



## 11143 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Cycle: 16, 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) SMMJ02399-0136	NIC2	1	20-Oct-2009 21:00:55.0	yes
02	(2) SMMJ04431+0210	NIC2	1	20-Oct-2009 21:00:59.0	yes
03	(3) SMMJ123549.44+621536.8	NIC2	1	20-Oct-2009 21:01:01.0	yes
04	(4) SMMJ123707+621410	NIC2	1	20-Oct-2009 21:01:04.0	yes
05	(5) SMMJ14011+0252	NIC2	1	20-Oct-2009 21:01:06.0	yes
06	(6) MMJ154127+6616	NIC2	1	20-Oct-2009 21:01:09.0	yes
07	(7) SMMJ16359+6612	NIC2	1	20-Oct-2009 21:01:11.0	yes
08	(8) SMMJ16368+4057	NIC2	1	20-Oct-2009 21:01:13.0	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>
09	(9) SMMJ16366+4105	NIC2	1	20-Oct-2009 21:01:16.0	yes
10	(10) SMMJ16371+4053	NIC2	1	20-Oct-2009 21:01:18.0	yes
11	(1) SMMJ02399-0136	NIC2	1	20-Oct-2009 21:01:20.0	yes
12	(2) SMMJ04431+0210	NIC2	1	20-Oct-2009 21:01:22.0	yes
13	(3) SMMJ123549.44+621536.8	NIC2	1	20-Oct-2009 21:01:24.0	yes
14	(4) SMMJ123707+621410	NIC2	1	20-Oct-2009 21:01:27.0	yes
15	(5) SMMJ14011+0252	NIC2	1	20-Oct-2009 21:01:29.0	yes
16	(6) MMJ154127+6616	NIC2	1	20-Oct-2009 21:01:31.0	yes
17	(7) SMMJ16359+6612	NIC2	1	20-Oct-2009 21:01:33.0	yes
18	(10) SMMJ16371+4053	WFC3/IR	1	20-Oct-2009 21:01:36.0	yes
67	(11) SMMJ16359+6612-COPY	WFC3/IR	1	20-Oct-2009 21:01:38.0	yes

19 Total Orbits Used

### **ABSTRACT**

We propose to obtain F110W and F160W imaging of 10  $z \sim 2.4$  submillimeter galaxies (SMGs) whose optical redshifts have been confirmed by the detection of millimeter CO and/or mid-infrared PAH emission. With the 4000Å break falling within/between the two imaging filters, we will be able to study these sources' spatially resolved stellar populations (modulo extinction) in the rest-frame optical. SMGs' large luminosities appear to be due largely to merger-triggered starbursts; high-resolution NICMOS imaging will help us understand the stellar masses, mass ratios, and other properties of the merger progenitors, valuable information in the effort to model the mass assembly history of the universe.

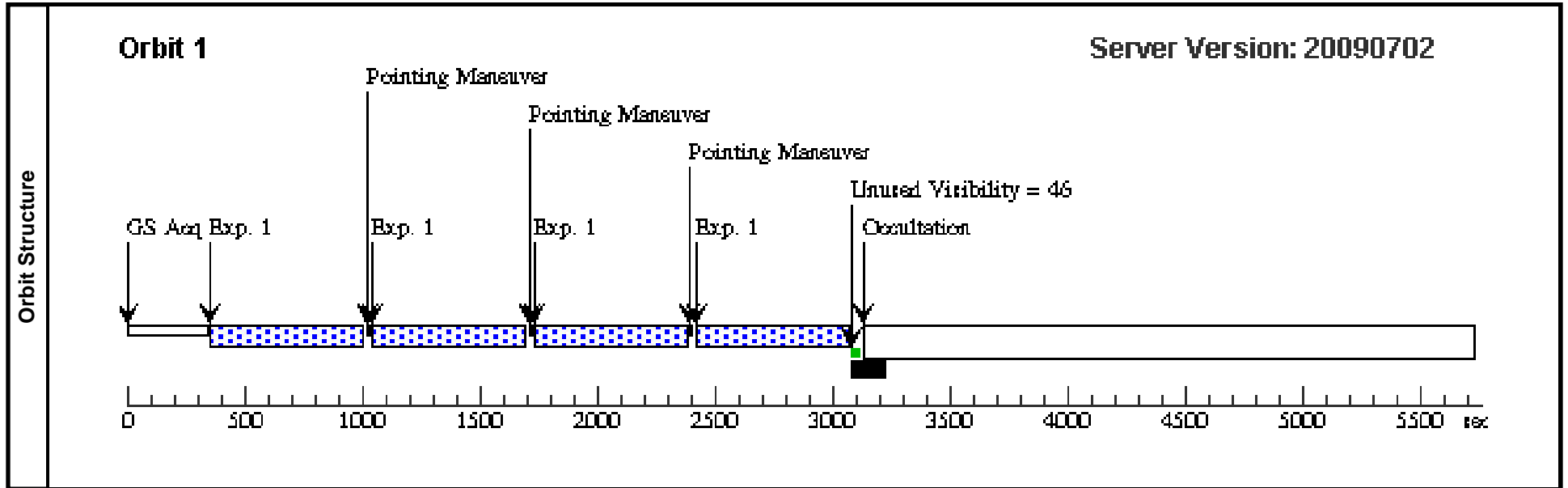
### **OBSERVING DESCRIPTION**

NICMOS imaging of submillimeter galaxies with CO/PAH redshifts

Proposal 11143 - Visit 01 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:41 GMT 2009

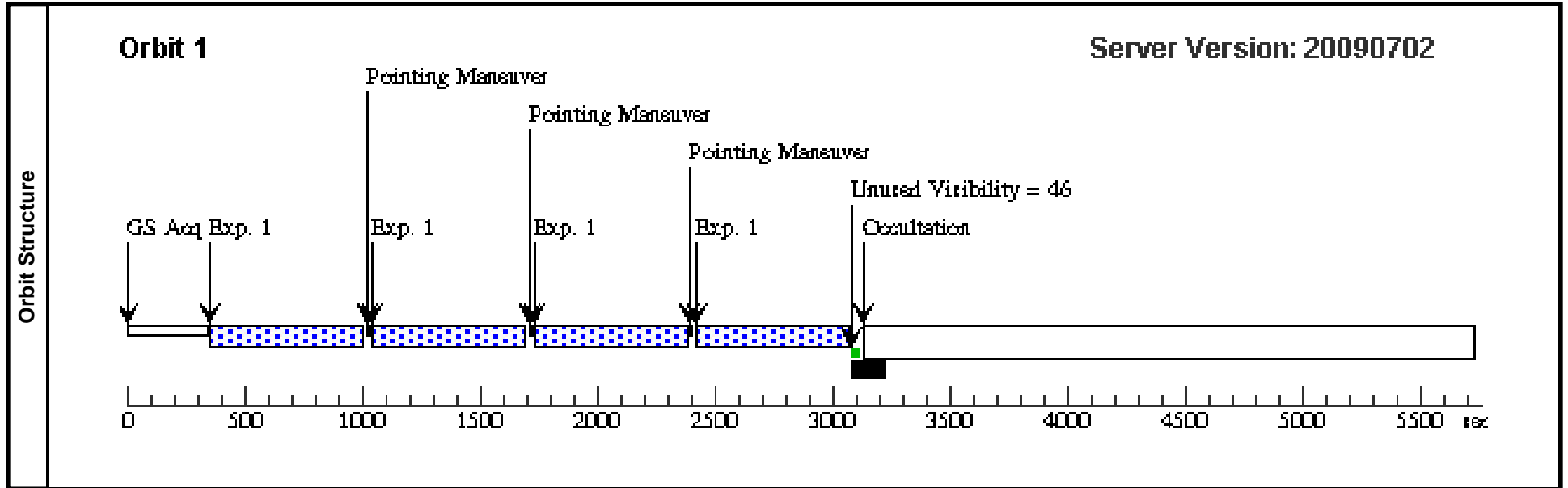
<b>Visit</b>	<b>Proposal 11143, Visit 01, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: PCS MODE FINE; SCHED 70%									
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			
(1)		Pattern Type=NIC-SPIRAL-DITH Purpose=DITHER Number Of Points=4 Point Spacing=2.2875 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=true					(1)		
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(1)	SMMJ02399-0136	RA: 02 39 51.8800 (39.9661667d) Dec: -01 35 58.00 (-1.59944d) Equinox: J2000	Redshift: 2.81	V=(?) J = 19.79 +/- 0.07, J-K = 2.00 +/- 0.14	Reference Frame: ICRS				
<i>Comments: Coordinates from Greve et al. (2005, MNRAS, 359, 1165). J and K magnitudes from Frayer et al. (2004, AJ, 127, 728).</i>										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1		(1) SMMJ02399-0136 6	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 32; NSAMP=22		Pattern 1, Exps 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 11143 - Visit 02 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:42 GMT 2009

