



12866 - A Morphological Study of ALMA Identified Sub-mm Galaxies with HST/WFC3

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) POINTING1 ANY	ACS/WFC WFC3/IR	2	17-Jul-2012 21:30:03.0	yes
02	(2) POINTING2 ANY	ACS/WFC WFC3/IR	2	17-Jul-2012 21:30:16.0	yes
03	(3) POINTING3 ANY	ACS/WFC WFC3/IR	2	17-Jul-2012 21:30:27.0	yes
04	(4) POINTING4 ANY	ACS/WFC WFC3/IR	2	17-Jul-2012 21:30:37.0	yes
05	(5) POINTING5 ANY	ACS/WFC WFC3/IR	2	17-Jul-2012 21:30:46.0	yes
06	(6) POINTING6 ANY	ACS/WFC WFC3/IR	2	17-Jul-2012 21:30:56.0	yes
07	(7) POINTING7 ANY	ACS/WFC WFC3/IR	2	17-Jul-2012 21:31:05.0	yes
08	(8) POINTING8 ANY	ACS/WFC WFC3/IR	2	17-Jul-2012 21:31:15.0	yes
09	(9) POINTING9 ANY	ACS/WFC WFC3/IR	2	17-Jul-2012 21:31:24.0	yes
10	(10) POINTING10 ANY	ACS/WFC WFC3/IR	2	17-Jul-2012 21:31:34.0	yes
11	(11) POINTING11 ANY	ACS/WFC WFC3/IR	2	17-Jul-2012 21:31:47.0	yes
12	(12) POINTING12 ANY	ACS/WFC WFC3/IR	2	17-Jul-2012 21:31:57.0	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>
13	(13) POINTING13 ANY	ACS/WFC WFC3/IR	2	17-Jul-2012 21:32:06.0	yes
14	(14) POINTING14 ANY	ACS/WFC WFC3/IR	2	17-Jul-2012 21:32:15.0	yes
15	(15) POINTING15 ANY	ACS/WFC WFC3/IR	2	17-Jul-2012 21:32:24.0	yes

30 Total Orbits Used

ABSTRACT

For more than a decade sub-millimeter bright galaxies (SMGs) have been known to host the most active sites of star formation at high redshift. However, given the course resolution ($\sim 20''$) of sub-millimeter cameras, all multi-wavelength studies to date were limited to a sub-set of SMGs at low redshift and were plagued by mis-identifications. This lead to a severely incomplete understanding of some of the most actively star forming galaxies in the universe. This field is now being transformed by ALMA: our early ALMA observations of >100 SMGs in the Extended Chandra Deep Field South (ECDFS) have resulted in extremely precise positions ($<0.3''$) of an unbiased SMG sample. The requested WFC3/F160W observations of a carefully selected sub-sample are absolutely critical to investigate the triggering mechanisms for their immense starburst activity through the only collision-less tracer available to us: the morphology of the stellar distribution. Through its analysis we will be able to distinguish between low-mass merging starbursts, isolated or not-strongly interacting, gas-rich disk galaxies suffering secular bursts; and proto-spheroids undergoing classical top-hat collapse, thus putting tight constraints on the multitude of proposed models. HST is the only facility that offers the sensitivity and resolution needed to finally understand the nature of SMGs.

OBSERVING DESCRIPTION

WFC3 H160W-band imaging of 15 fields in the Extended Chandra Deep Field South. We are targetting high-redshift ($z=2-3$) galaxies which have been identified with ALMA.

We have also attached ACS F814W parallels. We have no constraints on where these lie in the field - they will simply provide more (serendipitous) coverage of the field we are observing.

Proposal 12866 (STScI Edit Number: 1, Created: Tuesday, July 17, 2012 8:32:33 PM EST) - Overview

Each pointing is 2 orbits. We have split each of the WFC3 images within the orbit into 1000second exposures with a dithering offset of approx 5" east-west and north-south to remove hot/bad pixels and cosmic-ray events. The dither includes 0, 1/4, 1/2, & 3/4 pixel shifts in order to drizzle.

The ACS images are also split into 4 exposures, each of 826 seconds. This ensures they start and end in time for the (primary) WFC3 observations.

We have no constraints on roll angle, although we have selected LOW SKY conditions in order to minimise the background.

The average magnitude of our targets is $H_{AB}=22.6$ (and average surface brightness $\mu_{AB}=22.6$) with a magnitude range $H_{AB}=20.0--24.1$. We expect to reach a $S/N>5$ per $0.13\times 0.13''$ pixel for all targets brighter than $\mu_{AB}=24.1$.

REAL TIME JUSTIFICATION

None

CALIBRATION JUSTIFICATION

None

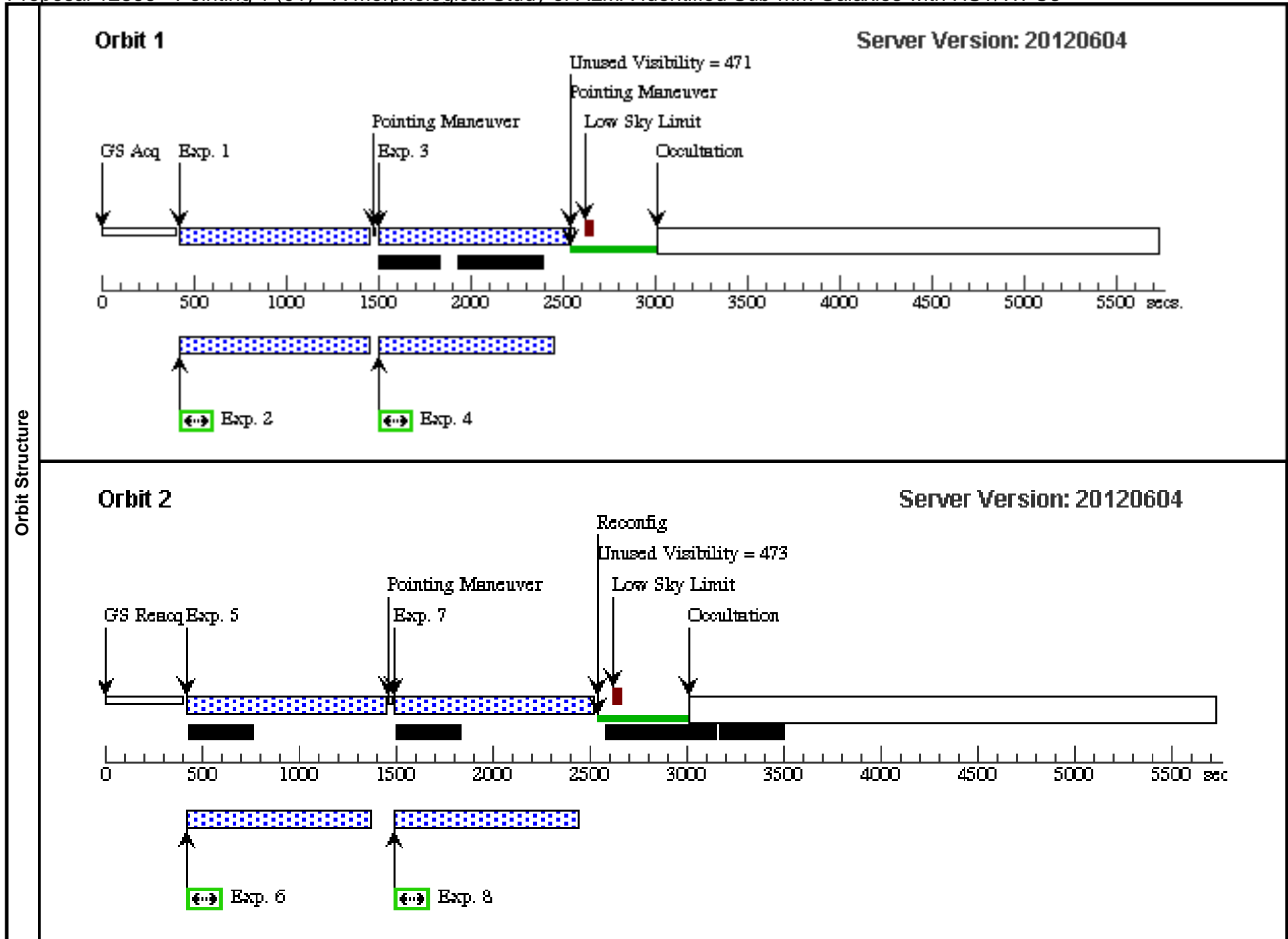
ADDITIONAL COMMENTS

None

Proposal 12866 - Pointing 1 (01) - A Morphological Study of ALMA Identified Sub-mm Galaxies with HST/WFC3

