.0+/-1.0	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(7) PLCKG266.6-27.3-V03-COPY	ACS/WFC, ACCUM, WFC	F814W		POS TARG 0.0,0.0	Pattern 1, Exps 1-1 in Tile Visit 06 (1)	500 Secs *[==>619 Secs (Pattern 1)]* *[==>619 Secs (Pattern 2)]* *[==>619 Secs (Pattern 3)]* *[==>619 Secs (Pattern 4)]*	*[1]*

Orbit Structure



Visit

Proposal 12757, Visit 07 Tue Oct 04 01:18:04 GMT 2011

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: SAME ORIENT AS 05

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=5.011	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(1)

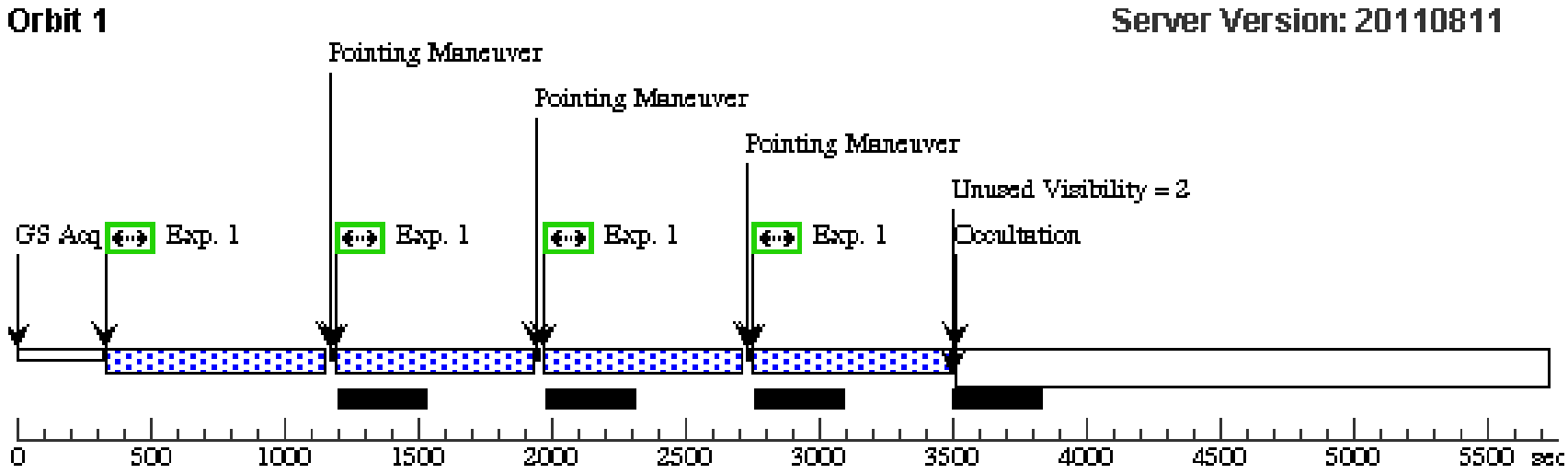
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	PLCKG266.6-27.3-V04-COPY	RA: 06 15 39.1747 (93.9132279d) Dec: -57 47 15.36 (-57.78760d) Equinox: J2000		V=23.0+/-1.0	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(8) PLCKG266.6-27.3-V04-COPY	ACS/WFC, ACCUM, WFC	F814W		POS TARG 0.0,0.0	Pattern 1, Exps 1-1 in Tile Visit 07 (1)	500 Secs *[==>619 Secs (Pattern 1)]* *[==>619 Secs (Pattern 2)]* *[==>619 Secs (Pattern 3)]* *[==>619 Secs (Pattern 4)]*	*[1]*

Orbit Structure



Visit

Proposal 12757, Visit 08 Tue Oct 04 01:18:04 GMT 2011

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: SAME ORIENT AS 05

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=5.011	Coordinate Frame=POS-TARG Pattern Orientation=20.67 Angle Between Sides=69.05 Center Pattern=false		(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	PLCKG266.6-27.3-V05-COPY	RA: 06 15 57.5618 (93.9898408d) Dec: -57 48 27.49 (-57.80764d) Equinox: J2000		V=23.0+/-1.0	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(9) PLCKG266.6-27.3-V05-COPY	ACS/WFC, ACCUM, WFC	F814W		POS TARG 0.0,0.0	Pattern 1, Exps 1-1 in Tile Visit 08 (1)	500 Secs *[==>619 Secs (Pattern 1)]* *[==>619 Secs (Pattern 2)]* *[==>619 Secs (Pattern 3)]* *[==>619 Secs (Pattern 4)]*	*[1]*

Orbit Structure