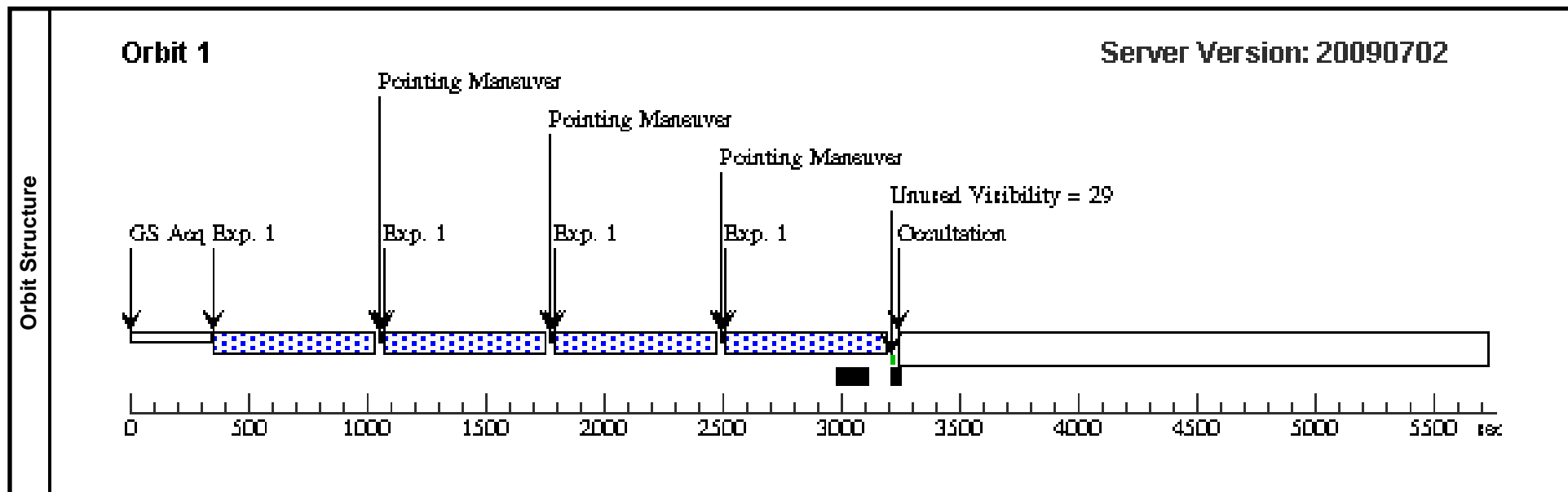
<b>Visit</b>	<b>Proposal 11143, Visit 02, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: PCS MODE FINE; SCHED 70%									
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			
(1)		Pattern Type=NIC-SPIRAL-DITH Purpose=DITHER Number Of Points=4 Point Spacing=2.2875 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=true					(1)		
<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)	SMMJ04431+0210	RA: 04 43 7.2500 (70.7802083d) Dec: +02 10 24.40 (2.17344d) Equinox: J2000	Redshift: 2.51	V=(?) J = 22.56 +/- 0.28, J-K = 3.15 +/- 0.37	Reference Frame: ICRS				
<i>Comments: Coordinates from Greve et al. (2005, MNRAS, 359, 1165). J and K magnitudes from Frayer et al. (2004, AJ, 127, 728).</i>										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1		(2) SMMJ04431+0210	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 32; NSAMP=22		Pattern 1, Exps 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 11143 - Visit 03 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:42 GMT 2009

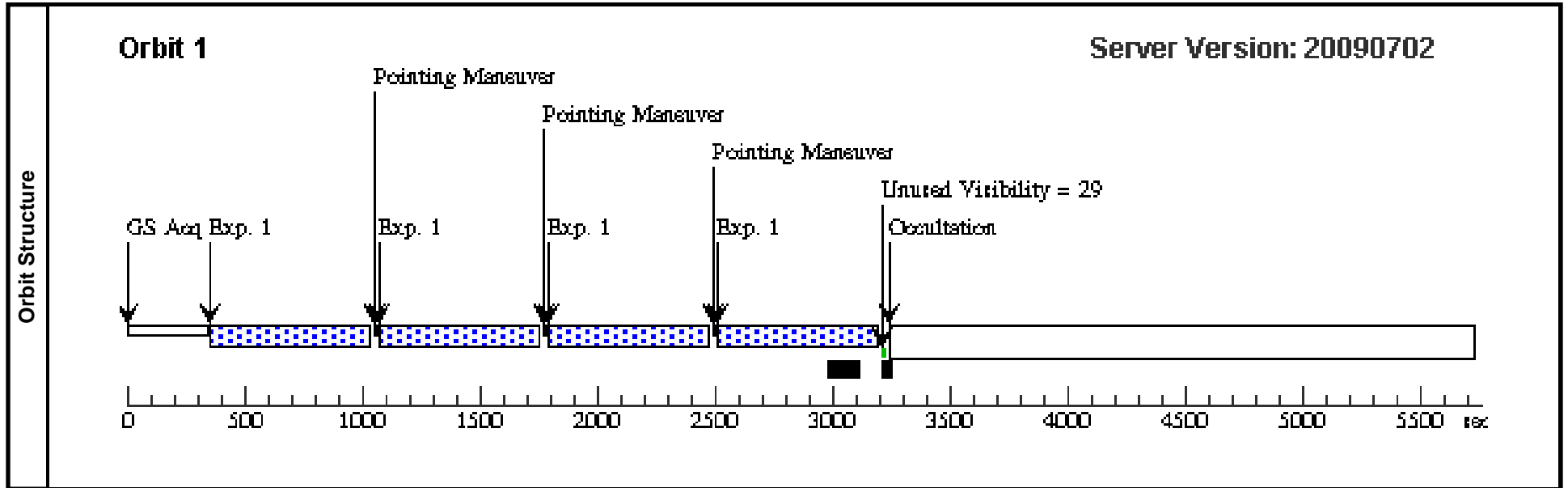
<b>Visit</b>	<b>Proposal 11143, Visit 03, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: PCS MODE FINE; SCHED 70%									
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			
(1)		Pattern Type=NIC-SPIRAL-DITH Purpose=DITHER Number Of Points=4 Point Spacing=2.2875 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=true					(1)		
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(3)	SMMJ123549.44+621536.8	RA: 12 35 49.4400 (188.9560000d) Dec: +62 15 36.80 (62.26022d) Equinox: J2000	Redshift: 2.2	V=(?) J = 20.82 +/- 0.06, J-K = 2.6 +/- 0.1	Reference Frame: ICRS				
<i>Comments: Coordinates from Chapman et al. (2005, ApJ, 622, 772).                  J magnitude from Smail et al. (2004, ApJ, 616, 71); &lt;J-K&gt; = 2.6 from Frayer et al. (2004, AJ, 127, 728).</i>										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1		(3) SMMJ123549.44+621536.8	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 32; NSAMP=23		Pattern 1, Exps 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 11143 - Visit 04 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:42 GMT 2009

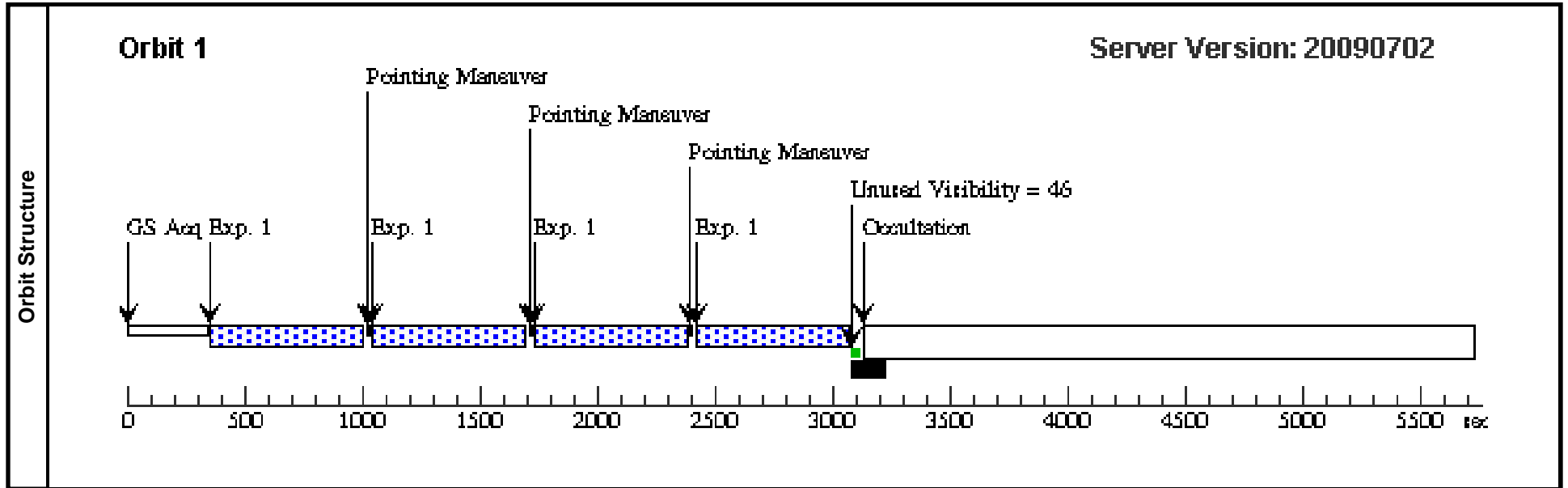
<b>Visit</b>	<b>Proposal 11143, Visit 04, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: PCS MODE FINE; SCHED 70%									
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			
(1)		Pattern Type=NIC-SPIRAL-DITH Purpose=DITHER Number Of Points=4 Point Spacing=2.2875 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=true					(1)		
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(4)	SMMJ123707+621410	RA: 12 37 7.2100 (189.2800417d) Dec: +62 14 8.10 (62.23558d) Equinox: J2000	Redshift: 2.49	V=(?) J = 22.50 +/- 0.32, J-K = 2.45 +/- 0.43	Reference Frame: ICRS				
<i>Comments: Coordinates from Chapman et al. (2005, ApJ, 622, 772). J and K magnitudes from Smail et al. (2004, ApJ, 616, 71).</i>										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1		(4) SMMJ123707+621410	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 32; NSAMP=23		Pattern 1, Exps 1-1 (1)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]