Wed Jul 18 01:32:33 GMT 2012

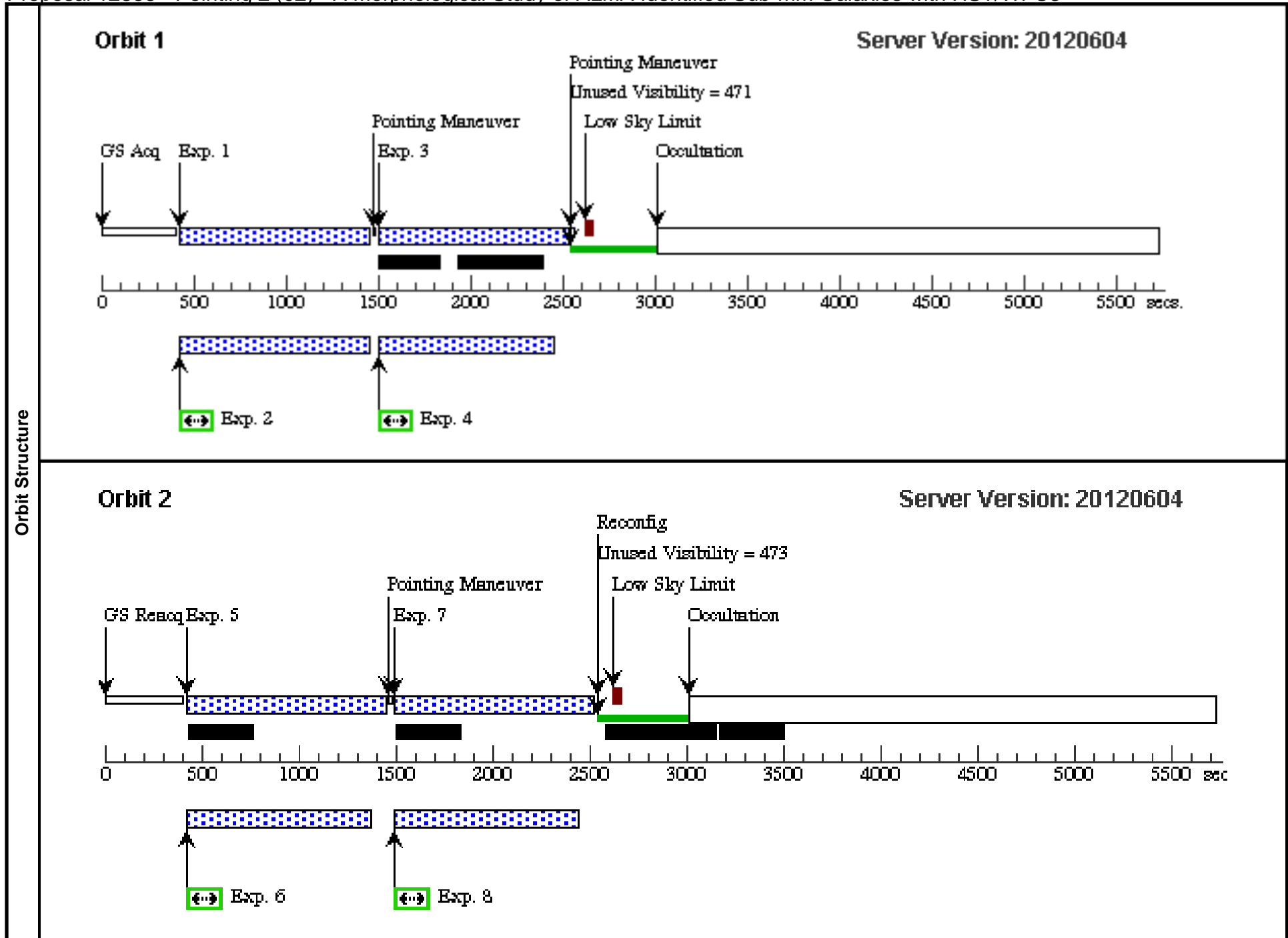
Visit	Proposal 12866, Pointing 1 (01), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: SCHED 100%										
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	(1)	POINTING1	RA: 03 32 49.8450 (53.2076875d) Dec: -27 31 26.18 (-27.52394d) Equinox: J2000			V=22	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit	
	1	(1) POINTING1		WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 0,0; LOW-SKY	Prime + Parallel Group 1-2 in Pointing 1 (01)	[==>]	[1]	
	2	ANY		ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Pointing 1 (01)	826 Secs [==>]	[1]	
	3	(1) POINTING1		WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 5.005,5.005; LOW-SKY	Prime + Parallel Group 3-4 in Pointing 1 (01)	[==>]	[1]	
	4	ANY		ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 3-4 in Pointing 1 (01)	826 Secs [==>]	[1]	
	5	(1) POINTING1		WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -4.9725 0,-4.97250; LOW-SKY	Prime + Parallel Group 5-6 in Pointing 1 (01)	[==>]	[2]	
	6	ANY		ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in Pointing 1 (01)	826 Secs [==>]	[2]	
	7	(1) POINTING1		WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -5.0375 0,5.03750; LOW-SKY	Prime + Parallel Group 7-8 in Pointing 1 (01)	[==>]	[2]	
	8	ANY		ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 7-8 in Pointing 1 (01)	826 Secs [==>]	[2]	



Proposal 12866 - Pointing 2 (02) - A Morphological Study of ALMA Identified Sub-mm Galaxies with HST/WFC3

Wed Jul 18 01:32:36 GMT 2012

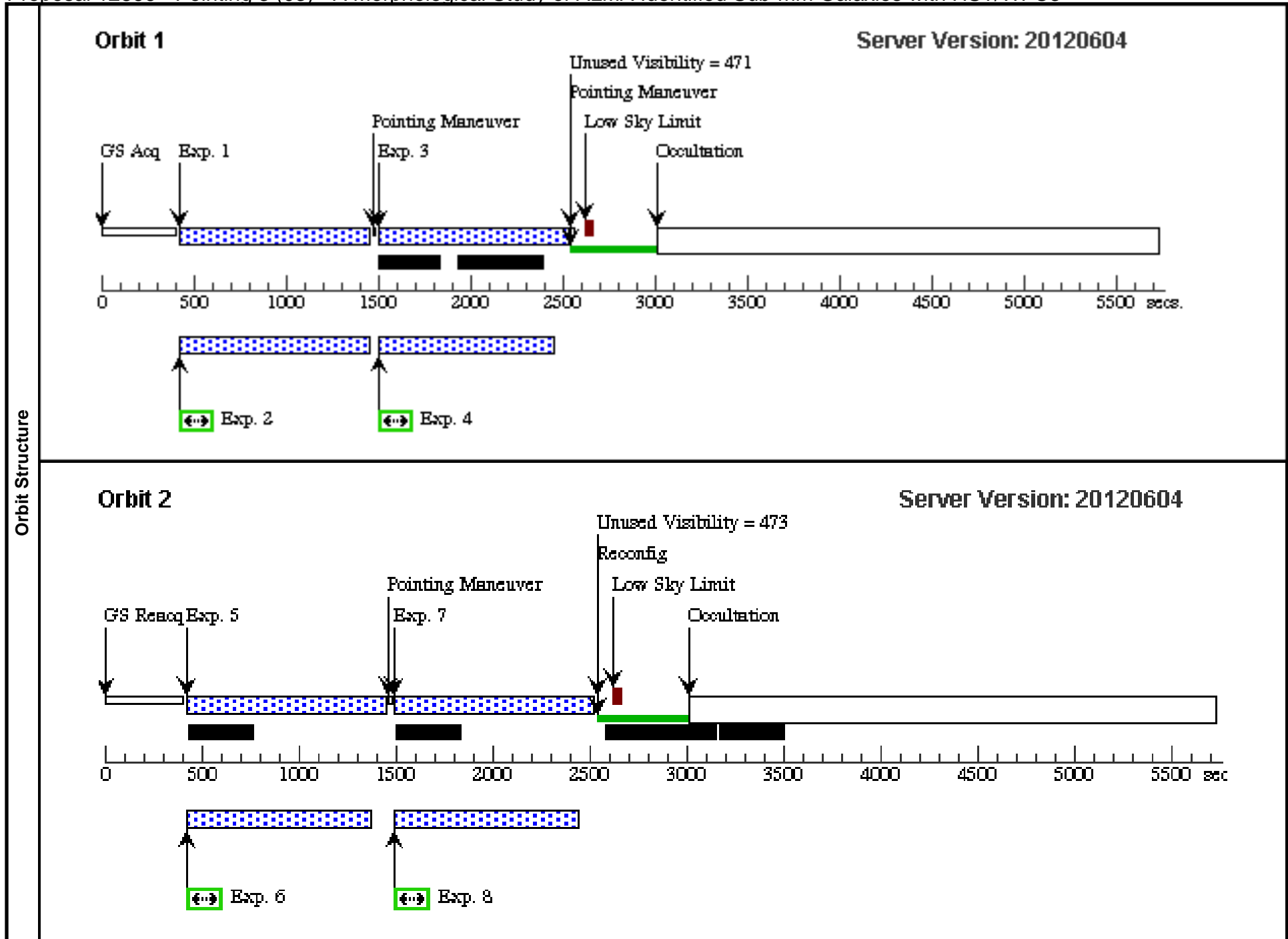
Visit	Proposal 12866, Pointing 2 (02), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: SCHED 100%										
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	(2)	POINTING2	RA: 03 31 47.2480 (52.9468667d) Dec: -27 34 32.81 (-27.57578d) Equinox: J2000			V=22	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit	
	1		(2) POINTING2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 0,0; LOW-SKY	Prime + Parallel Group 1-2 in Pointing 2 (02)	[==>]	[1]	
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Pointing 2 (02)	826 Secs [==>]	[1]	
	3		(2) POINTING2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -4.9725 0,-4.97250; LOW-SKY	Prime + Parallel Group 3-4 in Pointing 2 (02)	[==>]	[1]	
	4		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 3-4 in Pointing 2 (02)	826 Secs [==>]	[1]	
	5		(2) POINTING2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 5.005,5. 005; LOW-SKY	Prime + Parallel Group 5-6 in Pointing 2 (02)	[==>]	[2]	
	6		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in Pointing 2 (02)	826 Secs [==>]	[2]	
	7		(2) POINTING2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -5.0375 0,5.03750; LOW-SKY	Prime + Parallel Group 7-8 in Pointing 2 (02)	[==>]	[2]	
	8		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 7-8 in Pointing 2 (02)	826 Secs [==>]	[2]	



Proposal 12866 - Pointing 3 (03) - A Morphological Study of ALMA Identified Sub-mm Galaxies with HST/WFC3

Wed Jul 18 01:32:38 GMT 2012

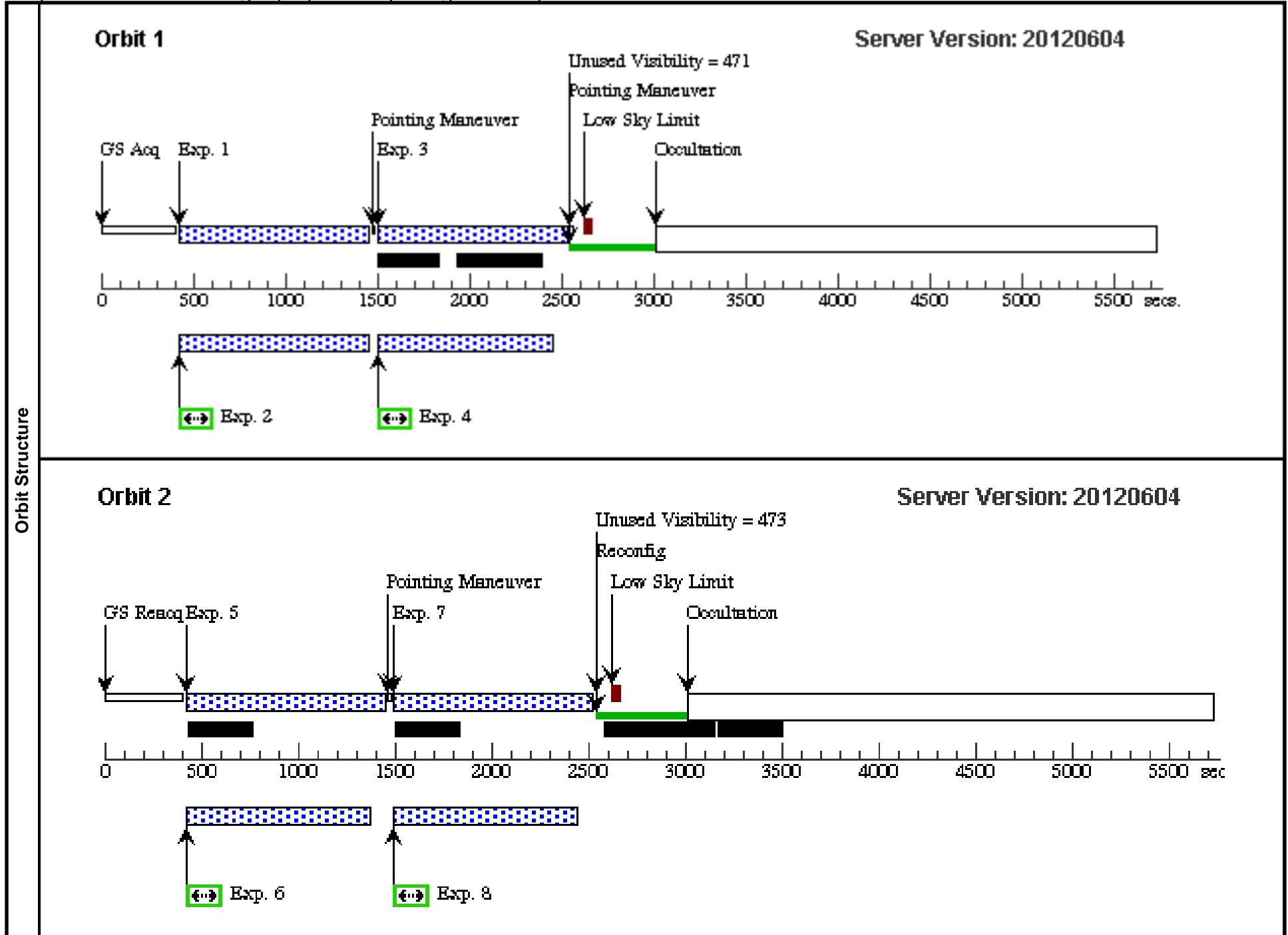
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	(3)	POINTING3	RA: 03 32 55.8240 (53.2326000d) Dec: -27 38 3.18 (-27.63422d) Equinox: J2000			V=22	Reference Frame: ICRS			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(3) POINTING3		WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 0,0; LOW-SKY	Prime + Parallel Group 1-2 in Pointing 3 (03)	[==>]	[1]
	2	ANY		ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Pointing 3 (03)	826 Secs [==>]	[1]
	3	(3) POINTING3		WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -4.9725 0,-4.97250; LOW-SKY	Prime + Parallel Group 3-4 in Pointing 3 (03)	[==>]	[1]
	4	ANY		ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 3-4 in Pointing 3 (03)	826 Secs [==>]	[1]
	5	(3) POINTING3		WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 5.005,5. 005; LOW-SKY	Prime + Parallel Group 5-6 in Pointing 3 (03)	[==>]	[2]
	6	ANY		ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in Pointing 3 (03)	826 Secs [==>]	[2]
	7	(3) POINTING3		WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -5.0375 0,5.03750; LOW-SKY	Prime + Parallel Group 7-8 in Pointing 3 (03)	[==>]	[2]
8	ANY		ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 7-8 in Pointing 3 (03)	826 Secs [==>]	[2]	



Proposal 12866 - Pointing 4 (04) - A Morphological Study of ALMA Identified Sub-mm Galaxies with HST/WFC3

Wed Jul 18 01:32:40 GMT 2012

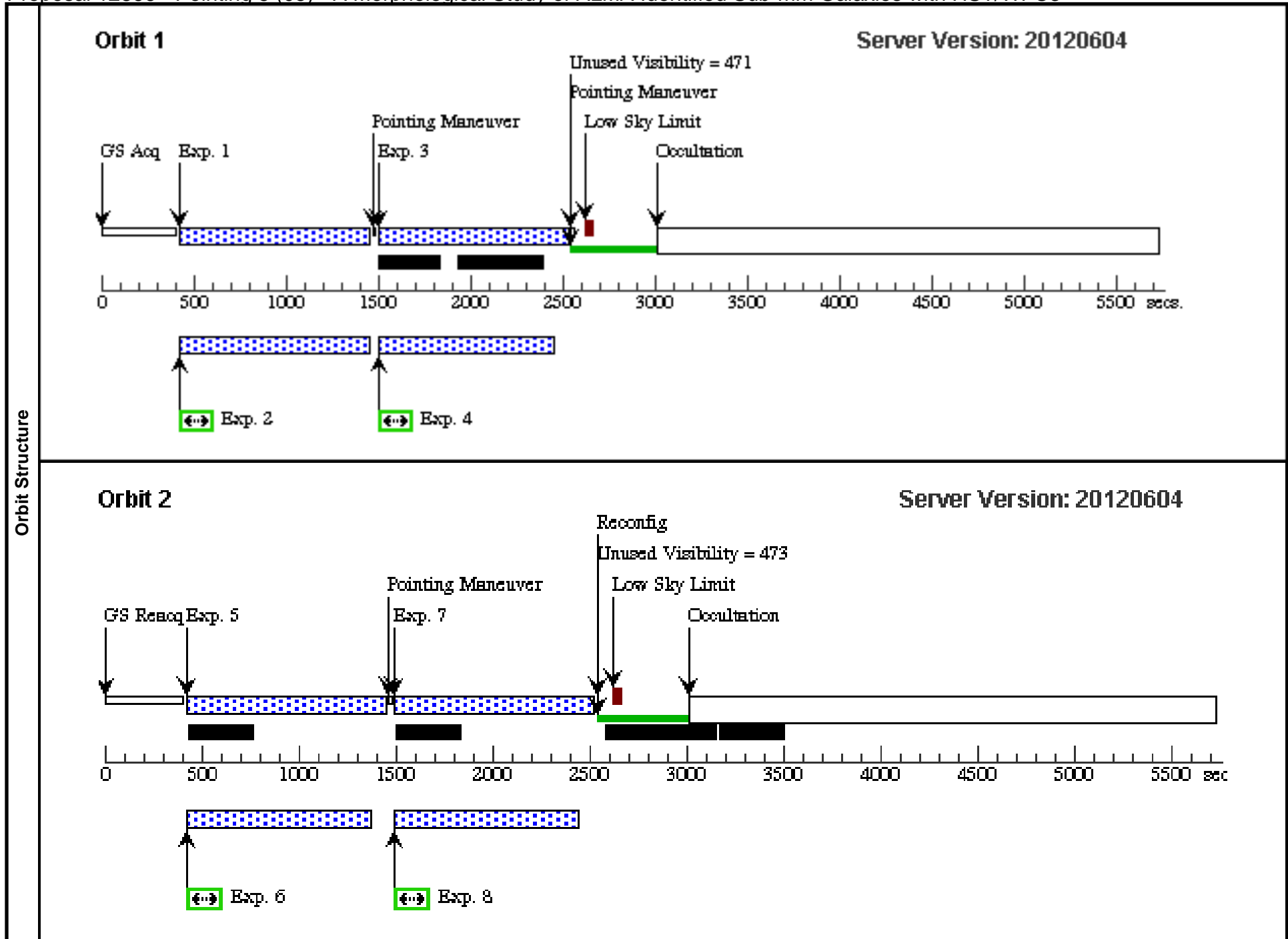
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	(4)	POINTING4	RA: 03 31 41.4850 (52.9228542d) Dec: -27 44 14.48 (-27.73736d) Equinox: J2000			V=22	Reference Frame: ICRS			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(4) POINTING4	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 0,0; LOW-SKY	Prime + Parallel Group 1-2 in Pointing 4 (04)	[==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Pointing 4 (04)	826 Secs [==>]	[1]
	3		(4) POINTING4	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -4.9725 0,-4.97250; LOW-SKY	Prime + Parallel Group 3-4 in Pointing 4 (04)	[==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 3-4 in Pointing 4 (04)	826 Secs [==>]	[1]
	5		(4) POINTING4	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 5.005,5. 005; LOW-SKY	Prime + Parallel Group 5-6 in Pointing 4 (04)	[==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in Pointing 4 (04)	826 Secs [==>]	[2]
	7		(4) POINTING4	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -5.0375 0,5.03750; LOW-SKY	Prime + Parallel Group 7-8 in Pointing 4 (04)	[==>]	[2]
8		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 7-8 in Pointing 4 (04)	826 Secs [==>]	[2]	



Proposal 12866 - Pointing 5 (05) - A Morphological Study of ALMA Identified Sub-mm Galaxies with HST/WFC3