Proposal 11143 - Visit 05 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:43 GMT 2009

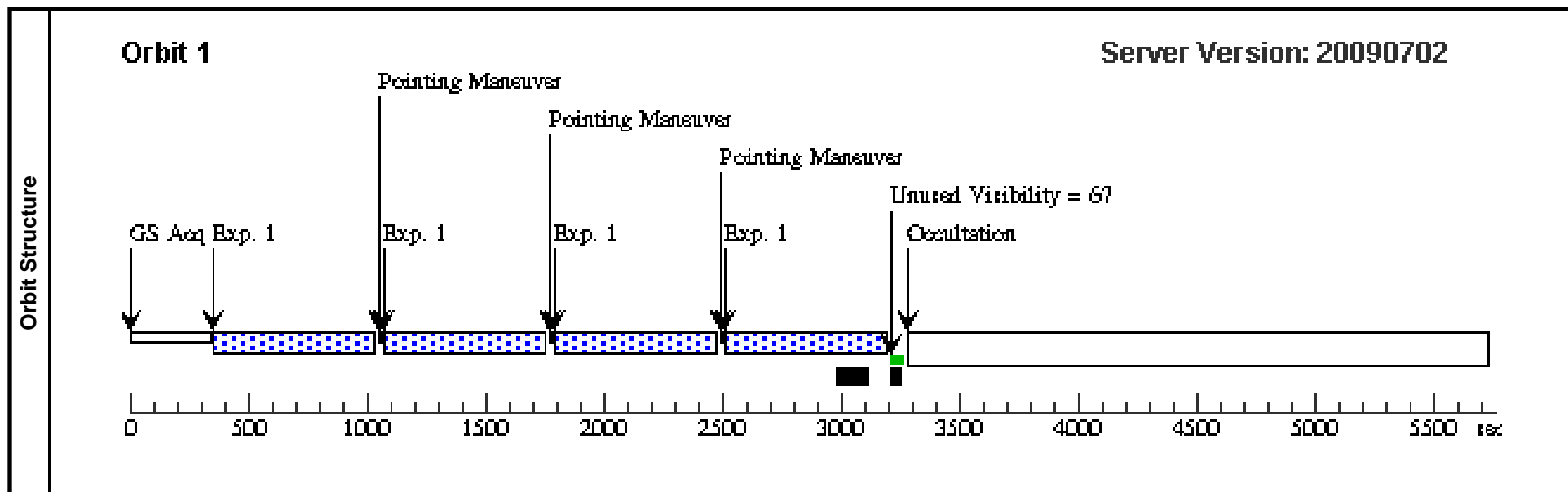
<b>Visit</b>	<b>Proposal 11143, Visit 05, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: PCS MODE FINE; SCHED 70%									
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			
(1)		Pattern Type=NIC-SPIRAL-DITH	Coordinate Frame=POS-TARG							(1)
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		Line Spacing=								
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(5)	SMMJ14011+0252	RA: 14 01 4.9600 (210.2706667d) Dec: +02 52 23.50 (2.87319d) Equinox: J2000	Redshift: 2.56	V=(?) J = 19.28 +/- 0.05, J-K = 1.72 +/- 0.10	Reference Frame: ICRS				
	<i>Comments: Coordinates from Greve et al. (2005, MNRAS, 359, 1165).                  J and K magnitudes from Frayer et al. (2004, AJ, 127, 728).</i>									
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1		(5) SMMJ14011+0252	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 32; NSAMP=22		Pattern 1, Exps 1-1 (1)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]



Proposal 11143 - Visit 06 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:43 GMT 2009

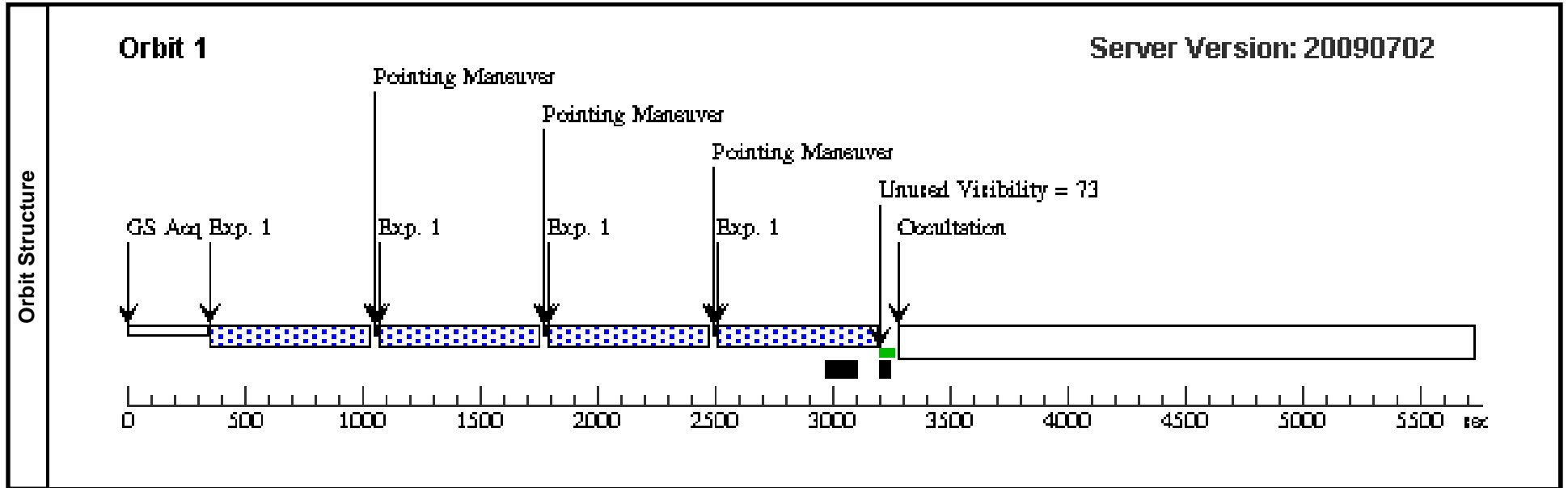
<b>Visit</b>	<b>Proposal 11143, Visit 06, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: PCS MODE FINE; SCHED 70%									
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			
(1)		Pattern Type=NIC-SPIRAL-DITH Purpose=DITHER Number Of Points=4 Point Spacing=2.2875 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=true					(1)		
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(6)	MMJ154127+6616	RA: 15 41 27.2800 (235.3636667d) Dec: +66 16 17.00 (66.27139d) Equinox: J2000	Redshift: 2.79	V=(?) J = 23.1 +/- 0.2; J-K = 2.6 +/- 0.1	Reference Frame: ICRS				
<i>Comments: Coordinates from Bertoldi et al. (2000, A&amp;A, 360, 92).                  J estimated from &lt;J-K&gt; = 2.6 (Frayser et al. 2004, AJ, 127, 728) and K = 20.5 (Bertoldi et al. 2000).</i>										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1		(6) MMJ154127+6616	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 32; NSAMP=23		Pattern 1, Exps 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 11143 - Visit 07 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:44 GMT 2009