Wed Jul 18 01:32:42 GMT 2012

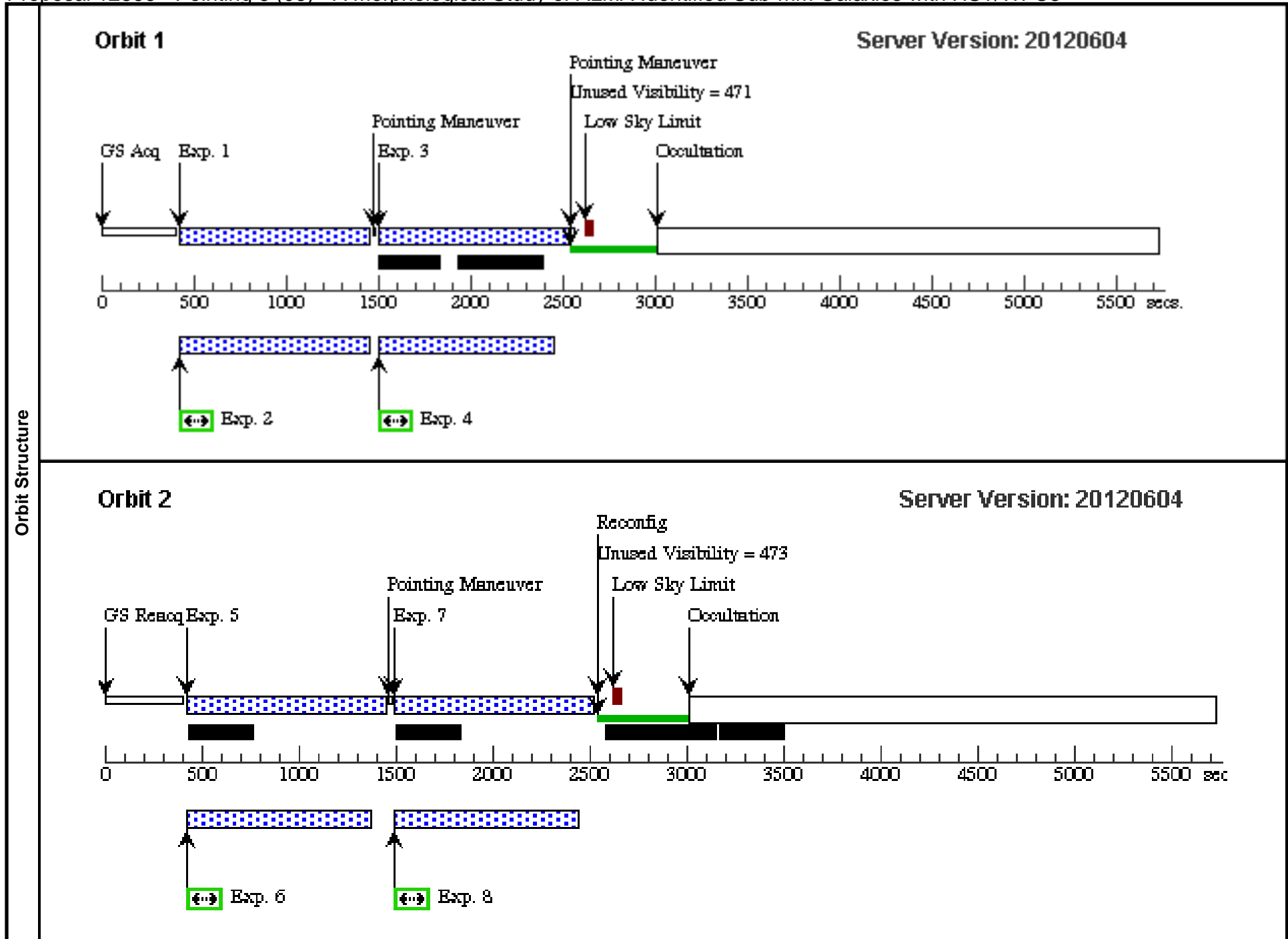
Visit	Proposal 12866, Pointing 5 (05), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: SCHED 100%										
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	(5)	POINTING5	RA: 03 31 52.3730 (52.9682208d) Dec: -27 45 18.85 (-27.75524d) Equinox: J2000			V=22	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit	
	1		(5) POINTING5	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 0,0; LOW-SKY	Prime + Parallel Group 1-2 in Pointing 5 (05)	[==>]	[1]	
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Pointing 5 (05)	826 Secs [==>]	[1]	
	3		(5) POINTING5	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -4.9725 0,-4.97250; LOW-SKY	Prime + Parallel Group 3-4 in Pointing 5 (05)	[==>]	[1]	
	4		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 3-4 in Pointing 5 (05)	826 Secs [==>]	[1]	
	5		(5) POINTING5	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 5.005,5. 005; LOW-SKY	Prime + Parallel Group 5-6 in Pointing 5 (05)	[==>]	[2]	
	6		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in Pointing 5 (05)	826 Secs [==>]	[2]	
	7		(5) POINTING5	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -5.0375 0,5.03750; LOW-SKY	Prime + Parallel Group 7-8 in Pointing 5 (05)	[==>]	[2]	
8		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 7-8 in Pointing 5 (05)	826 Secs [==>]	[2]		



Proposal 12866 - Pointing 6 (06) - A Morphological Study of ALMA Identified Sub-mm Galaxies with HST/WFC3

Wed Jul 18 01:32:44 GMT 2012

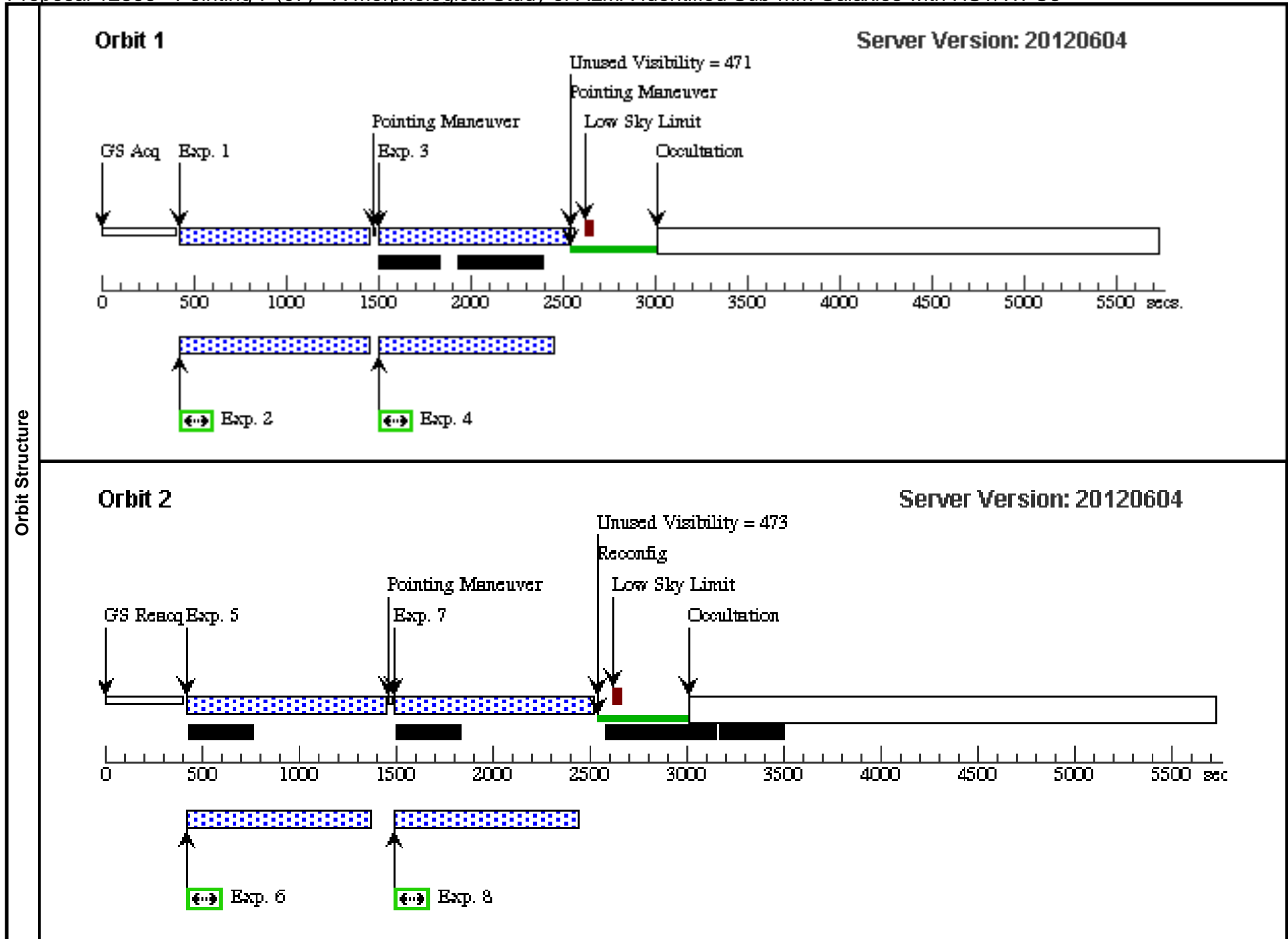
Visit	Proposal 12866, Pointing 6 (06), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: SCHED 100%									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(6)	POINTING6	RA: 03 31 22.8560 (52.8452333d) Dec: -27 50 13.40 (-27.83706d) Equinox: J2000			V=22	Reference Frame: ICRS			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(6) POINTING6	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 0,0; LOW-SKY	Prime + Parallel Group 1-2 in Pointing 6 (06)	[==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Pointing 6 (06)	826 Secs [==>]	[1]
	3		(6) POINTING6	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -4.9725 0,-4.97250; LOW-SKY	Prime + Parallel Group 3-4 in Pointing 6 (06)	[==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 3-4 in Pointing 6 (06)	826 Secs [==>]	[1]
	5		(6) POINTING6	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 5.005,5. 005; LOW-SKY	Prime + Parallel Group 5-6 in Pointing 6 (06)	[==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in Pointing 6 (06)	826 Secs [==>]	[2]
	7		(6) POINTING6	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -5.0375 0,5.03750; LOW-SKY	Prime + Parallel Group 7-8 in Pointing 6 (06)	[==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 7-8 in Pointing 6 (06)	826 Secs [==>]	[2]