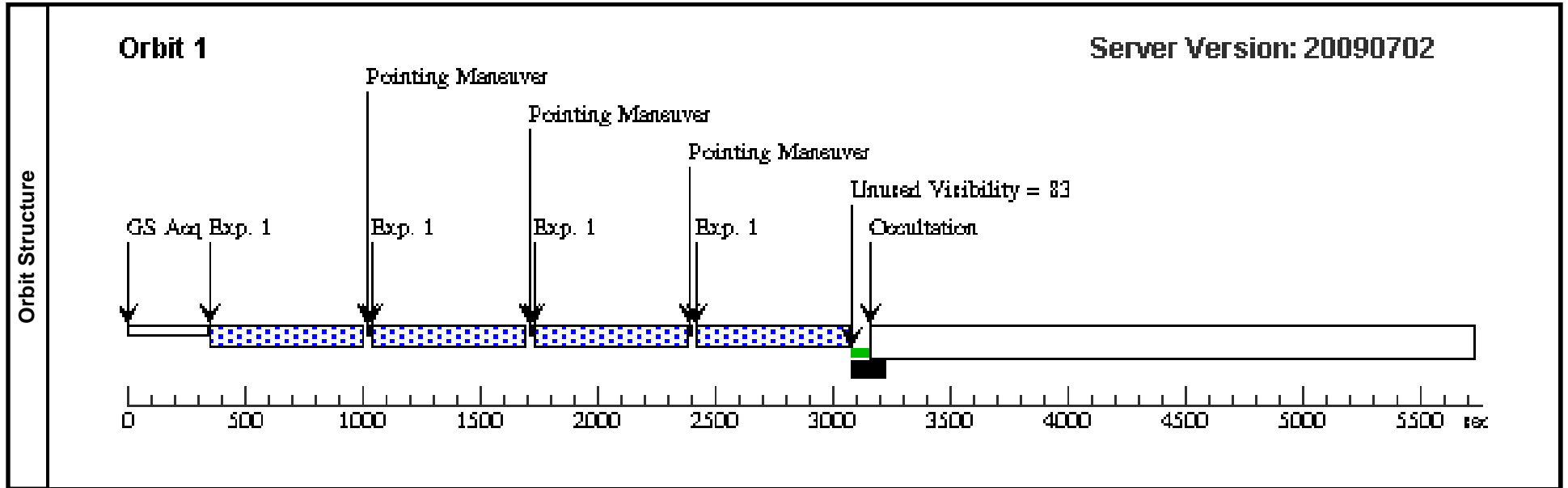
<b>Visit</b>	<b>Proposal 11143, Visit 07, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: PCS MODE FINE; SCHED 70%; ORIENT 11.2D TO 41.2 D; ORIENT 101.2D TO 131.2 D; ORIENT 191.2D TO 221.2 D; ORIENT 281.2D TO 311.2 D <i>Comments: This visit targets a position midway between two lensed images of the same background galaxy (separated by 14.9" at a PA of 26.2 east of north). To keep both images away from detector edges, we (a) use the NIC2-FIX aperture, (b) use a smaller dither spacing, and (c) request that the orientation be constrained so that the line connecting the two images falls within 15 degrees of a detector *diagonal*. (The 14.9" separation was slightly underestimated in our Phase I proposal.)</i>										
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>				<b>Exposures</b>
(2)		Pattern Type=NIC-SPIRAL-DITH Purpose=DITHER Number Of Points=4 Point Spacing=1.5375 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=true					(1)			
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>		<b>Fluxes</b>	<b>Miscellaneous</b>				
	(7)	SMMJ16359+6612	RA: 16 35 54.6400 (248.9776667d) Dec: +66 12 30.50 (66.20847d) Equinox: J2000	Redshift: 2.52		V=(?) J = 21.0 +/- 0.3; J - K = 1.9 +/- 0.2	Reference Frame: ICRS				
<i>Comments: Coordinates midway between lensed images A and B (14.9" separation), based on Kneib et al. (2005, A&amp;A, 434, 819). J magnitude and J-K color for the sum of A+B based on Kneib et al. (2004, MNRAS, 349, 1211).</i>											
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>		<b>Orbit</b>
	1		(7) SMMJ16359+6612	NIC2, MULTIACCUM, NIC2-FIX	F110W	SAMP-SEQ=SPARS 32; NSAMP=23		Pattern 2, Exps 1-1 (2)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]	



Proposal 11143 - Visit 08 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:44 GMT 2009

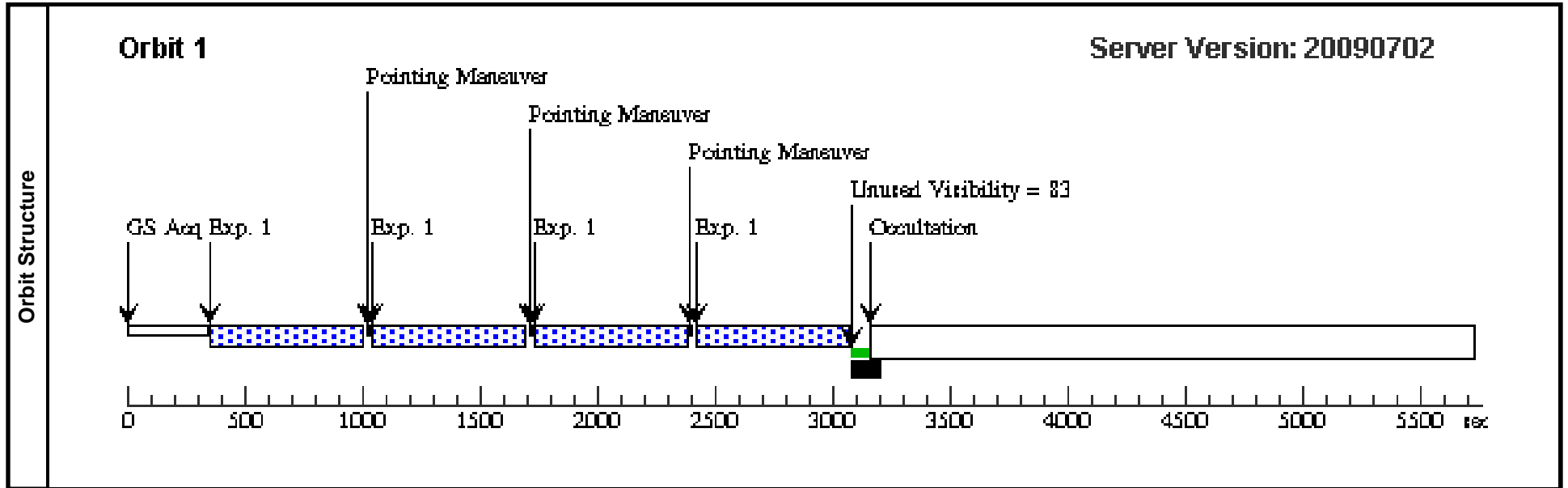
<b>Visit</b>	<b>Proposal 11143, Visit 08, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: PCS MODE FINE; SCHED 70%									
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			
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<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(8)	SMMJ16368+4057	RA: 16 36 50.4300 (249.2101250d) Dec: +40 57 34.50 (40.95958d) Equinox: J2000	Redshift: 2.38	V=(?) J = 21.03 +/- 0.02, J-K = 2.6 +/- 0.1	Reference Frame: ICRS				
<i>Comments: Coordinates from Greve et al. (2005, MNRAS, 359, 1165).                  J estimated from &lt;J-K&gt; = 2.6 (Frayser et al. 2004, AJ, 127, 728) and K = 18.43 +/- 0.02 (Smail et al. 2004, ApJ, 616, 71).</i>										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1		(8) SMMJ16368+4057	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=SPARS 32; NSAMP=22		Pattern 1, Exps 1-1 (1)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]



Proposal 11143 - Visit 09 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:44 GMT 2009