Proposal 12866 - Pointing 7 (07) - A Morphological Study of ALMA Identified Sub-mm Galaxies with HST/WFC3

Wed Jul 18 01:32:46 GMT 2012

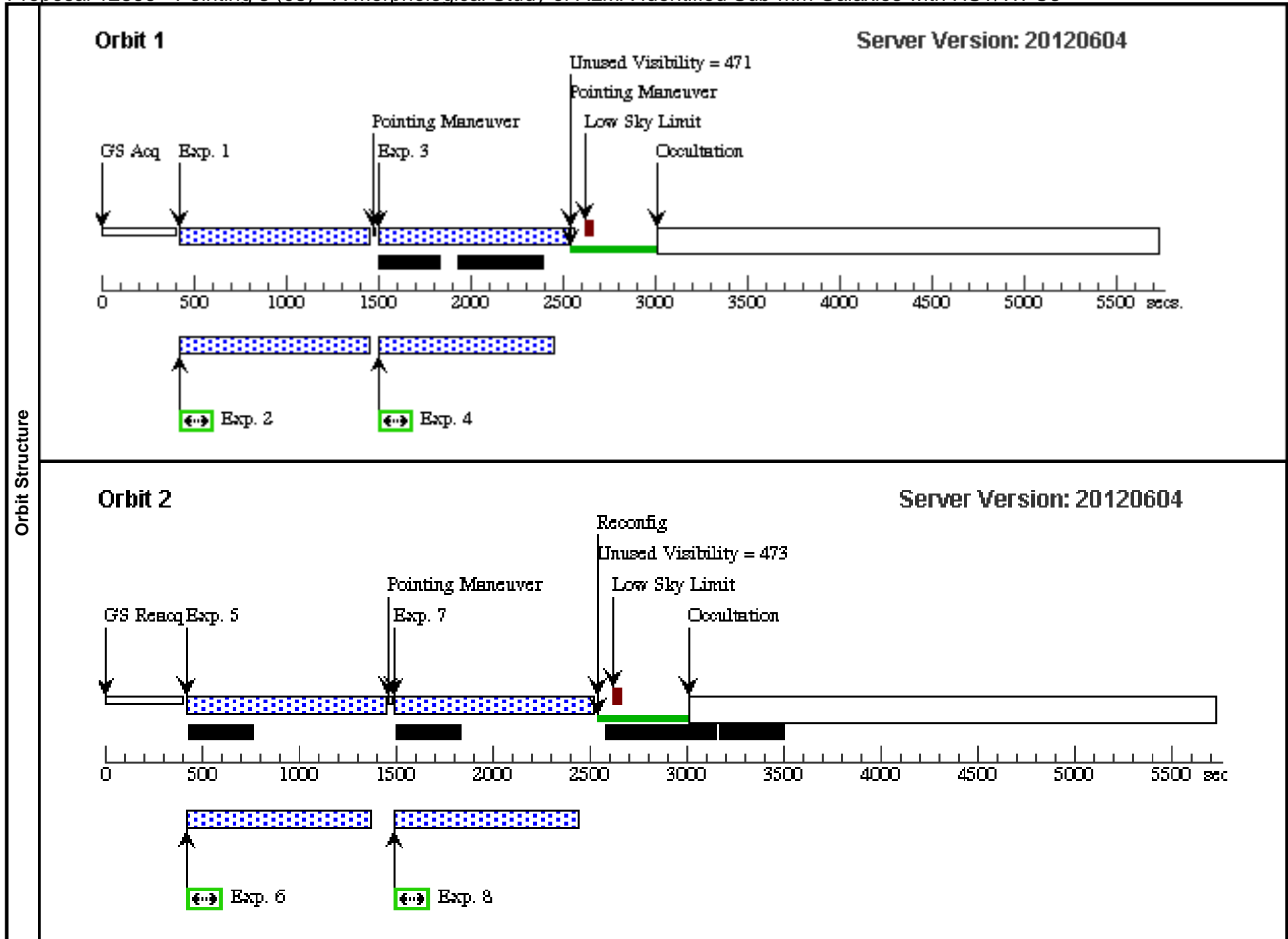
Visit	Proposal 12866, Pointing 7 (07), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: SCHED 100%									
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	(7)	POINTING7	RA: 03 32 9.3290 (53.0388708d) Dec: -27 51 46.99 (-27.86305d) Equinox: J2000		V=22	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(7) POINTING7		WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 0,0; LOW-SKY	Prime + Parallel Group 1-2 in Pointing 7 (07)	[==>]	[1]
	2	ANY		ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Pointing 7 (07)	826 Secs [==>]	[1]
	3	(7) POINTING7		WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -4.9725 0,-4.97250; LOW-SKY	Prime + Parallel Group 3-4 in Pointing 7 (07)	[==>]	[1]
	4	ANY		ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 3-4 in Pointing 7 (07)	826 Secs [==>]	[1]
	5	(7) POINTING7		WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 5.005,5. 005; LOW-SKY	Prime + Parallel Group 5-6 in Pointing 7 (07)	[==>]	[2]
	6	ANY		ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in Pointing 7 (07)	826 Secs [==>]	[2]
	7	(7) POINTING7		WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -5.0375 0,5.03750; LOW-SKY	Prime + Parallel Group 7-8 in Pointing 7 (07)	[==>]	[2]
8	ANY		ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 7-8 in Pointing 7 (07)	826 Secs [==>]	[2]	



Proposal 12866 - Pointing 8 (08) - A Morphological Study of ALMA Identified Sub-mm Galaxies with HST/WFC3

Wed Jul 18 01:32:48 GMT 2012

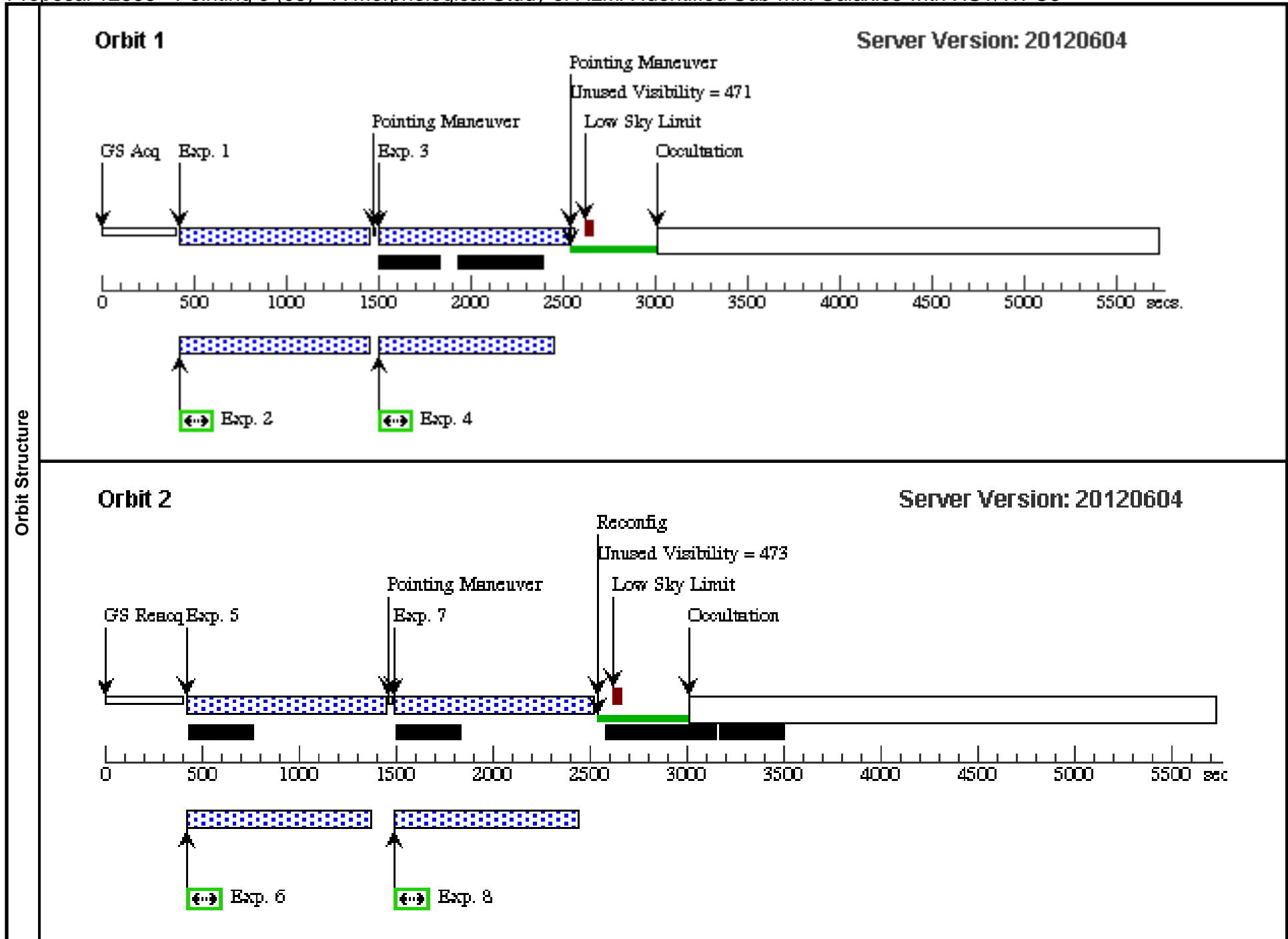
Visit	Proposal 12866, Pointing 8 (08), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: SCHED 100%									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(8)	POINTING8	RA: 03 31 52.4150 (52.9683958d) Dec: -27 53 36.23 (-27.89340d) Equinox: J2000			V=22	Reference Frame: ICRS			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(8) POINTING8	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 0,0; LOW-SKY	Prime + Parallel Group 1-2 in Pointing 8 (08)	[==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Pointing 8 (08)	826 Secs [==>]	[1]
	3		(8) POINTING8	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -4.9725 0,-4.97250; LOW-SKY	Prime + Parallel Group 3-4 in Pointing 8 (08)	[==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 3-4 in Pointing 8 (08)	826 Secs [==>]	[1]
	5		(8) POINTING8	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 5.005,5. 005; LOW-SKY	Prime + Parallel Group 5-6 in Pointing 8 (08)	[==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in Pointing 8 (08)	826 Secs [==>]	[2]
	7		(8) POINTING8	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -5.0375 0,5.03750; LOW-SKY	Prime + Parallel Group 7-8 in Pointing 8 (08)	[==>]	[2]
8		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 7-8 in Pointing 8 (08)	826 Secs [==>]	[2]	