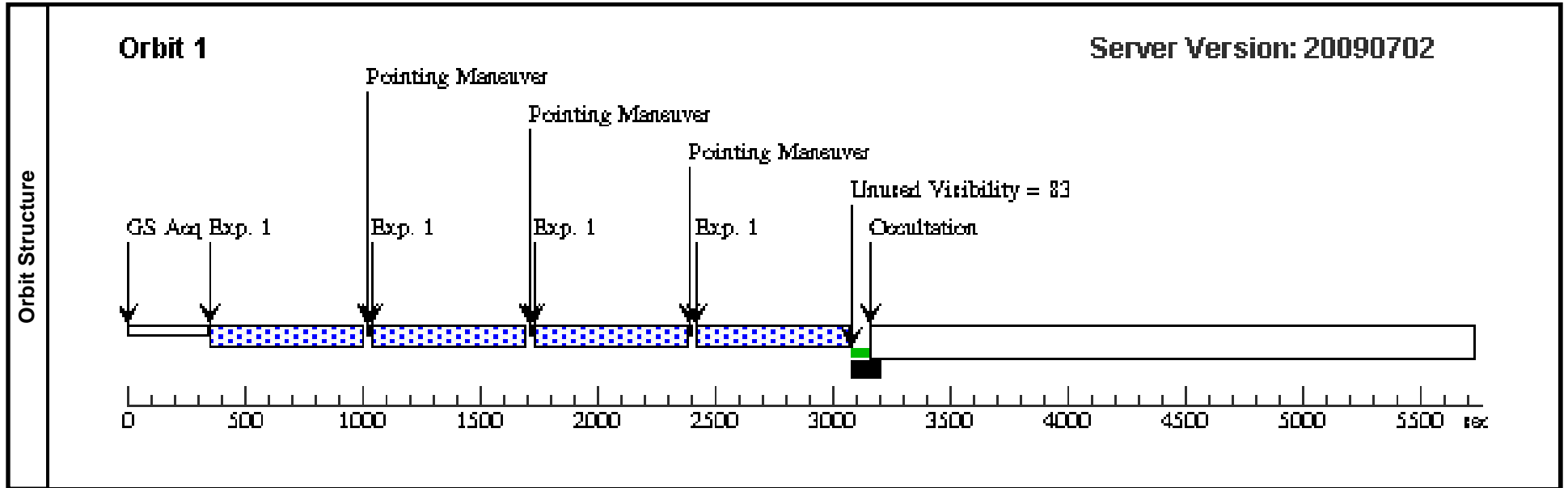
<b>Visit</b>	<b>Proposal 11143, Visit 09, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: PCS MODE FINE; SCHED 70%									
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			
(1)		Pattern Type=NIC-SPIRAL-DITH Purpose=DITHER Number Of Points=4 Point Spacing=2.2875 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=true						(1)
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>		<b>Targ. Coord. Corrections</b>		<b>Fluxes</b>		<b>Miscellaneous</b>	
	(9)	SMMJ16366+4105	RA: 16 36 58.1900 (249.2424583d) Dec: +41 05 23.80 (41.08994d) Equinox: J2000		Redshift: 2.45		V=(?) J = 22.37 +/- 0.06, J-K = 2.6 +/- 0.1		Reference Frame: ICRS	
<i>Comments: Coordinates from Greve et al. (2005, MNRAS, 359, 1165).                  J estimated from &lt;J-K&gt; = 2.6 (Frayser et al. 2004, AJ, 127, 728) and K = 19.77 +/- 0.06 (Smail et al. 2004, ApJ, 616, 71).</i>										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1		(9) SMMJ16366+4105	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=STEP6 4; NSAMP=18		Pattern 1, Exps 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 11143 - Visit 10 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:44 GMT 2009

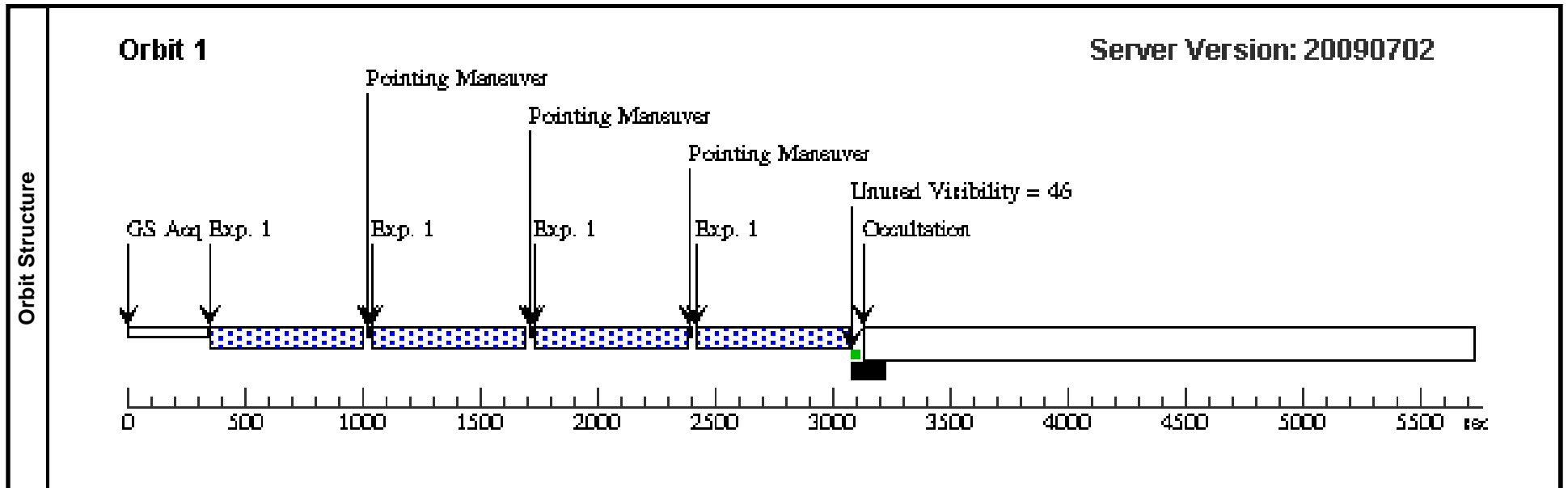
<b>Visit</b>	<b>Proposal 11143, Visit 10, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: PCS MODE FINE; SCHED 70%; ORIENT 217.0D TO 296.0 D; ORIENT 318.0D TO 14.0 D Comments: <i>We request that the orientation be constrained so that the bright star (N642000684) identified as posing a science risk will only fall in two of our four dithered exposures.</i>										
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			<b>Exposures</b>	
(1)		Pattern Type=NIC-SPIRAL-DITH	Coordinate Frame=POS-TARG						(1)		
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>		<b>Fluxes</b>		<b>Miscellaneous</b>			
	(10)	SMMJ16371+4053	RA: 16 37 6.5100 (249.2771250d) Dec: +40 53 13.80 (40.88717d) Equinox: J2000	Redshift: 2.38		V=(?) K = 21.76 +/- 0.06, J-K = 2.6 +/- 0.1		Reference Frame: ICRS			
Comments: <i>Coordinates from Greve et al. (2005, MNRAS, 359, 1165).                  J estimated from &lt;J-K&gt; = 2.6 (Frayser et al. 2004, AJ, 127, 728) and K = 19.16 +/- 0.06 (Smail et al. 2004, ApJ, 616, 71).</i>											
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>		<b>Orbit</b>
	1		(10) SMMJ16371+4053	NIC2, MULTIACCUM, NIC2	F110W	SAMP-SEQ=STEP6 4; NSAMP=18		Pattern 1, Exps 1-1 (1)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]		[1]



Proposal 11143 - Visit 11 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:45 GMT 2009

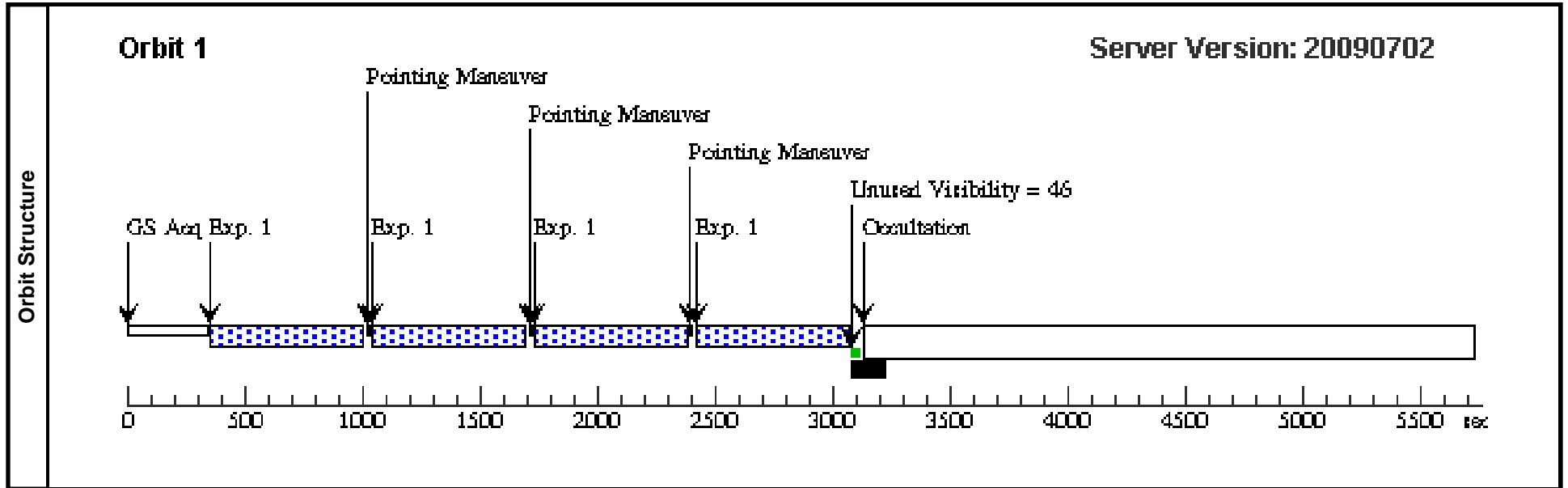
<b>Visit</b>	<b>Proposal 11143, Visit 11, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: PCS MODE FINE; SCHED 70%									
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			
(1)		Pattern Type=NIC-SPIRAL-DITH Purpose=DITHER Number Of Points=4 Point Spacing=2.2875 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=true					(1)		
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(1)	SMMJ02399-0136	RA: 02 39 51.8800 (39.9661667d) Dec: -01 35 58.00 (-1.59944d) Equinox: J2000	Redshift: 2.81	V=(?) J = 19.79 +/- 0.07, J-K = 2.00 +/- 0.14	Reference Frame: ICRS				
<i>Comments: Coordinates from Greve et al. (2005, MNRAS, 359, 1165). J and K magnitudes from Frayer et al. (2004, AJ, 127, 728).</i>										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1		(1) SMMJ02399-0136 6	NIC2, MULTIACCUM, NIC2	F160W	SAMP-SEQ=SPARS 32; NSAMP=22		Pattern 1, Exps 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 11143 - Visit 12 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:45 GMT 2009

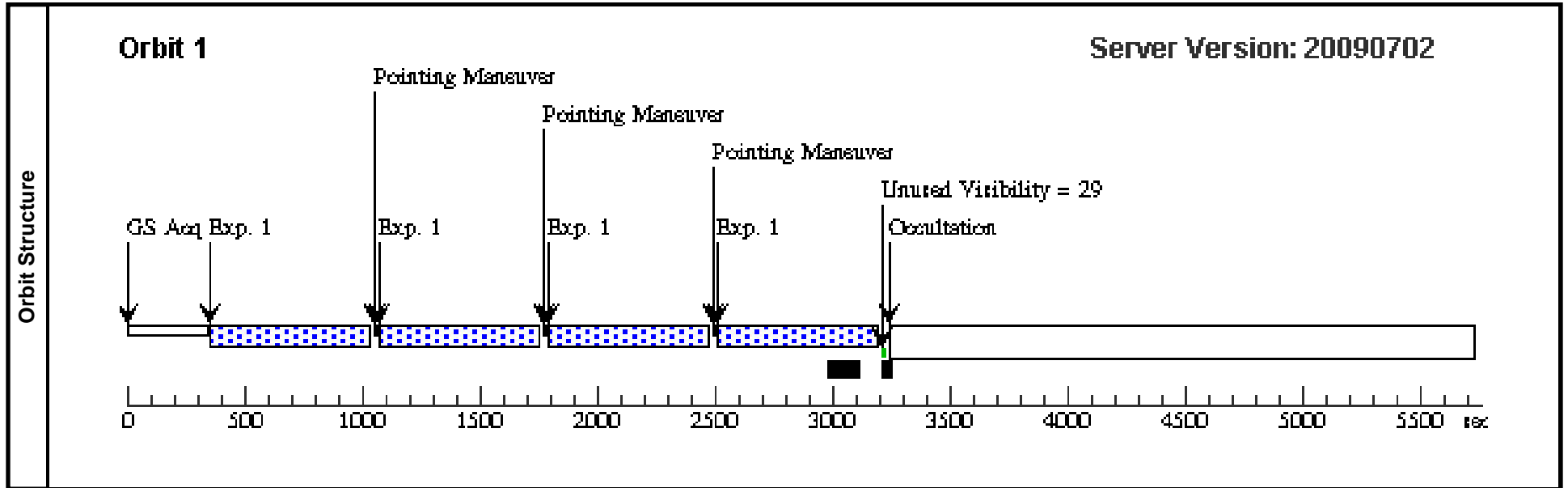
<b>Visit</b>	<b>Proposal 11143, Visit 12, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: PCS MODE FINE; SCHED 70%									
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			
(1)		Pattern Type=NIC-SPIRAL-DITH Purpose=DITHER Number Of Points=4 Point Spacing=2.2875 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=true					(1)		
<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)	SMMJ04431+0210	RA: 04 43 7.2500 (70.7802083d) Dec: +02 10 24.40 (2.17344d) Equinox: J2000	Redshift: 2.51	V=(?) J = 22.56 +/- 0.28, J-K = 3.15 +/- 0.37	Reference Frame: ICRS				
<i>Comments: Coordinates from Greve et al. (2005, MNRAS, 359, 1165). J and K magnitudes from Frayer et al. (2004, AJ, 127, 728).</i>										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1		(2) SMMJ04431+0210	NIC2, MULTIACCUM, NIC2	F160W	SAMP-SEQ=SPARS 32; NSAMP=22		Pattern 1, Exps 1-1 (1)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]



Proposal 11143 - Visit 13 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:45 GMT 2009

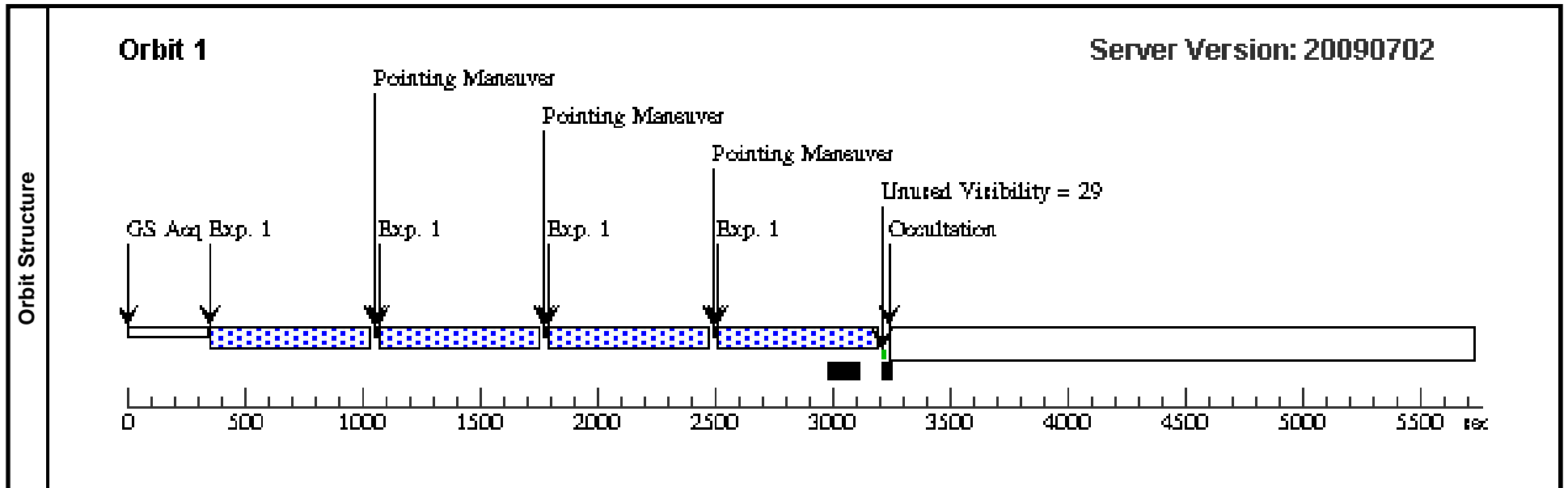
<b>Visit</b>	<b>Proposal 11143, Visit 13, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: PCS MODE FINE; SCHED 70%									
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			
(1)		Pattern Type=NIC-SPIRAL-DITH Purpose=DITHER Number Of Points=4 Point Spacing=2.2875 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=true					(1)		
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(3)	SMMJ123549.44+621536.8	RA: 12 35 49.4400 (188.9560000d) Dec: +62 15 36.80 (62.26022d) Equinox: J2000	Redshift: 2.2	V=(?) J = 20.82 +/- 0.06, J-K = 2.6 +/- 0.1	Reference Frame: ICRS				
<i>Comments: Coordinates from Chapman et al. (2005, ApJ, 622, 772).                  J magnitude from Smail et al. (2004, ApJ, 616, 71); &lt;J-K&gt; = 2.6 from Frayer et al. (2004, AJ, 127, 728).</i>										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1		(3) SMMJ123549.44+621536.8	NIC2, MULTIACCUM, NIC2	F160W	SAMP-SEQ=SPARS 32; NSAMP=23		Pattern 1, Exps 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 11143 - Visit 14 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:45 GMT 2009