Proposal 12866 - Pointing 9 (09) - A Morphological Study of ALMA Identified Sub-mm Galaxies with HST/WFC3

Wed Jul 18 01:32:50 GMT 2012

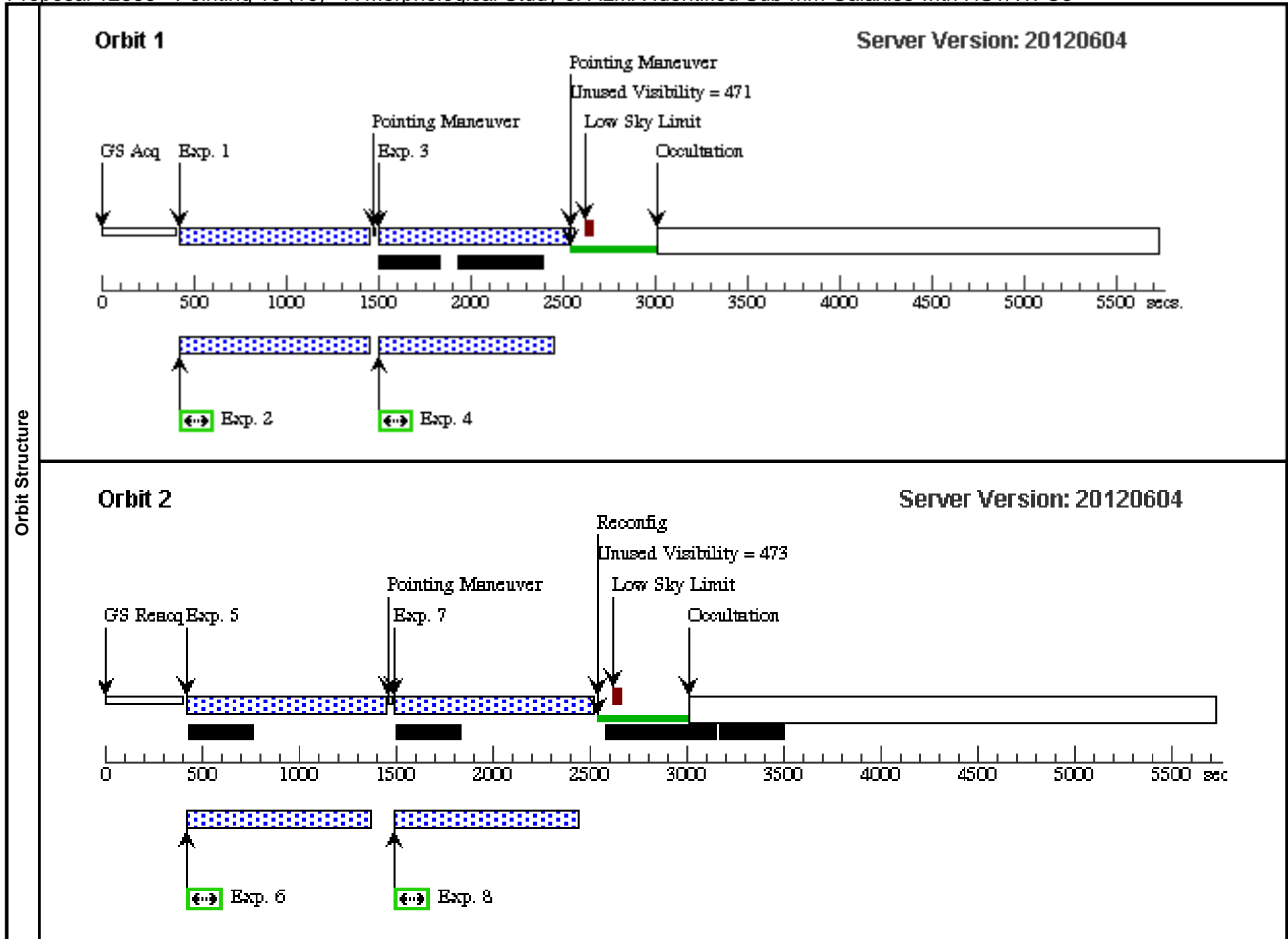
Visit	Proposal 12866, Pointing 9 (09), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: SCHED 100%									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(9)	POINTING9	RA: 03 31 36.3540 (52.9014750d) Dec: -27 54 48.55 (-27.91349d) Equinox: J2000			V=22	Reference Frame: ICRS			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(9) POINTING9	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 0,0; LOW-SKY	Prime + Parallel Group 1-2 in Pointing 9 (09)	[==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Pointing 9 (09)	826 Secs [==>]	[1]
	3		(9) POINTING9	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -4.9725 0,-4.97250; LOW-SKY	Prime + Parallel Group 3-4 in Pointing 9 (09)	[==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 3-4 in Pointing 9 (09)	826 Secs [==>]	[1]
	5		(9) POINTING9	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 5.005,5. 005; LOW-SKY	Prime + Parallel Group 5-6 in Pointing 9 (09)	[==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in Pointing 9 (09)	826 Secs [==>]	[2]
	7		(9) POINTING9	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -5.0375 0,5.03750; LOW-SKY	Prime + Parallel Group 7-8 in Pointing 9 (09)	[==>]	[2]
8		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 7-8 in Pointing 9 (09)	826 Secs [==>]	[2]	



Proposal 12866 - Pointing 10 (10) - A Morphological Study of ALMA Identified Sub-mm Galaxies with HST/WFC3

Wed Jul 18 01:32:51 GMT 2012

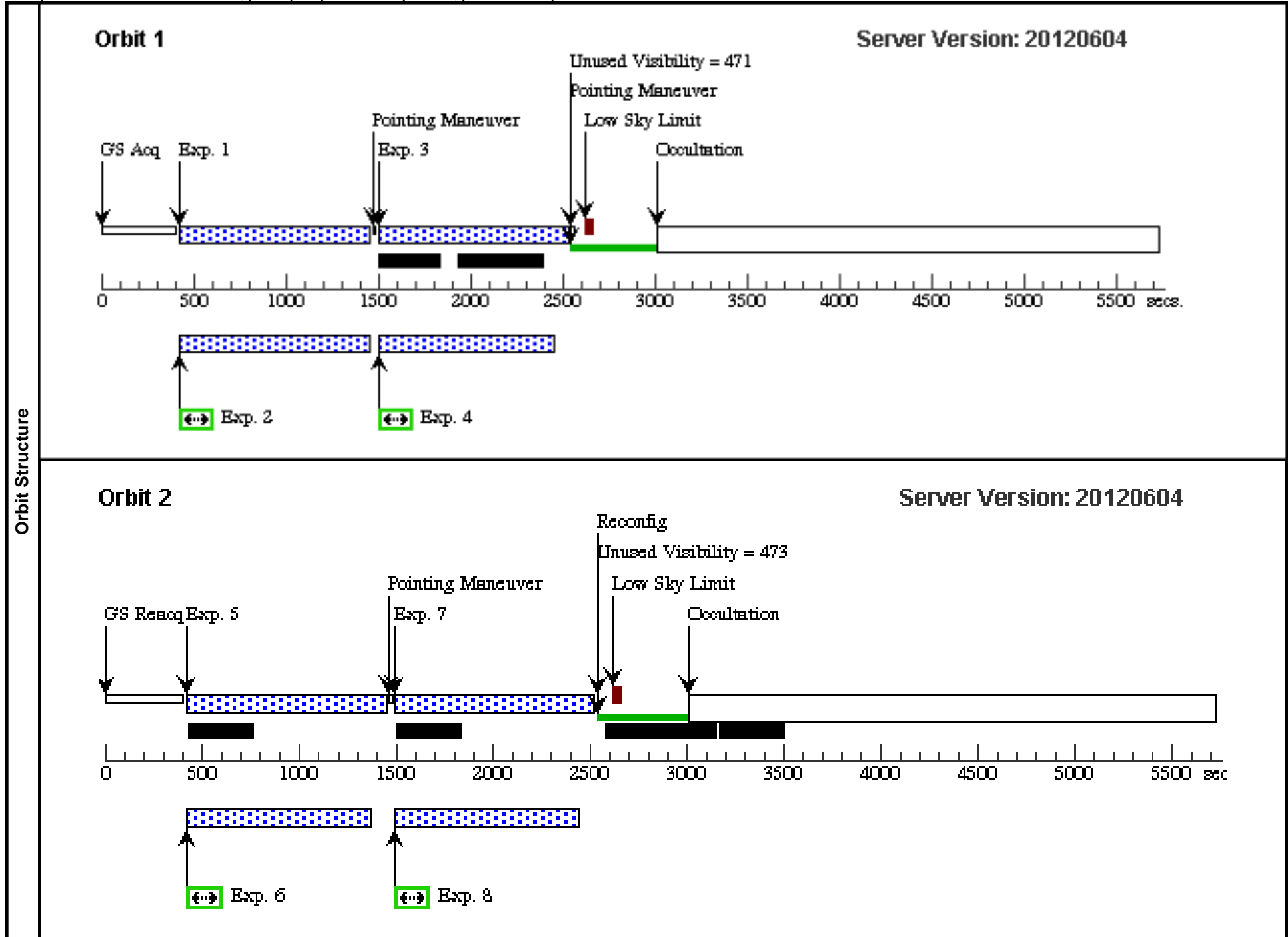
Visit	Proposal 12866, Pointing 10 (10), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: SCHED 100%									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(10)	POINTING10	RA: 03 31 31.5330 (52.8813875d) Dec: -27 59 17.02 (-27.98806d) Equinox: J2000		V=22	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(10) POINTING10	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 0,0; LOW-SKY	Prime + Parallel Group 1-2 in Pointing 10 (10)	[==>]	[1]	
	2	ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Pointing 10 (10)	826 Secs [==>]	[1]	
	3	(10) POINTING10	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -4.9725 0,-4.97250; LOW-SKY	Prime + Parallel Group 3-4 in Pointing 10 (10)	[==>]	[1]	
	4	ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 3-4 in Pointing 10 (10)	826 Secs [==>]	[1]	
	5	(10) POINTING10	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 5.005,5. 005; LOW-SKY	Prime + Parallel Group 5-6 in Pointing 10 (10)	[==>]	[2]	
	6	ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in Pointing 10 (10)	826 Secs [==>]	[2]	
	7	(10) POINTING10	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -5.0375 0,5.03750; LOW-SKY	Prime + Parallel Group 7-8 in Pointing 10 (10)	[==>]	[2]	
	8	ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 7-8 in Pointing 10 (10)	826 Secs [==>]	[2]	