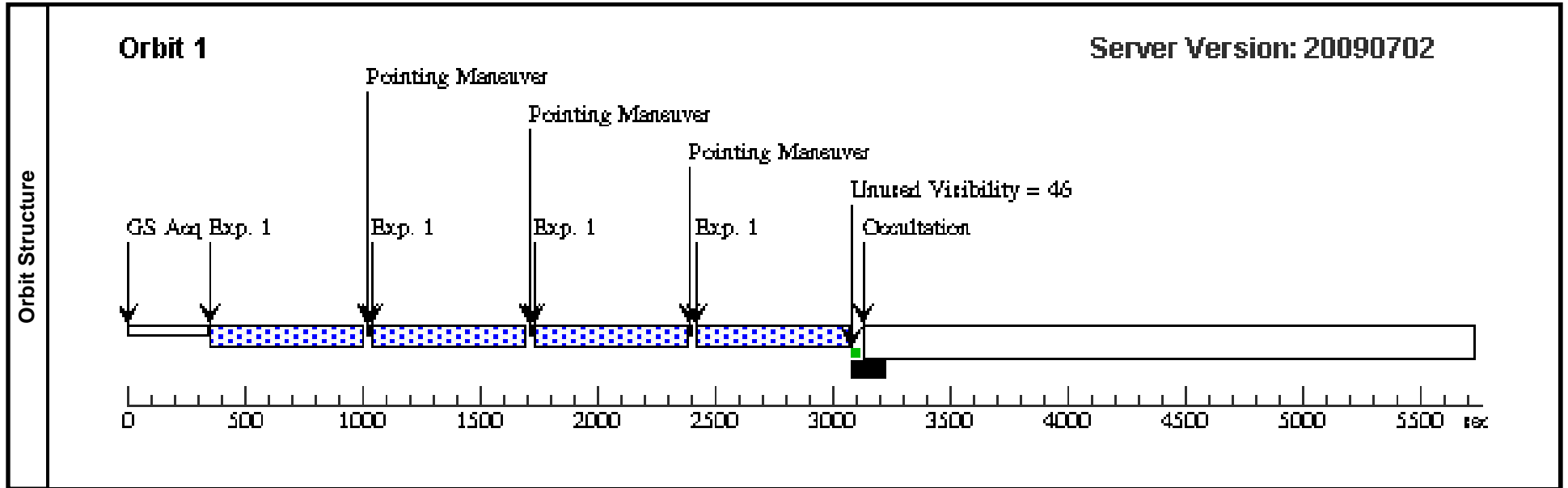
<b>Visit</b>	<b>Proposal 11143, Visit 14, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: PCS MODE FINE; SCHED 70%									
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			
(1)		Pattern Type=NIC-SPIRAL-DITH Purpose=DITHER Number Of Points=4 Point Spacing=2.2875 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=true					(1)		
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(4)	SMMJ123707+621410	RA: 12 37 7.2100 (189.2800417d) Dec: +62 14 8.10 (62.23558d) Equinox: J2000	Redshift: 2.49	V=(?) J = 22.50 +/- 0.32, J-K = 2.45 +/- 0.43	Reference Frame: ICRS				
<i>Comments: Coordinates from Chapman et al. (2005, ApJ, 622, 772).                  J and K magnitudes from Smail et al. (2004, ApJ, 616, 71).</i>										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1		(4) SMMJ123707+621410	NIC2, MULTIACCUM, NIC2	F160W	SAMP-SEQ=SPARS 32; NSAMP=23		Pattern 1, Exps 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 11143 - Visit 15 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:46 GMT 2009

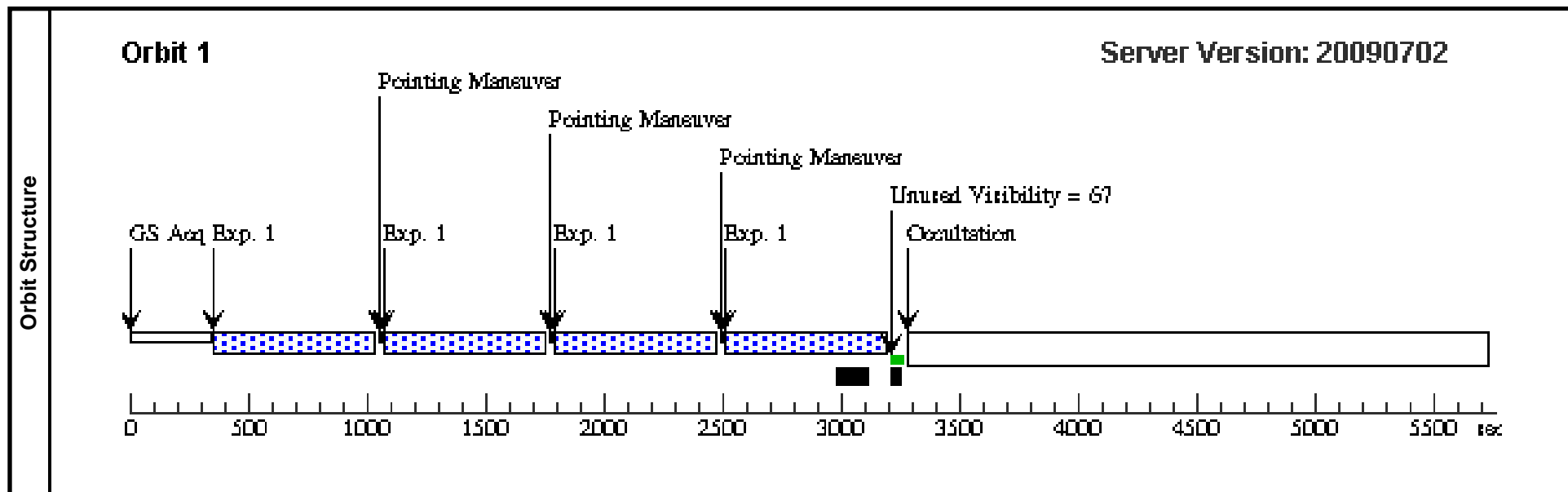
<b>Visit</b>	<b>Proposal 11143, Visit 15, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: PCS MODE FINE; SCHED 70%									
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			
(1)		Pattern Type=NIC-SPIRAL-DITH Purpose=DITHER Number Of Points=4 Point Spacing=2.2875 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=0.0 Angle Between Sides= Center Pattern=true					(1)		
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(5)	SMMJ14011+0252	RA: 14 01 4.9600 (210.2706667d) Dec: +02 52 23.50 (2.87319d) Equinox: J2000	Redshift: 2.56	V=(?) J = 19.28 +/- 0.05, J-K = 1.72 +/- 0.10	Reference Frame: ICRS				
<i>Comments: Coordinates from Greve et al. (2005, MNRAS, 359, 1165). J and K magnitudes from Frayer et al. (2004, AJ, 127, 728).</i>										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1		(5) SMMJ14011+0252	NIC2, MULTIACCUM, NIC2	F160W	SAMP-SEQ=SPARS 32; NSAMP=22		Pattern 1, Exps 1-1 (1)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]



Proposal 11143 - Visit 16 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:46 GMT 2009

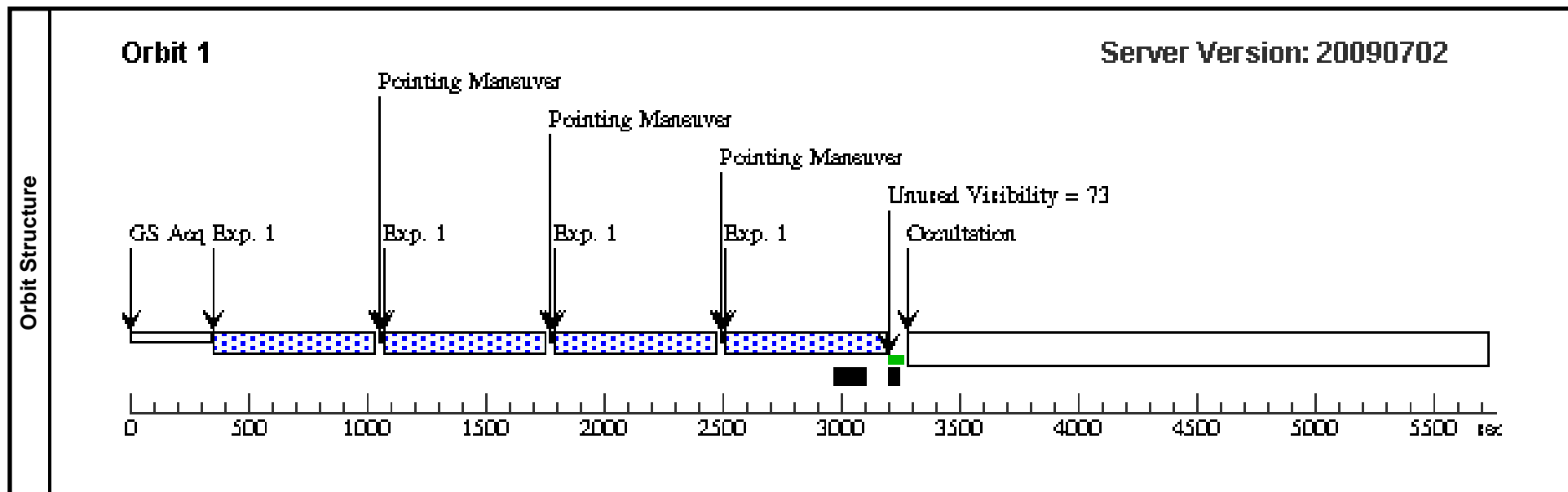
<b>Visit</b>	Proposal 11143, Visit 16, completed Diagnostic Status: No Diagnostics Scientific Instruments: NIC2 Special Requirements: PCS MODE FINE; SCHED 70%									
	<b>Patterns</b>	#	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			
(1)		Pattern Type=NIC-SPIRAL-DITH	Coordinate Frame=POS-TARG							(1)
		Purpose=DITHER	Pattern Orientation=0.0							
		Number Of Points=4	Angle Between Sides=							
		Point Spacing=2.2875	Center Pattern=true							
		Line Spacing=								
<b>Fixed Targets</b>	#	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(6)	MMJ154127+6616	RA: 15 41 27.2800 (235.3636667d) Dec: +66 16 17.00 (66.27139d) Equinox: J2000	Redshift: 2.79	V=(?) J = 23.1 +/- 0.2; J-K = 2.6 +/- 0.1	Reference Frame: ICRS				
	Comments: Coordinates from Bertoldi et al. (2000, A&A, 360, 92). J estimated from <J-K> = 2.6 (Frayser et al. 2004, AJ, 127, 728) and K = 20.5 (Bertoldi et al. 2000).									
<b>Exposures</b>	#	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1		(6) MMJ154127+6616	NIC2, MULTIACCUM, NIC2	F160W	SAMP-SEQ=SPARS 32; NSAMP=23		Pattern 1, Exps 1-1 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 11143 - Visit 17 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:46 GMT 2009