Proposal 12866 - Pointing 11 (11) - A Morphological Study of ALMA Identified Sub-mm Galaxies with HST/WFC3

Wed Jul 18 01:32:53 GMT 2012

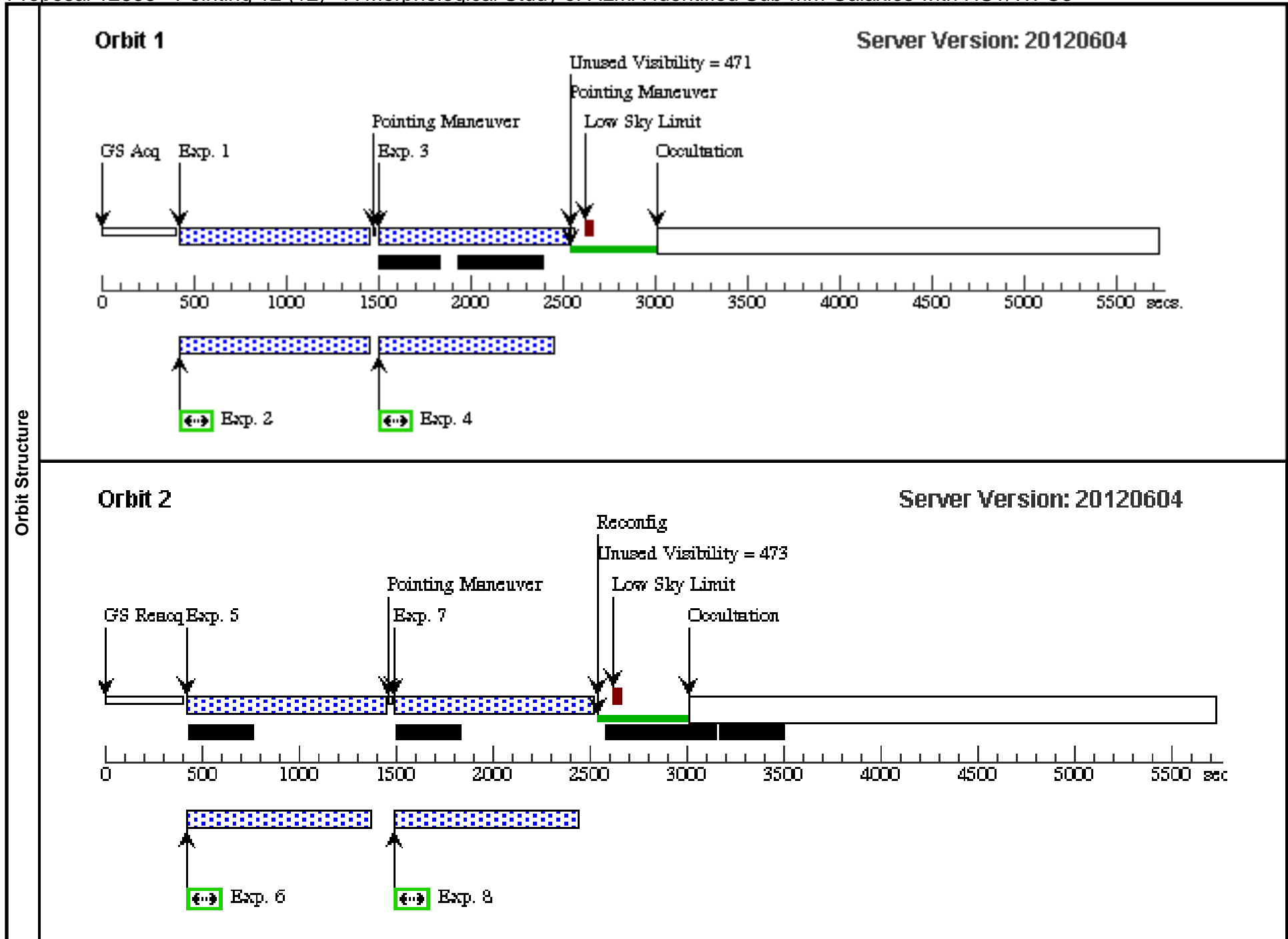
Visit	Proposal 12866, Pointing 11 (11), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: SCHED 100%									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(11)	POINTING11	RA: 03 33 21.3860 (53.3391083d) Dec: -27 55 18.76 (-27.92188d) Equinox: J2000			V=22	Reference Frame: ICRS			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(11) POINTING11	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 0,0; LOW-SKY	Prime + Parallel Group 1-2 in Pointing 11 (11)	[==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Pointing 11 (11)	826 Secs [==>]	[1]
	3		(11) POINTING11	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -4.9725 0,-4.97250; LOW-SKY	Prime + Parallel Group 3-4 in Pointing 11 (11)	[==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 3-4 in Pointing 11 (11)	826 Secs [==>]	[1]
	5		(11) POINTING11	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 5.005,5. 005; LOW-SKY	Prime + Parallel Group 5-6 in Pointing 11 (11)	[==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in Pointing 11 (11)	826 Secs [==>]	[2]
	7		(11) POINTING11	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -5.0375 0,5.03750; LOW-SKY	Prime + Parallel Group 7-8 in Pointing 11 (11)	[==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 7-8 in Pointing 11 (11)	826 Secs [==>]	[2]



Proposal 12866 - Pointing 12 (12) - A Morphological Study of ALMA Identified Sub-mm Galaxies with HST/WFC3

Wed Jul 18 01:32:55 GMT 2012

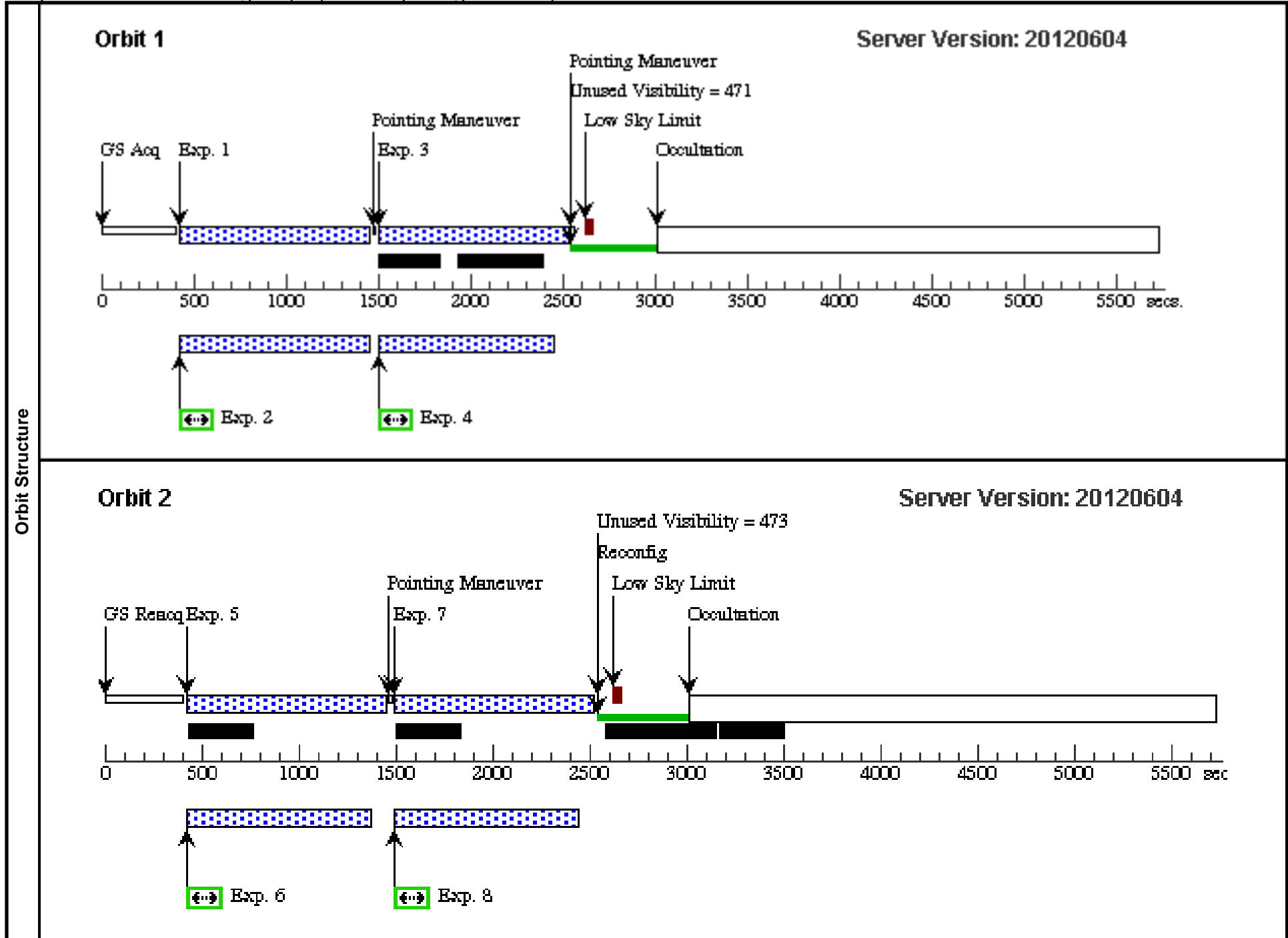
Visit	Proposal 12866, Pointing 12 (12), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: SCHED 100%									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(12)	POINTING12	RA: 03 33 12.6370 (53.3026542d) Dec: -27 56 16.96 (-27.93804d) Equinox: J2000		V=22	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(12) POINTING12	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 0,0; LOW-SKY	Prime + Parallel Group 1-2 in Pointing 12 (12)	[==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Pointing 12 (12)	826 Secs [==>]	[1]
	3		(12) POINTING12	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -4.9725 0,-4.97250; LOW-SKY	Prime + Parallel Group 3-4 in Pointing 12 (12)	[==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 3-4 in Pointing 12 (12)	826 Secs [==>]	[1]
	5		(12) POINTING12	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 5.005,5. 005; LOW-SKY	Prime + Parallel Group 5-6 in Pointing 12 (12)	[==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in Pointing 12 (12)	826 Secs [==>]	[2]
	7		(12) POINTING12	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -5.0375 0,5.03750; LOW-SKY	Prime + Parallel Group 7-8 in Pointing 12 (12)	[==>]	[2]
8		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 7-8 in Pointing 12 (12)	826 Secs [==>]	[2]	