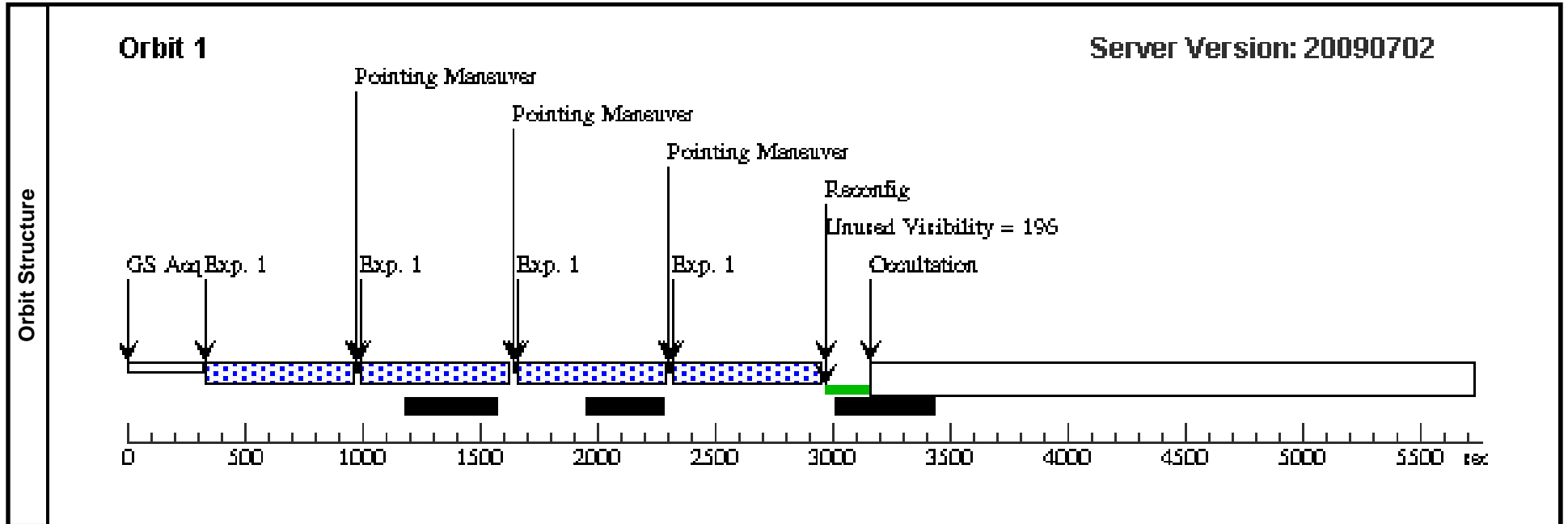
<b>Visit</b>	<b>Proposal 11143, Visit 17, failed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: NIC2 Special Requirements: PCS MODE FINE; SCHED 70%; ORIENT 11.2D TO 41.2 D; ORIENT 101.2D TO 131.2 D; ORIENT 191.2D TO 221.2 D; ORIENT 281.2D TO 311.2 D <i>Comments: This visit targets a position midway between two lensed images of the same background galaxy (separated by 14.9" at a PA of 26.2 east of north). To keep both images away from detector edges, we (a) use the NIC2-FIX aperture, (b) use a smaller dither spacing, and (c) request that the orientation be constrained so that the line connecting the two images falls within 15 degrees of a detector *diagonal*. (The 14.9" separation was slightly underestimated in our Phase I proposal.)</i>									
	<b>Patterns</b>	#	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			<b>Exposures</b>
(2)		Pattern Type=NIC-SPIRAL-DITH	Coordinate Frame=POS-TARG						(1)	
		Purpose=DITHER	Pattern Orientation=0.0							
		Number Of Points=4	Angle Between Sides=							
		Point Spacing=1.5375	Center Pattern=true							
		Line Spacing=								
<b>Fixed Targets</b>	#	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(7)	SMMJ16359+6612	RA: 16 35 54.6400 (248.9776667d) Dec: +66 12 30.50 (66.20847d) Equinox: J2000	Redshift: 2.52	V=(?) J = 21.0 +/- 0.3; J - K = 1.9 +/- 0.2	Reference Frame: ICRS				
	<i>Comments: Coordinates midway between lensed images A and B (14.9" separation), based on Kneib et al. (2005, A&amp;A, 434, 819). J magnitude and J-K color for the sum of A+B based on Kneib et al. (2004, MNRAS, 349, 1211).</i>									
<b>Exposures</b>	#	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1	(7) SMMJ16359+6612	(7) SMMJ16359+6612	NIC2, MULTIACCUM, NIC2-FIX	F160W	SAMP-SEQ=SPARS 32; NSAMP=23		Pattern 2, Exps 1-1 (2)	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]



Proposal 11143 - Visit 18 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:46 GMT 2009

<b>Visit</b>	<b>Proposal 11143, Visit 18, implementation</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/IR Special Requirements: PCS MODE FINE; GYRO MODE 3GOBAD; SCHED 70%; ORIENT 330D TO 10 D; ORIENT 60D TO 100 D; ORIENT 150D TO 190 D; ORIENT 240D TO 280 D <i>Comments: There will (unavoidably) be a rather bright star N642000684 in the field of view, which has an H magnitude of 15.2 and will saturate in about 1 minute, assuming an MOIII spectral type. ORIENT constraints have been set to make sure that the diffraction spikes due this star do not fall on top of the target.</i>										
	(Visit 18) Warning (Form): Gyro Mode overrides default value of 2G.										
<b>Diagnosics</b>											
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			<b>Exposures</b>		
	(3)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365		Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false					(1)		
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>		<b>Fluxes</b>		<b>Miscellaneous</b>			
	(10)	SMMJ16371+4053	RA: 16 37 6.5100 (249.2771250d) Dec: +40 53 13.80 (40.88717d) Equinox: J2000	Redshift: 2.38		V=(?) K = 21.76 +/- 0.06, J-K = 2.6 +/- 0.1		Reference Frame: ICRS			
<i>Comments: Coordinates from Greve et al. (2005, MNRAS, 359, 1165). J estimated from &lt;J-K&gt; = 2.6 (Frayer et al. 2004, AJ, 127, 728) and K = 19.16 +/- 0.06 (Smail et al. 2004, ApJ, 616, 71).</i>											
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>		<b>Orbit</b>
	1		(10) SMMJ16371+4053	WFC3/IR, MULTIACCUM, IR	F160W	SAMP-SEQ=SPARS 50; NSAMP=13		Pattern 3, Exps 1-1 (3)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]		[1]



Proposal 11143 - Visit 67 - NICMOS imaging of submillimeter galaxies with CO and PAH redshifts

Wed Oct 21 01:01:47 GMT 2009

<b>Visit</b>	<b>Proposal 11143, Visit 67, implementation</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/IR Special Requirements: PCS MODE FINE; GYRO MODE 3GOBAD; SCHED 70%; ORIENT 301D TO 12 D; ORIENT 24D TO 109 D; ORIENT 121D TO 192 D; ORIENT 204D TO 289 D <i>Comments: This visit targets a position midway between two lensed images of the same background galaxy (separated by 14.9" at a PA of 26.2 east of north). To ensure that both images are kept away from detector edges, we use the IR-FIX aperture. Also, to avoid having a bright (H = 12.2) star fall in the corner of the field, we exclude small ranges in ORIENT.</i>									
	(Visit 67) Warning (Form): Gyro Mode overrides default value of 2G.									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>						
	(3)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1)					
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(11)	SMMJ16359+6612-COPY	RA: 16 35 54.6400 (248.9776667d) Dec: +66 12 30.50 (66.20847d) Equinox: J2000	Redshift: 2.52	V=(?) J = 21.0 +/- 0.3; J - K = 1.9 +/- 0.2	Reference Frame: ICRS				
<i>Comments: Coordinates midway between lensed images A and B (14.9" separation), based on Kneib et al. (2005, A&amp;A, 434, 819). J magnitude and J-K color for the sum of A+B based on Kneib et al. (2004, MNRAS, 349, 1211).</i>										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1		(11) SMMJ16359+6612-COPY	WFC3/IR, MULTIACCUM, IR-FIX	F160W	SAMP-SEQ=SPARS 50; NSAMP=14			Pattern 3, Exps 1-1 (3) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]