Proposal 12866 - Pointing 13 (13) - A Morphological Study of ALMA Identified Sub-mm Galaxies with HST/WFC3

Wed Jul 18 01:32:57 GMT 2012

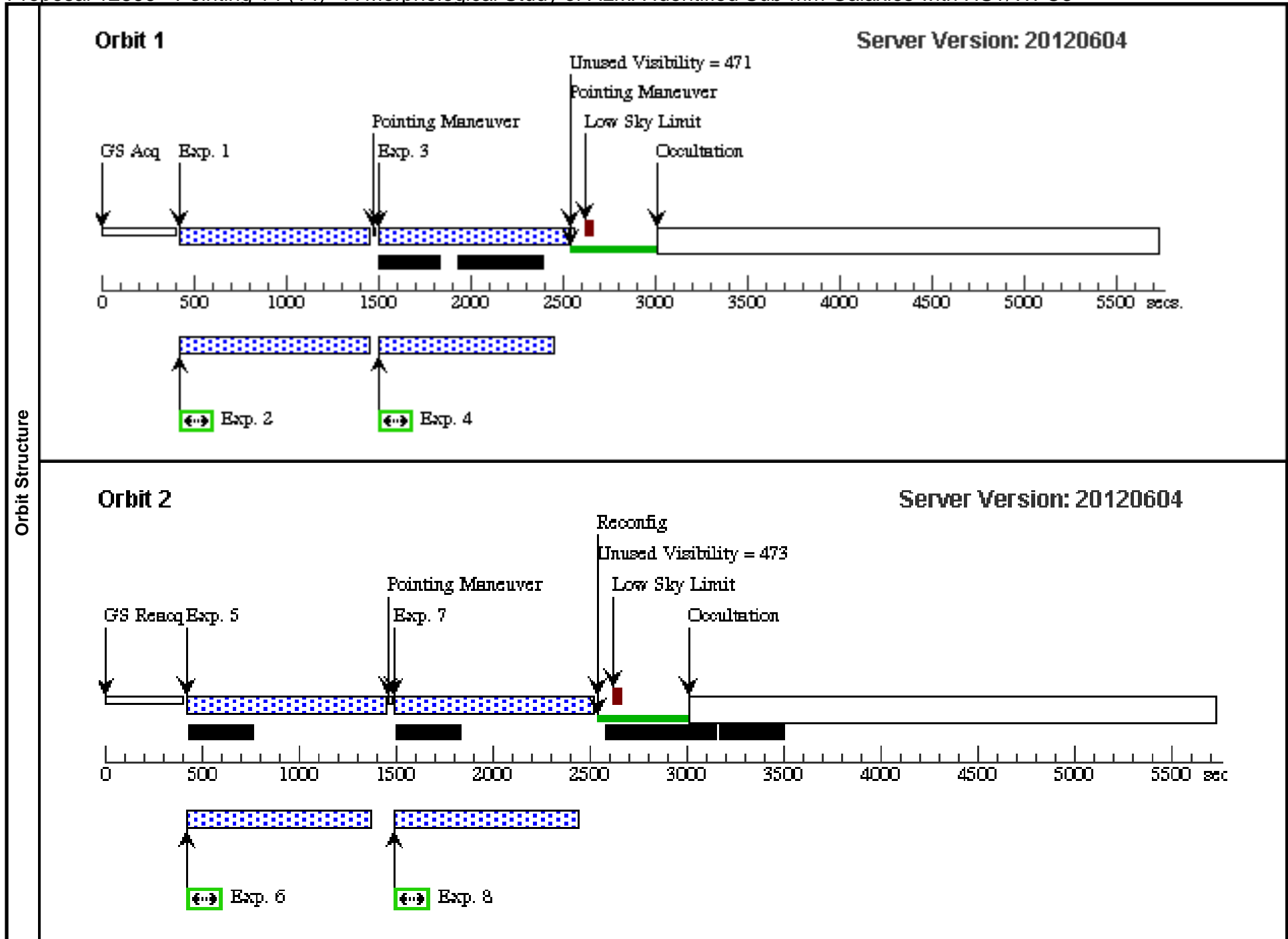
Visit	Proposal 12866, Pointing 13 (13), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: SCHED 100%									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(13)	POINTING13	RA: 03 33 4.8500 (53.2702083d) Dec: -27 57 15.94 (-27.95443d) Equinox: J2000			V=22	Reference Frame: ICRS			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(13) POINTING13	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 0,0; LOW-SKY	Prime + Parallel Group 1-2 in Pointing 13 (13)	[==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Pointing 13 (13)	826 Secs [==>]	[1]
	3		(13) POINTING13	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -4.9725 0,-4.97250; LOW-SKY	Prime + Parallel Group 3-4 in Pointing 13 (13)	[==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 3-4 in Pointing 13 (13)	826 Secs [==>]	[1]
	5		(13) POINTING13	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 5.005,5. 005; LOW-SKY	Prime + Parallel Group 5-6 in Pointing 13 (13)	[==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in Pointing 13 (13)	826 Secs [==>]	[2]
	7		(13) POINTING13	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -5.0375 0,5.03750; LOW-SKY	Prime + Parallel Group 7-8 in Pointing 13 (13)	[==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 7-8 in Pointing 13 (13)	826 Secs [==>]	[2]



Proposal 12866 - Pointing 14 (14) - A Morphological Study of ALMA Identified Sub-mm Galaxies with HST/WFC3

Wed Jul 18 01:32:59 GMT 2012

Visit	Proposal 12866, Pointing 14 (14), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: SCHED 100%									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(14)	POINTING14	RA: 03 33 34.8450 (53.3951875d) Dec: -27 58 54.45 (-27.98179d) Equinox: J2000			V=22	Reference Frame: ICRS			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(14) POINTING14	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 0,0; LOW-SKY	Prime + Parallel Group 1-2 in Pointing 14 (14)	[==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Pointing 14 (14)	826 Secs [==>]	[1]
	3		(14) POINTING14	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -4.9725 0,-4.97250; LOW-SKY	Prime + Parallel Group 3-4 in Pointing 14 (14)	[==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 3-4 in Pointing 14 (14)	826 Secs [==>]	[1]
	5		(14) POINTING14	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 5.005,5. 005; LOW-SKY	Prime + Parallel Group 5-6 in Pointing 14 (14)	[==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in Pointing 14 (14)	826 Secs [==>]	[2]
	7		(14) POINTING14	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -5.0375 0,5.03750; LOW-SKY	Prime + Parallel Group 7-8 in Pointing 14 (14)	[==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 7-8 in Pointing 14 (14)	826 Secs [==>]	[2]



Proposal 12866 - Pointing 15 (15) - A Morphological Study of ALMA Identified Sub-mm Galaxies with HST/WFC3

Wed Jul 18 01:33:00 GMT 2012

Visit	Proposal 12866, Pointing 15 (15), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: SCHED 100%									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(15)	POINTING15	RA: 03 33 8.1200 (53.2838333d) Dec: -27 48 8.69 (-27.80241d) Equinox: J2000			V=22	Reference Frame: ICRS			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(15) POINTING15	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 0,0; LOW-SKY	Prime + Parallel Group 1-2 in Pointing 15 (15)	[==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Pointing 15 (15)	826 Secs [==>]	[1]
	3		(15) POINTING15	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -4.9725 0,-4.97250; LOW-SKY	Prime + Parallel Group 3-4 in Pointing 15 (15)	[==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 3-4 in Pointing 15 (15)	826 Secs [==>]	[1]
	5		(15) POINTING15	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG 5.005,5. 005; LOW-SKY	Prime + Parallel Group 5-6 in Pointing 15 (15)	[==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in Pointing 15 (15)	826 Secs [==>]	[2]
	7		(15) POINTING15	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=12; SAMP-SEQ=STEP2 00	POS TARG -5.0375 0,5.03750; LOW-SKY	Prime + Parallel Group 7-8 in Pointing 15 (15)	[==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 7-8 in Pointing 15 (15)	826 Secs [==>]	[2]

